VOLUME V

BEFORE THE SECRETARY OF
THE UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICES

In the Matter of Proposed	)	Docket Numbers
Amendments to Tentative	)	AO-14-A74, et al.,
Marketing Agreements	)	DA-06-01
and Orders.	)	

National Public Hearing
Thursday, September 14, 2006
8:36 o'clock a.m.
Holiday Inn Select
15471 Royalton Road
Strongsville, Ohio 44136

BEFORE:
JUDGE VICTOR W. PALMER
US ADMINISTRATIVE LAW JUDGE
UNITED STATES DEPARTMENT OF AGRICULTURE

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ALSO PRESENT:

Dennis C. Wolff, Secretary, Department of Agriculture, Commonwealth of Pennsylvania

I N D E X

I N D E X (CONTINUED)

E X H I B I T S

	MARKED	RECEIVED
Exhibit No. 68	11	12
Exhibit No. 69	11	12
Exhibit No. 70	11	12
Exhibit No. 71	11	12
Exhibit No. 72	12	12
Exhibit No. 73	12	12
Exhibit No. 74	19	25
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JUDGE PALMER: Let's go on the record. I'll start talking because we're really going to go through some procedural things for a moment. My name is Victor Palmer. I'm an Administrative Law Judge. I've been designated to conduct this reconvened hearing. The judge that started it had an accident he had a little surgery yesterday for, so I'm taking his place.

The hearing is being held here in Strongsville, Ohio, and the purpose of reconvening this proceeding -- and I'm reading from the notice that was in the Federal Register. "The purpose of reconvening this proceeding is to assure that any changes to manufacturing allowance factors used in Federal order Class III and Class IV product price formulas are appropriate and reflective of manufacturing costs.

"Specifically, the reconvened hearing will take into evidence only, only data on plant manufacturing costs compiled by Cornell University and any other pertinent data or information specifically addressing plant manufacturing costs that would be publicly available. Other factors contained in the

Class III and Class IV price formulas will not be addressed at the reconvened hearing."

And it was adjourned, the original part of this hearing was adjourned in Alexandria, Virginia, on Friday, January 27, 2006, and now it is being reconvened.

I asked Government Counsel for various exhibits that we need to have, and what just happened to them? Oh, they're right here in my hand. And I've given them some numbers, and I'm asking the court reporter, who is to my right -- anybody who wants a copy of the transcript, there are a number of ways to get it, but if you wish to get it through the court reporter, she's over here and I would strongly suggest you give her your card and an order.

The very first exhibit -- and I understand the last exhibit number that was assigned in the previous part of this hearing was 67, so I'm marking as Exhibit 68 the notice that appeared in the Federal Register on Wednesday, September 6, 2006, Volume 71 Number 172 from which I was just reading. That was on page 52502 of that particular volume of the Federal Register. And that's going to be

marked and received as Exhibit 68.

(Thereupon, Exhibit 68 was marked for purposes of identification.)

JUDGE PALMER: We've marked and will receive as Exhibit 69 the program announcement by the Agricultural Marketing Service, which was sent out to one in -- to the public.

(Thereupon, Exhibit 69 was marked for purposes of identification.)

JUDGE PALMER: As Exhibit 70 we're marking a "Determination Respective Mailing of Notice of Hearing" that was sent out by Sue L. Mosley dated September 6, 2006. And that was in respect to the Florida and the Southeast orders.

(Thereupon, Exhibit 70 was marked for purposes of identification.)

JUDGE PALMER: As Exhibit 71, another "Determination Re Mailing of Notice of Hearing," this one by Robert E. Vander Linden in respect to the Central Marketing Milk Order at part number 1032 of the code of Federal Regulation. That was 71.

(Thereupon, Exhibit 71 was marked for purposes of identification.)

JUDGE PALMER: As 72 we have a "Certificate of Officials Notified." That was sent to the governors of the states of -- no, I'm not going to read all of them. It's practically the entire country. And that was signed by Joyce M. McPherson, the Docket Clerk for the Agricultural Marketing Service, and it was done in Washington, D.C. on the 6th day of September, 2006. That's Exhibit 72.

(Thereupon, Exhibit 72 was marked for purposes of identification.)

JUDGE PALMER: As Exhibit 73, we've stapled together all of the various determinations of mailing of the notice of the reconvened hearing, and that's by the various marketing administrators, so that's received as Exhibit 73. So they're all received.

(Thereupon, Exhibit 73 was marked for purposes of identification.)

(Thereupon, Exhibits 68-73 were received into evidence.)

JUDGE PALMER: I want to help move this along a little bit, and we have a request from the Secretary of Agriculture for the State of Pennsylvania that he might testify, and I

would suggest that he just go on first. So before we do anything else, we'll call him right now and let him give his testimony.

Sir, stand, face me, raise your right hand.

DENNIS C. WOLFF

having been first sworn by the judge, was examined and testified under oath as follows:

JUDGE PALMER: I've just been handed a copy of his written testimony. Ms. Deskins is going to question you.

DIRECT EXAMINATION

BY MS. DESKINS:

Q. Good morning, Secretary. Would you state your full name, please?

A. My name is Dennis C. Wolff.

Q. And could you tell us what your position is with the Pennsylvania government?

A. I am Secretary for Agriculture for the Commonwealth of Pennsylvania.

Q. I understand you have some testimony you would like to read into the record today?

A. Well, I have some testimony that's written that I can read, or I can just make some remarks from that testimony.

Q. Well, your testimony is fairly short. Would you mind reading it into the record?
A. Sure, I can do that.
JUDGE PALMER: All right, sir. Please proceed.
STATEMENT FOR THE RECORD OF DENNIS C. WOLFF
THE WITNESS: On behalf of Governor Rendell, I would like to extend our appreciation to Secretary Johannes for extending an invitation to the Commonwealth of Pennsylvania to attend today's national public hearing regarding Class III and Class IV milk price formula manufacturing allowances. This reconvened hearing to consider the information compiled by Cornell University and others will provide the Agriculture Marketing Service pertinent information to fully consider the merits of the proposal prior to final decision.
As a national issue, this will undoubtedly be a difficult decision. I want to underscore the concern that we have about making any changes in the make allowance that will cause further decline to the Pennsylvania dairy farm families' milk checks, given the very difficult financial environment in which they

are presently finding themselves.

Agriculture is Pennsylvania's number one industry, with dairy farming contributing 42 percent of the agricultural revenues. Pennsylvania has 8,600 dairy farm businesses that produce 10.6 billion pounds of milk annually. The income from this milk is very important to our state's economy, and this volume of milk is important to feeding the United States population on the East Coast.

Cornell University data shows a deficit of 8 billion pounds of milk in the Northeastern part of the United States, and with 20 billion pounds deficit in the Southeastern part of the United States when you compare the current production and per capita consumption of dairy products. It is critical that we grow milk production in this region.

During the past 10 years, Pennsylvania has lost over 2,000 dairy farms and 75,000 dairy cows. This trend has been driven by low profitability within the industry. Initiatives have been established in the state to improve profitability and there have been some positive results; however, those results

were thwarted when milk prices decreased 17 percent at the farm gate, as they had during this past year.

The U.S. milk price for 2005 is $15.15 per hundredweight. Ken Bailey and other agricultural economists are projecting the 2006 price to be around $12.60. This change totally removes any farm profit level that there was in 2005 and forces most farms to operate in the red.

Cyclical changes in our milk prices have been more frequent and in greater magnitude. Pennsylvania dairy farmers have a record low milk price -- had record low milk prices in 2002 and 2003. The state's dairy farms did not recover from this current cycle of low prices.

In May, June, July and August, all milk prices were below $12.00 per hundredweight. With the cost of production exceeding $13.50 per hundredweight, our dairy producers are losing an average of $1.50 for every hundred pounds of milk they produce. The month-after-month negative cash flows that they are experiencing make it imperative that the make allowance

increase not be granted.

JUDGE PALMER: Fine.

BY MS. DESKINS:

Q. Mr. Secretary Wolff, did you have some other comments you want to add to this?

A. Yes, I would. Just some brief comments that during my term as secretary, I've never expressed a more challenged group of people than the dairy farmers in Pennsylvania right now.

Some of the personal experiences that I have witnessed in the last two months would include a phone call yesterday from a farm that is very well managed, that has been in the same family for eight generations, and they experienced a real concern to me whether they would be able to continue to operate many more months and borrowing money every month to be able to meet their cash flow needs.

And most recently, at a county fair in Lawrence County, Pennsylvania, when a 16-year-old-young lady came up to me and, with tears running down her cheeks, saying it's too late for her dad's farm, their cattle were sold the previous week, but asking us what we could do to try to ensure that more farms wouldn't

have the same destiny that their farm just experienced.

And I think it's just very easy to see that when milk prices are $12, cost of production are $13.50, that the dairy farmers are losing money every morning that they turn their lights on.

I certainly appreciate the challenges that the manufacturers are experiencing in a very controlled market in which they operate, but I would also like to hold them to the same standards that our dairy farmers are experiencing every day and every year; and that is to improve their returns simply by improving their efficiencies of their operation and their costs of producing those manufactured products.

The Cornell Study that was recently released does show that there is a return on investment. It does vary, but the average is certainly an acceptable return on investment, and I understand that that varies from different sizes of plants and different locations in the United States.

But I'm just here to ask the USDA Marketing Services to deny the request to increase that margin at this time.

JUDGE PALMER: Do we have questions?

I think -- I think we'll let you go, sir. Thank you very, very much.

MS. DESKINS: One more thing. You want your testimony admitted into the record, would you?

THE WITNESS: Yes.

MS. DESKINS: Could we have his testimony marked as an exhibit?

JUDGE PALMER: Surely. We'll mark that as Exhibit 73, isn't it?

MR. JABLONSKI: Seventy-four.

JUDGE PALMER: Seventy-four. Thank you, sir.

(Thereupon, Exhibit 74 was marked for purposes of identification.)

THE WITNESS: Thank you.

JUDGE PALMER: All right. Let's go off the record a moment.

(Thereupon, a discussion was held off the record.)

JUDGE PALMER: I guess the next order would be to call Dr. Mark Stephenson.

MS. DESKINS: Yes.

JUDGE PALMER: Dr. Stephenson?

MARK W. STEPHENSON

having been first sworn by the judge, was examined and testified under oath as follows:

JUDGE PALMER: And do we have copies of --

MS. DESKINS: I believe there's copies at the back of your --

THE WITNESS: There are copies of my testimony in the back.

JUDGE PALMER: Somebody standing up there, could you get one for me and one for the reporter? It would help us both.

(Thereupon, a discussion was held off the record.)

(Thereupon, Exhibits 75 and 76 were marked for purposes of identification.)

JUDGE PALMER: Back on the record, then.

DIRECT EXAMINATION

BY MS. DESKINS:

Q. Dr. Stephenson, could you please state your full name for the record?

A. My name is Mark W. Stephenson.

Q. And can you tell us about your educational background since high school?
A. Sure. I received a bachelor's degree and master's degree from Michigan State University in dairy science. I later went back to school and received a second master's and Ph.D. in agricultural economics at Cornell University.
MR. HUBER: Your Honor, if I may ask that they speak directly into the microphone, please?
JUDGE PALMER: Apparently they're having trouble hearing you.
MS. DESKINS: Can we go off the record a moment?
JUDGE PALMER: Yes, off the record.
(Thereupon, a discussion was held off the record.)
JUDGE PALMER: Back on the record.
MS. DESKINS: And they're able to hear you in the back now?
THE WITNESS: I believe you can hear me in the back now.
MR. HUBER: Better.
JUDGE PALMER: Good. There's also

some chairs up front if anybody -- okay.
BY MS. DESKINS:
Q. Can you tell us where you currently work?
A. I currently work at Cornell University. I'm on the faculty in the Department of Agricultural Economics and Management.
Q. And how long have you worked for Cornell?
A. I've worked for Cornell for 13 years.
Q. Do you do any research activities as part of your job duties?
A. Yes, I most assuredly do. In fact, the bulk of the time I spend in applied research, the rest of the time in outreach extension. And I have taught rather significantly in the past, but not currently.
Q. Can you just in general tell us the type of research you do?
A. Sure. The research that I do is entirely related to the dairy industry. We -- I say "we" -- the group that I work with, the Cornell Program on Dairy Markets and Policy, works exclusively in that area. We do research on the dairy industry from the farm through transportation through processing. And at all levels of that we're interested in the impacts

on marketing and policy work.
Q. Now, the Cornell Program on Dairy Markets and Policy, who else is a member of that program?
A. There are four of us. Dr. Andrew Novakovich is the director of the Cornell Program on Dairy Markets and Policy. My colleague, Chuck Nicholson, is a senior research associate in that group, and we have a junior research associate, Angela Gloy, in that group as well.
Q. As part of your work in that program, have you recently done a study on processing in the dairy industry?
A. I have.
Q. And can you tell us what the title is of your recent study?
A. Yes. The title of the recent study is the "Cost of Processing in Cheese, Whey, Butter and Nonfat Dry Milk Plants."
Q. And when did you publish this paper?
A. This paper is a working paper that was published, I believe it was exactly two weeks ago today, on the Internet.
Q. Okay. Now, where is it located on the

Internet?
A. The URL for the website that contains the paper is dairy.cornell.edu.
Q. And that link was active as of today?
A. No. The link -- well, it is as of today, yes, but it's been active for two weeks.
Q. Is it common for scholarly papers to be published on the Internet?
A. Increasingly, virtually all work is published on the Internet. Some of it is published in other outlets as well, but the Internet is almost always used to disseminate information quickly and freely, readily available to folks.
Q. Now, you referred to this as being a working paper. Can you tell us what that term means?
A. In academia, we refer to a working paper as something that's not the final paper on the entire project that you're doing. There may be additional detail that would be available later. And, indeed, we hope to do that. We've collected a great deal of information on plants.
But this is a paper from the data that we considered to be final data. These results

won't change. And it's a paper that's normally offered to the community for comments and responses that might make a final paper a better paper. I wouldn't be surprised if I had a few comments today that might improve the paper.

Q. Also in regards to Exhibit 76, which is your "Cost of Producing Cheese, Whey, Butter and Nonfat Dry Milk Plants," you're listed as being the author of the working paper?

A. I am, yes.

Q. Did anybody else help you write this?

A. No. I'm the sole author of the paper and researcher on this project.

MS. DESKINS: At this time I would move for the admission of Exhibit 76.

JUDGE PALMER: Is there any objection? All right, 76 is received. Incidentally, let's also move for the admission of 74, which is the statement, and that's also received.

(Thereupon, Exhibits 74 and 76 were received into evidence.)

MS. DESKINS: Okay.

JUDGE PALMER: And the only thing open right now is your statement, which you're

about to give.

STATEMENT FOR THE RECORD OF MARK W. STEPHENSON

THE WITNESS: All right. Then I'd like to read my testimony, if I might, into the record.

Judge Palmer and personnel of the AMS Dairy Programs, I am appearing before you to offer a summary of recent research project in which I collected data and summarized the costs of processing in cheese, whey, butter and nonfat dry milk plants.

I am not here to advocate for or against any particular policy action, but rather to offer my insights into the current cost environment for dairy processors. This is a summary of my work and does not represent an official statement of Cornell University.

Cornell University has been conducting cost of processing studies in the dairy industry for more than 30 years. Over the past 20 years, work by the Cornell Program on Dairy Markets and Policy, often referred to as CPDMP, included studies on the processing of cheese, whey, butter, nonfat dry milk powder and fluid milk. This project assesses the cost of

processing in cheddar cheese, dry whey, butter and nonfat dry milk plants and builds on the knowledge and background of these earlier efforts.

Partial financial support for this project was provided by the Dairy Programs division of the Agricultural Marketing Service of the U.S. Department of Agriculture.

Two weeks ago, on September 1, 2006, I published the initial summary results of this work on my website. I also sent an e-mail announcement to about 250 people who work in the industry to let them know that this working paper was available for download.

The working paper describes the selection of plants involved in the study, the methodology used to collect and summarize the results. And in the interest of brevity, I would ask that this working paper, which has been freely available and widely circulated, be accepted into the hearing record without reading its contents.

I will summarize in my testimony what I consider to be the most important points with regard to methodology and the primary findings,

which include 20 cheese plants outside of California were selected from a draw, stratified by plant size, whereby 5 plants were randomly selected from the largest 10 percent of plants in the country and 15 were selected from the remaining 90 percent of plants. Whey plants were a subset of the cheese plants selected. Butter and nonfat dry milk plants were selected by a non-stratified random draw.

Sixteen completed surveys from cheddar cheese plants, twelve from plants drying whey, eight plants producing nonfat dry milk powder and four butter plants. Locations of these plants are regionally diverse.

In addition to plants producing cheddar cheese and/or dry whey, nonfat dry milk and/or butter, plants had to produce these products in one or more of the package sizes that are surveyed in the National Agricultural Statistical Service Report on Dairy Product Prices. That is, 40-pound blocks of cheese, 500-pound barrels of cheese, dry whey in bags, totes or bulk, butter in 68-pound or 25-kilogram boxes and nonfat dry milk in bags, totes or bulk.

Plants were allowed to select the most recent 12-month period which corresponds with their fiscal year. Because the plants have some latitude for time period, the results do not correspond to a calendar year or even to the same 12-month time period. The most common 12-month time period was from July 2004 through June 2005. These 12 months encompass about 63 percent of the observations. Another 21 percent of the observations were from earlier months and the remaining 16 percent were more recent than that.

The methodology used to collect and summarize the data are very similar to the methodology used by the California Department of Food and Agriculture, CDFA, in their annual plant surveys. There are three primary differences from CDFA's results that bear mention: I do not have audit authority to collect data from plants; I do not calculate a current value of assets from schedules of economic depreciation; and my sample of plants represents a smaller proportion of the population than California's annual survey does of their plant population.

Processing cost results published in the working paper show a simple average cost of 20.65 cents and a weighted average cost of 16.38 per pound of cheese. A simple average cost of 22.82 and a sample weighted average cost of 19.41 cents per pound of whey. A simple average cost of 14.84 and a sample average weighted average cost of 14.1 cents per pound of nonfat dry milk. And a simple average cost of 14.92 and a sample weighted average cost of 11.08 per pound of butter.

This is the section that describes the sample versus the population. The basic idea of statistics is that you want to explore from the data that you've collected to make general conclusions about the larger population from which the data sample was derived.

To do this, statisticians have developed methods based on a simple model: Assume that all your data are randomly sampled from an infinitely large, normally distributed population. Analyze the sample and use the result to make inferences about the population.

This model is an accurate description of some situations, but not the U.S. dairy

industry. The CDFA data essentially sidesteps the issue as they collect data from very nearly all plants processing the products of interest in their state. This is the difference between a sample statistic, which is what I have collected, and a population parameter, which CDFA collects.

Previous processing studies, including my own, have shown very large economies of scale in these plants. As I was setting up the research methods for this study, I made 10 random draws of 20 plants from the population plant list that I had available. Doing this revealed that 17 to 18 of the 20 plants in such a draw would represent fairly small cheese plants located mostly in the Upper Midwest.

Conducting the research on such a sample would provide excellent information on smaller plants located in this one region of the country, but it would give sketchy evidence of the processing costs in the plants processing the bulk of cheese in the country.

It was decided that I would conduct a stratified random draw whereby 5 plants were

randomly selected from the largest 10 percent of plants in the country, outside of California, and 15 were selected from the remaining 90 percent of plants. Butter and nonfat dry milk plants were also selected by a random draw. But because the population of these plants is so much smaller and because I had no prior information on plant volumes, no stratification was done. The goal was to survey 8 nonfat dry milk plants and 10 butter operations.

When we calculate descriptive statistics on a sample, sometimes we're interested in just that sample, but more often we're interested in making inferences about the population parameters. I believe that to be the case here.

The confidence interval. The mean or average you calculate from a sample is not likely to be exactly equal to the population mean. The size of the discrepancy depends on the size of variability of the sample. If the sample -- and the size -- excuse me, the size and variability of the sample.

If the sample is small and variable, the sample mean may be quite far from the

population mean. If your sample is large with very little scatter, the sample mean will probably be very close to the population mean.

Statistical calculations combine sample size and variability, standard deviation, to generate a confidence interval for the population mean. You can calculate intervals for any desired degree of confidence, but 95 percent confidence intervals are most common.

Using the cheese plants as an example, I have calculated the simple average mean of the 16 plants to be 20.65 cents and the weighted average to be 16.38 cents per pound of cheese. The 95 percent confidence interval around this is a confidence range of 15.02 cents to 28.08 cents. The literal interpretation of this is that I can be 95 percent confident that the population mean falls between these two values with repeated draws of the sample.

The confidence interval for whey is a range of 13.28 cents to 32.37 cents, for nonfat dry milk a range from 12.04 to 18.46, and for butter a range for minus zero -- or 9.21 cents to 39.05 cents. The large range on butter costs reflects relatively few observations and a fair

amount of variability in the data.

A better approximation of the cheese population. The variation that we observe between plants might be explained by many factors. Certainly, one that is hypothesized is the size of the plant. Others might include product mix, seasonal operation, region of the country, management, et cetera. Some of these factors are readily measured, but others, like management, are not.

A cost function would include one or more of these factors and would give an approximation of the plant cost that might differ from the mean as a result of the factors differing. Another statistical tool that is often used to moderate relationship is a regression analysis.

I have often observed that the relationship between plant size and costs of processing is not linear in the dairy industry. In other words, the economies of scale may be very large for doubling a fairly small plant, but not so much for doubling a very large plant.

Regression analysis was performed on the cost data from the cheese plants with a

nonlinear functional form using only pounds of cheese processed as the explanatory variable. The following formula is the result: the cost per pound is estimated or equal to be 0.170026 plus 68,000 -- or excuse me, 683,572 divided by the pounds of cheese processed annually.

The cheese plant cost as a function of pounds of cheese processed has an R-squared value of 88.7. R-squared is a measure of fit and can be interpreted as 88.7 percent of the variability observed in the cost of processing cheese can be explained by the volume of cheese processed annually. This is a very good statistical fit for a function like this, and it allows further examination of a population of cheese plants. Figure 1 shows the cost curve as derived from the formula above.

An estimation of the population cost for cheddar cheese. I have a recent snapshot of monthly volume data for non-California cheese plants. This was the list used to take the random draws for plant selection. This list includes 138 plants in the country with volumes from large to quite small.

When NASS collects weekly dairy

product prices for cheddar cheese plants, only plants producing one million pounds or more of product annually are included in the survey. One million pounds of cheddar cheese production would, on average, process four 50,000 tanker loads of milk per week. Plants smaller than this are probably producing a specialty cheese and not a commercial -- or not a commodity cheddar.

If I make one million pounds of cheese the cutoff for inclusion in the population of commercial plants, then, of the 138 plants that I have data for, 53 plants remain in the list.

Figure 2 displays the cumulative percent of plants, ranked from large volume to smaller, and shows the estimated cost of processing in the 53 plants.

Figure 2 demonstrates, for example, that if we wanted to cover the processing costs of 60 percent of the commercial cheddar cheese plants in the country, we would need to have a make allowance of about 30 cents per pound.

We can also plot the cumulative percent of volume of cheddar cheese produced in

the plants. This is done in Figure 3, which shows, for example, that if we wanted to cover the processing costs of 80 percent of the cheddar cheese produced outside of California, then we would need a make allowance of about 20 cents per pound.

An estimation of the weighted average processing costs for cheddar cheese. If we define the commercial population of cheddar cheese plants as the 53 plants that I have observations for, then we can calculate a weighted average estimate for the population rather than the weighted average value of the sample provided earlier in this paper, which was 16.38 cents per pound. The weighted average estimate of the population is 20.28 cents per pound. This is a value that would cover about 82 percent of the volume of cheddar cheese made in the country, and the processing costs of about 33 percent of the plants.

Estimating population costs of whey, nonfat dry milk and butter. I would like to make the same mapping from sample statistics to population estimates for the other three products surveyed. However, population data on

production volumes for these products are not in my possession. It is possible that the National Agricultural Statistics Service could provide this data from their monthly Dairy Products survey. I was in contact with NASS to see if I might obtain plant-level data without plant identification, but they had concerns with their confidentiality agreements and with the comparability of populations.

Impact of energy. As mentioned earlier in my testimony, the majority of plant observations came from a time period of July 2004 through June 2005. Some observations were earlier than that and some more recent.

Over this time period, energy costs in particular have been increased. The Bureau of Labor Statistics calculates an index of producer prices, the PPI, for industrial electric power and natural gas. Over the entire 26-month time period, the PPI for electric power had increased about 13 percent, and natural gas had increased by somewhat more than 100 percent.

Applying the PPI indices to the monthly plant values, average electric expenditures would have increased 4 percent from

the average values listed and gas costs would have increased by 28 percent.

Figure 4 shows the PPI for electricity and natural gas indexed from January 2003 through July 2004.

I might just make a note here for -- just for the actual indices that were collected, the identifying numbers from the PPI for natural gas were WPU0531, and the series for industrial electric -- electricity was WPU0543.

When this change in the indices are applied to bring the cheese cost of processing forward to the 2005 calendar year for all plants, the average cost per pound of cheese would be increased by about 0.34 cents per pound. This observation is offered with the caution that only utility rates are changed and not the other costs of processing.

The impact on nonfat dry milk and whey is nearly double the cheese values, as utilities are a greater portion of the total costs.

Indexing electric and gas rates forward to the 2005 calendar year increases the average cost per pound of powder by about 0.7

cents and whey by about 0.76 cents in the butter plants -- or in the plants surveyed. Again, only fuel and electric rates are changed in this calculation. Butter processors would only see their utility costs increase by 0.29 cents.

Concluding comments. Plant participation in the study has been good. Although these plant data are not audited, comparison with the audited data from the CDFA demonstrates comparability, and I have no reason to question the integrity of participants.

Butter plant participation was not as strong as hoped for, and the confidence interval around the mean estimates shows that there was more variability around the mean of the plants who did provide data.

Care must be taken to understand the difference between the sample means and the population parameter. I have good data to make an estimate of the population parameter for cheese plants, but I'm unable to do so for lack of data with whey, nonfat dry milk and butter operations.

Data were collected from plants which covered a 26-month time period; however,

63 percent of observations were during the 12-month time period from July 2004 through June 2005. Another 21 percent of observations were from earlier months and the remaining 16 percent from more recent.

Energy costs have increased dramatically over the past couple of years, in particular, natural gas costs at the end of 2005. Although they have retreated from those highs, utility costs have become a focal point for many people in the make allowance debate.

This study shows that utility costs are about 10 percent of the cheese processing costs and about 20 percent of whey, butter and nonfat dry milk processing costs.

When these costs increases -- these costs increase at levels approaching 100 percent, total processing costs are impacted by significant amounts.

If you have any questions, I would be glad to try and answer them without divulging any confidential data that has been collected in the course of this study.

MS. DESKINS: You've already admitted the testimony, correct? Is that

Exhibit 75?

JUDGE PALMER: Well, we admitted the study. We didn't admit the testimony.

Is there any objection to receiving the statement as it is before cross-examination? Doesn't appear to be any. It's received.

(Thereupon, Exhibit 75 was received into evidence.)

JUDGE PALMER: Other questions? Who would like to start? There you are, sir. Yes, sir, if you come to that podium over there and give your full name.

MR. WELLINGTON: Good morning, my name is Robert Wellington. I'm with Agri-Mark Dairy Cooperative.

CROSS-EXAMINATION

BY MR. WELLINGTON:

Q. Mark, just a few questions. On Exhibit 76, which is your study.

A. Yes.

Q. If we refer to page 7 on the first table, Table 1.

A. Yes.

Q. You show the total costs of the eight low-cost plants and the eight high-cost plants.

A. Yes.
Q. That total cost, that's a -- is that a weighted or a simple average of that?
A. That is a weighted average of those groups.
Q. Of that group, okay. Good. Thank you. Okay. When you began collecting this data for the survey, what was the time period you received the cheese and whey that you started -- not for the study itself, for the plants, but for when you collected it?
A. From when I collected it?
Q. Yes.
A. The time period of collection was a little over a year in length. I'm trying to remember what the exact beginning dates were, I mean, when I had gotten out to the first plants and the time we collected data on the last of the plants. But it was a long enough time period that when you have the ability to choose a 12-month time period, that rolls forward in this program that we have here and makes some of the plants have relatively early dates and some quite recent.
Q. Was there a longer time period that you had for the cheese and the whey relative to butter

and powder?
A. Yes, that's exactly right. We worked on the cheese plants for a good period of time before we started the nonfat dry milk and the butter operations.
Q. About how long a time were you collecting the butter and powder?
A. The butter and powder data came in, oh, during about a seven-month time period, I would estimate, six or seven months.
Q. When you sought data from 10 butter operations but you only had survey data from 4, was it the shortened time period for collecting the butter information that affected the number of participating plants?
A. I believe that that did. In fact, I know that it did in some cases. There was some hurry to get, you know, the final set of data collected here, but we collected the information that could be made available by the plants in that time period.
Q. You showed a confidence interval for butter from a range minus 9 cents to a range of -- a high of 39 cents?
A. That's correct.

Q. And a minus 9 cents would not be a reasonable number, because it would assume that no costs were being given. It would give you 9 cents on top of that?
A. Sure.
Q. So do you think that that shows that perhaps the four plants that you had in the survey, along with the variability of those, is probably not large enough to adequately represent the population?
A. I would be very nervous, I guess, in looking at these numbers and saying that, therefore, this butter data is good enough to use. We have information that I think is good for these plants.
Q. Sure.
A. And if I had to pick a single number based on all of the data I have available, it is what's printed in the working study. But I made a real attempt here, I think, by showing confidence intervals on this to demonstrate that I think the butter are the weakest numbers that we have.
Q. Great. Thank you. You selected 20 cheese plants in your survey, but 5 of those plants

were randomly selected from the largest 10 percent in the country. But you end up only with data from 16 cheese plants. Were the 5 largest plants that were included, were they part of the 16 plants?

A. Yes. We had full participation from the largest plants, the 5 largest plants that were polled, and we had less than full participation or final participation from the other 15.

Q. Is this one factor that may lead to a disproportionate representation of the larger plants?

A. To some extent certainly, it is; however, even by design, we had oversampled the larger plants from the population. And the reason for that was if we had simply taken a random draw from the population, it was felt that we would have a great deal of information about relatively small plants, but perhaps pretty thin or sketchy information about larger, more efficient operations. So that's why we chose to oversample larger plants.

Q. Were all the whey powder facilities in the survey associated with cheese plants in the survey?

A. They were, yes.
Q. Do smaller cheese plants typically have whey powder facilities at their location?
A. The smallest of the plants did not.
Q. Smallest did not.
A. Some of the intermediate size plants don't necessarily have whey drying facilities, either, but, you know -- and it bears mentioning, I guess, and I think I did in the working paper, that a few of the plants that were drying whey were drying more than their own whey as well.
Q. So they purchased whey from other cheese plants, for example?
A. That's correct.
Q. What happens to the whey of those smaller cheese plants? Are there alternatives if you don't have a whey processing facility?
A. Well, there are different means, I guess, or methods of what may be called disposal. In some cases, in very small plants, the whey is actually fed to animals. But in most cases, if there's a good alternative to sell the whey to a plant that further processes, then some processing may be done at the plant locations to concentrate the whey, or it may be produced as a

bulk whey product just as it comes out of the vat.

Q. Is it fair to say that the smaller plants without the whey processing facilities probably couldn't obtain the same value that the larger plants do by processing their whey?

A. I would imagine that to be the case. I don't have evidence for that.

Q. Okay. And the smaller plants, one option, of course, is to sell their whey to a larger plant that has extra capacity, correct?

A. Correct.

Q. Okay. Are the costs of transporting those whey solids to those larger plants, is that included in your survey?

A. It is included in here as a cost.

Q. Between two separate companies?

A. We have the costs available to be documented, and we consider the costs of transporting whey to be a cost of disposal for the cheese plants.

Q. So the four plants that did not have whey facilities, you included a factor for selling it to someone else, the transportation factor?

A. Only the cost of labor, if the plant

themselves owned the trucks and the facilities to do this and they had a whey transportation hauling cost that was collected. In the working paper, I believe in the appendix, you can see that there was a location to enter a cost of whey transportation.

Q. Okay. You had a footnote on page 3 of your testimony. I believe it was footnote 8. Could you explain the circumstances leading to the changes in the nonfat dry milk average cost that were discussed in that footnote?

A. Page -- oh, yes.

Q. Three, at the very bottom, Mark.

A. Yes. One of the plants, after seeing the results, we priced every product that the plant produces. If you are producing more than just, for example, nonfat dry milk and butter in a plant, then we would price condensed product that was sold from the plant, bulk products, cream or condensed -- or noncondensed skim. Any product that's sold, we will try to come up with a cost of handling or processing those products in the plants.

This was a plant that had a fairly extensive product mix, and we didn't have enough

direct allocation of costs on utilities to be able to say a certain proportion of these costs should directly be observed to go to nonfat dry milk powder and a certain proportion going to other products.

So in the event of not having that information, we, as California does, CDFA does, do an indirect cost calculation, whereby we look at the pounds of solids in the products that are produced and we will allocate the costs across the products based on the pounds of solids in those products.

And this was a case where we had a fair amount of sales of condensed product out of the plant, and relatively smaller number of sales of dried product from the plant, which gave me an undervaluation, I think, of gas and electric costs for the dried product and the relatively higher value for the liquid products.

I did go back with better information and change that allocation. I looked at all of the other operations, of course, to see whether or not this was something that was endemic in all of them, but it appears to be a problem only in this one plant.

Q. How did you become aware of the problem?
A. I was contacted by a member of the organization who had looked at the results and said, "I have some concerns about this. This doesn't look like the kind of number we might come up with."
Q. Did that plant operator specifically ask to look at the results for his plant?
A. They did, yes.
Q. Did the other participating nonfat dry milk plants have an opportunity to view their costs?
A. No, not all of them have. We're trying -- the plant reports that are going back are much more detailed than what I provided this particular plant. It's taking a while to prepare those so that they have a chance to look at them.
They will also be provided -- participants are provided with benchmarks of their operation relative to others. And this plant had, in particular, asked to take a look at their plant costs, at least the preliminary summaries that I had. I provided that for them.
Q. There were four Western plants of the nonfat dry milk powder plants and then four

plants outside the West of the total of eight. Were the four Western plants the larger low-cost group?

A. I don't recall, Bob. I'd have to go back and look at the data.

Q. They tend to be much larger plants out in the West? Can we say that?

A. Yes, there is a tendency.

Q. Okay. Are you familiar with the cheddar cheese plants in the Northeast?

A. I am.

Q. Are there any cheddar cheese plants that you're aware of that are making 60 million pounds of cheddar cheese or more per year?

A. Again, I'd have to look at the actual plant data, but I doubt that that would be the case. I mean, that's probably pretty close to a cutoff line for those operations.

Q. That's all I have.

JUDGE PALMER: Very well. Other questions? Yes, sir, if you'd come forward and give your name and who you represent, sir.

DR. CRYAN: Good morning. My name is Roger Cryan, C-r-y-a-n, and I'm here on behalf of the National Milk Producers

Federation.

CROSS-EXAMINATION

BY DR. CRYAN:

Q. Good morning, Mark.

A. Good morning.

Q. How are you?

A. Fine.

Q. We've talked about all these things, so these are open-ended questions.

A. I'm suspicious.

Q. No, not suspicious. A lot of suspicious people here today.

Okay. Could you provide some detail on the energy costs generated in your survey? For example, in your testimony you discussed how you adjusted the energy costs using PPIs to get in 2005 equivalent. Can you give us either the -- well, ideally, could you give us a breakdown on the electricity and natural gas costs and the 2005 equivalent for each of the four products?

A. I can if you can allow me to take a few moments here to fire up the spreadsheet.

JUDGE PALMER: Yeah, go ahead. Please do.

DR. CRYAN: It's fine with me, yeah.

THE WITNESS: I did give some indication of that, I believe, in the summary. At least a percentage of total costs, what we observed in those plants, or total utility values.

DR. CRYAN: While he's bringing that up, I would point out that the relevance -- this is relevant to indexing energy costs in order to implement something we proposed in the January hearing. It's an application of the data that Mark has presented so that we can carry it through.

JUDGE PALMER: Very well. Meanwhile, let the record show the witness has a laptop and he's finding the right portion of the laptop to find the data that's been asked for.

THE WITNESS: Roger, I do see that actually I have combined in a cell the energy and the gas costs here. It will take more than a few minutes, I guess, to break that out if you want. I can give you at least the values per pound for the combined utilities very quickly if you would like.

BY DR. CRYAN:

Q. I would be very appreciative if it could be broken out and I wouldn't mind if we came back and did that after.

JUDGE PALMER: Why don't we do that, Doctor, if you would be so kind to make a note of what he's asking for.

And you'll come up and ask that question again later on after there's been a break.

DR. CRYAN: After there's been a break or however it works out so we can get that data. And that's all I have.

JUDGE PALMER: All right. Fine.

DR. CRYAN: Thank you very much.

JUDGE PALMER: Anyone else?

Yes, sir. And your name and identification.

MR. YALE: I'm Ben F. Yale on behalf of Select Milk Producers, Lone Star Dairy Producers, Zia Milk Producers, Continental Dairy Products and Dairy Producers of New Mexico.

JUDGE PALMER: Yes, sir.

CROSS-EXAMINATION

BY MR. YALE:

Q. Good morning, Bob.

A. Mark.

Q. Or Mark, geez. We've already started off on a bad note. I was thinking -- my first question was to follow up on one of Bob's questions.

You made a comment that of the data you felt the most comfortable with was the data that was in the study, not what was in the testimony. Does that misstate what you said, or --

A. What -- I'm not --

Q. You were talking about the -- I'm not sure. There was something about -- there's the question -- and I didn't have it, but something about that you felt that the working paper numbers that you had in there, that you felt more comfortable with those or more --

A. I don't think I -- if I did, I didn't intend to say anything like that. The data that are in the working paper I consider to be final numbers, and I am comfortable with those numbers.

Q. Okay.

A. The application of those numbers to a population mean is something I have less confidence in some products than others.
Q. Okay. Now, I'm not a statistician, so these may be really stupid questions, but I want a confident understanding, and I think it's necessary for the record.
You have average, weighted averages sometimes grouped for the particular large group, where you had sufficient samples, and sometimes just for the whole group. Does the -- if there's a -- is there -- let me restate that.
Let's take a look at the one for butter, for example. I know this is the one you feel least comfortable with, but you have butter and you've got a weighted average. And that's page 10 of your working paper.
A. Yes.
Q. Okay. And you have 11.08 cents as total cost, right?
A. Of the weighted average, yes.
Q. Okay. So if -- and then you elsewhere stated a confidence range, and also, there's always the issue also of just one mean that

would bring in two-thirds. If the number was, say, 0.115 instead of 0.1108, is that within the range of this particular number? The 11.08 would support the number of 11.5?
A. Yes. The confidence interval was much larger than the 0.1108, and it would -- 0.115 would fall within that confidence interval.
Q. The same thing if you looked over here at your nonfat dry milk, where you've got 0.1410, and I think the correction you mentioned based on the footnote, that, in your testimony, it would be more like 0.142 something, I believe.
A. 0.1423.
Q. Right. The number 0.14 would also be within that confidence range, right?
A. Yes.
Q. All right. And if we look at the dry whey, where you've got 0.91941, based on what you said today, 0.159 would be within that confidence range, would it not?
A. I haven't looked at it, but I presume that would be the case. Yes, it would.
Q. I'm going to try to ask you for a definition so I can work from there on this. We talk about, in this particular case, sometimes

the term is called "make allowance," but really what you've tried to derive with adding the ROI and administration is more of a margin; isn't that correct?

A. I tried to derive something that would be thought of as a total cost of processing. We did impute a return on investment, on the assets, as you might expect plants would have. So the total cost does include that return.

Q. All right. That is not intended to indicate whether or not a plant is profitable, right?

A. No. We've collected no information on the actual cost of the dairy inputs, such as the milk or nonfat dry milk or cream that might have been purchased by these plants. And we've collected no information on the price the product was sold for. So we can't impute profitability on these operations.

Q. And the fact that a particular plant has a higher margin doesn't necessarily mean that it's unprofitable or even less profitable. You cannot make that necessary leap, can you?

A. I don't have information on the actual profitability of the plants. That was not the

intention of the study.
Q. So anyone that would suggest that because you make a statement in your working paper, for example, that so many plants' margins, percentage of their plants' margins are higher or lower than this number. Do you recall where you made that comment?
A. In the working paper?
Q. The working paper.
A. I'm not sure. Do you have a page or citation?
Q. Yes, let me -- if you would look at page 11 in the summary.
A. All right.
Q. And, I mean, you can take any one of those paragraphs, but you say, for example, "Exactly half of the nonfat dry milk participants cannot achieve processing costs indicated by the make allowance," and they accounted for half, approximately half of all of them.
A. Yes.
Q. All right. That cannot mean that they are not profitable because they're not making that weighted average make allowance, you're just simply making the statement that their make

allowances or margins, or whatever you want to call that, exceeded your weighted average for that?
A. Their individual processing costs.
Q. Right. Exceeded?
A. Not the weighted average, but the individual plants' processing costs exceeded the make allowance for that product.
Q. Okay. But that doesn't mean that they were not -- you cannot state whether they were profitable or not?
A. No. As I've indicated a number of times here, I didn't collect information to be able to calculate or determine profitability of plants.
Q. Now, there was a comment made or question regarding one of the footnotes. One participant did call you and ask you to make some changes or point out some issues that they had with your data; is that correct?
A. Yes. They didn't call to ask about making changes; they did call to point out a concern that they had about the number. And it was a valid concern.
Q. Okay. Is there any -- you say you're the sole researcher and the sole author. Is there

anyone else involved checking this data or checking your work or providing you any kind of review to ensure that errors are minimized?
A. Well, I, of course, discuss the progress of this with my colleagues, but I'm the only person who has been working on this particular project.
Q. Now, in your working paper, you indicated that you did a random draw of plants of a particular size, and you also indicated that when you issued the invitation to some of the plants to participate, that several refused; is that right?
A. Not several. We had one plant that absolutely refused and another plant that never made a decision. They didn't participate; they didn't say they wouldn't, but they didn't make a decision to participate. So out of all the plants that we tried to get, we had two plants that I would indicate or would say didn't participate.
Q. The ability of that plant, though, to choose to participate or not could be based upon their own knowledge of what their costs were, could it not? And knowing what the -- let me back up.

Did they know what the purpose of the study was for?

A. We sent out a cover letter that describes the work that we've done in the past on processing, that we would provide participating plants with not only a summary of their operation, but a benchmark of their plant relative to others and that it was likely that this would be used in a Federal order hearing as evidence about make allowance.

Q. Can you identify generally the locations where the cheese plants were located?

A. Yes. I think I did that in the working paper. And I would be as general as the map was earlier on in the paper, indicating maybe regions of the country. Figure 1 in the working paper -- somewhere it's in here, I'm not quite sure, where we had the number of plants in the region.

Oh, okay. On page 6, the processing cost results. Referencing this map on page 2 here, six of the cheese plants were in this Western region. It's a little hard to look at the colors here, but I guess that if you take the line between Montana and North Dakota, South

Dakota and jog down there, you will about describe the Western region.

So six of the cheese plants were from that Western region, five were in the Upper Midwest and the remaining five were in this Northeastern region. Of the butter and powder plants, four were in the Western region, one was in the Upper Midwest and three were in the Northeast.

Q. Now, were any of the plants that participated in your program located in Texas or New Mexico?

A. Well, you will notice of the cheese plants down here, there are only two, and I really wouldn't care to comment on that. I would say that we did have participation from the Southwestern region in the country in some plants, but you can see that it's relatively sparse there with regard to the cheese plant numbers.

Q. And I see in showing this, for example, in the Southeast, in Florida there's no plants located there, cheese plants, right?

A. Not that are producing cheddar cheese in commercial volume.

Q. And there's one plant located in Alabama?

A. Uh-huh.
Q. And that's the only one in the Southeast order?
A. That's the only one that I have on my plant list.
Q. And maybe one or two possibly in the Appalachian order?
A. It gets a little thin in the Northeast, yes.
Q. You mean the Southeast, or the Northeast?
A. Well, the Mid-Atlantic.
Q. Right. Now, I want to, if you would, look at your testimony at page -- no, it's not numbered, but it's where you talk about -- you have Figure 1. I guess that would be the easiest thing to do.
A. I apologize, I forgot to put the numbers on it.
Q. And you derived a formula that based on size one -- and I assume with the confidence rate of 88.7 percent predicted their manufacturing costs?
A. That's probably not quite the way I would state that. What this actually says, and an interpretation of this is that we can explain

88.7 percent of the variability that we observed in plant costs on the basis of volume alone.
Q. Now, is the weighted average -- or not the weighted average, but the pounds of milk that you use in here annually, you know, on this chart in this computation, is that representative or equal to the same kind of weight that is used in your working paper?
A. This is not a weight, I guess, at all, Ben. This is an attempt to look at what the population estimate would be for all cheddar cheese manufacturers. And I would also just correct that statement a little bit. You indicate pounds of milk. This would be pounds of cheese.
Q. Okay. I take the correction. So basically, your base point is a plant that produces 683,574 pounds, and that would be approximately an 18 cent -- how does this work?
A. Well, I understand, I think, what you're trying to do there, and the interpretation is getting close. This is not quite the average or the weighted average of the pounds processed in a plant, but it is close to that. And this intercept parameter that's 0.170026, if you had

no pounds of cheese processed -- or excuse me, not no pounds of cheese processed, but if you had precisely the amount processed that you had indicated, the 683,574 pounds processed, you would have this 0.17 plus a value of 1, which would indicate a fairly high processing cost.

Q. So then it would be 1.17?

A. Yes.

Q. Now, if you -- which would -- well, never mind, I'm not going to go there.

Your lowest cost that computed -- in fact, I guess the way this thing worked is the pounds of milk --

A. Cheese.

Q. Or pounds of cheese continues to increase that's processed than the manufacturing cost, or plant cost approaches this 0.170026; is that right?

A. That's correct. It's going to approach that number as the pounds processed becomes infinitely large.

Q. Now, when I look at this chart and I then compare that to the processing cost for 16 cheddar cheese plants that you have, and I look at the 8 low-cost plants, those -- the numbers

that you had come up with, a weighted average for them does not appear to be -- show up within this graph?

A. The -- well, let me take a look at the weighted average graph. And I guess for the record, this low-cost plant weighted average is 14.59 cents.

Q. Right.

A. And this graph would indicate that you couldn't quite get there. But again, recognize that liberally speaking, I'm suggesting that we can explain 88.7 percent of the variability with this alone, but not 100 percent.

Q. And your weighted average, I guess the same answer would then be under your weighted average for all 16 plants would not show up within this graph either, right?

A. We wouldn't quite approach that with the volumes that are shown here. And, in fact, even if we had an infinite volume on a plant, it wouldn't quite achieve that.

What this graph or this estimation, this regression is basically saying that this is the best fit that we can draw a line through given this functional formula. We have plants that

are higher than this line out in this high end of production as well as plants that are somewhat below that in the high end production. This is the best fit line through all of those observed data points that we have.

MR. YALE: Can I have one second, please?

JUDGE PALMER: Yes.

BY MR. YALE:

Q. Now, your purpose is -- you're not trying to tell the Secretary where to set these plant-made allowances; is that correct?

A. I hope I made that clear in that opening statement there.

Q. Well, I wanted to make sure that I wasn't imposing that burden on you, too. And that if the -- it's up to the Secretary to determine the policy as to whether he wants a weighted average or whether he wants to do with this 80 percent or whatever; isn't that correct?

A. That would certainly be correct. It's my understanding that any evidence that's been provided in this hearing is -- can be used to build a case to change or not change the make allowance.

Q. And you are -- you're just providing this information to the Secretary for that purpose?
A. That is correct.
Q. Okay.
MR. YALE: I think -- if somebody goes ahead, that's fine, but my colleague, Mr. Miltner, has some questions.
JUDGE PALMER: Very well. Mr. Miltner, you want to come up?
MR. MILTNER: That's fine.
JUDGE PALMER: Once again, give your full name, affiliation.
MR. MILTNER: Ryan Miltner with Yale Law Office on behalf of Select Milk Producers, Lone Star Milk Producers, Zia Milk Producers, Continental Dairy Products and Dairy Producers of New Mexico.
JUDGE PALMER: Thank you, sir. Please proceed.

CROSS-EXAMINATION

BY MR. MILTNER:
Q. Dr. Stephenson, I wanted to follow up on some of the questions that Mr. Yale had.
A. Certainly.
Q. Make sure I understand it as well. Your

cost function for cheese that Mr. Yale talked about with you, there's a -- I guess it's a horizontal asset made at 17 cents, and in your working paper, you reported eight low-cost plants with a weighted average cost of 14.59 cents.

A. Uh-huh.

Q. So can you explain why there are a significant number of plants at the high volume end of your curve that cannot or that can achieve costs lower than your cost curve?

A. I'll do my best to explain that. If we plotted on this Figure 1 in my testimony all of the quantity and price information points that we have for each of the plants, and showed precisely where the individual plants were located on here, we could not put a line through those plants given this functional formula that would allow us to have any less variability from this predicted line than what is shown here in this function formula.

Statistically speaking, we've minimized the Euclidean distance between points. We do have observations below this line and we do have observations above this line. If there were

observations all below this line out towards this end, this line would have been lower. It would have produced a lower asymptote.

Q. And the distance between your cost curve and any individual point that's above or below the line, is that what your R-squared measures?

A. It does. And, you know, as I indicated, there may be other variables that might help to explain more of the variability we see. So, for example, if we have a fairly large plant but one that operates quite seasonally, I mean, just as a hypothesis, you might expect that that plant would have somewhat higher costs than a plant producing the same amount of cheese but operating at the identical level all year long.

Q. And when there is variation between an individual point that you plot on your graph and your cost curve, does your 88.7 R-squared mean that the variation, 88 percent of that variation is attributable to the volume of production?

A. I think that I can explain it best as stated here, that we can explain 88.7 percent of the variation with knowledge of the volume of product processed alone.

Q. Okay.

A. If we had other variables in there, we could probably do a little bit better.
Q. See if I can draw a couple of other conclusions, and maybe we can, maybe we can't. I want to look at your map of the cheese plants in the country, and if you look at the Western region, you have a note, it says, "This region produces 48 percent of American cheese."
A. Yes.
Q. Okay. And the weighted average of the 16 plants that you looked at, let's look at the low-cost plants. The weighted average of those 8 plants is 14.59 cents. Can we assume or can you tell us if those 8 low-cost plants include the 5 plants in the Western region of the country?
A. I don't recall without going back and looking. I can do that, I guess, as long -- I won't provide information here anywhere where we can't aggregate at least three of the plants I gathered, so --
Q. I appreciate that. If we assume for the moment -- and we can check this later, I assume, when you look up Dr. Cryan's information. But if we assume those 8 plants -- assume those 8

plants, and those 8 plants have a cost, a total cost of 0.1459 dollars per pound, make an allowance of 14.88 cents. If -- if we assume that those five Western plants are included in those 8 low-cost plants, and those 8 low-cost plants have a weighted average cost of 14.59 cents, can we assume from your data that most Western plants, or as a group, Western plants can -- or assume that 48 percent of American cheese that's produced in the West is produced at those costs or lower?

A. I'm not sure that we can assume that. There's more cheese produced in those five plants that we have --

Q. Sure.

A. And obviously, there are more locations shown. Again, I will look to see how many of the plants are actually in the West that are in that low-cost group that we've indicated and how many may be outside that area. But I'm not sure we can make that leap of faith.

Q. I want to switch to a little bit of a different topic. The cost curve in Figure 1 --

A. Yes.

Q. -- was calculated by plotting all 100 -- or

entering all 138 observations and then fitting a curve to those data points?
A. No. This cost curve in Figure 1 was derived from the 16 chief plant observations that we had collected data for.
Q. Okay.
A. So knowing the information we have from those plants, can we say something about where we think other plants would actually fall.
Q. Okay.
A. When you get to other figures, like Figure 2 or Figure 3, then we're taking this function, this cost curve that's estimated here, and applying that to additional plants.
Q. If you had elected to use all 135 data points to fit the curve, would you have expected the curve to look differently?
A. Which curve are you talking about now?
Q. The curve in Figure 1. Because you have data --
A. Sure.
Q. You collected data for 138 plants. I may have said 135.
A. I would expect that the curve may look a little bit different. We have a confidence

interval, if you recall, that tells us just how sure we can be that the actual average -- and we can calculate confidence intervals around a cost curve like this, the function that was estimated, saying across this range, how big do you think we can have confidence.

I didn't do that, I guess, for this particular paper. It can be done. But if we had all the plants, we wouldn't need to necessarily fit a cost curve to it, because then we'd have an updated vehicle to say that the population parameter is some particular number.

Q. That's all I have. Thank you.

JUDGE PALMER: Why don't we take a break at this point. I think the doctor has been testifying long enough without a break, so let's -- it's -- let's meet back at 15 after, but we will promptly be back at 15 after. My watch shows about 4 after right now. And we'll see you then.

(Thereupon, a recess was taken.)

JUDGE PALMER: Let's go on the record.

Sir, do you have further questions for the witness?

MR. MILTNER: I do not.
JUDGE PALMER: I understand some of the statistics that you requested, somebody requested, the doctor may have. Do you have his information?
THE WITNESS: I have the information that --
JUDGE PALMER: Why don't you go back to the podium and make it official.
UNIDENTIFIED FEMALE: We're still waiting for the one individual.
JUDGE PALMER: Oh, he's not here. No sense -- all right. Let's skip that for a while. Hold on to that for a minute.
Someone else wish to question the witness? Full name and affiliation.

CROSS-EXAMINATION

BY MR. ROSENBAUM:

Q. Good morning, Dr. Stephenson. I'm Steve Rosenbaum, an attorney representing the National Cheese Institute.

I'd like to start by asking some questions about the survey you performed with respect to cheddar cheese plants. And as I understand from your testimony, you, for purposes of performing

your study, divided, essentially divided those plants into two strata, one that contained the 10 percent largest cheddar cheese plants and the other contained the rest; is that correct?

A. That's correct.

Q. Now, and when you described the 10 percent largest cheddar cheese plants, I assume that's by annual production, or what?

A. That's by annual production, that's correct.

Q. Now, in just terms of raw numbers, how many plants were in each strata, or each stratum, I guess I should say?

A. Well, we had -- let me take a quick look. I believe it was 138 plants in total in the list, and 10 percent of those would be 13 percent -- or 13 plants, I mean, the top 10 percent.

Q. And accordingly, 128 in the other stratum?

A. Yes, uh-huh.

Q. Now, you, as you've explained in your testimony, did not do a purely random sample, because when you sort of touched to that concept, you just weren't picking up enough of the largest plants, correct?

A. That's correct.
Q. And as I understand it, you included in the -- your first effort was to include in the survey 5 plants out of the, what I'll call, stratum one, the one that has the 10 percent largest plants, and 15 plants from stratum two; is that correct?
A. That's correct.
Q. And none of the -- and let me start that question again.
For the five plants out of stratum one, all of them actually did participate in the survey, correct?
A. That's correct.
Q. So you had from stratum one, 5 out of 13 -- let me start that question again.
You had 5 plants participate in your survey out of the 13 plants that were in stratum one, correct?
A. That's correct.
Q. And for stratum two, you started out with an effort to have 15 plants out of the 128 in stratum two to participate, correct?
A. We had 11 plants that participated out of that stratum.

Q. Your effort was to have 15?
A. Effort was to have 15.
Q. But the reality was you had 11, correct?
A. Correct.
Q. So that for stratum one, you had something like -- I'm doing the math very roughly -- but something roughly like 40 percent of the plants that fall within the largest 10 percent were in your survey sample, and something less than 10 percent of the plants in the, what I called stratum two, participated, correct?
A. That's correct.
Q. Okay. And so as a result, you obviously were substantially oversampling the largest plants, and purposely so?
A. Purposely so.
Q. By the methodology you chose, and the result is that if one calculates a weighted average cost of producing cheddar cheese, the focus is only on the 16 sample plants, you are coming up with a weighted average cost based upon a sample population that is substantially overrepresented by larger plants, correct?
A. That's correct.
Q. And if one assumes that the larger plants

are the most efficient, then the result would be that a weighted average cost of producing, based solely on the 16 sample plants, will substantially underestimate the weighted average cost of producing for the total population of all cheddar cheese plants located outside of California; is that correct?

A. That's a correct statement.

Q. Okay. And so that if the goal of USDA were to determine, for purposes of setting the make allowance, what the weighted average cost of producing is for all commercial cheddar cheese plants outside of California, it would be a mistake to rely upon the weighted average cost of producing for the 16 sampled plants; is that correct?

A. If that were the goal, yes, that would be correct.

Q. But there is a way to correct for that -- strike that.

There's a way to adjust the sampled data in order to determine what is, in fact, the weighted average cost of producing for all cheddar cheese plants outside of California, correct?

A. Given the information that I have available, yes, I think we can do better than just the sample averages. And I made an attempt to do that in my testimony.
Q. Okay. And, in fact, having done that adjustment, you produced a weighted average cost of producing for all commercial cheddar cheese plants outside of California of 20.28 cents, correct?
A. Yes, that's my estimate of the weighted average.
Q. Okay. And if USDA were to conclude that the starting point for determining make allowances should be the weighted average cost of producing for commercial cheddar cheese plants located outside of California, then 20.28 cents is the number they should use. Is that correct, based upon your work?
A. If only one number could come out of my lips, that would be the best I could give.
Q. Okay. Now, your survey did not include any marketing cost, correct?
A. No, it didn't.
Q. And are you aware of the fact that USDA, when they last sent make allowances, did make an

adjustment to include marketing costs?
A. I didn't recall that. I perhaps could have gone back to look at that, but no. This was a cost of processing study, not a cost of marketing.
Q. And -- well, and to be -- and I didn't mean that in any critical way whatsoever.
A. I wasn't being offended.
Q. The CDFA data, for example, also does not include marketing costs. And when USDA relied upon that data in part back in 2001, I think it was, when we last visited these set of issues, they took that data and then added marketing cost on top of that.
A. Okay.
Q. And that is an adjustment that can be made to your numbers as well, correct?
A. If I had a marketing cost number, sure, I mean, you could add that.
Q. Okay. Now, and accordingly, if USDA concludes that the make allowance should reflect both the weighted average cost of producing for commercial cheddar cheese plants located outside of California plus a marketing cost, then the way one would achieve that is to take the 20.28

cents that you calculated and add an appropriate number for marketing costs on top; is that right? It's just a mechanical measure?
A. Certainly, that would be the method I would use, I guess, if I had the marketing costs.
Q. Okay. Now, you -- it is correct, based upon your testimony, that energy costs have increased significantly since the reporting periods for the plants you surveyed; is that right?
A. Over that time period, there have been significant increases, particularly with natural gas cost at the end of 2005. They've retreated substantially from those highs, but we have had increase in both electric and gas costs, yes.
Q. Okay. And you do provide some calculations in your report that capture for each of the surveyed products what energy cost increases have been experienced; is that right?
A. I didn't make an estimate to move the energy values forward to the 2005 calendar year for most observations and back for a few that were into 2006.
Q. Okay. And if USDA were to conclude that such an energy -- let me start that question

again.

If USDA were to conclude that there ought to be reflected in the make allowance the increase in energy costs that you have yourself observed and calculated, then the proper formula for determining the make allowance, assuming that's what USDA wants to do conceptually, but the proper formula would be to take the 20.28 cents that you calculate as the weighted average cost of producing for commercial cheese plants outside of California, plus marketing costs, as we discussed a minute ago, plus an energy adjustment along the lines that you calculated; is that right?

A. Yeah. You could keep adding things on if you want.

Q. Okay. Well, to the extent that -- well, but -- and if USDA is, in fact, trying to capture the realities faced by commercial cheddar cheese plants in this country, they would have to take into account changes in energy costs, correct?

A. Well, it certainly is the case that is going to need to be done as time goes by. I could have just as easily brought those prices

up to the most recent PPI estimates that we have, I think, which is halfway through 2006 as well, as that 2005 calendar year. I mean, this was my decision to say let's take a look at the calendar year.

Q. And you have provided the data that USDA could use if they wanted to take energy costs into account through the end of calendar year 2005, correct?

A. Yes, that's correct.

Q. Now, let me just switch to the question of the whey -- of whey.

A. Uh-huh.

Q. Now, you described the whey survey as having been based upon a subset of the plants that were part of the cheese survey, correct?

A. That's correct.

Q. And can I correctly infer from that, that the whey survey was also overweighted toward larger plants?

A. I don't have the population data, you know, on volumes to make that kind of statement. I would imagine that to be the case, because some of these plants, as I indicated earlier in testimony, are also processing product that goes

beyond that which they make with their cheese operations. So there were some large operations there, but I don't know what the population looks like, so I can't say that.

Q. And you, as you stated in your testimony, you lacked the -- let me back it up a second.

Your weighted average cost of processing for the whey plants is based entirely upon the costs of the surveyed plants, correct?

A. That's correct.

Q. You lacked the information necessary to adjust that number in the way that you had been able to do for the cheddar cheese plants, correct?

A. That was true for the whey, for the butter and for the nonfat dry milk, yes. I didn't have the production volumes of all the plants in the country.

Q. Okay. But your butter and nonfat dry milk, those were not -- those were based upon random samples, correct?

A. They were based on random samples, yes.

Q. Whereas the whey -- because the whey plants were a subset of the cheese plants, it was a stratified survey?

A. That's correct. We had more information in a larger population to draw from.
Q. Okay. And to the extent that the whey surveyed is in fact based upon a survey sample that is overweighted toward larger plants, to the extent that the larger plants are more efficient than the result is that the weighted average cost of producing that you've come up with for whey likely understates the weighted average cost of producing for the total population of whey plants outside of California. Is that true?
A. My professional judgment would be that that's probably a true statement. But since I don't have population data to know what production volumes are in other plants, I can't make that definitively.
Q. Thanks very much.
JUDGE PALMER: Other questions? There's a rush coming on here of people. Mr. Vetne, you're closer to the podium, so I think you blocked them all out. Give your name and your affiliations.
MR. VETNE: My name is John Vetne, V-e-t-n-e. I'm an attorney representing

Agri-Mark, et al., proponents. My business address is -- get this, it's, if you haven't got it, it's 11 Red Sox Lane.

JUDGE PALMER: Are you near Boston by any chance?

MR. VETNE: In Raymond, New Hampshire 03077.

CROSS-EXAMINATION

BY MR. VETNE:

Q. Dr. Stephenson, good morning.

A. Good morning.

Q. In Exhibit 76, the study, you say there were 16 cheese and whey plants that participated. Did all of the 16 cheese plants that participated in the survey have an associated whey operation?

A. No, they did not.

Q. Can you tell us how many whey processing facilities participated in this survey?

A. There were 12 whey operations.

Q. Can you tell us of the subgroup of large plants, how many of those had whey operations that participated in this survey?

A. I can in just a moment.

All of those plants had whey operations.

Q. Okay. You defined the large plants to be a subset of the 138 plants on the list. The list, in turn, was compiled by you from the C3 category of plants in the USDA publication, dairy plans approved for grading?
A. That was a part of the process of collecting numbers, or the names of plants and plant locations. That did not include volumes that those plants produced. That came from other sources.
Q. That came from other sources. And did your 138 plant list include plants that are not in the USDA publication?
A. Yes, it did.
Q. Do you know how many, what portion of that was distributed?
A. I don't recall. That's getting back there a little while now, but there were a number of plants that we knew were not in the plants approved for grading list that we added to the list. There is no definitive plant list in the country.
Q. All right. And if in addition to being in the C3 category in the USDA publication list, to get the 138 plants, you took out plants that

produced a C3 product but did not produce a C3 survey, NASS survey product; am I correct?
A. We wanted plants of commercial size. We wanted plants that produced in package sizes that were included in the NASS Dairy Products Prices Survey. And I also wanted cheddar cheese plants that produced a significant volume of cheddar cheese. So you may produce other cheese in those plants, but cheddar cheese had better be the significant volume.
Q. In making a determination that 10 percent of the plants are -- that was your definition of the larger 10 percent.
A. Uh-huh.
Q. What is the production definition of those plants in the larger 10 percent group?
A. You mean where does that cutoff start?
Q. Yeah. X amount of pounds per year is a large plant in your survey, and less than X amount is the rest of them.
A. That comes at about 34 million pounds of cheese a year.
Q. And of the five participating large group plants, do you have information on their average production?

A. I do have that. I guess I don't have that readily available here. I'd have to go back through and pull it from the individual reports.
Q. Do you have a recollection of whether those plants come in at significantly greater than 34 million?
A. I believe that they do. I believe that all of them do. I'd have to take a look and see.
Q. Well, 34 is the cutoff?
A. Yeah.
Q. So they have to be larger than 34?
A. Yes.
Q. My question is how much larger?
A. Yes.
Q. Does it triple? Do you have any current recollection of that?
A. I'm going to make -- I'm going to make an estimate in my head here without looking at that that it's probably about double that.
Q. For butter and nonfat dry milk plants in the survey, did you use dairy plants approved for grading publication?
A. Again, as a starting point. But to the extent that we had additional information to add plants to that list, we have done so.

Q. The eight butter plants that were in the list, do you know whether -- let me strike that.

Of the four butter plants, how many of those are part of a manufacturing unit as you concluded with the eight nonfat dry milk plants?

A. All of them were.

Q. So there were four nonfat dry milk plants that did not have an associated butter-making --

A. Or didn't report the butter.

Q. Or didn't report?

A. That's correct.

Q. And do you know which were those?

A. I have an idea, yes.

Q. Was it all of the four, was it predominantly they didn't produce butter at that location?

A. No, not necessarily. But many of them -- or several of them didn't.

Q. And of the butter powder plants you indicate regional diversity -- butter and powder plants you indicate in your study, Exhibit 76, of the butter powder plants -- butter and powder plants, four were in the Western region. So let's see if I can break that down a little bit further.

Of the powder plants, how many of the eight were in the Western region?
A. Of the powder plants, four of them.
Q. Okay. So the statement on page 6 of the study is correct for the powder plants?
A. That's correct.
Q. Of the butter plants, are you able to give information as to geography?
A. No. I would be getting down below my aggregation level.
Q. And with respect to the powder plants, are you able to give information on the volume of production covered by the Western plants versus plants in the Midwestern region?
A. I could go back and calculate that. That would be a do-it-at-the-break kind of thing.
Q. Okay. Do you have an impression now based on your recollection of the data in your computer?
A. I'm going to think that the Western plants were somewhat larger, but maybe not as much as you might imagine.
Q. Okay. Your study, let's start with the cheese. Your study attempted to -- well, and did identify costs in 16 plants from a point in

processing whole milk and ended at a point in processing where cheddar cheese is made, or completed. And there --

A. There were other ingredients, of course. I mean, even dairy ingredients in virtually all of those plants.

Q. Yes. I'm just -- you're allocating to cheddar cheese.

A. Yes.

Q. In your study, where did the costs start? At the silo that the milk is received, or in the vat or someplace else?

A. Well, as I indicated earlier, we did not collect any cost on milk, on dairy ingredients that might be used in plants. We collect all costs on labor, for example, at the receiving bays, electrical and gas usage throughout the plant, which could be at the receiving bays and on through the operation. So it begins there.

Q. It begins in the silo, after the milk is unloaded from the truck?

A. No, not necessarily. We also have the labor that's unloading the milk.

Q. The unloading process.

A. Uh-huh.

Q. And where does it end? When the product is finished and put in a warehouse and ready to be marketed?
A. Yes.
Q. And that's cheese? There's no aging or anything else?
A. No. We did allow for the collection of costs of outside storage even for aging of cheese. But if the outside storage is used for aging, that's not a part of this. This is a fresh cheese. We bought it as being transformation cost of milk and dairy ingredients to the plant.
Q. All right. And a similar approach for whey, it begins with the receipt of raw whey at some point, which would be whey in a silo or tank at a whey processing facility?
A. That's correct.
Q. And it captures, as I understand your testimony, it captures transportation from a cheese plant to the whey processing facility where that takes place?
A. If the plant is moving the whey out and not processing it there, it does include the cost of transportation to the facility.

Q. And would that have been reported in your survey by the cheese plant that is the seller of whey?
A. It would have been reported by the person who incurred the cost. So if the seller incurs the cost of transportation to the plant, then it is included there.
Q. So if it was part of the cheese plant survey but allocated to the whey processing cost side of your study?
A. Yes.
Q. And it puts an internal transfer within a company from one of their cheese plants to another whey plant, that company would report the cost?
A. It would have recorded transportation costs if that were the case; but if it's a transfer in the plant, it's effectively a zero transfer cost.
Q. Okay. If it's from one geo- --
A. From one side of the wall to the other. It's zero cost.
Q. But if it involves trucking?
A. Yes.
Q. The cost of loading, transportation and

unloading would be included in your survey cost?
A. It would be.
Q. For whey that is so transported, does your survey include and place somewhere a value for the cost of solids lost in transportation that would be different from the costs of pumping whey through a line within a plant?
A. No, I don't account for those. I do account for losses within a plant, but it's based on the pounds that were received at a plant and what the finished product was. We do look at the pounds of solids, beginning and ending.
Q. So if the whey that came out of a cheese plant has a different weight or solid ton count than the whey that was received at a silo at a whey processing facility, the cost of that loss is not incorporated in the survey?
A. No, it isn't.
Q. Are you aware that there are some nonfat dry milk plants that make nonfat dry milk but do not make butter and transfer their cream elsewhere for churning?
A. I'm aware of that, yes.
Q. Where that occurs, does your survey capture

the cost of transporting the cream from the nonfat dry milk facility where it's separated to the butter plant, where it's churned?

A. No, it doesn't explicitly capture that at all. We do take a look at what you started with, I mean, what was unloaded at the plant and what was processed at the plant to final product. But we don't look at the cost of transfer outside of that.

Q. The cost in your survey is based on converting to butter from a volume of cream received at the churner or the silo with the churner?

A. That's correct.

Q. And so likewise, it would not include for those facilities, those companies that transfer butter fat, losses between the transfer or transfer --

A. No, it doesn't include that.

Q. On page 5 of your study, you indicate that virtually all plants in the survey have been visited by CPDMP, Cornell Program on Dairy Markets and Policy?

A. Right.

Q. Is the use of CPDMP in this sentence

synonymous with Mark Stephenson?
A. In all but one case. My colleague visited one of the plants.
Q. Your colleague who?
A. Andrew Novakovich. We felt it was important to visit plants so that we had some idea about product flow in the plants or anything that might be unusual that simply isn't captured in a survey, that if we got data back that looked unusual to us, we might perhaps remember that, oh -- for example, oh, that's right, that plant didn't process their whey; they sent it out to be processed.
Q. Okay. For any of the butter plants that participated, you indicate they were all associated with a drying operation.
A. Yes.
Q. Were any of those butter plants, although associated, stand-alone buildings? Do you know?
A. Some of these plants are practically old plants that have been built on and built on. If you meant did they have to back a truck up somewhere and load the cream on and move it a quarter mile to the churn, no.
Q. So they were connected by pipes?

A. If there was shrink, it was in pipes.
Q. You gave a percentage of aggregate costs representing energy on the last page of your statement. You won't have to go to that, but I'm looking at, for example, Table 1 in the study. And there is a process in the non-labor segment, energy would -- all of the energy costs would be included in that category, correct?
A. That's correct, yes.
Q. Did you examine the plants that responded for variability in the processing non-labor component?
A. Sure. Absolutely.
Q. And you indicate -- is this from the breakdown in Figure 2 under study page 7, is that pie graph the weighted average?
A. Those would be the simple averages from the plants.
Q. Simple averages. And for the processing non-labor, are you able to provide a range of what that component represents from high to low in the sampled population?
A. I can go back and calculate that, yes.
Q. Do you have it ready in your mind without going to your computer?

A. No. That's not something I'd feel comfortable with.
Q. Okay. But you would feel comfortable providing that range from high to low of the 16 plants that is not revealing anything about the individual plants?
A. Yeah, I'll look at it and make sure that there's nothing that I think is revealing, but it shouldn't. I don't see why it would be revealing.

JUDGE PALMER: You want to make a note of that, too?

THE WITNESS: I will.

JUDGE PALMER: So many requests get made, that after a while you forget them.

THE WITNESS: More so every year.

JUDGE PALMER: So I note. Okay. Next question, Mr. Vetne.

MR. VETNE: Thank you.

BY MR. VETNE:
Q. In describing the plant responses and the responders' option to provide 12-month data, you indicate in your testimony that they were allowed to select the most recent 12-month period which corresponds to the fiscal year. Do

I read in that a requirement that they use fiscal year data?
A. No. And that was made clear to them. But I did indicate that if some of these cost categories that were going to be asked for on an annual basis were easy for them because of a fiscal year summary to provide, then maybe using a fiscal year was a reasonable thing for them to do.
Q. Okay. So they didn't have to provide a fiscal year, but if it was easier for them to provide it, they could go back to the most recent one they had full records for?
A. Yes.
Q. On your testimony, I think it's page 4, sample population -- sample versus population.
A. Yes.
Q. As you were reading your testimony into the record, you substituted in the first line of that first paragraph the word "explore" for the word "extrapolate." Did you want to do that?
A. No. I like extrapolate.
Q. I do, too. Okay. Figure 1 of your testimony, you indicated, is your projections based from the 16 plants in the sample. That's

annual production versus costs with the 88.7 percent of variability explained by volume.

A. Yes.

Q. That comes from the 16 plants that responded?

A. That's correct.

Q. And Figure 2 is data not from the population from which you chose your sample plants for responding, but from the smaller segment of 138 plants from which you drew samples?

A. That is true; although as it turned out, the plants that we did choose were within this 53 plant list.

Q. That was my question. So all of the plants that responded to your survey were in the 53 plant list?

A. That's correct.

Q. And do you know whether all of the 53 plants in this list are also part of the C3 list published by USDA in plants approved for grading?

A. I would have to look at that, John. I don't know that off the top of my head.

Q. I won't ask you to look at that.

And the next page, underneath Figure 3, estimation of weighted average processing cost for cheddar cheese, you go to a population weighted average rather than a sample weighted average. Is your conclusion there of the weighted average estimate of the population a weighted average estimate of 138 plants or of 53 plants?

A. It's 53 plants.

Q. It's the 53 plants. So it doesn't include in excess of 80 of the smallest, presumably most expensive or highest cost plants?

A. That's correct.

Q. Impact of energy, next page. Indices of natural gas, you indicated that your natural gas index was derived from the Bureau of Labor Statistics series WPU0531?

A. Correct.

Q. And that is the index for all natural gas generically, not specifically for industrial natural gas?

A. Yes, I realize that.

Q. The electric, however, was an index for industrial electric?

A. Yes. I will admit here, if I had made the

choice with a clear head, I would have used the industrial natural gas index here. But I thought that's what I had grabbed. But when I looked back at that, I didn't.

Q. Are you able to provide, from the sample that you -- for cheddar cheese, that you received information for, the 16 plants, what percentage of total cheese production within those 16 plants were produced in the Western region?

A. I haven't had time to make that breakout yet. I can make a note of that if you would like.

Q. I would.

JUDGE PALMER: All right. Make a note of it.

THE WITNESS: I'll make it so.

BY MR. VETNE:

Q. And are you able to indicate for the record in what regions the five large plants in the first stratified category are located?

A. I will look to see if I can do that. If -- I'll look to see if I can do that.

Q. Look to see.

A. I don't want to break one or two out if

they're in, you know, a separate region.
Q. Although you did not have plant specific data for nonfat dry milk, butter or whey that would help you determine the size of plants and distribution of sizes within the larger category, did you look at data from NASS Dairy Products on whey production and determine an average whey production?
A. I didn't do that; I don't know. I mean, I did take a look at that, but made the determination there wasn't enough detail there to be able to project something like a population cost.
Q. For each of those products?
A. For each of those products.
Q. The next questions may, in part, address the issue of -- this footnote on page 3 of your testimony, but maybe not. Where a plant has multiple operations and does not have a separate electric meter or gas meter for each of its operations --
A. Are you referring to product lines here?
Q. Yes, product lines. Sorry.
A. Yes.
Q. Product lines and does not have a separate

gas meter or electric meter or whatever other energy measuring device for its product lines, somebody allocated energy costs by nonfat solids used in the surveyed product versus other products. Am I correct so far?

A. That's correct.

Q. And would that somebody have been the plant or you?

A. That somebody would have been me.

Q. So you received detailed information on all of the product lines?

A. I did, yes. At least with regard to composition.

Q. Right. And when the allocation was made, let's say 10 percent of the solids were used in nonfat dry milk and 90 percent in other products, would you have simply allocated 10 percent of the energy cost to make the nonfat dry milk?

A. That would be exactly how it would have been done and was done in the case of the footnote so mentioned. Many plants have separate meters for major product line areas.

So, for example, maybe there's a meter for electricity or even fuel usage in the butter

churn area or the butter line, perhaps even a breakdown between the evaporator and the dryer. And to the extent we have that information, then we always would use that as a direct allocation of costs. If not, I did follow CDFA's methodology of indirectly allocating; however, I also noted CDFA makes a real effort, if they have questions about something like that, to get into plants to make a better breakdown.

In haste, while I was pulling this information together for the working paper here, and on one operation I feel that -- I felt as though I made a mistake, and that's why it's in the footnote.

Q. For a plant that makes and sells condensed milks -- for a plant that makes and sells condensed milk and makes and sells nonfat dry milk, on a per solids basis, is it not true that it takes more energy per solid to produce powder than it takes energy per solid to produce condensed?

A. It does. And there's the additional energy of taking it from the condensed state to the final dried particle.

Q. Okay. So if you simply allocate based on

percentage of nonfat solids in the product and don't adjust for the additional energy to make one product versus another, you would understate the energy component of the costs, correct?
A. I would in this particular case, yes. But, you know, again, I would repeat that in the absence of any better knowledge or information that we have about how to allocate costs, I mean, the meter is ultimately the best and only way we can do that completely accurately on a piece of equipment. It's better to have, I suspect, good rules in place until those rules feel like they aren't good. And in this particular case, the indirect method of allocation by solids felt like it wasn't good.
Q. Of the eight nonfat dry milk plants that responded, do you know how many have separate meters for their milk DM -- I mean, MFDM product line versus other product lines?
A. I can check that. I don't know off the top of my head. I do have information on individual meters at the plants.
Q. And can you quickly get information on volume on the surveyed plants represented by plants that have individual meters versus those

that the information was extrapolated otherwise?
A. I could. It would probably be a pretty big break to do that.
Q. Let's try do to the first one for now. I just want to make sure I understand the answer to one question that you provided in response to Mr. Rosenbaum. Your sample, as designed, was not representative of the population, but told us more about large plants, 10 percent larger plants than it did about, what, the remaining 90 percent of plants, correct?
A. No, it didn't tell us more about those plants. It told us as much about the plants in that range as plants in the rest of the range, the smaller operations. The concern was if we really took just the random draw from the entire population, that we might only have one or two observations of large plants. And that might not be enough to say a good deal about what the actual costs are in that range where the greatest volume of product is being produced.
Q. The samples that you drew, however, were not -- were, by design, not representative of the population of 138?
A. That's correct.

Q. Okay. And actually, the samples that you received, because all of the large plants participated and not all of the other 90 percent, were even less representative of the population of 138?
A. That's correct.
Q. And on three pages from the end of your testimony, where you discuss weighted average estimate for the population, that's -- that is an effort to bring it back, bring your observations back to the entire population?
A. It is. It's my best effort to do that.
Q. Thank you.
JUDGE PALMER: Yes, sir. Name and affiliation, sir.
MR. GALARNEAU: Hi, my name is Clayton Galarneau with Michigan Milk Producers Association.
JUDGE PALMER: First name again?
MR. GALARNEAU: Clayton Galarneau, G-a-l-a-r-n-e-a-u.
JUDGE PALMER: All right, sir.

CROSS-EXAMINATION

BY MR. GALARNEAU:
Q. Just a few questions, Mr. Stephenson, if

you don't mind. Dr. Stephenson. Getting back to the problem that you had with some of the data that you noted in footnote 8, was that company that supplied you data, was their data also used for your powder -- I'm sorry, your butter cost analysis?

A. That plant also provided butter information.

Q. Is it possible then that the cost allocations of the butter might also need adjustment?

A. It is possible. Again, if we have relatively little direct allocation of costs, then we have to make the best decisions that we can on a plant. And as I indicated, we used the indirect method here and followed that up with corrections when it really appeared that the product mix in this plant was a little bit different.

Q. Okay. Thank you. That's all I had.

JUDGE PALMER: All right, sir. More questions? Yes.

MR. BESHORE: Marvin Beshore, B-e-s-h-o-r-e, 130 State Street, Harrisburg, Pennsylvania, on behalf of the Association of

Dairy Cooperatives in the Northeast.

CROSS-EXAMINATION

BY MR BESHORE:

Q. Dr. Stephenson, I note just a couple of questions. You indicated in your statement that a portion of the cost of the product was provided by the Dairy Programs division of AMS through USDA. Is that pursuant to an ongoing relationship with Cornell and USDA AMS has?

A. No. This was a special project. We approached the USDA what, probably three or four years ago, I guess, actually, and proposed a cooperative work agreement project whereby both institutions would provide some of the effort on a project like this. But since the burden was being largely borne by Cornell, AMS would also contribute to the cost of salary and travel on the project.

Q. In providing that cost support for a portion of the project, did USDA or AMS dictate the results in any way?

A. No, not at all. They were interested in the sample or the selection of plants and how that would occur, but beyond that, it was completely hands off.

Q. Okay. And so the results that you presented, the conclusions and the analysis are yours and not those of any funding agency?
A. No, they're mine and mine alone. I would take full blame or credit for these.
Q. Okay. Now, the portion of the cost of the study that was not defrayed through USDA, was that from various private sources?
A. No. We have general support through Cornell University for faculty lines and that type of thing, so this was just borne by that and a special grant that we have to provide general support to the dairy industry.
Q. So there were no special industry interests of any nature that financed any portion of your work?
A. No. None whatsoever.
Q. And there were no outside interests in the industry or elsewhere that directed or dictated any results, if you will?
A. No. Only the participation of the plants.
Q. Now, I have -- if you would turn to Figure 3 of Exhibit 75, if the -- in terms of the possibility of providing additional information for the record and the

decision-making process, are you able to provide information with respect to approximate or extrapolated cost figures that would cover 50 percent of the weighted average production, 60 percent of the weighted average production, 70 percent and those types of data?

A. Certainly I can do that.

Q. And just before you get into that, the 20.28 would cover, on a weighted average basis, 100 percent of weighted average of 100 percent; is that right?

A. No. The 20.28 percent, or 20.28 cents per pound, is a weighted average value that covers about 82 percent of the volume of cheese and about 33 percent of the plants.

Q. My error. Thank you for correcting that. So what other increments of percentage, say beginning with 50 percent, are you able to provide?

A. Well, I jotted a few down. The 50 percent level of -- this is, again, a cumulative volume of cheese processing. Beginning with most efficient plants, the cost would be estimated to be 18.45 cents. At 60 percent of the volume, it would be 18.8 cents. At 70 percent of the

volume, about 19 cents. And at 80 percent of the volume, it would be 19.9 cents. And at 90 percent of the volume, 22.7 cents.

Q. Thank you.

JUDGE PALMER: Yes, sir.

DR. CRYAN: Hello again. I'm Roger Cryan with National Milk. I apologize for not being available when --

JUDGE PALMER: Sure. We tend to be somewhat informal.

DR. CRYAN: Thank you.

FURTHER CROSS-EXAMINATION

BY DR. CRYAN:

Q. And thank you, Mark, for missing your break to come up with these numbers. Could you provide a breakdown on fuel and electricity costs?

A. I did, although over the course of that particular break, I was only able to finish the calculations for the cheese and the nonfat plants just as an example. But I can do the other two products as well at another break, if you would like.

Q. Mr. Vetne and I would very much like that.

Are these just for 2005, or are these --

A. No, these are just the averages. The electricity costs per pound of cheese, these are, again, the observations that we have over the time period, were 0.82 cents per pound, which was about 3.95 percent of total costs.
Q. Those are electric costs?
A. Those are electric costs. And the fuel costs were 1.09 cents per pound, or about 5.29 percent of total costs. And on the nonfat dry milk powder, the electric costs were about 1.02 cents per pound of powder, or 6.68 percent of costs. And the fuel costs were 2.37 cents per pound, or about 15.53 percent of costs.
Q. Is it possible that you'll be able to generate 2005 equivalent numbers, that you have the same numbers calculated that you based this on -- let me back up.
Would it be possible to generate 2005 equivalent numbers for these same numbers?
A. Yes. I actually did that, of course, in the least aggregated that in the decimal, and I can break that out in the products if you'd like.
Q. I would very much like it any time during this session.

A. I'll put you down on the list of breaks.
Q. That's all I have. Thank you very much.
JUDGE PALMER: Yes. Again, your name and affiliation.
MR. SCHAD: Good morning. My name is Dennis Schad, S-c-h-a-d. I'm representing Association of Dairy Cooperatives in the Northeast and Land O'Lakes.

CROSS-EXAMINATION

BY MR. SCHAD:
Q. Good morning, Mark.
A. Good morning.
Q. I have a couple questions for you relative to nonfat dry milk. Probably most of the questions will be there. You testified that you surveyed eight nonfat dry milk plants?
A. Yes.
Q. What was the universe that you chose your random sample? How many plants?
A. Oh, Dennis, I'd have to go back and take a look. I think that there were 18, 20 plants, something like that in that list.
Q. Were there any -- was there any particular criteria in that branch?
A. No. We didn't have the same kind of

breakdown, I guess, that we did with the other -- with the cheese plants, for example. They did need to produce products that we were looking for in the package sizes that we were looking for; but other than that, the container was not as tight as it was for the cheddar cheese plants.

Q. You've noted that four of those eight plants there were in the West and three in the Northeast and one in the Midwest. I believe there was a request for you to provide the average size of the four Western plants?

A. Yes. And I didn't get that yet, but --

Q. Okay. Would you also, if you can, provide the average size of the three in the Northeast as well?

A. Okay.

Q. You've also said that you did not -- and it's noted here, that you did not extrapolate from the sample to the population size for the two products I'm thinking particularly of, nonfat dry milk and butter. Would you give reasons for that?

A. I didn't have the population volume of production by plant for those products like I

did for the cheese operations. So it really wouldn't be possible for me to extrapolate, not knowing what the volume produced in each of those plants were in the sample population.

Butter was, again, so few in the way of observations here, that I'm not sure I would feel comfortable, even if I had those plants' volumes, making that extrapolation. But I would take a look at it and provide it as the best estimate we have based on those few numbers.

Q. And when we speak of the best estimate, we would be just -- strike that.

I noticed also that, for instance, in Figure 1 of your testimony, I guess it's Number 75, I think, you gave a nonlinear regression for cheese. Do you have what -- is there a reason for that?

A. I didn't do it for butter. I had done it for powder. I didn't record it here, I guess, because I didn't have the population range to be able to plot that. I could make estimates or guesses, I guess, about what a reasonable range would be, but I didn't.

Q. So is it fair to say that the only statistics that you provide for butter and

powder are descriptive statistics of the sample?
A. That's quite fair to say.
Q. And you're making no inferences at all of the population of the butter count?
A. I don't have the data to do that.
Q. Okay. You say somewhere in your data -- you say somewhere in your first mention, I guess it's 7 -- is it 76, the working paper?
A. Uh-huh.
Q. You said that four of the eight plants of the powder plants had a cost -- had costs greater than 14 cents, which is the current price; is that correct?
A. Yes.
Q. We have no idea if there is -- you give 18 to 20 plants in your universe. I think NASS tells us probably 37 powder plants outside of California. So there's no inference at all that on those remaining plants, whether they are producing under the 14 cents or over the 14 cents; is that correct?
A. I don't have the inference for that because I, again, don't have the data on plant volumes outside of the samples that I have.
Q. Okay. Are you aware that USDA and AMS has

said quite a few times that the Class III and IV prices are to be market clearing prices?
A. I have the terminology.
Q. How would you describe the market clearing price?
A. I don't know. That's a little bit -- I would find it to be a pleasant definition. It may be the kind of thing that you know when you see it, but the prices will move to the point that we feel comfortable, I guess, with the stocks that we're carrying and holding.
We haven't had marketing clearing opportunities in the last few years, more so outside of the boundaries of our country than we've had in the past. That's helped to clear markets of what might have other years been burdensome stocks.
Q. I think I'm more specific in kind of looking at the make allowance, the cost of plants to turn milk into the commodities of buying power. That specifically, that's what I'm talking about. USDA has said in different times the 14 cents per pound, or the 11 1/2 cents is to reflect balancing costs, presumably market clearing. Would you agree that they have

said that?
A. I don't know that. I don't recall that, Dennis, from any particular testimony that has been offered or papers that AMS has offered. Or justifications of decisions, I guess. I just -- I don't recall any of that.
Q. Would you have any opinion that your descriptive statistics for butter and powder would be at a level that would provide manufacturers an adequate return to clear the market?
A. No. Again, you know, we had a fair amount of discussion earlier about whether or not I could say something about the relative profitability of these operations, and I can't, because I don't know what the products were sold for and I don't know exactly what the price of the inquests were. I could look back over time and see what the Class III and Class IV price was.
I do have information about the relative composition of the milk that was purchased, but I don't know anything about over-order premiums that may have been paid for the product. I can't say anything about the profitability of

the plants, so I don't know whether they cleared the market or not.

Q. Okay. Could we go to Table 3 in Exhibit -- I think it's -- 76 is your working paper.

A. Page 9?

Q. Yes, page 9. I'm looking at the column called "Processing Non-Labor"?

A. Yes.

Q. Could you list the costs that would be caught within that category?

A. Sure. The largest of the individual costs that would be broken out of that, of course, would be the utility costs, the electric, oil, natural gas, purchased steam, any of those utility costs.

And I think these pages are numbered a bit out of sequence because there was an inclusion of directions for the actual program, but if you look back into the program pages, on page labeled 12, you'll find a screen shot that's entitled "General Ledger Expenses." And on that screen there are a number of other costs that are included in here, including things like property taxes, water, garbage, sewage, grading,

inspection, pallet expenses, travel/entertainment on down through fees and assessments. Professional services are not included, the legal and accounting don't seem to be, the headquarter expenses. And I'd have to look back to see about the short-term interest expense. I believe that that's the working expense and is included as well in the non-labor processing costs.

Q. Is it fair to say, as you said in your evaluation of cheese, as to terms of relationship between the amount of product and the cost per unit on the powder?

A. Oh, sure.

Q. Would you explain what that measure is?

A. Well, the relationship is in the same direction, at least, reduce the economies of scale, larger plants certainly have tendencies to be lower-cost processors. But again, here there may be important indications as to how seeing the whole plant operates versus nonseasonally operated operations.

Q. For both butter and powder, I know that you were given monthly statistics of milk. Did you look at seasonal variability in any of the

plants? Have you made any efforts?
A. I haven't yet. That was to be for the more complete paper for this project. I didn't have a chance to do that on all the plants.
Q. Seasonal variations, would you describe that as a balancing function?
A. I would, yes.
Q. A balancing function to the cost of turning milk into butter and powder?
A. I would certainly hypothesize that it would. And in former studies when we've looked at it, yes, it most assuredly adds to the costs.
Q. When did you start -- on what date did you get, and as close as you can, but the first results back from the butter manufacturer? As close as you can. I'm just looking for --
A. I'm thinking around the first part of January.
Q. In this year, 2006?
A. Of this year.
Q. You were getting results from butter and powder in January?
A. I believe that I was. It may have been February, but about that time period.
Q. Okay. Thanks very much.

JUDGE PALMER: Other questions?
MR. YALE: I have some other questions, but he's going to supply some other data.
JUDGE PALMER: And you'd like to wait for that?
MR. YALE: I would just do that rather than come back again.
JUDGE PALMER: That's a good idea.
Do we have anybody else that needs a question now? Mr. Vetne.

FURTHER CROSS-EXAMINATION

BY MR. VETNE:

Q. John Vetne representing proponents Agri-Mark, et al. I want to make sure that my impression here is correct.

Looking at the instruction sheet for the survey, in the second sequence of numbered pages in the Exhibit 76, all of the entry data that you have there, numbers and depreciation and market value and so forth, am I correct that those data are for the imaginary cheese plant, Wonderful Cheese Company, and are simply served to illustrate how it should be built in?

A. Absolutely, yes. And it's not completely

filled in, so you understand.
Q. Okay. And going back to, I think it was in response to Marvin Beshore, who gave some numbers, if you want to cover 50 percent of volume, 60, 70, 80, so forth. Are the numbers that you responded to, that you provided in response and the percentages, an extension of the weighted average for the population, or an extension of something else?
A. I'm not sure what you mean by the extension of this, but we -- I have the 53 plants with their volumes ranked from large to small. We calculate the examined costs of the plants.
Q. Uh-huh.
A. And then we begin to look at what percentage of volume from the largest and lowest cost operations on up to the point that we're covering, say, 50 percent of the total volume of cheese.
Q. Okay. You converted your stratified sample data to provide information on what your observations would look like applied to the population of 53 plants?
A. That's correct.
Q. And costs and volume percentages covered by

those observations were not an extension of that extrapolation to the population. They were an extension of observations?

A. Those were taken as estimates from the population. They weren't -- how should I say it? These were not actual plants observations. We only had 16 of those.

Q. Uh-huh.

A. We mapped our best estimate of a cost function back onto the population of 53 plants that we had.

Q. Right.

A. And then looked at those estimated costs to determine what costs needed to be covered to cover whatever the choice of volume was.

Q. Choice of volume. So, okay. In your testimony you indicate that 20.28 cents would cover 82 percent of the volume.

A. Yes.

Q. And in response to questions, you indicated that if you want to cover 80 percent of the volume, the cost would be 19.9 cents?

A. Yes.

Q. So the two percentage points' difference between 80 percent and 82 percent increases it

from 19.9 to 20.28; is that correct?
A. That's correct. You're starting to get into the steeper portion of the curve, yes.
Q. And for each of those -- I don't recall that you provided information on percentages of the 53 plants covered by each of those percentages.
A. No. But I could, again, look that up and give you an estimate of that. I'll put it on my list if you'd like.
Q. Yeah.
A. Okay.
Q. I would. I would appreciate that. That's at the 50, 60, 70 and 80 percent level.
JUDGE PALMER: We seem to have concluded for a moment. I'd like to ask the doctor, you've got a fair sized list to make there and we're about to break for lunch. How much time do you need to do all of your work and also have lunch?
THE WITNESS: Well, if somebody would bring me a peanut butter sandwich --
JUDGE PALMER: No, no. I'm thinking we can either come back at one or we can come back later.

THE WITNESS: That would be fine. I'll make as much progress as I can.

JUDGE PALMER: Let's come back at 1:15. That gives you some time to get a bite to eat. We're adjourned until 1:15.

(Thereupon, a luncheon recess was taken at 11:45 a.m., with the proceedings to be continued at 1:15 p.m.)

AFTERNOON SESSION

1:17 p.m.

JUDGE PALMER: Sir, are you ready to be examined again?

Anybody have any questions? Yes, sir, I think he has the answers at this point, sir.

FURTHER CROSS-EXAMINATION

BY DR. CRYAN:

Q. Oh, and by the way -- I'm sorry, I'm Roger Cryan. I'm with the National Milk Producers Federation. And I will now ask the same question and ask Mark if he could provide fuel and electric costs for cheese, butter, nonfat dry milk and whey plants according to the survey, and preferably suggested for 2005.

A. I did pull all those out and I will give them to you. I didn't, however, adjust them for 2005. I started to look at that, Roger, and I really need to run all the plants individually again, so I didn't have the time to do that. But we can make a rough adjustment on it if we need to talk about it, I guess. But let me give you the breakout on the product.

I'll repeat for a couple of these, but for

cheese, the electricity cost was 0.82 cents per pound and for fuel cost per pound of cheese it was 1.09 cents per pound. And those were 3.95 percent and 5.29 percent respectively of the total costs.

For dry whey, we have 2 cents even per pound of dry whey for electricity, which represented 10.57 percent of the total costs, and for natural gas -- or for fuel, it was 2.27 cents per pound, which represented 11.96 percent of total costs.

For nonfat dry milk we had a cost of 1.02 cents per pound, which represented 6.68 percent of total costs. For fuel it's 2.37 cents per pound, which represented 15.53 percent of total costs. And for butter, electricity was 0.38 cents per pound and fuel costs, 0.99 cents per pound, representing 2.55 percent and 6.66 percent respectively of those costs.

DR. CRYAN: Very well. That's it. Did you get all that?

Thank you very much. Thank you, Mark. Good job.

JUDGE PALMER: Other questions? Mr. Yale, I think you had some questions, too.

MR. YALE: Yeah, I had some follow-up questions.

FURTHER CROSS-EXAMINATION

BY MR. YALE:

Q. Let me follow up right with some of those numbers you just explained. By the way, it's Ben Yale, the Select Milk, Zia Milk, Lone Star Milk, Continental Dairy Products and Dairy Producers of New Mexico.

Mark, I want to direct your attention to the numbers you just gave Roger. All right? So I understand this, these are all -- this electricity and fuel are not alternate energy sources, these are the total energy sources used. Some of it's electricity and some of it's fuel in the operation of these plants; is that correct?

A. That's correct.

Q. So then one would say that the energy costs associated with dry whey, based on what you say, would be what, 4.7 cents? Or 4.2?

A. It would be 4.27 cents.

Q. 4.27, okay. And the energy costs for nonfat dry milk would be 3.39?

A. Yes.

Q. Thank you. Now, you testified, I think there were some questions by Mr. Beshore, maybe some others, that this was part of an agreement that you had with USDA to prepare this study? There was some kind of cooperative effort; is that right?
A. Yes. It was what we call a cooperative work agreement.
Q. And you knew the purpose of this was to be used at some future point in analyzing the make allowances in the Federal programs; is that right?
A. Not the exclusive purpose. I've been doing cost studies for years, and with no intention of them being used for Federal order processes.
Q. Right.
A. In fact, it had been quite a period of time since we had done our initial cheese cost of processing study, and that was the impetus on our part to decide that we wanted to do these cost studies again. It was time to update them.
Q. Are you saying that you did this with no intent to be used for the Federal order program?
A. I'm saying initially, our desire to do this was a proposal to USDA. They didn't come to us

and say, "Would you do this? Here's some money."

We went to USDA and said, "We would like to do this. Are you interested in this? We haven't updated these in a period of time."

Q. But you understood once you were working with USDA, that it would play a role in the Federal order pricing with the make allowances?

A. Certainly did. In fact, we made a decision to select plants for this differently than we ever have in the past.

Q. Because of that?

A. Because of that.

Q. Okay. And you're familiar with the pricing formulas that the Federal order uses, right?

A. I have them right here.

Q. And the make allowances are a critical part, or a crucial part of that formula, right?

A. I believe that they are, yes.

Q. And that whatever the Department chooses to do with the make allowances, up, down or nothing, it does have an impact on those prices, right?

A. It certainly will.

Q. And it affects a lot of people, and you

know that, right?
A. Of course.
Q. And a lot of money?
A. Of course.
Q. All right. Okay. Now, you issued approximately two weeks ago an initial report, working paper, I think you called it.
A. Uh-huh.
Q. I think you earlier today have said you're going to maybe use some ideas here and other information towards your final draft, but this is the working paper, right?
A. Right.
Q. And in that working paper, you did not indicate that you also were in the process of doing a population study, did you?
A. I haven't -- well, I did work on this for my testimony, because what we reported in the working paper -- what I reported in the working paper was quite simply a summary statistic of the plants that we surveyed.
Q. Okay.
A. And that would be one of the papers that will be a final paper, not a working paper. It's just a documentation of this is what we did

and this is what we saw.
Q. And before that becomes a final paper, will that go through any kind of peer-review process for checking the math or the data or anything?
A. Oh, I'm sure. I mean, internally we've already done some of that with colleagues. I mean, I've done all of the work on this, but at regular intervals we sit down and I get criticized or complimented and make changes.
Q. I won't ask what the percentages were of those. I'm sure there's more compliments than concerns.
So what was the impetus to do the population study? Was that requested by USDA?
A. No. Absolutely not. This is my testimony. But understanding how this information was likely to be used in a hearing like this, where I was going to be asked to testify, I felt it was very important that people knew and understood how you ought to be working with the information that came out of the working paper.
And I can't recall if I did or not, but I think that I did say something in here in the working paper, sure, that further analyses will explore the reasons as to why costs vary from

plant to plant and so forth. And understanding the relationship of those costs is an important part of our larger modeling effort.

But, no, this is entirely my decision to do that. I was not prompted by anybody, only motivated by my own desire to make sure that we have a good understanding of how this information should be used.

Q. Did you review your testimony with your colleagues in any way?

A. Dr. Nicholson looked at the testimony before I published it on the Web, but it came off kind of quickly.

Q. Now, we've talked about large plants and small plants and so on and so forth. What is the trend in the building of cheese plants today?

A. Probably much the same as it is in dairy farms and a variety of others that plants recognize there are economies of scale. Plants that are being built tend to be fairly large operations.

Q. Now, you're -- and so as we move on to the future, a greater share of that cheese is going to be produced in the larger, more efficient

plants as opposed to the smaller ones. Is that a fair assessment?
A. It's certainly been the trend that we've been observing over the period of time. I would expect that to continue.
Q. Now, your study, the last data that you received was through December of 2005; is that correct? Is that the most recent from any plant?
A. We had a few observations in 2006. I mean, just a few there, but not very many. They weren't, you know, for the bulk of operations. But a few operations did have fiscal years that closed at the time that allowed us to use some 2006 data.
Q. So a large Southwestern plant that didn't start production until the fall of 2005 could not have been part of this study; is that correct?
A. No, that would be correct.
Q. Okay.
A. And point of fact then, I think that had that even been an objective of mine on a particular plant, we would have foregone that, because start-up years are major buildings or a

variety of other things in plants.
Q. Sure.
A. It just creates enough unusual information that we wouldn't want that included.
Q. Didn't want to wait several years until they had a shakeout and got themselves in a more operating mode?
A. At least a reasonable period.
Q. Right. Now, I think you also, in answers to some other questions, indicated some understanding that the cheese manufacturing business in New York, I mean, in terms of following?
A. I have visited a number of plants in the region.
Q. And Cornell is a -- part of the extension or --
A. Cornell is the land granting institution in New York.
Q. Right. So that's part of its job, is to look after agriculture and try to provide some kind of information to aid the industry and government and everybody else, at least whatever policies they have to decide?
A. Sure, sure.

Q. What is happening to the New York cheese industry at this time? Can you summarize how you observe it?
A. The New York cheese industry? Well, I guess when we -- had been pooling together the plant list and gone back over a period of time to look at the plants that would be in this plant list and look at the volumes of product being processed, one of the things that struck me was the loss of product through the Northeast. I mean, so certainly, we've been producing a good deal less cheddar cheese than we had historically.
Q. Have you done any analysis to figure out why that's happening?
A. No, I haven't. I mean, I guess you can observe a number of different things that have happened. We have continued growth in population, higher demands, or greater demands for fresh beverage products or soft products, that type of thing. I'm speculating that those have an impact.
Q. And supply in the Southeast?
A. I don't know how many loads are moving out of there, but certainly if you do, as they do

out of the Upper Midwest and as they do out of the Southwest.

Q. And has not only the number of plants changed -- I think you maybe alluded to this, I wanted to make sure -- has the mix of the cheese produced in New York moved away from the American style cheeses, the cheddar cheeses and other cheeses predominantly or --

A. Over what period of time?

Q. In the last 10 years, 5 years?

A. Well, farther back than that, I guess there was a great deal of growth in the mozzarella industry in the Northeast. It was one of the first areas where it really began to take off. I'm not sure. I haven't looked at the cheddar numbers, I guess, in recent years to know exactly what the trend has been in New York State.

Q. Now, one of the things that --

A. I should say I am aware of plant closures, for example --

Q. Right.

A. -- in cheddar operations.

Q. But not in the other style cheeses?

A. No, I haven't looked at those numbers.

They're readily available, though.
Q. Okay. Now, in your studies, in your working paper and your study, and during the examination today, we've talked a lot about cheddar cheese, and I got a little confused as to -- I'm blaming that on me, so I'm going to ask the questions to clarify it, but in terms of what kinds of cheeses we're talking about in these plants. Okay? And as I understand it, we have 16 plants that -- well, we had 100 and what 30-some plants that were in the C3 list?
A. Well, it wasn't exclusively in the C3 list, but that's part of. There were 138 plants in my list ultimately that I called to a smaller level to look at the population.
Q. Right. You had 53. Of that 130-something, you came down to 53?
A. Correct.
Q. And the criteria of that 53 first off was that they had to produce at least a million pounds per year of cheese, correct?
A. Correct. Of cheddar cheese.
Q. Of cheddar cheese, okay. And then did you also require that they had to provide -- they had to supply the commodity cheese that NASS

reports?
A. No, I didn't -- I didn't do that. I didn't ask whether they participated in the NASS survey.
Q. Okay. Do you have or did you have available a list of the plants that participated in the NASS survey?
A. No, I don't.
Q. So you were unable to crosscheck even your 16 against the NASS list; is that right?
A. That's correct.
Q. Okay.
A. And it was one of the reasons that NASS was hesitant to share further population information. That they weren't sure that the populations that they sampled were precisely the same as the ones that I was trying to get.
Q. And how would you define the commodity cheese that the NASS reports?
A. How would I define it?
Q. Yeah.
A. I guess in precisely the same way. They're very explicit about that.
Q. You weren't using anything different than that? You wouldn't define it any differently?

A. No. I mean, we were looking at plants that are producing cheddar cheese, as the cheese example here --
Q. Right.
A. -- in package sizes that NASS was interested in collecting in the Dairy Products Prices.
Q. And you're aware, are you not, that one of the requirements of the NASS survey is that there actually has to be a sale of that cheese to a third party? It can't be an intracompany transfer?
A. I am aware of that, yes.
Q. All right. Now, in the area of cheddar cheese, there are a lot of varieties, are there not? You know, a number of varieties. I shouldn't say a lot, but there's a variety beyond just that commodity cheddar?
A. Sure. There aren't just fresh cheddars. Sometimes we have incorporations of other flavored ingredients, cheeses, that type of thing.
Q. Aging?
A. Oh, sure. Yeah, absolutely.
Q. And also different packaging?

A. Sure.
Q. And if some don't make the 40-pound box they do the cut and wrap?
A. Right.
Q. Or shredded, right?
A. Yes.
Q. Okay. When you went to look at these cheese plants to determine their costs, did you make any differentiation between the cheddars that were commodity and those that made other variations of that commodity cheddar cheese?
A. Well, again, Ben, if a plant didn't produce the bulk of their product, their cheese product, as cheddar cheese in either 40-pound blocks or 500-pound barrels -- and I do mean by that, you know, sort of a commodity product at the point it leaves the packaging room -- then we weren't interested in that plant.
Q. Of the 53?
A. Pardon?
Q. On the 53?
A. Of the plants that we took a look at, that's right.
Q. Okay.
A. And if, in fact, you know, we had

operations that made other types or styles of cheese, you know, for example, an aged cheddar cheese, we were really only looking at the cheese as it's up and ready to go into the aging process. I'm not looking at the aging process of holding cheese for long periods of time, pulling it out, cut, wrap, shred, anything else.

Q. All right. I want to come back there. We're down to, we have the 16 plants that you did. You actually observed plant costs, right?

A. Yes.

Q. And you have 37 plants that you have production or -- cheese production, volumes of cheese produced, right?

A. We have 53 plants.

Q. But don't those include the 16?

A. Yes.

Q. So we have 37 that you didn't observe any cost?

A. Yes, absolutely.

Q. All right. Of the 37 that you did not observe any of the costs, did they have the same requirement that a substantial portion of their production had to be commodity cheddar?

A. I don't know that on all of those

product -- or all of those plants, but I do know that there are significant cheddar plants. I don't know how much of their product specifically.

I mean, if I were to send a letter of inquiry to one of the plants asking if they would be involved in the survey, then we would follow up with additional questions. And if they didn't meet the qualifications, then they wouldn't be in there.

I will tell you that of all the plants, the 20 plants that were asked to be in, all of them met the requirements. So I think that our -- both our plant list was reasonably good and the draw was good from that.

Q. Now, the -- and you're saying the bulk of those plants, of the 16, were the commodity cheddar, the substantial portion? How would you describe that? Majority? I'm just trying to make sure I understand. I mean, it wasn't total? Their plants weren't totally commodity cheddar, right?

A. No, not all of them were. Some of them made other products, other cheese products. Some of that cheddar was going to go into long

hold, you know, for a period.
Q. Or some of them may have made 640 blocks?
A. Oh, sure, quite a few 640s.
Q. Now, were the costs associated with those other cheeses included in this analysis?
A. The costs were associated with it -- that were associated with that were included in here, and every product that the plant produced has a cost calculated for it.

So a cheddar cheese cost in a plant that might also produce mozzarella or Parmesan or something else is going to have a cost for each different kind of cheese. I'm reporting here only the cheddar costs.
Q. Now, in your report, I want to make sure I understand this. By the way, the production numbers that you received for cheese plants that you used for the other 37 plants.
A. Uh-huh.
Q. What year was that production?
A. '03.
Q. Is that the most recent data you had available?
A. That's the most recent that I had.
Q. And you had production from the 16 plants

in which you observed costs. Did you use their production data that was observed, or did you use the production data from the 2003?

A. Well, of course for the working paper and the calculation of these sample estimates, these were from the 12-month time period that the plants were reporting to me.

When I went back to apply these to this population, the population data that I used were for the 2003 time period. I did go back to look at the plants that we had included in here, and relative to their 2003 data, it was a very, very similar kind of production. We didn't have any plants that had doubled in size or halved in size or anything else of the sort. They were a very good reflection of what happened in 2003.

Q. But you were unable to know whether the production of the other 37 that you had in 2003, whether they continued to produce at that or higher or lower levels in 2005?

A. That's right. I wouldn't know that.

Q. Now, if you would look at page 7 of your working paper, and it shows an average volume and group for a simple or weighted average of 16 million, 16 1/4 million, roughly, pounds of

cheese; is that right?
A. Right.
Q. Now, is it appropriate for me to get the total volume in this group to multiply that by 16?
A. Yes.
Q. Okay. Now, did you do any comparison as regards the amount of cheddar cheese that these plants represented in this as compared to the amount of cheese that was reported to NASS in the NASS survey?
A. No, I didn't do that comparison.
Q. And what about this comparison to the total amount of cheese produced in the United States?
A. I didn't look at that at this time, recently.
Q. Now, there are some reports out there that one could find that the USDA publishes regularly that shows production of cheddar and cheeses in the United States?
A. Yes. They make an attempt to get as much product as they can to meet their qualifications.
Q. Right. And that's part of the NASS survey that's reported each week?

A. That's correct.
Q. And then there's also a report that comes out on Dairy Products that shows the amounts of cheddars and other cheeses that are produced in the country, sometimes by regions; is that correct?
A. Yes.
Q. And are those the type of numbers that you, as a dairy economist, routinely rely upon for that information?
A. We do. We don't have a better source of readily available data that covers the time span if we need -- I was going to say, we do certainly use NASS data, the Dairy Product, the Dairy Products price data. There's not a better source that we have available to us on a regular basis.
Q. Now, I'm not trying to create a challenge for you, maybe we may need to get a calculator, but if we can take -- we have the 60.223 million pounds of cheese processed in your 16 cheddar plants, and you told me multiply that by 16 and that will give me the total annual production of those 16 plants, right?
A. Yes, that's right.

Q. Okay. And if we divide that -- I mean, this is just simple things, but we can divide that by 52 or some other number and come up with the approximate amount of cheese that's available each week, right?
A. Yes, approximately.
Q. Okay. We can compare that to what NASS reports?
A. Roughly in the Dairy Products Prices, I presume.
Q. Now, are you aware that in the Dairy Product Prices Report --
MR. YALE: And by the way, Your Honor, I'd like to take this point -- we had asked for notice at the hearing in January on some reports put out by USDA, and it was to be through the end of the briefing period. And one of those was the NASS Dairy Product Prices. Of course, that briefing period ended sometime, I think, in February, and we would like to extend that through the end of the briefing period resulting from today's hearing.
JUDGE PALMER: All right. That's granted. Official notice will be taken of the supplemental materials.

BY MR. YALE:
Q. Now, do you ever look at that NASS -- that weekly report to see if there's any information there that is of value to you maybe other than the price?
A. Generally look at the price.
Q. You're aware that it separates the volume of cheese that's reported in the cheddar -- commodity cheddar that's produced in the United States in the Upper Midwest and then in the rest of the country?
A. Yes, I am.
Q. Okay. And you're also aware that the vast majority of that is outside of the Upper Midwest now?
A. Yes.
Q. Would you have any venture to guess what percentage of that might be coming out of the Northeast?
A. I really wouldn't without taking a look at it. I would suspect the meaning is a small portion of it. I think the map that I had given you, or had included in the working paper, gave some indication, at least by large regions, the percentage of cheese. I guess that entire

crescent from the Northeast, Mid-Atlantic on down through Texas there is producing about 6 percent of the American cheese.

Q. Okay. I think you used the word scarce or something like that, it's getting scarce in the Northeast or the East in terms of production. But it is. It is a small percentage. Would you expect the commodity cheddar to be any higher or lower as a percentage of the Northeast as compared to the rest of the country?

Let me rephrase that question. That report you gave is all cheddar cheeses? Those percentages?

A. Yes. This is American cheese, actually.

Q. Okay.

A. Which includes cheddar.

Q. And that -- is a percentage of that, you say is about 6 percent, but if you looked at just commodity cheddar cheese, would the Northeast represent a higher or lower percentage of that? Do you have any idea?

A. I don't, Ben. I don't have the information to make that kind of judgment; although I guess that pride in the area you live would suggest that we probably produce less of a commodity

product and more of a consumer eating product.
Q. Okay. I want to change topics here just a little bit. Again, based on your testimony versus the weighted sample, this discussion of the population, is it -- would it be appropriate to mix your population with a weighted average? I mean, to put the two together and come up with a composite, or would you --
A. Excuse me, can you rephrase that or restate that?
Q. Well, I don't know if I can or not. I'm going to give it a try. The answer may be no just because I can't ask the question.
A. I'm just -- I want to make sure.
Q. I understand that. And this isn't a trick question. But when you go to a population, when you went to the population, you were no longer dealing with a weighted average for just a small sample. You're trying to estimate what the whole population is, right?
A. That's correct.
Q. So you either weigh and use one of those, or the other, you don't try to mix the two any differently than you've done it. Would you agree with that? You've taken your

weight -- let me back up.

I'm going to withdraw my question, start over again. You took your weighted average of 16 plants and worked your way into a population analysis, right?

A. That's right. I made estimates of what I think a population would look like.

Q. So really, when it comes to looking at this, you either look at the population or you look at the weighted average, and the Department gets to make, in some sense --

A. Of the sampling?

Q. Yeah, of the sampling. The population of some of the weighted average, right? It's adjustable?

A. It is.

Q. Right. Okay. So if you don't mix the two, you don't try to average those two together to come up with some composite number, that would be an improper mixing of those functions?

A. Well, I don't think -- i think I would think that would be improper. You have two different pieces of information here, one that tells you something about -- if you look at this cost curve that was provided here in Figure 1 of

my testimony, the data that we have from 16 plants gives you a fair number of observations along this cost curve, or very close to it.

And then when we go back to trying to ask ourselves what the population estimate would look like, then we make the population estimate based on our best fit of that kind of data.

Q. Well, let's talk about that a second. I've got some questions here. If we look at -- and I basically -- I think this is both the 2 and 3, Figures 2 and 3 of your testimony. It's where I want to direct you. But let's just talk about the 16 plants you have.

Now, going into the tables that you prepared of the weighted average and the simple averages and the 8 highest and the 8 lowest, you have available 16 plants labeled however you want to label them, their total cheese process or produced annually and their total costs to do that, and from that you derived an average cost for the plants; and then combining them in different ways you came up with either weighted average or simple averages, right?

A. Yes. I mean, each plant has their own cost per pound of product, so that's not an average

for that plant, necessarily, it was the annual cost that was determined.
Q. Right. But then when you combined it with other plants, you had an average?
A. That's correct.
Q. All right. Now, if I wanted to determine -- and I think you did it at some point in your working paper, said, okay, a particular cost represents 49 percent or 50 percent of the cheese or whatever made. I mean, whatever number that it was, right?
A. Uh-huh.
Q. And one way to do that is that you would take and you would list the cheese plants in descending order with the most production and come down to a point where the weighted average of the top to wherever you drew the line approximated this weighted average price; is that correct?
A. Yes, that's correct. We would calculate the cost for each of those plants. We would have sorted them from most -- or least expensive of the largest operations to the smallest, and then would do a cumulative number, either a number of plants or of volume, and calculated

the percentage from that.
Q. Now, as I understand it, when we come to Tables 2 and 3, we are no longer looking at the observed data of the 16 plants, but we're looking at the 2003 production of 53 plants?
A. That is correct.
Q. All right. And we are not using any of the observed costs that we have from the study directly in preparing Figures 2 and 3?
A. Indirectly we're using them. I mean, they were the basis to give our best estimate of these costs over plant sizes.
Q. But you didn't -- for example, the eight lowest costs of the 16 was, like, 14-some cents. When their plants were plotted on this graph, they were plotted at 17 cents plus this 688,000 divided by their plant production, right?
A. Right.
Q. So their true observed costs were not accounted for in coming up to what it was costing to reach the 50 percent that you have testified to somebody earlier today where you draw the line at 50 percent or 60 percent on costs; is that correct?
A. That's correct, although, Ben, we also

would have had plants that were above that 17-cent line as well.
Q. I understand that.
A. So they don't all lie on the line.
Q. I didn't expect them to lie on the line. But haven't you effectively stripped the efficient plants and the effect of the efficient plants into telling the Secretary what the lowest costs are to produce the first 50 percent of the cheese in the United States?
A. I have two pieces of paper, one of them that reports individual plant summaries --
Q. Okay.
A. -- as you've said, and I have another one that provides the best estimate that we can make based on the volume of products produced in plants in the country from the population sample that we know.

The function that was fitted to the data points was fitted as well as I know how to fit the function. And I think that most any statistician will tell you that that is a remarkable amount of variation that's explained by a single variable.
Q. What was the total volume of the 53 plants?

A. The total volume of the 53 plants?
Q. Yes.
A. About 1.1 billion pounds of cheese.
Q. Okay. And I think we just, by taking the 16 plants at 60 million pounds, we come up with 900 -- approximately 960 million pounds annually, right?
A. Yes.
Q. So that by your observed data of actual 16 plants of the 53, we can say that their weighted average for almost 50 percent of the total milk that's shown up in Figure 2 is this total weighted average cost of 16.38 cents in your study?
A. Yes. Now, you know, here I guess we need to be a little bit cautious to remember that we have 2003 volume data here, and we do have the plant data here. Although, you know, it's close, it's not exactly the same. We have produced more cheese.
Q. Yet as I understand your testimony on Figure -- I think it would be Figure 3, to get to the 53 percent, we needed 19 -- I wrote it down -- I think it was 19-something.
A. 18.45 cents to get the 50 percent of

cheese.
Q. In your Figure 3?
A. Yes.
Q. Now, I want to work back again just momentarily -- and I appreciate your patience with this -- back to your working study. Well, I guess it's really in your testimony.
You talk about the confidence factor for each of those four processes that you did, and just dealing with cheese for the moment, because I think it probably all applies, is that you would agree, would you not, that generally speaking, the addition of, say, going from 16 to 17 samples and putting those numbers in there could affect both the mean and the standard deviation and the confidence factor of the result; is that correct?
A. That's correct, sure.
Q. All right. Or the change of -- in fact, we've actually seen this in the nonfat dry milk, that the change in one number for one of the plants have the effect of doing that for the nonfat dry milk; is that right?
A. That's correct, yes.
Q. And I think you also said that the only

plant in which you've had a chance to fully confirm the values has been the plant that called up and asked some questions regarding how you allocated costs; is that right?

A. That is right.

Q. And no one else -- let me ask it this way: Has anybody from USDA looked at your data and analyzed how you made the decisions on how to allocate costs?

A. No one from the USDA has, no.

Q. You just talked to some of your colleagues, you kind of borrowed their intelligence from time to time to --

A. I worked with CDFA early on in this process to sit down and talk with them about exactly what they do and how they do it. I do have a copy of their audit and cost procedure manual, which I'm sure you have as well.

Q. You probably understand it better than I do.

A. I've certainly worked through it and plowed through it. And part of the objective of this process was to compile numbers in the same way, to the best that we can, that California does. That did two things for us. One is that we now

don't need to include California plants in this kind of study because the data should be very comparable, and it does provide us a benchmark with audited data to check for the sensibility of the kind of responses we're getting from our plants.

Q. And I compliment you for making that effort. It's good to see that we're not involving California totally in our system.

Going back, though, to this idea of changing one of these plants, part of the reason, the impact or the change that could come from such addition or modification of a sample is the fact that the overall samples, or sizes, are relatively small. I mean, we're talking, I think what, 4 butter plants and even 16 cheese plants, right?

A. Right.

Q. Now, have you ever heard or has anybody suggested that anything less than 20 to 25 samples really makes a linear regression analysis less valuable? That it's too small a sample size? That the variability can be too great?

A. Well, of course, there -- I can back up. I

think I know where you're going with this. I'll try to make that leap of faith.

When we do any kind of statistics, there's always a matter of how large is your sample size, how variable is the sample size and what are you trying to do with it? When we're looking at regression, one of the things that we also have to worry about is how fancy are we trying to make our explanatory variables, or how many of them do we have in there?

And the R-squared is one of the simplest means of describing exactly how much of the variability is accounted for in there.

We also have something that's called an adjusted R-squared that says, wait a minute, you don't have that many observations, perhaps, and you used some of those in the variables that you're going to be looking at here.

So I did do -- of course, or have reported in here, now in the testimony, I'd be glad to report the adjusted R-squared in this particular process. Let me take a look at that. It was, I believe, 0.85. So we lost very little in the way of explanatory power, even with the sample size that we have here.

Q. Now, is it my understanding that if you identified other variables, that if you could identify all the variables that you accounted for, they would always total no more than 100?
A. That's correct. If you had a perfect fit, I mean, explained absolutely everything, then 100 would be the highest.
I don't have that file with me. I'm sorry, but it was, I believe, 0.85 something. So --
Q. I want to turn your attention to something else entirely different from this, going back to some questions of Roger Cryan and dealing with energy. I think these are almost rhetorical questions, but I want to make sure something isn't missed.
You talked about increases in the energy indexes in your testimony, and then there was some question in terms of energy values and components of manufacturing processes; is that right?
A. Yes.
Q. Okay. Is it not fair to say that a change in underlying energy prices also affects the production of milk in the same way? There's nothing that the co-ops have any advantage over

the producers in terms of being able to protect or be subject to a higher fluctuation in energy prices?

A. Well, to the extent that any process that uses energy as an input, you're going to be subject to the influence of these kind of rate changes. Now, it depends in what proportion of your costs are actually influenced directly by these energy costs, but, yes. Sure.

Q. A rising tide lifts all boats?

A. Exactly.

Q. Now, you have done some research on producer operations as well as processors; is that not correct?

A. Yes, I have.

Q. In fact, you did a study and reported earlier this year called "The Northern New York Dairy Industry: A Look at Production Potential."

A. Uh-huh.

Q. Now, I'm not going to ask detailed questions on this one, but there's some points in here that I just wanted to bring out. One of the factors that you mention in -- you look at -- one of things you looked at, was it not,

was the profitability of dairy farming in Northern New York?

A. Yes.

Q. All right. And one of those factors was the location of their plants vis-a-vis their milk production, right?

A. Yes.

Q. In fact, you did kind of a very small spatial analysis of how milk would -- prices were moved based upon the absence of a plant up in --

A. Plant closures in Northern New York, right.

Q. And is it not true that that is primarily -- the value of that producer of milk at that farm and that change, that there was a function of the change or the cost to transport the milk?

A. That's the largest portion of it, that's right. There are a number of other factors that come into play here, because this milk is now allocated to other plants around the area, and their costs of processing changed a little bit based on, you know, an increase in volume of those plants, too. It's not the only thing, it's just the largest.

Q. Now, I can't recall, but in that area, they are self-sufficient for their feed? They don't import any feed? Or do they import feed?
A. We probably import feed everywhere.
Q. Okay. And the value and the cost of importing feed is a function of transportation, is it not?
A. Sure, as well as primary input price.
Q. Right. And one of the major factors of transportation is fuel?
A. It is, yes.
Q. Okay. And thus the value of the cost of feeds for a producer, say in Northern New York, where you did the study, was in some part a function of the cost of fuel to get him that feed?
A. Yeah, although that study was not that detailed.
Q. I understand that you didn't get that work, but in general --
A. No. We weren't looking at imports and fees.
Q. You were looking at other issues. Now, one of the other things I think was an interesting thing, and you made that report, this

observation before, I believe. You had a group called the Millennial Study or something like that, where you brought together a number of progressive dairy farmers from around the country and tried to analyze the profitability?
A. Oh, sure. This was done twice before, yes.
Q. What was the name of the group? I think I misnamed it?
A. US Top Dairies.
Q. US Top Dairies, okay. And the general consensus, I think going into that, common wisdom, as we might say, was that the low-cost operations in the West were more profitable than higher-cost operations in the East, wasn't that a --
MR. BESHORE: I would like to interpose an objection at this point. You know, in terms of farm costs, we are foreclosed in this proceeding from talking about prices to dairy farmers, to our -- you know, over our strenuous objection.
JUDGE PALMER: Yes, as a matter of fact --
MR. BESHORE: To launch into costs of production in the Northeast --

MR. YALE: I'm going to get to a point, but first of all, I will say -- let me -- here's the issue. 608c -- or 608c(18) says that before the Secretary can establish prices, he must establish the cost of fees.

JUDGE PALMER: Well, maybe, but this hearing notice says that we're only going to consider these --

MR. YALE: And data associated with what he's done.

JUDGE PALMER: We have another gentleman here that wants to give testimony on this subject. I saw him at lunch recess. I'm going to allow him to stand and make a motion so that he can get his point into the record, but to actually get into evidence on it, I think that's a good motion that was made. Objection, and I'll sustain.

MR. YALE: Well, then we would like to proffer and put it with the record.

JUDGE PALMER: Yes.

MR. YALE: And the proffer is that the cost of fees is directly related to the cost of energy. And if the Secretary is going to entertain evidence from National Milk to talk

about energy adjustments, he has to consider the cost of energy in the cost of fees to those farmers.

JUDGE PALMER: Your proffer and offer is noted.

MR. YALE: Okay. At this point then we would move to strike and put an evidence to -- in limine on any evidence on energy and changes in energy costs.

JUDGE PALMER: I'll overrule that objection.

MR. YALE: This is for farmers, Your Honor.

JUDGE PALMER: I understand that, sir. I'm trying to make a ruling based upon the hearing notice that we have. I presume some of this was discussed at the previous hearing.

MR. YALE: Well, it wasn't because it's just being brought up.

JUDGE PALMER: My impression was that they were trying to move this along and keep it limited to this expert's testimony and testimony of this sort, but that these other matters were probably discussed at an earlier hearing.

MR. YALE: Let the record reflect that a half a billion dollars in producer income is a defect.

JUDGE PALMER: All right, sir.

MR. YALE: And we deserve due process just as much as the other industry.

JUDGE PALMER: All right. I'll agree with you on that.

BY MR. YALE:

Q. I would like to take the next -- the issue, though, is that you found, however, that cost of production did not necessarily relate to profitability of those operations; is that right?

The cost of production between two farms in different areas did not relate to their profitability?

A. Well, of course, the costs aren't everything. There's also no price. There's income.

Q. And that's the same situation with plants, right?

A. Sure.

Q. And we haven't had any evidence in here what -- although we may have some projection of

what the costs are to plants, but we have no indication of what income they have that offsets those costs?

A. Yes, and I've been very explicit about this. I don't have any information on profitability. I had no intention of collecting that. What I'm looking at here is purely the cost of transforming raw product into finished material.

MR. YALE: Well, with this thing, that we continue to wish to keep the hearing open to get this evidence in, and object to co-ops from the Northeast not allowing us to talk about production, producer prices, we have no further questions.

JUDGE PALMER: All right, sir. Well, I was going to get that gentleman up, but I wanted to make sure I get you concluded first. Any other questions for this witness?

Mr. Vetne? Oh, I'm sorry, Mr. Vetne is closer. We'll get to you. You positioned yourself well.

FURTHER CROSS-EXAMINATION

BY MR. VETNE:

Q. John Vetne for proponents Agri-Mark, et al.

Mark, I asked you some questions. I forgot what they were, but --

JUDGE PALMER: Would you answer them, please.

THE WITNESS: I should have put names down by these questions, Mr. Vetne, but I think that one of the things that you had asked was the Figure 3, where we looked at different costs estimated at the cumulative percent volume of cheese, you also wanted to know what the percent of plants were that were covered by that cost; is that correct?

BY MR. VETNE:

Q. Yes, yes. The percent of plants for the increments that Mr. Beshore asked you about. It was 50, 60, 70.

A. Right. Fifty percent of cheese volume processed would see a cost per pound at 18.45 cents, and that would be covered by only 12 percent of the plants. Sixty percent of the volume would cost 18.8 percent, and that's reflective of 17.5 percent of the plants.

Q. 18.8 cents?

A. 18.8 cents, yes. And 17.5 percent of the operations could achieve that. Seventy percent

of the volume processed, we would have a cost per pound of 19 cents, and 24 percent of the plants could achieve that. Eighty percent of the volume would be 19.9 cents per pound, and 31 percent of plants could achieve that. And at 90 percent, we have 22.7 cents per pound, and 44 percent of plants could achieve that.

Q. Thank you very much. And I asked you a question about the volume in the plant samples, of the total plant sample that came from U.S.

A. Yes. You wanted to know, I think, what the percent of cheese plants were that we had in the -- oh, in the sample, or in the population that we drew from? I thought you had indicated population. That's what I -- okay. I didn't answer that question then. I answered a different one. I answered the population.

Q. Okay. All right. Of the population. We'll just go forward.

A. I apologize for that. The percent of cheese plants that are in the West from the population not including California.

Q. The population of 53 or 138?

A. 138. Were -- no, I -- excuse me, that's truncated at 53. I went back and looked at the

53 plants. That was 33 percent of the plants that were on the list.

Q. And you don't have data for the volume of plants sampled that came from those? I mean, you didn't prepare that during the break?

A. I didn't. I apologize, I wrote down here that it was the population and that's what I looked at. I can --

Q. And the geographic distribution of the five large plants in your survey, the West versus non-West?

A. Again, I wrote down the population is what you were looking at, how many of the plants were processing in the West, and that was 70 percent of the large plants in the West.

Q. And the last question I remember making a note of was if you can give me a range of costs in the processing non-labor portion.

A. Okay. The processing non-labor for the cheese plants ranged from 3.31 cents to 12.52 cents, and that range of those particular plants respectively was 17.3 percent of their total costs to 26.3 percent of their total costs.

Q. All right.

JUDGE PALMER: Do you want to see

if he had some other --
BY MR. VETNE:
Q. Are there others you made a note of? That might be one of mine.
A. Those were yours.
JUDGE PALMER: That is it, John. You didn't ask any more.
BY MR. VETNE:
Q. Okay. Then in response to a question by Ben Yale, you said not all of the plants in the survey made commodity cheddar. I wanted to follow up on that, make sure there's no confusion in the record.
All of the plants in the survey received milk and put in their warehouse or loading dock or whatever, the same product, either 40-pound block or 500-pound barrels --
A. Yes.
Q. -- is that correct?
And one more question from Mr. Yale concerning -- I think it was concerning allocation, that the only plant in which you made confirmed values was the one that called. Again, for some you didn't need to confirm the allocation because they had separate meters?

A. They had separate meters, that's correct. And I did go back to look at all of the other plants to see if there were any obvious differences. I mean, things that just looked like they were out of alignment relative to other plants, and it didn't appear to be the case.

Q. Okay.

JUDGE PALMER: Further questions? Yes, sir.

MR. WELLINGTON: Bob Wellington with Agri-Mark.

FURTHER CROSS-EXAMINATION

BY MR. WELLINGTON:

Q. Just a couple questions, Mark. Are the current chief plants in the Northeast, including those in New York State, are they importing out for its producer of milk in the Northeast?

A. I would judge that they are.

Q. Would --

A. My understanding and knowledge of that in my backyard here is that they do a great deal of balancing in the Northeast.

Q. And would the utilization of milk shown reflected in Federal Order Statistics for the

Northeast Federal order reflect that importance?
A. I would suspect so. I can't think of any major plants that aren't pooled in the Federal order, so the data should all be there.
Q. And much of the milk -- the milk of Northern New York producers, does that end up in cheese plants, a great deal of that?
A. A great deal of it does, yes.
Q. Just a couple questions on Table 1, page 7 of Exhibit 76, your report.
A. Yes.
Q. Table 1 shows the processing cost for cheddar cheese plants, and you have a breakdown of low-cost and high-cost plants. And there was some questioning about the total costs of the low-cost plants as being 14.59 cents per pound. That doesn't mean that all those eight plants are around that cost, immediately around that cost, does it?
A. No. No, it doesn't mean that. It means that of the eight lowest-cost plants, that the weighted average total cost was that calculation.
Q. So it's possible that several of those plants could be 17 cents or more?

A. It's possible. I didn't look at those individually. I -- but, you know, we can take a look at that. I didn't look for natural breakpoints in the data, I simply divided them in half, much as California does.
Q. Would you have a simple average available for that breakdown of the low cost and high cost? You said it was a weighted average you reported.
A. I did report a weighted average, but the simple average for those eight plants was 14.73 cents. So, a little bit higher. And the simple average for the high-cost plants was 26.58 cents.
Q. On Table 2, I'm looking for the same simple average for the low- and high-cost plants. Do you have that available?
A. I do. The six low-cost plants, the simple average was 14.73 cents, and for the high-cost plants, 30.91 cents.
Q. Okay. Thank you. Could you do likewise for Table 3, the breakdowns?
A. The four low-cost plants had a simple average of 13.21 cents, and the four high-cost plants had a simple average of 17.97 cents.

Q. Okay. Thank you, Mark.

JUDGE PALMER: Anyone else, questions? You want to go this way? Yes, sir.

MR. SCHAD: Dennis Schad, ADC agent.

FURTHER CROSS-EXAMINATION

BY MR. SCHAD:

Q. I guess I'll start by possibly apologizing, because I may have confused you when I was questioning about the idea of market clearing price. And with your permission, I'd like to read to you a paragraph that you read into the record at the 2000 hearing, which was also quoted from a "Hoard's Dairyman" article you wrote also in 2000 called, "Why Do Make Allowances Matter?"

And the paragraph -- a paragraph that you read in said: "If processors must pay more than the market clearing price, they will not want to buy as much milk as is available. Farmers then may be left with unsold milk, or their cooperatives will be forced to find outlets for distressed sales of milk. This would constitute one form of disorderly marketing, something Federal orders are supposed to prevent."

Do you recall?
A. I do recall that. I wouldn't have without the prompting, but thank you.
Q. Do you --
MR. YALE: Your Honor, I want to object. If we're here to talk about Cornell's study, the article he wrote about balancing, that doesn't show up anywhere in this hearing notice.
JUDGE PALMER: Well, I understand your point, but I gather -- and I'm not quite sure where you're going with this other than that you wanted to -- you're questioning the witness and you're bringing up something he said before.
MR. SCHAD: I will relate this.
JUDGE PALMER: All right. Go ahead, sir. I'll overrule the objection at this time. Go ahead.
BY MR. SCHAD:
Q. Okay. And would you still agree with that statement?
A. Yes. I think that's applicable anywhere, not just the Northeast.
Q. Would you agree that the definition of the

market clearing price is the price of the process it pays for something, so in the case of Class IV, it would be -- if it was butter powder, it would be the Class IV price?

A. The complete price, not just the regulated price, yes.

Q. Okay. It would be based on Class IV price if it's a federally regulated plan?

A. Yes.

Q. And it was being used to produce butter or powder. I guess I'm -- all right.

Your assertion then is that if the Class IV price is the NASS price less a make allowance times a yield factor, the yield factor is constant based on these kinds of things, the NASS price is the commodity price. So if the Department was to make -- to institute a market clearing price, the number they would be looking for is that make allowance. Would you agree with that?

A. Well, both of the parameters are important, make allowance and yield factor. I think that it's important that you get those numbers right; but I think that I have also stated that one of the worst areas you can have in regulating

minimum prices is regulating them too high, because we don't have a market clearing mechanism for that.

If they're regulated too low, then producers are unwilling to produce as much as the market wants. We do have a mechanism where we'll order prices and premiums to try to generate it.

Q. In all fairness, that is the complete gist of it. My question is, that relates to your survey, is that when you look at the fact that three of the four butter prices that are -- three of the four butter plants that are in your survey have costs, make allowances costs at their plant, if you will, higher than 11.5 cents that is in the current order. What is -- the descriptive statistics within your survey, how far do they go to give guidance, give any guidance to the Department in instituting a market clearing price?

A. Well, you know, again, I think -- this is all based -- or much of what we have based here. I mean, we have plants that have processing costs that I've observed that are in the high 10s. I mean, not just 10, not just 20, but

well above that.

And, you know, by definition, you could look at that and say, well, these plants can't possibly make money. They must be losing money with every hundred pounds of milk they process.

The truth is that they probably are selling cheese not at the NASS prices, or they wouldn't be able to make ends meet. So I can't say whether or not plants would be willing to buy all of the milk that they are going to process in powder unless you know what they're selling powder for or if they're selling just a basic commodity powder, Dennis.

Q. And your assumption is that they are commodity powder that's being captured in the NASS price for that month?

A. Yeah. I mean, as an economist, the statement that I did make earlier and repeat here is that to clear a marketplace, you're better to err on the side of making a larger allowance than a small one.

Q. Thank you. The other question I have is the eight co-op plants in the powder survey -- the eight powder plants in the powder survey. Were they cooperative? Were they owned by

cooperatives?
A. I'm a little nervous about that, Dennis. I think that there aren't enough plants --
Q. You can't?
A. I would say no.
Q. Okay. Also, did you have the opportunity to answer the two questions that I posed to you, the average size of the four nonfat powder plants in the West and the average in the Northeast?
A. Yeah. I can't answer that, again, without divulging confidential information. I did take a look at that.
JUDGE PALMER: Other questions for this witness? Yes, sir.
FURTHER CROSS-EXAMINATION
BY MR. ROSENBAUM:
Q. Dr. Stephenson, you were asked, I think, some questions about the production covered by the 16 cheddar cheese plants in your sample?
A. Yes.
Q. And I think you testified that they represented roughly 960 million pounds of production; is that right?
A. I believe that's correct.

Q. And you reported a number for the 53 plants as well, correct?
A. I -- yes. I gave a number that I think was 1.1 or 2 billion.
Q. Okay. And it may be that by your being asked to do things on break, it puts a burden on you that doesn't allow you to check your numbers. I just have a question about whether that 1.1 or 1.2 billion number is likely to be accurate, because by definition, your 16 plants don't include 8 of the largest plants, correct?
A. Yes, you're right. I'm --
Q. And so doesn't that sort of suggest the 1.1 billion number must be low?
A. I think that you're probably right. I would like, I guess, to back up and take a look at that to make sure about it.
Q. Okay.
A. And it was a different year, but that wouldn't account for that much difference.
Q. Okay. I just -- one would infer that probably the number is higher; is that fair?
A. It probably is. I'd have to look at that to make sure. I thought I did the calculations very well. It was kind of quick.

Q. All right. I'll switch to a different topic. When you did the survey, you had data, cost of processing data for the 5 plants that were among the largest 10 percent, correct?
A. Correct.
Q. And you had data for the 11 plants that were surveyed that were in the remaining 90 percent?
A. Correct.
Q. Based upon size of production, correct?
A. Correct.
Q. And you then calculated or derived a 20.28 cent weighted average cost of processing for the population as a whole, correct?
A. That's correct.
Q. Could you just take us through the step, how you -- how did you do that? How did you get to the 20.28 cents?
A. Well, you take the function that was estimated, and we apply that to all of the plant pounds that I have for the 53 plants to determine what their cost per pound was. And to get to the weighted average value for the 53 plants, you would multiply the costs that's computed there by the pounds of product

produced, add that all up, the total value up, and divide by the total pounds of product that we had in the 53 plants. That gives us the weighted average cost per pound.

Q. Okay. Thanks very much.

JUDGE PALMER: Other questions?

MR. YALE: I have a clarification. Are we going to get that total number then?

JUDGE PALMER: I guess if we have another break, we will.

MR. YALE: Okay.

JUDGE PALMER: You want to wait for that?

MR. YALE: Yes.

JUDGE PALMER: Questions over here? Yes, sir. I thought you might have one or two.

MR. ROWER: Thank you, Judge Palmer.

DIRECT EXAMINATION

BY MR. ROWER:

Q. Jack Rower, AMS Dairy Programs. Mark, how many -- well, can you tell us how many cheese plants were represented as -- in your sample

that were proprietary plants?
A. Yes, let me take a quick look. Just under 50 percent were proprietary.
Q. Okay. Somewhat less than eight then. Thank you.
A. Seven.
Q. Thank you. Earlier you had talked about the sample size for the butter plants, and you had said you were uncomfortable with the size of the sample. How many butter plants, for the future, would you be comfortable with with respect to using the cost data?
A. I had originally intentioned to get 10 butter plants in this study. I think that that number may be difficult to achieve going forward, but I'd feel a lot better if I had 8 of them anyway.
Q. So at least eight?
A. I think that that gives me a number that I feel much more comfortable with than the four.
Q. Thank you.
A. And, you know, there are ways to determine sample size given some information that you have about plant populations, or what would be appropriate. Now that we have a little bit more

information about variance and numbers and a few other things, we could probably do a better job of determining what sample size really should be if we want a certain level of confidence in the numbers. I didn't have that at the time that we did the study, and the numbers seemed appropriate at the time, if not achieved.

Q. Right. So having more NASS data, or the NASS data available to you would be more helpful. Is that what you're saying?

A. Well, not just NASS data, but also time enough and encouragement, I think, to have complete participation in there. We had two plants was all out of all plants that were asked that declined to participate, so it was not a large number. The rest of them were just in stages of having data that I felt were not complete yet.

Q. Okay. Thank you. Now, early on in your testimony you talked about the treatment of the data. And in your report you mentioned a bit about the handling of the outliers. Could you expand on how you treated outliers, what an outlier was with respect to the samples?

A. In these reports?

Q. Yes.
A. I don't believe that I did anything in these reports to treat out- -- in fact, I know I didn't do anything in these reports to treat outliers differently.
Q. Okay.
A. They were simply included in the aggregate numbers of a high or low, eight or four, whatever the numbers really were.
Q. Okay. Thank you. Mark, would it be accurate to summarize regarding balancing plants that other than -- well, with respect to nonfat plants and butter powder plants, excuse me, that you just cannot divulge which plants are balancing plants and which aren't?
A. Well, I do have information about how seasonally the plants were processing product. That may give you an estimation of it. It's a little difficult, I think, to say this plant's balancing and this plant isn't. We have cheese plants that balance, we have soft product plants that probably balance to some extent. So I'm not sure how to classify plants specifically. But I do have information on just how variable their production levels were.

Q. Okay. Thank you. Henry Schaefer has a few questions for you.

DIRECT EXAMINATION

BY MR. SCHAEFER:

Q. Henry Schaefer, USDA. In the California study, when they published their averages, they removed the 500-pound barrel numbers and replaced them with 40-pound blocks. Did you do anything like that with the information here on the packaging costs?

A. I did, Henry. There were two, three plants where I used the average 40-pound block packaging cost for the plants who didn't report information on 40s.

Q. And so if they had -- they reported 500, you kept those, though?

A. Yes.

Q. And also California, when they publish their numbers, they give a vat yield, or a yield and a vat test. Do you have any information on these for these plants that you could give to us?

A. I do have that information. I didn't summarize it for this hearing. I haven't had the chance to go through that, I guess,

completely. But we do have vat information on all the operations.

Q. And then on your footnote in your testimony, you mentioned that there was a nonfat dry milk plant that you went back and looked at and made some changes based on their allocation. Can you tell us which group, whether that was in the high, low group, and what changes were made to the specific cost categories?

A. It was in the high-cost group, and the changes that were made for allocation purposes were that I had gone back to plants that had meters on other product levels so that we could look at a direct allocation of electricity and gas on the products that were in question here in this particular plant. And I made the percentage allocation change based on those for those products that were in question.

Q. So that would change the non-labor processing portion?

A. It would change the non-labor processing. It was an energy allocation question in particular.

Q. And that is reflected then in the numbers that you gave in response to a question of

energy costs by category?
A. Yes. All of those included updated cost.
Q. And in your study on your summary -- and for instance, in the third paragraph there, you talked about exactly one-half -- or exactly half the nonfat dry milk participants cannot achieve processing costs indicated by the make allowance.

When you are referring to make allowance in that case, are you referring to the current make allowance as used in formulas, or to the make allowances that you've calculated here?
A. The make allowances used in the formulas. I simply looked at what I calculated the plants' processing costs to be and looked to see what the formulas indicated for a make allowance and made the assessment as to whether they were achieving that or not.
Q. I think that's all I have. Thank you, Mark.

JUDGE PALMER: Any other questions? We're going to take a break with you. We're going let you do a little more homework, and we'll call you back maybe in a half hour or so.

THE WITNESS: All right.

JUDGE PALMER: Meanwhile, there's a gentleman in the back who wanted to give testimony, and I indicated I probably wouldn't take it, but I'll have him at least come forward and make his motion and state what he wants to give testimony on. It's along the lines of the testimony -- of the evidence Mr. Yale wanted to investigate.

Go ahead, sir, let's get your full name and affiliation.

MR. WOLFE: My name is Bryan Wolfe. I'm a dairy farmer from Ashtabula County. I'm vice president of Ohio Farmers Union, and I also sit on the board of the National Family Farm Coalition, which is a coalition of 35 national and regional farm organizations across the country.

And what I wanted to do is just kind of add to what Secretary Dennis Wolff said about some cost production figures for dairy farmers.

JUDGE PALMER: All right. And as I say, we're not going to accept it, but we'll let you make an offer of proof --

MR. YALE: Can I be heard on

that?

JUDGE PALMER: Yes, yes, go ahead, sir.

MR. YALE: I find the denial of a producer who took the time to come here and talk about new make allowances -- these aren't the same ones we talked about in January. This is a guy that's going to hurt. And if we don't have the time to hear what they have -- this is a producer program, and I think that he should be given the time to make that presentation.

JUDGE PALMER: Well, I'm what they call Administrative Law Judge.

MR. YALE: I understand that.

JUDGE PALMER: And the Administrative Law Judge only does what the Agency assigns him to do, not like an Article 3 Judge. And in this notice it says specifically -- and I read it before, let me just read it again.

It says specifically, "The reconvened hearing will take evidence only," it has the words "only" italicized, "only data on plant manufacturing costs compiled by Cornell University and any other pertinent data or

information specifically addressing plant manufacturing costs that would be publicly available. Other factors contained in Class III and Class IV price formulas will not be addressed at the reconvened hearing."

So I feel bound by that. That's why I'm not taking evidence. But I am going to let the gentleman make an offer so the Secretary can see his offer of proof, see if they want to reconvene again.

MR. YALE: Can I ask the counsel for the Secretary if it's the -- they haven't objected, Your Honor. I know you're the referee and I respect that, but we have not heard -- I would like the Department to come on record that a producer cannot talk about these costs.

JUDGE PALMER: Would you like to make a statement?

MS. DESKINS: Yes, Judge.

We agree with what Judge Palmer says. The notice is very clear on what it covers, and it seems like the testimony about to be given is outside the scope of the notice.

JUDGE PALMER: And the problem is

if we -- what it is, other people have a right to have their evidence to -- that may be contrary to it, et cetera, et cetera, and I'm prepared, based on the notice.

MR. YALE: But isn't that what the hearing is about?

JUDGE PALMER: No, it's not. The hearing right now is about this particular economic --

MR. YALE: All right. Then we move that the hearing be adjourned as being an illegal hearing. This is a hearing called under 608c under the AMA to take evidence regarding the prices of the milk for producers.

JUDGE PALMER: What we're going to do, we're not going to adjourn the hearing or stop it, but your comments are all going to be with this record, and the Secretary, in his infinite wisdom, may wish to reconvene another hearing at some time.

MR. YALE: Well, just let the record reflect that we're objecting to this denial of due process.

JUDGE PALMER: I understand. Sir, would you now make your offer of proof? What is

it you would have testified to?

MR. WOLFE: I just wanted to add to what Dennis Wolff said. On August 23rd of this year, I testified at a US House Finance Committee hearing on agricultural credit issues, and at that hearing I testified that according to the USDA, total economic cost for Ohio's milk production was over $24 a hundred; and basically, you know, I think if you can justify a hearing for an increase in the make allowance, dairy farmers should be able to justify a hearing for their costs of production.

And I think the reason for this make allowance hearing is that they haven't had an increase in six years. Our support price has been dropping since '82. So that's it, basically. I didn't want to cause any trouble.

JUDGE PALMER: No, you didn't cause any trouble.

MR. WOLFE: That's what I wanted to say.

JUDGE PALMER: And your remarks are in the record for the Secretary to see. All right. Let's see. Let me think for a minute.

MR. BESHORE: Judge?

JUDGE PALMER: Yes.

MR. BESHORE: Can I just make one note with respect to this colloquy?

JUDGE PALMER: Yes.

MR. BESHORE: We do not object to and didn't object to Mr. Wolfe's testifying, but -- I'm not arguing with your ruling. The problem, a problem with the proceeding, is that the Secretary, because of -- in supporting rulings made by your predecessor in January, has truncated and limited and curbed the ability of the representatives of the dairy farmers, including cooperatives of the processing plants, to mitigate the impact of these potential orders on dairy farmer income. And that's all I want to say.

JUDGE PALMER: I don't know what my predecessor did. I know he's a very good judge and I don't think he made any mistakes. All I know is I have a specific hearing notice in front of me that says what we're to do and what we're not to do, and I'm going by that.

Yes, sir?

MR. WOLFE: Can I make just one more comment?

JUDGE PALMER: Go ahead, sir. Part of your offer of proof, you want to extend it a little bit.

MS. DESKINS: State your name again.

MR. WOLFE: Brian Wolfe. What's quite obvious is the whole dairy pricing system isn't working for many of us, the farmers, the processors and the consumers. And to be fair, I think we need to have a hearing that addresses the real problems, and this is basically a mandate for a major corrective operation.

JUDGE PALMER: All right, sir. Well, your remarks are in there and the Secretary can look at them and decide what he wants to do about other hearings.

Yes, Mr. Yale?

MR. YALE: In light of the -- your ruling regarding the word "only" the study, the only study that was noticed on the date that the hearing went out was the working paper of Dr. Stephenson. In his testimony he has information that goes beyond the working paper. It is beyond the word "only."

JUDGE PALMER: Well --

MR. YALE: And I'm going to move to strike that testimony that was not included in the working paper.

JUDGE PALMER: I don't want to keep reading the notice, but I disagree with you, and I'm going to --

MR. YALE: Very well.

JUDGE PALMER: -- strike down your motion to strike, or not grant it. It says plant -- "only data on plant manufacturing costs compiled by Cornell University and any other pertinent data or information specifically addressing plant manufacturing costs that would be publicly available." I think that his whole report fits that.

MR. YALE: But the information that he presented of the 53 plants and all that data is only available to him. It's not been available even to the Department. That's not publicly available data.

JUDGE PALMER: Well, you've got my ruling, and if I'm wrong, I'm wrong.

MR. YALE: I understand that, but, I mean, it's just, to me, I think it's a

travesty that the farmers can't but they can.

JUDGE PALMER: All right, sir. I appreciate it.

I have listed several other witnesses, and I want to see if any of them are available at this point. Who do we have that was going to be a witness? Anybody here?

All right. So you want to take the stand now? Are you ready? You need one for the reporter.

DR. CRYAN: I've got copies for the staff and the Judge.

JUDGE PALMER: What's your next number, 77 is it?

MR. ROWER: Yes.

JUDGE PALMER: I will mark this statement as 77. And if you would raise your right hand, sir.

(Thereupon, Exhibit 77 was marked for purposes of identification.)

ROGER CYRAN, PH.D., having been first sworn by the judge, was examined and testified under oath as follows:

MR. YALE: Your Honor, we would just reopen our objection to this as not

being public data and to being part of the Cornell Study.

THE WITNESS: Your Honor, may I state what --

JUDGE PALMER: Let me look at the wording one more time. I don't know, is this publicly available data?

THE WITNESS: This is essentially -- this is a discussion. These are a response to the data that has been made available for this hearing.

JUDGE PALMER: All right. I'll make allowance --

THE WITNESS: It's some of the data that's been made available and on the record from the previous hearing.

JUDGE PALMER: All right. I'll overrule that objection.

Go ahead. Do you have a question, Mr. Beshore?

MR. BESHORE: No.

JUDGE PALMER: All right. Would you give your name and affiliation, sir?

STATEMENT FOR THE RECORD OF ROGER CRYAN

THE WITNESS: My name is Roger

Cryan, C-r-y-a-n. I'm affiliated with the National Milk Producers Federation.

I've been the director of economic research for the National Milk Producers Federation for six years. Prior to that I was the economist in the Atlanta Milk Market Administrator's office. My Ph.D. is in agricultural economics from the University of Florida, I am a member of the Secretary of Agriculture's Advisory Committee of Agriculture Statistics and several professional associations. I've been involved in agriculture and agricultural economics for 25 years.

NMPF is the voice of America's dairy farmers, representing over three-quarters of the country's 67,000 commercial dairy farmers through their memberships in NMPF's 33 member cooperative associations. And a list of those cooperatives was put on the record in January.

It is the position of the National Milk Producers Federation that any changes in the manufacturing costs, or make allowances, for cheddar cheese, nonfat dry milk, butter and whey should incorporate monthly energy cost adjusters.

It is our intention at this hearing to testify only on the use of energy cost indices with respect to the cost of processing data presented this week, and to ask that notice be taken of pertinent publicly available data, including Producer Price Indices for Industrial Electricity and Industrial Natural Gas.

And at this -- the footnote at the bottom of the page identifies two series from the Bureau of Labor Statistics.

JUDGE PALMER: You want official notice taken of those?

THE WITNESS: One of them I believe was identified by Dr. Stephenson. But I'd like to ask official notice be taken of both of those.

JUDGE PALMER: Read them into the record what they are.

THE WITNESS: BLS Series WPU0553 -- I'm sorry, WPU0553 and BLS Series WPU0543. And I will discuss in more detail what those are.

JUDGE PALMER: And they're from the Bureau of Labor Statistics.

THE WITNESS: They're both

available at the website whose URL is identified at the bottom of the page. Should I read that?

JUDGE PALMER: We'll take official notice of that.

THE WITNESS: Thank you. NMPF urges the inclusion of a monthly indexing adjustment to the energy cost components of the recalculated make allowances. The most volatile element of cost, by far, has been energy. Cost of dairy processors. Increases in other costs have been more gradual, and have been partially offset by increased productivity in the manufacturing process.

Energy price increases in recent years have overshadowed other cost changes and gains in productivity. These increases have not been covered by the current fixed make allowance. The drastic rise and fall of these costs makes a one-time fixed increase in the make allowance inappropriate.

When energy prices rise dramatically, fixed make allowances fail to provide adequately for plant costs; when they fall precipitously, they provide an unfair windfall to processors at the expense of producers.

NMPF therefore urges USDA to adopt a mechanism that would adjust the make allowances on a monthly basis for changes in energy costs, using the most recent available Producer Price Indices for Industrial Electricity and Industrial Natural Gas. Those are the two series I asked for notice.

Some of this testimony will seem to simply restate our January testimony. However, the introduction of Dr. Stephenson's data and the movement of energy prices since January both demand a modest but significant update of this statement.

Of all components of manufacturing costs, the most volatile by far are energy costs. They can swing violently, while such costs as labor, sewage, laundry and insurance tend to move slowly and consistently.

A fixed make allowance, such as the current one, depends upon an estimated energy cost at a single point in time. If a fixed increase were implemented on the basis of the extraordinarily high energy costs incurred in late 2005, the resulting make allowance would now be excessive, as natural gas prices, for

instance, have regressed toward their long-term norms, as our January testimony anticipated.

The Producer Pricing Indices in Figure 1 have been updated since January and demonstrate this point. In fact, these have a longer -- there's a longer list of price series, Producer Price Index Series which were all noticed at the January hearing, and I would only ask that they be updated, the notice be updated through the data available through the time of this hearing. Should I list the Series numbers again?

JUDGE PALMER: You want it updated to the ones that have already been officially noticed?

THE WITNESS: Ones that have been noticed in January.

JUDGE PALMER: All right. We'll take official notice of those from then until now.

THE WITNESS: Thank you.

A regular adjustment to this highly volatile element of the cost of dairy processing is the best way to maintain equity between producers and the processors of the benchmark

products.

In the interests of equity and of maintaining each market's capacity for balancing, the Federation urges that the rule that results from this proceeding include formulas to provide for monthly adjustments of processors' energy costs, based on published Producer Price Indices. Such indexing would allow specific and regular adjustments, both up and down, to reflect changes in plants' costs of natural gas and electricity.

NMPF recommends that the energy index adjustments be calculated from the Producer Price Indices, again, for Industrial Natural Gas, I offer the Series number again, and Industrial Electric Power Distribution, weighted by the direct cost of electricity and fuels per pound of product, as estimated for 2004 by USDA/RBS and CDFA and for 2005 by Dr. Stephenson, in whatever proportion those are given weight by the department.

Whether the energy cost estimates are expressed in 2004 prices or 2005 prices, the corresponding annual average PPIs would be used as the bases. The 2004 annual average PPI was

201.7 for Utility Natural Gas and 147.2 for Industrial Electricity Distribution. The 2005 annual averages were 249.4 for Utility Natural Gas and 156.2 for Industrial Electricity Distribution.

Although a modest one-time adjustment could move the formulas closer to equity under current conditions, a new fixed make allowance would already be out of date when it is implemented. It will unfairly penalize processors when input prices go above the baseline in the revised survey, and unfairly penalize producers -- I'm sorry, will unfairly penalize producers when input prices go below the baseline. An energy cost indexing element can and should be added to the formula.

If the make allowances are updated and the 2004-equivalent or 2005-equivalent survey data, we recommend adjusting them each month to account for the often violent rise and fall of energy costs. We recommend that the electricity and fuels elements of plant costs be inflated or deflated according to the formula that I outlined here.

The resulting make allowances would

be equal to a base make allowance plus an energy make adjustment. The energy costs to be inflated could be derived from the energy elements of each cost survey in proportion to their weight in the final calculation of each base make allowance.

The objective of the formula is to adjust the energy components of the cost of processing for each benchmark commodity. Energy is by far the most volatile element of processing cost. Automatic adjustments to energy costs will cause the make allowance to more consistently reflect the costs that it is intended to reflect. The resulting make allowance would be neither too high nor too low, as energy costs swing up and down.

This statement is a bit redundant, because it was done at short notice due to some changes in circumstances, so I'll skip over some of it.

There's a table. Table 2 outlines, for illustrative purposes, the energy costs for each of the four products that were presented in the January hearing. I would point out that comparable numbers were offered by

Dr. Stephenson that are comparable to these, at least in the format.

The Producer Price Indices are published by the Bureau of Labor Statistics as a measure of changes in the prices of a large number of inputs to production. The prices for some inputs are measured separately for residential customers, commercial customers and industrial customers. Industrial customers include manufacturing and mining. These indices are published monthly, in mid-month.

The Producer Price Index for Industrial Natural Gas is designated as BLS Series WPU0553. Its base period is December 1990; that is, the index that is equal to 100 for that month. The series tracks the average price of natural gas sold by utilities to industrial customers.

A note from the economist who works most directly with the Producer Price Index at the BLS was provided at the January hearing as a clarification of that definition. It was attached to our statement at that time. And the detail of that note clearly distinguishes the Industrial Natural Gas index as the one most

directly applicable to manufacturers' costs of energy.

That is contrasted to the natural gas series that Dr. Stephenson used, which he indicated in his testimony during cross-examination was not the series he would have used if he had to do it over again. That series represents natural gas prices at the wellhead and is less relevant to the price paid by manufacturers than the industrial natural gas series.

The Producer Price Index for Industrial Electric Power Distribution is designated as BLS Series WPU0543. Its base period is 1982; that is, the index is set equal to 100 for the annual average of 1982. This series tracks the average price of electricity sold by utilities to industrial customers, defined as manufacturing and mining operations.

Both of these series can be retrieved from the website that's listed there, http://data.bls.gov/cgi-bin/srgate. And I've already ask that notice be given.

My January statement and testimony provided additional evidence of the

applicability of energy cost adjusters. And rather than restate that, I will refer the Secretary to that statement.

The energy price indexes we cite are published monthly by the Bureau of Labor Statistics. The make allowance should be made as current as possible by monthly updating. This would provide for smaller month-to-month changes than if adjustment were made quarterly or annually.

Just as the milk price formulas are calculated and applied each month as a formula of the dairy product prices, so should an energy cost formula be calculated and applied each month in the revised formulas.

Again, my January statement offered specific Federal order language to effect our proposal for energy cost indexing of the make allowance. And I would refer the Secretary to that statement.

The formulas need to be adjusted on a regular basis to reflect continuing fluctuations in energy costs. The use of an energy price index in the formula is the best and fairest way to deal with this issue. Revised make

allowances with energy cost indexing would provide specific relief to plants squeezed by higher energy costs, then reduce make allowances again when the squeeze is off.

We urge Dairy Programs and the Secretary of Agriculture to consider an energy cost adjuster that incorporates monthly energy cost indexing.

I have some additional comments I would like to add to that.

JUDGE PALMER: Yes, sir.

THE WITNESS: In the recommended decision of who -- the recommended decision issued on September 13th, which is the Federal Register at 71 FR 54118, the Department made the decision -- recommended a decision on transportation credits in the Appalachian and Southeastern markets. It recognizes the process of supplying supplemental Class I milk carriers with energy prices, just as a cost to Class III and IV manufacturing.

That decision implements monthly energy cost indexing, and I believe that that's an important precedent for establishing regular updates on the basis of energy costs, and I

would ask that -- I guess that's an official, it's in the Federal Register, it doesn't need notice, but I would ask that that be --

JUDGE PALMER: Official notice is taken. And your statement, which was marked -- did I mark it?

MS. DESKINS: Seventy-seven.

JUDGE PALMER: Seventy-seven, we're receiving that.

(Thereupon, Exhibit 77 was received into evidence.)

THE WITNESS: Thank you.

JUDGE PALMER: Questions?

THE WITNESS: I have -- I'm not done.

JUDGE PALMER: You're not done, all right.

THE WITNESS: As in the portion Mr. Rosenbaum indicated, USDA must consider changes of energy costs if it's to reflect the current cost of processing, and that is -- that's what we're asking for on a monthly basis.

I would also ask for general purposes that notice be given of the Dairy Product

reports. I think that's appropriate. I think that's an update of reports that were -- that's a report of production, monthly and annual production of dairy products in the United States.

JUDGE PALMER: Any objection to that? It sounds a little -- it doesn't quite sound like it's on target. If there's no objection, I'll take official notice. Is there any objection? Doesn't appear to be any. Official notice is taken.

THE WITNESS: And now I am finished.

JUDGE PALMER: All right, sir.

THE WITNESS: Thank you, Judge.

JUDGE PALMER: Now questions.

CROSS-EXAMINATION

BY MR. YALE:

Q. Afternoon, Roger. Ben Yale on behalf of Select, Continental, Zia and Dairy Producers of New Mexico and Continental Dairy Products.

Can you tell me, based upon the information you just received from Dr. Stephenson, as to how much you would adjust make allowances based on energy? Basically, I mean, let's say it's

effective as of today, do you have any number, any impact? Using your formula.
A. Based on Dr. Stephenson's numbers, I haven't had time to assess that, no. A specific number, I haven't had time to come up with specific numbers, but we believe that the Department should consider -- the Department is going to come up with numbers that are appropriate for make allowances, we believe, and consistent with that, the energy cost should be adjusted using pricing indexes.

To the extent that we can identify an appropriate -- some appropriate way to measure the energy cost for each product, then I could lay out for you how we would address that and what the numbers would be.
Q. That's what I want. I don't want you to tell me what make allowness you want the Department to set. I know that's not your position. Your position is simply to take whatever the department comes up with and put it in this energy adjuster, if I understand. Is that right?
A. Yeah. We're using a very specific method of adjusting the numbers they come up with as a

result of the process.
Q. Assuming the make allowance is X, based on testimony of Dr. Stephenson, which goes up through a certain point, is there an adjustment that would take effect, say as of today, based upon this index? Can you give us some indication of what the impact your information would have on his cost or proposed cost or suggested averages, however you want to use it?
A. As of -- I couldn't -- I couldn't do a calculation. I don't have -- I don't have the numbers in front of me. I can tell you that whatever part of the final make allowance is determined to be related to energy costs for each product, we would inflate or deflate by the most current price index divided by the Producer Price Index for that energy source and the average of the base period, or period for which those make allowances have been calculated.
So if the make allowances are based on data for 2004, we would take the most current Producer Price Index for Industrial Energy, for Industrial Electricity and divide it by the average Producer Price Index for Industrial Electricity for 2004 and multiply that by the

energy that is determined to be the electricity component of the make allowance, of the manufacturing cost of the make allowance.

Q. All right. So let's assume that today a final decision is issued, or at least an operative decision based upon the hearing record. Are you asking the Secretary to adjust numbers that it uses for make allowances to reflect the current value of energy as of the month that he issues the decision?

A. As recent -- I beg your pardon?

Q. Yeah, I'm sorry. As recent as possible, like today or last month or whatever is available.

A. Ask me the question again, please.

Q. All right. There's evidence, one would suggest that there's some evidence out there of what the make allowances ought to be.

A. Uh-huh.

Q. Or even if the make allowances, he doesn't change those but determines there's an energy component, an existing make allowance?

A. That's certainly possible.

Q. So let's assume that, so we don't have to argue any numbers, let's assume that there is an

energy component in that. And are you asking the Secretary then as of the most recent date prior to issuing the decision to establish a new base, or identify what the base is for adjusting the energy? I mean, how would you come up with the base that you would use to add the energy cost to?

A. The base would have to be identified. In the data presented in January, all the data was based on cost for 2004.

Q. Okay.

A. So that the most reasonable base would be the average PPI of these two energy elements for 2004. Mark -- Dr. Stephenson's numbers are for some -- some range in between, potentially, ideally, if they were adjusted for the energy costs, they were adjusted for 2005, it would have a 2005 base.

The Department may need to consider looking at the 12-month period that he said at 63 percent of his plants were in some approximation. But the general idea would be for month-to-month adjustments in that based on the most recent data.

Q. Okay. So you're going to take a

monthly -- you're going to have an average for 12 months, but then we're going to do month-to-month adjustments on that?

A. If that's -- if the data is based on 12 months, that's an appropriate period for establishing the base.

Q. I want to just ask you, you put in Table 2, which was the USDA, RBCS and CDFA numbers. You're just now adding what Dr. Stephenson testified to? You're not replacing? Or how are you dealing with those numbers?

A. Actually, I sat down to work on that table and expected to compare the previously submitted data with the Cornell numbers, which is the reason that this table is even in here today. However, that was the point -- it was at that point I was reminded by looking at the Cornell Study that he had not actually broken those numbers out in the working paper or the testimony. So they're there in anticipation of Dr. Stephenson's numbers being available for comparison.

Q. Now, you will note, based on the CDFA study, the total energy cost for whey is 0.56 and that of powder is 0.411 and about a penny

and a half extra for whey over powder. Do you see that?

A. I see that.

Q. And I think Dr. Stephenson's reflected some similar differences, but I noticed that in the RCBS study, it's a reverse. Are these numbers correct or --

A. I couldn't say whether they're correct. These are -- these numbers are received.

Q. Okay. Now, you mentioned the NASS, to have the Secretary take notice of its decision on transportation allowances. And the purpose of that decision was, was to ensure that there's sufficient income available to attract milk to market in the Southeast; is that right?

A. Supplemental milk.

Q. Supplemental milk, right. Recognizing that the cost of transporting that is one of its highest costs, right?

A. That's my -- that's what I understand from my incomplete review of the decision.

Q. As the hearing notice stands now, and the record as it goes now, if the Secretary were to adopt your proposal, and assuming energy costs go up, the energy costs for either III or IV,

depending on what is the mover, will also -- if those costs go up, that would have the effect of raising the make allowances, right? If energy costs go up, right?

A. To the extent that those energy costs are reflected in the PPI, they would be -- they would raise the make allowances in the context of our proposal, our recommendation.

Q. And a raising of the make allowances then reflects any lowering of the minimum price for that class, right? It's an inverse?

A. That's -- that -- yeah, mechanically, that's the impact, yes.

Q. All right. And the current pricing for Class I is a function of the higher of III or IV, right?

A. We have a -- we have an overall position on this hearing, which has been put on the record and has been disputed by many people, including yourself. It's on the record if you want to see our discussion, but anything beyond energy indexing, it's in there. Today I'm just talking about energy --

Q. I understand that. But I want to come to a point here, is that if you -- if your energy

costs go up, the decision you just mentioned will cause the credits for supplemental milk to go up, right? Because the energy costs went up, right?

A. The energy costs --

Q. Go up.

A. The -- if energy costs go up, according to our -- following our recommendation, the make allowance would also go up.

Q. Okay. And at the same time that your recommendation, what you're using, the precedent of this decision that just came down within the last week, that same increase in energy prices will also result in increased credits for supplemental transportation, credits for supplemental milk into the Southeast, right?

A. That's right. They are adjusting Class I supplemental credits based on the same logic that they are costs that rise with energy costs that shouldn't rise with energy costs. The compensation in the system should rise with energy costs.

Q. So the way these things are coming together, we have a potential where on the one hand we're going to use energy to increase the

cost of bringing milk into the Southeast, but simultaneously, if your proposal is adopted, approved, going through the make allowance and then through the higher-up the appropriate manufacturer, you would be reducing the Class I mover; is that right?

A. Unfortunately. And to the extent that we try to mitigate that, we are not allowed. However, I'm not here to talk about that.

Q. I understand that, but you brought up that notice and I just wanted to tie the two together. I have no other questions.

JUDGE PALMER: Questions? Mr. Vetne.

CROSS-EXAMINATION

BY MR. VETNE:

Q. John Vetne for proponents Agri-Mark, et al. Roger, good afternoon. Thank you for coming and thank you for requesting official notice of that which I was going to ask official notice for.

Just so there's no confusion, in response to a question by Ben Yale in the last series of questions, I think proposition, or the premise was the same increase in energy costs that apply to the make allowance would apply to the

transportation credits.
A. They apply to the Class I class in general, but we haven't been allowed to present that, so --
Q. Let me ask you this: The index for transportation credits relates to oil and diesel, correct?
A. Uh-huh.
Q. Oil products?
A. Uh-huh.
Q. And there's a separate PPI for oil and oil products and diesel fuel; there's a separate PPI for natural gas; there's a separate PPI for industrial natural gas; there's a separate for electricity. And though sometimes they move together, they may move together at a different rate and sometimes they don't move together, correct?
A. Well, the transportation credit decision is based on weekly numbers from the Energy Information Administration, I think is the name of the agency. So it's not based on a PPI, it's based on a most recent four-week average minus a reference price.
And I presume there's -- I know there's

other PPIs that would perhaps be more directly related to, you know, the transportation industry; however, those do move together, those are anthologized among the energy issues. So I'm not sure where you're going.

Q. Well, my point is that our discussion of energy has multiple components. It includes electricity, it includes natural gas, it includes oil and oil products among others?

A. That's right.

Q. It suggests whenever the Secretary starts with a basis of one year for energy?

A. And I suggest that because of the date that that's been presented so far. And every case has been based on calculations on surveys of plants over the course of a year.

Q. And, in fact, when the Bureau of Labor Statistics indexes its prices, it chooses a one-year base to show monthly changes from that base?

A. Not always, but often, yes. Some of those series are based off single month and some are based off a year.

Q. The data that you reported here, 1998, you have 100 on Figure 1, page 2 of your testimony.

The chart.
A. That's my reindexing.
Q. That's your reindexing. And you provided your own base of 1998?
A. I calculated the average for -- the average index -- I calculated an average for 1998 because all these have different bases. In order to make them comparable, they have to be brought together.

The two series that we recommended for use, for example, the Industrial Natural Gas series has a base in December 1990, which is a single-month base. By contrast, the Industrial Electrical Power series has a base of 1982, which is based for a whole year.

But this testimony -- the base -- the base is some place to start. It's -- arguing over whether the base is 12 months or 1 month is arguing whether your car goes to 10 or 11.

MR. VETNE: Your Honor, I have a couple of additional requests for official notice.

JUDGE PALMER: Yes.

MR. VETNE: It seems like a good time. We did take official notice of NASS

Dairy Products monthly and annual, correct? Is that what you asked for?

THE WITNESS: Yes, I did.

JUDGE PALMER: NASS Dairy Pricing.

MR. VETNE: NASS Dairy Products, N-A-S-S, Dairy Products, an annual report for '05 published in April. I believe it was April. And then monthly up through the date of briefing.

JUDGE PALMER: All right. Official notice is taken.

MR. VETNE: In addition to that, Your Honor, I'd like to ask for official notice from the Energy Information Agency, which is a unit of the Department of Energy, a document -- a publication called "Short-Term Energy Outlook Report," released in September of '06, this month.

And in particular, the portions of that table that relate to natural gas and electricity, which are tables 8C and 10C, which have information quarterly, actual prices for 2005 through early 2006, and then projections the remainder of '06 through '07.

And the URL for that is

www.eia.goe.gov/emew/steo/pub/contents.html. And that gives you the cover page for that short-term --

JUDGE PALMER: Is that the industrial prices?

MR. VETNE: Tables 8C and 10C provide natural gas and electricity costs in those tables, both for residential and industrial.

JUDGE PALMER: Official notice is taken.

MR. VETNE: Then in addition to that, I would like to request official notice of the publicly available document published on the Internet by the California Department of Food and Agriculture, which is the "Proceeding for Including Hearing Panel Report and Decision of the California Secretary of Agriculture on Class II, III, IVC, IVB Price Formulas," a hearing from June 1 and 2 of 2006.

This was published about a month ago, and along with that, the Secretary of Agriculture of California announced that he was going to defer an implementation for a period of time and it would be effective very shortly.

And that provides the application of the California make allowance data, which Dr. Stephenson discussed and we've discussed which Dr. Stephenson tried to follow, and also a reference to the prices and the allowances that will be, in effect, very shortly in California.

JUDGE PALMER: Anybody have any problem with that?

MR. YALE: Yeah, I have an objection. It's California. This is the Federal Order Program. And we already have gone beyond using California data for the make allowances. Dr. Stephenson so testified. And we can't cross-examine these people, we cannot examine that record. We have no ability to challenge what they've done or anything else.

Now, if they want to -- I mean, we would just object to the addition of the California decision. I mean, it's rationale. It's logic. It's facts. They're presenting this in the record. It's not just a statement.

JUDGE PALMER: What's the Agency's decision on that? Do you have any thought on that? I'd defer to Mr. Rower.

MS. DESKINS: Judge Palmer, in

the first part of this hearing we did have people who came from California to testify about the survey that they were doing of manufacturing costs, so I believe taking official notice of it would not be beyond the scope, since they were already part of the first hearing. We are talking about official notice here as opposed to testimony.

JUDGE PALMER: All right. Well -- yes, go ahead, sir.

MR. YALE: Yeah, I would just want it supplemented that their cost study is part of the record, but this isn't the cost study. This is a decision of a body that has come to a conclusion that we cannot cross-examine or challenge. I mean, it's like a submission by Dr. Stephenson that this is what it ought to be. We have no way to go beyond those numbers. You know, that rationale.

We did challenge what they published as a study, but that's not necessarily what they translated into in terms of these make allowances. And there's also changes in yields and everything else that aren't part of the record.

JUDGE PALMER: What would you say to that, Mr. Vetne?

MR. VETNE: Poppycock.

JUDGE PALMER: That's all right.

MR. VETNE: Let me say that the California decisions on make allowance and the level of their make allowances have been part of the make allowance records and debates since Federal reform.

One of the things we're looking at is how California applied its study and its approach to make allowance, what the result was in that decision, how that result is going to be applied here.

It meets the definition certainly of the hearing notice, publicly available information. It's available on the Internet. It's available to everybody. In fact, there was a hearing notice, and California people have -- as part of this hearing, people in California have talked not only about their process, but by what their historical make allowances have been and arguments have been made to, you know, how do we correlate and relate Federal make allowances to California's?

They do have an impact. And part of the decision of both agencies is we don't want to get too far out of line from what they've done, because it has competitive impact and production impact.

So this simply carries the same type of information that was in the record in January and in the record in 2001 and 2002 and the 1999 Federal reform decision.

MR. YALE: I'd go back, we can't talk to producers, the impact, they shouldn't be able to bring that issue up. It says publicly available data, not publicly available information.

JUDGE PALMER: Well, I'm going to allow official notice to be taken, but we will take official notice, and in doing so, I would suspect that there's some restrictions in how it can be used. The secretary probably couldn't just take their reasoning and say this is our reasoning because California said. But the evidence in there can be used and official notice is taken.

MR. VETNE: Thank you.

JUDGE PALMER: All right.

Anything further from this witness?

Yes, sir, Mr. Beshore.

CROSS-EXAMINATION

BY MR. BESHORE:

Q. Roger, is it your intention that if the price -- price index under your energy formula is lower at the time of promulgation of any rule, is lower than it was during the base period of the cost studies used to establish a make allowance, that the make allowance should, in fact, be reduced for that reduction in energy costs?

A. Yes.

Q. And if it's higher, it should be increased?

A. Yes. Nationally.

Q. And it should then have the same effect from month-to-month?

A. Yes. It's not an issue of fairness, it's equity.

Q. So, in fact, it's one small but nevertheless potentially meaningful way that these make allowances could return reduced costs if they're out there to dairy farmers?

A. Yes.

JUDGE PALMER: Can you just

illustrate how the make allowance would work as modified with these considerations? What -- right now, what do you have? You have a Class III price plus the make allowance? Is that it? Or less the make allowance?

THE WITNESS: The Class III price, in effect, is the price, the market price for cheddar cheese and whey, each one with a make allowance subtracted and then multiplied by -- essentially multiplied by a yield, how many pounds of each product --

JUDGE PALMER: All right.

THE WITNESS: -- are derived from 100 pounds of milk.

JUDGE PALMER: So the make allowance is imbedded into the Class III price?

THE WITNESS: That's right.

JUDGE PALMER: And, now how would you have this kind of make allowance that has fuel and natural gas? I gather other considerations besides those, how would it be segmented? I can't quite see the formula.

THE WITNESS: The current Class III and Class IV price formulas are calculated every month in a spreadsheet that

incorporates the monthly product prices of butter, powder, cheese and whey. So that, in effect, there is a process, in terms of actually physically doing the calculation from published data, would be just the same as it is except -- with the exception you have two additional data series that you would bring into the formula on a monthly basis based on whatever is most currently available from the Bureau of Labor Statistics.

But the idea is that in addition to having the prices of the products going up and down in the formula each month, you would also have that component of that subtracted make allowance going up and down each month.

JUDGE PALMER: Well, isn't it different for different products, though?

THE WITNESS: Yes, it is.

JUDGE PALMER: So electricity is more for one, fuel more for the other?

THE WITNESS: That's right.

JUDGE PALMER: How do you do that?

THE WITNESS: The table -- Table 2 in my statement, just as an example, just for illustration, if we use the

numbers, the USDA/RBCS data, the index -- the change in the index -- so in the base period, the Producer Price Index for Electricity was 100, and in the most current period it was 90, then you would reduce that 0.43 cents by 10 percent.

JUDGE PALMER: I see.

THE WITNESS: And you apply that same 10-percent reduction across that line to the cheese electricity cost, the butter electricity cost, and each one would be reduced by 10 percent. And then there would be a corresponding change in the natural gas Producer Price Index that would be applied to the fuels out there, the --

JUDGE PALMER: I see. So you would be using this USDA RBCS, in other words, which breaks it down per product?

THE WITNESS: We would need to have the breakdown by product. That's the date -- that was the purpose of asking Dr. Stephenson to generate specific electricity and fuel costs for each of the four products in his survey today; and that is to provide data that corresponds to these numbers for California

Department of Food and Agriculture and the Rural Business and Cooperative Service, and whatever -- in whatever proportions the department may assemble these things so that there's data available to serve as a basis for NASS.

JUDGE PALMER: When are the prices set each month?

THE WITNESS: When are the milk prices set?

JUDGE PALMER: Yes.

THE WITNESS: They're set on or before -- on the Friday on or before the 5th of each month.

JUDGE PALMER: And when would you take the fuel and electricity down? Which month would that be? Would that be from the month before?

THE WITNESS: It would have to be from the previous month, because as I testified, it's my understanding the Producer Price Indices are released mid-month for the previous month.

JUDGE PALMER: So you have -- it probably would be about a 20-day, 15-, 20-day gap?

THE WITNESS: You generally will be a month behind. You basically will be applying these adjustments a month late.

JUDGE PALMER: So a manufacturing plant would have some idea what its price would be by looking at the one month before? It would have an idea of what's going to happen on the 5th?

THE WITNESS: They would know the producer pricing indexes by the middle of the month.

JUDGE PALMER: All right. Good. That's good enough.

Any questions here?

THE WITNESS: And I thank you for your question, because I think it does help illustrate what we talked about. If you don't understand it, then --

JUDGE PALMER: Well, I don't understand a lot of things. We'll be here a long time.

Other questions? Apparently not. Thank you very much, sir.

THE WITNESS: Thank you.

JUDGE PALMER: Now, off the

record.

(Thereupon, a recess was taken.)

JUDGE PALMER: Let's try to get our seats again. We'll start up again.

We have written statements?

MR. YALE: No. In light of the Court's ruling, we're going to have to do Q&A.

JUDGE PALMER: All right. Is there a witness available?

MR. YALE: Yes, the witness is available.

JUDGE PALMER: Come forward, sir.

DONALD DE JONG

having been first sworn by the judge, was examined and testified under oath as follows:

DIRECT EXAMINATION

BY MR. YALE:

Q. Would you please give us your name and address?

A. I don't know what my address is. I am Donald De Jong, 1906 Cheyenne Trail, Dalhart, Texas. Donald, last name De Jong, D-e, J-o-n-g.

Q. And do you have like an opening description of who you are and what you do before we get

into questions --
A. I do.
Q. -- regarding the Cornell Study?
A. I do. My name is Donald De Jong. I'm a dairy farmer from Dalhart, Texas, which is about 90 miles north of Amarillo in the Texas panhandle.

I own and operate Northside Farms, a 5,000 cow milking facility. I'm also partner and CEO of Agrivision Management. I oversee approximately 17,000 irrigated farm acres.

I also have three brothers in the dairy business. Two owning dairies in Central Texas, one brother milking cows in the Central Valley in California. All combined, my brothers and I are milking close to 14,000 cows.

I'm also founder of Elite Milk Producers in Central Texas, Central Texas Milk Marketing Cooperative, that merged six years ago with Select Milk Producers. I am on the Select Milk Producers Board of Directors and currently serve as vice president. I am also one of five directors on the Greater Southwest Milk Marketing Agency that commonly markets about 99 percent of the milk in Texas and New Mexico.

I'm appearing today on behalf of Select Milk Producers, Lone Star Milk Producers, Incorporated, and Zia Milk Producers, Incorporated.

In addition, my testimony, or why I'm here, is also endorsed by Continental Milk Producers, Inc., of Ohio, Michigan and Indiana. And also with Dairy Producers of New Mexico, a voluntary trade organization representing interests in dairy farmers in New Mexico and West Texas.

Q. Now, you mentioned three cooperatives, Select, Zia and Lone Star.

A. Correct.

Q. What is their relationship to this agency that you mentioned?

A. All members.

Q. And approximately how much, what percentage of the milk do they represent?

A. Within that agency?

Q. Yeah.

A. Thirty --

Q. About half the milk?

A. Not quite half.

Q. Okay. And virtually all that milk is pooled on the Southwest order?

A. And Southeast, yes.
Q. And are you a member of Dairy Producers of New Mexico?
A. I am.
Q. You have been -- I want to talk about make allowances. You understand the fact that make allowances have an impact on producers' prices, right?
A. Yes, I do.
Q. Now, there has been testimony all over the board, but some today that would suggest the make allowance based on some use of the Cornell data to be 20-some cents per pound of cheese. Do any of your organizations have a position with regard to that?
A. We all do.
Q. And what's that?
A. That the study that Cornell put out a couple weeks ago stating that we were pretty close to an average of where things are at today is pretty representative of what's happening, and we are saying that this is consistent. We believe that to be the case. And moving to a weighted average is inappropriate, improper. Especially if we look at the --

Q. When you're talking about weight, your weight with other plants throughout the country?
A. If we weighed them to -- and I'm not a statistician. As you take that study and how you get to 20-odd cents make on cheese, I think you're putting a lot of plants in the study that should not be in the study. It's not representative of commodity cheeses, which NASS is based off of. So our position is that simple weighted averages accurately reflect what's going on.
Q. In terms of making changes, your recommendation to the Secretary would be what?
A. No change at this time.
Q. Now, I have set in front of you part of the report issued by Dr. Stephenson with some drafts and some tables regarding make allowances on four commodities. Do you have that in front of you?
A. I do.
MR. YALE: I don't remember the number, Your Honor. Seventy-two or seventy-three or whatever?
JUDGE PALMER: Seventy-six.

BY MR. YALE:
Q. Seventy-six. And on cheese, the current make allowance is what?
A. 16.5.
Q. And the weighted average reported in there is?
A. 16.3.
Q. And the position of the organizations would be to?
A. Status quo.
Q. Now, while we're talking about cheese, as part of the agency, do you sell and market milk to cheese plants in the Southwest?
A. We do. We're also part owners in facilities.
Q. Could you describe the cheese industry in the Southwest in terms of the number of plants and their general size?
A. Really, there's three plants, proprietary, mozzarella in Roswell, Southwest Cheese in Clovis and then the Levington plant.
Q. Okay.
A. Anywhere from, what, 100 loads a day to 150-loads-a-day plants.
Q. And there's also one near Las Cruces?

A. A small one, yes.
Q. And that represents basically all the cheese production in the Southwest?
A. It does.
Q. All right. Now, there's been some testimony today that suggests the cheese plants -- first of all, do you understand what the term "balancing plant" means?
A. We struggle with it every day, yes.
Q. And how does the Southwest agency and your cooperative people, how do they treat and consider cheese plants that you just mentioned in terms of balancing?
A. We sell and operate with our -- whether it's proprietary plant or a partnership plant as Southwest Cheese, they are absolutely the main plant. And they have to be operated as the main plant.
Q. Okay. So the cheese price, you don't reflect -- that does not reflect -- you don't treat them as balancing plants and feel that that's a distress?
A. Absolutely not. We put our highest quality, our best milk into those plants to effect the best that we can get.

Q. Now, do you market any milk that would go to a balancing plant?
A. Yes.
Q. And how is the cost of that balancing handled? I mean, who absorbs that cost?
A. Joint venture plant, both the -- both partners absorb it. And we price the milk in the plant at different times at different prices throughout the year.
Q. But do all the producers -- you pay for all -- I mean, do all the producers participate --
A. Yes.
Q. -- in these costs or profits?
A. Yes.
Q. Do you have any reliance upon balancing in the Northeast order?
A. Zero.
Q. What about the Northwest?
A. No.
Q. Upper Midwest?
A. No.
Q. Any other order, do you balance --
A. We will work with the Southeast, yes.
Q. But you absorb their balancing, right? I

mean, you don't -- they don't have a balancing plant you ship milk to, do they?
A. We have, yes.
Q. Who has?
A. The Southwest has shipped milk to the Southeast.
Q. Okay.
A. Considering balanced milk. That, with the oncoming of the Southwest Cheese, is no longer necessary. We do help the Southeast balance their cheese, and have developed plant structures in cooperation with them to handle their shortages and have a place to park their milk. What we call milk produced by us in our region that they can call on when they need it.
Q. And do you see any need to change the cost for Class III or IV make allowances to reflect the cost of balancing in any of those markets?
A. I do not, no.
Q. Now, you mentioned the Southeast. What other markets do you ship milk to?
A. We do have what I call defiltered milk sales into the Upper Midwest sometimes.
Q. Okay. And you mentioned the Southeast?
A. And the Southeast, yes.

Q. Does that include just the Southeast order, or does it include any other orders in the Southeast?
A. I'm trying to think of the plants. No, our relationship really is with the Southeast. And we will ship also into Arizona.
Q. Okay. Now, moving on, there was another exhibit dealing with the cost of nonfat dry milk, if you want to turn to that. I think it's one or two more. I think the next one is whey. I want to come back to that.
And the -- based upon the -- first of all, you're aware that there was testimony today there's been an adjustment in the weighted average for the nonfat dry milk?
A. I am aware of that.
Q. And what number do you have now, that weighted at?
A. It would be 0.142.
Q. Okay. And the current make allowance is what?
A. Fourteen.
Q. And the position of your clients is what? Or your --
A. Again, status -- status quo.

Q. If you would, turn then to the butter. And your understanding of the Cornell weighted average in that study is what?
A. 11.08.
Q. And the current make allowance is what?
A. 11.5.
Q. And the position that you -- do you see any reason to justify to make a change in that?
A. We do not.
Q. Now, on dry whey, would you please turn to the dry whey state, or the weighted average?
A. Okay.
Q. Now, this one has -- what's the current weight make allowance for what?
A. 15.9.
Q. And what is the amount that is stated in that weighted average?
A. 19.41.
Q. Okay. What do you believe that that average per dry whey ought to be?
A. The current.
Q. All right. And if you were going to use the Cornell weighted study, how should that be adjusted?
A. We look at it -- I think if you go strictly

to energy cost.
Q. As compared to what other --
A. With the weighted averages here. They're coming through because they're -- what I understand, or are including a whole bunch of different processes for handling that stream. And there's numerous, how do we capture and account for what I would say is some of maybe less economical decisions on the stream and other people are doing it other ways. So how do you put that all together? I think it's questionable.
Q. So you think the energy cost plus that of the nonfat dry milk?
A. I think -- yeah, that would be the simplest way to capture what you need there.
Q. And whatever that testimony has been, that would be your dry whey price?
A. Yes.
Q. And in looking at all these, do any of these indicate to you any drastic change or need to change make allowances for the producers in the Southwest?
A. None at all.
Q. Now, let's talk a moment. You mentioned

this issue earlier about trying to determine where you make the cutoff between the efficient and inefficient plants. Going back to the cheese study and the numbers that are there for the Cornell Study, the chart, it identifies the eight largest plants.

A. Yes, sir.

Q. Would you put the plants in the Southwest in the largest or the smallest plants?

A. Largest.

Q. And the make allowance that would be suggested for that would be what?

A. 14.59.

Q. And that would really result -- if you really looked at the plants in the Southwest would result in a price increase for your producers?

A. Yes.

Q. Now, do you -- you indicated you own a farm of about 5,000 head?

A. Yes.

Q. Do you consider that an efficient farm?

A. Some days not, but yes. Yes.

Q. And what has driven you to the point of having a farm of that size?

A. I've had three -- or two moves in my life. I've had to move out of Southern California. Opportunities there were not available. Costs were too high, very high. Cost of entry is very high, when we were starting out, my brothers and I. So that decision, because of costs there, was out of the question.

We moved since. Started out in Central Texas. Again developed through areas there, systems in place, production, again being limited in growth in that area for a number of reasons, saying if we don't continue to -- as the industry consolidated, if we don't continue to innovate and figure this thing out, we've got to move. The decision was, we've got to move.

I was the first one, and that's why we're in Dalhart, Texas, now. We're being forced to do more for less, and we have to keep striving to do that. That's why we're here.

Q. And you, as a producer, is that unique to you, or is that common amongst producers in the Southwest?

A. Very common. Very common.

Q. Now, how does that affect the operation of Select as a cooperative and NGS of Greater

Southwest?
A. The -- it's identical philosophy or outlet. When we chose and when we look out 5, 10, 20, 30 years out, what do we have to do, how do we have to do that, appropriately, it's been that way, it makes sense. Economies of scale, size, logistics. We work very hard to do what we've done, is be able to raise what I would say a return to producers while not raising our cost to our buyers. Trying to take as much inefficiencies out of our distribution chain.

Cheese plants' the same way. We have, I would say, a dog plant in our group that we own, and we are making some hard choices there. And we're not coming for a hand-out. We'll figure out how to get that plant working and get it working. It's going to get a bulldozer, just like the other bad dairy, it doesn't make money, you've got to shut it down. There's no future there, so -- and we have to make the decision. We make those decisions when we meet every month.

Q. In terms of -- can you give us some examples of some of the efficiencies that you've been working for in the operation of marketing

milk in the Southwest?
A. I mean, what we've done is just looked to ourselves. Look in the mirror; I would say, all producers need to look in the mirror and the first thing we've done is say we can no longer tolerate milk that is not of the highest standards. We've got to have milk that we can meet any market needs anywhere. We cannot have a substandard milk being a drag on the pool. So we have very strict quality standards that our producers, myself included, have adopted.

Next is transportation. We no longer have trucks crossing each other. When we raised the quality of our milk, we were able to put the closest milk in the plants without having rejects and bearing that burden.

We are also in the process right now of actually, of putting together a joint venture with 3,000 tankers. Without the trucks, for spring balancing needs, we can do more efficiently and effectively. We're developing, what I would say, is the best logistics system in the milk system today. Realtime, we have trucks, stop charges, things like that so that we will not have to go back to the buyers and

say we won't. And we developed a system that we have to do it ourselves. We've got to clean house; we have to do what we need to do.

Q. Now, there's been some discussion, and Cornell has indicated that certain costs associated with energy and some discussion about adjusting for energy costs in the make allowances. Have producers been immune from these energy costs?

A. Absolutely not.

Q. Do you have any examples of how the changes in energy has affected the bottom line of the producers in the Southwest?

A. If utilities were up a good 7 cents a hundredweight, on average, hauling costs have increased from 61 cents to 83 cents a hundredweight on average. And there's a whole other basket. That's energy.

And I'd like to add on energy. And it -- as a dairy farmer, I have to protect my margins. I don't understand. I have not had to pay over 5.60 in MCF for gas. I floor the price. I hedge my way through these issues. And we should not be held accountable for energy costs that can be hedged.

Q. Now, you indicated that the hauling cost has gone up by about a third?
A. Yes.
Q. How did the producers in the Southwest respond to address that interest?
A. Two ways. We did go back to our Class I customers, Class II customers and request some fuel adjustments. We tried to work in a partnership manner, show them our costs, and we have been able to get some redress there. And obviously, on the commodity side of the products we're having to eat it.
Q. Now, you indicate you're in partnership with some people, and you have some co-ownership of plants. Has the producers in the Southwest made investments to the plants?
A. Very huge investments.
Q. Can you give us some of the magnitude of those talks?
MR. VETNE: Your Honor, Your Honor, excuse me. This is a continuation of a hearing that started last winter. A representative for Zia, Select, Lone Star was here last winter and described the ownership of the plants down there. It's redundant. It's

already in the record. The record need not duplicate this at this hearing, so I object.

JUDGE PALMER: I'll tell you what, Mr. Yale, why don't we just go ahead, kind of bring it sort of to a head.

MS. DESKINS: Your Honor, we would agree with Mr. Vetne's objection. It does appear it's off topic for what the notice is for this hearing.

JUDGE PALMER: It does say expanded. We'll allow some. Go ahead.

MR. YALE: Let me just respond to that.

MR. VETNE: The objection is overruled.

MR. YALE: Well, I want to make sure that the record --

JUDGE PALMER: Yeah, good.

BY MR. YALE:

Q. You seek as part of that investment a return on investment, right?

A. Absolutely.

Q. And in making these investments, was there a lot of preparation and consultation and due diligence done to decide where and how to make

these investments?
A. Absolutely.
Q. All right. And were those decisions based upon the current make allowances?
A. Yes.
Q. And did those examinations show that those operations could purchase milk at class prices and deliver to all the partners a return on investment?
A. Yes.
Q. And to your knowledge, is that what's happening?
A. Yes.
Q. Now, as a result, if the -- this was -- as I said, there was a proposal today, tomorrow we'll have some, I think, Dr. Bailey is going to present the impact of the Cornell Study on blend prices, but there's an indication that some of those ranges in the Cornell Study might be as much as 50 cents a hundredweight.
A. I'm aware of that.
Q. Now, just using that as a number, do you have an idea of approximately the gross impact to producer income in the Southwest as a result of that?

A. I've heard -- or we have looked at numbers as much as 3 million, high as 5.
Q. Per?
A. Month.
Q. Per month.
A. Right.
Q. All right. And who would be the beneficiaries of that 3 to $5 million?
A. Predominantly proprietary-owned Class I customers, Class II, some proprietary.
Q. What would your producers get in return for that 3 to 5?
A. I don't understand.
Q. I mean, will you get anything in return for that reduction?
A. No. No. I mean, it's straight -- it's a straight loss.
Q. Is there any benefit to you that a co-op in New York might be able to have a better relationship in its market or its blend prices as a result of you paying that 3 to 5?
A. No.
Q. Are producers in the Southwest in a position to absorb 3 to $5 million per month?
A. No.

MR. VETNE: Your Honor, same objection. These same series of questions were asked and the impact on producers were addressed in the February hearing. It's --

JUDGE PALMER: I understand the objection.

MR. VETNE: It's redundant again and it's still beyond the scope of this notice.

MR. YALE: We've got the Cornell Study, we've got new numbers.

JUDGE PALMER: All right. I'm not sustaining the objection, but I am --

MR. YALE: And I appreciate that, Your Honor. We have cut down a 20-page statement. I'm trying to go through here to narrow this thing down so these people who don't want to hear from dairy farmers don't have to hear any more than they have to.

BY MR. YALE:

Q. Now, there are a lot of changes going on in the Southwest in terms of consideration of changes to the Federal order at this point. Is that -- aren't there some studies being done?

A. Yes.

Q. And what is the range of those types of discussions?
A. I mean, it's from do we adjust it here or adjust it there, to saying what really -- and we're trying to understand that. You know, when I take home a $1.20 or $1.50 under Class III, what the heck am I doing in an order? Why am I using a system? And is it benefitting us? We looked at the numbers that maybe will cost 4 to 6 cents, and who knows what the benefits might be. So there is serious consideration within our group and the greater Southwest to do away with the order system.
Q. And if the decision came down that would reduce the minimum price by 50 cents, do you think that would have an impact on that decision?
A. I think it would push it very quickly to saying the system is not benefitting or we're not getting a value for it anymore and there's a better way of doing it.
Q. So you're saying then if this Cornell data, other than weighted averages, that these higher numbers or the other numbers that had been proposed in this hearing are adopted, that the

approximately 50 percent of the milkers you mentioned may not support that?
A. Correct.
Q. Do you take that decision lightly?
A. It's a radical change for us, and it's a system that's worked, that we've benefited from, that all producers and handlers have benefited from. And for the life of me, I don't understand this whole request. Especially from what I call partner cooperatives in the nation. To be able to do this and have this request, I find it offensive. I think I'll just say it, I wanted to say it, it's shame on them. It's shame on them. All they're going to do is prolong where they need to get to by this request.

MR. YALE: I have nothing further, Your Honor.

JUDGE PALMER: Questions? Are there any questions? There may not be any, I'm not sure. Yes, Mr. Beshore.

CROSS-EXAMINATION

BY MR. BESHORE:
Q. Mr. De Jong, we haven't met. My name is Marvin Beshore, and I'm representing the

Association of Cooperatives here in the Northeast, which I assume it's some of the entities that you are casting shame upon.
A. I am.
Q. Do you know who the Association of Dairy Cooperatives in the Northeast is?
A. I'm not familiar with your group, no.
Q. You just assume that they're among your targets?
A. I know Dairy League, I know DFA, I know Land O'Lakes. I know your challenges.
Q. Do you have -- do your cooperatives have a position on whether there should be make allowances as to establish pricing for prices in the Federal system?
A. We have supported end product pricing, which is --
Q. Which requires make allowances?
A. That's correct.
Q. Now, do you have a position on whether prices should be -- Class III and IV prices should be uniform on a national basis?
A. Not a position on it.
Q. Have you thought about that at all?
A. Personally, I have. But like a water

balloon, you punch it here and there, what's going to come out somewhere else.

If you want to -- if we're talking about a NASS commodity product, and that's what we're talking about, the basis the study is on, and I don't know any commodity cheese being made in the Northeast that's a commodity product, that's traded on the spot basis, that would support in the NASS.

The prices, as I understand it, 10, 15 cents a pound more, and you're paying 3 to $4 more for the milk. So we already have differentials in Class III and IV.

Q. Well, are you selling cheese into the Northeast from your cheese plants?

A. I really don't market the cheese. Our partners market the cheese.

Q. Okay. You own an interest in two cheese plants, I take it?

A. That's correct.

Q. And they're the Clovis plant and the Levington plant?

A. Correct.

Q. Do you have any knowledge of where the cheese is marketed?

A. No.
Q. You do not?
A. No.
Q. Do you take an interest in where the cheese is marketed?
A. I take an interest in our financial statements and our bottom line and the performance of the plant, yes. But our marketing partner handles that. DFA handles the sales on the plant. Or Levington.
Q. When you were engaging in the due diligence with respect to the investments that you describe, did your due diligence include any analysis of where the cheese would be born, geographically?
A. No. I mean, it's going to go where the population is. And it's not in Dalhart, Texas.
Q. So it may be to the East and will be to the East?
A. Absolutely.
Q. And to the Northeast, for that matter?
A. Where the population is.
Q. Now, is it your view -- would you be comfortable with the minimum Federal order prices in the Southwest being set at the level

that are -- for cheese, in part, for manufacturing cheese that are higher than those in other regions in the country?

A. Would I be comfortable --

Q. If you're --

A. No. I mean, we're in a commodity product. I mean, it --

Q. You want the Class III price and the Federal order system to be the same everywhere, correct?

A. I want the market to pay me what I can get for my products.

Q. That wasn't my question. Do you want the Class III price and the Federal order system to be the same everywhere?

A. Federal order minimum prices, yes.

Q. And so if in another region of the country it costs more to produce cheese than it does in your region, and it costs more than -- some of the plants would be required to pay more than the market value of milk for cheese, it's your position that they should have to do that?

MR. YALE: Your Honor, I object to the point he said they have no position --

THE WITNESS: I can answer this.
MR. YALE: All right.
BY MR. BESHORE:
Q. You said they weren't national.
A. No.
Q. Same price everywhere.
A. This is -- on a -- I'm not a political person. I'll cut to the chase. If we have a plant in the Northeast and it costs them 20 cents, 30 cents more to make that product, and we have buyers out that want to buy it for less and we can produce it for less and still return a return, then that's -- I thought that's what capitalism is. I thought that's what we're all about in this country.
Q. So your answer is?
A. I'm -- that's my answer.
Q. That what?
A. The Federal order system, in my opinion, it sets minimum pricing.
Q. In your region, you want the minimum price to be set -- you want the make allowance to cover your -- cover the costs of making cheese in your region, correct?
A. I can only speak for myself personally on

this.
Q. Well, now you're here speaking for the cooperative.
A. For Select, I can't tell that. I can't answer that question right now. I have to go to the board and say, "What's the official position at?"
Q. Well, I thought I heard you testify that you want the make allowance maintained where it is, correct?
A. To adequately -- if we're going to have a program, it needs to adequately represent cost.
Q. And the present, as far as you're concerned with the cheese operations in the Southwest, the present make allowance adequately represents this cost, correct?
A. I think it's set too high.
Q. Okay. You'd reduce it --
A. Yes.
Q. -- in the Southeast, for those plants?
A. Yes.
Q. Should it be reduced below the cost to produce cheese in the Southwest in an end-product pricing system, which you support?
A. It should not.

Q. Okay. So in your region it should be set at a level that covers the costs of converting your milk, your high-quality milk into commodity cheese, correct?
A. We're in a national and international market, and we're all competing at the same level and for the same buyers of our products.
Q. In your region, you want the price set so that it covers the costs of converting your milk into cheese, correct? The make allowance be set, correct?
A. If we have a Federal order system and that's what it's supposed to do, then it should actually represent an average of production cost, and it should not take your worst producer, all right, and use it and skew it that way. It should actually represent what's going on. And our position is that it does that today, and that the Cornell Study has proven that with its average pricing.
Q. Were you here when Dr. Stephenson testified?
A. I was not.
Q. But in your --
A. And I am not -- go ahead.

Q. So you don't -- did you read his study?
A. Yes.
Q. You know then that the, as far as the weighted average is concerned, the ones you're endorsing, that the sample is essentially pulled out of a hat? You're aware of that?
A. I didn't conduct the study.
Q. I didn't ask you if you conducted the study. You told me you read it.
A. I'm not going to describe it.
Q. You told me you read it, Mr. De Jong.
A. I'm not going to describe it as pulling out of a hat. If you want to defend -- I'm not here to defend or do anything with the study. I'm just here to say that I think where it's set today accurately represents what's going on.
Q. I thought I heard you testify on direct that you were here to tell the Secretary of Agriculture to use the weighted average numbers from the Cornell Study to establish the make allowance going forward in this hearing. Isn't that your testimony?
A. I would -- if I said that, then -- I don't think I said that because I think I said the status quo is where we are at today, that no

change is necessary to anything.
Q. And --
A. That's our position. And if I made that unclear, I'm sorry.
Q. So the fact that you picked some numbers from the Cornell paper which are in the vicinity of the status quo is just sort of a random, statistical happenstance? Is that your -- is that why you pointed out those numbers and cited them?
A. We look at it, we know where we're at, our cost structures. And they, we believe, accurately represent the costs of what's happening in the country today.
Q. Okay. How is it that you are paid $1.20 to $1.50 on the Class III price for your milk?
A. I ask myself that every day.
Q. When did you receive that price?
A. I'll show you my check last month.
Q. Last month?
A. And the month before and the month before that.
Q. Why is that?
A. We have a lot of milk and not enough capacity. A lot of milk.

Q. Simply costs. So what brings your net return down to those levels? What costs?
A. Transportation, selling discounted milk all over the place, blender pricing.
Q. How long have you been receiving $1.20 or $1.50 under Class III?
A. I can't answer that question. I'd have to go back.
Q. Is that on all your milk? Is that the blend price you get?
A. In Dalhart, Texas, yes.
Q. Is it different -- you have just the one location?
A. I mean, the Southwest is broken up in different areas.
Q. Is the price higher in other places than it is in Dalhart?
A. Yes.
Q. Now, let me just ask you one other question. I think you said you do your balancing through the joint venture plant; is that correct?
A. Yes.
Q. Now, is that -- what type of plant is that?
A. It's through --

Q. What products?
A. GSA and Fonterra powder. They'll do a number of powder products, and I'm not familiar with their powder line.
Q. That's a butter powder plant?
A. No butter. Strictly whey powder, whole milk powder. WPC plant.
Q. Okay. So you're just balancing the whey and the skim there?
A. We sell the cream off.
Q. Do you have any information with respect to the costs of processing those dried products?
A. I do not sit on that board and I do not see those numbers personally, so I'm not familiar with those numbers.
Q. So you wouldn't know how they compare to any of the numbers for processing nonfat dry milk or dry whey?
A. I don't have -- I don't have firsthand knowledge of that, no.
MR. BESHORE: Thank you.
JUDGE PALMER: Any other questions? Yes, sir.
MR. GALARNEAU: It's Clayton Galarneau with Michigan Milk Producers. Just a

couple questions.

CROSS-EXAMINATION

BY MR. GALARNEAU:

Q. About how many -- or how much milk do you represent?

A. I can get you that. In our, what, we're 800,000 cows in a group, extrapolate it back and we're under half that, so let's say 360,000 cows.

Q. All right. And what percent of your milk goes to Class III and IV plants that you own?

A. That we own? I mean, we're --

Q. Partnership with.

A. I couldn't say that on a day-to-day basis how much of Select's milk goes into -- you know, we're 30 percent owner of 50 percent of the plant, so the numbers aren't that easy to come off the top of my head.

Q. Less than 50?

A. Less than 50? Oh, yeah, less than 50 percent of our milk is going into a plant. We're at 30 percent approximate utilization, 30 to 35 in our region. I think it's 12 percent Class II, so --

Q. Okay. If you don't know, that's fine.

Thank you.

JUDGE PALMER: Other questions?

Yes, sir.

CROSS-EXAMINATION

BY MR. WELLINGTON:

Q. Bob Wellington, Agri-Mark. Are the plants in your area making money right now? Cheese plants?

A. Well, one, I know is not. I can't speak for --

JUDGE PALMER: Could you speak into the mike? She's having trouble picking you up.

THE WITNESS: I know one is not. The Southwest cheese plant, the startup is too early. Our numbers coming in are very good, but we're -- we're not even through a full year of production yet. And then I can't speak for the proprietary plants.

BY MR. WELLINGTON:

Q. Would you anticipate the cheese plants you're familiar with, within the next year or so as they come up to speed, to be making money at the current make allowances?

A. Yes.

Q. So if the make allowance was increased by whatever amount, let's just say 50 cents, those plants would be making quite a bit more money. Would that be true?
A. Yes.
Q. Okay. Do you have the ability to go in and negotiate a higher price from them because now they're much more profitable? A pay price for your milk?
A. No, we don't.
Q. Okay. Then so they would be returning substantially more profits to themselves, they would be holding onto that money?
A. The proprietary clients would, obviously, and joint venture plants we would share.
Q. So at a high profit margin, there would be incentive for more plants to come into your area with a higher make allowance if they could hold onto that money. Wouldn't that be true?
A. Whoever they are.
Q. Okay. So if that were to happen, perhaps you wouldn't have to be receiving a $1.00 to $1.50 below the Class III price and move milk all over the place if you had more local plants; is that true?

A. We've got -- yeah, absolutely true.
Q. Thank you.
JUDGE PALMER: Any other questions? Yes, sir, it's your turn.
FURTHER DIRECT EXAMINATION
BY MR. YALE:
Q. Let's talk about that last question about bringing in plants. Okay?
A. Sure.
Q. Are there currently plants being considered for being under construction in that marketing area?
A. Yeah. The Hillmark building, 10 million plant, maybe 30 miles from there.
Q. Now, when you say 10 million, is that 10 million a year? Ten million what? Ten million pounds of milk?
A. Raw milk.
Q. Two hundred loads of milk a day. And when is construction expected to be completed on that?
A. We're hoping to take milk, as I understand it, sometime about a year from now, 12 to 13 months.
Q. Okay. Are there other -- are you aware of

any other plants or construction?
A. We are considering -- when I say "we," another joint venture opportunity in the Southwest. Yes.
Q. Based upon current make allowances?
A. Yes.
Q. And would those plants -- where do you project the demand and supply to be?
A. We are well within our bounds now with what we have on the deck to handle the volumes that are coming and that are in place.
Q. You've been able to track the current make allowances?
A. Yes.
Q. Now, there was this indication that if you reduced it by 50 cents, I think was the hypothetical, I think at this point you don't know what percentage of the cooperative that you own, I mean, how much milk goes in? I mean, it's less than 50 percent?
A. It's really irrelevant how much of our own milk is in the plant. I think --
Q. What about producers? What about producers? I mean, what -- how much percentage of -- do you understand the milk would go to

the -- that you would give to proprietary plants?
A. Majority. Vast majority.
Q. You're indicating, just for -- more for information, how far are you from the market, your farm, your major market?
A. Dallas, Fort Worth, about 420 miles. And then Clovis to Dallas right now is 130 miles.
MR. YALE: I don't have any other questions.
JUDGE PALMER: Any other questions at all? No. Thank you very much.
THE WITNESS: Thank you.
JUDGE PALMER: We just have two witnesses. One is coming tomorrow. What about Bob Yonkers, is he here? Or do we want to -- I don't know how long your testimony -- he's not here, is he?
MR. ROSENBAUM: He's here, but at this point we're not certain whether he will testify.
JUDGE PALMER: When will you know?
MR. ROSENBAUM: Well, it depends on the other testimony that comes in tomorrow.
JUDGE PALMER: I just -- I'm

trying to get a fix on when we might be thinking of traveling out. Let me go off the record for a second.

(Thereupon, a discussion was held off the record.)

JUDGE PALMER: Well, we're going to adjourn until 8:00 in the morning.

MR. ROSENBAUM: Do we want to have Dr. Stephenson put on that one number?

JUDGE PALMER: Oh, yes, let's do that. Good thing you reminded me.

You're under oath, Doctor, so just please take a seat.

FURTHER CROSS-EXAMINATION

BY MR. ROSENBAUM:

Q. Steve Rosenbaum from the National Cheese Institute. I think it was my question, so that's why I'm here. It was -- the issue was how much cheese production, nano cheese production is represented by the 53 plants that were in the survey, and we established that the 1.1 billion pound figure you had given seemed likely to be low. Have you had a chance to investigate that further?

A. I did indeed, and I apologize, spare cheese

is -- the correct number on that is about 2.1 billion, not 1.1 billion. And the cheese plants in the study would represent about 44 percent of that volume.

Q. The 16 plants would represent, is that what you're saying?

A. Yes, the 16 plants would represent about 44 percent of that volume.

Q. So the 16 plants that were in the survey are 44 percent of the production of the plants located outside of California that qualify as commercial cheddar cheese plants by your definition, correct?

A. Correct.

Q. Thanks. That's all I have.

JUDGE PALMER: Any other questions?

MR. YALE: Just one follow-up one.

JUDGE PALMER: Yes.

FURTHER CROSS-EXAMINATION

BY MR. YALE:

Q. So then looking at Figure 3 of your testimony, based upon known and observed data of 16 of the 53 plants, you can say that you draw a

line there between 40 and 50, 44 percent, and that cost would be that weighted average of 14.35 or whatever?

A. Could you say that again? Between 40 and what was the --

Q. Forty and fifty percent. Forty-four percent you said, right?

A. Yes.

Q. Based on observed cost. If all you ever did was plot out those 16 based on what you had, that average cost would be 16.45, and that represents 44 percent of your day?

A. It does. Although, remember, they're scattered all the way along the line.

Q. We understand they're scattered, as all of them should be scattered, right?

A. Yes.

Q. Now, that represents 2 cents, approximately 2 cents less than what you said the 50 percent, as I recall, as I wrote down -- and I might have brain cell problems rather than spreadsheet cell problems, but I think you said 18.48 -- or 45 was the 50 percent point cost?

A. And I think you're mixing -- you're mixing data on this. The 44 percent of cheese that I

have in these plants here are not the 44 percent of the cheese that's most efficient or the largest operations.

Q. I understand that. But if you took that 44 percent and stacked it first -- we talked earlier, if you remember, we ranked them by size. We stack those 16 first and then we did the other 53, that if we came down with a running total of production or percentages, that at the end of that 16 we would have identified, with observable data, 44 percent of the production that's represented by the 53 plants, right?

A. Yes.

Q. And based on your observed data, not your extrapolated data, that's a 16.35 or 16.4 cents weighted average?

A. Yes.

MR. YALE: I have no other questions.

JUDGE PALMER: Any other questions?

Yes, Mr. Vetne.

FURTHER CROSS-EXAMINATION
BY MR. VETNE:
Q. I'm just going to try again on what I tried to ask before. I noticed that when you were asked a question of how many of the participating plants were proprietary, you opened your Apple notebook and glanced and was able to answer that pretty quickly.
I'm wondering if you could glance at that same information and provide some information on the geographical distribution of the five large plants that participated in the study?
A. Three of the five plants are in the West.
Q. The remaining two are in the Midwest?
A. Yes.
Q. Okay.
JUDGE PALMER: Any other questions at all? Yes, sir.
FURTHER CROSS-EXAMINATION
BY MR. WELLINGTON:
Q. Bob Wellington of Agri-Mark. Just one question, Mark. Referring to your study, Exhibit 76, page 9, Table 3, the processing cost for nonfat dry milk, you updated the simple and the weighted averages in the footnote, I believe

it was footnote 8 of your testimony, to reflect that one change of that butter -- that powder plant. Do you recall that?

A. Yes.

Q. Okay. And then further on, or earlier today you noted that this particular plant was in the high-cost group.

A. Yes. That's correct.

Q. Wouldn't that change then that weighted average number for the high-cost group, which is currently 0.1617?

A. Yes, it would.

Q. Do you have a new number for that?

A. Yes, I do. It's 0.1659.

Q. Thank you.

JUDGE PALMER: Anything else? I think we're all set. So we'll see everybody tomorrow morning at 8:00.

And you're excused, sir. I believe you're finished.

THE WITNESS: Thank you.

(Thereupon, the proceedings were adjourned at 5:10 o'clock p.m.)

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C E R T I F I C A T E

STATE OF OHIO,)
) SS:
SUMMIT COUNTY,)

I, Anika W. Patrick, a Registered Merit Reporter, Certified Realtime Reporter and Notary Public within and for the State of Ohio, duly commissioned and qualified, do hereby certify that these proceedings were taken by me and reduced to Stenotypy, afterwards prepared and produced by means of Computer-Aided Transcription and that the foregoing is a true and correct transcription of the proceedings so taken as aforesaid.

I do further certify that these proceedings were taken at the time and place in the foregoing caption specified.

I do further certify that I am not a relative, employee of or attorney for any party or counsel, or otherwise financially interested in this action.

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IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at Akron, Ohio on this 18th day of September, 2006.

_____
Anika W. Patrick, RMR, CRR

My commission expires March 13, 2010.

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