

Talking Freight
Rising Fuel Prices/The Effects of Energy Prices on Global Trade Patterns
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Transcript

Presentations

Jennifer Symoun:

Good afternoon or good morning to those of you to the West. Welcome to the Talking Freight Seminar Series. My name is Jennifer Symoun and I will moderate today's seminar. Today's topic is Rising Fuel Prices/The Effects of Energy Prices on Global Trade Patterns. Please be advised that today's seminar is being recorded.

Today we'll have two presentations, given by David Simchi-Levi of the Massachusetts Institute of Technology and Greg Forbis of Wal-Mart. We will then have a facilitated discussion led by Barbara Ivanov of the Washington State DOT.

David Simchi-Levi is a professor of Engineering Systems at the Massachusetts Institute of Technology. Dr. Simchi-Levi holds a Ph.D. from Tel Aviv University. His research currently focuses on developing and implementing robust and efficient techniques for logistics systems. He has published widely in professional journals on both practical and theoretical aspects of logistics and supply chain management.

Greg Forbis joined Wal-Mart in 1989. He has held positions in Internal Audit, Private Fleet, Corporate Traffic and SAM'S Distribution and Logistics. Greg currently serves as the Senior Director – General Merchandise Traffic in Wal-Mart's Corporate Traffic department. In this role, he is responsible for the inbound transportation to Wal-Mart and SAM'S Club distribution centers, stores and clubs. He also has responsibility for the internal less-than-truckload consolidation network, SAM'S outbound delivery to club, and outbound ocean carrier deliveries for Alaska, Hawaii, and Puerto Rico. Prior to joining Wal-Mart, Greg graduated from Missouri State University with a Bachelor of Science degree in Accounting.

Barbara Ivanov is the Director of the Washington State Department of Transportation (WSDOT) Freight Systems Division. Her responsibilities include developing the state's strategic investment plan for the freight system, and introducing the plan to community and regional leaders to gain regional participation and support. She is currently leading initiatives to improve freight system operational efficiencies, build a data framework to monitor system performance, and develop a resilient freight system. The Freight Systems Division also develops information and strategies to reduce the environmental impacts of freight movements, manages the state's freight research program, and administers the WSDOT freight and passenger rail capital programs and operations. Ms. Ivanov is a graduate of the Executive MBA program at the University of Washington.

I'd now like to go over a few logistical details prior to starting the seminar. Today's seminar will last 90 minutes, with 60 minutes allocated for the speakers, and the final 30 minutes for audience Question and Answer. If during the presentations you think of a question, you can type it into the smaller text box underneath the chat area on the lower right side of your screen. Please make sure you are typing in the thin text box and not the large white area. Please also make sure you send

your question to “Everyone” and indicate which presenter your question is for. Presenters will be unable to answer your questions during their presentations, but I will start off the question and answer session with the questions typed into the chat box. Once we get through all of the questions that have been typed in, the Operator will give you instructions on how to ask a question over the phone. If you think of a question after the seminar, you can send it to the presenters directly, or I encourage you to use the Freight Planning LISTSERV. The LISTSERV is an email list and is a great forum for the distribution of information and a place where you can post questions to find out what other subscribers have learned in the area of Freight Planning. If you have not already joined the LISTSERV, the web address at which you can register is provided on the slide on your screen.

Finally, I would like to remind you that this session is being recorded. A file containing the audio and the visual portion of this seminar will be posted to the Talking Freight Web site within the next week. We encourage you to direct others in your office that may have not been able to attend this seminar to access the recorded seminar.

The PowerPoint presentations used during the seminar are available for download from the file download box in the lower right corner of your screen. The presentations will also be available online within the next week. I will notify all attendees of the availability of the PowerPoints, the recording, and a transcript of this seminar.

We’re now going to go ahead and get started. Today’s topic, for those of you who just joined us, is Rising Fuel Prices/The Effects of Energy Prices on Global Trade Patterns. Our first presentation will be given by David Simchi-Levi of the Massachusetts Institute of Technology. As a reminder, if you have questions during the presentation please type them into the chat box and they will be answered in the last 30 minutes of the seminar.

David Simchi-Levi:

Thank you. Welcome, everybody. I'm going to talk about the effect of fuel price on the supply chain strategy. A good starting point is to review traditional business strategies. These business strategies include lean manufacturing, outsourcing and offshoring, just-in-time (JIT), and quick and frequent deliveries. These are all strategies that have been used by companies in the last 10 to 20 years very successfully to reduce cost and cut inventory.

All these strategies focus on two important assumptions. One is the cheap oil price and the other one is low labor costs in developing countries. Unfortunately in the last few years we have seen changes in industry and these assumptions do not necessarily hold anymore.

In fact, when you think about oil price today relative to say what we used to have in 2002-2003, oil price was at about \$25 per barrel, today it's about \$90 per barrel and two months ago it was about \$140 per barrel. Consider labor costs in countries like China and Thailand, labor costs between 2002 and 2008 in China have increased by more than 150%.

Clearly all these changes will have an impact on transportation strategies, supply chain strategies and in general on business strategies and my objective is to try and review some of these changes. So it's appropriate, for example, to look at logistics costs and what I have here in this slide is information on U.S. logistics costs as a percentage of the GDP from 1984 to 2007. As you can see,

between 1984 and about 2002 logistics cost as a percentage of the GDP went continuously down. However, in the last five years we have seen significant increase in logistics costs representative of the GDP and there are four reasons for that: First - rising energy prices; second – limited rail capacity and therefore increases in rail transportation costs; third, as a result of limited rail capacity shippers have to start moving their shipments from rail to the trucking industry resulting in an increase in truck transportation costs; and finally security requirements implemented after September 11, 2001 have increased logistics costs significantly.

You may ask what U.S. logistics costing includes. It includes three important components - administrative costs - mostly the cost of IT, inventory costs, and transportation costs. An important notation about this is that between 2002 and 2007 transportation costs increased by almost 50%. More importantly, inventory costs during the same period of time increased by more than 60%.

We understand why transportation costs increased significantly by about 47 or 50%, but why did inventory costs increase so much, even more than the increasing transportation cost? There are a number of drivers. First, offshoring – we see longer lead times which imply more inventory. Second, demanding retailers are asking for a higher level of service which requires manufacturers to add more inventory, and finally the increase in transportation costs drives inventory level up. Why? Because as transportation costs increase, what we see companies do is try to take advantage of economies of scale by shipping large quantities. Shipping large quantities is great from a transportation cost point of view but is problematic from the inventory management point of view in that what is nicely illustrated with this statistical data that has been collected over the last 23 years.

And so my objective as we talk about the impact of oil price is to understand the impact of oil price on transportation costs, on the network strategies that companies use, on transportation strategies, and finally on supply chain strategies. Towards the end we will try to combine the analysis and try to understand the impact not of only oil price but also the impact of changes in labor costs in developing countries.

And so my starting point is to focus on transportation costs. What I did here, I collected data over a period of about 15 years on crude oil price and US diesel fuel price paid by consumers at the pump. As you can see, these two lines move together which means that as crude oil price change, the price paid by consumers at the pump also change and this is, of course, not surprising.

What I would like to do is to ask three questions. The first question is can I use information about crude oil price to predict what consumers will pay at the pump for US diesel fuel price? If I can do that, then I will try to ask a question can I use information about crude oil price to predict the impact on transportation costs paid by the shippers to the carriers and if I can answer that question, I will ask can I use information about crude oil price to understand the impact on the network strategies that companies should use.

So right now I will start with the first question which is focusing on trying to use information on crude oil price to predict the impact on consumer price for US diesel fuel. This is nicely illustrated in the next slide where you can see on the X coordinate the crude oil price and on the Y coordinate you see diesel retail price in cents per gallon and you can see the correlation between the

two is very high. You can also see by looking carefully at the analysis that for \$10 increase in crude oil price we will see on average \$0.24 per gallon increase in diesel retail price. Saying it again, this graph suggests that for every \$10 per barrel increase in crude oil price we will see on average about \$0.24 per gallon increase in retail price paid by consumers for diesel fuel.

What does that mean? Well, we talked to a number of logistics companies and here is what we found. We found that the standard fuel surcharge methodology that many of these companies use is to increase transportation costs by one cent per mile for every six cents increase in diesel fuel. This implies, therefore, that for every \$10 per barrel increase in crude oil price we will see about \$0.04 per mile increase in transportation rate. Well, you say four cents per mile increase in transportation rate is not that high, but if you remember that last October crude oil price was about \$75 per barrel, a few months ago it was at about \$140 and so when crude oil price goes up from \$75 to \$100, transportation cost goes up by 6%. If crude oil price goes from \$75 per barrel say to \$150 per barrel, then we see 18% increase in transportation rate. Now that makes a big difference on the type of transportation strategies that companies use.

You may ask what exactly is the impact on the network given that now we understand the impact on the transportation rate paid by the shippers to the carriers? I want to focus here on three tradeoffs. What I claim is that as oil price increases (and to put this in perspective compare oil price today to oil price say in 2002 or 2003) I'm going to argue that we will see companies trading off oil price for inventory cost, for facility cost, and for manufacturing costs and to illustrate this I will use a case study that involves specific companies.

This company is a manufacturer of consumer package goods. The company has three manufacturing facilities, one in Philadelphia, one in Omaha, and one in Mexico. Not surprisingly the Juarez Mexico plant is the low cost production facility. The one in Philadelphia is the most expensive one in terms of production costs. There are about 900 aggregated customers in this network and on the transportation side the company uses the following strategy.

Inbound transportation uses commercial truckload (TL) vehicles and the outbound the company is using a private fleet whose capacity is about half the capacity of the TL carrier. The objective of this case study is threefold. First, to determine the best number and location of distribution centers, as well as assignment of customers to those centers, second to allocate production capacity to the different facilities – should we split demand equally between the different manufacturing facilities or maybe the Juarez Mexico facility should be in charge of satisfying most of the demand because this is, after all, the low cost manufacturing facility? The third objective is to understand the impact of changes in oil price on its distribution and production strategy.

Here is the network visualization. The size of the dot on the map is proportional to the amount of the demand in different regions. You can see the three manufacturing facilities, Juarez Mexico, Omaha and Philadelphia. And you can see that basically these companies have customers basically all over the country and so what I would like to do is to start the discussion by talking about tradeoff and then we will do a more technical analysis of the tradeoff that this company is facing.

Clearly as crude oil price increase, we see the transportation cost becomes more important relative to inventory cost, relative to facility cost and relative to production cost. What does this mean? As

oil price increases, it becomes more and more important to reduce outbound transportation cost. How can we reduce outbound transportation cost?

This is the cost from the distribution centers to the customers, to the retail stores. You can reduce outbound transportation costs by adding more distribution centers. While adding more distribution centers implies higher facility costs, but it also demands more inventory. That's why I say we see tradeoff between oil price and inventory holding costs and facility costs.

What about the tradeoff between oil price and production cost? As oil price increases, it becomes more and more important to move production closer to market demand. This basically means that cheaper manufacturing in Mexico is offset by higher transportation costs, right? So this is clearly intuitive tradeoff.

The question is what really happens in the supply chain and you can see that in the next two slides. Here in this slide I am looking at technical analysis of the tradeoff between oil price and inventory, carrying cost and facility cost. The map on the left represents a supply chain strategy, the network strategy that this company should use when oil price is at \$75 per barrel. You can see that when oil price is at \$75 per barrel, this company needs five distribution centers. However, when oil price goes to \$200 per barrel, the structure of the network is completely different. This company needs a total of seven distribution centers.

I did a sensitivity analysis to understand the impact of oil price on the distribution strategy that this company needs and you can see on the top the different scenarios. I analyze the network when the oil price is at \$75 per barrel, \$100 per barrel all the way to \$200 per barrel. For example, you can see that when oil price is \$75 per barrel, \$100 per barrel all the way almost to \$150 per barrel, this company needs five distribution centers, one in Atlanta, one in Chicago, one in Dallas, one in New York and one in Las Vegas. It about when oil reaches \$150 per barrel that something changes. I call this \$150 per barrel point the tipping point. This is the point where the company needs to change its distribution strategy, close the distribution centers warehouse in Las Vegas and replace it by three distribution centers, one in Albuquerque, New Mexico, one in Los Angeles, California, and one in Portland, Oregon. You can see that the structure with seven distribution centers remains identical for large values of crude oil price.

When I talk to a lot of companies, the question that typically I ask them is do they know their tipping point, because if your tipping point is \$200 per barrel, for example, that's one thing. If your tipping point is \$100 per barrel, you may be now involved in reconfiguring your supply chain. For this specific company its tipping point is about \$150 per barrel and the company is taking some action to prepare itself for this type of oil price.

What about the tradeoff between oil price and production cost? On the left-hand side you can see the production strategy when oil price is at \$75 per barrel and you can see that in this case this supply chain needs to set aside about 75% of total demand from the low cost manufacturing facility, from the facility in Juarez Mexico. When oil price goes up from \$75 to \$200 per barrel, you can see that the optimal production strategy is completely different. The Juarez Mexico facility reduces capacity and satisfies only about 50% of total demand and the Omaha facility satisfies now about 25% of total demand. The reason for that is because the Omaha facility now satisfies most of

the demand in the Midwest and significantly reduces transportation costs. So this illustrates the nice tradeoff between oil price and production costs that exists in this network.

You may ask well, what is the impact on total cost for this company? Again I did a sensitivity analysis of impact on total costs as a function of oil price and you can see, for example, that as oil price increase from \$100 per barrel to \$150 per barrel, the total cost will increase by about 3%. To put this in perspective I should mention that I started doing this type of analysis with a typical manufacturing company about two, two and a half years ago. At that time oil price was at about \$50 per barrel and the company was wondering what will happen when oil price goes up all the way to \$100 per barrel. This is a company whose total supply chain cost is \$40 billion a 3% increase in their total cost is more than \$1 billion in direct impact on the bottom line and so this clearly gets the attention not only of the logistics and distribution people, but this really gets the attention of the people who run this company.

So this brings us to talk about the impact of oil price first on transportation strategy and then more generally on supply chain strategies. Let's start with transportation strategy. I claim that we will see oil price change three important impacts. The first and we are already seeing this, is companies changing the strategy from just in time delivery to better utilization of transportation capacity. How can a company better utilize transportation capacity? There are two ways, first shipping larger quantities which implies more inventories and second, efficient packaging to improve truck utilization and, of course, this allows them to reduce transportation costs.

We also are going to see changes from quick delivery. This is a strategy that many companies have used to reduce inventory level to cheaper and sometimes lower transportation costs and, in fact, we have examples of countries that in certain regions started moving from air to ground and from truck to rail.

Finally I predict we will see a move for many companies from dedicated resources to shared resources. The reason for that switch is because companies can consolidate shipment for many vendors and truck utilization. These logistics companies can also reduce nonproductive movement in the supply chain and so these are things that you can achieve with shared resources and not with dedicated resources and the same is true for consolidated warehouses.

Here are a few examples. Last year S.C. Johnson reported its truck utilization project saved the company about \$1.5 million and cut fuel consumption significantly. The trick was to start mixing loads of different product on the same truck, loads of product that typically were shipped separately, such as glass cleaner and storage bags which better utilized their truck capacity.

ES3 has a giant distribution center in York, Pennsylvania, where multiple manufacturers, many times competing manufacturers, store their product. These products were shipped together from competing manufacturers on the same truck to various retail stores and, of course, the reason they do that is in order to cut transportation costs significantly. As a result, if you look at the website of this company, you will see the report on significant savings achieved on the transportation costs side using consolidated shipment and consolidated warehouses.

What is the impact on supply chain strategies? I will emphasize three impacts. First as oil price increases (again just compare 2002 and 2003 to 2008) we see significantly more inventory. We also see more and more emphasis on better service. What do I mean by that? Well, what do companies do when service is low? When service levels are low, companies expedite. When transportation costs are relatively low, expediting costs is not a problem. As oil price increase, expediting costs becomes a big issue and one way to address this is to achieve a high yield service level by better managing your supply chain.

And finally we predict, I predict, that we will see significantly less offshoring to reduce the total landed cost. The total landed costs is a cost associated with the production and delivery of product across the supply chain. And this is already happening. This is not something that we predict will happen 5-10 years from now. Here is one example: TV manufacturer Sharp recently announced that they started moving manufacturing facilities from Asia to Mexico to serve its customers in North and South America and there are two reasons for that. One is to reduce transportation costs and the other one is to keep the time to market short. When the lead time from Asia to North America is about 40 days, Sharp is losing about 15% of the product price just because of the long lead time. Moving manufacturing to Mexico reduced lead time from 40 days to about seven days and therefore, has a big impact on bottom line. So questions that you may ask, for what industries, for what type of product are we going to see move from offshoring to inshoring. Let me suggest three moves to help think about that.

On the X coordinate I have what I call transportation impact. Here I refer to how bulky the product is and I refer to the impact of lead time on the price that you can charge like in the case of Sharp. I also refer to the ratio between transportation cost and the sales price.

On the Y coordinate I look at the cost of moving the infrastructure. When the cost of moving the infrastructure is high it will be difficult to change your sourcing strategy, but when it's low it may be possible and so look at box one. Box one represents industries where the transportation impact is high. We see this happening for appliances. We see this happening even for furniture. Even when the transportation impact is low but the cost of moving the infrastructure is low as well, we see movement.

This is true, for example, for toys as I will illustrate in my next slide. Where we don't see movement and we don't expect to see movement is where transportation impact is low and the cost of moving the infrastructure is high. Under these conditions it will be hard to justify a movement from offshoring to near shoring. This is true around PCs and mobile phones and the reason for that is because the infrastructure especially the supplier infrastructure is very extensive and it's very difficult to move that infrastructure.

So here is an example of a company with a product where the transportation impact is low, the cost of moving the infrastructure is low and we see movement. Steiff is a German manufacturer of toys. Many of you know about this company. About five to seven years ago the company moved about 20 percent of its production to low cost country and the objective was to cut costs in order to compete on price, but recently in the last 12 months the company started moving production back to Indonesia, Portugal and Germany.

There are two reasons for that, one, quality problems and the other one is according to the company high transportation cost. So I want to summarize the analysis by emphasizing that it's really not only about oil price. We talked about oil price, but it's also about significant changes in labor cost. For example, if you look at what happened between 2003 and 2008, in terms of average annual wage in China it increased by about 19% year to year in the last five years. In the US only by 3%. In Brazil by 21% whereas in Mexico by no more than 5% year to year.

So clearly the increase in China and Brazil is significantly faster than the increase in the US or in Mexico. Again driving manufacturing to at least consider moving closer to market demand. And so I can suggest the framework to think about this that allows you to get an insight into what's happening in industry.

On the X coordinate I have information on transportation costs per unit. This may be proportional to the weight or volume of the product and on the Y coordinate I look at production costs per unit. You can put this into two areas. "A" represents a product with a ratio between production cost per unit and transportation cost per unit is very high. When this ratio is very high and this is true, for example, for light product, when this ratio is very high, you expect that this product will be producing low cost countries like in China, Thailand. "B" represents a product where this ratio is very low. When this ratio is very low and it is low for heavy product, then you expect that this product will be produced close to market demand say even in the US and for region C we expect somewhere in between perhaps Mexico or perhaps other countries in Latin America. And indeed we find this in other case studies. This has allowed a manufacturer of product like hardwood, ceramic tile, carpet and we wanted to understand the impact of changes in transportation and labor costs, just a quick insight on this company.

With more than 30,000 different products, production costs can vary from less than \$1 per unit to about \$300 per unit if production is in the US. Weight varies from below one pound to 5,000 pounds per unit. There are three manufacturing strategies we had to consider - producing in the US, in Mexico, or in China and a combination of transportation modes.

You can see here the sourcing strategy in 2008. If you look at the different colors, blue represents products produced in China, yellow in Mexico and green in the US. On the X coordinate I have the weight of the product which is proportional to transportation costs and on the Y I have production costs in the US. You can see that only the light products are produced in Asia. Many products are produced in Mexico and many are produced in the US and in the US these are the heavy products.

You may be interested in comparing this strategy to the strategy in 2003. Before I show you the difference between the 2003 strategy and the 2008 strategy let me just mention that in the US during this period of five years labor costs increased by a total of 15%, in Mexico by 23% and in China by 144%. Transportation costs increased by the number that we talked about earlier. You can see here the impact on ocean freight and truckload and rail.

And here it is. On the right-hand side you see the strategy for 2008 and on the left-hand side the strategy for 2003. You can see that in 2003 almost everything is produced in China, whereas in 2008 many of the products have moved from China to either Mexico or even closer to market demand in North America.

J. Symoun:

Okay. Thank you very much for a very interesting presentation. Again, if you do think of any questions for this presentation, please feel free to type them in and we'll address them at the end. We are going to move on now to Greg Forbis of Wal-Mart. Greg, when you're ready, you can begin.

Greg Forbis:

Thank you, Jennifer. David, nice job. Well, I'm Greg Forbis. I work with our corporate traffic side which is primarily focused on the inbound movement of freight into our distribution centers, stores and clubs but I'm also a part of our corporate transportation department which is also one of the largest private fleets in the United States.

So what I want to talk about today is give you a little background on Wal-Mart stores from a procurement standpoint and our reach of operations from a global perspective and then focus specifically on transportation, what have we done in corporate traffic working with our suppliers and with our merchandising teams to help reduce the offset of rising fuel prices that we've seen over the last year as well as what our private fleet has done to and help offset those costs.

So you'll probably see some similarities between David's slides and mine and some things we're working on are very similar to some things that he's talked about and I think that go with each other very nicely.

So from the first slide this is really where we are procuring globally today - the United States, Canada, South America as well as Asia. So you can see we've got a pretty broad brush of different places where we are buying product from today, some locally sourced where our stores are and some where we do not have stores and/or clubs today.

The second slide gives you an idea of our distribution center impact that we have globally. We've opened three additional distribution centers in the last year so there are actually 225 across the world with the biggest footprint being in the United States today.

So you can see impact that we have from a distribution center perspective. And then from a store and club internationally, we're a little over 3,100 units as a company globally. That includes we're in 14 countries today. We do have one joint venture operation in India which is with the Bharti enterprises and we continue to grow in our division internationally.

Domestically we have a little over 4,100 units including stores, clubs, neighborhood markets and just recently we opened four smaller grocery store operations in the Phoenix market. It's over about eight million truckloads in and out of our stores and clubs and distribution centers of which our private fleet moves about 50% of that on the inbound side and 100% of it on the outbound side.

Now what I want to transition into is you've seen a little bit of our store and club operation and our impact globally. What I'd like to touch is next is understand how our distribution flows work and that will lead me into some of the things that we're working on. This is a snapshot of what our import flows look like, kind of pictorial. It's a little easier to understand.

Obviously as we're procuring from those countries I showed you on the previous slides all of those are coming via ocean over to the United States. We have six ports of entry today where we're bringing goods into from L.A. Long Beach, Seattle, and one inland operation in Chicago which the containers come in intact via the railroad from L.A. to Chicago. We operate in the Port of Houston, Savannah, Charleston and in the Port of Norfolk. So today those vessels come in. Our containers are offloaded into our import or storage facilities.

About 30% of that product is stored and about the remaining 70% flows right on to our distribution centers. We have a variety of methods to move it between the import facilities to our distribution centers. We use common carrier, truckload carrier and then we also use our own private fleet and once it's in the regional distribution center network and then it moves onto the stores via our private fleet.

The snapshot of what our domestic network looks like, very similar. The only piece that's really missing is the ocean piece. This is the remainder of our product flows domestically. Pick it up from a supplier manufacturer into our distribution centers and on to our stores.

This is just a snapshot of our supplier network and you can see from the red circles or really the heavier ship points that we have with the concentration of that really in the Midwest, but we also have two large facilities, a large supplier base that ship out of southern California as well as the Pacific Northwest today.

So what's really our focus as it relates to reducing the impact of freight costs or fuel costs today and we have kind of a really five pronged approach we take internally within our corporate transportation market and as we have focused on the sustainability and you saw from David's slides the impact of transportation costs and inventory costs on just total Logistics cost overall, we're now really trying to focus on how do we reduce those costs and have challenges that our leadership put out amongst us, how do we reduce the freight costs?

The first real approach we've taken is intermodal. Today most of our intermodal movements is off the West Coasts and the Pacific Northwest to points east of the Mississippi are all moving intermodal today and they have for quite some time. That's proximately about around 20% of our freight spend has been intermodally.

We have seen change this year a lot more intermodal movements on the eastern half of the United States, for example, Chicago into the northeast which typically were trucking markets, over the road markets in the past, Chicago to Florida, Texas to Florida. Those markets in the past have been typically over the road but as we modeled those pricing in our bids, we were able to also model the impact of the intermodal fuel surcharge which is about 50% of what the truck fuel surcharge is and allowed to us make some of those movements now become more cost effective with prices of fuel in the \$4 range.

Ship point optimization is really an alignment of our ship points of our distribution centers and I'll talk a little more about that in shipment optimization along with packaging in the next few slides.

The last piece around slide chain precision is as we have reduced inventory levels in our stores and clubs in distribution centers over the last couple years, we are really focused on flowing the product in closer to when it's needed. For example, Halloween costumes typically don't sell the first part of October. A lot of folks go out and buy the majority of their Halloween costumes the last week in October and so we want to work with our suppliers and our merchants so that we have some presence of Halloween costumes early in the month when we know those folks, that certain percentage that come in and buy them, but really put the majority of that merchandise into the store right before the event happens so that we're reducing our inventory and carrying costs as much as possible.

So reducing transportation expense, there's really two ways to do that is obviously minimize the distance. The closer you are from the supplier to our distribution centers, the better off we are. We're able to react a much closer to out of stock demand, but we also reduce the lead time and that's the most significant piece in our supply chain.

We can do this a couple ways. By adding additional ship points into the mix and I've got a couple slides that will talk to that a bit later and continue to focus on reducing that. Then we also look at optimize our shipment size. Today we move a variety of methods of freight from small package to truckload to even we touched on intermodal and we've been able over the last year to year and a half is to really make modal changes to move some of those shipments that were shipped in small packages before to maybe ordering less frequently and now moving those into truckloads.

This is a great example and probably one very similar to what you saw on David's slide. This is one of our analyses that our merchandising logistics team did for a buyer. We pick up the merchandise domestically in Long Beach, California, and then ship to all 42 of our regional distribution centers. As you can see we ship an average distance of a little over 1,826 miles with some significant lead times in the equation. For example, to ship to Miami or Ft. Pierce, Florida it is probably 15 days to 20 days by rail intermodally versus a closer end ship.

In this scenario we were able to work with the supplier and they were able to open a facility in Dallas, Texas, so we've now reduced the average distance from over 1,800 miles down to 784 miles. We're now within, you know, five-day transits versus 10 to 15-day transits in a lot of cases depending where the facility is. We're now much quicker to our shelf for our customers, so we can be in stock when our consumer comes in to shop. We've also reduced the lead time and any time you reduce the lead time you're obviously able to reduce inventory. The most important part is we're able to react much quicker to out of stocks. If you come into one of our stores or clubs and it's not on the shelf, that does not make you happy and we want to make sure we have happy customers that continue to come back. The other piece that we focused on as a group is really looking at shipment sizes.

We have over time our system has changed - the way our suppliers enter shipments into our systems for us to assign a truck to and move has been able to be manipulated over time and we found great examples of just being able to maximize the trailer cube, you know, put two more pallets of water on the back of the trailer. We're still within the legal weight limits of what the tractor can haul, but at the same time we've reduced about every two pallets you add to a truck over 10 trucks you're reducing a truckload. So we're able to really focus on that.

And over time as our supply studies have changed, equipment has changed - we've been able to add more volume to that truck. I'll give you a great example. We were in southern California about three weeks ago visiting one of our consolidation facilities and we had a toy manufacturer that had built a special display for us and as we were looking at the trailers coming inbound to our distribution center we noticed that it was about one pallet layer nose to tail. We started making inquiries and talking to the supplier and the supplier said yes, the merchandise is stackable. So we were able to double stack that and immediately cut our transportation costs in half which is significant on the freight spend that we have over time.

Second piece that we've done is synchronize order days and I think you saw from David's slide he referenced a distribution center in York, Pennsylvania that has multiple suppliers. The way our replenishment system was working we would drop an order from Cullman, Alabama, for example, from southern California that order would drop for supplier one on Monday, for supplier two on Tuesday and for supplier three on Wednesday. Now we're shipping three less than full truckload shipments when we can synchronize all those order days by department and by supplier and now all those orders, all the Cullman, Alabama orders drop to southern California on Monday. We're able to bump up from LTL type quantities into truckload quantities and move the product much quicker and much faster.

We've been able to work with our merchants on lead time settings within our system and obviously as you increase lead time that puts more safety stock into our distribution networks and as you reduce them, it also takes inventory out, but the biggest piece that impacts us is the variability. Today we may ship less than a truckload and tomorrow we ship truckloads. So you have a five-day transit and today you have a two-day transit. So we've been able to work with our merchants and our suppliers and make sure we have accurate lead times in there and so that they can accurately put the right amount of inventory and the location it needs.

And something very simple is filing weights and dimensions. We had a supplier calling in pallet quantities, calling in their case dimensions. It was about 50 cube. It equaled about one pallet and as we started asking questions we found out that they were actually shipping in one case that weighed about three pounds. It was dart tips I believe, and they were shipping those at LTL quantities. So we're paying LTL carrier minimum when we could be paying a small package fee for those items.

The next probably biggest impact that I believe we have seen from a transportation perspective, it's really had an impact I believe across the United States and Wal-Mart has only begun to touch the surface from what we're working on, is the packaging initiative and the reduction in package that we've had over this year. We've just started and here are some examples of things where we may have eliminated resin, but hamburger helper is probably one of my favorite examples. Something as simple as taking the noodle of hamburger helper, instead of shipping it curled up, they're manufacturing it flat. The noodle still curls when you cook it but we're able to take a 20% reduction in the carton size, 11% reduction in greenhouse gases by taking 500 fewer trucks on the road off each year and that's just one example, but you've also heard items where Unilever and Procter & Gamble have taken the water out of their laundry detergent, making it a more concentrated formula and reduce the size of the packaging so that now you can actually hold more quantities on the shelf

versus having some in the back stock and some on the shelf but we've also reduced, you know, over 25 to 30,000 truckloads just into Wal-Mart stores.

But as Wal-Mart focuses on this with our suppliers, other merchants and other retailers are also seeing the benefit of it. Procter & Gamble doesn't only sell to Wal-Mart from that perspective. So whether you're talking about the transition in technology from Boom Boxes to iPods, from tube to flat panel TVs, the challenges are all the same. We saw when we went from tube TVs to flat panel TVs we were shipping more truckloads until our folks starting digging into it and found out maybe we could double stack it here or turn it this way and get more on the pallet and we've been able to reduce the amount of truckloads that transitions were shipping.

Packaging has an impact and more than they had in the past, are suppliers are focused on it and continue to see the impacts of that on freight volumes at the same time less trucks helping us to save fuel costs in the long run.

Next I'd like to touch on kind of the back half of what have we in logistics have done from an environmental sustainability standpoint with a real focus on fuel efficiency in our private fleet. I'll touch a little on what we've done on the distribution center of our network but more focus will be really on the fuel.

So our goals for logistics surround sustainability, a 25% reduction in carbon footprint in our existing facilities by 2012. A 30% reduction in the new prototypes we're building in 2009 going forward and those two items also apply to our stores and our clubs that we're building.

Material recovery in all of our return center locations; we have about 10 facilities where we take back store returns which would be damaged products or where merchandise wouldn't work. Some of that stuff in the past went into dumpsters and straight into the landfills but we've been able to recover items such as plastic and metals from those items and been able to sell them off into markets where they've been needed.

Then really the piece that was our biggest challenge was around fleet efficiency, that we would improve 25% our fuel efficiency in our private fleet. That should actually say by 2009. I apologize for that error on the slide and then by 100% in 2015.

Some quick wins we've had across the network. We talked a little bit about the recycling initiatives that we've done and we've done a lot of stuff in our distribution centers. We've done some hydrogen cell testing for lift trucks in a couple of our facilities and that's an ongoing test. We've seen good results in some places and some places not as good. So we continue to work with the manufacturers to improve the technology and help us get better.

We're an EPA SmartWay member and Clean Cargo - Sustainable Global Transportation Group member. We've implemented auxiliary power units and I'll talk a little more about that on our truck fleet over the past year. We saved over 100,000 metric tons of CO2 and \$25 million saved annually in just the price of fuel we've had to purchase.

A couple things our distribution centers are folks have been working on this year: We're looking at more energy efficient conveyor systems. We have 120 facilities in our network of which about 60 of those have some sort of mechanization in them, so we're looking at how to take out the energy use of that facility by working more effective engines. We're working on lighting retrofits. We've gone in and changed the lighting to more energy efficient lighting within our distribution centers that actually put off more light and make it a better and safer environment for our associates to work in. We've added skylights into several of our distribution centers. We've looked for more efficient ways in recycling and how we can recycle energy back through that unit so we don't use as much to cool the building as we need to.

The next slide, this is an example of some of the things that we're working on around our fleet and how did we achieve the 25% improvement in efficiency and how do we get to 100% efficiency in our fleet by 2015. We've been engaged with several trailer manufacturers over the past year to really look at how do we close the gap between the back of the cab of the tractor and the nose of that trailer, whether that's different aerodynamic packages on the tractor but you can tell by picture we have some skirting put on the bottom of the trailer and then some ferrings on the back of the trailer to help reduce wind resistance. Trailer aerodynamics can improve MPG by as much in your fuel efficiency by about 60% in some cases, so we continue to focus on different ways.

How do we lighten the trailer, take weight out of the trailer? So we've done several things as it relates to trailer innovations. Tires, we've started using nitrogen to fill air in our tires versus air. We've picked up a couple percentage points in that. We've also focused on more fuel efficient tires that would increase the tire life and it's given us a lift from a fuel efficiency standpoint.

The next one is probably where we've seen our biggest win on improvement in fuel efficiency. The auxiliary power units, we're placing them on all of our truck over the past year and about a year and a half ago is when we finished the installation. They're standard on all new trucks now that we bring into our fleet. We're proud that we are one of the first private fleets in mass to really go after the auxiliary power unit because we could calculate a payback and return on our investment on them and knew that we could see savings.

For those of you that don't know what an APU is, it's an alternate power source so that when the driver is on the road taking a break or having to sleep in the cab of their tractor and so on, it's providing a comfort for the driver. So it runs the heating and cooling system and any electrical power. A lot of the drivers have a small refrigerator or microwave in their cab that they can cook and eat with. So this really helps that. The other thing, the APU is really good for us to support our corporate no idle policy. We have a policy at all of our distribution centers and stores where our tractors as well as third-party carriers visiting us, we ask them not to idle their truck. If our tractor idles more than three minute the APU kicks on and shuts down the engine from that perspective.

This chart shows where we hope to get to by the end of this year. We're actually at a 21% efficiency. We've seen a 21% improvement in our fuel efficiency this past year and we've identified about another 7%, almost 8% in items that we can continue to gain efficiencies out of whether it's fuel efficient tires, the APU right at 8%. We've done some different testing with additives which gives us close to 2%. We've reduced the weight on the tractor and the trailer and really focused on aerodynamic packages around our truck and trailer. We think we can get another almost 9%

improvement and then our Prostar truck we run today is about 4% and most of that comes in the gearing ratio as well as aerodynamics of the vehicle.

So how do we get to 100% fuel efficiency by 2015? We think one of the big ways that we can get there is by hybrid diesel technology and you can see the different components that make up the hybrid diesel. We think this is really a brand-new area for us to get into, but we believe that there's a lot of opportunity. You've seen the growth with hybrid vehicles across the United States and we think this could get us anywhere from 25 to 35% improvement in fuel efficiency.

We're focused on aerodynamics again. We talked about new trailer design, new truck platform. If you have had a chance to look at any of the transportation magazines lately, you'll see a lot of manufacturers are touting the benefits of their aerodynamic package they can offer on their tractors and trailers and just some of the last other initiatives that we believe can give us some additional fuel efficiencies, obviously where we can make changes to the length of the tractor trailer combination within the legal limits, we want to do that. Where we can make adjustments on weight of the vehicles where we're running late equipment or running day cabs without sleepers and can that help us pull a little bigger payload still within legal limits that can then allow us to take a truck here or trailer here, a load of the street.

In a lot of cases we have not elected as a company to turn down the speed of our tractors. Our drivers have actually come to us and said hey, a couple miles per hour off. I think we're governed at 63 miles per hour now and they said take another mile or two off my tractor. I don't need that top end and that's obviously helped from a fuel efficient standpoint and then spending time with some of the best truck drivers in the world and which we believe our fleet drivers are today, just training and educating them on different things that they can do as a driver to continue to focus on reducing fuel efficiency.

A couple things from an operational standpoint I think that are important to understand. Not only are we trying to put more on the trailer, on the inbound side as we ship from our distribution centers to our stores, we partnered with our DCs and really are helping drive improvements in cartons per trailer. So we've actually seen about an 8 to 10% improvement in how many more cases we can get on a trailer which has obviously reduced the number of loads and the number of miles we have to run as a company.

Our average distance from our DC charge stores is a little over 120 miles. So if we've not added any new DCs in the last couple years where we can reduce that inbound distance from our suppliers, we'll do it. We've actually run some double programs in New York on the throughway and down in Florida and partnering with the FEC we've run some of those programs in the south.

This picture is just a snapshot of our hybrid technology; I'll talk a little bit more in detail. It's a partnership with Eaton and Peterbilt we've embarked on over the last year. Today we tested the tractor. It's gone through two or three different prototype changes. We believe we can get anywhere from about 7 to 8% improvement in fuel efficiency with this tractor. Today we have a five-truck test in three different states, California, Texas, and Georgia I believe are the states where we have these trucks at. Just trying to test them in different climates and different terrains to see how they perform and really benchmark those studies. By the end of this year we'll have taken

possession of 25 hybrid diesels that will be running in our network to continue to see how well they do.

And then just really to wrap up, our goal for our private float is a 25% improvement. We've got about 4% to go. In our company we try and set big goals and where they may be attainable or not, we'll swing away until we get a hit and do whatever we can and a safe efficient supply chain that is really environmentally sustainable reducing congestion, emissions and costs to our company and our customers. Ultimately we can put that money back into the cost of the product and be able to reduce costs at the shelf level for our consumers.

Really sustainability for Wal-Mart has really been a large return on investment for us, for us as a company but not only to our customers. So I thank you for your time today, Jennifer, and I will turn it back over to you.

J. Symoun:

Thank you, Greg, another great presentation. I'm going to turn it over now to Barbara Ivanov from the Washington State DOT who will give the State DOT perspective. There are no slides for the presentation, so I'm going to bring back up our introductory slide. So, Barbara you can go ahead.

Barbara Ivanov:

Thank you, Jennifer, and again thanks to the speakers for some very logical and thoughtful presentations.

I can tell you what we're thinking about in Washington State based on the changing price of fuel. I sent out a couple articles that helped confirm that we're in a period of wild gyrations, not only regarding fuel prices but other conditions.

So first to state the obvious. As agencies whose primary source of revenue is tied to a fuel tax, whether the economy slows and there's fewer goods shipped or the economy picks up and you've got more goods shipped and companies making strategic initiatives to drive down their use of fuel, I think we can with high probability assume that we're going to have continued pressure on revenues and that kind of discipline isn't all bad.

So on to the what can we do? What's our response category I see James Schulz noted that in the chat room here, what should we do to reduce costs? I think you always want to manage what you can actually control. So before we think about policies that are way outside of our control, let's start with what we can do and the optimal strategy is one I believe that provides near term value to our shippers and carriers at the lowest cost. Okay? And some long term flexibility because we can't control long term conditions.

So the goal again of freight systems as understood by Washington DOT is to support comparative advantage for our region, our state's freight dependent industries right? So that means we're completely mode neutral. I have no interests, don't really care on how that happens but we're looking at strategies that provide comparative advantage for those freight dependent industries.

I would say then you need to know who are those freight dependent industries in your region, in your state and we don't want to work blind. We want to develop a customer intelligence system that after identification of those industries provides us with ongoing information about their performance requirements and the performance gaps that they see existing on our state or our region's freight systems.

So that optimal strategy again to provide near term value to shippers and carriers at the lowest costs is going to focus on operational efficiencies first and when you're looking at operational efficiencies and I think my colleague at Wal-Mart said it very well, very specific strategies that they can control that drive out waste. Not only does that cut costs, but it produces some environmental benefits that were again great public benefits.

So what are the causes of operational waste that a DOT or MPO controls? Number one - we think its poor information on current or future road conditions. And I know Tony was going to reference this when he speaks, but the need for DOT's and MPO's to develop situational awareness across their organizations that then is fed into some sort of decision process and then pushed out through a freight notification system spelled out whether it's Wal-Mart or Safeway or your local wheat farmer or a manufacturer, they know in realtime what the road conditions are and what construction plans or what sort of predictive information we can give them so that they can plan their shipment moves most efficiently. I'd say that's one area where we can continue to do better work.

I think another one is the lack of regional corridor standards. On the West Coast our primary highway corridor is I-5, runs north/south really through the three West Coast states. We do not have currently for trucking companies one-stop permitting, integrated truck traveler information, again realtime information about access to truck parking, knowing where there are slots available or not. So there's lots of good steps we could make as we move forward and they're not always tremendously expensive.

My other piece of advice to myself is don't wait for a federal grant. I will say that in terms of this issue of information, that again provides realtime road information and predictive information to shippers and carriers, many of you who have the misfortune to be on my e-mail list know that our freight lists that we developed in the last winter storm season was run on my desktop, you know, up in the attic in our transportation building and so start with what you have, right? Which is internally again developing that situational awareness.

If you're running a big state like California or Texas and even in our small state of Washington, knowing what's happening all over the state and every highway and every region means some shift in priorities within our agency and then developing a reliable robust freight notification system so our customers will have that again in realtime I think is something that is a fairly low cost way for us to support this initiative to cut waste in the system.

And I think the last on the long term again comes back to this issue again, don't work blind. You're trying to lower our risk, right, long term of investing other people's money, public money, in corridors or projects that aren't going to provide much payout 15-20 years from now. So in order to do that we talk about scenario planning, long range planning and thinking through developing strategies that are going to have payoff in various scenarios.

With that I will turn to my colleague, Tony, who has again thought about this in a much grander scale and worked with many at the state.

Tony Furst:

Thank you, Barbara and thank you, David and Greg, for two really fantastic presentations.

I agree with Barbara on the tactical state but when you look at the entire nation you almost have to shift to the strategic level and remember what drives freight movement is the demographics and demand and on the other side, of course, the production centers that produce the goods that are consumed by the population.

So when we look at where the demographics are in way of their major import points are to the US, you can identify a whole host of national strategic corridors to which the freight is moving. At the national level is where we need to be focusing our interest is where are the corridors and how with can we make sure the movement of goods is as efficient as it possibly can and when we think about the corridors it's not just from the highway side but from a multi modal perspective which is the most efficient mode of transit to move the goods.

It's interesting when you looked at David's slide when they decided to move the distribution center from Las Vegas to Portland that was at a tipping point of about \$150 a barrel but all of a sudden the freight patterns in Las Vegas changed remarkably and the same in Albuquerque. I don't know if there's any way any individual State DOT could predict that kind of change other than kind of working with the local shipping community and the freight community to get better intelligence regarding how they would do things along those lines.

Tapping into the expert knowledge that the carriers have moving goods throughout your State DOT areas and for us to engage as we are now with the shipping community to understand what their needs are and where they want to move goods throughout the United States that we get a better understanding of what the issues and the parameters are that push and pull them in a whole host of different directions.

We've got about 10 minutes left and I know there are a whole host of questions that we have in the chat area, so Jennifer, I'll turn it over to you.

Questions and Answers

J. Symoun:

Sure. Thank you for all four presenters. Before I move into the question-and-answer session I'm going to quickly bring up a chat pod asking for suggestions on topics for the 2009 talking freight seminar series.

We've been collecting some topics through the LISTSERV, so I'm going to type a few in of those ideas here, but I definitely welcome any topic suggestions you might have. So please go ahead and type them in here. We're going to go on now with the question and answer session.

I think the first question came in during David's presentation, more of a comment, but I'll get your thoughts on, it David.

With regard to oil price on network strategy it seems like there could also be a shift to other modes such as railroad that may be desirable from a variety of perspectives. David, could you comment on that thought?

D. Simchi-Levi

I agree with the comment. We see a couple of changes. One is a move toward the rail, but the other one especially with companies that are moving goods from Asia to markets in the US, in the past when the market in the US was in the East what you saw is a movement ocean all the way to the West Coast and then trucking the goods to the New York area or to the Boston area. Now we see companies considering and some are changing their strategy and moving goods through the Panama Canal all the way to the East Coast and by doing this significantly cutting on some of their transportation costs and by the way, this is consistent with reducing carbon footprint. And so here for the first time with high oil price we see that green strategies make business sense.

J. Symoun:

Okay. Thank you. The next question we have is for you, David, what are the average annual worker productivity gains for workers in Brazil, Mexico or China? Does this offset increased compensation rates?

D. Simchi-Levi:

Yes. The data that I reported included increasing costs and the impact of changes in productivity and the net result was that total production costs has significantly increased in low cost countries. Whether it justifies a move? It's not yet clear.

J. Symoun:

Thank you. We now have some questions for Greg. The first question is does Wal-Mart still move product from Long Beach to Dallas by rail intermodal?

G. Forbis:

Yes, we do. As a matter of fact, that is a significant size rail corridor for us today and the majority of that I'd say probably 80 to 90% of that moves intermodally today.

J. Symoun:

Thank you. We have another question for Greg. Has Wal-Mart considered using wind power?

G. Forbis:

We have actually, I say yes and no. Yes from a perspective that we have even at one of our local stores a couple of windmills on the parking lot that are generating power. A few of our eco stores in the Denver market and Dallas were testing wind. Obviously you've got to be in the right spot to really be able to hit wind, but I know that our real estate and construction department have been trying to find alternative sources for power whether it's solar or whether it's wind. We're focused on trying but we're not using it full scale yet anywhere but are testing it in several locations.

J. Symoun:

Thank you. Barbara and Tony sort of addressed this next question, but I'd like to hear from you Greg. What would Wal-Mart ask the DOTs to do to help reduce transportation costs?

G. Forbis:

Great question. I do know that our senior leadership within the transportation division as well as our logistics division have an office in DC actually, a government affairs office, who have met with Secretary Peters on numerous occasions and have shared with her several topics around congestion, length and weight requirements and have kind of given our views and a lot of that we also worked directly with the ATA on. So I don't know that I have the specific answer for you, but I do know that we have been in contact and have had several meetings with Secretary Peters.

J. Symoun:

Thank you. Another question, are you finding resistance for power units to be exempted from size and weight restrictions in some states? Some states appear to include the unit and this makes the truck out of compliance. Do you have any thoughts on this and any suggestions?

G. Forbis:

Jeff Burn who is our senior director of maintenance is probably better suited to answer that question than I am but I can tell you from my perspective on where our private fleet today plays the most in our network is in our outbound deliveries from our distribution centers to our stores and that is their core business. They participate about half of it on the inbound side of my business today, but on our outbound deliveries to our stores we are never close to putting 40,000 pounds on a trailer. So we are well below the 80,000-pound limit, over gross limit, and on the inbound side we actually have different loading requirements at our suppliers for an over the road carrier versus a Wal-Mart fleet where we actually put a little less product, so we do not get caught in those situations.

J. Symoun:

Thank you. Another question. I don't know if you have an answer, but I-80 is often closed due to bad weather and resulting accidents. What is the cost to Wal-Mart for each day a section of I-80 is closed?

G. Forbis:

I don't know that I can answer that as we've never put a pen and pencil to it, but I know that some of our regional operators are very familiar with Donor Pass and when that is closed it kind of shuts down one of the main arteries for us into California from our grocery food distribution centers. Ultimately Wal-Mart really suffers, but ultimately our customers suffer because we aren't there to stock the product they need when they're there to purchase it.

I do know that, you know, the more opportunities where we can work with the rail lines and find a different way to get to take trucks off the highway, specifically on that corridor will help us whether it's intermodally or whatever that solution may be would benefit all of us, not specifically just Wal-Mart.

J. Symoun:

Thank you. We do have a few more minutes. I don't see anything else typed in but I'll give a chance to see if anybody has any questions over the phone line. If the operator could give instructions on how to ask the question.

While we're waiting we actually do have a question from the Federal Highway Administration from the conference room I'm in now if you want to go ahead.

Chip Millard:

This is Chip Millard. This question is primarily for Greg. I think most people know there's been some volatile declines in fuel prices, just the instability with fuel prices an obstacle going up and down has been remarkable but what kind of impact has the volatile decline in fuel prices have right now in terms of supply chains and how sensitive or quick to react are shippers with fuel price changes whether it's going up or down?

G. Forbis:

Let me make sure I have your question right. As fuel prices drop or increase, what impacts are we seeing one, on the supply chain and then two, how quickly are shippers react the to those?

C. Millard:

Yeah. I think you captured it.

G. Forbis:

No. 1, the impact on the supply chain, what we've really seen this year with working with our suppliers and shippers are as we have kind of been working through our import network we're more evenly distributed ports we have seen a lot of our suppliers take some of that same strategy.

For example, one manufacturer of toys came to us just recently that primarily ships a lot through the Long Beach area and said hey, we understand the costs and the price of fuel, we believe that we should a ship point on the eastern side of the United States and then we're able to sit down with them and work through the costing because we know it's going to cost more to go through Panama Canal but we also know we can help save our merchants transportation costs domestically on the inside once that's open.

So what we have seen is a shift to more suppliers looking at adding additional ship points and then rationalizing their overall supply chain network and maybe in some cases where we've had a lot of acquisition of companies over time, you may have today a facility in Dallas that is a warehouse for widgets A and then the same company owns another warehouse on the south side of Dallas for widget B, we've seen some consolidation of those. I don't know if that answers your question, but we have seen suppliers move ship points or add ship points and some consolidation of ship points within the network on the supply chain side.

Two, on the shippers' perspective as it relates to fuel prices, we're probably immune a little bit to that in the transportation world and I say immune to that other than if a supplier A or supplier B needs to take a price increase related to fuel, they'll sit down with their buyer or their merchant and work through those increases.

At the same time a lot of times those merchants will get us involve and say all right, they want to take a three 3, 4, 5% increase. How can we help offset some of that cost increase whether it's through additional ship points, shipment optimization, we try and focus on those.

One thing I would add and one thing that we've done to encourage our carrier base to become members of SmartWay, if you're a member of SmartWay; you receive a different fuel surcharge than if you are not a member of SmartWay.

The SmartWay fuel charge is actually based on a five cent peg versus a six cent peg for fuel, so a little bit better and it's about a dime to 11 cents different. So non-SmartWay carriers receive less fuel surcharge than a SmartWay carrier does and we try to make it equitable for our partners so we know that they are embracing ideas on working on fuel economy. Does that answer your question for the most part?

C. Millard:

I think so. You touched on it pretty well. I'm sorry. I have another simpler question for you, Greg. You mentioned the ports of entry for Wal-Mart. One thing that was conspicuous to me is that there were none that were north of Norfolk on the East Coast and in particular, New York/New Jersey. I'm just curious as to why New York/New Jersey is not one of your ports of interest.

G. Forbis:

The first ship point we opened outside of L.A. was in Georgia and we went to Norfolk third and we just have not had the volume yet to move up that far to the northeast. If you really look at the concentration of our stores from where the demand points are, it's really in that Midwest and in that southeastern part of the United States and we don't have the density of stores that we have in the northeast as we do elsewhere, so we've not had the need to really go there yet, but we have had conversations and dialogues over time with them about opportunities when they do arise.

J. Symoun:

Thank you. We do have one more question in the room here but I want to check. Did anything come in over the phone.

Operator:

At this moment I'm showing no questions over the phone.

J. Symoun

Great. Thank you. Did we have any other questions in here? Okay, I guess we don't. Then I think we are going to bring today to a close. I want to thank everybody for attending today and thank you to all of our presenters. I think these were really good presentations. I'm going to continue to leave up the topic collection for 2009, so please feel free to continue typing anything in there or send me an e-mail if you have any suggestions.

The next seminar will be held on November 19 and will be on Freight and Land Use, which I think is one of the topics that I see typed in. If you haven't done so already, I encourage you to visit the Talking Freight Web Site and sign up for this seminar. The address is up on the slide on your

screen. I also encourage you to join the Freight Planning LISTSERV if you have not already done so.

Enjoy the rest of your day!