

Response to Keynote Address

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Richard Simonetta

Even though I have spent my career in public transportation, which is the movement of people over relatively short distances within urban areas, I agree with a lot of what our keynote speaker said today. I was very hopeful back in 1991 when ISTEA came along to begin to prescribe in more definitive terms what intermodalism was to mean for all of us working in transportation. For a change, public transportation was going to have a seat at the table with the big guys in highways and begin to share in some of the resources available to transportation in general, but not necessarily or specifically to public transport. I agree that there has been a lack of real success in the passenger sector of ISTEA. I am pleased to hear that the private-sector freight side of the transportation industry is doing so well, since that is extremely important for our economy and, of course, a strong economy supports continued investment in all transportation.

On the public side, we have not achieved what many thought were going to be breakthroughs, partly because of a fear of changing old institutions. We have worked hard to begin addressing the importance of changing those institutions, but even as the reauthorization debate has gone on this past year, it is quite clear to me that a real vision for the future has not been prevalent. The truth is that our industry does need vision if we are to resolve some of these issues.

Admittedly, we work in a much more global community today than we did in 1991 or, for that matter, than

we did back in the late sixties and early seventies, when many of us began our careers in transportation. We need to be more aware of what is happening in the world so that we can take advantage of the opportunities that exist for us locally.

I want to comment on what was said earlier about BNSF going to the liberal arts schools to find general managers. Working in public transportation now for 27 years, I have come to realize that there was no college curriculum that prepared one in any particular way for public transportation management. My background is in urban and regional planning, and I have worked alongside general managers who have had law degrees, M.B.A.'s, or who have worked in a number of other disciplines; for example, there are former school teachers who have somehow found their way into public transportation careers. This perhaps suggests that there is something about a liberal arts background that prepares individuals to assume the role of providing broad leadership to the public transportation industry. Both of my daughters are M.B.A. students, and I would not hesitate to tell them that they are, in my opinion, probably the least prepared to serve in the role of a general manager, to provide that broad vision to an organization, to understand the customer side, to understand the value of employees, and to understand that you need to create an environment within an organization that is going to allow the creativity of both technicians and generalists to achieve as much as possible. This is not to say that

there are no examples of very successful, “visionary” transit managers who have come from technical backgrounds. More times than not, however, the engineers and the M.B.A.’s who come up through the budget office are not going to be the ones who provide the broader vision. In fact, some of the best transit managers come from public administration backgrounds, making a transition from being a city manager to being a transit manager or from being an urban planner to being a general manager.

Within public transportation, there is a great deal that goes with the concept of intermodalism. If you can envision the Atlanta region—in which the Metropolitan Atlanta Regional Transportation Authority (MARTA) rapid transit system provides rail service, an extensive bus system provides bus service, there are interconnected bus services in suburban areas, and automobiles are still the most prevalent form of transportation—you will find that connectivity exists to a great extent between automobiles and public transit. Hartsfield International Airport is the second busiest airport in the world and is served by taxi cabs, buses, as well as MARTA rail; this exemplifies a great deal of intermodalism.

Thirty percent of MARTA riders transfer either from rail to bus or from bus to rail, which demonstrates that

there is a built-in intermodal system at the very fabric of our operation. We own and control over 27,000 parking spaces adjacent to either bus routes or rail stations. Our plan for the next 5 years is to provide an additional 10,000 parking spaces. On an average day, there are over 7,000 boardings at Hartsfield Airport, people who are either going from rail to plane or from plane to train.

An important component of intermodalism that is frequently overlooked in public transportation is the pedestrian mode. Within metropolitan Atlanta, every transit rider is at some point in the trip a pedestrian. Too often we focus on the needs of other transportation modes and forget that the pedestrian mode is also very important and must be worked on just as effectively as others. Everything we do in the way of designing parking lots, stations, bus stops, and transit centers very much involves the pedestrian, as well as persons with disabilities, who may require extra attention.

I am hopeful that we will end up with reauthorization legislation that will eventually become a multiyear bill, keeping us moving in the current direction. The U.S. transportation industry has begun to embrace more and more what is happening throughout the world. Each of the points Gloria Jeff made earlier is important to the broad spectrum of transportation, and each has a global implication from which we can learn.

Jeff Crowe

First of all, I would like the audience to know that I am an educator. When I graduated from college many, many years ago, I did not set out to be in the transportation industry. For 7 years I was an educator, teaching emotionally disturbed and mentally handicapped children. With a liberal arts background and majors in history and political science, I somehow ended up in the trucking business.

I agree with much of what the keynote speaker had to say this morning. In addition, Landstar participates in many of the programs and initiatives in which BNSF participates. Krebs’s comments regarding the supply side of transportation education and training were right on target. I would like to drive home that point by asking the audience this question: How many of you when talking to your children have ever said, “I want you to grow up to be a trucker”? Not very many. How many of you, when you were growing up or when talking with your

children have said, “When you grow up, I want you to be in the transportation business”? Perhaps a few more. I ask these questions to introduce an issue with which the transportation industry—in particular the trucking industry—must deal. The trucking industry is deeply misunderstood, deeply underappreciated, and unless we collectively fix the supply side issues, we will not change the public’s perception of the trucking industry.

Secretary Slater’s ideas are right on target; now we have to take responsibility for acting on them. This should perhaps begin with a changed perception of what this industry is about from its very core, and that core is trucking. If we are talking intermodal, there is not a piece of intermodal freight that does not, at some point in its move, go on a truck. We have to change the public’s perception of the trucking industry; however, there is not enough time on the program today to talk about how to do that.

I differ with previous speakers as to how successful we have been in recent years in furthering intermodalism. I do not believe we have moved very far, even on the freight side, toward achieving a true intermodal transportation system. We continue to operate as modal systems, which have a great deal of difficulty in joint planning (of which there is basically none) and in making successful handoffs (to which precious little attention is paid); this is where the system fails both in the movement of commerce and in the movement of information. I believe we have a long, long way to go.

What are the drivers of our multimodal system? I want to talk first about what drives *truck-rail-truck*, because they are common to a large degree. Appropriately, each of those management teams focuses on its individual mode, measuring itself on its individual mode. When you study service schedules, you talk about yard-to-yard for railroads rather than focusing on origin-to-destination delivery. When you see price alternatives and costs, they are driven by individual modes. A recent example of this is in the rail industry, where right now one sees a focus on which trains move faster, faster trains serving one single source. This country currently faces a significant transportation issue caused by the meltdown of a combined railroad—an issue that has an impact on all of us. There is a tremendous opportunity for each system and this is evidenced by the surge of business in an already superb economy.

What do we need to improve? Landstar generates significant amounts of revenue on an intermodal system, and we frequently use BNSF. However, what we have to realize is a better exchange of both commerce and information. We must work jointly to resolve where handoffs occur, to improve where the lowest-cost provider, the smallest-margin business in our industry, is the same as it is for the rail business. This is how we price our business, by considering those truckers who participate in the drayage business, where there is practically no margin. You do not see any company standing up and saying, “When I grow up, I want to be a drayage holder.” What does that mean? Our intermodal system is largely viewed, on the surface freight side, as a low-cost alternative, hauling less-than-time-sensitive business. It has not been able to track into new business sectors and probably will not be able to until we jointly solve the information systems issues as well as the true handoff issues.

What about *truck-vessel-linehaul*, which can be rail or truck on either side? There are similar issues. The exchange of information is equally as complicated as the exchange of commerce. We need to improve on the exchange of commerce, which includes improving the infrastructure that serves the ports and making a better handoff available for either mode when the vessels arrive. Control and exchange of information relates not only to electronic data interchange but also to things such as electronic funds transfer and truly creating one billed origin-to-delivery, without modal paperwork being handed off between the individual modes. At present, I think the commerce side works better than the information side, and if we are going to gain true efficiencies and find new markets that we can move into together, we have to work the information side. *Truck-air-truck* is perhaps the most reliable of the combination modes, chosen because it is a velocity-price issue. You have a very fast linehaul segment in the middle, a very reliable system at both ends, extremely fragmented, with the same issues as those for truck-vessel-truck.

I think there are significant opportunities to change the system if we can begin to educate people at a young age, “grow” more people who are looking at this system as it should be—a service provider moving goods from origin to destination. I believe all freight ends up on whatever mode gives the greatest value, and that is the combination of price and velocity. We have much to gain. As Krebs pointed out earlier, the significance of how much we have gained is saving this company \$7.0 billion, which is the driver of what makes this economy continue to move forward and truly make us competitive in the international and intermarket arena.

There is a lot of work to be done and significant opportunity before us. I hope this conference will move forward on some of these issues. As you think about curriculum development, let it not be limited to the question I posed earlier. Let me pose yet another: “Do you want to grow up and own your own business?” I believe more young people in today’s world really want to own their own business. They are not driven by the same issues that drove many of us. They do not want to work for the same company all their life, as many of us have. I believe that the entrepreneurial business owner owns trucks, whether as a segment of the supply chain or as a manager of other companies. You can be an entrepreneur and be part of this wonderful transportation system.

Robert Martinez

My educational history is much like that offered by other speakers today in that I also had no formal training in transportation. Years ago, I expressed an interest in being involved in the federal government, was recommended to then U.S. Department of Transportation Secretary Sam Skinner, and ended up as Deputy Administrator at the Maritime Administration. A couple of years after that, I was selected as the first Director of the Office of Intermodalism. I found it interesting that after a couple of years at Marad, having had no transportation background before that, then moving to the Office of Intermodalism, suddenly my background was in maritime. The moral of the story is that the fundamental or most important foundation for a successful career in transportation is to have a good general education. The further you go with education, the better off you are going to be regardless of where you end up in transportation.

I do not accept the philosophy that anyone can be the most qualified individual for any particular job. Although I feel fully qualified to be Secretary of Transportation for Virginia, I would find it difficult to argue that I am the most qualified individual for this job. Despite this, every 4 years the issue comes up as people are selected for high-ranking government, as well as private-sector, positions. There are a number of people who are equally qualified; however, they would bring different talents to bear and would perhaps bring a different emphasis. The point of this digression is that, to the extent that an individual, a young person, is fully educated and has gone as far in the educational system as possible, he or she cannot be denied a good position and eventually a high-ranking position, either in the private sector or the public sector, on the basis of educational background. Education is indispensable for young people who have the ambition to move ahead in the transportation arena. It is incumbent upon those of us in transportation to look broadly for new talent. This includes looking at people who are generalists, for example, those with liberal arts degrees.

The transportation industry has to compete against other industries for the best people, regardless of whether they have a master's in business administration or a bachelor of arts or a bachelor of science or an engineering degree. As a general rule, the best people coming out of engineering school, or the best people coming out of liberal arts schools, are not necessarily going to have any type of specialization in transportation. If you are looking to fill an open, highly specialized junior slot, you would go out and look for a specialist; however, as a

general rule, that is not the case. We need to do a better job of recruiting the best people, who are generalist engineers, generalist liberal arts, or M.B.A.'s, and then retaining them through opportunities and compensation that are adequate to keep us competitive.

Beyond the issue of the types of degrees that young people earn at institutions of higher education is the fundamental issue that both Alberts and Jeff pointed out—we have to improve our elementary and high school education systems.

Previous speakers have expressed some disappointment with how far ISTEA has gotten us in 6 years and noted that there is still a lot to be done. Although there are still a lot of unfulfilled promises, the dialogue, the debate, the discussion has fundamentally changed with the passing of ISTEA. Four years ago, it would have been unheard of to have this kind of forum to talk about, in Meyer's words, "a systems approach." The fact that we share the same goals, that we agree on the same terms of dialogue and discussion that have been framed by ISTEA is a fundamental difference between the environment we have today and the environment that existed before ISTEA. In this respect, ISTEA has had a major impact.

I agree with earlier comments regarding the role of the private sector, as well as deregulation, of which we need more if transportation is to become more efficient across the board. I also concur with comments regarding passenger transportation. The subsidy programs that exist today, which are primarily a function of the role of the public sector in the movement of passengers, unfortunately serve to cloud what is happening in the marketplace. Until we are able to devise a mechanism for better responding to and better understanding what the market demands, we will be unable to achieve the types of efficiencies in passenger intermodalism that are starting to be seen on the freight side. We have to learn how to be more market-driven on the passenger side of the equation. I do not have the answer to how you do that, but the subsidy schemes are clearly part of the problem. That is not to say that I support eliminating subsidies for passenger movement, because I do not; however, we do need to do a better job of figuring out what the marketplace wants.

There are a couple of areas on which I would like to see more emphasis. The first of these is technology. Technology is going to continue to change transportation and that influences how we educate future transportation professionals. Current and future workers in the industry have to be more "technologically literate" and

be comfortable with amassing, using, and analyzing vast amounts of information.

Second, we have a public, both passengers and shippers, that demands greater mobility and greater capacity. But we also have a public demanding that this be achieved without degradation of the environment. In my mind, there is only one way that this can be achieved, and that is through investment in technology and becoming smarter about how we provide transportation. Perhaps this relates to the earlier call for intermodal R&D and a greater focus on a systems approach as opposed to modal R&D programs, on which governmental R&D seems to continue to focus.

I also want to underscore the role of the private sector, but I would take that further and argue that we must be opening up new arenas, nontraditional arenas, for the private sector, be they in highway and transit elements of overall systems or perhaps more fundamentally in providing opportunities for the private sector in financing transportation projects, an area that has previously been largely the purview of the government sector. In an age when we have increasingly limited public resources for transportation, it is incumbent upon us to find ways of introducing more private-sector elements into how we think about and finance transportation.

Let me close by summarizing some of the qualities I think we need to look for in our future transportation pro-

fessionals. They have to be customer-focused, which can mean at least two things today. We need systems that are basically seamless, because the reality is that although in an ideal world we would like to have everyone talking about how wonderful intermodal transportation is, that is just not going to happen. Most people do not know what “intermodal” means, and I am not sure that they need to. On the other hand, users of the intermodal system who do understand it, like shippers, increasingly demand transparency and seamlessness. What it comes down to is that transportation has become more complex and customer-focused, and that is something young people considering careers in transportation need to understand.

The transportation professional needs to be flexible and willing to respond, needs to be market oriented, and needs to be aggressive. The transportation professional must avoid, at all costs, becoming bureaucratic, while at the same time be able to deal with those who are accustomed to doing things one way—who are bureaucratic. This is true for both the public and the private sectors. This is a challenge, because there continues to be a lot of bureaucracy in many sectors of the transportation industry. The transportation professional must also be optimistic, must have good quantitative skills, and have a good technological base and a good information skills base.

Aaron Gellman

It has been clearly demonstrated that the path to a career in transportation logistics today goes through intermodalism. Consequently, education for such careers should certainly encompass intermodalism, but not to the exclusion of many other issues and aspects of transport and logistics. For example, many universities, including community colleges, have become so excited by the educational opportunities offered by logistics and logistics management that they have soft-pedaled, even eliminated, education related to actual transportation, the component of logistics without which we have nothing. Few schools have maintained a presence, have given suitable priority to transport education. Admittedly, more education is specifically focused on transport careers today than before deregulation, and a great deal more education today is focused on logistics, but without transport, logistics is the sound of one hand clapping.

Industry has both an interest and a role to play regarding education for transport and logistics careers. Krebs expressed such an interest, and of course BNSF wants the best students. They want the intellectual capital they need to maximize profits—that is the goal of the private sector in transport. It is important to recognize that the public sector also needs the best people, those with the ability to do what is needed to manage public enterprises, such as MARTA, such as the various transportation elements within the Commonwealth of Virginia.

Historically, we have not always gotten the best out of the transport and logistics programs that universities offer. The role of industry in all of this is to keep education “green.” There needs to be a continuing dialogue between industry (the demand side of the equation) and universities that supply the students they need (the supply side of the equation). We need this dialogue, and it is

something we at Northwestern prize very highly, as do other educational institutions. For example, universities collectively need to be told that third-party logistics firms are critical to the future, even to the present, in transport performance and logistics performance.

Air freight, for example, is an area that has not been sufficiently understood from an educational standpoint, a situation that needs to be corrected. We need to do more with respect to the management of technology and the management of integration processes. In most universities, little is taught about how transport innovation takes place or, even more important perhaps, how to avoid thwarting worthy transport innovation. As educators and transportation professionals, we need to understand this and we need to be able to impart this to students because they most certainly are going to be managing technology. There is no way that the technology, the intensity of the transport and logistics business is going to do anything but increase. By the way, this is one of the reasons that I am an economist.

When I heard previous speakers qualifying themselves by saying that they had no transportation education, I thought that I was going into the witness box, where you have to state your qualifications. I actually have an education for a transportation career—my B.A. at Virginia was, by self-selection, very much related to transport, as was my M.B.A. at Chicago and my Ph.D. at MIT. I did all my papers on transport and logistics subjects, with the exception that while I was at MIT, I discovered my other field, the management of industrial innovation processes. The two come together very nicely in transport and logistics these days.

In any event, industry has both an interest and a role in university education for intermodalism, and this is the way we ought to think about it—education for intermodalism. The obligation and interest of industry can be fulfilled through communication and cooperation between academia and relevant industry players. Communication has to involve both freight and passengers. For example, it is amazing to me that no one in the airline industry seems to understand that they have an obligation, which is profit maximizing, to take some interest in what happens to the passengers en route in their aluminum tubes and en route to and from them. However, airlines take very little interest in this, and I think that is unfortunate. I suspect the reason is that the airlines, for the most part, view the airport as a public enterprise over which they have little influence. I view this as head-in-the-sand thinking, and when the airlines continue to experience the up-and-down motion of other industries, as they have begun to, I think they will take more interest in extending their reach into the full supply chain where passenger travel is concerned.

We also need more dialogue with transport and logistics enterprises regarding international movement of

goods and people. There is still a tendency to put more emphasis on domestic at the expense of international, even in an ever-increasingly global economy.

We need to teach students a lot more about “managing in all seasons,” and by that I mean all *economic* seasons. For example, as painful as it is to say, the railroads of the United States have for most of the 20th century (certainly since World War II) managed in a situation of shrinkage. Now the railroads are managing in an era of growth, which is a very different challenge. We ought to be turning out people from our universities who can manage in all of those seasons, and we need to be told this by industry, because it is critical to development in certain industries, including, at the present time, the railroads. Managing in growth and managing in a decline or a steady state are very different things.

Where is the cooperation? The cooperation needs to come through advice about what instruction we ought to be giving. Northwestern gets that through its Business Advisory Committee, and it is invaluable to us. It keeps the courses green. It keeps the courses looking forward.

We also need to rely on industry for research projects and research data and information. This is even slightly more important than research financing. We also need cooperation with respect to recruitment, with respect to placement. If industry will tell us what kind of people they want by attributes, we can much more accurately, efficiently, and humanely advise our students as to which of the placement opportunities offered should be seriously considered and how they can prioritize them.

I would also suggest that cooperation for the universities extends to being honest brokers of ideas and of solutions. Let me give you one example. We recently were involved in a situation in which two modes of transportation that interchanged a significant amount of traffic in a given commodity were not really connecting intellectually with respect to data and other issues. We called a one-day meeting of the principal carriers and the shipper. Fortunately, it was a concentrated industry and a very limited number of producers. We found during the first hour we met that not one of the railroad executives had ever met one of the truck company executives. They exchanged traffic on an hourly basis all over the country, yet they had never met one another. In just one meeting, they exchanged a lot, and it has been tremendously beneficial for the shipper, for the carriers, both rail and highway, and we were honest brokers. I do not think such a meeting could necessarily have been called in the private sector; in fact, perhaps it would have been more dangerous. But a university can be an honest broker, and we were willing to do it. I am sure others across the spectrum of American academia would be willing to do the same.

The university community ought to recognize that education for intermodalism is a godsend because inter-

modalism is a great platform for addressing a wide spectrum of issues that matter, not only in a transport and logistics context, but also in a broader context. For example, at the first level, intermodalism deals with transport. Intermodalism also deals with public participation in decision making—call it political science, if you will. Intermodalism also has a component that must address data systems, data requirements, and data interchange. Intermodalism requires that you take a look at the global nature of our world economy. Intermodalism requires us to introduce the concept of customer requirements and customer satisfaction. Intermodalism also requires us to look at financial considerations such as inventory issues. For these reasons, those of us in the university community ought to see intermodalism as something we want to embrace for pedagogical reasons, although there are many other reasons as well.

Should it be part of the core curriculum? I certainly would like to see that, but it is a hard sell to deans, for several reasons. One of the problems that many universities, including Northwestern, have with regard to establishing a core curriculum is that logistics competency is typically found in at least two schools—if you're lucky, it is in three—which makes it even more difficult. These schools have their jealousies, their boundaries, and it is difficult getting the university to understand

that for logistics education, not only do we need to address what is done in the graduate school of management, but we also need to integrate and offer the courses to any students who are interested in logistics, regardless of the school or department they are in—industrial engineering, civil engineering, and so forth. Our Ph.D. programs in economics have a number of professors and students interested in logistics matters, but it is difficult to bring them together. We need to meet that very substantial challenge. It is political and it is also financial because of the differences in salaries that people make at the different schools. In the case of Northwestern, it is difficult because we also have different calendars for different schools.

Finally, there is the matter of handoffs—between secondary school education and undergraduate college education, from college to first career step and then to graduate school, from graduate school to next career step, from career to continuing education, back and forth. These handoffs are critically important, and the responsibility is not entirely in the education sector, but also in the industry sector with those who employ the individuals going through this process. Both academia and industry must meet those responsibilities forthrightly if each is to perform at the highest level possible in their respective spheres.