

CROSSING THE BORDER

TRANSPORTATION ISSUES SINCE NAFTA

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Since the implementation of the North American Free Trade Agreement (NAFTA) on January 1, 1994, trade between the United States and the two other signatory nations, Canada and Mexico, has continued to grow rapidly. This growth has entailed growing pains: increased pressure on transportation and trade-handling facilities at ports of entry; social, economic, and financial concerns for border regions; and a variety of problems stemming from the incompatibility of governmental regulations and standards among the three trading partners. A special policy discussion held at the June 1996 meeting of the Transportation Research Board Executive Committee at the Beckman Center in Irvine, California, focused on cross-border transportation issues that have emerged or have become more critical since NAFTA went into effect.

NAFTA'S PROMISE

Hailed as a "breakthrough" agreement, NAFTA calls for freer, and ultimately free, movement of goods among the United States, Mexico, and Canada. It does not address the movement of people and is not intended as a step toward instituting either a customs union or a common market. These points were emphasized by Peter H. Smith, Simón Bolívar Professor of Latin American Studies and director of Latin American Studies at the University of California—San Diego.

One of the positive political consequences of NAFTA, Smith noted, has been the continuation of high-level official cooperation among the three

countries. "Relations between the governments of the United States and Mexico have never been better," he observed. One of the main payoffs Mexico anticipated from NAFTA, however, has not been realized—namely, an increase in direct foreign investment. Paul Ganster, director of the Institute for Regional Studies of the Californias at San Diego State University, noted that since the early 1980s Mexico has undergone a revolutionary transformation from one of the world's most closed economies to one of its more open. In the wake of Mexico's debt crisis in December 1994, the Mexican economy went into a tailspin. Smith noted that within Mexico some frustration and anger have been directed at NAFTA and at then-President Carlos Salinas, who is now living in self-imposed exile. Mexico has also been undergoing a major political transition, with a string of high-level assassinations, a shift in political parties, and a decline in the institutional authority of the presidency. The ultimate outcome of these changes is still uncertain.

These developments have implications for Mexico's ability to address infrastructure needs and other problems that are currently inhibiting the full realization of NAFTA's promise. But, Smith concluded, the heart of the problem, for Mexico in particular, is that the benefits of the treaty tend to be diffuse and long term, whereas the costs are more immediate and concentrated.

Virginia Secretary of Transportation Robert E. Martínez, who acted as session rapporteur, highlighted key differences between Mexico and



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Canada from a transportation perspective. In Mexico major production markets are in the far north, whereas major consumption markets are centrally located and focused on Mexico City. This disjunction has important implications for the movement of freight and, consequently, for the improvements to Mexico's highway, rail, and port infrastructure that are needed to support growth in trade. In Canada, by contrast, a huge proportion of the nation's population lives within 100 miles or so of the U.S. border. Historically, this relatively narrow east-west configuration has helped shape Canada's freight flows and its transportation-infrastructure priorities. Alan M. Clayton of the Department of Civil Engineering at the University of Manitoba emphasized that trucking dominates the surface freight movements at both borders. But he noted, "The trade and commodities crossing the U.S.-Mexico and U.S.-Canada borders are very different, the rules governing trucks at the two borders are very different, and the trucks themselves are very different."

INFRASTRUCTURE DEFICIT

To the extent that NAFTA has accelerated growth in trade among Canada, Mexico, and the United States—and session participants universally agreed that it has—it has also increased pressure on the nations' transportation infrastructure, especially for surface transportation. Alberto Mendoza, coordinator of infrastructure studies at the Mexican Transportation Institute, distinguished two types of border-crossing movements in Mexico, noting that the infrastructure supporting each is deficient. The first type of movement is related to the *maquiladoras*, the assembly plants at Ciudad Juárez and other points along Mexico's northern border, and the second is related to longer-distance freight travel patterns.

Although many port-of-entry problems are administrative and regulatory, Ganster noted, communities on both sides of the U.S.-Mexico border are concerned about what he termed the "infrastructure deficit" affecting ports of entry and roads leading up to the border. The border region has seen such dramatic growth in population and urbanization, Ganster added, that providing an adequate level of urban services on either side of the border has been impossible. Describing current deficiencies in Mexico's highway infrastructure, Mendoza stated that about 15 000 kilometers (9,321 miles) of Mexico's road network are important international trade routes but only 3000 to 4000 kilometers (1,864 to 2,486 miles) of these are four-lane roads. Because local authorities in Mexico typically have no bonding or other fundraising authority, Ganster pointed out, they must

POLICY DISCUSSIONS LEAD TO NEW TRB INITIATIVES

Since the late 1980s, the Transportation Research Board Executive Committee has been holding special policy discussions at its semiannual business meetings. These discussions, in which distinguished thinkers from inside and outside the transportation community are invited to participate, focus on timely and sometimes controversial topics. Subjects have been wide-ranging: marine and intermodal transportation; the response of transportation to air-quality problems; high-speed ground transportation; the relationship between transportation and economic development; the implications of U.S. defense conversion for transportation; technological, institutional, and environmental issues associated with developing alternative-fuel and electric vehicles; and the financing of transportation projects in the post-ISTEA era.

Policy discussions have proven to be a stimulating and popular feature of Executive Committee meetings, and some of these talks have resulted in new TRB initiatives. These have included a significant expansion of activity in marine and intermodal transportation; a major study of potential U.S. applications of high-speed rail technology, which resulted in Special Report 233, *In Pursuit of Speed: New Options for Intercity Passenger Transport*; a conference on innovative financing scheduled for April 1997; and an ongoing study of policy options to address terminal access and other issues affecting the efficiency of intermodal freight transportation.

The June 1996 policy discussion that is the subject of this article concluded with an exploration of opportunities for TRB involvement in the research and continuing exchange of ideas on cross-border transportation issues. Potential activities include a conference or other forum for investigating linkages among the economy, trade, and transportation in Canada, Mexico, and the United States and featuring participation by all three nations. Interest was also expressed in a workshop to share best practices among states addressing cross-border transportation problems. In the coming months, the Executive Committee and its Subcommittee on Planning and Policy Review will be exploring these and other suggestions for follow-up activity, in consultation with the U.S. Department of Transportation and the American Association of State Highway and Transportation Officials.

solicit funds from state and federal governments to support infrastructure projects—a particularly difficult task in a time of economic hardship. Some U.S. border communities that do have the necessary fundraising authority are often reluctant to invest in new or improved facilities, arguing that they should not have to make these investments on their own because NAFTA benefits the nation as a whole. Some of these communities have mounted intense opposition to border crossing fees and are lobbying for increased federal funding of needed infrastructure.

Alan C. Courtney, director of customer processes for APL Stacktrain Services, American President Companies, catalogued some of the infrastructure deficiencies affecting intermodal freight movements across the border. These include inadequate capacity at border crossings and insufficient lift, railyard, and access-road capacity at intermodal terminals in Mexico. "The privatization of the railroads in Mexico will have a major impact on upgrading of the rail infrastructure," Courtney predicted, and he cited the importance of continuing U.S. and Mexican investments to improve border crossings, widen highways, and

construct new roads and bridges. He added that the recovery of the Mexican economy will heavily influence the pace of change.

ADMINISTRATIVE AND REGULATORY ISSUES

Courtney also highlighted the problem of infrastructure deficiencies that are driven by administrative or regulatory requirements. If, for example, a single container on a stacktrain carrying 280 containers is "red-lighted" for customs inspection at a U.S.-Mexico border crossing, the entire trainload is delayed. This is because U.S.-Mexico border sites do not have the necessary lift capacity to extract the red-lighted container and let the train go on its way. Incompatible or inconsistent processes, such as customs practices that are stringent or variably enforced, are also a problem. Courtney cited a Canadian customs requirement that freight be physically landed on Canadian soil before the clearance process can begin. As a result, freight going from Asia to Toronto is trucked across the border from Seattle to Vancouver and then on to its destination, instead of being moved intermodally from Seattle to Detroit and then across the border to Toronto. The less direct route is used because it allows Canadian customs to begin the clearance process sooner. Removal of these types of policy-induced transportation distortions, Martínez observed, will help isolate those infrastructure deficiencies that require concentrated governmental attention and investment.

Rudy M. Camacho, director of the Southern California Customs Management Center, U.S. Customs Service, stressed that the goal of unimpeded cross-border shipments will not be realized fully because of the responsibility to conduct narcotics inspection and interdiction. He noted that the risks of drug-smuggling problems increase as cross-border trade grows and that inspections are labor-intensive, although they are being speeded up by new technologies and innovative practices.

Henry Nevares Jr., director of international relations for the Texas Department of Transportation, expects technology, especially intelligent transportation systems, to play an increasingly important role in improving trans-border efficiency. Courtney added that available technologies, such as electronic data interchange and automatic vehicle identification, which have proven cost-effective in public- and private-sector applications, have not yet become commonplace in cross-border transactions. James W. van Loben Sels, director of the California Department of Transportation and 1996 TRB Executive Committee chairman, commented on the redundancy and extra costs involved in establishing multiple inspection facilities to cover different jurisdictional functions. He noted that one jointly financed and managed facility could be built instead. He also cited the need to find more innovative ways to manage traffic flows in the border region—why not, for example, put a U.S. weigh-in-motion station on the Mexican side of the border at a point before the Mexican customs and immigration facility?

Trilateral committees created under NAFTA, such as the Land Transportation Standards Subcommittee, are working to increase the compatibility of regulations and standards governing the movement of freight in the three countries. In the controversial area of truck size and weight, Clayton cited the "quagmire of regulation" involving more than 60 jurisdictions, noting that differences may be greater among jurisdictions within a country than between countries. In Canada, where the provinces are key players on highway-related issues, there is a long history of working with the United States on issues such as truck size and weight regulation, particularly on a province-to-state and region-to-region basis. Clayton noted that the size and weight limits governing the U.S.-Mexico and U.S.-Canada borders are quite different. About 98 percent of truck movement across the



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U.S.-Canada border occurs on highways for which the usual 80,000-pound (36 288-kilogram) Interstate highway limit does not apply—the weight limit on most of these routes is at 99,000 pounds (44 906 kilograms) or higher. Although five-axle tractor-semitrailers dominate the traffic, many types of larger, heavier trucks are on the road as well. By contrast, the weight limit at most U.S.-Mexico crossings is 80,000 pounds, and many smaller, lighter trucks are found in the traffic stream.

Concerns about safety and environmental degradation, as well as damage to roadways, surround harmonization of truck-size and weight regulations. Clayton noted that some of these regulations lack a strong technical foundation and that many are not enforced. Courtney cited reports in some studies that more than one-third of all Mexican trucks are typically overloaded by 30 percent or more. Nevares cited a Texas Transportation Institute study indicating that an 84,000-pound (38 102-kilogram) vehicle would cause much more extensive roadway damage than an 80,000-pound (36 288-kilogram) vehicle. Given the decentralized nature of decision making on truck size and weight, and the great diversity in regulations that results, progress in resolving differences has tended to occur incrementally—a process that Clayton characterized as a “chipping-away game,” but one in which eventual efficiency and productivity gains have been great.

FINANCING ISSUES

Session moderator Martin Wachs, director of the University of California Transportation Center, University of California—Berkeley, asked about the prospects for securing funding to support needed infrastructure improvements. The funding issue is of great concern given current budgetary constraints, which are exacerbated by the diffusion of funding responsibility for different types of facilities. Ganster noted that the North American Development Bank, established under NAFTA, is unlikely to provide much help, because it was designed to finance environmental projects, not transportation infrastructure. Border communities have resisted the institution of new user fees; more publicly financed toll facilities may offer one solution to meeting some of their infrastructure needs. Partnerships involving private- and public-sector entities hold considerable promise; Courtney cited strategic partnerships between trucking companies and railroads as well as cooperative efforts among agencies in the public sector, such as the effort to develop standards for streamlined automated-clearance processes. If policy solutions can be found for infrastructure problems that are driven by administrative or regulatory policies,

Martínez observed, government and the private sector can attend to the more manageable task of identifying and remedying real physical deficiencies.

OTHER BARRIERS TO PROGRESS

Further progress toward achieving NAFTA's goals depends on the continuing collaboration of the three countries at the federal, state, provincial, and local levels. Participants noted that social and cultural differences impede realization of these goals in the border regions. Some border communities, particularly those along the Texas-Mexico border, have a long history of cooperative interaction; others, such as San Diego-Tijuana along the California-Mexico border, have only recently experienced such interaction. In Canada neither the carriers nor the provinces share a common view of NAFTA, largely because of differing sets of concerns in the country's five or six regions.

Further progress is also threatened by underlying frictions in the relationships among the countries and by issues of national sovereignty and international competition. Rising tension over drugs and undocumented migration to the United States is affecting the U.S.-Mexico relationship. Sovereignty has been a longstanding concern for Mexico with regard to its powerful neighbor to the north. And competition is keen, as evidenced by the efforts by Canadian and Mexican ports to draw traffic away from major U.S. ports. Despite such tensions, local governments and state agencies are cooperating more closely than ever to solve a wide variety of problems.

Cross-border transportation, van Loben Sels concluded, is a national issue, not just an issue for the border states and regions. This is so, Martínez added, because of major markets and the way they operate. What is the motivation to keep chipping away at the obstacles and resolve the many remaining cross-border transportation issues? Who will the beneficiaries of this progress be? Ultimately, the end-users—consumers in the United States, Mexico, and Canada—will benefit from improved freight movement, higher productivity, and economic growth. Smith emphasized that in addition to the incremental resolution of many issues, especially technical ones, “it is important to visualize breakthroughs, which tend to be more political or governmental and occur in quantum leaps, often in response to perceived threats and a redefinition of the common good. Creation of NAFTA was such a breakthrough.” As efforts to realize NAFTA's promise continue, Martínez concluded, “market change will overwhelm policy resistance, and eventually reduce the impediments to freight movement at the borders themselves.”