

NEW YORK IN THE NEW WORLD ECONOMY: THE I-90 CORRIDOR STUDY

Final Report

A Report for the New York State Department of Transportation



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16. Abstract The I-90 Corridor in upstate New York is a classic example of the de-industrialization of the Northeastern United States. With few exceptions, all counties along the corridor have experienced marked declined in manufacturing employment over the past three decades. While the service and FIRE have helped to absorb some of this decline in employment, the loss of manufacturing represents a decline in the economic "base" of the I-90 corridor. The types of products and jobs created by manufacturing employment are those that are by-and-large important to successful competition in the new global economy. Part of the solution to this economic malaise and the return of upstate New York to competitiveness involves establishing better links between upstate regions and the global flows of goods and services (e.g., the NAFTA corridor). At the same time, high quality linkages must be established between the various economic centers of activity in the I-90 corridor. These linkages must simultaneously serve the needs of logistics firms and the needs of commuters. That is, the growth of local economic conditions must occur at the same time and increased ability to compete on the global scale. Transportation infrastructure is a crucial component of these linkages. The conclusions present issues and opportunities for improvement of the corridor: <ul style="list-style-type: none"> • A need for more efficient simultaneous movement of freight and commuters. • Improvements needed at border crossings, including: security, congestion, and additional road and rail capacity. • Efficient connections needed between highways, rail, and local roads. • Enhanced use of intermodal freight 					
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INTRODUCTION

The I-90 Corridor in upstate New York is a classic example of the de-industrialization of the Northeastern United States. With few exceptions, all counties along the corridor have experienced marked declines in manufacturing employment over the past three decades. While the service and FIRE have helped to absorb some of this decline in employment, the loss of manufacturing represents a decline in the economic “base” of the I-90 corridor. The types of products and jobs created by manufacturing employment are those that are by-and-large important to successful competition in the new global economy. Part of the solution to this economic malaise and the return of upstate New York to competitiveness involves establishing better links between upstate regions and the global flows of goods and services (e.g., the NAFTA corridor). At the same time, high quality linkages must be established between the various economic centers of activity in the I-90 corridor. These linkages must simultaneously serve the needs of logistics firms and the needs of commuters. That is, the growth of local economic conditions must occur at the same time and increased ability to compete on the global scale. Transportation infrastructure is a crucial component of these linkages.

Location

The I-90 Corridor is a vital link in upstate New York. Providing the major east-west thoroughfare in the state, the corridor not only connects upstate communities to one another, but it is also a key component linking the entire Northeast region to the Midwest and Canada. I-90, which is operated by The Thruway along the majority of the corridor, provides highway connections across the state. The corridor is also has north-south highway linkages and a rail network that moves people and goods in and out of the region, with connections to Chicago, Toronto and Boston, as well as a major interchange with I-87 heading to New York City. Although a substantial amount of transportation infrastructure already exists along I-90, this infrastructure needs additional

capacity and more efficient connections in order to continue to serve the surrounding communities and promote economic growth in upstate New York.

Connections

Efficient connections between I-90 and the other expressways and routes serving the corridor are crucial to the transport of goods and people in the region. But as both truck traffic and passenger traffic increases, these interchanges are becoming increasingly congested and exceeding capacity along critical junctions. Routes 63, 20, 77, 12, 8, and 36 all experience heavy amounts of truck traffic, as freight is transported to I-90, I-87, I-81 and I-88. These routes must have efficient connections to the major highways in order to both facilitate goods movement and to reduce congestion delays for residents. The air and noise pollution and lost productivity concerns that accompany congestion reduce the attractiveness of the region for both industry and residents. In the Syracuse area, the intersection of I-81, the major north-south corridor in central New York, with I-90 is exceeding or approaching capacity causing ramp back ups onto the main lines. There are six interchanges in a 13 mile span in the Syracuse metro area where the two major highways connect, and NYSDOT is beginning to work with the Thruway to examine ways to improve traffic flow in the area. Consolidation of tolls in the area is an option, as is instituting ITS technologies to better manage traffic flow. Connections between I-81 and I-690 are also a growing concern, and will become a larger issue as the Destiny Mall development proceeds in the middle of these two highways.

The corridor has two overlapping regions: Albany to Syracuse; and Syracuse, Rochester, Buffalo, and Toronto.

Albany to Syracuse: This region is characterized at its eastern terminus by the important, growing area surrounding Albany and the I-87 corridor. Albany serves as a major east-west and north-south connecting point since it sits at the

intersection of I-87 and I-90, as well as being the home of Selkirk Rail yard. Freight and passengers headed for Boston or New York must pass through are near this region. The I-87 Corridor in the area around Albany is rapidly becoming a major high-tech center as well as an important inland port. This region is linked to the east and west by I-90 and to the north and south by I-87, with connections to I-84 and its accompanying linkages to I-80, I-287, and such.

The western terminus of this region, Syracuse, is a classic post-industrial city. While home to one a major university and research center, Syracuse University, it has fallen on hard economic times as much of the heavy industry that provided its economic base has eroded. Syracuse is linked to north and Canada by I-81, which also links it to the south through Binghamton, leading into Pennsylvania and I-80 and I-78. Syracuse is linked to the east and west via I-90. As such it also serves as the eastern terminus of the region containing the “Golden Horseshoe” of Rochester, Buffalo, and Toronto.

Syracuse, Rochester, Buffalo, and Toronto: This region links New York to Canada as well as to the Midwest and Chicago. While it contains several declining industrial centers, it also contains the vibrant economies of Rochester and Toronto. These high tech economies are helping to drive this region.

As the region moves away from its old manufacturing and industrial based economy, economic development efforts are also turning to the high tech and bio-tech industries. The region has a wealth of research and educational institutions that produce a highly skilled workforce. High-tech and bio-tech employers can benefit from this qualified workforce, and the region’s economy will benefit from keeping the skilled workers in the region. A high tech corridor is emerging in bio-informatics with SUNY/Buffalo as a focal point, and Roswell Park is also an area for potential development in Buffalo. Local officials have also identified an area near SUNY Institute of Technology that is being developed as a potential chip factory. For high-tech industries to flourish, transportation

networks must be efficient and provide reliable, timely access to goods and services. At the same time, the quality of life in the region is a key determinant to attracting and retaining the high skilled workforce the industry depends on. This region has also begun to examine the development of value added facilities in conjunction with its transportation infrastructure. The transportation networks must therefore provide a variety of linkages for business and recreational travel while maintaining reasonable levels of congestion.

Efficient, rapid transportation linkages are critical to this region. This area is linked to the Midwest via I-90, to Canada via the Peace Bridge, and to the east via I-90. Buffalo has several rail yards for the rail lines that pass through it on their way to Selkirk and points further east. The implementation of a high-speed ferry service containing some freight services is also nearing fruition between Rochester and Toronto.

STATE ENVIRONMENT

The I-90 corridor consists of the sixteen counties listed in Table 1. These counties roughly form a long, narrow rectangle running east-west from Albany to the Pennsylvania border southwest of Buffalo. It is by-and-large flat, following roughly the same path as the Erie Canal. For much of its length it is bordered to the north and south by far more hilly or mountainous terrain.

As mentioned above, the corridor has, for much of its length, borne the brunt of de-industrialization. While much of the corridor is open-space, the major urban areas are often characterized by decline, as once plentiful well-paying jobs have vanished.

Economic development in the corridor depends upon the ability to attract high quality firms and employees. This presents an interesting question: Do high quality firms follow high quality employees, or vice-versa? While the true answer to this question is probably “a bit of both,” this paper will place greater weight on the assertion that high quality firms and job follow high quality, skilled employees. That is, good jobs will come to a particular geographic region only after the human capital needed to support those jobs is already there.

The question that must be answered is: How to attract high quality employees (i.e., people with large amounts of human capital)? We assert that people choose to move to particular geographic areas based on particular variables in that region. These variables include: age distribution of the population, percentage married, skill level of present population, various cultural indicators (e.g., museums, coffee houses, theaters, etc.), access to public transit, percentage minority, percentage below poverty level, commuting costs, etc.), pollution of all types (i.e., water, air, noise, light). That is, people choose to move to a particular community based on particular variables that help to define the perceived “quality of life” in the community.

If certain combinations of these variables attract high quality employees, then they indirectly attract employers, leading to economic growth. While total employment and has grown in the corridor in all counties but Herkimer, the change in total population over the past three decades has been mixed, as seen in Table 1.

Table 1: Total Population and Employment Change: 1970-2000

County	Total Population (000s)			Total Employment (000s)		
	1970	2000	Pct Chg	1970	2000	Pct Chg
ONTARIO, NY	79.331	100.288	26.42%	27.489	59.705	117.20%
COLUMBIA, NY	52.045	63.055	21.15%	18.553	29.791	60.57%
MADISON, NY	62.995	69.398	10.16%	17.722	31.24	76.28%
CAYUGA, NY	77.721	81.913	5.39%	27.518	34.542	25.53%
MONROE, NY	711.998	735.362	3.28%	348.67	487.347	39.77%
ALBANY, NY	287.09	294.385	2.54%	180.913	271.658	50.16%
GENESEE, NY	58.928	60.333	2.38%	24.286	30.087	23.89%
RENSSELAER, NY	152.878	152.443	-0.28%	45.481	65.951	45.01%
ONONDAGA, NY	472.723	457.795	-3.16%	223.482	308.129	37.88%
HERKIMER, NY	67.733	64.386	-4.94%	29.725	25.13	-15.46%
SENECA, NY	35.129	33.322	-5.14%	39.503	50.83	28.67%
CHAUTAUQUA, NY	147.841	139.663	-5.53%	59.951	73.707	22.95%
SCHENECTADY, NY	161.36	146.439	-9.25%	8.004	13.142	64.19%
MONTGOMERY, NY	56.128	49.676	-11.50%	22.549	25.019	10.95%
ONEIDA, NY	273.419	234.957	-14.07%	114.625	135.712	18.40%
ERIE, NY	1114.702	949.237	-14.84%	474.94	557.766	17.44%

Ontario County’s employment growth nearly doubled that of the second-place finisher, Madison County. Of particular interest here is the fact that both of these counties experienced some of the lowest declines in working age population over this period, and were the only two counties in the corridor to enjoy positive change in manufacturing employment during the same time period, as shown in Tables 2 and 3.

The loss of young people in most counties results in a drain of skilled labor. Low skilled labor has low productivity. Low productivity begets low wages and low wages beget low incomes. Areas with low incomes are typically unattractive to businesses, particularly retail businesses. In the absence of attractive retail businesses and activities, drawing young, talented, highly skilled labor into the

counties in the I-90 corridor will be problematic. Attention must be paid to attracting and retaining such labor. In the absence of such human capital, businesses will not be attracted to the area and incomes and economic growth will remain low. Remaining businesses may also leave for areas in which the search costs for skilled labor are lower.

Table 2: Young Working Age Population, 1970-2000

County	Pop Age 18-24 (000s)		
	1970	2000	Pct Chg
ONTARIO, NY	8.804	8.311	-5.60%
ALBANY, NY	35.921	33.362	-7.12%
CHAUTAUQUA, NY	15.724	14.324	-8.90%
COLUMBIA, NY	4.485	4.027	-10.21%
MADISON, NY	9.278	8.302	-10.52%
MONROE, NY	83.739	69.683	-16.79%
HERKIMER, NY	6.425	5.344	-16.82%
CAYUGA, NY	8.4	6.689	-20.37%
GENESEE, NY	5.679	4.519	-20.43%
RENSSELAER, NY	19.837	15.437	-22.18%
ONONDAGA, NY	58.271	43.582	-25.21%
SCHENECTADY, NY	15.936	11.58	-27.33%
SENECA, NY	3.5	2.489	-28.89%
ERIE, NY	119.953	82.586	-31.15%
ONEIDA, NY	29.774	20.233	-32.04%
MONTGOMERY, NY	5.338	3.571	-33.10%

Table 3: Employment Across Various Sectors, 1970-2000

County	Manufacturing Empl (000s)			Services Empl (000s)			FIRE Empl (000s)		
	1970	2000	Pct Chg	1970	2000	Pct Chg	1970	2000	Pct Chg
MADISON, NY	1.669	3.314	98.56%	3.736	10.352	177.09%	1.345	1.702	26.54%
ONTARIO, NY	4.87	8.558	75.73%	5.334	16.301	205.61%	1.805	3.13	73.41%
COLUMBIA, NY	3.667	3.163	-13.74%	3.139	9.34	197.55%	1.128	1.942	72.16%
CHAUTAUQUA, NY	18.768	14.194	-24.37%	8.279	21.101	154.87%	3.715	3.204	-13.76%
ONONDAGA, NY	54.952	38.825	-29.35%	39.742	99.02	149.16%	18.891	25.763	36.38%
MONROE, NY	132.344	93.324	-29.48%	63.816	171.819	169.24%	22.302	33.547	50.42%
CAYUGA, NY	6.767	4.413	-34.79%	4.527	10.352	128.67%	1.905	1.446	-24.09%
ONEIDA, NY	26.511	15.837	-40.26%	16.932	45.772	170.33%	7.88	10.609	34.63%
RENSSELAER, NY	8.719	5.108	-41.42%	11.077	24.423	120.48%	2.751	4.258	54.78%
SENECA, NY	3.725	2.087	-43.97%	1.418	3.663	158.32%	0.603	0.544	-9.78%
MONTGOMERY, NY	8.909	4.849	-45.57%	2.899	7.143	146.40%	1.085	1.369	26.18%
ERIE, NY	130.075	69.876	-46.28%	79.911	186.52	133.41%	31.231	46.89	50.14%
ALBANY, NY	21.957	11.618	-47.09%	28.135	90.938	223.22%	11.365	23.425	106.12%
GENESEE, NY	7.65	3.981	-47.96%	3.462	8.529	146.36%	1.518	1.402	-7.64%
SCHENECTADY, NY	24.593	9.194	-62.62%	14.631	29.35	100.60%	4.398	4.74	7.78%
HERKIMER, NY	14.598	4.204	-71.20%	2.623	6.371	142.89%	0.863	1.252	45.08%

Note that Ontario and Madison Counties were the only counties to experience positive change across all three major sectors of employment. While all counties saw large increases in service sector employment, following the national trend, the largest growth occurred in counties that contain or border urbanized areas. A similar pattern holds for employment in the FIRE sector.¹

These growth trends reveal something about the quality of communities. Many of these jobs and people moved to such counties to take advantage of a quality of life that is absent from the more urbanized counties of the I-90 corridor. Quaint towns attract people with the wealth of green space, low crime, quality housing, cultural institutions, and lively town centers that characterize communities. As population has shifted out to such areas, people have been forced to move further “out of town.” People living in these more distant locations must commute further distances to work, contributing to increased congestion on

¹ See Appendix at end of document for detailed maps of these statistics.

local and regional connecting arteries as they compete for capacity with other commuters and trucks.

Much of the economic activity in the I-90 corridor is tied to the economic centers at the ends of the corridor: Toronto, Boston, and, to a lesser extent, New York City. These centers of economic activity provide the forces that push economic activity throughout the corridor. They provide demand for the goods and services produced in the corridor, as well as gateways for goods and services entering the corridor. They also provide the outlets through which commodities produced in the corridor flow to the rest of the globe. As a result, efficient linkages to these economic centers are vital to economic growth and development in the corridor. I-90 forms the backbone of this system, and links to this backbone must have adequate capacity to move goods and people efficiently along the corridor.

The next section discusses some of the important issues regarding the linkages between economic development and transportation infrastructure in the I-90 Corridor.

MAJOR TRANSPORTATION MODES AND ISSUES IN THE I-90 CORRIDOR

As domestic and international trade continues to grow, the I-90 Corridor has seen significant increases in the volume of freight traveling on its roads. Trucks are viewed by industry as being the most reliable shipping mode, especially with the growing importance of just-in-time delivery. All regions along the I-90 Corridor report increased truck traffic, with trucks accounting for up to 40 percent of highway traffic in some areas. The “Golden Horseshoe” of freight traffic, connecting Rochester, Buffalo and Toronto is an important and heavily traveled route for truck freight in the region, including an important route for the auto industry connecting auto plants in Tonawanda, Lackawana, with Hamilton and Toronto. The highway congestion caused by the truck traffic along the highways has made capacity limitations a growing concern in many metropolitan areas in the region. Conflicts between commuter trips and truck traffic have led to

reoccurring congestion. Especially problematic are back ups at many exits and toll plazas in metropolitan areas along the corridor, including exit 50 in the Buffalo area and exit 36 in the Syracuse area. This congestion not only detracts from the quality of life for residents, but time delays cost shippers money, making the route a less attractive business location and shipping option for industry.

Toll Structure

The issue of toll structure and collection is a concern along many areas of the I-90 Corridor. ITS technologies have the potential to improve the efficiency of toll collection along the corridor, and can improve the speed of entry onto I-90 and I-87. The number and location of toll plazas must be evaluated, as some toll plazas cost more to maintain than they collect in tolls. However, HR issues must be resolved concerning what will be done with toll collectors if ITS technologies are instituted and toll plazas shut down. Security at toll plazas must also be addressed since many of the toll plazas are not currently designed to accommodate security needs.

Border Crossings

Congestion and delays along the border with Canada are also an area of major concern along the corridor. Since the signing of NAFTA in 1989, there has been a significant increase in north-south trade. Canada is the nation's largest trading partner, and trade with NAFTA partners grew from 26 percent of total U.S. trade to 33 percent in the 1990s.² The border crossings, primarily in the Buffalo/Niagara area, must be dramatically improved for the region to capitalize on the large volume of freight crossing the border. Proposals to twin the Peace Bridge must be resolved in a way that will accommodate future growth in freight and passenger travel. On the Canadian side of Lake Ontario, current construction of a new highway should help relieve truck traffic and similar investments must be made on the U.S. side of the border to facilitate trade. Delays along the Peace Bridge and highway congestion make the corridor a less

² Federal Highway Administration, Office of Freight Management and Operations, "Multi-Modal Freight Analysis Framework, Freight theme: Trade."

attractive option to shippers, and these problems have only been exacerbated by security concerns and delays along the border. Security delays are a human resources problem as much as they are a capacity problem, with new drivers needing correct identification to expedite travel.

Freight Movement

Currently, the majority of freight in the state is moved via trucks, which are seen as being more efficient and reliable than rail. This perception is increasingly important as the economy moves towards just-in-time delivery, which 28 percent of U.S. production is already based on. The large amounts of truck traffic contribute to significant congestion and air pollution problems in many communities along the I-90 corridor, and as trade continues to grow, there will be increasing pressure on highway corridors. The current reliance on trucks is an unsustainable practice, and the region must adjust its infrastructure investments in order to remain competitive in the global economy. As the levels of congestion on the nation's highways increase, the competitive advantage of trucks will decrease, making rail a much more viable option. The rail corridor along I-90 connects the upstate region to Chicago, the nation's busiest rail hub, Toronto, and Boston, as well as providing connections to New York City, the nation's largest consumer market.

Rail

Investments in the rail network along the corridor can make rail a more competitive option for the freight industry and also improve connections between upstate communities by providing a quick and reliable mode of passenger and business travel. There is currently a tremendous amount of rail freight handling capacity in the upstate region, but getting freight from the Port of New York/New Jersey to the rail corridor is difficult. The PIDN (Port Inland Distribution Network) plan of the Port Authority is a possible way for cargo to access the upstate rail yards quickly and without having to depend on trucks. Rail capacity issues that must be addressed include the need for double tracks and improved crossings.

Possible rail investments also include a high-speed passenger rail service connecting Buffalo, Rochester, Syracuse and Albany with additional connections from Albany to New York City.

Importance of Selkirk Rail Yards

As New York State and the nation analyze future infrastructure investments, the increasing importance of global trade must be considered. The value of international imports and exports grew at an annual rate of 9.3% in the 1990s, now totaling over \$2 trillion and accounting for 24.1% of the nation's gross domestic product.³ Since its founding, New York has benefited from its strategic location as the state developed into a global center for trade and commerce. The state pioneered innovations in transportation investments, ranging from the Erie Canal and the railroads to the first container port with the Port of New York and New Jersey. These innovations and investments helped the state gain a competitive advantage over other states and regions. But to realize its future potential, New York must actively invest in improving and developing its transportation infrastructure in order to serve the economy of the 21st century.

Transportation infrastructure is one of the key components of the nation's competitiveness, providing crucial links in national and international trade networks. With the busiest East Coast port, as well as rail and highway links connecting Northeast, Canada, the Midwest, and the Southeast, New York is well situated to cement itself as a major driving force of the domestic and international economies. For much of the 20th century, east-west trade routes dominated international trading patterns, resulting in significant development of rail and highway corridors serving these routes. In New York State the I-90 corridor serves as the major transportation connector for goods moving east-west through the Northeast, with connections to Chicago and Boston.

³ AASHTO, "Bottom Line Report." 2002. www.transportation.org/bottomline/value03.html.

Since 1990, with the signing of NAFTA in 1989, there has been significant increase in north-south trade. Canada is the nation's largest trading partner and Mexico and Latin America emerging as growing trade partners. In the 1990s, trade with NAFTA partners grew from 26 percent of total U.S. trade to 33 percent.⁴ New York State handles a great deal of the freight traveling north-south along the eastern seaboard. The I-87 corridor in New York State acts as a gateway for a great deal of freight traffic heading south from Montreal, and also connects with the I-90 corridor linking Toronto to New York City and the Southeast. New York must invest in these transportation corridors to make them competitive with other routes both to reduce the costs of the goods the state imports and exports and to capture the growing business along the NAFTA corridors.

Currently, the majority of freight is moved via trucks, which are seen as more efficient and reliable than rail. This perception is increasingly important as the economy moves towards just-in-time delivery, which 28 percent of U.S. production is already based on. The large amounts of truck traffic contribute to significant congestion and air pollution problems in many regions. As trade continues to grow, there will be increasing pressure on highway corridors, which are already struggling to serve the residential traffic. Investing in other forms of transportation to take the pressure off the highways must be a major priority. AASHTO forecasts that if there is minimal investment and no growth in the freight rail industry between now and 2020, almost 900 million tons of freight and 31 billion truck miles of travel will shift to the highways.⁵ The delays and congestion caused by these increases in volume will cost shippers and estimate \$326 billion, and will cost highway users an estimated \$429 billion in travel time, operating and accident costs.⁶ The current reliance on trucks is an unsustainable practice, and the nation must adjust its infrastructure investments in order to remain

⁴ Federal Highway Administration, Office of Freight Management and Operations, "Multi-Modal Freight Analysis Framework, Freight theme: Trade."

⁵ AASHTO, "Bottom Line Report." 2002. www.transportation.org/bottomline/linkage02.html

⁶ AASHTO, "Bottom Line Report." 2002. www.transportation.org/bottomline/linkage02.html

competitive in the global economy. As the levels of congestion on the nation's highways increase, the competitive advantage of trucks will decrease, making rail a much more viable option.

New York State has a significant amount of rail that has enormous potential to transport freight both within the state and region as well as nationally and internationally. In 2000, New York State's rail network carried over 74 million tons of freight. This freight moves primarily along two major transportation corridors traversing the state. The rail corridor along I-90 links Chicago, the nation's busiest rail hub, Toronto, and Boston, as well as providing connections to New York City, the nation's largest consumer market. The I-87 corridor also provides a valuable link, running north-south from Montreal through New York City to locations throughout the Southeast.

All rail freight on these corridors must pass through the CSX's Selkirk rail yards, located eight miles south of Albany and approximately 140 miles north of New York City. Selkirk is strategically located at the convergence of these main north-south and east-west trade routes, and acts as the place for final classification and distribution to all points east. The Selkirk rail yards were once pioneers in the rail industry, becoming the first yard designed to operate exclusively with a digital computer control system. Trains of 150 cars or more can efficiently be classified in less than one hour, and over 3,200 cars can be processed for consolidation and distribution to as many as 70 different locations each day. The rail yard's total capacity is 8,500 cars. The rail yards also process a great deal of freight from the Port of New York and New Jersey, some of it heading directly back to New York City once it's crossed the Hudson River.

Of the 74 million tons of freight carried by rail in the state, nearly 10 million tons originates in New York and approximately 25.5 million tons terminates there. The rest of the freight, nearly 69 million tons, passes through the state on its way elsewhere. This presents many opportunities for communities to invest in logistics operations and facilities that add value to the goods moving through the

state. Of the deliveries that terminate in New York, by weight 37 % is coal and another 10% is food products. The largest freight commodity that originates in New York is waste and scrap material, which compromises 23% of the freight traffic followed closely by chemicals, which account for another 20% of the freight originating in the state.

The Selkirk rail yards provide the only rail access to New York City, the nation's largest consumer market. Goods entering the region at the Port of New York and New Jersey must travel up to Selkirk before transferring to rail lines heading back down to New York City. The delays at Selkirk combined with the right-of-way conflicts with passenger rail heading back into the City make rail uncompetitive for distributing goods to communities east of the Hudson River. Currently, less than 3 percent of goods shipped across the Hudson River move by rail, with the rest traveling by truck into the already heavily congested and polluted streets of New York City. Predicted increases in containerized freight movement and the larger ships the shipping industry is pushing will mean more goods entering the ports in higher concentrations. The region's highways are ill equipped to handle this flood of truck traffic, making the development of better rail connections an important issue for the region.

The Importance of JIT and Intermodal Transportation

While rail is usually a cheaper form of transportation for many bulk goods, the increasing dependence on just-in-time delivery, smaller inventories and door-to-door service combine with inefficiencies in the rail network to make rail uncompetitive with other forms of transportation, namely trucks. Currently, trains and goods spend a day at Selkirk transferring freight, and this time delay is too costly to allow rail to compete with truck traffic. Industry places a high value at time-efficient and reliable service, and investments must be made in the rail network serving New York State to make rail a viable option. These investments must center around the Selkirk rail yards. Selkirk not only serves as the major classification and distribution center for goods traveling into, out of, and through New York State, but it also serves as a crucial connection for goods traveling via

rail from the Port of New York and New Jersey which is located west of the Hudson River. Investing in the Selkirk rail yards can help make rail more competitive with trucks, thereby easing congestion on the highways and reducing pollution and providing a seamless and efficient transfer point for goods.

In interviews with representatives from the rail and shipping industries in the New York region, industry representatives cited the need for substantial investment in the rail network, a clear commitment to rail, and a more level playing field in order to make rail more competitive. While investing in the rail system within the state may help boost rail, many of the investments must be made on a larger system-wide level. The CSX system dominates New York State, providing connections for New York's industries and residents with a 23,000 mile rail network stretching from Montreal to Miami and Boston to New Orleans. In 1999, CSX moved nearly 29 million tons of freight values at approximately \$9.8 billion through New York State.⁷ CSX is pressing for investments to enable double-stacked trains to serve the increasing volume of container freight, including major improvements in clearances and crossings along the entire network. Because adding additional rail lines is a costly proposition that often runs into community resistance, improving clearances and crossings can be an effective way of increasing capacity along the trade routes. Upgraded clearances and improved crossings can make the rail network more efficient and cost-effective without having to add as many new tracks.

The railroads also need increased capacity and better access to the existing rail lines. The growth of freight traffic aggravates already existing right-of-way conflicts with local community's attempts to increase passenger rail service. This is especially true on the portion of the rail network running from the Selkirk rail yards to New York City. On this critical corridor, the rail industry must adjust its schedule around Amtrak and MetroNorth, which control the right-of-way. This

⁷ CSX Press Release: "A Strong Partner in New York's Economy, CSX Transportation Turns 20." Dec 21, 2000.

leaves the railroads a very small window of time in which to move large volumes of freight. This issue must be resolved if rail is to be competitive with trucks in the region. As air pollution and congestion continue to be serious problems in New York City, especially along the highways, the ability of rail to capture a portion of freight delivery will be crucial to the region's continued growth and quality of life.

Value Added Facilities

With anticipated increases in the large volume of freight passing through the upstate region, many communities could benefit from investing in facilities that add value to goods at or near rail yards or major highways. Region 2 is looking at investing in four high-speed access points to the Thruway in order to improve access for freight traffic. This access will become increasingly important in order to encourage investments in value-added facilities throughout the upstate region. The area around Amsterdam has been investing in distribution centers, including a major center for K-Mart, and in the Buffalo/Niagara area, CSX is creating a new rail yard and hopes to have value added warehousing or distribution centers to serve the goods coming from the Port of New York/New Jersey. Distribution centers and warehouses rely on efficient access to the highways, and the increased traffic that accompanies these facilities must be balanced with current and future residential traffic.

ISSUES AND OPPORTUNITIES

- A need for more efficient simultaneous movement of freight and commuters.
- Improvements needed at border crossings, including: security, congestion, and additional road and rail capacity.
- Efficient connections needed between highways, rail, and local roads.
- Enhanced use of intermodal freight

Mode	Issue	Opportunities
Highway	Congestion along I-90, especially at key interchanges and exits in metropolitan areas; Security at toll plazas	ITS – Rapid toll collection, express freight on-ramps Reevaluation of toll plaza locations and collections Increased capacity
Rail	Underutilization of capacity, lack of world class facilities for passengers and freight	High-speed passenger rail service connecting metropolitan areas; upgrade of rail network, including crossings, double-tracks, and double stack freight
Border crossings	Security delays, congestion	Improved security checkpoints, increased capacity and throughput, enhanced use of ITS
Intermodal	Inefficient linkages between truck and rail	More efficient interchanges between truck and rail, better connections to airports, PIDN

APPENDIX A

SUMMARY OF INTERVIEWS WITH NYSDOT REGIONAL DIRECTORS

Regional Directors, I-90 Corridor

Common Themes:

- 1. A substantial amount of transportation infrastructure already exists along I-90 but this infrastructure needs additional capacity and more efficient connections.**
- 2. Highway congestion and capacity limitations are a growing concern as some metropolitan areas face growing congestion and truck traffic continues to increase.**
- 3. As the region moves away from its old manufacturing and industrial based economy, economic development efforts are turning to the high tech and bio-tech industries as well as value-added facilities aimed at capitalizing on the amount of freight traveling through the region.**

- 1. A substantial amount of transportation infrastructure already exists along I-90 but this infrastructure needs additional capacity and more efficient connections.**

- **Rail investment**

- DOT is currently looking at high-speed rail investment with the Empire Corridor project. The project would be a partnership with Amtrak running high-speed trains from Albany south to NYC and west to Buffalo.
- Rail capacity issues include the need for double tracks and the ability to use more capacity in upstate cities.
- PIDN- there's a tremendous amount of rail freight handling capacity in the upstate cities but first we must get the freight from NYC/NJ to Syracuse and Buffalo. PIDN may be a good way to do that.
- Rail freight is projected to continue increasing through the Rochester region, with CSX currently running 50 trains per day and NS 12 trains per day, as well as several short lines providing service to local businesses.
- Region 4 highlighted the need for upgraded tracks and crossings.

- **Need better north-south transportation corridors, both for connections with I-90 as well as trade routes with Canada.**

- Peace Bridge- Buffalo/NF side still in environmental review and the plan that makes the most sense looks too expensive.

- The Canadian side of Lake Ontario is building a new highway, starting at Peace Bridge that will relieve truck traffic.
- Need a more open border- security and HR concerns.
- Destiny development goes ahead as planned, several hundred million dollars worth of interstate investments will need to be made. The focus of these investments should be connections with I-81 and I-690.
- Syracuse region needs better connections between I-90 and I-81.
- **Possibility of opening up airports for cargo**
 - NF airport- NFTA is interested in bringing freight into the airport.
 - Utica-Rome Airport has great potential for future development.
 - Studies in Region 4 show that rail freight to airport connections are not too economically feasible.

2. *Highway congestion and capacity limitations are a growing concern as some metropolitan areas face growing congestion and truck traffic continues to increase.*

- **Trucks are still seen as more cost-effective for shippers, especially with the growing importance of just-in-time delivery.**
 - All regions are seeing an increase in the percentage of trucks on the road.
 - Need for truck facilities such as rest stops.
 - On I-81 they are about to construct a new full size rest area to accommodate trucks. The new rest area will have more space and upgraded facilities
 - Truck freight “Golden Horseshoe” from Rochester- Buffalo-Toronto.
 - Auto industry truck traffic goes from Tonawanda, Lackawana GM, Ford, to Hamilton, Toronto
 - Truck traffic on non-expressway routes in Region 2 is increasing as trucks use local roads to access I-87. If value-added facilities are developed, these connections must be improved to handle the increased freight.
 - In Region 4, trucks account for up to 40% of highway traffic on some corridors and truck traffic is especially an issue on the Route 63/20/77 corridor.
- **Highway congestion along the Thruway**
 - Reoccurring congestion at exit 50 in the Buffalo area and exit 36 in Syracuse
 - Need to revamp the toll process- the number and location of toll plazas and the use of ITS to collect tolls must all be looked into.

- Toll plazas are a security issue- not currently designed to accommodate security needs.
- In Syracuse a major issue is I-81, the main north-south corridor, and where it intersects with I-90. Exit 36 is exceeding or approaching capacity and the ramp backs up out into the main lines. There are six interchanges in a 13-mile span in the Syracuse metropolitan area- consolidating tolls is a possibility.
- Improved access points- Region 2 is looking at four high speed access points to the Thruway using ITS- primarily geared towards the increasing freight traffic.
- In Region 4, maintenance and needed upgrades on the expressways are difficult because of limited funds.

3. As the region moves away from its old manufacturing and industrial based economy, economic development efforts are turning to the high tech and bio-tech industries as well as value-added facilities aimed at capitalizing on the amount of freight traveling through the region.

- **Loss of manufacturing and heavy industry from the region. New focus on high tech, bio/health related sectors. University clusters and teaching hospitals upstate help.**
 - The Destiny development will have large impacts in the Syracuse area as well as the western portion of Region 2. However, most other industries in the Syracuse area are not doing well- companies such as Courier and Nestle have either closed or downsized their operations.
 - Region 2 has a site near SUNY Institute of Technology that is being developed as a potential chip factory.
 - Roswell Park in Buffalo
 - High tech corridor is emerging in bio-informatics with SUNY/Buffalo as a focal point.
- **Possibility for economic growth throughout the region by investing in value-added facilities such as warehouses and distribution centers.**
 - The region anticipates increasing freight volumes and could benefit by investing in facilities that add value at or near rail yards.
 - Region 2 has identified the area around Amsterdam as an area with potential for development of distribution centers (K-Mart project already in development). The area has good access to I-87 and I-88.
 - In the Buffalo/Niagara region CSX is creating a new rail yard and hope to have value added warehousing or distribution centers to serve the goods coming from PoNY/NJ.
 - Region 4 has identified areas for intermodal facilities/terminals but the costs are too high.

1. Region 5, Brian Rowback,

Three big issues

- border crossing (Canada, NY)
- Electronic tolling
- Re-occurring delay on highway system, showing need for new capacity.

Economic conditions: Buffalo, NF transition from Heavy industry – steel, chemical, with great loss of jobs, to newer economic sectors, such as high tech.

High tech includes health, bio related – have teaching hospitals and universities, Roswell Park

A high tech corridor is emerging in bio-informatics – close to hospital corridor., SUNY/Buffalo is a focal point

With loss of industry had decay of core- need to bring jobs back to core. What remains downtown is banking, public sector

Most areas declining except Clarence and Amherst, historic older 1st ring suburbs.

There is no regional land use policy, and suburban towns not interested in investments in the core.

Downtown still trying to develop waterfront (retail, housing)

Bigger picture is the International Border.

Niagara Falls, NY trying to emerge as a force with tourism. Investment in gaming

From Canadian side- Canadians don't want to have their tourists come to NY. Would like to have cars only Peace Bridge, bring trucks through NF – (to Lewiston?)

Truck freight goes through the Golden Horseshoe – Rochester – Buffalo – Toronto. As trade increases need more open border, Buffalo – Canada

Auto industry related truck movements- from Tonawanda, Lackawana GM, FORD , to Hamilton, Toronto.

Canadian side of Lake Ontario, building new highway - starting at Peace Bridge - – a toll road, in the middle of the peninsula – will relieve truck traffic.

Proposal to twin Peace Bridge now on hold, undergoing environmental review. However, the proposals that make most sense are too expensive.

Currently must address security issues, Design of existing Plazas do not fit with demands for security.

Security is also a HR issue – always new truck drivers- must check Ids (this was also a problem noted in discussions with Maher terminals)

Rail issues – Handled by Albany

Transshipment of goods – CSX creating new yard, hope to have value added (warehousing, distribution), goods coming from PoNY/NJ

Opportunity – significant rail infrastructure in place; transportation is minor component of need – infrastructure is good, mature.

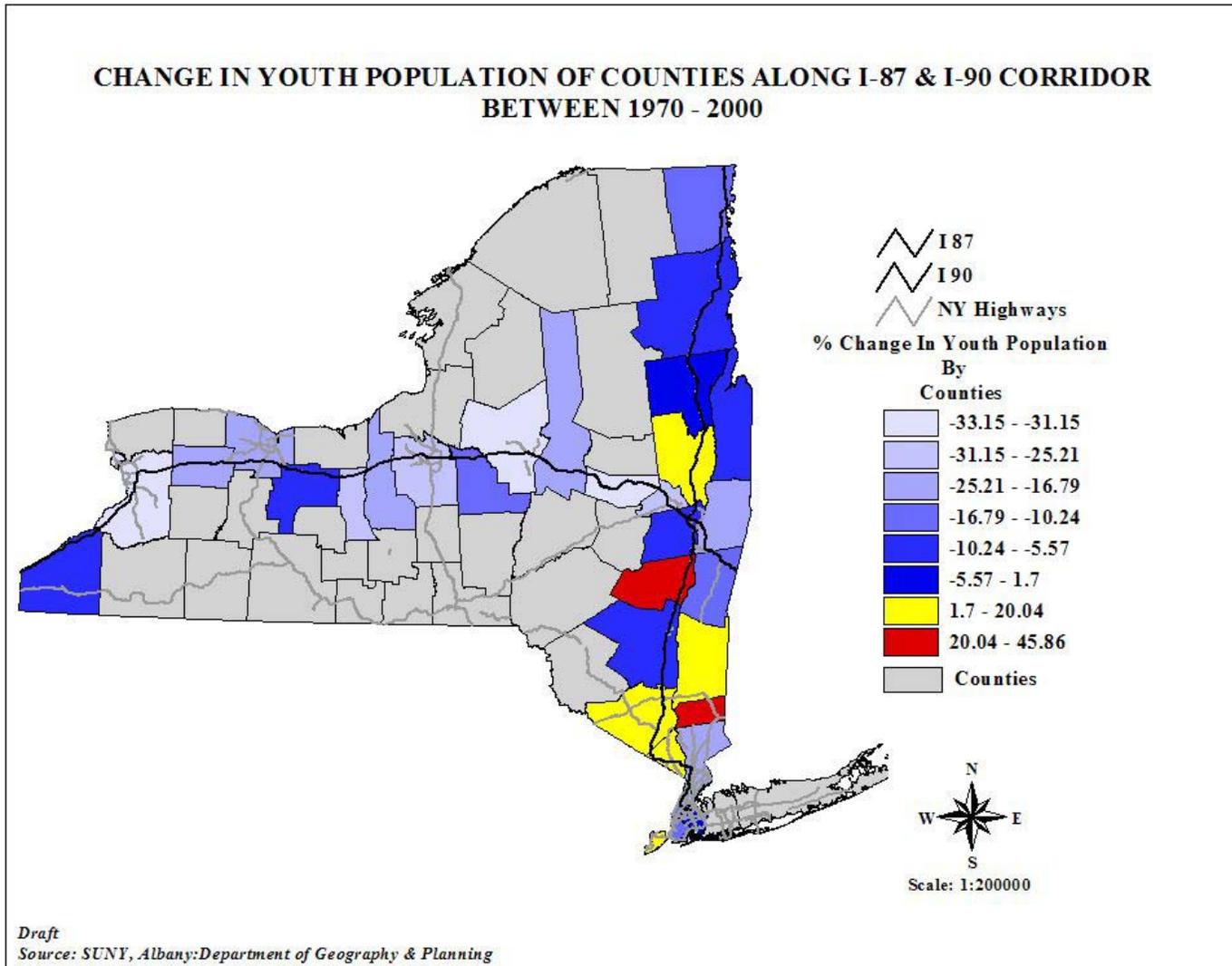
Highway

Commuting in Buffalo is 20 minutes

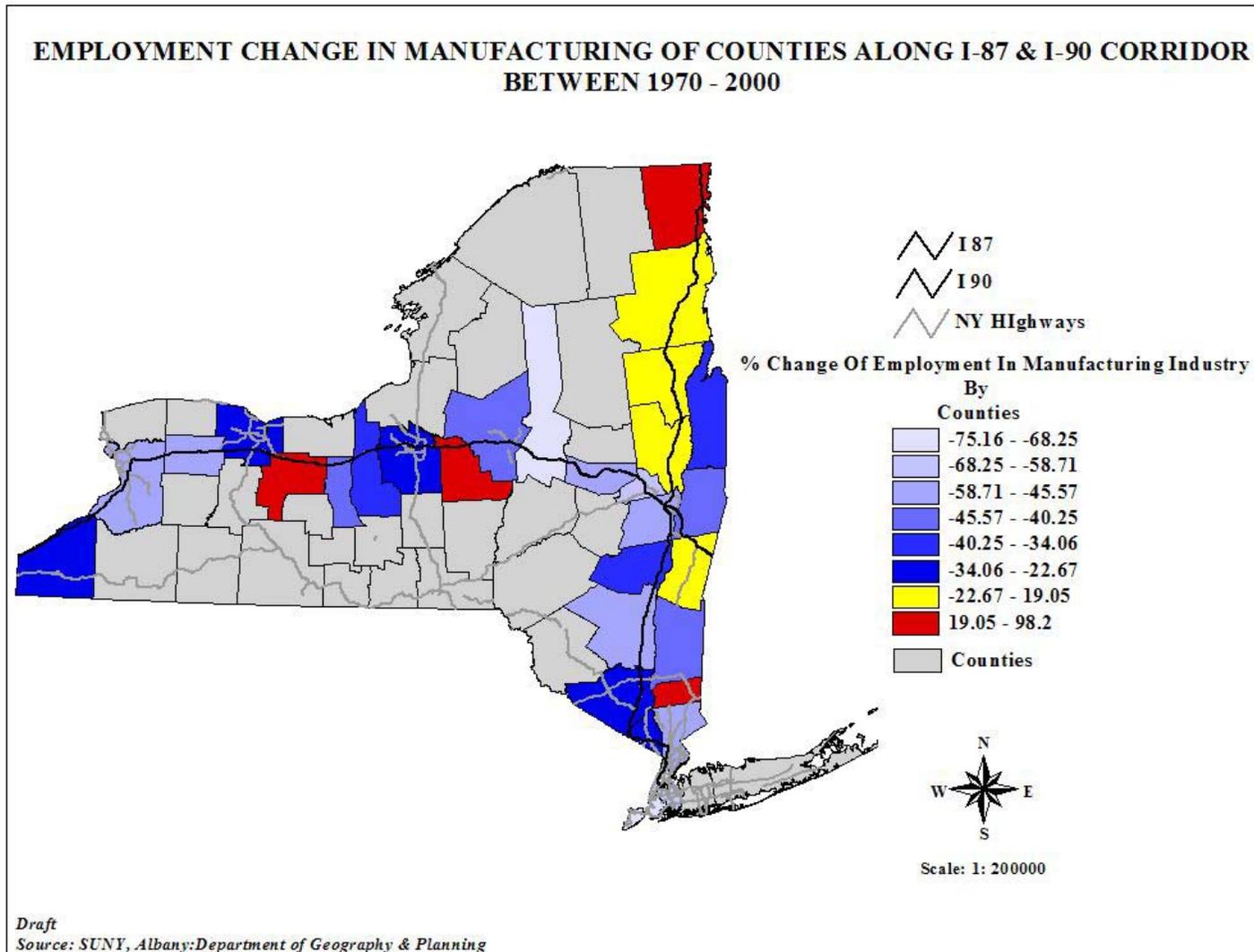
Have reoccurring congestion at exit 50 – toll barrier, transfer to Youngman – I190
Toll barrier is issue- move toll barrier, needs to be fully electronic (HR issue – what to do w/collectors)

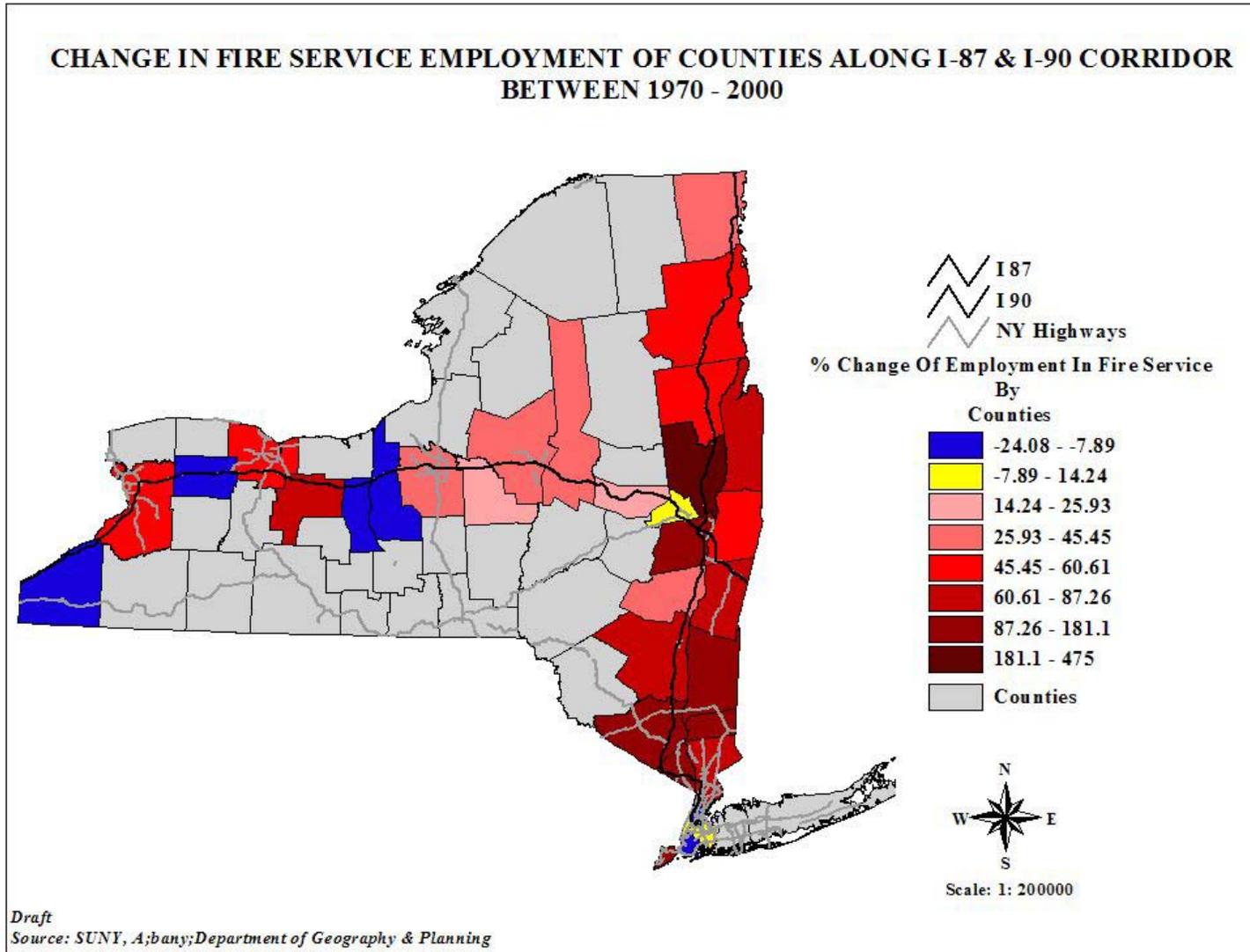
NF airport is regional asset, especially for freight, NFTA would like to bring freight to NF airport.

Appendix B

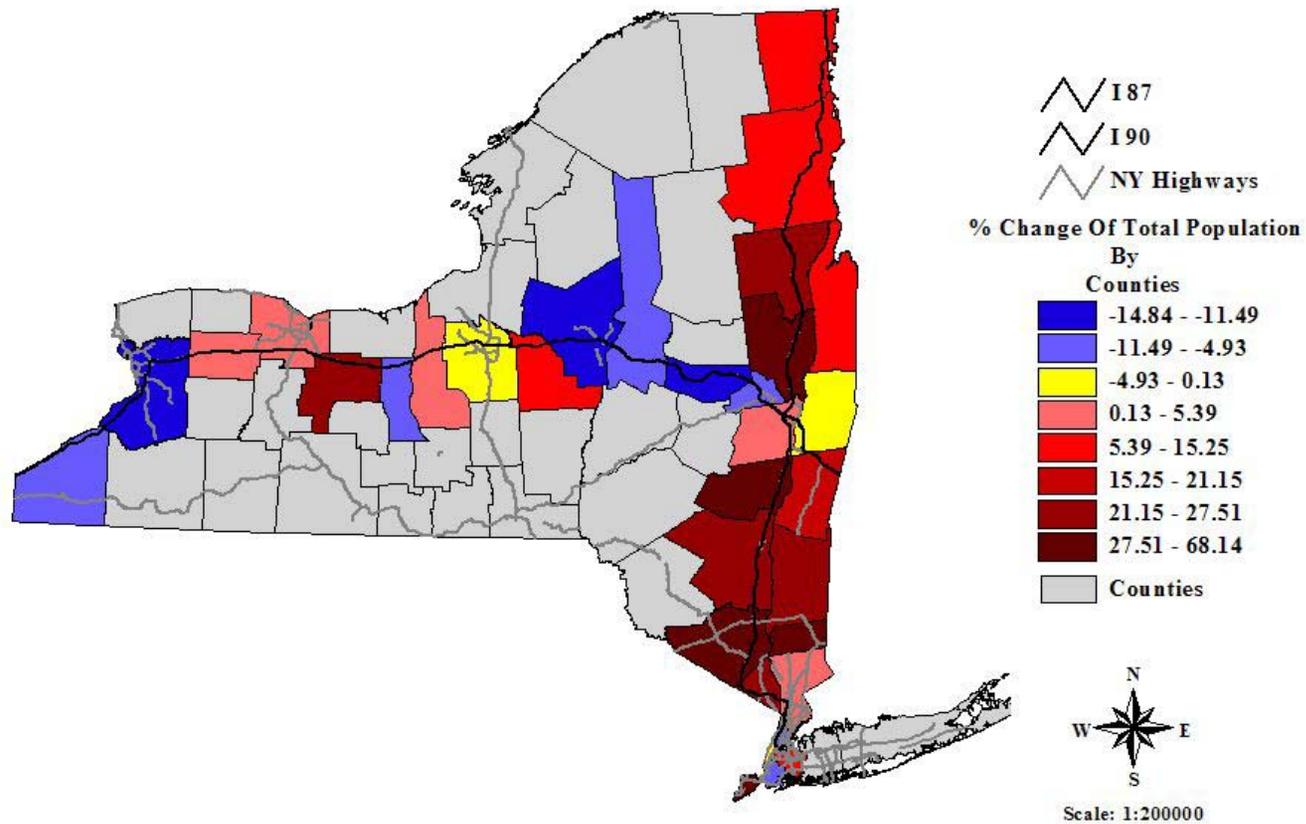


NEW YORK IN THE WORLD ECONOMY





CHANGE IN TOTAL POPULATION OF COUNTIES ALONG I-87 & I-90 CORRIDOR
BETWEEN 1970 - 2000



Draft
Source: SUNY, Albany; Department of Geography & Planning