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Jersey Bridges Falling Down?: Report on New Jersey's Bridges and an Evaluation of the Bridge Bond Act

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Jersey Bridges
Falling Down?

January 2001

A Report on
New Jersey's Bridges and an Evaluation of the Bridge Bond Act

Submitted to the
Center for Public Service
Master of Public Administration Program
Seton Hall University

By


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Faculty Advisor


Director

Jersey Bridges... Falling

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New Jersey's Critical Need to Repair Bridges

In order to better understand the 1999 ballot question, to fund the Statewide Transportation and Local Bridge Bond Act of 1999, this report will provide (1) a brief background on New Jersey's previous Bridge Bond Acts, (2) outline the State's critical bridge repair needs, and (3) evaluate the Acts of 1983 and 1989 to the Bridge Bond Act of 1999. This analysis will also highlight how the continued need to repair our bridges is outlined in Governor Whitman's New Jersey FIRST Vision (Whitman, 1998).

Transportation in New Jersey

Governor Whitman has called Transportation "the heartbeat of New Jersey's economy." In this new millennium, we must be mindful of the Governor's words and be willing to meet the challenges that face our State's transportation system. The investments made today will ensure that our network of bridges, roads and public transit services remain viable in the next century. Preparing for the transportation demands of the 21st century, and providing future generations with a first class transportation system, was the driving force behind the Governor's strategic transportation vision outlined for the people of New Jersey last year. Her vision is a 12-year, \$30 billion transportation

plan, "New Jersey First," a comprehensive agenda that includes everything from public transit and ports, to road and bridge improvements. It is a long-range transportation strategy for renewing and revitalizing New Jersey's system.

However, there is a gap between the vision and the reality that must be bridged.

New Jersey has presently:

- Almost 400 miles of deteriorated roadway
- More than 150 highway locations that routinely flood during heavy rain;
- More than 1,000 buses and 160 train engines and passenger cars in direct need of an overhaul; and
- Over 1,000 bridges in the state that are now structurally deficient.

During the next three years, the gap between capital funding needs for New Jersey's Department of Transportation (NJDOT) and available revenue will grow to more than \$3 billion. This situation is a function of the state's aging infrastructure and is growing worse with each passing year. New Jersey's Transportation Trust Fund (TTF), which is comprised of a dedicated amount of the state's gas tax, provides nearly half the money to invest in our capital improvement projects. Due to rising debt, this fund will not be able to support any new projects beyond the next fiscal year.

Substantive discussions among the State's legislators on how to replenish the TTF and meet future transportation needs are on going. Fortunately, NJ is off to a good start, with the recent approval of ballot question #1 in November of 1999. The Statewide Transportation and Local Bridge Bond Act of 1999, which authorizes \$500 million in general obligation, will enable investments for the rehabilitation of structurally deficient

county bridges as well as mass transit and highway improvements. The \$250 million bridge portion of the total \$500 million will go directly to county governments to repair, rehabilitate and improve municipal and county bridges.

This Act, "Bridge Bond III", was preceded by Bridge Bond I in 1983 at \$135 million and Bridge Bond II funded in 1989 at \$115 million. Bridge Bond I was enacted before the Transportation Trust Fund existed to bond monies to maintain and rehabilitate bridges. As of 1999, only \$8.5 million remains unspent from Bridge Bond I and \$21.3 million from Bridge Bond II.

Table 1. New Jersey's Bridge Bond Acts.

Issue	Bridge Bond I	Bridge Bond II	Bridge Bond III
Date Enacted	1983	1989	1999
Total Dollars Authorized	\$135 million	\$115 million	\$250 million
Unspent funds	About \$8.5 million	About \$21.3 million	Not Applicable

Early in 1998, NJDOT started working with the NJ Association of Counties and the Association of County Engineers, to draft new Bridge Bond legislation. As legislators heard about another proposal, the NJDOT was plagued with questions as to the statewide success of the previous two Bridge Bonds. Each individual county was somewhat aware of the actual benefits yielded within their county. But no such statistical analysis with respect to the statewide completion of bridge projects existed.

Historically, NJDOT is mandated to report annually a budget before the State Legislature, a lengthy process, where the members of the Senate and Assembly Appropriations Committee question the Department on the status of projects, programs

and any issues impacting the motoring public. Often Bridge Bond questions were answered with a quick synopsis focused only on funding availability of existing bonds. Committee members were often given voluminous technical documents that were simply left unread due to the fact that the data were cumbersome. Legislators repeatedly sought a simple explanation of results based purely on project completion. Needless to say, a research paper was born to formally address the program evaluation of New Jersey's Bridge Bond.

Literature

According to Evert Vedung, "program evaluation is a highly significant, even essential tool of decision making in the public domain." He defines evaluation as the "careful retrospective assessment of merit, worth and value of administration, output and outcome of governmental interventions. Program Evaluation is then intended to "play a role in future and in practical action situations."(pg. 44).

As a whole, there are numerous articles written on the need for the development of policies and programs to integrate values inherent in the design and conduct of any evaluation. One explicitly directed attention to broader goals of policies, to include a greater sense of community outcomes, more focus on issues of distribution and a more careful selection of evaluative indicators to encompass the extent to which public sector expenditures actually bring public or community benefits. (Reese & Fasenfest, 1997).

Many articles were forums in which critical evaluation, in the true sense of the word, were presented and discussed. Basically, the overall outcome is one, which says

much about the field and the challenges inherent in designing and implementing evaluations that really explore the boundaries of what program effectiveness means.

Robust evaluations of policy are extremely difficult to design and conduct. Creating and adequately measuring program outcomes as opposed to process are two of the most formidable challenges (Bartik & Bingham, 1997). Indeed, Bartik & Bingham (1997) have pointed to the pitfalls of common evaluation methodologies such as threats to internal validity, limits of surveys, and determining levels of analysis.

Some articles provide concrete examples of methods (Vedung, 1997) others offer parameters for and considerations of new methodologies and factors that should be included in program evaluation. Taken as a whole, the collection of articles reviewed all contributed to my first effort at seeking an answer to the question, "Does the implementation of a Bridge Bond I & II deliver the necessary repair to our State's bridges?"

Jersey Bridges: a background

There are currently 5,072 bridges in New Jersey. Of this total, 49 percent are owned by NJDOT and 51 percent are owned by counties or municipalities;

Table 2. New Jersey's Bridge Inventory

Bridge Ownership	Percentage	Total Bridges
NJDOT	49%	2,477
County and Local	51%	2,595

For clarification, NJDOT is committed to the maintenance, rehabilitation and replacement of bridges in the state's highway road system to insure a safe, reliable and affordable transportation system for the public. To that end, realizing the average age of the state's bridges, a considerable investment has been made to address state bridge needs.

Table 3. NJ's Aging Bridges a Breakdown by State and County.

Bridge Age	State Bridges	State Percentage	County Bridges	County Percentage
50 + Years	785	31%	1,401	54%
46-50 Years	151	6%	118	5%
36-45 Years	456	18%	217	8%
0-35 Years	1,085	44%	859	33%

With 31% of the state's bridges over 50 years old, currently NJDOT has programmed \$1.4 billion for bridges and related projects within its 5 year Capital

Program. NJDOT estimates it would cost approximately \$3.5 billion to improve all of the bridges under its jurisdiction. The good news is that NJDOT has made and continues to invest in improvements to the State's bridges. NJDOT is currently in the process of identifying 30 new priority bridge projects for inclusion in future capital programs. The FY 00 Capital Program includes 245 bridges under design with a total of another 170 bridges approved for construction.

In contrast, NJDOT estimates the cost of approximately \$1.2 billion to improve all of the county and municipal bridges. Without an identified funding source such as a Bridge Bond these bridges compete for too few federal dollars and would not be repaired in a timely manner. Therefore, the basis for understanding the State's Bridge Bond Acts and most importantly evaluating the program's effectiveness is paramount.

Given the overwhelming approval 63-37 percent of voters on last year's referendum, this report will provide an outline of the critical bridge needs in the State, and evaluate the results of New Jersey's previous Bridge Bond Acts of 1983 and 1989. Most importantly, if the intent of the Bridge Bond Act is to repair bridge infrastructure in decline, this report will evaluate its effectiveness in meeting the state's bridge repair demands.

Methodology

This research was conducted by collecting existing bridge data, reports and testimony from the Federal Highway Administration (FHWA), NJDOT, and from each of New Jersey's 21 counties. As a part of a special task force to draft new Bridge Bond legislation, all of the 21 counties were represented by their County Engineer. Each county provided detailed bridge data relating to FHWA's sufficiency bridge rating definitions and bridge inspections conducted by engineers throughout the State.

Due to the volumes of data compiled and for relevant standards for comparison, the selection of bridge inventory data utilized for this analysis is subject to the following seven parameters:

- Bridge totals include only state, county and municipal bridges and those bridges, which received funding allocated by a Bridge Bond.
- Only structures found to be structurally deficient have been included (See following definition).
- Only structures 20 feet and greater in length.
- Inventory data is as of October 5, 1999.
- Demolished bridges have been removed from the inventory.
- Only completed bridge projects have been included. Bridge projects not completed or still in progress have been removed from the findings.
- Bridges with lengths greater than 20 feet that have been replaced with structures less than 20 feet in length are not included in the report.

A sufficiency rating is a method of evaluating highway bridge data to obtain a numeric value that is indicative of a bridge's ability to remain in service. The result of this analysis is a percentage value in which 100% would represent a bridge meeting state of the art standards and zero percent would represent a bridge in need of immediate repair or replacement.

In general, the rating considers three major characteristics of a bridge such as structural adequacy, functionality and highway significance. (Table 4).

Table 4. Bridge Sufficiency Rating Characteristics.

Characteristic	Percentage
1. Structural adequacy	55%
2. Functionality	30%
3. Highway significance	15%

This sufficiency rating is not the only criterion for judging a structure's adequacy to safely remain in service. The physical condition of a structure is monitored by the state at a minimum of once every two years to insure bridge condition will safely carry the public and legal truckloads. The rating's primary use is to identify a list of eligible bridges for available funding.

~~Structurally deficient does not mean that a bridge is unsafe.~~ The structural adequacy characteristic measures the structural limitations of a bridge. It can mean that the bridge is unable to handle the vehicle loads or speeds that would normally be expected on the highway system where the bridge is located and is posted to indicate such limitations. The functionality characteristic of a bridge examines the width and

vertical clearances of the structure. The highway significance characteristic is measured by traffic usage and its essential link to the associated highway system.

Based on the detailed selection and the definitions elaborated on previously, Table 5 shows the current total of structurally deficient bridges in New Jersey. With 62 percent of County and Local bridges being categorized as structurally deficient, a special focus on County and Local bridge needs will be emphasized throughout the rest of this report.

Table 5. Condition of State and Local Bridges, 1999.

Bridge Ownership	Structurally Deficient Total of 389	Structurally Deficient Percentage of 100%
NJDOT	339	38%
County and Local	545	62%

Thus far, this report has highlighted NJ's critical need to repair our aging and deficient bridges. The next section will describe the total number of bridge projects completed under Bridge Bond I & II. The total number of bridge projects completed was then broken down by each county and by four separate categories such as total bridge inventory, total deficient bridges, and expenditures by county and by county population. These same four categories, total bridge inventory, total deficient bridges, and expenditures by county and by county population, are the basis for the funding distribution found in Bridge Bond III.

Summary of Results

Under the authorization of Bridge Bond I & II and as of October 1999, 292 bridge projects have been completed. That is 85% completion out of a total of 342 proposed bridge projects as outlined in the Bridge Bond legislation. New Jersey's county and local bridges seem to have benefited the most with the completion of 197 bridge projects

Table 6. Total Bridge Repair by each Bond Act

	Bridge Bond I	Bridge Bond II
Total Bridges Repaired	213	79
State Bridges Repaired	43%	4%
Local Bridges Repaired	57%	96%

Of the bridge projects completed overall, only 95 projects were completed on state bridges. Bridge Bond I successfully completed 213 bridges with 121, approximately 57 % of projects on county and local bridges. Bridge Bond II allocated funding for the completion of 79 bridges projects with 96% of those repaired on county and local bridges.

Table 7. Bridge Projects Completed with Bridge Bond I & II Funds.

County Plus Percentage Of Bridge Inventory	Total Bridge Inventory	Total % Bridges Completed	Total Bridges Completed	Total County Bridges Completed	Total State Bridges Completed	Grouping
Essex (7%)	363	8%	23	11	12	High
Middlesex (6%)	313	7%	21	14	7	High
Hudson (2%)	107	7%	20	8	12	High
Bergen (7%)	380	6%	18	10	8	High
Morris (9%)	466	6%	18	12	6	High
Passaic (5%)	271	6%	18	12	6	High
Medium						
Somerset (7%)	370	5%	16	16	0	Medium
Warren (5%)	234	5%	15	13	2	Medium
Monmouth (7%)	353	5%	15	10	5	Medium
Gloucester (4%)	209	5%	14	12	2	Medium
Salem (2%)	98	4%	13	9	4	Medium
Mercer (6%)	318	4%	12	8	4	Medium
Sussex (3%)	148	4%	12	10	2	Medium
Union (5%)	246	4%	12	6	6	Medium
Low						
Cumberland (2%)	94	3%	10	9	1	Low
Atlantic (2%)	107	3%	10	5	5	Low
Hunterdon (7%)	348	3%	10	10	0	Low
Burlington (5%)	250	3%	9	5	4	Low
Camden (4%)	199	3%	9	6	3	Low
Ocean (3%)	155	3%	9	5	4	Low
Cape May (1%)	43	3%	8	6	2	Low
Total (100%)	5072	N=100%	292	197	95	

With respect to total bridge projects completed per County under Bridge Bond I & II (Table 7), Essex, Middlesex and Hudson Counties are ranked each with twenty or more projects completed. Burlington, Camden, Ocean and Cape May Counties are ranked each with fewer than 10 bridge projects completed. The average number of bridge projects completed is 14.

INVENTORY OF BRIDGES

With respect to 1999 totals of bridge inventory (Table 7), Morris County has by far the highest percentage of bridges with a total of 9%. Bergen, Somerset and Essex Counties follow with the next highest percentage of bridges each with a total of 7%. Three of the most southern counties including Salem and Cumberland each have 2% of the state's bridges with Cape May having only 1%. The average number of bridges per County is approximately 242.

DEFICIENT BRIDGES

Currently, 884 bridges in the State of New Jersey have been categorized as deficient (Table 5). That is an astounding 23% of the total bridge inventory. Given current data one could suggest, that 1,168 bridges were deficient prior to Bridge Bond I & II. Counties having the most bridges in need of repair consisted of Monmouth, ranking the highest with approximately 9% of the state's bridges deficient, and Somerset with an estimated 8% of the state's bridges needing repair. Five counties each had a need to repair only an estimated 2% of the state's bridges.

Table 8. Prior to Bridge Bond I Total Bridge (State & Local) - Deficiency by County

County	Total Bridge Deficiency (Prior to Bond I)	% of Total Statewide Bridges	Grouping
Monmouth	108	9%	High
Somerset	97	8%	High
Bergen	82	7%	High
Essex	84	7%	High
Hunterdon	85	7%	High
Mercer	80	7%	High
Middlesex	74	6%	Medium
Passaic	73	6%	Medium
Union	63	5%	Medium
Morris	59	5%	Medium
Warren	52	4%	Medium
Burlington	44	4%	Medium
Hudson	42	4%	Medium
Sussex	41	4%	Medium
Atlantic	37	3%	Low
Gloucester	36	3%	Low
Camden	28	2%	Low
Ocean	24	2%	Low
Salem	21	2%	Low
Cape May	20	2%	Low
Cumberland	18	2%	Low
	1168	N= 100%	

MONEY ALLOCATED

Ranking counties by the amount of the total funding allocated under Bridge Bond I & II (Table 9) revealed that Middlesex County received 16% of all dollars to complete deficient bridge projects. Atlantic and Essex Counties follow respectively each receiving 11% of the funding. Overall, eight counties each received \$3 million or less to repair their deficient bridges. Interestingly, the average spent per county on bridge repair was approximately \$6 million.

Table 9. Total Funding Allocated under Bridge Bond I & II.

County	Total Funding Allocated	% of Total Funding Allocated	Grouping
Middlesex	\$20.8	16%	High
Atlantic	\$14.2	11%	High
Essex	\$13.3	11%	High
Hudson	\$12.0	9%	High
Bergen	\$9.8	8%	High
Union	\$8.9	7%	High
Morris	\$6.5	5%	Medium
Monmouth	\$4.6	4%	Medium
Passaic	\$4.0	3%	Medium
Somerset	\$3.7	3%	Medium
Hunterdon	\$3.6	3%	Medium
Camden	\$3.5	3%	Medium
Gloucester	\$3.0	2%	Low
Warren	\$2.9	2%	Low
Salem	\$2.9	2%	Low
Ocean	\$2.8	2%	Low
Burlington	\$2.4	2%	Low
Mercer	\$2.0	2%	Low
Cumberland	\$2.0	2%	Low
Cape May	\$2.0	2%	Low
Sussex	\$1.3	1%	Low
	\$126.2	N=100%	

POPULATION

Ranking counties purely by population (Table 10) fared some interesting results.

The counties with the highest percentages of the state's population are Bergen with 11%, Essex with 10% and Middlesex with 9%. Eight counties have less than 3% of the population, while another six counties have less than 6% of the population.

Table 10. NJ's Population by County.

County	% of State Population	Grouping
Bergen	11%	High
Essex	10%	High
Middlesex	9%	High
Hudson	7%	High
Monmouth	7%	High
Camden	7%	High
Union	6%	Medium
Passaic	6%	Medium
Ocean	6%	Medium
Morris	5%	Medium
Burlington	5%	Medium
Mercer	4%	Medium
Somerset	3%	Low
Gloucester	3%	Low
Atlantic	3%	Low
Cumberland	2%	Low
Sussex	2%	Low
Hunterdon	1%	Low
Cape May	1%	Low
Warren	1%	Low
Salem	1%	Low
	N=100%	

In summary, the data show that many bridges in New Jersey have been repaired.

Again, as of October 1999, 292 bridge projects have been completed. However, to analyze the impact of the Bridge Bond I & II, one must examine the relationships between funding and such variables as total bridge inventory, the number of bridges in need of repair and population. By relating those variables for Bridge Bond I & II, it becomes clear that the framework for Bridge Bond III is an improvement over the previous legislation in offering equity in the distribution of dollars.

Table 11. Bridge Bond I & II Groupings by County

County	Final % Bridges Completed	% of Total Deficient Bridges	% of Total Funding Allocated	% of State Population
Atlantic	Low	Low	High	Low
Bergen	High	High	High	High
Burlington	Low	Medium	Low	Medium
Camden	Low	Low	Medium	High
Cape May	Low	Low	Low	Low
Cumberland	Low	Low	Low	Low
Essex	High	High	High	High
Gloucester	Medium	Low	Low	Low
Hudson	High	Medium	High	High
Hunterdon	Low	High	Medium	Low
Mercer	Medium	High	Low	Medium
Middlesex	High	Medium	High	High
Monmouth	Medium	High	Medium	High
Morris	High	Medium	Medium	Medium
Ocean	Low	Low	Low	Medium
Passaic	High	Medium	Medium	Medium
Salem	Medium	Low	Low	Low
Somerset	Medium	High	Medium	Low
Sussex	Medium	Medium	Low	Low
Union	Medium	Medium	High	Medium
Warren	Medium	Medium	Low	Low

- **QUESTION #1:** Is there a relationship between projects completed and the percentage of funding a certain county may have been allocated?

One would expect that there is a relationship between projects completed and the percentage of funding received under Bridge Bond I & II (Table 11), and in fact, there is some relationship when comparing the percentage of projects completed to the percentage of total funding allocated. In comparing the percentage of projects completed to the percentage of total funding allocated, 10 out of 21 counties have a similar grouping (low/low, medium/medium and high/high). Bergen, Essex, Hudson and Middlesex Counties overall resulted in a high percentage of bridge projects being completed and also received a high percentage of total funding. Yet, Atlantic County received a high amount of funding overall while having a low percentage of bridges completed

- **QUESTION #2:** Is there a relationship between the percentages of the total deficient bridges a certain county may have and the percentage of total funding allocated?

Findings from this study, (Table 11), also reveal that there is some relationship with respect to the need to repair, meaning the number of deficient bridges broken down by county, and the total amount of funding allocated. In comparing the percentage of total deficient bridges to the percentage of total funding allocated, only 9 out of the 21 counties, had a similar rank between the need to repair and the total amount of funding allocated.

- **QUESTION #3:** Is there a relationship between percentage of total funding allocated and the percentage of state population in a county?

Surprisingly, Table 11, reveals that there is a strong relationship between the percentage of funding allocated and the percentage of state population in a county. In comparing the percentage of funding allocated and the percentage of state population in a county, 12 out of the 21 counties have a similar rank. Again, Bergen, Essex, Hudson and Middlesex Counties all received a high rank in comparing the two categories.

Although Table 11 shows that funding and population are closely related under Bridge Bond I & II, the results also show that the funding and the other variables are not as closely related.

Table 12: Bridge Bond III Groupings

County	% of Total Bridge Inventory	% of Total Deficient Bridges	% of Total Funding Allocated	% of State Population
Atlantic	Low	Low	Medium	Low
Bergen	High	High	High	High
Burlington	Medium	Medium	Medium	Medium
Camden	Medium	Low	Medium	High
Cape May	Low	Low	Low	Low
Cumberland	Low	Low	Low	Low
Essex	High	High	High	High
Gloucester	Medium	Low	Low	Low
Hudson	Low	Low	Medium	High
Hunterdon	High	High	Low	Low
Mercer	Medium	High	Medium	Medium
Middlesex	Medium	Medium	Medium	High
Monmouth	High	High	High	High
Morris	High	Medium	Medium	Medium
Ocean	Low	Low	Medium	Medium
Passaic	Medium	Medium	High	Medium
Salem	Low	Low	Low	Low
Somerset	High	High	High	Low
Sussex	Low	Medium	Low	Low
Union	Medium	Medium	Medium	Medium
Warren	Medium	Medium	Low	Low

- **QUESTION #1:** Under Bridge Bond III, is there a relationship between total bridge inventory and the percentage of funding a certain county will be allocated?

Under Bridge Bond III, (Table 12), there is some relationship when comparing the percentage of total bridge inventory to the percentage of total funding that will be allocated. In comparing the percentage of total bridge inventory to the percentage of total funding that will be allocated, 12 out of 21 counties have a similar grouping (low/low, medium/medium and high/high).

- **QUESTION #2:** Under Bridge Bond III, is there a relationship between the percentages of the total deficient bridges a certain county may have and the percentage of total funding that will be allocated?

Findings from this study, (Table 12), also reveal that there is some relationship with respect to the need to repair, meaning the number of deficient bridges broken down by county, and the total amount of funding allocated. In comparing the percentage of total deficient bridges to the percentage of total funding allocated, 12 out of the 21 counties, had a similar rank between the need to repair and the total amount of funding that will be allocated. That is an increase of four more counties, over Bridge I & II, that reveal some relationship to the need to repair and funding.

- *QUESTION #3:* Under Bridge Bond III, is there a relationship between percentage of total funding that will be allocated and the percentage of state population in a county?

Table 12, reveals that there is a strong relationship between the percentage of funding that will be allocated and the percentage of state population in a county. In comparing the percentage between funding that will be allocated and the percentage of state population in a county, 15 out of the 21 counties have a similar rank. Again, there is an increase of three more counties, over Bridge I & II, that reveal some relationship to the state's population and funding.

In comparison to the results found in Bridge Bond I & II, Bridge Bond III reveals an increase in the totals of similarly ranked variables compared to the funding allocated for each county. Table 12, also reflects a more equitable approach to fund bridge projects. With a focus on the need to repair, with the addition of county bridge inventory, and by using population as an indicator to determine a county's overall need for safety and repair, Bridge Bond III is an improvement.

With respect to Bridge Bond III, Table 13, creates an easier comparison, by utilizing the correlation tool to measure the relationship between the funding allocated to the three data sets of bridge inventory, need for bridge repair, and population. All correlations are positive. However, under Bridge Bond III, there is a very close

relationship between funding and population with some relation between funding, inventory and the need to repair.

Table 13: Correlation to Funding for Bridge Bond III.

	Bridge Bond III Correlation to Funding	Relationship
Inventory	.32	Some relationship
Need for Bridge Repair	.42	Some relationship
Population	.62	Strong relationship

The research also highlights that a significant number of projects were in fact completed. Without an existing framework in either legislation to evaluate the effectiveness of the program, Governor Whitman’s New Jersey FIRST proclamation “to Fix it First” became the standard of performance to judge the effectiveness of the results of Bridge Bond I & II. Governor Whitman declared “that by the year 2010, New Jersey will reduce the backlog of all other state bridge deficiencies by 50 percent and local bridge deficiencies by 25 percent.” Since the Governor’s vision is a 12-year plan, and the previous Bridge Bonds span over 15 years from 1983 to 1998, this seems to be an appropriate performance standard. Most importantly, the intent of the Bridge Bond Act is to repair bridge infrastructure in decline. The data indicate that New Jersey has reduced statewide bridge deficiencies by only 22% and has reduced county and local deficiencies by 26.5%.

So by the year 2010, will New Jersey be able to reduce the backlog of state bridge deficiencies by 50 percent and local bridge deficiencies by 25 percent?

Bridge Bond III, has twice as much funding available as Bridge Bond I & II and with 100% of that funding dedicated to fix only county and local bridges, it certainly looks promising to reduce bridge deficiencies by 25 percent.

Critical Needs and Challenges

In summary, New Jersey is addressing the need to repair, rehabilitate and rebuild bridges and this report suggests that Bridge Bond III is a welcome improvement even prior to implementation. First and foremost, the first two Bridge Bonds were comparatively random in design. The legislation lacked the definition of the state's deficient bridge needs and without such clarification the legislation became victim to the political process. This is a process in which earmarking funds based on specific bridge projects becomes more important than a statewide policy or setting a standard to address critical infrastructure repair. This process exists and quite honestly, it is politics. It is evident in every piece of legislation at the state and federal level. A lack of strategy or even policy within legislation is often not the fault of any one legislator or branch of government. In this case, NJDOT did not compile the needed information, or seek consensus nor build coalitions within county and local governments. Fighting over funding, and in this case, a lot of funding, became paramount. With respect to the 1989 Bridge Bond Act, it took over two years to finally come to terms with authorizing the needed funds. It ultimately pitted County Executives against Legislators and everyone against the NJDOT. This is not a good equation and it truly happens when the legislative framework has not been developed fully or understood by many.

Fortunately, with each Bridge Bond the process evolved. With respect to the Bridge Bond III, a more strategic and more equitable approach was the basis to start from and to formulate the new legislation. As the NJDOT was fighting to reauthorize federal transportation dollars in Washington, DC, Governor Whitman stepped up and played a critical role in defending the need to invest in New Jersey's transportation system. The Governor asked the Department to identify the state's needed transportation improvements and thus a report developed into the Governor's NJ FIRST vision for transportation investment. The Governor was truly concerned to hear about the status of our deficient bridges. In an important directive, 1) NJDOT was asked to identify a source of funding to address the state's need to repair our bridges and then 2) the Governor set a performance standard. As stated earlier, Governor Whitman declared "that by the year 2010, New Jersey will reduce the backlog of all other state bridge deficiencies by 50 percent and local bridge deficiencies by 25 percent." When, this performance standard was set by Governor Whitman in 1998, it became important to evaluate and measure the benefits of previous Bridge Bonds.

Focusing on funding and doing so in a time when federal dollars are becoming more and more scarce, NJDOT suggested a new Bridge Bond. With the leadership of the Governor to advance a Bridge Bond initiative, a taskforce was created. NJDOT easily joined together with coalitions among the counties and contractors to start drafting a proposal. As a part of the discussions to create and improve the new Bridge Bond, the following four variables were reviewed by each county: bridge inventory, deficient bridge repair need, funding distribution and population to create a formula for a more equitable allocation of funding.

The initial purpose of the evaluation was to analyze county bridge data and produce results based on the completion of bridge projects. Getting to that point was difficult as the data provided by the FHWA, the Counties and NJDOT offered completely different bridge totals based on a variety of definitions and inclusion of certain bridge structures. A tedious task of filtering data, as defined previously in the methodology section, soon simplified the database down to compare apples to apples. Unfortunately, no such exercise was conducted prior to the other Bridge Bonds and although data exists with respect to inventory, the data misses the mark in defining "the need" to repair deficient bridge structures within each County. Without existing data for 1982 or 1989, this report simply adds projects completed to the present data to calculate need. Therefore, the bridge inventory and the need to repair have been based on available 1999 data. Uncovering this simple error of incomplete data truly pointed to the importance of evaluating New Jersey's Bridge Bond Program prior to working towards yet another Bridge Bond initiative.

As a whole, the numerous articles written with respect to program evaluation explicitly direct attention to the challenges of designing evaluations prior to implementation. All define evaluations as the careful assessment of the merit, worth, and value of administration, output and outcome, which is intended to play a role in future decision-making. Presenting the process of evaluation is a comprehensive analysis not only of the program but also inclusive of its historical, political and economic context to offer a pattern of interdependencies. In summary, creating and adequately measuring a program is extremely difficult to design and conduct.

Although, this report focused on a rather creative evaluation process by using current standards to measure past performance, the outcome is still one that is useful. This evaluation became a service, an essential tool to influence policy and the public democratic decision making process. Monitoring projects completed under Bridge Bond, I & II, rather than checking only for fiscal compliance, led to an assessment of program delivery and coverage. The importance of presenting the results of New Jersey's statewide bridge repair program is as important as the community benefits realized by the two previous Bridge Bonds. Obviously, gaining a clear, well-reasoned understanding of evaluation can only help to ensure continued program advocacy.

Findings from this study are encouraging; bridge repair continues to be a priority in New Jersey. With Governor's Whitman New Jersey First vision and with appropriate allocation of funding, NJDOT will further improve the state's bridge infrastructure. At the same time, the research also highlights the importance of documenting data as an instrumental activity pivotal to evaluation, implementation and further policy creation. Accordingly, this results-orientation approach will assist the Legislature in addressing contemporary demands to serve the public's interest and especially to make sure "New Jersey's bridges don't fall down".

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A Transportation **V**ision

For the 21st Century



Governor Christine Todd Whitman
Commissioner John J. Haley Jr., Chairman of the Board, NJ TRANSIT

As we approach the new
the challenge is to renew and sustain our infrastructure, to increase our mobility options,
to make every means of travel in New Jersey safer, smoother and smarter,
and to establish a mechanism to get the job done... 27

"A lot is riding on how well we do."

— Governor Christie Whitman

A Transportation Vision

For the 21st Century



Governor Christine Todd Whitman



Commissioner
John J. Haley Jr.
Chairman of the Board, NJ TRANSIT

May 1998

Fellow Travel Companions:

The 20th century has been a transportation odyssey for our nation and our state, an incredible journey born of imagination and transformed into reality by the will of visionaries, many of whom called New Jersey home. From the conquest of the skies to the construction of jet-powered ferries, mankind gained the ability to reach any destination on earth with speed and safety.

From the beginning of this voyage, New Jersey has been in the forefront. The intellects at work in the Garden State were responsible for major innovations and technological breakthroughs that determine how we travel, whether it be by road, rail, water or air. New Jersey will continue to be a trendsetter as we cross the bridge to tomorrow.

The 20th century was one of construction. We built great railroads, modern highways, deep-water ports and international airports. All, in their own right, were remarkable accomplishments. But that was also their shortcoming. They were individual accomplishments. Too often, they stood separate and alone and at odds with our quality of life.

The 21st century must be one of connection. Our diverse transportation system must become integrated and intermodal. Transportation can no longer be seen as just a way to travel to and from communities, but a way to enhance the economy of communities and the quality of life of the people who live there. In the future, transportation must be part of the solution to the problems of air quality, urban decay and unemployment – not part of the problem. It will be the thread we use to weave an attractive and durable community cloth. It will be a means to unify New Jersey and revitalize the region. It will be consistent with and support the State Development and Redevelopment Plan.

Transportation touches the lives of everyone. It figures into our decisions about where to live, where to work, where to shop, where to go to school and where to escape for vacation.

The investments we make in our transportation system today will greatly impact the shape of things to come tomorrow. Our economy, our environment, our preservation of open space, our energy resources, the very quality of the lives we lead depend on our ability, and our willingness, to make the right choices.

Our history and our record of achievement show we have the creative ingenuity to do what needs to be done. The people of New Jersey have never failed to respond to a challenge once they know what is at stake.

To that end, we have formulated a vision for the 21st century known as New Jersey FIRST (Future Investments and Reinvestment in State Transportation). This program, the highlights of which are outlined on the following pages, is a commitment to future generations. It is a blueprint for a world-class transportation system that will expand mobility options, strengthen the fabric of our communities and make New Jersey an unsurpassed leader in the new century that is at our doorstep.

It will provide the resources necessary to improve the movement of people and goods, try traditional means and in ways awaiting discovery in the minds of scholars. It sets six ambitious, but attainable visions supported by more than 175 actions through the year 2010. It is geographically balanced and environmentally friendly. It encourages community involvement, invites private sector participation and promotes individual responsibility. It creates jobs, promotes tourism and it will help revitalize our cities.

We have good reason to be proud of our past. New Jersey FIRST will give us new reasons to be proud in the future. New Jersey FIRST is our map to a new millennium. Let us use it as our guide to make the crossing together.

The future begins here.

– Governor Christine Todd Whitman



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New Jersey

On The Move... And On Time

“ Just because New Jersey is the most densely populated state doesn't mean it has to be the most congested. ”

New Jersey has the most comprehensive and integrated transportation system in the nation. We have more than 35,900 miles of public roads, 6,300 bridges and 51 public use airports. NJ TRANSIT is the third largest agency of its type in the country with 173 million riders annually. Our transit network includes more than 470 miles of track, 160 train stations, 3,000 buses and 700 rail cars.

Although NJ TRANSIT is the largest public transportation service provider in the state, one-third of the bus transportation in New Jersey is provided by 110 private companies. Together, public and private carriers serve every region of the state, from small towns and suburbs to heavily populated cities.

Transit is vital to New Jersey's economic survival. With eight million residents and more than 1,066 people per square mile, it's the most densely populated state in the nation. Without a large array of mobility options, the result would be gridlock.

Our vision for the 21st century is a transportation system that provides diverse and convenient travel choices.

New Jersey FIRST

- **Improve the 25 most congested vehicular hot spots within 5 years and the 40 most congested within 10 years.**
- **Construct missing highway links that are essential to our regional mobility strategy.** For example, the New Jersey Turnpike/Secaucus Interchange and long-time commitments, like Route 18 in New Brunswick, will be constructed.
- **Eliminate the traffic signals on the Garden State Parkway in Cape May County by 2010.**
- **Establish intermodal access points to connect the interstate highway system and the commuter rail system.**

**25 MOST
CONGESTED
LOCATIONS**



- **Complete three advanced design light rail projects by 2002.** Work has already started on the Hudson-Bergen Light Rail System. Early next year, construction will begin on the initial operating segment of the Southern New Jersey Light Rail System. By the turn of this century, work will start on a one-mile extension of the Newark City Subway to link the Broad Street Station with Newark Penn Station.
- **Begin construction of Phase 2 of the Hudson-Bergen Light Rail System in 1999.**
- **Commence construction on two other rail projects, from an already developed list of 10, by the year 2005.**



Proposed South Jersey Light Rail

- **Empower counties so they can coordinate and expand community-based transit services.** This will be achieved through a newly developed local aid program. We will promote increased mobility choices for those areas not covered by conventional transit services.
- **Work with communities to create "transit villages" around rail stations that will maximize existing services and attract private investment.** Our goal is to establish two demonstration projects by the year 2000.
- **Provide additional direct access to midtown Manhattan by expanding the capacity of our rail system and the Northeast Corridor.**

- **Urge AMTRAK to add extra Metroliner stops in the state.**
- **Create an advisory committee on private bus carriers within the Department of Transportation.** This committee will cement working relationships, explore common problems and help redefine government's role in providing transit services.
- **Enhance service at, and access to, Newark International Airport and Atlantic City International Airport to accommodate growth.** We will expand the monorail that connects outlying parking areas with passenger terminals at Newark International Airport to connect with the Northeast Corridor Rail Line. We will also provide direct access from Atlantic City International Airport to the Atlantic City Expressway.
- **Assure the continued vitality of general aviation airports.**
- **Supplement existing ferry routes – new high-speed ferry service on greater stretches of our navigable waterways.** Through the formation of public-private partnerships or other funding options, high-speed ferries will be deployed to start new routes, especially ones that will attract vacationers and strengthen New Jersey's tourism industry.
- **Challenge New Jersey's colleges and universities to find better ways to move people and goods.** We will use seed money to fund a joint project that tests a breakthrough in transportation technology.



Monorail Station, Newark International Airport

Fix It First

We Know What's Broken

**“ There is no reward in procrastination.
There is nothing benign about neglect. ”**

New Jersey will renew and sustain its infrastructure. We have made an enormous investment in our highway, bridge, rail, port and aviation facilities. This infrastructure is the backbone of our transportation system and will continue to be — far into the next century.

Maintaining our transportation network is essential if we are to achieve the maximum useful life of our investments. Underfunding maintenance today will necessitate billions of dollars in future repairs. This is not a legacy we wish to leave the next generation.

Our vision in the 21st century is to intensify repair and maintenance efforts. We will catch up, and we will keep pace with future needs.



Route 46 bridge construction

New Jersey FIRST

- **By the year 2010, New Jersey will:**
 - Eliminate all bridge deficiencies on its national highways;
 - Reduce the backlog of all other state bridge deficiencies by 50 percent and local bridge deficiencies by 25 percent;
 - Correct all deficiencies on state highway dams;
 - Replace all deficient state highway pavement; and
 - Resolve all serious flooding problems on state roadways.
- **Implement a full preventive maintenance program for all state roads and bridges within two years.**

- **Replace every overage bus in its fleet with one that runs on the best fuel technology.** A substantial portion of the state's bus fleet operated by NJ TRANSIT and private carriers is presently overage. To ensure safe operations and minimize operating budget outlays, at least 1,400 buses will be replaced within the next five years.



- **Replace 424 rail cars and 17 locomotives within 10 years to continue high on-time performance, sustain customer satisfaction and ensure safe operations.**

- **Upgrade the top 20 passenger stations that are most in need of repair in concert with local communities.**



- **Increase investments in our tracks and rail yards so that rail on-time performance remains high.**

- **Improve the effectiveness of the NJDOT's operations and the speed of project delivery by installing the latest information management systems.**



New Jersey

Safety First

A Safe Transportation System Is No Accident.
It Takes Planning And Work.

“ We are committed to making all forms of travel in New Jersey the safest we can.”

Public safety has been a goal of our government since the founding of the nation. It has remained a constant through the centuries, and it will remain one of New Jersey's fundamental principles in the next.

Protection of the traveling public is the paramount objective in the delivery of transportation services. New Jersey will intensify its efforts to make travel by car, bus, rail, air, water, bicycle – and by foot – safe.

We will exploit every opportunity to enhance the safety and security of travelers to the fullest. Car, truck, train and bus inspections will continue to ensure that safety standards are maintained.

New technology and practices, from automatic train braking systems and mobile units used to check the safety of trucks to the latest in signals and “traffic calming” devices, will be applied to make New Jersey's transportation system the safest possible.

Our vision for the 21st century is to use public education, law enforcement and innovative engineering to make travel a safe, secure and enjoyable experience.

New Jersey FIRST

- **Cut auto fatalities by 25 percent and pedestrian fatalities by 50 percent by 2010.** We will accomplish this by a variety of strategies including employing safety technology, improving highway design and working with communities and school systems to heighten public awareness and responsibility.
- **Working with local communities, identify and improve the top 100 street locations in New Jersey that pose a potential threat to drivers and pedestrians, especially school children and senior citizens, by the year 2010.**



- **Complete the delineation of barrier curb and guide rails and the installation of raised pavement markers in two years.**
- **Upgrade all guide rails within two years to minimize harm to drivers and passengers involved in collisions.**
- **Increase safety at railroad crossings.** NJ TRANSIT will complete installation of its automatic train control and positive train stop systems. The two major freight carriers serving New Jersey, Norfolk & Southern and CSX, will adopt these safety enhancements. NJ TRANSIT

will also intensify its public education efforts, especially in the schools. Helping citizens follow common sense safety precautions is our goal.

- **Seek federal authority to direct through-truck traffic onto divided highways while we guarantee local access.**
- **Offer off-peak discount tolls to truck fleets immediately and all trucks that use the New Jersey Turnpike when E-ZPass is implemented.**
- **Continue to support existing state and federal truck size and weight limitations.**
- **Invest in mobile computerized equipment to strengthen our truck inspection capability on the road.** Mobile checkpoints would enable law enforcement officers to catch overweight and poorly maintained trucks that try to avoid roadside inspections.
- **Build more rest stops for truckers in partnership with the private sector and with local community involvement.** Well-rested drivers are more alert and stand a better chance of avoiding accidents.
- **Develop and maintain an up-to-date database of accidents and characteristics of the entire roadway system.**



New Jersey & You

Perfect Together

But Where's The Exit?

“ We need a transportation system that not only gets people where they want to go, but one that gets them there quicker, safer, smarter and more conveniently.”

Just imagine getting up in the morning, turning on the computer and finding out the best way to get to work, or any destination in New Jersey. Picture driving to the train station without having to stop for a toll. An electronic message board warns of an accident ahead and suggests an alternate route to avoid delay. You get to the station and a message board tells you when your train will arrive – not when it is scheduled to arrive, but when it will actually pull into the station. You're on time – and so is the train.

An impossible dream? Not in the 21st century. Technology capable of transforming the hassle of traveling to work or taking a summer trip to the Jersey Shore into a pleasant experience is within our grasp.

We are committed to making New Jersey travel-friendly because there is nothing more frustrating than sitting in traffic, or getting caught by one red light after another because the signals aren't synchronized, or becoming lost for lack of a simple sign.

We may not be able to send manned spacecraft to the moons orbiting Jupiter, as Arthur C. Clarke envisioned in his work *2010*, but we don't have to be stuck going in circles on Earth.



Our vision for the 21st century is to use existing and cutting-edge technology so commuters have access to real time travel information and the ability to select the most efficient route to their destination.

New Jersey FIRST

- Provide E-ZPass on all toll roads, bridges and tunnel crossings.

- **Have two smart highway corridors operational within five years.** The South Jersey Urban Commuting Corridor, which addresses the needs of commuters within Camden and Burlington counties, and the Interstate Route 80 Corridor in North Jersey will be the first beneficiaries of "intelligent" technology. Motorists will have instant access to road conditions, accident information, emergency weather bulletins and the availability of alternative routes. We will expand emergency service patrols.



- **Create a regional transit fare card.** NJ TRANSIT and the Port Authority will provide rail commuters with a fare card accepted by NJ TRANSIT and PATH to launch the project. A New Jersey "smart card" will extend the program to all transit systems.
- **Install a computerized data information system at selected railroad stations** so commuters have access to real time updates on train arrivals and departures.
- **Build state-of-the-art visitor centers at major entry points to provide travel information and showcase New Jersey's tourist attractions.** We will do this through

public-private partnerships. The centers will include food services, interactive technology so visitors can access real time travel information, displays highlighting New Jersey's tourist attractions and business potential, facsimile and e-mail facilities, and a farmer's market to promote "Jersey Fresh" agricultural produce. The first targeted location is the South Jersey Gateway area near the Delaware Memorial Bridge.

- **Install new road signs that contain complete and clear information.** The signs will tell travelers how far away their destination is, how distant major highways are and in what direction the highways will take them. They will also inform travelers about New Jersey's treasures.
- **New Jersey will develop and implement high-tech and user-friendly motor vehicle services that will simplify procedures and make customer interaction with Motor Vehicle Services more convenient.**



PRIORITY CORRIDORS (FY 1999 - 2003)	PLANNING CORRIDORS
1. I-80 Corridor	3. Central Jersey North - South Commuting Corridor
2. South Jersey Urban Commuting Corridor	4. I-78/A-287 Suburban Growth Corridor
	5. Jersey Shore Recreational Corridor

NJ the Beautiful

We're Getting Better All The Time

“ I see a New Jersey where people have more leisure time and spend it on fields of green, where children can play and families dream.”

As we invest in our transportation system, we must be sensitive to the needs of our communities and recognize the limitation and value of our natural resources. One way in which we will achieve this goal is to pursue a transportation strategy that provides mobility while preserving the natural beauty of New Jersey.

A transportation system should not only get people to and from communities, it should support local community objectives.

Our vision for the 21st century is to provide a transportation system that does not divide communities, but brings them together. Our system will give people greater access to places where they can play and relax. It will also pay attention to aesthetic detail and work in harmony with the environment.

New Jersey FIRST

- **Ensure that newly designed highway projects are consistent with the State Development and Redevelopment Plan (SDRP), incorporate standards to assess transportation projects consistent with the SDRP and construct only limited access highways to discourage sprawl.**
- **Build 2,000 miles of bicycle paths.** We have included \$15 million in the current budget to launch this initiative, which will significantly enhance the quality of life in New Jersey by expanding the use of alternative forms of transportation, providing more recreational opportunities, making the state more pedestrian friendly, reducing congestion, cleansing the air and improving public health.
- **Establish five scenic byways within five years.** Presently, there is only one designated scenic byway in the state: Route 29, from Frenchtown to Trenton. The goal is to preserve the natural beauty along the length of the designated route. This is accomplished by protecting the route's aesthetic features, enhancing others and eliminating those details that detract from its natural beauty or character.

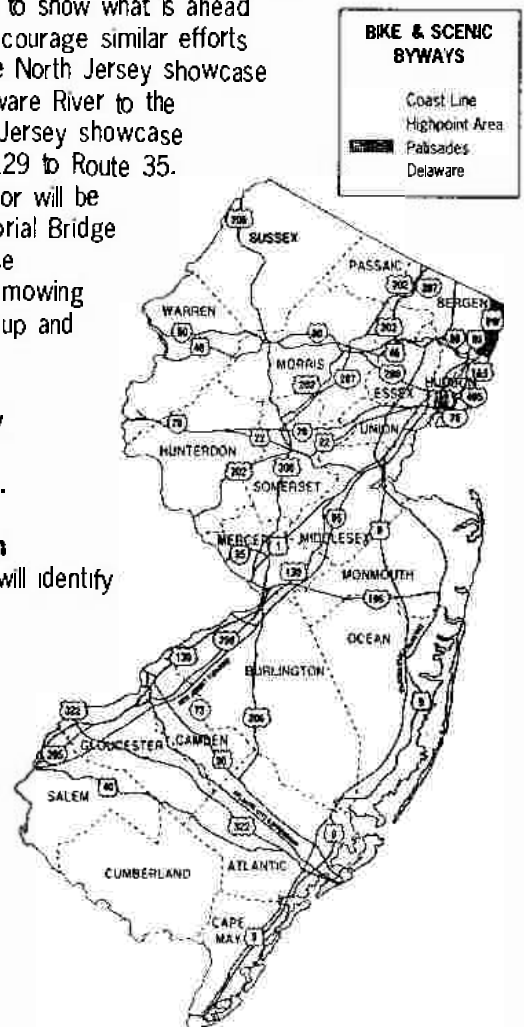


- **Install new landscaping on all state highways serving as gateways to the state and its urban centers by the year 2010.** Appropriate landscaping will improve the quality of life of travelers, reduce maintenance, limit glare, provide a buffer between the highway and adjoining land areas and make the state a more attractive location for work and play.
- **Reserve a higher percentage of highway project funds for aesthetic enhancements.** Embellishments, such as landscaping, architectural details and the use of textured materials will significantly improve the visual quality of the environment. These improvements will support community values and reflect the area's history.
- **Plant two better trees for every one that must be removed during construction projects.**
- **Give community objectives full consideration.** We will accomplish this through the Public Involvement Action Plan, with a goal to promote an ongoing public partnership and ensure that regional transportation benefits are considered within a community context. It will be implemented by June 1.



- **Establish three model corridors to demonstrate first-class maintenance efforts.** The aim is to show what is ahead for other state highways and to encourage similar efforts by counties and municipalities. The North Jersey showcase corridor will be I-80 from the Delaware River to the New Jersey Turnpike. The Central Jersey showcase corridor will be I-195 from Route 129 to Route 35. The South Jersey showcase corridor will be I-295/95 from the Delaware Memorial Bridge to the Scudders Falls Bridge. These corridors will benefit from regular mowing of grass, more intensive litter pickup and other maintenance activities.
- **Revitalize our Adopt-a-Highway and litter pickup programs through innovative approaches.**

- **Use transportation investments as a catalyst for urban development.** The Governor's Urban Coordinating Council will identify eligible municipalities for financial assistance to revitalize neighborhoods, increase tax revenues and create jobs.
- **Establish a Customer Service Office to elevate the Department of Transportation's responsiveness to communities and individuals.**
- **Include parks and open space in the design and rehabilitation of highways.**



New Jersey

A Global Gateway

We've Got The Goods

“ For more than two centuries, our ports have been a gateway to the world. By the year 2010, we can make them the world's premier gateway to America. ”

New Jersey is a doorway to America and a gateway to the world.

We have two international airports – Newark and Atlantic City. Newark International Airport set an all-time record for passenger usage in 1997 as its cargo numbers continued to rise. About 30.8 million people flew in or out of the airport, which offers nonstop connections to more than 40 international destinations.

But passengers are only half the story. More than a million tons of cargo moved into or out of Newark last year as well. Together, Newark and JFK, the New York metropolitan region's other international airport, moved more cargo than Memphis, the world's busiest freight hub. Meanwhile, Atlantic City International Airport continued to grow and serve the booming casino industry while turning its sights to the stars. Last year, it showed an 18 percent increase in passengers.

The volume of traffic reaching New Jersey by air is surpassed only by the traffic reaching our shores by sea.

The Port of New York and New Jersey, which includes Port Newark and Port Elizabeth, is the largest and busiest on the East Coast. Ocean-borne cargo arriving at the port is up 13 percent. At the same time, our ports along the Delaware are experiencing a rebirth and renewed vitality. With each passing year, more shippers from nations in Europe, Asia and Latin America are choosing New Jersey as their entry point to the lucrative American market. Already, we are the leading automobile import-export center in the United States.



Port Authority of New York and New Jersey

New Jersey's maritime ports, airports and distribution centers feed, clothe and otherwise provide for the needs of more than 75 million people. Today, New Jersey is the nation's #2 hub for intermodal freight distribution.

Trucks move a mountain of goods through New Jersey daily. Every day, 324,000 tons of goods – just those made in New Jersey – are carried by 134,000 trucks. The trucking industry alone directly employs one out

of every 11 workers in the state – a quarter of a million employees with a payroll topping \$10 billion annually.

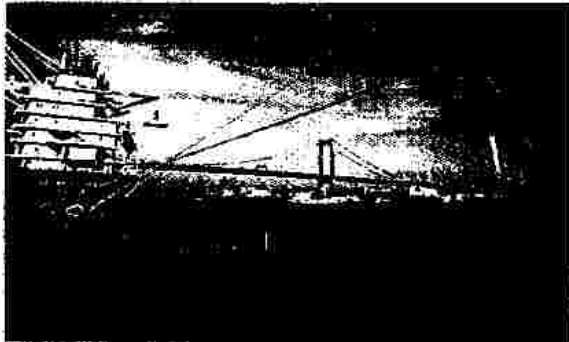
With the impending merger of Conrail by Norfolk Southern and CSX, New Jersey will have real rail competition for the first time in more than 20 years. We must build on this new spirit of competition. Given its location on the Northeast Corridor and network of existing rail interconnections, New Jersey is in an ideal position to expand its role in this vital area.

Freight transportation is currently the fourth largest industry in New Jersey. Our vision for the 21st century is to make New Jersey the #1 port and freight state in America.

New Jersey FIRST

- **Establish a quad-state Council on Regional Mobility.** This panel, representing New Jersey, New York, Pennsylvania and Delaware, will address transportation problems on a regional basis, promote the use of uniform technology and improve interstate rail, road, bridge and tunnel accesses that promote the movement of people and goods and strengthen the economy of the region.

- **Target investments to make sure the ports of New Jersey are among the best in the world.** In cooperation with bistate authorities and the private sector, we will make sure our ports can accommodate the jumbo ships of the future. We will continue dredging channels used by the Port of New York and New Jersey and expand the program to assist the Port of Philadelphia and Camden.



Port of Philadelphia and Camden

- **Preserve part of the Marine Ocean Terminal, in partnership with the city of Bayonne, for use as a commercial deep-water port.**

- **Build Portway, a premier intermodal facilities connector, in conjunction with the private sector.** This dedicated truck service corridor will forge new and superior connectors within our northern seaport, rail and warehouse distribution system.

- **Support access improvements to projects that are regional economic anchors.**
- **Finance improvements to short lines to promote economic growth along existing rail freight routes.** New Jersey's State Rail Plan currently identifies \$20 million in needed improvements that meet carefully drawn public interest and cost/benefit tests. Under current guidelines, these projects will be eligible for state funds to cover 50 to 70 percent of the total cost.
- **Build on the new spirit of rail competition stemming from the Conrail acquisition.** Rail systems must move goods to and from our major port and air cargo facilities as efficiently, economically and quickly as possible. Freight delivery times can no longer be measured in days. Hours are critical.



New Jersey Transportation Trust Act

There is no ending to our transportation journey, just an endless vista of new beginnings. Challenges, both known and unknown, lie ahead. New Jersey FIRST will prepare us to meet them, with vision and imagination.

It will forge a link between transportation investments and three continuing public policy objectives: an enhanced quality of life, economic growth and environmental protection.

It will preserve existing transportation assets and make sure our facilities keep pace with technology. Every mode of transportation became faster and accessible to more people during the 20th century. But increased speed and greater affordability did not guarantee the public a quicker or more comfortable trip. Jets sat on tarmacs waiting to depart or circled airports waiting to land. Trains traveled slower as rails grew weaker with age. Cars and buses provided more amenities for drivers and passengers, which came in handy as they sat, stuck in traffic. This generated millions of new jobs and attracted economic development. But it also gobbled up millions of acres of open space and facilitated the flight of people from our cities.

New Jersey FIRST will build on the success of the 20th century and begin to break the logjam and move us ahead through the formation of strong working relationships with our neighbors and local partners. It will harness technological innovation to provide greater transportation capacity in urban areas and overcome isolation in rural areas. It will invest more human and financial resources in safety and aesthetics. It will give businesses a greater incentive to work with the public sector to achieve mutual goals. It will respect the unique and fragile beauty of New Jersey's natural resources.

But, just as important, New Jersey FIRST will serve as a constant reminder to this generation and future generations that the best transportation system is one that contributes to the social and economic well-being of the increasingly diverse citizenry it serves.

New Jersey: A Leader In Transportation Technology

“ Some of the sharpest minds and brightest intellects are at work in New Jersey.
It is to them we must turn. ”

- The first steam locomotive in America ran in New Jersey.
- The first stagecoach was born in New Jersey.
- The world's first regular steam ferry service began in New Jersey.
- The first ironclad ship was built in New Jersey.
- The world's first airplane manufacturing plant was located in New Jersey.
- The world's first airport was built in New Jersey.
- The world's first airplane passenger service was inaugurated in New Jersey.
- The first submarine was constructed in New Jersey.
- The first balloon flight in America took place in New Jersey.
- The world's longest man-made arch bridge is in New Jersey.
- The first scientifically-designed highway barrier used to separate opposing lanes of traffic and reduce head-on collisions was invented in New Jersey.
- The first cloverleaf intersection was built in New Jersey.
- The cable for suspension bridges was invented in New Jersey.

NEW JERSEY FIRST WILL KEEP US #1

The genius and spirit of New Jerseyans have brought us
to the threshold of yet another new age.

“Our past has demonstrated we have the ingenuity
to meet the challenges that lie ahead.

— Governor Christie Whitman



NJ TRANSIT