STATE OF ILLINOIS

OFFICE OF THE AUDITOR GENERAL

MANAGEMENT AUDIT

ILLINOIS STATE TOLL HIGHWAY AUTHORITY

MAY 2003

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To the Legislative Audit Commission, the Speaker and Minority Leader of the House of Representatives, the President and Minority Leader of the Senate, the members of the General Assembly, and the Governor:

This is our report of the Management Audit of the Illinois State Toll Highway Authority.

The audit was conducted pursuant to Senate Joint Resolution Number 72, which was adopted June 2, 2002. The audit was conducted in accordance with generally accepted government auditing standards and the audit standards promulgated by the Office of the Auditor General at 74 Ill. Adm. Code 420.310.

The audit report is transmitted in conformance with Section 3-14 of the Illinois State Auditing Act.

WILLIAM G. HOLLAND
Auditor General

Springfield, Illinois
May 2003

REPORT DIGEST

Management Audit

ILLINOIS STATE TOLL HIGHWAY AUTHORITY

Released: May 2003

State of Illinois
Office of the Auditor General

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SYNOPSIS

The Illinois State Toll Highway Authority (Tollway) operates 274 miles of toll roads that are used by 1.2 million vehicles per day. As of December 31, 2002, the Tollway had $781 million in outstanding revenue bonds and $355 million in unrestricted cash equivalents and investments.

1. **Reconstruction Capital Plan.** The Tollway lacked a comprehensive capital plan to support the need for reconstructing and widening the toll roads.
   - The Tollway did not review the cost estimate of the $5.5 billion reconstruction plan submitted in March 2002 by its Consulting Engineer, Consoer Townsend Envirodyne Engineers, Inc.(CTE).
   - CTE told us in March 2003 that the $5.5 billion reconstruction cost estimate was the high end cost estimate and that less costly alternatives may exist. This had not been previously disclosed by the Tollway in public discussions of its reconstruction needs.
   - Some documentation to back up the Tollway's 15-year, $5.5 billion reconstruction cost estimate was not prepared until after our request in September 2002.
   - The cost estimation process for the $5.5 billion reconstruction plan appears to be simplified.
2. **Planning.** The Tollway needs to improve its operational plans and adequately monitor their implementation.
3. **Management Information.** The Tollway has some computerized information systems that date back to the late 1970s. These systems are not able to process data or prepare reports with the capability of current computer systems.
4. **Personnel.** The Tollway personnel records contained deficiencies for 15 of the 50 employees sampled, such as missing performance evaluations, missing salary information, and not meeting the position requirements. Some interview files examined also lacked job application forms, interview evaluation forms, and reference checks.
   - Since 1991, the Tollway has been reimbursing the medical insurance premiums for the dependents of retired employees who have the "High Option Indemnity" insurance.
   - Officials at State Employees' Retirement System and Central Management Services were unaware of any State agency with a similar policy.
5. **Money Room.** The Tollway needs to enhance security and controls over its toll collection process, including its Money Room.
6. **Toll Collection.** The Tollway lost $11 million in 2002 mainly due to toll evasion. The toll evasion rate was three percent which was higher than most of the 20 toll roads responding to our survey.
7. **Toll Rates.** Toll rates were last raised in 1983 and the Tollway has gone the longest without an increase in tolls of the 20 toll roads responding to our survey.

The Tollway generally agreed with the 23 recommendations to improve the management of the Tollway. In January 2003, a new Executive Director was appointed who began making changes that parallel some of the audit's findings. We will follow up on the status of recommendations in next year's financial and compliance audit.

REPORT CONCLUSIONS

The Illinois State Toll Highway Authority (Tollway) is governed by the Toll Highway Act which states that it is in the public interest to provide for a toll highway system. The Act states that toll roads will become freeways when all revenue bonds have been paid (605 ILCS 10/21).

As of December 31, 2002, the Tollway had $781 million in outstanding revenue bonds and $355 million in unrestricted cash equivalents and investments. The Tollway is funded entirely by tolls and other revenues (e.g., concessions, investments) of approximately $390 million in 2001 and did not receive any federal or State tax revenues in 2002.

The Illinois State Toll Highway Authority (Tollway) operates 274 miles of toll roads used by 1.2 million vehicles per day. Many segments of the toll roads are 40 years old and, according to the Tollway's Consulting Engineer, require frequent repairs and would be more cost-effective to reconstruct.

In March 2002, the Tollway announced a plan to increase tolls by 88 percent (i.e., increase the base toll rate for cars from 40 cents to 75 cents) to pay for reconstructing the toll roads. Tollway officials said the reconstruction would cost $5.5 billion over 15 years.

In accordance with the audit resolution, this management audit focused on reviewing the operations of the Tollway and reports the results primarily for 2002. In January 2003, a new Executive Director was appointed who began making changes that parallel some of the audit's findings, such as reducing the number of permanent take-home vehicles, conducting employee background checks, and establishing a chief of staff.

The Tollway lacked a comprehensive written capital plan to support the need for reconstructing and widening the toll roads.
The plan should combine projects, costs, timelines, revenues, and expenditures.

1. **Reconstruction Capital Plan.** The Tollway lacked a comprehensive written capital plan to support the need for reconstructing and widening the toll roads. Many documents exist but they failed to merge the financial and engineering components into a single plan. The Tollway needs to prepare a comprehensive plan that combines projects, detailed cost estimates, timelines, revenues, and expenditures.

   - **$** The Tollway also did not review the cost estimate of the $5.5 billion reconstruction plan submitted by its Consulting Engineer, Consoer Townsend Envirodyne Engineers, Inc. (CTE).

CTE informed us in March 2003 that the $5.5 billion reconstruction cost estimate was the high end cost estimate and that less costly alternatives may exist.

This was not previously disclosed by the Tollway.

- **$** CTE informed us in March 2003 that the $5.5 billion reconstruction cost estimate was the high end cost estimate and that less costly alternatives may exist. This was not previously disclosed by the Tollway in its public discussions of reconstruction needs.
- **$** Some of the supporting documentation to back up the Tollway's 15-year, $5.5 billion reconstruction cost estimate by the Tollway in March 2002 was not prepared until after our request in September 2002.
- **$** The cost estimation process for the $5.5 billion reconstruction plan appears to be simplified. See Appendix E for the Tollway's Proposed Capital Program.

2. **Planning.** The Tollway lacked complete information on its existing operational plans. The Tollway needs to fully complete the Annual Management Plan used by the Governor's Office and monitor the implementation of its planning documents.

3. **Management Information.** The Tollway has some computerized information systems that date back to the late 1970s. These systems are not able to process data or prepare reports with the capability of current computer systems.

4. **Organization Structure.** The Tollway may be able to reorganize certain units performing related work into a single division, such as the various planning units.

5. **Personnel.** The Tollway's personnel records contained deficiencies for 15 of the 50 employees in our sample, such as the following: missing performance evaluations, missing salary information, misfiled documentation, and not meeting the position requirements. Some interview files examined also lacked job application forms, interview evaluation forms, and reference checks.
   - **$** Since 1991, the Tollway has been reimbursing the medical insurance premiums for the dependents of retired employees who have the "High Option Indemnity" insurance. Officials at both the State Employees' Retirement System and the Group Insurance Division of the Department of Central Management Services said they were unaware of any other State agency with a similar policy.
   - **$** In our survey of Tollway employees, respondents said the Authority needs to improve its internal management, such as supervision, training, policies, procedures, and communications.

6. **Money Room.** The Tollway needs to enhance security and controls over its toll collection process, including its Money Room operations.

7. **Bonds.** The Tollway refinanced its revenue bonds in 1998 to lower debt service. At the end of 2002, more than $330 million in bonds were callable prior to maturity and could be considered for refunding given historical low interest rates. The Tollway's new Chief of Finance said that approximately $300 million of the callable bonds would not be economical to refund because a termination fee would have to be paid, but the Tollway plans to examine the remaining $30 million of callable bonds later this fall to determine whether savings could be achieved by refunding them prior to maturity.

8. **Non-Toll Revenue.** Excluding interest income from investments, the Tollway earned approximately $10.7 million in revenue (or 3%) from non-toll sources (e.g., concessions, fiber optics). Since toll revenue is projected to increase by 2 to 3 percent per year, increasing non-toll revenue could provide additional income to the Tollway. Illinois was below the median (4.5%) in our survey of states' toll roads for collection of non-toll revenue.

9. **Toll Collection.** Most vehicles (90%) using the Tollway are passenger cars and they generate 75 percent of the toll revenue.
   - **$** The Tollway lost $11 million in 2002 mainly due to toll evasion. The toll evasion rate was three percent which is higher than most toll roads responding to our survey. Most of the losses were in I-PASS lanes and "unattended" ramps without toll collectors.
   - **$** The Tollway has begun to address toll evasion by implementing a Violation Enforcement System that will bill toll evaders $20 per violation. In summer 2002, the Tollway awarded a three-year $38 million contract to TransCore to develop and implement the Violation Enforcement System.

10. **Toll Rates.** Toll rates were last raised in 1983 and the Tollway has gone the longest of 20 respondents to our survey questionnaire without an increase in tolls. Also, the Tollway had among the lowest toll rates per mile among respondents.
    - The 2001 Annual Report by the Tollway's Consulting Engineer said the Tollway will not have sufficient funds by late 2004.
    - **$** However, as recently as June 29, 1998, the Tollway issued a press statement that said no toll increase was necessary. (pages 1 to 4)

The Tollway lost $11 million in 2002 mainly due to toll evasion. The toll evasion rate was three percent, which is higher than most toll roads responding to our survey.

BACKGROUND

The Illinois State Toll Highway Authority is governed by the Toll Highway Act (605 ILCS 10). The Act states that only the General Assembly can authorize building any new roads (605 ILCS 10/14.1). The Act also states that toll roads will become freeways when all bonds have been paid (605 ILCS 10/21): *"When all bonds including refunding bonds and all interest thereon have been paid . . . toll highways shall become a part of the system of the State highways of the State of Illinois, and be maintained and operated free of tolls."*

In 2002, the Tollway was organized into seven primary offices which report to the Executive Director. The Tollway's organizational structure is not unusual as compared to major U.S. toll road authorities. However, there were several planning units (strategic, financial, engineering) which the Tollway could consider merging for closer coordination – a crucial component in insuring that cash flow requirements are balanced with physical roadway requirements. (pages 10 to 14)

OPERATIONS

The Tollway is an administrative agency of the State of Illinois whose mission is to provide safe and efficient highways. The Tollway had various planning documents for internal use and for use by the Governor's Office of Statewide Performance Review.

The Tollway needs to improve its operational planning function.

The Tollway has made progress in developing strategic plans and performance measures, both of which are needed to help ensure that the overall mission of the Tollway is being met. However, improvements are needed in the consistency and monitoring of the plans. In addition, once a strategic planning process has been implemented, results should be reported to the public, such as by posting on the Tollway's web-site.

The number of Tollway employees has remained relatively stable over the past ten years. In 2002, the Tollway had 1,927 employees. This headcount does not include District 15 State Police troopers, which numbered 159 in 2002, because the Tollway considers them to be contractual employees. The headcount for 2003 is budgeted to be 1,854.

- **$** The Tollway's personnel records contained deficiencies for 15 of the 50 employees in our sample, such as the following: missing performance evaluations, missing salary information, misfiled documentation, and not meeting the position requirements.

Interview files examined also lacked job application forms, interview evaluation forms, and reference checks.

- The Tollway does not conduct its own reference checks but relies on the applicant to have a previous employer complete the reference form. Applicants without completed reference forms were still hired.

- Tollway staff said fingerprints are taken from all employees although they were not checked prior to 1999 but were just kept in storage. (pages 19 to 46)

Job applicants without completed reference forms were still hired by the Tollway.

REVENUES, EXPENDITURES, AND CONTRACTS

The Tollway's budget for Fiscal Year 2002 was $379 million. Approximately one-half of the budget ($180 million) was for maintenance and operations, including $115 million for payroll.

- The Tollway's revenue has exceeded expenses every year since 1992. At the end of 2001, cash and investments totaled $475 million.

- The Tollway has earned interest income between $20.8 million and $27.6 million during 1997-2001, but that is expected to decline to $10 million by 2006.

- The Tollway has not finalized its projected cash flow for the 15-year time period during which the toll roads are expected to be reconstructed. Cash flow projections were labeled "draft" and lacked support to explain changes by a precise amount (e.g., cash was forecasted to vary from negative 1.3% to positive 4.7% per year).

- The Tollway earned approximately $10.7 million in 2001 from non-toll revenue sources (e.g., concessions, fiber optics) which was approximately three percent of its operating revenue; Illinois was below the median (4.5%) in non-toll revenue collection of our survey respondents.

- The Tollway did not have a centralized listing of contracts which could assist management in monitoring contracts.

The Tollway's total revenue has exceeded expenses every year since 1992. At the end of 2001, cash and investments totaled $475 million.

The Tollway has been reimbursing the medical insurance premiums for the dependents of some retired employees.

- Since 1991, the Tollway has been reimbursing the medical insurance premiums for the dependents of retired employees who worked for the Tollway for at least five years. It has reimbursed 80 percent of the premium cost for dependents of retirees who have the "High Option Indemnity" insurance. The cost of this benefit was $24,000 in 2002 and can be expected to increase in future years due to the State's Early Retirement Incentive. Officials at both the State Employees' Retirement System and the Group Insurance Division of the Department of Central Management Services said they were not aware of any other State agency with a similar policy.

- Illinois' toll rates for passenger vehicles and trucks were among the lowest of the respondents to our survey of states' toll roads. See Digest Exhibit 1. (pages 47 to 70)

Digest Exhibit 1
CURRENT TOLL RATES
Passenger Vehicles

Toll Road[A]	**Current Average Toll Rate per Mile**	**Year of Last Toll Increase**	**Percent Increase**
New Jersey Highway Authority (Garden State Parkway)	2**4**	1988	40%
Illinois State Toll Highway Authority	***34***	***1983***	***33%***
Indiana Department of Transportation – Toll Road District	3**4**	1985	10%
New York State Thruway Authority	3**4**	1988	32%
Kansas Turnpike Authority	4**4**	2001	5%
Ohio Turnpike Commission	4**4**	1999	9%
Pennsylvania Turnpike Commission	4**4**	1991	30%
South Jersey Transportation Authority	5**4**	1998	100%
Florida Turnpike Enterprise	6**4**	1995	25%
Miami-Dade Expressway Authority	7**4** [B]	2001	1.5%
Orlando-Orange County Expressway (Florida)	11**4** [B]	1990	50%
North Texas Tollway Authority	11**4** [B]	2002	NR
Transportation Corridor Agencies (California)	17**4**	2002	6.4%
E-470 Public Highway Authority (Colorado)	18**4**	2003	NR
Richmond Metropolitan Authority (Virginia)	NR	1998	NR

NR = No Response

Notes:
[A] Only those state toll systems that provided the date of the most recent toll increase are included in this exhibit.
[B] Orlando-Orange County responded that its average ranged from 8**4** to 11**4** per mile for cars. Miami-Dade Expressway Authority also has a discounted toll rate which, on average, equals 6**4** per mile for cars. North Texas also has a discounted toll rate which, on average, equals 9**4** per mile for cars.

Source: Summary of other states' survey responses by the Office of the Auditor General.

TOLL COLLECTION

The collection of tolls needs to be improved as the Tollway did not collect over $11 million in tolls in 2002. Tollway officials attributed most of the uncollected tolls to motorists who did not pay the required toll. The Tollway's three percent uncollected toll rate was the third highest of the 12 toll roads that provided this information in our survey.

In 2002, the Tollway did not collect $11 million in tolls, including 10% from unattended automatic lanes (without toll collectors).

$ In December 2002, six percent of tolls at I-PASS only lanes were not collected and nearly 10 percent of the tolls were not collected at the "unattended" automatic lanes. Comparatively, at manual lanes (which have toll collectors), only 0.3 percent of expected cash revenue was not collected in December 2002. See Digest Exhibit 2.

Digest Exhibit 2
UNCOLLECTED TOLLS BY TYPE OF LANE
December 2002

Lane Type	Expected Revenue	Over/Under	Percent Uncollected
I-PASS Only	$7,535,202	-$453,590	6.0%
Automatic (Unattended)	$4,419,049	-$426,795	9.7%
Automatic (Attended)	$9,318,183	[B] $35,431	-0.4%
Manual	$9,377,833	-$25,697	0.3%
Manual -Non-Pay Events [A]	$42,101	-$42,101	100%
Total	**$30,692,368**	**-$912,752**	**3.0%**

[A] Non-pay events include emergency vehicles and individuals requesting an envelope to pay at a later time.
[B] Tollway officials attribute more than expected revenue to customers without exact change depositing 50 cents in automatic lanes rather than waiting in line at a manual lane.

Source: Illinois State Toll Highway Authority data.

- The Tollway did not effectively collect from motorists who did not pay tolls and reported collecting only $214,923 from toll evaders for 2002. The Tollway entered into a $38 million contract with TransCore in summer 2002 to develop and implement a system to collect from toll evaders. The system was being developed during our audit fieldwork.

The toll collection and cash counting processes can be improved in areas that included limiting access to the Money Room; improving surveillance over the handling of toll collections; and improving other operational controls. In addition, some recommendations from prior reviews (e.g., Illinois State Police, Arthur Andersen) of the Tollway's toll collection and cash handling practices still have not been implemented. (pages 71 to 92)

REAL ESTATE

The Property Management Division does not have controls in place to adequately track all property parcels acquired by the Tollway. There is no single comprehensive listing of all Tollway property.

The Tollway cannot easily identify potential excess real estate because it has to use both electronic and manual processes. Staff cannot readily determine whether the Tollway actually acquired each property initially identified, its current use, whether the property is excess and not needed by the Tollway, or whether ownership has been sold or otherwise conveyed to another party.

The Tollway's excess property list contained properties that were never acquired or were no longer owned by the Tollway.

As an example of the limitations of the Tollway's real property information systems, the excess property list contained properties that were never acquired or that were no longer owned by the Tollway.

The Tollway should consider using the Geographic Information System to maintain complete information on all its real estate, including how each property is being used, such as for roads, oases, maintenance facilities, easements, utilities, fiber optic lines, and rental property. (pages 93 to 108)

VEHICLES

The Tollway had a total of 693 vehicles as of December 2002 (see Digest Exhibit 3). The total expenditures of the Vehicle Fleet Unit were $11,240,814 in 2002 -- $4,541,380 for new vehicle purchases and $6,699,434 for labor, fuel, maintenance, repair, and other costs.

The Tollway had 105 cars assigned to employees, including 12 to the Consulting Engineers.

- Of the Tollway's 693 vehicles, 105 were take-home vehicles that were permanently assigned to employees, including 12 for its Consulting Engineers (Consoer Townsend Envirodyne).

- The purchase price of take home vehicles was $1.75 million. Their operating cost – gas, maintenance, repairs, insurance – was $245,189 in 2001.

- The Tollway's computerized management information system for the vehicle fleet is outdated and does not generate reports which would allow management to better monitor vehicle costs.

- Some of the vehicles were used more for commuting than for Tollway business.

- Of the 18 Tollway employees sampled who were assigned a permanent vehicle, 16 either did not complete the required vehicle usage logs or did not complete them correctly.

Digest Exhibit 3
ORGANIZATIONAL UNITS ASSIGNED VEHICLES
December 2002

Office	Number
Engineering	397*
State Police District # 15	196
Operational Services	65
Information Technology	22*
Finance and Administration	9*
Communications	2
Legal	1
Executive Director	1
Total	**693**

Notes:
*Engineering included 306 vehicles for Roadway Maintenance; Information Technology included vehicles for Telecom Technicians; Finance and Administration included vehicles for Safety & Training.

Source: Illinois State Toll Highway Authority data.

After our audit period, which ended in 2002, the Tollway changed its policy on assigning vehicles to employees and reduced the number of take home vehicles from 105 to 48 in February 2003. The 12 vehicles assigned to the Tollway's Consulting Engineer Consoer Townsend Envirodyne Engineers, Inc. (CTE) were also returned to the Tollway and now the Authority pays $36 per day per vehicle to CTE. Tollway officials said that by May 14, 2003, they had completed marking vehicles with the Tollway logo and number, as well as an I-PASS decal. (pages 109 to 118)

BONDS

The Tollway had $781 million in revenue bonds outstanding at the end of 2002. These bonds are scheduled to be retired by 2017. The revenue bonds are governed by a Trust Indenture that establishes the requirements and guidelines for the Tollway to follow. The Trust Indenture was established in 1985.

The Tollway had $781 million in revenue bonds outstanding at the end of 2002. These bonds are scheduled to be retired by 2017.

According to the Tollway, it has realized $98 million in reductions in debt service due to refunding bond issues since 1987. Given historical low interest rates, the Tollway needs to examine if it could realize savings by additional refunding of outstanding bonds prior to their maturity. At the end of 2002, more than $330 million of the remaining bonds were eligible for refunding prior to maturity because the bonds are callable.

However, the Tollway's new Chief of Finance said that approximately $300 million of the callable bonds would not be economical to refund because a termination fee would have to be paid. The Tollway plans to examine the remaining $30 million of callable bonds later this fall to determine whether savings could be achieved by refunding them prior to maturity. (pages 119 to 125)

TOLL ROAD RECONSTRUCTION

The Tollway has issued a number of capital planning documents but they show varying cost estimates, timeframes, and priorities.

The Tollway did not have a comprehensive written plan that supports the need for reconstructing the toll roads, some of which were constructed 40 years ago (Digest Exhibit 4 shows the pavement condition). The Tollway has issued a number of capital planning documents but they show varying cost estimates, timeframes, and priorities. A comprehensive plan that combines project types and descriptions, detailed cost estimates, timelines, revenues, and expenditures is necessary.

Digest Exhibit 4
PAVEMENT CONDITION

	1997	2000	CHANGE
Excellent/Good	53%	45%	(8%)
Transitional/Fair	46%	53%	7%
Poor/Not Rated	1%	2%	1%

Source: 2001 CTE Annual Report.

- In March 2002, the Tollway proposed a $5.5 billion reconstruction plan which would be paid by a 35 cent toll increase to its current base rate of 40 cents for passenger vehicles. However, some of the supporting documentation for the $5.5 billion cost estimate was not prepared until after our request. Further, the cost estimates prepared by the Tollway's Consulting Engineer (CTE) were not subject to review by the Tollway's own employees.

The cost estimates prepared by the Tollway's Consulting Engineer were not reviewed by Tollway employees.

- CTE said to us in March 2003 that the $5.5 billion reconstruction cost estimate was the high end cost estimate and that less costly alternatives may exist. This information was not noted by the Tollway when the reconstruction plan was announced in March 2002 nor was it disclosed in other Tollway reports. CTE assumed that most Tollway roads would require full reconstruction and built this assumption into their $5.5 billion cost estimate. There are, however, less expensive alternatives to a complete reconstruction and the cost estimation process for the $5.5 billion reconstruction plan appears to be simplified.

- According to the 2001 Annual Report by CTE, the Tollway will not have sufficient funds to pay for the reconstruction. However, as recently as 1998, the Tollway publicly stated that no toll rate increase was required. The Tollway needs to establish a written financial plan for the reconstruction and retained the firm of RBC Dain Rauscher in summer 2002 to develop a financing plan by fall 2002, but no financing plan was issued as of May 1, 2003. (pages 127 to 138)

SURVEY OF STATE TOLL SYSTEMS

We mailed a survey questionnaire to 32 toll roads or turnpike organizations in the United States and in Canada. Including the Illinois Tollway, we received responses from 20 toll systems located in 14 states. Like the Illinois Tollway, many survey respondents have a mix of rural and urban roadways.

With its last toll increase in 1983, the Illinois Tollway has gone the longest of any of the survey respondents without an increase in tolls.

States collected up to 67% of the tolls electronically.

Illinois Tollway collected 36% of its toll revenues electronically through I-PASS.

Among the respondents, the Illinois Tollway has one of the lowest toll rates for commercial vehicles at an average of just over nine cents a mile.

- The percentage of tolls collected electronically among survey respondents was as high as 67 percent. The Illinois Tollway collected 36 percent of its toll revenues electronically. See Digest Exhibit 5.

- $ Among survey respondents, the Illinois Tollway's capital plan was the longest at 20 years.

- $ Most respondents, including the Illinois Tollway, do not receive funding from governmental bodies – i.e., federal, state, or local. (pages 153 to 169)

Digest Exhibit 5
ELECTRONIC TOLL COLLECTION

Toll Road	**% Collected Electronically**
North Texas Tollway Authority	67%
Transportation Corridor Agencies (California)	65%
E-470 Public Highway Authority (Colorado)	60%
New Jersey Highway Authority (Garden State Parkway)	53%
Orlando-Orange County Expressway (Florida)	49%
New York State Thruway Authority	48%
Virginia Department of Transportation – Pocahontas Parkway	45%
South Jersey Transportation Authority	42%
Georgia State Road and Tollway Authority	37%
Richmond Metropolitan Authority (Virginia)	37%
Illinois State Toll Highway Authority	***36%***
Miami-Dade Expressway Authority	35%
Maryland Transportation Authority	35%
Pennsylvania Turnpike Commission	34%
Kansas Turnpike Authority	33%
Florida Turnpike Enterprise	32%
Ohio Turnpike Commission	9%

Source: Illinois Auditor General's survey of toll roads.

BENCHMARKING

The Office of the Auditor General compared the Illinois State Toll Highway Authority with the toll roads in other states that responded to our mail survey questionnaire. We compared the Illinois Tollway's performance in selected areas against the performance of 13 other toll roads, a process which is referred to as benchmarking. Conclusions reached as a result of the benchmarking comparisons included:

- The Illinois Tollway is one of the largest toll systems in the United States, both in terms of lane miles and vehicle miles traveled.

Illinois has among the lowest toll rates in the nation, and has gone the longest without raising tolls than any of the 20 states responding to our survey.

- The Illinois Tollway had the second lowest toll rate at three cents per mile for passenger vehicles (New Jersey's Garden State Parkway reported two cents per mile). Along with Indiana, the Illinois Tollway had the lowest toll rate for a 5-axle commercial vehicle at nine cents per mile.

- The Illinois Tollway reported the third highest number of staff at 1,926 after the New York State Thruway Authority (3,212 staff) and the Pennsylvania Turnpike Commission (2,390 staff).

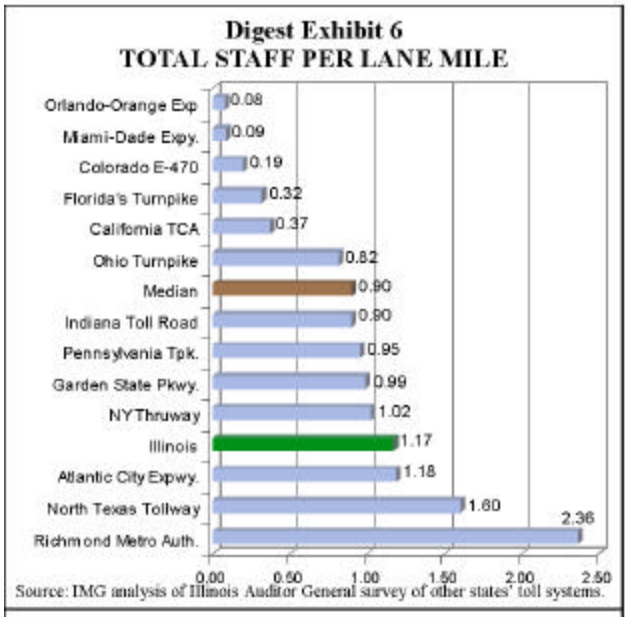
- The Illinois Tollway's administration and operations costs fall in the middle compared to other large toll systems, including the New York State Thruway Authority, New Jersey Highway Authority (Garden State Parkway), Florida Turnpike Enterprise, and Ohio Turnpike Commission.

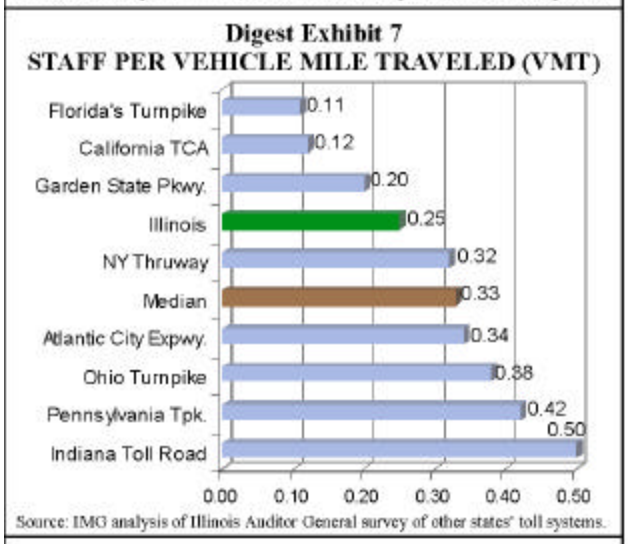
- Several other toll roads reported offering motorists a toll discount for using electronic toll collection (e.g., I-PASS); the Illinois Tollway does not offer such a discount.

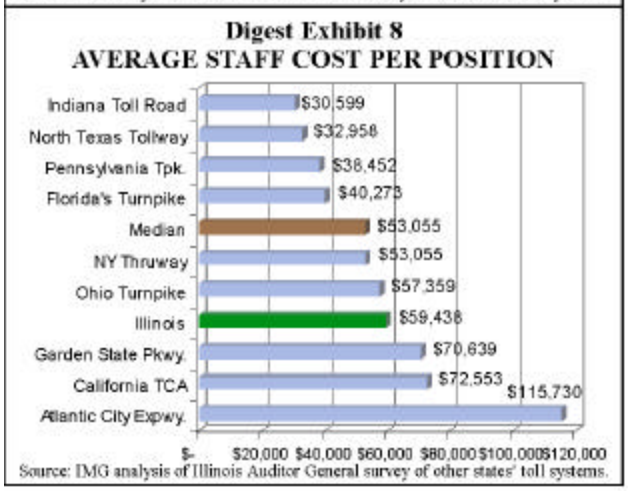
The Illinois Tollway had more staff per lane mile than the median of the other toll roads: 1.17 versus 0.90. As shown in Digest Exhibit 6, Illinois Tollway's staff/lane mile is higher than the other large toll roads: Ohio, New York, Pennsylvania, Florida, and New Jersey Garden State Parkway.

However, as shown by Digest Exhibit 7, on a Vehicle Miles Traveled (VMT) basis, Illinois Tollway had fewer staff (0.25 per VMT) than the median (0.33 per VMT). VMT data was only available for the larger roads; therefore, the median may actually be lower. Illinois Tollway's ratio of 0.25 staff per VMT is lower than the other large toll roads, except for the Florida Turnpike Enterprise (0.11 per VMT) and the Garden State Parkway (0.20 per VMT).

The Illinois Tollway's average staff cost per position at $59,438 compares to the sample median of $53,055 (see Digest Exhibit 8). Staff cost includes both salaries and fringe benefits. The Illinois Tollway's staff cost per position was higher than four of the other larger toll roads (Florida, Pennsylvania, New York, and Ohio) and lower than one (Garden State Parkway). (pages 171 to 187)







BEST PRACTICES

Best practices identified in other states included: cost containment; customer orientation; customer surveys; communication with stakeholders; and controlling traffic congestion.

We surveyed states' toll road systems and conducted detailed interviews with officials from three toll roads in other states to identify "best practices."

Best practices can be defined as the processes, practices, and systems identified in public and private organizations that performed exceptionally well and are widely recognized as improving an organization's performance and efficiency in specific areas. Successfully identifying and applying best practices can reduce business expenses and improve organizational efficiency.

Best practices identified in other states included: implementing cost containment initiatives; improving employees' customer orientation; conducting customer surveys; improving communication with stakeholders; and better controlling the traffic congestion on their roads. (pages 189 to 194)

RECOMMENDATIONS

The audit made 23 recommendations to improve the management of the Illinois State Toll Highway Authority. The Tollway generally agreed with the recommendations. The Tollway's responses are provided after each recommendation in the report and the complete written responses are reproduced in Appendix F (see page 239). The Office of the Auditor General will follow up on the status of each recommendation in next year's financial and compliance audit.

WILLIAM G. HOLLAND
Auditor General

WGH\AD
May 2003

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GLOSSARY	
Annual Management Plan (AMP)	A report prepared for the Governor's Office of Statewide Performance Review to measure performance of State agencies.
Automatic Lanes	Type of lanes within a toll plaza in which motorists must put their money into an unattended toll collection machine.
Benchmarking	The process of comparing the performance of one organization (e.g., toll highway system) against the performance of one or more organizations.
Best Practices	Best practices are the processes, practices, and systems identified in public and private organizations that performed exceptionally well and are recognized as improving an organization's performance and efficiency in specific areas. Successfully identifying and applying best practices can reduce business expenses and improve organizational efficiency.
Callable Bonds	A bond for which the issuer reserves the right to pay a specific amount, the "call price," to retire the debt before the maturity date. If the issuer has agreed to pay more than the face amount of the bond when called, the payment over the face amount is called the premium.
Capital Reconstruction Plan/Program	A proposal by the Illinois State Toll Highway Authority to completely reconstruct, widen, and increase the capacity of Illinois' toll highway system over the next 15 years at a cost of over $5.5 billion.
Closed Barrier Toll Highway	A toll highway system where the user obtains a ticket at entry and pays the toll at exit.
Condition Rating System (CRS)	A technique for measuring the condition of the road pavement that was adopted by the Illinois Department of Transportation; it uses a 1 to 9 scale with 9 being a newly constructed pavement.
Congestion Pricing	Congestion pricing charges a premium to road users who want to drive during peak periods such as rush hour or holiday weekends. The toll varies according to the level of congestion with higher tolls during peak hours or in peak directions.
Consoer Townsend Envirodyne (CTE)	Consulting Engineer for the Illinois State Toll Highway Authority.
Electronic Toll Collection (ETC)	An electronic means for motorists to pay toll charges without using coins or currency. Motorists attach an electronic signal device, known as a transponder, on their windshield to automatically deduct the toll charge as they drive through a toll plaza. ETC is used by many toll highway systems, including the Illinois Tollway which calls it I-PASS.
Geographic Information System (GIS)	A system of computer software, hardware, and data that combines layers of information about a place (e.g., real estate and highway characteristics) and helps analyze and present information that is tied to a spatial location.
Goals	Goals quantify the level of performance desired.
I-PASS	The Illinois Tollway's electronic toll collection system (see definition above).
Lane Miles	The number of miles of toll road multiplied by the number of lanes in the road. For example, if a road is 10 miles long and has 2 lanes, the number of lane miles would be 20.
Limited Access Toll Highway	A toll highway system (e.g., Illinois Tollway) in which the user pays tolls at plazas along the toll road.
Mainline Plazas	The type of toll collection plazas that span the roadways and are located throughout the system. These plazas may have manual, automatic, and I-PASS lanes.
Manual Lanes	The type of lanes within a toll plaza where motorists must hand their toll payment to a toll collector in a booth.
Million Vehicle	MVM is a common highway industry model that can be compared to other

Miles (MVM)	cost factors to compute a measure of performance.
Money Room	The Tollway's centralized cash and coin counting operation.
Open Road Toll Highway	A toll highway system in which the user receives a monthly bill for toll road usage.
Outcomes	Accomplishments or results that occur, at least partly, because of the services provided.
Outputs	The quantity of goods and services provided.
Pavement Serviceability Rating (PSR)	The Federal Highway Administration's system for measuring road condition. The Tollway does not use the PSR but uses the IDOT-developed CRS system.
Performance Measures	Statistics used to monitor and report program accomplishments, particularly progress towards preestablished goals. Performance measures may address the type or level of program activities conducted (process), the direct products and services delivered by a program (outputs), and/or the results of those products and services (outcomes).
Ramp Plazas	The type of toll plazas that serve as on/off points to the Tollway system.
RBC Dain Rauscher	The Minnesota financial consulting firm retained by the Tollway to create a financing plan for the Tollway's proposed $5.5 billion reconstruction capital plan.
Renewal and Replacement (R&R)	Tollway projects that maintain, repair, or improve the existing infrastructure; such projects are less extensive than capital reconstruction projects.
Revenue Bonds	A certificate of debt issued by an organization in order to raise revenue. It guarantees payment of the original investment plus interest by a specified date using the organization's revenues.
Rubblization	A less expensive alternative to complete road reconstruction which involves breaking the existing concrete into pieces that can then serve as base material for new surface pavement.
Rutan-Exempt Positions	Job titles for which political affiliation is an allowable consideration in hiring decisions, in accordance with the U.S. Supreme Court's 1990 Rutan decision, 497 U.S. 62 (1990).
TransCore	The contract firm that provides toll collection equipment and maintenance for the Tollway's network of toll plazas. TransCore is also developing a new Violation Enforcement System (see definition) for the Tollway.
Treadle	An electronic device located under the pavement of lanes at toll plazas. Treadles count the number of axles on each vehicle going through the lane.
Trust Indenture	A contract between the Tollway and its bondholders that establishes the rights and obligations of both parties (e.g., it creates a pledge of toll revenue to the bondholders).
Validator	A terminal keyboard mounted inside toll booths. The employee uses this keyboard to enter the amount paid and the class of vehicle every time a toll is paid at a manual lane.
Vedet Loop	A vehicle counting device that is located on the side of the road at each lane in a toll plaza and counts the number of vehicles going through the lane.
Vehicle Miles Traveled (VMT)	The number of miles driven annually by all vehicles using the roadway.
Violation Enforcement System (VES)	A system that is currently being developed for the Tollway to collect unpaid tolls from violators. The system will take photographs of license plates and a fine notice will be mailed to toll violators. TransCore is developing the system for the Tollway.
Wilbur Smith Associates (WSA)	The Traffic Engineer for the Illinois State Toll Highway Authority.

Chapter One

INTRODUCTION

Senate Joint Resolution Number 72, adopted June 2, 2002, directed the Office of the Auditor General to conduct a management audit of the Illinois State Toll Highway Authority. The Resolution (see Appendix A) stated that the audit shall:

- **$** Determine whether the Tollway is managing or using its resources, including toll and investment-generated revenue, personnel, property, equipment, and space, in an economical and efficient manner.

- **$** Make recommendations to correct any inefficiencies or uneconomical practices.

- **$** Examine the process by which the Tollway collects, transports, counts, and deposits toll collections.

REPORT CONCLUSIONS

The Illinois State Toll Highway Authority (Tollway) is governed by the Toll Highway Act which states that it is in the public interest to provide for a toll highway system. The Act states that only the General Assembly can authorize the construction of new roads and that toll roads will become freeways when all revenue bonds have been paid.

The Illinois toll roads opened in 1958 and currently consist of 274 miles of roads equaling 1,652 lane miles. Many segments of the toll roads are 40 years old and, according to the Tollway's Consulting Engineer, require frequent repairs that would be more cost-effective to reconstruct.

In March 2002, the Tollway publicly announced a plan to increase tolls by 88 percent (i.e., increase the base toll rate for passenger cars from 40 cents to 75 cents) to pay for reconstructing the toll roads. Tollway officials said the reconstruction would cost $5.5 billion over 15 years.

As of December 31, 2002, the Tollway had $781 million in outstanding revenue bonds and $355 million in unrestricted cash equivalents and investments. The Tollway is funded entirely by tolls and other revenues (e.g., concessions, investments) of approximately $390 million in 2001 and did not receive any federal or State tax revenues in 2002. In fall 2002, the Tollway employed 1,927 employees and paid for an additional 159 troopers of Illinois State Police's District 15. Most of the Tollway's employees were

in two organizational units: Toll Collections (818 employees) and Roadway Maintenance (370 employees).

In accordance with the audit resolution, this management audit focused on reviewing the operations of the Tollway and reports the results primarily for 2002. It should be noted that in January 2003, a new Executive Director was appointed who began to make changes that parallel some of the audit's findings, such as reducing the number of permanent take-home vehicles, conducting employee criminal background checks, and establishing a chief of staff.

1. **Reconstruction Capital Plan.** The Tollway lacked a comprehensive capital plan to support the need for reconstructing and widening the toll roads. Many documents exist but they failed to merge the financial and engineering components into a single plan. The Tollway needs to prepare a comprehensive written plan that combines projects, detailed cost estimates, timelines, revenues, and expenditures.
   - **$** The different documents that existed included a 1-year capital plan, 5-year capital plan, 10-year capital plan, 15-year capital plan, and 20-year capital plan. These plans were released in different years and, therefore, are difficult to compare for consistency regarding reconstruction cost estimates.
   - **$** Some of the supporting documentation to back up the 15-year $5.5 billion reconstruction cost estimate made by the Tollway in March 2002 was not prepared until after our request in September 2002. See Appendix E for the Tollway's Proposed Capital Program.
   - **$** The Tollway also did not review the cost estimate of the $5.5 billion reconstruction plan submitted by its Consulting Engineer. Reviewing the cost estimates prepared by consultants is important to ensure their accuracy and reliability. For example, in 2001, the Tollway's Consulting Engineer reduced the replacement cost of the toll roads and other capital assets by more than 50 percent from $7.4 billion to $3.6 billion for insurance purposes.
   - **$** CTE informed us in March 2003 that the $5.5 billion reconstruction cost estimate was the high end cost estimate and that less costly alternatives may exist. This information was not noted by the Tollway when the reconstruction plan was announced in March 2002 nor was it disclosed in other Tollway reports.
2. **Planning.** The Tollway lacked complete information on its existing operational plans and needs to improve its planning by fully completing the Annual Management Plan that is used by the Governor's Office, making performance measures more complete, and using the performance measures to manage the operations of the Tollway, its units, and its personnel.
3. **Management Information.** The Tollway has some computerized information systems that date back to the late 1970s. These systems are not able to process data or prepare reports with the capability of current computer systems.
   - **$** Tollway's computers could not generate exception reports to show equipment that had a particularly high cost of operation; such analytical reviews must be done manually.

- **$** The Tollway uses a financial records system that was designed and developed in the early 1980s but has issued a Request for Proposals (RFP) for a new financial system.

4. **Organization Structure.** The Tollway may be able to reorganize certain units performing related work into a single division. Multiple units were responsible for planning (e.g., strategic planning, engineering planning, financial planning) which could be considered for consolidation with a single Office (Tollway's major organizational divisions are called "Offices").
5. **Personnel.** The Tollway personnel records contained deficiencies for 15 of the 50 employees in our sample, such as the following: missing performance evaluations, missing salary information, misfiled documentation, and not meeting the position requirements. Interview files examined also lacked job application forms, interview evaluation forms, and reference checks.
   - **$** Since 1991, the Tollway has been reimbursing the medical insurance premiums for the dependents of retired employees. The cost of this benefit was $24,013 in 2002 and can be expected to increase in future years as retirements increase due to the State's Early Retirement Incentive. Officials at both the State Employees' Retirement System and the Group Insurance Division of the Department of Central Management Services said they were not aware of any other State agency with a similar policy.
   - **$** In our survey of Tollway employees, some responding employees said that the Tollway needs to improve its internal management, in particular regarding supervision, training, policies, procedures, and communications. The survey questionnaire was mailed to 964 Tollway employees and 189 (20%) responded.
6. **Money Room.** The Tollway needs to enhance security and controls over its toll collection process, including its Money Room operations. The Illinois Gaming Board assisted us in reviewing the Tollway's Money Room and also offered suggestions for improving security controls.
7. **Bonds.** The Tollway refinanced its revenue bonds in 1998 to lower debt service. At the end of 2002, more than $330 million in bonds were callable prior to maturity and could be considered for refunding given historical low interest rates. The Illinois Economic and Fiscal Commission assisted us in reviewing the Tollway's revenue bonds. The Tollway's new Chief of Finance said that approximately $300 million of the callable bonds would not be economical to refund because a termination fee would have to be paid but the Tollway plans to examine the remaining $30 million of callable bonds later this fall to determine whether savings could be achieved by refunding them prior to maturity.
8. **Non-Toll Revenue.** Excluding interest income from investments, the Tollway earned approximately $10.7 million in revenue from non-toll sources (e.g., concessions, fiber optics), which was approximately three percent of its operating revenue. Since toll revenue is projected to increase by 2 to 3 percent per year, increasing non-toll revenue could provide additional income to the Tollway. Illinois' percentage of non-toll revenue (3%) was below the median (4.5%) among toll roads in other states that responded to our survey questionnaire.
9. **Toll Collection.** The Tollway earns approximately $1 million per day in toll revenue from 1.2 million vehicles. Most vehicles (90%) on the Tollway are passenger cars

and they generate 75 percent of the toll revenue. The remaining 10 percent are trucks and they generate 25 percent of the toll revenue.

- **$** The Tollway collected 36 percent of its tolls through electronic toll collection (I-PASS). This percentage has been increasing but was short of the Tollway's goal of 45 percent. Illinois' percentage of electronic toll collection rate was average compared to other states that provided this information in our survey questionnaire.
- **$** The Tollway lost more than $11 million in 2002 mainly due to toll evasion. The toll evasion rate was three percent which is higher than most toll roads from other states that responded to our survey questionnaire. Most of the Tollway's losses were at ramps that are "unattended" (do not have toll collectors). The Tollway has begun to address toll evasion by implementing a Violation Enforcement System that will bill toll evaders $20 per violation. In summer 2002, the Tollway awarded a three-year $38 million contract to TransCore to develop and implement the Violation Enforcement System.

10. **Toll Rates.** The Tollway last raised its toll rate in 1983. This is longer than any of the 20 toll roads from across the nation that responded to our mail survey questionnaire. Also, the Tollway had the lowest toll rate per mile for passenger vehicles with the exception of one responding toll road (New Jersey). Furthermore, responses to our survey indicated that the Tollway is among the most congested toll roads in the nation.
    - **$** According to the 2001 Annual Report by the Tollway's Consulting Engineer Consoer Townsend Envirodyne Engineers, Inc. (CTE), the Tollway will not have sufficient funds: *"Towards the end of 2004, revenues are projected to be insufficient to fund the needs of the Tollway System."*
    - **$** As recently as June 29, 1998, the Tollway issued a press statement that said no toll increase was necessary: *". . . [the Tollway] today reconfirmed earlier announcements thatno toll rate increases will be required to fund current operations of the existing roadway system, planned existing roadway capital expenditures or the construction and operation of currently planned expansions of the existing system."*

The Tollway had 105 take-home vehicles that were permanently assigned to employees, including 12 for its Consulting Engineers. The vehicles' total purchase price was $1.75 million and the Tollway paid their operating cost – fuel, maintenance, repairs – which was approximately $250,000 in 2001. Of the 18 Tollway employees in our sample who had a permanently assigned vehicle, 16 either did not complete the required vehicle usage logs or did not complete them correctly. Some of the vehicles were used more for commuting than for Tollway business. The Tollway reduced the number of take-home vehicles from 105 to 48 in February 2003.

The Tollway retained the firm of KPMG Peat Marwick LLP to conduct an assessment of the Tollway's operations. In 1995, KPMG made recommendations regarding many operational areas which the Tollway has generally implemented.

STATUTE

The Illinois State Toll Highway Authority (Tollway) is governed by the Toll Highway Act (605 ILCS 10) which states that *". . . it is necessary in the public interest to provide for the construction, operation, regulation and maintenance of a toll highway or a system of toll highways . . . ."* Pertinent provisions of the Act include the following:

Section Citation

10/3 Creates the Illinois State Toll Highway Authority as an administrative agency of the State of Illinois, establishes a Board of Directors, and gives the Tollway powers (e.g., acquire real property, make by-laws).

10/10 Empowers the Tollway to establish toll rates: *"The Authority shall have [the] power to pass resolutions, make by-laws, rules and regulations for management, regulation and control of its affairs, and to fix tolls . . . ."*

10/14 Directs the Tollway to obtain the Governor's approval before commencing any engineering study regarding the construction of additional toll highways.

10/17 States that the Tollway may issue bonds not exceeding 25 years. Bond proceeds shall be deposited with the State Treasurer and do not constitute a debt of the State of Illinois.

10/19 Authorizes the Tollway to fix and revise toll rates from time to time.

10/20.1 Authorizes the Tollway to issue refunding bonds, such as to retire bonds prior to maturity.

Only the General Assembly can authorize building any new roads (605 ILCS 10/14.1). The Act also states that toll roads will become freeways when all bonds have been paid (605 ILCS 10/21): *"When all bonds including refunding bonds and all interest thereon have been paid . . . toll highways shall become a part of the system of the State highways of the State of Illinois, and be maintained and operated free of tolls."*

The precursor to the Tollway was the Illinois State Toll Highway Commission, created in 1953 by the General Assembly. The Commission was authorized to construct toll roads around the Chicago metropolitan area and to complete the western portion of the East-West Extension (I-88). In March 1969, the Commission became the Illinois State Toll Highway Authority.

GROWTH OF ILLINOIS TOLLWAY SYSTEM
1969 – Governor approved the East-West extension (I-88) between Route 56 west of Aurora and US Route 30 near Rock Falls-Sterling which added 69.5 miles and opened in 1974.
1984 – General Assembly directed the Tollway to construct the North-South (I-355) which added 17.5 miles and opened in 1989.
1993 – General Assembly authorized expanding the Tollway, including I-55 to I-57, Illinois Route 53 to Route 120 and east to I-94. These routes are in various stages of study.
1995 – General Assembly authorized expansion of the Tollway around O'Hare airport. This project is under study.
Source: Illinois State Toll Highway Authority.

In 1956, construction began on the toll roads, and by the end of 1958 three toll roads had opened: Northwest, Tri-State, and East-West. The East-West extension was completed in 1974. The North-South (I-355) opened in 1989.

Today, the Tollway operates a 274-mile system consisting of 1,652 lane miles, 540 bridge structures, 20 mainline plazas, and 46 ramp plazas. A map of the toll roads is shown in Exhibit 1-1.

Exhibit 1-1
MAP OF TOLL ROADS

Source: Illinois State Toll Highway Authority.

ORGANIZATIONAL STRUCTURE

The Illinois State Toll Highway Authority is headed by an 11-member Board of Directors. Board members are appointed for four-year terms by the Governor with the advice and consent of the Senate. The Governor and the Secretary of the Illinois Department of Transportation are ex-officio members of the Board. No more than five of the nine appointed directors can be members of the same political party. Directors were paid $2,316 per month and the Chairman was paid $2,658 per month during 2002.

Both Operations and Board meetings of the Tollway are open to the public and visitors may participate in a public comment period at the beginning of each meeting. Meetings are held in the Board Room at the Tollway administration building in Downers Grove. Operations meetings are normally held on the third Thursday of each month at 10:00 a.m. Board meetings are normally held on the fourth Thursday of each month at 10:30 a.m.

The Chairman of the Tollway's Board of Directors presides over the Board meetings and is responsible for exercising general supervision over all powers, duties, obligations, and functions of the Tollway. In addition, the Chairman approves or disapproves all resolutions, by-laws, rules, rates, and regulations made and established by the Board. The Chairman has veto power over any Board decision and is required to provide his objections in writing. The Chairman's veto can be overruled by a two-thirds vote of the Board. Standing apart organizationally, but under the Board of Directors, is the Internal Audit unit.

The Executive Director reports to the Board and handles the day-to-day operations of the Tollway and establishes the direction of the Tollway with input from the Board. The Executive Director is appointed by the Board of Directors.

BOARD OF DIRECTORS
April 2003

All terms expire May 1

1.	Arthur Philip (Chairman)	2003
2.	James Banks	2005
3.	Kenneth G. Cabay	2003
4.	Norman Gold	2003
5.	Carl Kramp	2005
6.	Julie A. Martinez McKevitt	2003
7.	George Pradel	2003
8.	Katherine D. Selcke	2005
9.	Carl Towns	2005

- Governor – ex-officio
- IDOT Secretary – ex-officio

Source: Illinois State Toll Highway Authority.

In 2002, the Executive of Program Development was organizationally located in the Office of the Executive Director. Program Development monitored the Tollway's goals and objectives through the Strategic Plan and the Annual Management Plan (see Chapter 2). Also reporting to the Executive of Program Development was the press secretary, community relations officer, and public information officer.

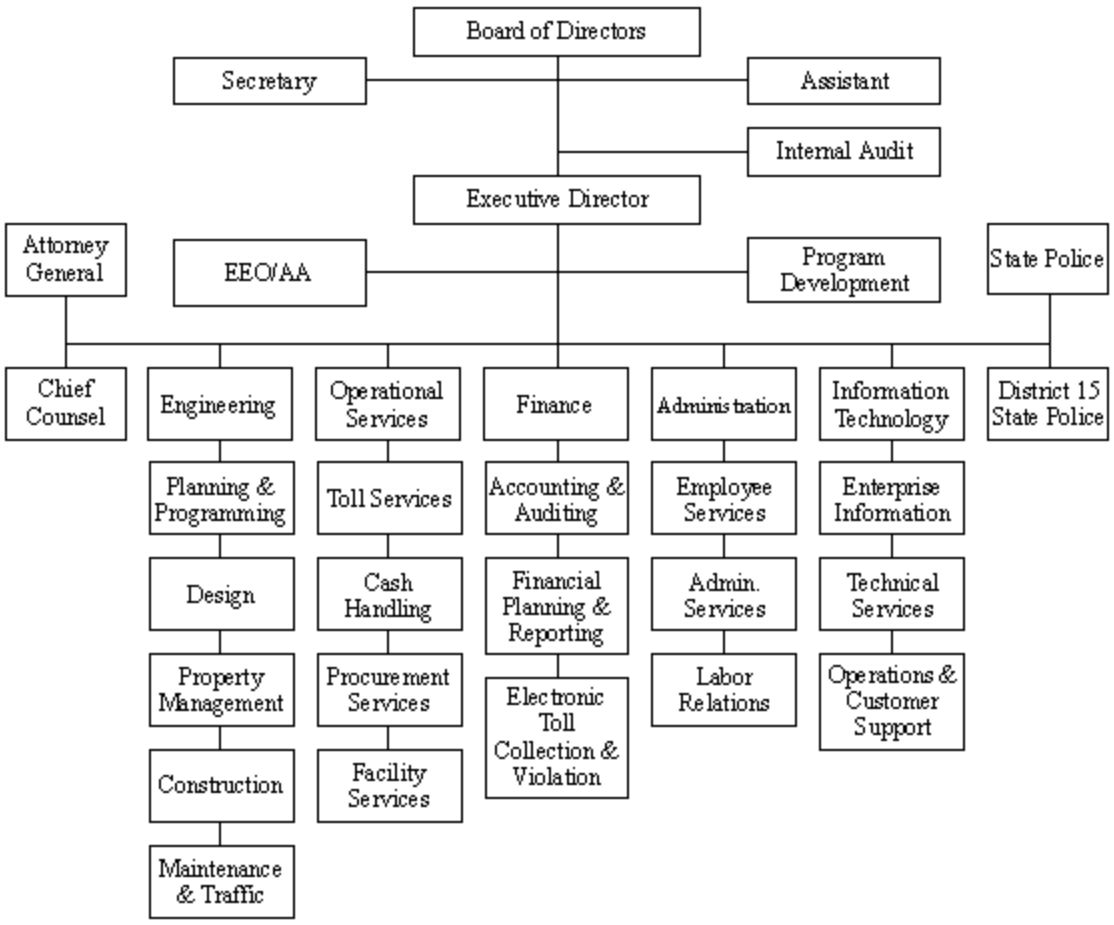
In 2003, the Tollway established an Office of Communications and moved these functions which were within the Executive Director's Office. The Communications Office was established to better interact with various external audiences including customers, media, and local and State elected officials. According to the new Chief of Communications, informing persons about the current successes and future reforms at the Tollway will be central to its future success. The Chief of Communications will also be involved in new marketing and advertising efforts being initiated to generate additional revenues for the Tollway.

During the time of our review in 2002, the Tollway had seven primary Offices as described below (see Exhibit 1-2). In 2003, an Office of Communications was added. The Tollway lost approximately 169 employees to the State's Early Retirement Incentive (Option 1). Significant retirements included the chiefs of Engineering, Finance, and Operational Services.

$ Office of Administration. This Office is responsible for handling payroll, human resources, health insurance, employee benefits, administrative services (including Central Information Services), mail, contract compliance, labor relations, safety, and training/workers' compensation.

$ Office of Chief Counsel. The Illinois Attorney General is the legal counsel for the Tollway. The assistant attorneys appointed to the Tollway are under the control, direction, and supervision of the Attorney General. According to the 2002 Strategic Plan, this Office is *"a contingent of the office of the Attorney General of the State of Illinois, it is assigned to the Tollway Authority to provide legal services to all of its departments. Its duties include the review of contracts, agreements, property acquisitions, and litigation."*

Exhibit 1-2
ILLINOIS STATE TOLL HIGHWAY AUTHORITY
ORGANIZATION CHART (November 2002)



Source: Illinois State Toll Highway Authority.

$ Office of Engineering. This Office is responsible for the planning, programming, design, construction, and maintenance of the toll highways and fleet management. The Office has five divisions including three which are primarily responsible for monitoring the work of consultants (Planning and Programming, Design, and Construction). The largest division is Maintenance and Traffic which is responsible for snow removal and accident response. The

fifth division, Property Management, maintains records on Tollway property, identifies excess property for sale, and acquires property for Tollway projects.

- **Office of Finance.** This Office is responsible for the Tollway's fiscal matters including verifying and auditing toll receipts; collecting receivables; making disbursements (except for payroll); coordinating risk management (including property, liability and group health policies); maintaining relationships with bond holders, the Bond Trustee, State Treasurer, State Comptroller, and financial institutions in the management of debt; and investing funds and preparing budgets and other financial reports. This Office has three divisions: Accounting and Auditing, Financial Planning and Reporting, and Electronic Toll Collection (ETC) and Violation.

- **Office of Operational Services.** This Office is responsible for maintaining the Tollway's operations and facilities, along with collecting and counting tolls. Operational Services has four divisions: Toll Services, Cash Handling, Procurement Services, and Facility Services. The majority of the Office's employees work under Toll Services. Cash Handling is responsible for the intake and processing of cash tolls, including Money Room operations. Procurement Services is in charge of purchasing and warehouse operations. Finally, Facility Services is responsible for building maintenance.

- **Office of Information Technology.** This Office is responsible for management information systems, computer services and operations, and telecommunications services. These responsibilities include managing, directing, planning, and controlling information technology. This Office has four divisions: Technical Services, Enterprise Information Services, and Operations and Customer Support; in 2003 Planning and Administration was added.

- **Office of Illinois State Police, District 15.** The Director of the Illinois State Police designates a district (i.e., District 15) dedicated primarily to policing and patrolling the toll system. Salaries for District 15 personnel are paid by the Tollway. An Interagency Agreement states that District 15 personnel are not employees of Tollway, but the Tollway is obligated to provide headquarters space, equipment, supplies, vehicles, and telecommunications equipment.

DISTRICT 15 POLICE
2002 Strategic Plan: District 15 is a ". . . separate contingent of the Illinois State Police. It provides law enforcement to the entire Tollway System, patrols the Tollway System to assist disabled motorists and provides special details for overweight vehicles and toll collection operations. Through a special arrangement with the Illinois State Police, the salaries and operating expenses of this District are paid for by the Tollway Authority."
Source: Illinois State Toll Highway Authority.

REVIEW OF ORGANIZATIONAL STRUCTURE

The Office of the Auditor General obtained the services of the consulting firm Infrastructure Management Group, Inc. (IMG) to assist us with this audit. IMG has conducted reviews of toll roads and transportation authorities throughout the United States. One of IMG's tasks was to examine the organizational structure of the Illinois State Toll Highway Authority. As discussed in the previous section, the organization of the Tollway consisted of seven primary Offices in 2002.

The Tollway's organizational structure is not unusual as compared to major U.S. toll road authorities and toll road divisions of state departments of transportation. The heads of the seven Offices report to the Tollway's Executive Director, including the two units that have "dotted line" reporting relationships with the Illinois Attorney General and the Illinois State Police. This reporting relationship of five to seven office heads to an executive director is reasonable. Some authorities, especially those in an expansion mode, have a separate planning unit, and others have a unit for concessions and patron services.

In our review of the Tollway's 2002 organizational structure, we identified specific areas where the Tollway may wish to make organizational changes. These areas are a consolidation of the Tollway's various planning functions, a more equal distribution of employees within divisions emphasizing the importance of the Tollway's various maintenance responsibilities, establishing a Chief Operating Officer position, and enhancing the communications function.

Planning Units

In 2002, the Tollway had several units that were responsible for carrying out short-term and long-range planning:

- Strategic Planning (in the Director's Office)
- Financial Planning and Reporting (in the Finance Office)
- Planning and Programming (in the Engineering Office)
- Long-range planning and multi-year program work provided by the Tollway's Consulting Engineer, Consoer Townsend Envirodyne Engineers, Inc.
- Revenue analysis planning work provided by the Tollway's Traffic Engineer, Wilbur Smith Associates.

Since the Tollway has significant infrastructure assets and long-term debts that it must manage, proper stewardship of these assets requires careful planning and consistent management attention. Furthermore, the Tollway's facilities and their condition impact the Chicago area transportation system and attract strong public interest. In addition, many short-term project management and cash flow issues need careful planning and coordination.

With multiple planning offices, however, there is the potential for overlap and lack of coordination in planning functions that could hinder the Tollway's planning effectiveness. The strategic planning function was added to the communications unit, keeping high level planning close to the Executive Director. However, it is removed from the capital planning and improvement work programs developed in the other units.

The Tollway could consider establishing close links or merging several types of planning functions (strategic, financial, engineering) which would also direct them to coordinate more closely – a crucial component in insuring that cash flow requirements are balanced with physical roadway requirements. Some areas that could be considered for consolidating include:

- Short-term planning, including budgeting, revenues, and performance measurement. This function should closely coordinate the annual toll revenue forecasting work by Tollway's Traffic Engineer, Wilbur Smith Associates, while taking care not to compromise Wilbur Smith's independence.

- Engineering Office's short-term planning and programming functions with the budget and revenue planning noted above.

- CTE's long-term engineering planning with long-term financial planning. These functions could be blended into the same Office which would allow the Tollway to better manage and forecast cash flows in light of operational, investment, and financing needs.

Combining these units, or establishing a strong linkage between these units and the overall strategic planning function, could result in more effective capital and financial planning for the Tollway. See Chapters 2 and 10 for recommendations regarding strategic and capital planning.

Organization of Offices

The size of the Tollway's major organizational divisions (called Offices) are unequal in terms of the number of employees. As shown in Exhibit 1-3, in 2002 the Offices had the following number of employees:

- Operational Services: 1,128 employees, including 818 in toll collection
- Engineering: 559 employees, including 370 in Roadway Maintenance and 68 in Fleet Maintenance
- Information Technology: 74 employees
- Finance: 61 employees
- Administration: 45 employees
- State Police: 15 employees (not counting 159 Illinois State Police troopers)
- Legal: 14 employees

An office created solely for infrastructure or facility maintenance may include the following sub-units: Building Maintenance; Central Administration Maintenance; Roadway Maintenance; Fleet Maintenance; and other related maintenance functions.

Currently, Roadway Maintenance and Fleet Maintenance are under the Office of Engineering while Building Maintenance and Custodial Services are under the Office of Operational Services.

Another possible organization change would be to combine Information Technology and Administrative Services into a "Support Services" division.

Some other toll roads have separate engineering and maintenance divisions, including two that we examined in greater detail:

- New Jersey Garden State Parkway.
- New York State Thruway Authority.

Chief Operating Officer

Several other toll roads have established a Chief Operating Officer (or a Deputy Executive Director) to assist the Executive Director in the day-to-day operations of the toll road system. In addition to time demands needed to administer the

Exhibit 1-3
TOLLWAY EMPLOYEES BY DIVISION

	2002	2003 Budget
Board of Directors	9	9
Internal Audit	7	8
Board of Directors Total	**16**	**17**
Executive Director	2	2
Communications	8	8
EEO	5	1
Executive Director Total	**15**	**11**
Chief Engineer	2	2
Construction	10	10
Construction Services	7	7
Design	12	12
Dispatch	33	32
Fleet Maintenance	68	72
Helicopter	1	1
Permits Utilities	3	5
Programming and Planning	12	13
Property Acquisition and Management	10	10
Roadway Electric	11	11
Roadway Maintenance	370	363
Sign Shop	16	17
Traffic Operations	4	4
Engineering Total	**559**	**559**
Office of Administration	3	5
Administrative Services	15	14
Contract Compliance	2	2
Employee Benefits	3	3
Human Resources	7	6
Payroll	5	5
Safety/Training	10	10
Administration Total	**45**	**45**
Accounts Payable	6	9
Accounts Receivable	7	7
Budget	4	4
General Accounting	9	10
I-PASS	21	29
Risk Management	8	9
Toll Audit	6	5
Finance Total	**61**	**73**
IT Chief	3	3
Enterprise Information Systems	16	16
Operations/Customer Support	30	30
Technical Services	20	20
Planning and Administration	5	5
Information Technology Total	**74**	**74**
Building Maintenance	24	24
Central Administration Maintenance	5	4
Carpenter Shop	21	22
Cash Handling	51	48
Custodial Services	65	67
Lane Walkers	95	91
Operational Services Support	4	5
Purchasing	15	16
Toll Collection	818	738
Video Surveillance	3	3
Warehouse Operations	27	28
Operational Services Total	**1,128**	**1,046**
Legal Total	**14**	**14**
State Police (Tollway employees)	**15**	**15**
GRAND TOTAL	**1,927**	**1,854**

Source: Illinois State Toll Highway data summarized by Office of the Auditor General.

daily internal operations of the Tollway, the Executive Director also has to be successful in working with external entities including the State legislature, motorists, and other public stakeholders.

A chief operating officer may be beneficial for the Tollway especially given the rate of turnover among Tollway Executive Directors. In addition, or as an alternative, some internal management responsibilities could be delegated to other senior Tollway staff. Several other states' toll roads have such a deputy:

- Florida's Turnpike Enterprise has recognized this need and is establishing a position of Chief Operating Officer who will report to its Executive Director, even though the Director has had an exceptionally long tenure since 1989. All of the major division heads at the Florida Turnpike will shortly report to the Chief Operating Officer which will allow the Executive Director to focus on external and strategic issues, as well as to develop a workable succession plan.

- Ohio Turnpike Commission has a Deputy Executive Director who oversees many of the administrative organizational units.

- Georgia State Road and Tollway Authority has a Deputy Executive Director overseeing operations, plans and programs, and information systems.

- South Jersey Transportation Authority has a Deputy Executive Director overseeing units such as engineering and finance.

- New Jersey Garden State Parkway's head of the operations department also serves as Deputy Executive Director, making decisions on internal issues when the Executive Director is not available.

- New York State Thruway's head of engineering services also serves as Deputy Executive Director. He is responsible for overseeing the technical departments, in particular engineering services and maintenance engineering.

- Pennsylvania Turnpike has a Chief Operating Officer position (Associate Executive Director) to whom the heads of major organization units report.

In 2003, a Chief of Staff position was established by the Illinois Tollway that reports directly to the Executive Director who was appointed in January 2003. Depending on its specific responsibilities, the newly created Chief of Staff position may address many of the issues raised above.

Communications Office

The Tollway has faced difficulty in communicating its stated need to raise tolls to pay for major reconstruction costs. The former director moved the Community Relations Division under the Office of Executive Director to improve communications. In 2003,

Tollway officials said an Office of Communications, which had been vacant, was re-established. The new Office of Communications reports directly to the Executive Director.

ORGANIZATION STRUCTURE	
RECOMMENDATION NUMBER **1**	***The Illinois State Toll Highway Authority should examine its current organizational structure and consider changes which would enable it to achieve its desired goals, including combining or enhancing communication among organizational units that share similar functions, such as the various planning units. Other changes that may be considered include establishing a position to assist in the day-to-day operations of the Tollway, such as a Chief Operating Officer, and an increased emphasis on improved communications with Tollway constituencies and stakeholders.***
TOLLWAY'S RESPONSE	The Authority concurs with this recommendation. A Chief of Staff position was created in 2003. An Office of Communications was also established in 2003. We are reviewing the current organizational structure to determine if any combinations of functions will be beneficial to the organization.

KPMG OPERATIONAL ASSESSMENT

The Illinois State Toll Highway Authority retained the consulting firm of KPMG Peat Marwick LLP to conduct an operational assessment of the Authority. On October 26, 1995, KPMG submitted a 150-page study entitled "Operational Assessment of the Illinois State Toll Highway Authority" to the Tollway's Board of Directors.

The report noted that the Tollway can implement the report's recommendations to ensure it is operating in an efficient and effective manner consistent with its statutory and Trust Indenture obligations. By 1999, the last year the Tollway was in the process of implementing the recommendations, the Tollway reported it implemented or was in the process of implementing 89 percent of the 183 recommendations. We tested the recommendations that were relevant to our audit and found the Tollway had implemented 36 of the 39 recommendations (92%). The three recommendations that were not fully implemented were (see Exhibit 1-4):

1. **Marking permanently assigned take-home vehicles provided to Tollway employees so that they could be visibly identified as Tollway vehicles and assigning them to individuals with a specific need.** The Tollway responded that their vehicles have been vandalized and employees have been subject to abusive actions. In addition, some municipalities have ordinances that do not allow

Exhibit 1-4
STATUS OF KPMG RECOMMENDATIONS

	Strategy	Status
1	**Board of Directors:** Focus on development of policies and approval of major commitments of resources (contracts, labor agreements, etc.).	Implemented
2	**Board of Directors:** Re-institute the Board Audit Committee.	Implemented
3	**Internal Audits:** Develop procedures to conduct exit/entrance conferences.	Implemented
4	**Internal Audits:** Expand audit plan to include risk analysis, staffing, timetable.	Implemented
5	**Internal Audits:** Conduct performance, management, and/or operational audits.	Implemented
6	**Internal Audits:** Improve documentation, supervisory review, audit programs.	Implemented
7	**Internal Audits:** Audits should identify the auditors who performed the work.	Implemented
8	**Tollway:** Hold two meetings per year involving division managers.	Implemented
9	**Tollway:** Periodically update plans and senior staff should meet to discuss status.	Implemented
10	**Tollway:** Interoffice teams should coordinate cross-cutting programs and projects.	Implemented
11	**Purchasing/Procurement:** Reduce approval layers for purchases of non-inventory items from 9-10 layers to 3-6 depending on the nature and size of purchase.	Implemented
12	**Purchasing/Procurement:** Develop procurement/contract administration manual.	Implemented
13	**Purchasing/Legal:** Update the vendor procurement guide.	Implemented
14	**Purchasing:** Establish centralized database of vendor performance.	Implemented
15	**Purchasing:** Help offices procuring non-engineering services.	Implemented
16	**Purchasing:** Review and annually update the commodity code list.	Implemented
17	**Tollway:** Limit the use of brand name specifications.	Implemented
18	**Tollway:** Define relevant capital asset needs with proposed capital projects.	Implemented
19	**Tollway:** Reduce signatures on personnel actions to 3 including Executive Director.	Implemented
20	**Executive Director:** Conduct annual performance evaluation of each office chief.	Implemented
21	**Tollway:** Employee performance evaluations should be tied to the annual salaries adjustment process based on pre-established performance criteria and objectives.	Implemented
22	**Financial Planning:** Develop cash flow projections, prepare ratio analysis, etc.	Implemented
23	**Budget Section:** Be directly involved in the capital budgeting process.	Implemented
24	**Budget Section:** Require justification of budget requests and revisions.	Implemented
25	**Tollway:** Focus toll violation deterrence on areas with greatest potential for return.	Implemented
26	**Tollway:** Redesign toll coin vaults to make them less susceptible to damage and failure.	**Not Implemented**
27	**Tollway:** Mark vehicles that are assigned to individuals (except unmarked police or surveillance vehicles) so they can be identified as Tollway vehicles.	**Not Implemented**
28	**Tollway:** Reduce motorpool by at least half.	Implemented
29	**Tollway:** Define its position regarding funding/operating the cafeteria.	Implemented
30	**Tollway:** Annually update the charge for helicopter flight time; include all costs.	Implemented
31	**Tollway:** Establish a Computer Users Council to guide systems development.	Implemented
32	**Legal:** Implement a job cost accounting system to document how attorneys are allocating their time between assignments and track the status of projects.	**Partially Implemented**
33	**Legal:** Use more in-house legal staff and reduce use of outside legal services.	Implemented
34	**Legal:** Track and document the performance of outside legal providers.	Implemented
35	**Legal:** Assign lead attorneys to each project and delegate project to lead attorney.	Implemented
36	**Board of Directors:** Require property acquisitions that exceed appraisals by more than 5% or $5,000 be approved by the full Board.	Implemented
37	**Tollway:** Seek competitive bids for engineering and traffic consultants.	Implemented
38	**Tollway:** Acquire pavement management system to benchmark condition of toll roads, document changes, and identify cost-effective treatment strategies.	Implemented
39	**Tollway:** Establish a senior management task force to decide which of these strategies to adopt, and to oversee their implementation.	Implemented

Source: Illinois State Toll Highway Authority documents summarized by Office of the Auditor General.

parking of marked commercial vehicles at private homes. Regarding vehicle assignment, the Vehicle Fleet Manager stated no action was warranted as all employees have a business need for the vehicles assigned to them.

Tollway officials said that by May 14, 2003, they had completed marking vehicles with the Tollway logo and number, as well as an I-PASS decal.

2. **Redesigning the toll coin vaults which kept getting damaged.** The Tollway responded that the vaults are no longer owned by the Tollway and they regularly return damaged vaults for repair or replacement.

3. **Monitoring staff attorneys' time, assignments, and productivity.** The Tollway responded that Legal Services saw no need for a time monitoring system but agreed that a project management system is needed (implemented in 2000). A bi-weekly activity report is generated by Legal Services and sent to the Executive Director and the Attorney General.

SCOPE AND METHODOLOGY

This audit was conducted in accordance with generally accepted government auditing standards and the audit standards promulgated by the Office of the Auditor General at 74 Ill. Adm. Code 420.310.

The audit's objectives are specified in Senate Joint Resolution Number 72 which calls for a management audit of the Illinois State Toll Highway Authority (see Appendix A). The Resolution directs the audit to:

- Determine whether the Tollway is managing or using its resources, including toll and investment-generated revenue, personnel, property, equipment, and space, in an economical and efficient manner.

- Make recommendations to correct any inefficiencies or uneconomical practices.

- Examine the process by which the Tollway collects, transports, counts, and deposits toll collections.

To address these objectives, the audit examined the Tollway's planning function, organizational structure, operations (e.g., toll collection, bonds, personnel, contracts, expenditures, property), and controlling functions. The Tollway operates on a calendar year basis; therefore, we reviewed the Tollway's operations primarily for calendar year 2002 and gathered information by using the following methods:

- **$** Reviewed applicable State statutes and administrative rules.
- **$** Examined policies, procedures, and processes.

- $ Examined operational reports and records.
- $ Visited toll plazas and the Money Room.
- $ Interviewed Tollway officials.
- $ Tested for compliance with applicable requirements.
- $ Tested management controls.
- $ Reviewed information systems.
- $ Surveyed toll roads in other states (in addition to the Illinois Tollway).
- $ Surveyed Tollway employees.

We mailed a written survey questionnaire to 32 toll roads across the country and Canada to obtain information about their structure, operations, controls, and best practices. A total of 20 toll roads responded, including the Illinois State Toll Highway Authority. The survey information helped us establish benchmarks against which to compare the Illinois State Toll Highway Authority's performance. In-depth interviews with officials from toll roads in Florida, Indiana, New Jersey, and New York were also conducted.

We also mailed a survey questionnaire to 964 Tollway employees to obtain their input regarding the Tollway's operations. The employees were sorted by their work unit and every second employee (1,927) was mailed a survey. District 15 State Police were not included because they are not considered to be employees of the Tollway according to an agreement between the Tollway and Illinois State Police. A total of 189 Tollway employees (20%) returned a completed survey. Their responses are discussed later in the report. The survey asked Tollway employees to respond anonymously.

The Office of the Auditor General (OAG) performs a financial and compliance audit of the Tollway annually. We reviewed the relevant findings in the prior compliance audits for follow up and relied upon them in areas where they perform routine tests (e.g., inventory).

The criteria used in this audit came from State statutes and administrative rules, Tollway policies and procedures, prudent business practices, and comparisons with other states' toll roads. We also obtained assistance from other entities to provide expertise in specialized areas of this management audit:

- **Infrastructure Management Group, Inc. (IMG)** – which has experience with toll roads in other states. IMG reviewed the Tollway's planning, revenues, and organizational structure, and assisted in conducting a best practices and benchmarking review.

- **FPT&W, Ltd.** – which has experience regarding Tollway operations since they conducted the Auditor General's CY 2001 and CY 2002 financial and compliance audits. They conducted fieldwork testing for this management audit in areas that included personnel, contracting, and expenditures. We relied upon our compliance auditors in areas that they routinely examine during their annual financial and compliance audit (e.g., property control, inventory testing).

- **Illinois Gaming Board** – which has experience auditing the money collection function at riverboat casinos in Illinois.

- **Illinois Economic and Fiscal Commission** – which has expertise with revenue bonds of the State of Illinois.

The remaining chapters of this audit report address planning, personnel, contracts, revenues, expenditures, toll collections, Money Room operations, property management, vehicles, bonds, capital planning, employee survey results, survey of states, benchmarking, and best practices.

Chapter Two

PLANNING

CHAPTER CONCLUSIONS

The Illinois State Toll Highway Authority has begun to develop and implement operational and strategic plans, consisting of goals, objectives and performance measures. Such efforts are important to help ensure that the Tollway is achieving its overall mission. There were areas, however, where the Tollway's operational planning needed to be improved.

- The Tollway developed several planning documents during the years 2000 through 2002; however, there was not always a clear linkage among the various planning documents. Also, according to Tollway officials, the goal of linking the planning process with the budgeting process had not been achieved.

- While the 2002 Strategic Plan contained milestones and strategies to help the Tollway improve its performance, many of the milestones or activities were not accomplished. Documentation provided by the Tollway to show the status of the Plan's milestones and strategies was incomplete; some strategies and milestones were not included in the status report forms, while others were included but no outcome or status was shown.

- The performance measures contained in the Tollway's Annual Management Plan need to be improved. Many were lacking clarity, while others were not complete or were not particularly useful in measuring the Tollway's performance.

OPERATIONAL PLANNING

The Illinois State Toll Highway Authority is an administrative agency of the State of Illinois whose mission is to provide safe and efficient highways. Tollway officials have prepared various planning documents for their internal use as well as part of the Governor's Office of Statewide Performance Review. Four principal documents are discussed below:

- **$** Multi-Year Planning: Goals and Strategies 2000-2004
- **$** 2002 Strategic Plan
- **$** 2003 Strategic Plan
- **$** 2003 Annual Management Plan

Multi-Year Planning: Goals and Strategies 2000-2004

The Tollway developed a plan entitled "ISTHA Multi-Year Planning: Goals and Strategies 2000-2004." The multi-year strategic plan is hierarchical, in that it proceeds from general agency-wide goals to specific departmental goals and strategies (see Exhibit 2-1 for an example). The multi-year strategic plan is 61 pages in length and is comprised of goals and strategies such as:

- I-PASS electronic toll collection services;
- New toll collection and video enforcement systems;
- Other congestion relief and system enhancement initiatives;
- System expansion;
- ISTHA (Illinois State Toll Highway Authority) organization and staffing; and
- Budget initiatives.

The latest version of the multi-year strategic plan provided to the auditors was dated March 2000. An update to the 2000-2004 multi-year strategic plan, such as the status of each of the goals or what had been achieved, was not provided.

Exhibit 2-1
EXAMPLE FROM MULTI-YEAR PLANNING: GOALS AND STRATEGIES 2000-2004

SECTION: ISTHA ORGANIZATION AND STAFFING

AUTHORITY GOAL: As permitted by department budgets, attract, develop and retain a staff of professional, technical and support personnel who will qualify ISTHA as a world-class Tollway operation between year-end 2000 and year-end 2004.

- **AUTHORITY STRATEGY**: By year-end 2000, complete a benchmarking process that compares the technical and professional qualifications and capabilities of key ISTHA personnel to those found at other tollways or comparable organizations thought to excel in these respects.
  - **DEPARTMENT GOAL (Operational Services Department):** Provide specific training and working tools and the required resources to support personnel and to promote job growth and productivity.
    - **DEPARTMENT STRATEGY (Operational Services Department):** Justify the financial resources to meet training and staff enhancement goals. Periodically review directives and procedures for suitability and improvement.
      - **DIVISION GOAL (Operational Services Department – Toll Services Division):** Provide in-service training and expanded learning experiences for toll collection employees.

Source: Illinois State Toll Highway Authority.

2002 Strategic Plan

The Tollway also had a shorter term plan titled "2002 Strategic Plan." The 2002 Strategic Plan was 19 pages in length and included the Tollway's mission statement, seven strategic goals, background information (history, legislation, routes, organizational structure), objectives, milestone dates, strategies, and departments affected for each of these seven goals. The seven strategic goals in the 2002 Strategic Plan differed from the goals delineated in the 2000-2004 multi-year strategic plan. The goals in the 2002 Strategic Plan were:

1. Provide safe and reliable roadways;

2. Provide superior service to customers;
3. Provide congestion relief and shorten travel times;
4. Maintain sound financial base through prudent management planning;
5. Apply best-suited technology to daily operations;
6. Improve relationship with stakeholders through positive activities there by promoting public support for Authority services;
7. Promote the Authority as a preferred employer by creating an optimal work environment and encourage employees to work to their fullest potential.

The cover page of the 2002 Strategic Plan notes the period covered was January 1, 2002 – December 31, 2002. The cover page notes that consultants were not used in the development of the Plan and that senior managers were included in its development. Staff working in the Program Development Office, who reported to the Executive Director, were responsible for preparing and reviewing the Plan (see Exhibit 2-2 for an example of a goal from the plan).

Exhibit 2-2
EXAMPLE OF A GOAL FROM 2002 STRATEGIC PLAN

GOAL 3: Provide congestion relief and shorten travel times.

- **Objective 3.2:** Increase use of I-PASS as a percentage of total transactions.
  - **Milestones**: Develop programs to entice a larger participation rate of 45% in I-PASS by 6/30/02.
    - **Strategies:** Develop alternate use of transponders. Conduct survey of non-I-PASS patrons to determine why they have not gotten a transponder.

Source: Illinois State Toll Highway Authority.

The Strategic Plan is a forward-looking document and was developed with the view of anticipating the transformation of the Tollway in areas including I-PASS, its capital program, and a customer-service orientation. Many of the strategies in the Strategic Plan are being undertaken at other leading-edge toll roads according to our consultant Infrastructure Management Group.

While action had been taken to implement some of the goals, milestones, and strategies in the 2002 Strategic Plan, others had not been implemented. We requested documentation from the Tollway showing the status of items contained in the 2002 Strategic Plan. The Tollway provided spreadsheets for each of the departments which listed objectives, milestones, and outcomes specifically assigned to that department. According to the Tollway, these spreadsheets are used to track the status of actions taken by each department to implement the components of the Strategic Plan.

There was wide variation in the status reports. For example, the Information Technology and Legal Departments' reports generally contained the items assigned to them by the 2002 Strategic Plan. The status reports for other departments, however, did not include all the items assigned to them and some outcome information was incomplete. Also, many of the tasks had not been completed. Exhibit 2-3 provides some examples of the tasks contained on the status reports.

No summary document had been prepared showing the status of the Strategic Plan's objectives, milestones, and outcomes for the Tollway as a whole. Since most of the objectives cut across the various departments, and the individual departments have

milestones and strategies assigned to them to achieve an overall objective, a summary would more effectively facilitate the monitoring of the Plan's goals and objectives.

Exhibit 2-3
EXAMPLES OF MILESTONES AND STRATEGIES FROM THE 2002 STRATEGIC PLAN AND THEIR STATUS

Goal and Milestone or Strategy	Responsible Department and Outcome
GOAL 1: Provide safe and reliable roadways • Maintain pavement (at a minimum) in good condition. Perform annual inspection and pavement analysis.	**Engineering Department:** Outcome section on status form not completed.
GOAL 2: Provide superior service to our customers • Develop an interactive website that would provide I-PASS customers with access to their account; also allow customers access to printable maps. Installation by 2/28/2002.	**Finance and Administration Department:*** Process will be developed once contract is awarded. **Information Technology Department:** Contracting in process.
GOAL 3: Provide congestion relief and shorten travel times • Develop programs to entice a larger participation rate of 45% in I-PASS by 6/30/02. Conduct survey of non-I-PASS patrons to determine why they have not gotten a transponder.	**Operational Services Department:** Survey of non-I-PASS patrons not addressed on status form. I-PASS participation rate in 2002 was 36%.
GOAL 4: Maintain sound financial base through prudent management planning • Inter-weave annual budget process and project programming for annual budget by 12/31/02. Strategic planning, budget (M and O) and planning (engineering for capital programs) should have the other area be an integral partner in the process.	**Finance and Administration Department:*** Outcome section on status form not completed.
GOAL 5: Apply best-suited technology to daily operations • Develop an Information Technology 5-year strategic plan.	**Information Technology Department:** Completed 10/7/02.
GOAL 6: Improve relationship with stakeholders through positive activities • To measure stakeholder satisfaction, distribute a survey by random sampling of I-PASS customers.	**Executive Department:** Funding was not included in the 2003 budget.
GOAL 7: Promote the Authority as a preferred employer by creating an optimal work environment • Develop a catalog of recommended management courses for supervisors and managers by 6/30/02.	**Finance and Administration Department:*** Completed; this currently resides in Safety and Training.

Notes:
* The Finance and Administration Department was split in September 2002 and separate tracking documents were provided. However, when the original Annual Management Plan was submitted, Finance and Administration had not yet been split.

Source: Illinois State Toll Highway Authority.

The Tollway retained a consultant from DePaul University to help the Tollway examine its goals and objectives through a series of seminars. Tollway officials indicated they are trying to get into more detail and involve more levels of the organization. In addition, they are attempting to create a mindset about goals/objectives and associated performance measures.

2003 Strategic Plan

The Tollway provided us a draft of its 2003 Strategic Plan which was three pages long, contained a revised mission statement from the 2002 Strategic Plan, and contained some goals that are different than the 2002 Strategic Plan. It is also structured in a different manner with four overall "strategic issues," each of which have specific goals. The strategic issues contained in the draft 2003 Plan are:

1. How can the Tollway maintain the integrity of our current system?
2. How can the Tollway mitigate congestion and maintain safe traffic flow?
3. How can the Tollway break the cycles of internal and external negative Tollway perceptions?
4. How can the Tollway streamline internal processes and optimize resources?

The draft of the 2003 Plan was incomplete. It contained goals and general objectives but did not delineate the specific actions the Tollway would take to achieve those goals and objectives. It also contained no timelines for achieving the goals and objectives. When we inquired as to the status of the 2003 Strategic Plan, the Tollway noted that the Strategic Planning position has been vacant since November 2002 and the Tollway would defer final decisions on the 2003 Strategic Plan to the new administration.

TOLLWAY'S MISSION STATEMENT
2002
The Illinois State Toll Highway Authority is dedicated to providing and promoting a safe and efficient system of toll highways. This system will be convenient, reliable, and technologically advanced. In addition, our commitment is to provide the highest level of service to our customers and to be cognizant of all whose lives we affect.
2003
The Illinois State Toll Highway Authority is dedicated to providing and promoting a safe and efficient system of toll supported highways while ensuring the highest possible level of service to our customers.
Source: Illinois State Toll Highway Authority.

ANNUAL MANAGEMENT PLAN

The Tollway initiated a performance measurement program for State fiscal year 2003 (July 1, 2002 to June 30, 2003) in the form of an Annual Management Plan (AMP). The AMP was developed as part of the Governor's Office of Statewide Performance Review for State agencies. The AMP begins with the Tollway's mission statement and consists of 70 pages of tables presenting the Tollway's budget, staffing, and goals and objectives for the various organizational units. The reporting forms for the AMP also include performance indicators and have space for specifying benchmarks. However, the Tollway left the benchmark questions unanswered, along with efficiency/cost-effectiveness indicators.

The mission statement and the seven strategic goals in the AMP correspond to those in the 2002 Strategic Plan. While the 2002 Strategic Plan is organized by the strategic goals, the AMP is organized by Office (e.g., Engineering, Finance, Operations) which was a requirement of this statewide program. In general, the thrust of the AMP and the Strategic Plan are similar. Yet, since they are organized differently, it is difficult to link the two together. For example,

- **$** While the AMP lists a number of performance measures, it is difficult to link those with the sub-objectives under each goal in the 2002 Strategic Plan.

- **$** Similarly, the 2002 Strategic Plan has established milestones by strategic goal; these are difficult to reconcile with department objectives in the AMP.

Performance Measures

The Tollway has established performance measures (also known as indicators). These performance measures are included as part of the AMP. Some measures were incomplete and the usefulness of others could be improved.

The AMP reporting form has a section for each major organizational unit (usually called Offices but also known as Departments). Each section has sub-sections for the various indicators (input indicators, output indicators, outcome indicators, efficiency/cost-effectiveness indicators, and external benchmarks). The form asks for data for each of these indicators under six columns:

1. Reporting Frequency
2. Previous Fiscal Year (Actual)
3. Percent Of Goal Attained (Actual)
4. Current Fiscal Year Goal
5. Percent Of Goal Attained
6. Next Budget Year Target

PERFORMANCE MEASURES
The General Accounting Office defines performance measures as the ongoing monitoring and reporting of program accomplishments, particularly progress towards pre-established goals. It is typically conducted by program or agency management. Performance measures may address the type or level of program activities conducted (process), the direct products and services delivered by a program (outputs), and/or the results of those products and services (outcomes).
Source: Performance Measurement and Evaluation, GAO (1998).

We reviewed the performance measures established by the Tollway in the AMP and concluded that improvements to them could be made. Exhibits 2-4 and 2-5 show the Tollway's performance measures and include suggestions by our consultant Infrastructure Management Group for enhancing the measures.

$	**Goals** quantify the level of performance desired.
$	**Outputs** are the quantity of goods and services provided.
$	**Outcomes** are accomplishments or results that occur, at least partially, because of services provided.
Source: Government Auditing Standards (Section 6.9).	

The Tollway did not complete most of the columns in the AMP that was provided to us in early 2003 although the AMP was for State FY03 that began July 1, 2002. Specifically, the Tollway frequently did not state the "Percent of Goal Attained (Actual)" for Output Indicators and Outcome Indicators for most of its Offices for the current year (State FY03) and did not always complete this information for the prior year.

For example, the Tollway's Office of Operational Services showed a target goal for only one of the five output indicators (average number of transactions per day which was met at 100.9% or 2,092,822) but did not show the target goal for the remaining four output indicators (only actual numbers were provided):

1. Number of invoices issued to toll violators (3,924);
2. Dollar amount of invoices issued to toll violators ($1,325,760);
3. Dollar amount deemed collectible from issued invoices ($964,689); and
4. Dollar amount collected for toll violations ($458,248).

Similarly, the number of fatalities is set as an outcome indicator for District 15 State Police but no percent attainment is established.

Only two performance indicators are listed for the Executive Office and they deal exclusively with inputs: budget expenditures and full-time headcount. The Executive Office listed no output, outcome, efficiency, or external benchmark performance indicators in the Annual Management Plan.

The performance measures for the Executive Office should include at least a few of the top-level performance goals and

Exhibit 2-4
OUTPUT INDICATORS FOR THE TOLLWAY

Below are examples of the output indicators included in the 2003 AMP. The underlined portions of the indicators are not currently part of the performance measure, but we recommend could be considered for inclusion to improve the measure.

"MVM" stands for million vehicle miles.

Engineering
- Number of driver assistance HELP Truck contacts per MVM and per lane mile
- Actual and projected MVM per lane mile
- Average driving speed per MVM and per lane mile

Finance and Administration
- $ Number of I-PASS transactions per day per MVM and lane mile
- $ Total toll revenue per MVM and per lane mile
- $ Total I-PASS revenue per MVM and per lane mile
- $ Revenue variances between actual collections and calculated collections
- $ Number of worker compensation claims per MVM and per lane mile

State Police
- $ Number of accidents divided by MVM and per lane mile
- $ Number of fatalities of users divided by projected MVM and per lane mile
- $ Number of traffic violations issued per MVM and per lane mile

Operational Services
- $ Average transactions per day per MVM and per lane mile
- $ Results of annual customer service survey indexed to 100
- $ Average travel time for most common Tollway trip
- $ Response time to clear snow from one lane mile of road, based on one inch of snow falling per hour, or other equivalent measure.

Information Technology
- $ Number of PCs, networks, mainframes maintained
- $ Average response time for maintenance call
- $ Average life of information technology equipment and software
- $ Budget for new hardware/software
- $ Number of network crashes

Chief Counsel
- $ Number of internal inquiries
- $ Number of cases settled/litigated

Source: Tollway's Annual Management Plan with suggestions by the Infrastructure Management Group.

objectives for the entire Tollway, including those dealing with safety, convenience, reliability, technology, and customer service specified in the mission statement.

Also, there are over 30 output and outcome measures in the AMP, more than most organizations would monitor, according to our consultant IMG. While each Office may want to have three to five measures that it monitors internally IMG noted that their experience indicates that overall an organization should strive to monitor no more than two dozen measures.

For example, while the Tollway might focus on an overall cost per lane mile measure, the Roadway Maintenance Division may measure lawn-mowing costs per lane mile, snow removal costs per lane mile, and lighting costs per lane mile. Each departmental measure should contribute to an overall measure, like a pyramid of measures.

In fact, the Tollway has established few measures on customer service, trip reliability, and technology and there was no measure of congestion delay in the AMP. Congestion relief is specified as a goal in both the 2002 and 2003 Strategic Plans. For example, Florida's Turnpike Enterprise measures peak-hour delays at toll plazas and wait time at service plazas.

Exhibit 2-5
OUTCOME INDICATORS FOR THE TOLLWAY

Below are examples of the outcome indicators included in the 2003 AMP. The underlined portions of the indicators are not currently part of the performance measure, but we recommend they could be considered for inclusion to improve the measure.

"MVM" stands for million vehicle miles.

Engineering
- **$** Total maintenance cost per lane mile and per MVM.
- **$** Snow/ice removal costs per snow inch of winter storm.

Finance and Administration
- **$** Percentage of I-PASS transactions to total transactions per MVM and per lane mile.
- **$** Increase/decrease in total toll revenues from prior year per MVM and per lane mile.

Operational Services
- **$** Percentage of dollars realized from invoices collected for toll violations/dollars of invoices issued.

State Police, Information Technology, Executive Office, and Chief Counsel
- **$** No outcome indicators presented.

Source: Tollway's Annual Management Plan with suggestions by the Infrastructure Management Group.

While the Tollway has instituted the I-PASS program, which is a technologically advanced toll collection program, and is seeking to measure revenue variances, no goal was established in the AMP for the percent of motorists who should be using I-PASS. Furthermore, no goal was established for system reliability. For example, the Florida Turnpike Enterprise is measuring the accuracy and reliability of the electronic toll collection system.

In addition to the performance measures incorporated into the AMP, the Tollway provided to us performance measures for 2001. Like the AMP, they were input and output indicators and included some measures that were similar to the AMP (e.g., average number of transactions per day). However, we were not provided any follow-up to the 2001 performance measures and it is unclear how it they integrated with the AMP or any

other planning documents. This lack of integration and follow-up weakens the performance measurement process.

Clarity of Performance Measures

Some of the definitions for percentage of goals attained do not clearly indicate performance. For instance, snow/ice removal costs are an outcome indicator and show that only 63 percent of the cost goal was attained, but it is not clear that being below budget was beneficial. Also, there is no obvious link established between costs and actual snow removal performance or road condition.

Another example of lack of clarity is the ratio for debt service coverage (net revenue divided by debt service). The Tollway had an outcome of 2.88 and percentage attainment of 144 percent, apparently exceeding its goal of 100 percent by 44 percent. This implies that the goal was a ratio of 2.0 (i.e., 2.88) 2.0 = 144% of goal). However, Tollway officials said the Trust Indenture established debt service coverage from 1.3 to 1.5.

It is normal for toll authorities to have higher coverage ratios. For example, the New York State Thruway Authority has set a goal of 1.5 coverage versus a bond covenant of 1.2. This measure and goal needs to be stated more clearly, as do many others in the Strategic Plan, so they explain why the Tollway set a certain level as the goal. Furthermore, it is not clear from the Annual Management Plan how or whether these measures are monitored internally.

Finally, Tollway officials noted that they are working toward, but have not yet accomplished, a linkage between the planning process and the budgeting process.

Review and Approval of Plans

The Tollway's planning personnel were not able to provide complete information about the planning documents, such as who approved the various documents (e.g., Board of Directors, Executive Director), and when they were approved. Unless plans are communicated to personnel and progress is measured, the maximum value of such plans may not be achieved.

Other States' Planning

To compare the Illinois Tollway in the planning area, we asked other states' toll roads whether they had developed mission statements, strategic plans, and performance measures. As shown in Exhibit 2-6, a total of 14 toll roads, including Illinois, had established mission statements. Thirteen toll roads, including Illinois, responded that they have developed operational or strategic plans. Nine toll roads, including Illinois, reported establishing performance measures.

Exhibit 2-6
PLANNING BY STATES' TOLL ROAD SYSTEMS

State	Toll Road	Mission Statement	Operating or Strategic Plan	Performance Measures
1. California	Transportation Corridor Agencies	✓	No	✓
2. Colorado	E-470 Public Highway Authority	✓	✓	No
3. Florida	Orlando-Orange County Expressway Authority	✓	No	No
4. Florida	Florida Turnpike Enterprise	✓	✓	✓
5. Florida	Miami-Dade Expressway Authority	✓	✓	✓
6. Georgia	Georgia State Road and Tollway Authority	✓	✓	No
7. *Illinois*	***Illinois State Toll Highway Authority***	✓	✓	✓
8. Indiana	Indiana Department of Transportation – Toll Road District	No	No	No
9. Kansas	Kansas Turnpike Authority	✓	✓	No
10. Maryland	Maryland Transportation Authority	✓	No	✓
11. New Jersey	South Jersey Transportation Authority	NR	✓	No
12. New Jersey	New Jersey Highway Authority (Garden State Parkway)	No	No	No
13. New York	New York State Thruway Authority	✓	✓	✓
14. Ohio	Ohio Turnpike Commission	No	✓	NR
15. Pennsylvania	Pennsylvania Turnpike Commission	✓	✓	✓
16. Texas	Harris County Toll Road Authority	No	NR	NR
17. Texas	Texas Turnpike Authority	✓	No	✓
18. Texas	North Texas Tollway Authority	✓	✓	No
19. Virginia	Richmond Metropolitan Authority	✓	✓	No
20. Virginia	Virginia Department of Transportation – Pocahontas Parkway	No	✓	✓
	Total YES	**14 YES**	**13 YES**	**9 YES**

Notes: ✓ = Yes NR = No Response

Source: Survey of states' toll roads summarized by Office of the Auditor General.

Conclusion

The Tollway has made progress in developing strategic plans and performance measures, both of which are needed to help ensure that the overall mission of the Tollway is being met. However, as discussed above, improvements need to be made in terms of the consistency of the plans, monitoring of the plans' implementation and results attained, and in the performance measures themselves. In addition, once a strategic planning process has been implemented, results should be regularly reported to the public by means such as posting on the Tollway's web-site.

PLANNING AND PERFORMANCE MEASURES	
RECOMMENDATION NUMBER **2**	***The Illinois State Toll Highway Authority should continue to develop its operational and strategic planning efforts, ensuring that:*** **$** ***Progress in achieving milestones and strategies is appropriately monitored;*** **$** ***Strategic plans and annual management plans are linked and consistent, and reviewed and approved by Tollway management and Directors;*** **$** ***The Annual Management Plan contains performance measures for all organizational units and that such measures are adequate to assess the intended goals, outputs, and outcomes; and*** **$** ***Planning results and performance measures are regularly reported to the public.***
TOLLWAY'S RESPONSE	The recent change in administration both at the state and organizational level provides us the platform and opportunity to more effectively strategically plan. The new planning process (Balanced Scorecard), will be jointly developed and approved by Tollway management and its Board of Directors. It will identify goals and objectives that link to our Mission Statement and provide for strategies that have milestones and specific deliverables. Relevant deliverables will be made available to the public. The strategic plan and annual management plan will be linked.

Chapter Three

PERSONNEL

CHAPTER CONCLUSIONS

The number of Illinois State Toll Highway Authority employees has remained relatively stable over the past ten years. In 2002, the Tollway had 1,927 employees. This headcount does not include District 15 State Police troopers, which numbered 159 in 2002, because the Tollway considers them to be contractual employees. The number of Rutan-exempt positions at the Tollway declined from 35 in January 2000 to 28 by November 2002.

- We selected a sample of 50 personnel files to determine whether the Tollway adequately documented the recruitment process and other important personnel transactions. In the sample, 15 of the 50 personnel files reviewed (30%) had at least one deficiency. For example:
  - 10 files were missing performance evaluations or salary information;
  - 4 files contained information pertaining to another employee; and
  - 3 employees did not appear to meet position requirements and for 6 more employees we could not make a determination.

- We also reviewed the hiring files for 16 of these 50 employees and noted that 5 were missing an application, interview notes, or interview evaluation; in addition 6 files did not contain evidence of a reference check.

- The Tollway did not conduct its own reference checks on prospective employees. Rather, the Tollway provided the applicant with a reference form and relied on the applicant to have a previous employer complete it. The applicant was hired even if no reference form was submitted.

- The Tollway does not require background checks for toll collectors as they do for telecommunicators, civilian call takers, State Police clerical staff, and Money Room employees. The detailed background checks include reviews of previous employment records, references, traffic and criminal records, and credit information. According to Tollway personnel, fingerprints are, however, taken from all employees, although prior to 1999 fingerprints were not checked but just kept in storage.

STAFFING LEVELS

The Illinois State Toll Highway Authority had 1,927 employees at the time of our review in fall 2002. The number of Tollway employees has fluctuated little over the last

10 years as headcount has ranged from a high of 1,954 employees in 1993 to a low of 1,871 in 1994 (see Exhibit 3-1). In 2003, the Tollway has budgeted for 1,854 positions.

Exhibit 3-1
TOLLWAY HEADCOUNT

Year	Headcount	% Change
1993	1,954	n/a
1994	1,871	- 4.2%
1995	1,913	2.2%
1996	1,911	- 0.1%
1997	1,906	- 0.3%
1998	1,901	- 0.3%
1999	1,874	- 1.4%
2000	1,907	1.8%
2001	1,909	0.1%
2002	1,927	0.9%
2003*	1,854	-3.8%

Notes:
*Budgeted.

Source: Illinois State Toll Highway Authority data and financial and compliance audits by the Office of the Auditor General.

Exhibit 3-2
EMPLOYEES LEAVING THE TOLLWAY

Reason For Leaving	2001	2002	Total
Retired with Pension	40	182	222
Resigned	91	111	202
Terminated	38	21	59
Separated [A]	15	8	23
Deceased	5	9	14
Never Worked	1	0	1
Total	**190**	**331**	**521**
Headcount	1,909	[B] 1,927	
Turnover Rate	10%	17%	

Notes:
[A] Separated means the employees exhausted all leave time (e.g., due to medical illness).
[B] The 2002 headcount was reported to us by the Tollway in October 2002. The headcount at the end of 2002 would be less due to the State's Early Retirement Incentive.

Source: Illinois State Toll Highway Authority data analyzed by the Office of the Auditor General.

Exhibit 3-2 shows that in the last two years, 521 employees have left the Tollway. In 2002, the biggest reason for leaving was retiring with pension. This number includes 169 employees who retired in 2002 due to the Early Retirement Incentive, 93 of which were actually effective January 1, 2003. Turnover in 2001 was 10 percent and increased in 2002 to 17 percent due to the Early Retirement Incentive.

The Tollway's salary structure consists of 15 grades specifying the minimum and maximum range for each position (see Exhibit 3-3).

Exhibit 3-3
PAY PLAN
February 2002

Grade	Title*	Minimum	Maximum
1.	Executive Director	$98,141	$163,569
2.	Office Chief	$84,095	$141,157
3.	Deputy Chief	$78,624	$131,039
4.	Senior Manager	$67,773	$112,955
5.	Manager	$59,895	$99,824
6.	Assistant Manager	$51,490	$85,816
7.	Senior Supervisor	$45,590	$75,984
8.	Supervisor	$39,362	$65,605
9.	Assistant Supervisor	$36,889	$61,481
10.	Foreman/Analyst	$34,676	$57,792
11.	Specialist	$30,753	$51,256
12.	Assistant	$29,057	$48,428
13.	Staff	$25,556	$42,593
14.	Clerk	$21,035	$35,058
15.	Typist	$16,691	$27,819

Notes:
* Titles simplified – each grade has many titles.

Source: Illinois State Toll Highway Authority.

Hiring Policy

For job openings, the Tollway posts vacancies and uses a typical process to select employees consisting of interviewing, evaluating, and selecting.

The Employee Services Division, which is within the Office of Administration, has primary responsibility for recruitment and placement activities. Recruitment procedures are initiated by the Employee

Services Manager upon receipt of an approved employment requisition from the requesting hiring department. This requisition includes a justification for the posting and a position description. The Employee Services Manager then forwards the requisition to the Chief of Administration, Budgeting Office, and Executive Director for approval.

Positions may be posted internally and externally depending upon job requirements. Jobs having technical requirements are posted internally first. These notifications are required to be posted in the Central Administration Building, Central Warehouse, all toll plazas, Central Garage, and maintenance sites. External postings include the Chicago Tribune, Army Times, Illinois Department of Employment Security, Devry Institute of Technology, and minority outreach services.

The interviews are to be conducted by individuals trained and certified by Department of Central Management Services (CMS) in the principles of Rutan. For the Rutan positions, the requesting department develops questions for the candidate based on the job description. A candidate evaluation form is developed based on these questions. A ranking system is used with a scale of 1-4 with criteria such as knowledge and experience, education, training, interpersonal skills, and organizational skills. A panel interview is conducted, consisting of two persons from the Employee Services Division and one person from the requesting department. Applications and interview notes, including letters of non-qualification and rejection, have been filed by position since 1994 and kept separate from the employee's personnel file.

Each employee is required to have a six-month probationary period during which they receive hands-on training. Employees are evaluated at the end of the six-month probationary period and thereafter on an annual basis.

Rutan-Exempt Positions

In June 1990, the United States Supreme Court rendered the Rutan decision (497 U.S. 62 (1990)) which states that political party affiliation is not a permissible factor in promotion, transfer, recall, or hiring decisions involving government jobs, except for jobs in which party affiliation is an "appropriate requirement" for the performance of the job.

Certain positions at the Tollway are considered to be "Rutan-exempt." The determination of whether a position is Rutan-exempt is handled by the Department of Central Management Services. Although these positions do not have to follow the normal hiring guidelines, interviews can still be conducted. The number of Rutan-exempt positions has declined from 35 in January 2000 to 28 in November 2002. Exhibit 3-4 shows a list of Rutan-exempt positions at four different points in time, the most recent being as of November 2002.

Exhibit 3-4
CHANGES IN THE TOLLWAY'S RUTAN-EXEMPT POSITIONS

Job Title	1/20/00	2/5/01	5/22/02	11/1/02
Administrative Assistant I - Board of Directors	✓	✓	✓	✓
Administrative Assistant I - Executive Director	✓	✓	✓	✓
Assistant Press Secretary	✓	✓	✓	✓
Chief Engineer	✓	✓	✓	✓
Chief Internal Auditor	✓	✓	✓	✓
Chief Legal Counsel	✓	✓	✓	✓
Chief of Administration	n/a	n/a	✓	✓
Chief of Communications	n/a	✓	n/a	n/a
Chief of Finance	✓	✓	✓	✓
Chief of Information Technology	✓	✓	✓	✓
Chief of Operational Services	✓	✓	✓	✓
Community Relations Coordinator	✓	✓	✓	✓
Controller	✓	✓	✓	✓
EEO/Affirmative Action Officer	✓	✓	✓	✓
EEO/Affirmative Action Specialist	✓	n/a	n/a	n/a
Employee Services Manager	✓	✓	✓	n/a
Engineer of Planning and Programming	✓	✓	✓	✓
Executive of Program Development	✓	✓	✓	✓
Executive Secretary - Communications	✓	n/a	n/a	n/a
Executive Secretary - Legal	✓	✓	✓	✓
Executive Secretary - State Police	✓	✓	✓	✓
Human Resource Administrator	✓	✓	n/a	n/a
Internal Audit Supervisor	✓	✓	✓	✓
Internal Auditor I	n/a	✓	n/a	n/a
Internal Auditor II	✓	✓	✓	✓
Investigations Secretary III	✓	✓	✓	✓
Maintenance and Traffic Manager	✓	✓	✓	✓
Manager - Real Estate/Right of Way	✓	n/a	✓	✓
Manager of Budget	✓	✓	✓	✓
Manager of Toll Services	✓	✓	✓	✓
Media Relations Manager	✓	n/a	n/a	n/a
Operations Manager	n/a	✓	n/a	n/a
Performance Review Manager	✓	✓	✓	✓
Press Secretary	✓	✓	✓	✓
Procurement Services Manager	✓	n/a	✓	n/a
Program Development Manager	✓	n/a	n/a	n/a
Public Information Officer	✓	✓	✓	✓
Research Assistant	n/a	✓	✓	n/a
Risk Insurance Manager	✓	✓	✓	✓
Secretary III	n/a	✓	✓	n/a
Telecommunications Manager	✓	n/a	n/a	n/a
Total	**35**	**33**	**32**	**28**

Notes:
✓ Means the position appears on the list of Rutan-exempt positions, while the shaded "n/a" cells mean the position does not appear on the list of Rutan-exempt positions.

Source: Illinois State Toll Highway Authority's list of Rutan-exempt positions summarized by the Office of the Auditor General.

PERSONNEL RECORDS

We selected a sample of 50 Tollway employees during audit fieldwork and reviewed their personnel records. Our sample showed that 15 of the 50 personnel files reviewed (30 percent) had at least one deficiency. Personnel files were reviewed for completeness and other factors such as whether the employee met the qualifications for the position, performance evaluations were completed, and salary increases were documented. We also examined the job interview files for 16 of these 50 employees in our sample who were hired in the last four years. Interview files were examined for completeness and to determine whether the position was posted or advertised, reference checks were performed, and the highest ranking candidate was hired. The sample was judgmentally selected based on position, hire date, recent salary increases, and comments received in the employee surveys.

The Personnel Policies and Procedures Manual indicates documents that should be included in an employee's personnel file. These documents include the employee's job application, resume, records of training, performance evaluations, salary increases, oral and written reprimands, and other employment records.

Personnel Policies and Procedures Manual: "A copy of any performance evaluation will be in each respective employee's file."

Personnel File Review

As shown in Exhibit 3-5, the 50 personnel files we sampled were missing required documentation, contained misfiled documents, and/or did not indicate that the employee met the positions requirements. In 20 percent of the files (10 of 50), required documentation was missing:

- 3 employee files were missing the most recent annual performance evaluations,
- 3 employee files were missing salary information, and
- 4 employee files were missing both performance evaluations and salary information.

We submitted to the Tollway a list of the seven employees who were missing their performance evaluations and were later provided missing evaluations for three of the seven employees. However, a subsequent check of these employee's personnel files revealed that the personnel evaluations for two of those three employees were still not in the employee's file.

During this review, we also found that 4 of the 50 personnel files mistakenly contained personnel records of another

Exhibit 3-5
PERSONNEL FILE REVIEW
Sample of 50 Employee files

Description	Number	Percent
Files missing performance evaluations or salary information	10	20%
Files containing misfiled documentation	4	8%
Employees not meeting position requirements	3	6%

Source: Illinois State Toll Highway Authority personnel records reviewed by the Office of the Auditor General.

employee. Employee personnel records are confidential and are available for review by the employee whose file it is. The Tollway should ensure that records are filed properly so that confidential information is not inadvertently revealed to other employees.

In most (41 of 50) of the personnel files sampled, the employee met the job requirements for the position. However, for the remaining nine employees (18 percent) we could not determine if they met the job requirements:

- Four employees' job requirements were not specified in the position description;
- Two employees' files lacked sufficient information; and
- Three employees did not appear to meet the job requirements for the position:
  1. The position required experience operating construction vehicles but the employee's application and work history did not list any experience operating construction vehicles.
  2. The position required a high school degree but the employee's application did not show a high school degree.
  3. The employee worked at the Tollway in two previous positions before being promoted to the current position. The new position required a college degree or two years experience in the related field. The employee did not have a college degree or the required experience. Although the employee had worked for two years in the department in which the new position was located, the job requirements of the previous position did not appear to provide the *"equivalent work experience"* required for the new position.

We included some employees in our sample because they had received a salary increase of 10 percent or greater in a year. For most employees, pay raises over 10 percent were due to a promotion. One employee received an eight percent raise when promoted to a new position in August 2001. At the time of the promotion, a total of four additional raises – each for six percent – were scheduled for the employee to be received in October 2001, January 2002, April 2002, and July 2002. The reason given for these raises was *"exemplary performance in the above named position."* The compounded raises, which all occurred within one year, totaled 36 percent. The Employee Services Manager stated that if there is an increase of more than 20 percent (e.g., due to promotion, exemplary performance, probation completion), the increase is broken into increments and applied every three months over one year.

Disciplined Employees Rehired

Several employees were issued disciplinary notices, such as written warnings and suspensions, but still continued to receive significant pay increases and/or promotions. We also noted instances where employees had disciplinary action taken against them, left employment with the Tollway, but were rehired again by the Tollway. Exhibit 3-6 highlights some of these cases.

Exhibit 3-6
PERSONNEL DISCIPLINARY AND HIRING EXAMPLES

Employee A:

- The 6-month probationary evaluation noted employee met expectations.
- One day after the probationary evaluation was completed, the employee was issued a written warning for inattention to duty for an incident occurring during the 6 month probationary period.
- **$** Within the next three months, this employee received two raises, one for 5 percent and another for 17 percent, per the union contract.
- **$** The employee was suspended twice: the first suspension (1 day) occurred within four months of the first written warning, while the second suspension (10 days) occurred nine months later.
- **$** Within the year following the 10-day suspension, the employee received three raises ranging from 2 percent to 15 percent.

Employee B:

- **$** Employee was cited for unacceptable performance in the area of cash activity.
- **$** 1½ months later, the employee was issued a 2-day suspension for multiple instances of taking unapproved leave.
- **$** 1½ months later, the employee received a written warning for behavior unbecoming an Authority employee for an incident with a customer.
- **$** Several months later, the employee received a 4 percent raise pursuant to the contract.
- **$** Several weeks later, the employee was promoted.
- **$** Several days later, the employee received a 5-day suspension for multiple instances of taking unapproved leave. All instances of unapproved leave occurred prior to the employee being promoted.

Employee C:

- Employee worked for the Tollway for several years during which time the employee received several verbal warnings regarding excessive absenteeism and was counseled on phone usage.
- The employee also received a written warning for being unavailable for an emergency.
- The employee voluntarily left the employment of the Tollway.
- The employee was rehired by the Tollway.

Employee D:

- Employee worked for the Tollway in a temporary position.
- During this period, the employee received retraining due to unacceptable performance.
- Supervisor noted "would not rehire" on the performance evaluation.
- Employee was rehired for another temporary position.
- During this period, the employee received retraining again due to unacceptable performance.
- Employee was rehired in a temporary position and then four months later became a full-time employee.

Source: Illinois State Toll Highway Authority records reviewed by the Office of the Auditor General.

While the raises received in many of the highlighted cases in Exhibit 3-6 were pursuant to the union contract, the contract does allow for raises to be denied: *"All increases are subject to the employee meeting the requirements established by the Employer . . . and the employee's satisfactory performance."* The Tollway should ensure that employees' performance is adequately considered before granting raises, promotions, or re-hiring former employees to ensure such personnel actions reflect employees' actual work performance.

PERSONNEL RECORDS	
RECOMMENDATION NUMBER 3	***The Illinois State Toll Highway Authority should ensure that personnel files contain all required information and only contain information for that employee. Furthermore, the Tollway should clearly document that employees hired meet the position's job requirements and ensure that performance is adequately taken into consideration before granting raises, promotions, or re-hiring former employees.***
TOLLWAY'S RESPONSE	We concur with this finding and established, in March 2003, new personnel procedures to ensure more complete employee files containing all relevant documentation. Management is reviewing the current policies and procedures as they relate to employee performance, compensation and position changes.

INTERVIEW RECORDS

For each person hired, the Tollway maintains interview files that include the applications, interview notes, and interview evaluations. We sampled the interview records of employees who were hired in the last four years. All but 3 of the 16 employees in our sample were hired or promoted in 2001 or 2002.

One of the 16 employees sampled was an appointed position and, therefore, did not undergo an interview process. For the remaining 15 employees, 33 percent (5 of 15) of the interview files were missing documentation such as an application, interview notes, or interview evaluations.

In all 15 of the interview files sampled, the employee was qualified for the current position. In each instance, the position vacancy was posted and interviews were conducted. Applicants were scored based on various factors such as experience, education, and interpersonal skills. In each file sampled, the highest ranking candidate was selected. In some cases more than one person was hired or the highest candidate declined the position; therefore, these positions were filled by the next highest candidate.

Interviews

When conducting interviews, the Tollway's policy is to have two representatives from Human Resources and one from the hiring department. The Employee Services Manager stated that previously the Tollway conducted interviews where there were two representatives from the hiring department and only one from Human Resources. The Manager stated that the two technical people could get together and decide who to hire, basically overruling the Human Resources person. She stated the change to having two Human Resources representatives was because, under Rutan, the Tollway needed to make sure the hiring process was as fair as possible. She said interviewers need to be Rutan-certified, which requires them to undergo training on questions you can and cannot ask during an interview.

It is questionable whether a representative from Human Resources has the technical knowledge needed to evaluate some positions. For example, the following is a question asked in an interview for the position of Webmaster:

> Describe your experience with WEB Based Technologies including your experience with proxy servers, IIS, firewalls, digital certificates, SSL, or similar data encryption.

Expertise by the interviewers in such technical areas may be needed to fully evaluate an applicant's knowledge.

Reference Checks

In 40 percent (6 of 15) of the employees sampled, there was no documentation of a reference check (see Exhibit 3-7). According to the Employee Services Manager, the Tollway does not conduct the reference checks. Rather, the applicant was given a reference check form to give to the former employer to complete and it was the applicant's responsibility to ensure it is filled out.

The Employee Services Manager stated that if the reference check was not returned to the Tollway, the applicant was still hired. The Manager noted that if the employee does not think the reference will be good, the employee probably will not send it to the former employer to complete. The Tollway does not follow up when reference forms are not received.

Exhibit 3-7
INTERVIEW RECORDS
Sample of 15 Employee Hiring Files*

Description	Number	Percent
Files missing application, interview notes, or interview evaluations	5	33%
Files missing evidence of reference check	6	40%
Employees not meeting position requirements	0	0%

Notes:
* Original sample was 16; however, one was an appointed position and, therefore, did not undergo an interview process.

Source: Illinois State Toll Highway Authority personnel records reviewed by the Office of the Auditor General.

Background Checks

The Tollway was not conducting background checks when hiring toll collectors. Background checks can provide the Tollway with an important management control to help ensure employees hired for sensitive positions, such as handling money or processing confidential information, do not have a relevant prior criminal record or other history that the Tollway should take into consideration in its hiring decision.

The Tollway has a policy to fingerprint all individuals after an employment offer has been made. Applicants' fingerprints are submitted to the Illinois State Police's Bureau of Identification for a Conviction Information Request. However, fingerprint checks are not as thorough as the full background checks. Further, Tollway officials said that fingerprints prior to 1999 were not checked but just kept in storage.

The Illinois State Police conducts the full background checks for the Tollway. The Tollway submits the information to Illinois State Police to initiate the background check. The background check consists of the following:

- **Employment Records:** A check of employment records for the past 10 years is conducted;
- **Reference Checks:** A total of at least three character references are interviewed, at least two of which are names not provided by the applicant;
- **Traffic and Criminal Records:** A driver's license abstract is obtained and a criminal/arrest check will be conducted through the FBI, the Bureau of Identification, and each county and city in which the applicant resided since his/her 17^{th} birthday;
- **Credit Check:** Inquiries are made of local credit bureaus to cover all locations the applicant has resided, was employed, or attended school since his/her 18^{th} birthday; and
- **Personal Interview:** If any conflicting, unfavorable, or derogatory information is developed during the investigation, the applicant is interviewed to obtain an explanation.

Once the background check is complete, the results are forwarded to the Tollway. The Illinois State Police does not make a determination on whether the employee should be hired but provides the information to the Tollway to make that decision. The Illinois State Police Division of Internal Investigation in Springfield maintains the background check files.

Of the 50 employees in our sample, 21 employees were hired since 1999. Since the Tollway started background checks in 1999, we submitted a list to the Illinois State Police Division of Internal Investigation to see if background checks had been performed on these 21 employees.

According to the Tollway's Employee Services Manager, only 5 employees were required to have a background check. Only 3 of 5 had background checks on file at the

Illinois State Police Division of Internal Investigation. Tollway officials stated that background checks had been performed on the other two individuals and later were able to provide the documentation. The background checks for the two individuals were maintained at Illinois State Police District 15. Exhibit 3-8 summarizes our results.

Background checks were only conducted for certain positions at the Tollway. According to the Tollway, the positions that required a background check were telecommunicators, civilian call takers, State Police clerical staff, and Money Room employees.

Toll collectors were not subject to background checks even though they handle cash as part of their every day duties. The Employee Services Manager stated that toll collectors did not get the full background checks because their work (i.e., toll collections) was reviewed by both Toll Audit Division and by counts of their banks at the toll plazas.

Exhibit 3-8
BACKGROUND CHECKS ON SAMPLED EMPLOYEES

	Job Title	Start Date	Background Check Performed?
1.	**Telecommunicator** [(A)]	**01/22/02**	**Yes**
2.	**Supervisor Money Room**	**12/03/99**	**Yes**
3.	**Telecommunicator** [(A)]	**10/18/99**	**Yes**
4.	**Police Records Specialist**	**05/03/99**	**Yes**
5.	**Telecommunicator** [(A)]	**04/13/99**	**Yes**
6.	Toll Collector	07/23/02	No
7.	Equipment Operator Laborer	06/26/02	No
8.	Toll Collector	05/20/02	No
9.	Web Master	05/16/02	No
10.	Auto Mechanic	03/25/02	No
11.	Toll Collector	02/19/02	No
12.	Equipment Operator Laborer	02/11/02	No
13.	Secretary III	04/02/01	No
14.	Financial Planning Analyst	02/01/01	No
15.	Toll Collector	01/29/01	No
16.	Welder	07/06/99	No
17.	EEO/AA Specialist	07/01/99	No
18.	EEO/AA Officer	07/01/99	No
19.	Computer Operator	06/01/99	No
20.	Human Resource Representative	05/17/99	No
21.	Employee Services Manager	02/16/99	No

Bold indicates position that require a background check per Tollway.
Notes:
[(A)] A Telecommunicator can have various dispatch duties, including those for State Police.

Source: Illinois State Toll Highway Authority records reviewed by the Office of the Auditor General.

Although the Tollway began requiring background checks in 1999, the type of positions subject to a background check do not appear in any written policy.

Fingerprinting

According to the Personnel Policies and Procedures Manual, the Tollway fingerprints all individuals after an employment offer has been made. Fingerprint cards are processed by the Illinois State Police's Bureau of Investigations, located in Joliet. We sampled 21 employees to determine whether fingerprint checks were conducted. Tollway officials stated that while fingerprints have been taken since the establishment of the Tollway, prior to late 1999 the fingerprints were only stored and not submitted for any type of background check. Out of 21 employees sampled, five had a thorough

background check performed. Seven files contained documents showing that fingerprints had been taken at the time of employment and a report was received from the Bureau of Investigations that a fingerprint check was run. However, for 9 of 21 (43%) files sampled, we noted the following:

- Two employees were not fingerprinted until February and March of 2003. One was a toll collector hired in January 2001 while the other was the Employee Services Manager hired in February 1999.

- For seven employees we could not determine that fingerprints were taken or that they cleared the Bureau of Investigations:

  – One employee's file had a handwritten index card showing the employee was fingerprinted in 1996 for a previous employment at the Tollway. The individual was hired again 2002 and there was nothing in the file to show fingerprints were taken again or cleared by the Bureau of Investigations.

  – One employee's file showed the fingerprints were unable to be processed according to the Bureau of Investigations, and new prints needed to be submitted. This file contained no indication of other fingerprints being taken or any documentation showing it cleared the Bureau of Investigations.

  – For five employees, the Tollway was only able to provide handwritten index cards containing the employees personal information along with the date fingerprinted, date checked and a note saying "cleared BofI." These employees were hired in 1999, before the Tollway was actually processing fingerprints with the Bureau of Investigations.

Employment with Contractors

According to the Tollway's Chief Legal Counsel, State statute (30 ILCS 500/50-30) and Tollway policy prohibit an employee from participating in or influencing any contract negotiations with an entity with whom the employee is negotiating future employment. The statute is as follows:

> Chief procurement officers, associate procurement officers, State purchasing officers, their designees whose principal duties are directly related to State procurement, and executive officers confirmed by the Senate are expressly prohibited for a period of 2 years after terminating an affected position from engaging in any procurement activity relating to the State agency most recently employing them in an affected position for a period of at least 6 months.

When we asked if there is a prohibition on Tollway employees from going to work for a firm that is on contract to the Tollway, we were referred to Chapter 8, Section C, of the Personnel Policies and Procedures Manual on Code of Ethics and Conflicts of Interest. The Section prohibits employees from accepting gifts from contractors and others doing business with the Tollway but does not explicitly prohibit Tollway

employees (e.g., senior managers) from going to work upon leaving the Tollway for a company that is on contract to the Tollway. The Section also refers to a Code of Ethics that employees must sign which prohibits procurement officers *". . . for a period of 2 years after terminating an affected position from engaging in any procurement activity relating to the Authority."*

HIRING PROCESS	
RECOMMENDATION NUMBER **4**	***The Illinois State Toll Highway Authority should examine its current interview and hiring process. The Tollway should:*** • ***Establish a written policy on employee background checks and list the job positions that are subject to a background check. Positions subject to a background check should include all employees whose job duties include the handling of cash;*** • ***Ensure that fingerprint checks are conducted in a timely manner;*** • ***Conduct its own reference checks of employees; and*** • ***Clearly detail any policy that prohibits employment with contractors.***
TOLLWAY'S RESPONSE	In February 2003, the Tollway began fingerprinting and criminal background checks on all current employees. All new employees are also now required to authorize a criminal conviction record search and fingerprinting. The Tollway is in the process of finalizing all policies and procedures in this area, and will establish a related written policy for the personnel policies and procedures manual.

OVERTIME

In 2001, the Illinois State Toll Highway Authority paid nearly $4 million in overtime to its employees. The total amount of overtime declined in 2002 to $3.1 million, or 2.7 percent of personal services cost of $115 million.

Due to the nature of operations at the Tollway, some overtime is unavoidable. For example, since the Tollway operates 24 hours a day, 365 days a year, toll collectors must work on holidays. If a toll collector works on a holiday, he or she receives regular pay plus 1½ times their hourly rate for each hour worked. Toll collectors also receive shift incentives for working hours that are deemed less desirable. Shift incentives are counted as overtime.

Overtime in 2002 declined 21 percent compared to 2001. A Tollway official stated that the reason for the decline in overtime *"is credited to the following: electronic toll collection/I-Pass, the cross-training initiative, the outsourcing of the backlog of video*

surveillance, the completion of the fiber optic telecommunications systems, and operational adjustments to decrease overtime, etc."

According to union agreements with the various employees (e.g., toll collectors, Money Room employees, truck drivers), overtime opportunities for employees are to be generally equal. For example, the union agreement with toll collectors and lane walkers states the following:

> The Employer shall equalize straight time and overtime opportunities at each work location insofar as reasonable. Equalization shall occur whenever reasonably practicable. In the event an employee does not receive a fair share of straight time or overtime, as the case may be, the Employer will, when the matter is called to its attention, give preference to such employee with respect to future work assignments until a reasonably fair balance is reestablished, but such employee shall not be entitled to payment for hours not worked.

The union agreements establish financial rewards for employees. For example, toll collectors and lane walkers receive shift incentives for hours deemed less desirable. These employees receive a shift premium of $0.45 for third shift hours (3:00 p.m. – 11:00 p.m.) and $0.65 for first shift hours (11:00 p.m. – 7:00 a.m.). A collector in-charge (e.g., senior toll collector) receives a shift incentive of $25 per shift.

As shown in Exhibit 3-9, the number of employees receiving $5,000 or more in overtime also declined from 176 employees in 2001 to 139 employees in 2002. The employee receiving the highest amount of overtime, a toll collector, was the same employee in both 2001 and 2002. However, the amount of overtime for this employee declined 40 percent in 2002.

Exhibit 3-9
OVERTIME

	2001	**2002**
Employees with at least $5,000 Overtime	176	139
Employees with at least $10,000 Overtime	54	31
Employee with Highest Overtime	[(A)] $34,704	[(A)] $20,960
Total Overtime for Employees with at least $5,000 Overtime	$1,621,150	$1,164,836
Percent of Total Overtime to Employees earning at least $5,000	41%	37%
Total Overtime	**$3,981,962**	**$3,145,868**

Notes:
[(A)] Toll Collector. Same employee was highest both years.

Source: Illinois State Toll Highway Authority records reviewed by the Office of the Auditor General.

Exhibit 3-10 shows 2001 and 2002 overtime by department. As expected, most of the overtime was in Operations (which includes toll services and cash handling) and Engineering (which includes maintenance and traffic). Overtime declined for each department in 2002 compared to 2001.

Exhibit 3-10
OVERTIME BY DEPARTMENT

Tollway Department	2001	% of Total	2002	% of Total
Engineering	$1,073,660	27.0%	$701,729	22.3%
Executive Office	$11,123	0.3%	$433	0.0%
Finance and Administration	$117,276	2.9%	$84,416	2.7%
Information Technology	$143,050	3.6%	$91,203	2.9%
Legal	$462	0.0%	$121	0.0%
Operations (including toll collection)	$2,610,282	65.6%	$2,246,580	71.4%
State Police Administrative Employees	$26,110	0.7%	$21,387	0.7%
Total*	**$3,981,962**	**100%**	**$3,145,868**	**100%**

Notes:
* Totals may not add due to rounding.

Source: Illinois State Toll Highway Authority records reviewed by the Office of the Auditor General.

State Police Overtime

The overtime reported in Exhibit 3-10 does not include overtime for Illinois State Police District 15 troopers because the troopers are not considered Tollway employees. Under a special agreement with the Tollway, District 15 is dedicated to patrolling and policing the Tollway and the Tollway reimburses the Illinois State Police for District 15 personnel salary and benefits.

While overtime at the Tollway decreased, overtime for Illinois State Police District 15 increased in 2002. Overtime for Illinois State Police District 15 totaled $849,577 in 2001 and $882,255 in 2002, an increase of four percent (see Exhibit 3-11). In 2002, over one-half of the troopers who earned overtime received at least $5,000 in overtime pay.

Exhibit 3-11
ILLINOIS STATE POLICE DISTRICT 15 TROOPERS OVERTIME

	2001	2002
Total number of troopers receiving overtime	175	164
Troopers with at least $5,000 Overtime	76	85
Troopers with at least $10,000 Overtime	15	21
Trooper with Highest Overtime	$18,322	$20,062
Total Overtime for troopers with at least $5,000 Overtime	$622,605	$718,143
Percent of Total Overtime to troopers earning at least $5,000	73%	81%
Total Overtime	**$849,577**	**$882,255**

Source: Illinois State Police records reviewed by the Office of the Auditor General.

In 2001, total expenditures for District 15 totaled $14,369,936. Overtime in 2001 represented six percent of the total expenditures for District 15 that year.

Review of Tollway Employees' Overtime

Timesheets for hourly employees were not being signed by supervisors indicating a lack of monitoring. With over $3 million in overtime in 2002, proper monitoring would help ensure that overtime is being paid appropriately. The timesheets we examined were to be signed by both the employee and the supervisor. However, in our sample of 10 hourly employees, 288 (63%) of the 456 timesheets tested were not signed by the supervisor and 343 (75%) were not signed by the employee.

Monitoring of overtime was better for the salaried employees than it was for the hourly employees. The Personnel Policies and Procedures Manual states:

> The Department Chief will be responsible for determining and pre-approving all overtime after consultation with the Division Manager. Properly completed, signed and initialed time cards will be required for the overtime worked. The Department Chief must initial all overtime sheets and the Division Manager must sign the overtime sheets.

In our sample of 12 salaried employees, only 3 of 335 timesheets lacked the signature of the Division Manager and 4 timesheets lacked the initials of the Department Chief. According to the Tollway, the above section of the Personnel Policies and Procedures Manual does not apply to employees covered under a collective bargaining agreement. Therefore, the timesheets for the hourly employees tested in our sample did not require the signature of the Department Chief or Division Manager.

We also determined if the hours of overtime on the employees' timesheets matched the amount actually paid. This was tested in two ways. First, we tested a specific time period to determine if the hours on the timesheet matched the amount paid on a payroll report. No exceptions were noted. Second, we looked at the amount of overtime for the entire year on the timesheets compared to the amount of overtime paid for that year. Of the 12 salaried employees tested, one exception was noted. There were no timecards to support overtime of $568 paid in 2002 to one employee. For the remaining 11 employees sampled, documentation supported overtime paid of more than $55,000 in 2002.

OVERTIME	
RECOMMENDATION NUMBER **5**	***The Illinois State Toll Highway Authority should improve its monitoring of overtime. Timesheets should be reviewed and signed by the employee's supervisor.***
TOLLWAY'S RESPONSE	The Authority concurs that improvement is needed in the monitoring of overtime and is in the process of updating and modifying existing policies and procedures.

Chapter Four

REVENUES, EXPENDITURES, AND CONTRACTS

CHAPTER CONCLUSIONS

The Illinois State Toll Highway Authority had total assets of $2.4 billion as of December 31, 2001, with the largest category of assets being its roads. The Tollway's budget for Fiscal Year 2002 was $379 million, approximately one-half ($180 million) of which was for maintenance and operations, including $115 million for payroll. The Tollway is funded entirely by tolls and other revenues (e.g., concessions, investments) and did not receive any federal or State tax revenues in 2002.

- The Tollway's revenues have exceeded expenses every year from 1992-2001. At the end of 2001, cash and investments totaled $475 million.
- The Tollway had been earning interest income which had been over $20 million per year during 1997-2001; however, that is expected to decline to approximately $10 million by 2006.
- The Tollway has not finalized its projected cash flow for the 15-year time period during which the toll roads are expected to be reconstructed. Cash flow projections were labeled "draft" and lacked support to explain changes by a precise amount (e.g., cash was forecasted to vary from negative 1.3% to positive 4.7% per year).
- The Tollway earned approximately $10.7 million in 2001 from non-toll revenue sources (e.g., concessions, fiber optics) which was approximately three percent of its operating revenue. In our survey, some toll roads in other states earned a higher percent of revenue from such sources; Illinois' three percent was below the median of responding states which was 4.5 percent.
- The Tollway's toll rates for passenger vehicles and trucks were among the lowest reported by the respondents to our survey of states' toll roads.
- The Tollway did not have a centralized listing of contracts which could assist management in monitoring contracts. Most of the contracts in our sample were competitively bid and were awarded to the highest-ranking bidder. While all contracts contained deliverables, two contracts did not meet those deliverables.
- Although the Office of Finance had informal procedures, it lacked a written Financial Policies and Procedures manual to guide the expenditure of funds. Some expenditures in our sample lacked complete supporting documentation.

$ Since 1991, the Tollway has been reimbursing the medical insurance premiums for the dependents of retired employees. The cost of this benefit was $24,000 in 2002 and can be expected to increase in future years due to the State's Early Retirement Incentive. Officials at both the State Employees' Retirement System and the Group Insurance Division of the Department of Central Management Services said they were not aware of any other State agency with a similar policy.

ASSETS

The Tollway owns a wide range of fixed assets such as roadways, land, buildings, toll plazas, and equipment. The Tollway had total assets of $2.4 billion as of December 31, 2001 according to the financial and compliance audit conducted by the Office of the Auditor General. The largest category of assets before depreciation was Capital Assets which included the value of roads; the largest category of liabilities was revenue bonds payable. Exhibit 4-1 shows assets and liabilities as of December 31, 2001.

As of December 31, 2002, the Tollway had $781 million in outstanding revenue bonds and $355 million in unrestricted cash equivalents and investments.

Exhibit 4-1
STATEMENT OF NET ASSETS
December 31, 2001

Assets	**Amount**
Current Unrestricted Assets (e.g., cash and equivalents)	$334,319,984
Restricted Assets (e.g., investments for debt service)	$158,531,880
Capital Assets (e.g., land, buildings, machinery)	$3,776,549,056
Less Accumulated Depreciation	-$1,894,424,414
Deferred Bond Issuance Costs	$3,824,811
Total	**$2,378,801,317**
Liabilities and Net Assets	
Current Liabilities – Unrestricted	$61,858,874
Current Liabilities – Restricted	$87,514,646
Long-term Liabilities (e.g., revenue bonds payable)	$787,408,511
Net Assets (e.g., invested in Capital Assets, net of related debt)	$1,442,019,286
Total	**$2,378,801,317**

Source: Financial and compliance audit (2001) conducted by the Office of the Auditor General.

Budget

For Fiscal Year 2002 (ending December 31, 2002), the Tollway had a budget of $379 million (see Exhibit 4-2). The largest expenditures were for maintenance and operations which included personnel, equipment support, and contractual costs related to the maintenance of toll collection equipment. This amount also included the entire budget for State Police District 15 which patrols the Tollways.

Exhibit 4-2
BUDGET
2002

Category	**Amount**
Maintenance and Operations*	$180,235,000
Renewal and Replacement	$119,500,000
Debt Service	$79,700,000
Total	**$379,435,000**

Notes:
* Payroll was two-thirds of this amount: $115 million (increased 4.2% from previous year).

Source: Illinois State Toll Highway Authority.

Maintenance Cost

As shown in Exhibit 4-3, the Tollway's maintenance cost per mile was $27,719, which was higher than the average for the toll roads that responded to our survey and provided the data. The maintenance cost included the following three areas:

- **Roadway Maintenance** provides day-to-day maintenance, including crack sealing, minor pavement repair, snow removal, H.E.L.P. trucks, bridge maintenance, incident management, right-of-way mowing, trash removal, and routine landscaping.

- **Fleet Maintenance** provides upkeep and maintenance for autos, trucks, and other unlicensed roadway equipment (i.e., end loaders, sweepers, snow plows, and hopper bodies).

- **Building Maintenance** provides daily maintenance of 91 buildings (i.e., plaza buildings, maintenance buildings, central administration building, central warehouse, sign shop), including: lighting; heating, air-conditioning, and ventilation systems; electrical, plumbing, and sewer maintenance; and roadway lighting.

Exhibit 4-3
MAINTENANCE COST PER LANE MILE

Toll Road	**Cost per Lane Mile**
Kansas Turnpike Authority	$7,608
North Texas Tollway Authority	$10,749
Indiana DOT – Toll Road District	$12,343
Pennsylvania Turnpike Commission	$17,079
Orlando-Orange County Expressway Authority	$18,528
Florida Turnpike Enterprise	$19,400
California Transportation Corridor Agencies	$22,752
Ohio Turnpike Commission	$24,074
Miami-Dade Expressway Authority	$26,718
New York State Thruway Authority	$26,850
Richmond Metropolitan Authority	$27,048
Illinois State Toll Highway Authority	***$27,719***
New Jersey Highway Authority (GSP)	$38,283
South Jersey Transportation Authority	$39,678
Maryland Transportation Authority	$41,362
Average	**$23,748**
Median	**$23,413**

Notes:
- Maintenance costs include roadway maintenance and services, building maintenance, and fleet maintenance taken from the survey of other states' toll systems.
- Illinois is not included in calculating the median and average.

Source: Illinois Auditor General's survey of states' toll systems.

INVESTMENTS

As of December 31, 2001, the Illinois State Toll Highway Authority had $475 million in cash and investments (see Exhibit 4-4). It earned $23.8 million in interest on its investments which represents a five percent rate of return. The Tollway is forecasting declining interest revenue over the next several years (2002-2006).

The Tollway is limited in the types of investments it can make by the Trust Indenture. The Trust Indenture authorizes the Tollway to invest in:

- U.S. Treasury and agency issues;
- Money market funds comprised of U.S. Treasury and agency issues;
- Repurchase agreements;
- Time deposits; and
- Certificates of deposit.

According to the Tollway's 2001 Comprehensive Annual Financial Report, the Tollway was in compliance with this restriction in 2000 and 2001. The 2002 CAFR was not available during the audit period.

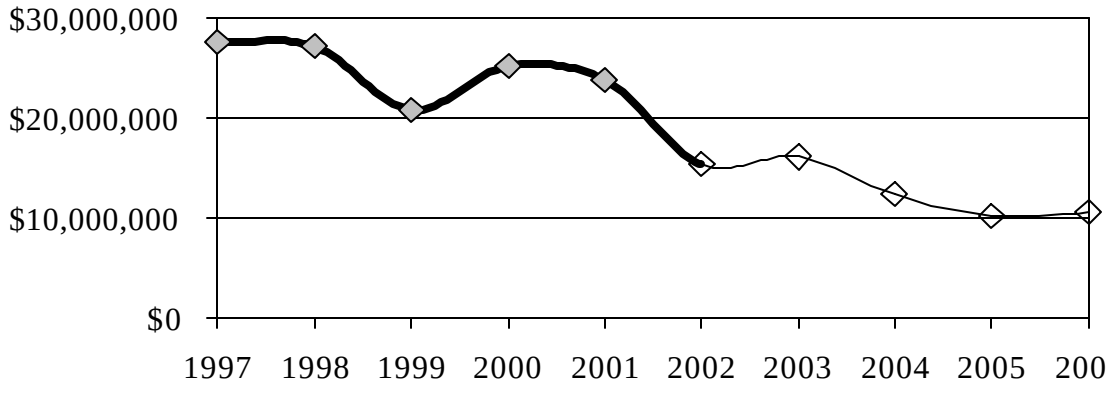
Exhibit 4-4
INVESTMENTS
December 31, 2001

	2001
Carrying Amounts of Cash Deposits	
Cash Deposits	$3,318,237
Money Markets	26,324,309
Time Deposits	33,895,000
Total Carrying Amount	**$63,537,546**
Fair Value of Investments	
US Treasury and Agency Issues, restricted	$51,705,686
Bank Repurchase Agreements original maturity exceeds 3 months	$39,119,431
Total Investments Restricted for Debt Service	$90,825,117
Bank Repurchase Agreements Classified as Cash	$321,084,096
Total Investments	**$411,909,213**
Total Cash And Investments	**$475,446,759**

Source: Comprehensive Annual Financial Report for Illinois State Toll Highway Authority analyzed by the Office of the Auditor General.

The Tollway has earned interest income between $20.8 million and $27.6 million during 1997-2001. However, the Tollway forecasts that interest will decline significantly over the next several years and will be as low as $10.3 million by 2006 (see Exhibit 4-5).

Exhibit 4-5
INTEREST INCOME
Actual for 1997-2001; Tollway Forecast for 2002-2006

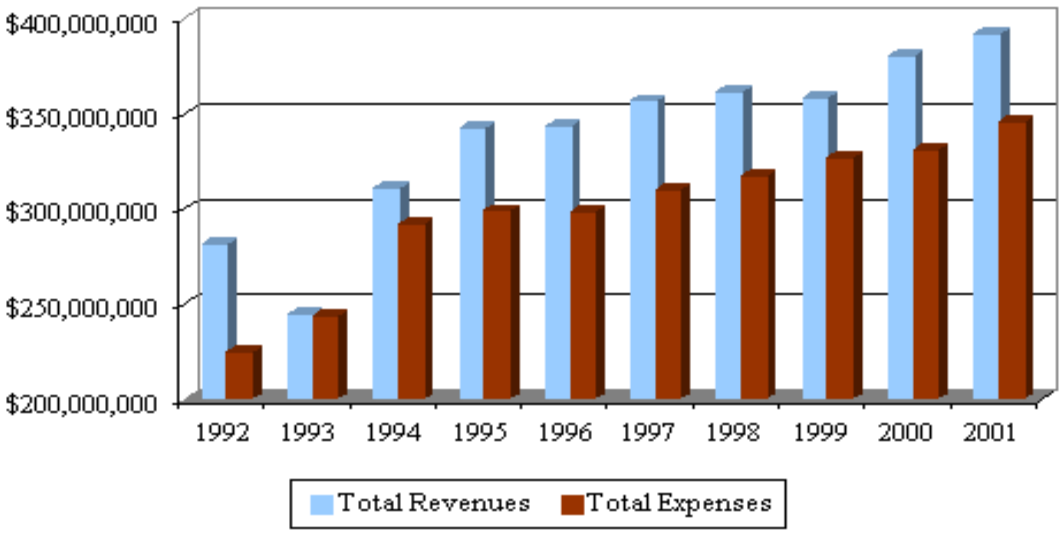


Source: Illinois State Toll Highway Authority data analyzed by Office of the Auditor General.

REVENUES

The 2001 CAFR shows that Tollway revenues have been exceeding expenses in every year from 1992 to 2001 (see Exhibit 4-6). During these ten years, revenues have exceeded expenses by a total of $382 million (13%).

Exhibit 4-6
REVENUES AND EXPENSES



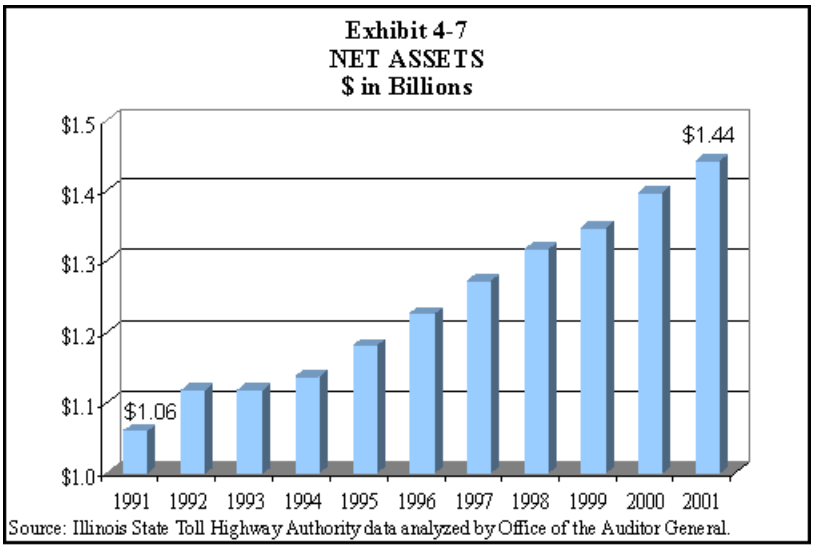
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	TOTAL
Total Revenues	$281,577,086	$244,725,949	$311,022,233	$342,205,792	$343,973,067	$356,908,284	$361,123,354	$357,981,002	$380,095,315	$391,716,239	$3,371,328,321
Total Expenses	224,441,439	243,981,851	291,840,295	298,931,246	298,793,457	310,113,567	317,177,868	327,118,934	330,776,248	345,962,334	2,989,137,239
NET	**$57,135,647**	**$744,098**	**$19,181,938**	**$43,274,546**	**$45,179,610**	**$46,794,717**	**$43,945,486**	**$30,862,068**	**$49,319,067**	**$45,753,905**	**$382,191,082**

Source: Illinois State Toll Highway Authority data analyzed by Office of the Auditor General.

In 1993, expenses almost equaled revenues because the Tollway had a $32 million loss on extinguishment of debt: *"Although the advance refunding resulted in the recognition of an extraordinary accounting loss of approximately $32.1 million in 1993, the Authority effectively has reduced its aggregate debt service by about $33.5 million for the years 1993 through 2010 and obtained an economic gain or present value savings of over $22 million."*

Along with an increase in cash and investments ($475 million in 2001), net assets have also been increasing. As shown in Exhibit 4-7, in 1991 net assets were $1.06 billion and by 2001 they had increased $380 million to $1.44 billion.

The 2001 CAFR states that the Tollway believes it will not be able to meet the net revenue requirement by late 2004 or early 2005 without additional revenue: *"At that time, the Authority will be required by covenants in the Trust Indenture to increase tolls."* Tollway officials have said that road repairs have been postponed and that large expenditures for repairs are projected in the future.



REVENUE FORECASTING

The Illinois State Toll Highway Authority publishes an Annual Toll Revenue Report which is prepared by its Traffic Engineer, Wilbur Smith Associates (WSA), to meet the requirements of the Toll Highway Act Section 10/10(c). The report analyzes transaction trends for each section of the Tollway and forecasts revenues. We noted the following about revenue forecasts:

- The Annual Toll Revenue Reports overestimated toll revenue in 5 of 8 years we reviewed. During 1994 – 2001, the reports overestimated toll revenue by as much as $5.4 million (1998) even though some of the reports were released late in the reporting year. Conversely, the 2001 Annual Toll Revenue Report underestimated revenue by $9 million even though the report was released in October of the reporting year (2001).

- The Annual Toll Revenue Reports we reviewed used data which was not adjusted for toll violations and misclassifications.

- The most recent five-year revenue forecast has used an overall growth rate that is lower than the historical average.

Annual Toll Revenue Report

In preparing the toll revenue estimates for the Annual Toll Revenue Report, prior year transactions (by month) represent the starting point to estimate the future year's revenue. However, actual transactions may be influenced by factors such as construction, economy, non-recurring incidents (weather, special events), and the number of weekdays, weekends, and holidays per month. Exhibit 4-8 shows the estimated and actual revenue for 1994 to 2001.

Exhibit 4-8
ESTIMATED VERSUS ACTUAL TOLL REVENUE
($ thousands)

	1994	1995	1996	1997	1998	1999	2000	2001
Estimated Revenue	$283,226	$299,775	$311,626	$322,090	$334,103	$337,636	$347,033	$350,615
Actual Revenue	$284,333	$299,841	$310,058	$321,379	$328,655	$336,232	$346,273	$359,694
Difference	$1,107	$66	($1,568)	($711)	($5,448)	($1,404)	($760)	$9,079
Exceeded Estimate	0.4%	0.0%	(0.5%)	(0.2%)	(1.6%)	(0.4%)	(0.2%)	2.6%

Source: Illinois State Toll Highway Authority data analyzed by Office of the Auditor General.

The first Annual Toll Revenue Report that we examined was released in February 1995. As the years progressed, the reports were released later in the year; for example, the 2000 and 2001 reports were released in October. The later the reports are released, the easier it should be to project revenue for that year (see Exhibit 4-9).

The largest difference between actual and estimated toll revenue was in 2001 when the report was released in October – actual revenue was $9.1 million (2.6%) more than estimated a few months before the year's end. However, unlike previous reports which contained a section discussing the difference between actual and estimated revenue, the 2002 Report lacked such an explanation.

Exhibit 4-9
ANNUAL TOLL REVENUE REPORTS

Report	Release Date
1995	February 1995
1996	March 1996
1997	March 1997
1998	May 1998
1999	May 1999
2000	October 2000
2001	October 2001
2002	May 2002

Source: Annual Toll Revenue Reports prepared by Wilbur Smith Associates.

In the 1995-1999 reports, revenues were projected only for that particular year; however, beginning in 2000, the Toll Revenue Report began projecting revenues for five years.

Revenue Growth Trends

To assess the adequacy of these projections, we calculated the average annual increase in toll revenue for the last ten years. Toll revenue has increased each year from 2.3 percent to 8.8 percent with an average annual cumulative increase of 3.9 percent over the past 10 years and 2.9 percent over the past five years (see Exhibit 4-10).

Exhibit 4-10
TOLL REVENUE GROWTH TRENDS
($ thousands)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Actual Revenue	$255,309	$261,303	$284,333	$299,841	$310,058	$321,379	$328,655	$336,232	$346,273	$359,694
Percent Increase		2.3%	8.8%	5.5%	3.4%	3.7%	2.3%	2.3%	3.0%	3.9%
Average % Increase (5 years)							2.3%	2.3%	2.5%	2.9%
Average % Increase (10 years)		2.3%	5.6%	5.5%	5.0%	4.7%	4.3%	4.0%	3.9%	3.9%

Source: Illinois State Toll Highway Authority data analyzed by Office of the Auditor General.

According to Wilbur Smith Associates, 23 miles of the Tri-State tollway was reconstructed and widened in 1992 and 1993 and the 1994 revenue numbers reflected a positive recovery from reconstruction and new traffic to the system. Therefore, the

average annual growth rate calculated between 1992 and 2001 reflects higher growth rates partially attributable to new lane miles that were added to the system. In addition, the North-South tollway was opened in 1989 and experienced significant growth in subsequent years. Wilbur Smith Associates also noted that they attempt to recognize the physical capacity constraints of the highway system in developing growth forecasts; as the Tollway becomes congested, growth rates will be dampened without increases in highway capacity.

In the 2002 Annual Toll Revenue Report, revenues were projected for the next five years at an overall rate lower than both the 10-year historical average of 3.9 percent and the 5-year historical average of 2.9 percent. Using the 5-year historical average, projected revenue would be $28 million higher (see Exhibit 4-11). Tollway officials stated on November 25, 2002 that *"Toll revenue estimates are provided by Wilbur Smith Associates. As a note, annual toll revenue increases over the past five (5) years averaged just under 3%."*

Exhibit 4-11
PROJECTED TOLL REVENUE VS. HISTORICAL AVERAGE
($ thousands)

	2002	2003	2004	2005	2006
WSA 2002 ANNUAL TOLL REVENUE REPORT					
Projected Revenue	$367,181	$374,302	$385,931	$395,901	$407,347
Percent Increase	2.1%	1.9%	3.1%	2.6%	2.9%
5-YEAR HISTORICAL AVERAGE (2.9% Average Increase)					
Projected Revenue at 2.9% Rate	$369,974	$380,547	$391,423	$402,609	$414,116
Difference in Projected Revenues	$2,793	$6,245	$5,492	$6,708	$6,769
Cumulative Difference	$2,793	$9,038	$14,530	$21,238	$28,007

Source: Illinois State Toll Highway Authority data analyzed by Office of the Auditor General.

Comprehensive Annual Financial Report

The toll revenue in the Tollway's Comprehensive Annual Financial Report (CAFR) is lower than in the Annual Toll Revenue Report. A Tollway official explained the reason for this was that *". . . the Annual Toll Revenue Report utilizes unadjusted figures from a report generated by lane equipment . . . . These figures do not reflect violations or misclassifications. The toll revenue reported in the CAFR is net of these adjustments. The CAFR represents the most accurate figure."*

Exhibit 4-12 shows the difference in toll revenue as reported in the CAFR vs. the Annual Toll Revenue Report. According to Wilbur Smith Associates, the unaudited figures show that 2002 toll revenues are $363.2 million after adjustments, as compared to $354.8 million in 2001. This was a growth rate of 2.4%.

Exhibit 4-12
TOLL REVENUE REPORTED: CAFR VERSUS ANNUAL TOLL REVENUE REPORT
($ thousands)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Toll Revenue Report	$255,309	$261,303	$284,333	$299,841	$310,058	$321,379	$328,655	$336,232	$346,273	$359,694
CAFR	$254,144	$260,096	$282,144	$297,908	$308,567	$317,980	$323,524	$332,626	$343,945	$354,774
Difference	**$1,165**	**$1,207**	**$2,189**	**$1,933**	**$1,491**	**$3,399**	**$5,131**	**$3,606**	**$2,328**	**$4,920**

Source: Illinois State Toll Highway Authority data analyzed by Office of the Auditor General.

Cash Flow Analysis

The 1995 KPMG Operational Assessment requested by the Tollway recommended preparing cash flow projections. The Tollway provided us a "draft" Cash Flow Statement Analysis for 2002 to 2017, dated November 2002, which utilized toll revenue forecasts by Wilbur Smith Associates. This draft cash flow analysis projects the following:

- **$** Total revenue increasing 32 percent over 15 years which equates to a compounded rate of 1.86 percent per year (the range per year is from negative 1.3% to positive 4.7%).
- **$** Toll revenue increasing 43 percent over 15 years for a compounded rate of 2.4 percent per year (range of 1.0% to 4.8% per year).

This November 2002 draft Cash Flow Statement Analysis also lowered projected revenue by $38 million during 2002 – 2006 as compared to the Annual Toll Revenue Report released in May 2002. The amount reduced ranged from $4.5 million to $10.4 million per year. Tollway officials said that the cash flow analysis appears to have used the revenue estimates for the 15-year Capital Plan which is different than what is used in the Annual Toll Revenue Report. The 15-year Capital Plan was a more comprehensive reconstruction and widening program, resulting in varying revenue impacts.

When we requested supporting documentation for the November 2002 draft Cash Flow Statement Analysis, we were provided a page that showed what revenue would be if tolls were set at various rates (e.g., 40 cents, 75 cents). We were not provided documentation that explained how the specific cash flow projections (which ranged from negative 1.3% to positive 4.7%) had been calculated, or why the projections were lower than the Annual Toll Revenue Report (released just over five months earlier), or how the estimates were determined (e.g., by plugging numbers into a formula or by using a less formal methodology).

Conclusion

According to the 2002 Annual Toll Revenue Report which contains revenue forecasts up to 2006, Wilbur Smith Associates prepared the forecasts with the aid of a computerized model that considered factors such as past trends in toll transactions, economic indicators, and construction programs. However, the draft of the 15-year Cash Flow Statement Analysis provided to us lacked such supporting documentation. Revenue forecasts should be based on documented methodologies to ensure that sound assumptions and variables are used.

Documented forecasts may be especially necessary at the present time because the Tollway is considering a major reconstruction of roads at a cost projected to be approximately $5.5 billion. The Tollway has said that road reconstruction will require additional funds either from toll rate increases or new revenue bonds. By publicly releasing well-documented revenue forecasts, the Tollway may be able to better demonstrate why its revenues will not be sufficient and when specific amounts of additional revenues will be needed during the next 15 years.

NEW YORK
According to a report by the New York Office of the State Comptroller, "Analysis of the Thruway Toll Increase Proposal" (2000), the New York Thruway Authority proposed a toll increase of 3% annually to fund capital programs. The proposal was unsuccessful due to public objections. The New York Thruway Authority was using revenue growth of 2% when historically revenue had grown 3% to 4%. A re-estimate demonstrated the toll increase was not justified. The report recommended: **$** Providing a more detailed capital plan to the public to justify the toll rate increase. **$** Using reasonable revenue projections. The New York Thruway Authority had not needed to increase tolls since 1988 because toll revenue was increasing (3% annually for passenger cars and 4% for commercial vehicles) due to traffic increases.
Source: State of New York, Office of the State Comptroller.

The Tollway has not always been consistent in presenting information related to its financial position. For example, the Tollway's 2000 report to the Governor on restructuring discussed issues in detail and offered 22 *". . . options for the removal of toll locations and their associated costs and consequences . . . ."* It discussed the Tollway's costs and potential annual savings from eliminating all tolls, yet it did not disclose the available funds in cash and investments.

CASH FLOW PROJECTIONS	
RECOMMENDATION NUMBER **6**	***The Illinois State Toll Highway Authority should ensure that the Cash Flow Statement Analysis is based on documented assumptions and methodologies. These Cash Flow Projections should be made in a timely manner and should be made available to the public, along with their assumptions.***
TOLLWAY'S RESPONSE	The Authority concurs that regular cash flow analyses should be performed and documented. Both our annual budget and Comprehensive Annual Financial Report disclose annual cash flow information and are publicly available.

TOLL RATES

Each day, approximately 1.2 million vehicles use Illinois' toll roads which are comprised of four routes in the greater Chicago area: Northwest Tollway (I-90); Tri-State Tollway (I-94; I-294); East-West Tollway (I-88); and North-South Tollway (I-355).

The base rate for tolls is 40 cents for Class 1 vehicles which are motorcycles or automobiles with two axles and four or less tires. The rate increases to 50 cents for Class 2 vehicles which are trucks or buses with two axles and six tires. The rate continues to increase as the number of axles increases; for example, a Class 6 vehicle's typical toll is $1.50 for a truck with six axles (see Exhibit 4-13).

As discussed later, the Tollway has proposed to increase the tolls for Class 1 vehicles to 75 cents and for Class 6 vehicles to $3.00.

- The Tollway's base toll rate has not changed since 1983 (see Exhibit 4-14) and is among the lowest of states responding to our survey.

- In our survey of other states toll roads, the toll rates ranged from 2 cents per mile at the New Jersey Garden State Parkway to 18 cents per mile at the Colorado E-470.

Exhibit 4-13
BASE TOLL RATES BY VEHICLE CLASS

Class	Description	Rate
1	Automobiles, motorcycles, taxis, station wagons, ambulances, and single unit trucks or tractors (2 axles, 4 or less tires)	$0.40
2	Single unit trucks, tractors, or buses (total of 6 tires with 4 in the rear – e.g., 2 axles, 6 tires)	$0.50
3	Trucks and buses with 3 axles	$0.75
4	Trucks with 4 axles	$1.00
5	Trucks with 5 axles	$1.25
6	Trucks with 6 axles	$1.50
7	Class 1 vehicles with 1-axle trailer	$0.60
8	Class 1 vehicles with 2-axle trailer	$0.80
9	Trucks with more than 6 axles	$0.25/axle
10	Class 1 vehicles with more than 4 axles	$0.20/axle

Source: Illinois State Toll Highway Authority data.

Exhibit 4-14
CURRENT TOLL RATES
Passenger Vehicles

State	Toll Road [A]	Year of Last Toll Increase	Percent Increase	Current Average Toll Rate per Mile
Illinois	***Illinois State Toll Highway Authority***	***1983***	***33%***	***34***
Indiana	Indiana DOT – Toll Road District	1985	10%	34
New York	New York State Thruway Authority	1988	32%	34
New Jersey	New Jersey Highway Authority (Garden State Parkway)	1988	40%	24
Florida	Orlando-Orange County Expressway Authority	1990	50%	[B] 114
Pennsylvania	Pennsylvania Turnpike Commission	1991	30%	44
Florida	Florida Turnpike Enterprise	1995	25%	64
Virginia	Richmond Metropolitan Authority	1998	NR	NR
New Jersey	South Jersey Transportation Authority	1998	100%	54
Ohio	Ohio Turnpike Commission	1999	9%	44
Kansas	Kansas Turnpike Authority	2001	5%	44
Florida	Miami-Dade Expressway Authority	2001	1.5%	[B] 74
California	Transportation Corridor Agencies	2002	6.4%	174
Texas	North Texas Tollway Authority	2002	NR	[B] 114
Colorado	E-470 Public Highway Authority	2003	NR	184

NR = No Response

Notes:
[A] Only those toll systems that provided the date of the most recent toll increase are included in this exhibit.
[B] Orlando-Orange County responded that its average ranged from 84 to 114 per mile for cars. Miami-Dade Expressway Authority also has a discounted toll rate which, on average, equals 64 per mile for cars. North Texas also has a discounted toll rate which, on average, equals 94 per mile for cars.

Source: Office of the Auditor General's summary of states' toll roads survey responses.

Establishing Toll Rates

As shown in Exhibit 4-15, toll rates on the Illinois Tollway range from 2.6 cents per mile to 5.7 cents per mile. A September 11, 2002 memorandum from the Tollway's Traffic Engineer, Wilbur Smith Associates, said that it is not possible to have the exact same rates for all lane miles and said that tolls for the North-South Tollway, which is the newest, are higher to cover the cost of the project:

> . . . it is not possible to provide a pricing structure, which will assess the same per-mile rate for all possible movements . . . . rates are set, to "cover" a maximum length trip, which would pass only through that plaza. Shorter trips . . . would have a higher per-mile rate than longer

Exhibit 4-15
TOLL RATES
Class I Vehicles

TOLLWAY	MILES	TOLL	COST/MILE
Tri-State (I-94 and I-294)	82 miles	$2.45	* 3.24
Northwest (I-90)	76 miles	$2.00	2.64
East-West (I-88)	98 miles	$2.70	2.84
North-South (I-355)	18 miles	$1.00	5.74
TOTAL	**274 miles**	**$8.15**	**3.04**

Notes:
* Southbound toll is $2.35 or 3.14 per mile.

Source: 2002 Annual Toll Revenue Report by Wilbur Smith Associates.

> distance trips . . . . The North-South Tollway . . . levies a $0.50 passenger car toll . . . [which is] a higher per-mile rate in comparison to others. This primarily reflects the cost of the project and the financial requirements that had to be met.

Wilbur Smith Associates studied the effects of setting various toll rates. WSA prepared "Toll Elasticity Curves" which showed that transactions would decrease as toll rates increased but total revenues would continue to increase to a certain point. If, for instance, the current 40 cent toll rate was increased to $1.00, total revenue was projected to double from the current $367 million to $719 million.

Most vehicles (90%) on the Tollway are passenger cars and they generate over 75 percent of the revenue (see Exhibit 4-16).

Exhibit 4-16
TRANSACTIONS AND REVENUES
2001
(thousands)

TRANSACTIONS			REVENUES		
Cars	Commercial	Total	Cars	Commercial	Total
90%	10%	100%	76%	24%	100%
686,881	75,470	762,351	$ 272,469	$ 87,225	$ 359,694

Source: 2002 Annual Toll Revenue Report by Wilbur Smith Associates analyzed by the Office of the Auditor General.

Truck Tolls

As with many toll roads and highways, truck traffic is a major and sometimes the primary cause of road deterioration. The resulting road deterioration is exacerbated in the case of overweight trucks. For example:

- CTE's 2001 Annual Report for the Tollway attributes roadway deterioration to the effects of increasing traffic and states that shorter pavement lives are due to increased truck volumes and the presence of larger and heavier trucks.

- CTE's 10-year plan for the Tollway says that increased truck traffic has been a major contributor to reduced pavement life.

The toll for the most prevalent commercial vehicles, the five-axle combination, is generally 25 cents per axle or $1.25 per five-axle truck, as compared to the 40 cent passenger auto toll. This approximate 3:1 ratio is not uncommon for many U.S. toll roads. However, the Illinois toll rate of 3 cents per mile is among the lowest in the nation and, therefore, the rate per mile for trucks is also among the lowest at 9 cents per mile. By contrast, the Pennsylvania Turnpike charges trucks about 22 cents per mile.

Exhibit 4-17 shows the average toll rate per mile for commercial vehicles for Illinois and other states' toll roads. Truck size and weight issues are a complex mix of operational and regulatory issues, but several factors are clear:

Exhibit 4-17
TOLL RATES FOR COMMERCIAL VEHICLES

State	Toll Road	Average per Mile
Indiana	Indiana DOT – Toll Road District	9**4**
Illinois	***Illinois State Toll Highway Authority***	***9*4**
New Jersey	New Jersey Highway Authority (Garden State Parkway)	10**4**
Kansas	Kansas Turnpike Authority	11**4**
Ohio	Ohio Turnpike Commission	12**4**
New York	New York State Thruway Authority	12**4**
Florida	Miami-Dade Expressway Authority	14**4**
Florida	Florida Turnpike Enterprise	21**4**
Pennsylvania	Pennsylvania Turnpike Commission	22**4**
New Jersey	South Jersey Transportation Authority	25**4**
Texas	North Texas Tollway Authority	[A] 26**4**
Florida	Orlando-Orange County Expressway Authority	[B] 36**4**
Virginia	Virginia DOT – Pocahontas Parkway	57**4**
California	Transportation Corridor Agencies	68**4**

Notes:
[A] North Texas also has a discounted toll rate which equals, on average, 21**4** per mile.
[B] Orlando-Orange County responded that its average ranged from 22**4** per mile to 36**4** per mile.

Source: Office of the Auditor General's summary of states' toll roads survey responses.

- Heavy trucks cause significantly more stress and damage to pavement surfaces, more than proportionate to axle loadings.
- Overweight trucks (in violation of weight regulations) cause even more serious damage, in addition to posing a safety hazard, and may stress pavements and structures beyond the design limits, hastening failure.
- Hence, when considering road preservation and/or adjusting toll rates, Tollway managers should take into account the proportionate damage of commercial vehicles relative to passenger cars and the potential hazards associated with overweight vehicles.

The 1997 Highway Cost Allocation Study (HCAS) by the Federal Highway Administration (FHWA) examined the extent to which different vehicle classes pay federal user charges. The FHWA report states: *"Pavement costs represent the contribution of a mile of travel by different vehicles to pavement deterioration and the costs of repairing the damage."* For any urban interstate highway, FHWA indicates a pavement cost of 0.1 cents per mile for an automobile, but for an 80,000 pound five-axle combination truck, the pavement cost was estimated to be 41 cents per mile.

It would be prudent for the Illinois Tollway to consider the relevance of these federal findings to Tollway costs, in particular the cost of pavement deterioration, and in setting toll levels and fees on commercial vehicles. The Tollway may want to consider adjusting its current commercial vehicle tolls to more equitably reflect the costs reasonably attributable to heavy commercial vehicles. If the federal estimate of heavy truck pavement cost incurred at 41 cents per mile is applicable to the urban sections of

the Tollway, then the current toll rate of nine cents per mile is not sufficient to cover resulting pavement deterioration.

In addition, a more aggressive weight enforcement and truck permitting regime could help protect Tollway pavements and structures from unanticipated (and often illegal) stresses and at the same time generate violation fees to augment revenues.

NON-TOLL REVENUES

The Office of the Auditor General obtained the services of the consulting firm Infrastructure Management Group (IMG) to assist us with this audit. One of IMG's tasks was to examine the non-toll revenue sources of the Illinois State Toll Highway Authority. This section summarizes the results of IMG's analysis of the Tollway's non-toll revenue sources (also known as other operating revenue).

The Illinois State Toll Highway Authority has non-toll operating revenues from its oases concessions and from miscellaneous fees such as I-PASS statements. These non-toll revenues exceeded $10.7 million in 2001 or about three percent of operating revenues (see Exhibit 4-18).

Exhibit 4-18
NON-TOLL REVENUE
2001

Category	Amount
Concessions	$4,619,386
Transponder Fees	$1,578,265
Fiber Optics	$1,231,206
I-PASS Statements	$1,080,616
Toll Evasion Recovery	$996,445
Overweight Tickets	$434,369
Other	$792,251
Total	**$10,732,538**

Source: Illinois State Toll Highway Authority.

In addition, the Tollway earns interest on its financial investments that include earnings on debt service and debt reserve accounts, net increases (decreases) in the market value of securities, and net gains from the disposal of property. These sources, primarily consisting of interest income, produced over $26 million in 2001 revenues.

The Tollway embarked on a new initiative to upgrade and modernize its service plazas, or oases facilities, by entering into a long-term development lease in 2002. It is expected that all the service plazas will be completely reconstructed at a private cost of over $90 million, then operated by the concessionaires for up to 25 years. In return for the privately-funded reconstruction, the Tollway oases revenues will be reduced during 2002-04.

Tollway staff indicated that they are constrained in their ability to augment toll revenues from non-toll sources. The oases are said to have limited potential for traffic capture and the new concession agreement is already in place and viewed as attractive because of the reconstruction commitments by private parties. The Tollway has generated some fiber-optic revenue but this market has largely disappeared. The potential for marketing a broader use of the I-PASS transponder to collect other payments such as Chicago Skyway tolls or O'Hare parking garage fees may require statutory changes.

Other toll roads across the country are constantly testing the environment for non-toll revenue because the infrastructure is already in place and the large recurrent flow of patrons creates a market for generating non-toll revenues. Conversely, generating toll revenue requires large investments or a toll increase. In comparing the Illinois Tollway to its peers, non-toll revenues are below the median (see Exhibit 4-19).

Exhibit 4-19
NON-TOLL REVENUE AS A PERCENT OF OPERATING REVENUE

Toll Road	Non-Toll Revenue as a % of Operating Revenue	Non-Toll Revenue per Lane Mile
E-470 Public Highway Authority	22%	$33,146
South Jersey Transportation Authority	18%	$41,760
New Jersey Highway Authority (Garden State Parkway)	13%	$22,844
Indiana DOT – Toll Road District	8%	$10,840
Ohio Turnpike Commission	7%	$10,163
New York State Thruway Authority	6%	$7,935
Pennsylvania Turnpike Commission	3%	$4,912
Illinois State Toll Highway Authority	***3%***	***$6,496***
Florida Turnpike Enterprise	3%	$5,694
Orlando-Orange County Expressway Authority	2%	$6,506
North Texas Tollway Authority	2%	$6,559
California Transportation Corridor Agencies	0.5%	$2,844
Miami-Dade County Expressway Authority	0.1%	$269
Average	**7%**	**$12,789**
Median	**4.5%**	**$7,247**

Notes:
In calculating average and median values for the respondents to the survey, Illinois data were not included.

Source: Illinois Auditor General's survey of states' toll roads.

According to the 2002 Annual Toll Revenue Report by the Tollway's Traffic Engineer Wilbur Smith Associates, total Tollway revenue for 2002 was estimated to increase by 2.1 percent. Hence, if non-toll revenues could be doubled, this would be more than equivalent to one year's expected revenue growth of $7.5 million, a relatively significant increment.

The Tollway should review its opportunities for additional non-toll revenues. The greater the reliance on the amount of non-toll revenue, the less reliance needs to be placed on toll revenue. Tollway officials have indicated that they are considering initiatives such as allowing advertising, other uses of transponders, and similar initiatives.

Other toll roads have experimented with various methods of raising revenues other than tolls, including the following:

- **$** The New York State Thruway Authority sells advertising on its tickets, maps, receipts, etc. The California SR-91 Express Lanes have also generated advertising revenues.

- The Florida Turnpike Enterprise, which has been given relatively broad development powers, is evaluating lodging, business conference centers, and other opportunities on its service centers and other surplus properties.

- The New Jersey Garden State Parkway was recently approached by a major retail firm seeking to provide toll-free passage for all toll plazas, while guaranteeing revenue plus a premium to the Garden State Parkway for a selected promotional day. This approach has not yet been implemented.

- The Transportation Corridor Agencies (TCAs) in Orange County, California, have initiated joint ventures with private companies such as McDonalds. At certain area McDonalds restaurants, customers can make drive-thru purchases using their toll road transponders.

- Both Florida Turnpike Enterprise and New York State Thruway Authority are considering "branding" service stations in a similar way that sports stadiums have been branded. New Jersey Garden State Parkway has considered branding the toll plazas.

- The Dallas-Fort Worth International Airport has considered licensing its parking garage and ground transportation transponder technology to garages and gated communities in the Dallas area.

The Illinois Tollway should seek to identify new sources of non-toll revenue. If changes in enabling legislation are needed, they should be requested.

NON-TOLL REVENUES	
RECOMMENDATION NUMBER 7	***The Illinois State Toll Highway Authority should undertake a review of its non-toll revenue sources to identify and aggressively pursue other methods of generating revenues. The Tollway should also review its policy regarding toll charges, particularly for trucks.***
TOLLWAY'S RESPONSE	The Authority is studying other sources of non-toll revenue such as advertising and policies/technologies that would allow us to better enforce overweight truck regulations. The Tollway is also in the midst of an Oases Redevelopment Project that should yield increased concession revenues when completed.

REVIEW OF EXPENDITURES

Although there were informal procedures in place, the Office of Finance lacked formal guidelines, such as a Financial Policies and Procedures manual, for the expenditure of funds. The Tollway's General Accounting unit follows GAAP (generally accepted accounting principles), the Comptroller's Statewide Accounting and Management System, and the Bond Trust Indenture. The Tollway provided informal procedures that have been developed over time for the Accounts Payable unit while the Accounts Receivable unit provided minimal procedures to the auditors.

Checks are written internally from four different funds: Revolving Maintenance and Operations (RMO), Capital Improvement Program (CIP), Construction, and I-PASS escrow. According to the Tollway, for checks issued from the RMO fund, departments complete and submit check requests with supporting documentation to the Office of Finance for reimbursement. The Accounts Payable unit reviews the supporting documentation and inputs the expenditure information into the system before a check is issued and forwarded for the appropriate signatures. For checks issued from the CIP fund, the using department completes a purchase requisition on the Tollway's Stock, Utilization and Need (SUN) System and forwards the requisition to the Procurement Services Division. Procurement Services determines if there is a contract for the item(s) requested before a contract release is issued and the proper approvals are obtained.

Sample

We selected a sample of 157 expenditures to review the management of funds by the Tollway and to ensure that documentation maintained by the Tollway supports the expenditure. The 157 transactions reviewed from calendar years 2001 and 2002 totaled $9,514,314. The sample included 65 expenditures which had checks issued from two internal locally held funds, and 92 expenditures which had warrants issued through the State Comptroller.

The two locally held funds were the Revolving Maintenance and Operations (RMO) and Capital Improvement Program (CIP). Of the 65 expenditures, we sampled 52 from the RMO fund and 13 from the CIP fund. According to the Trust Indenture, the RMO local fund is used for invoices *"that cannot otherwise be conveniently paid."* The types of expenditures in our sample that were paid from this fund included conference travel, training expenses, insurance claims, and advertising expenses.

Revolving Maintenance and Operations Fund

In 12 of the 52 cases tested from the RMO fund (23%), we found inadequate documentation to support expenditures totaling $18,350. The Tollway lacked documentation to support out-of-state hotel stays and conferences; banquet and meal charges for Tollway meetings/training seminars; and registration fees for conferences:

- Five expenditures totaling $3,832 were for Tollway employees to attend out-of-state conferences. All hotel charges were prepaid and there was no documentation to show actual attendance at the hotels/conferences or a detailed bill for hotel charges. The five conferences were held at Walt Disney World in Florida, Indianapolis, Boston, Madison, and New Orleans.
- The Executive Director was reimbursed $753 for banquet charges for Plaza Supervisor meetings. There was no documentation to support the meeting dates, detail the charges, or that the Executive Director paid the original bill.
- In two instances the Tollway was assessed late payment charges. One was by a food company for meals at training. They were charged $20 for paying after 90 days past the due date. The other was an additional $40 for a registration fee due to a time delay. Administrative charges to a bank in excess of $18,000 were due on June 23, 2001 but not paid until October 2001. Late charges were not assessed in this instance.
- The Tollway used $3,122 from 2001 funds to pay for an insurance claim in which medical services were provided for an employee in September-October 1999. A memo attached to the documentation stated that the Board of Directors did approve paying the claim and there was no record of payment by the prior claim administrator.
- An expenditure for $600 was paid to a music company. The attached invoice indicated it was for a "fee for blanket license" for a 3-year period; however, Tollway employees were unable to provide further documentation or explanation for the purpose of this expenditure.

Capital Improvement Program Fund

The expenditures paid from the CIP fund included payments for design, engineering, legal, and property related fees. We selected 13 expenditures to review from the CIP fund. These expenditures appeared to have sufficient supporting documentation.

State Comptroller Warrants

We also sampled 92 cases from warrants issued by the State Comptroller; most of the Tollway's payments to vendors are processed by the Comptroller. Four of these 92 cases (4%) did not have adequate documentation to support expenditures totaling $551,349:

- The Tollway paid a bank $528,491 for a monthly transfer of interest related to bonds. The Tollway did not provide documentation to show that the correct amount of interest was paid.
- Two expenditures totaling $5,500 were for legislative consulting services. The documentation lacked bills that detailed the services specifically performed.
- There was insufficient documentation to show why $17,357 was paid to an attorney for legal services when the invoice showed an amount due of $18,582.

We found other issues in the sample. Five of the 157 expenditures sampled did not have an invoice-voucher in the file. Another 7 of the 157 expenditures sampled did not seem to be charged to the most appropriate funding source. For example, reimbursement to a hotel for Illinois travel was charged to "Out-of-State Travel, Reimbursements to Employees" instead of "In-State Travel, Payments to Vendors."

Supplemental Medical Reimbursement

On October 24, 1991, the Board of Directors of the Illinois State Toll Highway Authority adopted a resolution that established a Supplemental Retiree's Group Medical Reimbursement Plan. The Board resolution states that *". . . it is in the best interest of the Authority to adopt a plan providing for financial contribution by the Authority towards the cost of such coverage."*

The Plan, which became effective October 1, 1991, is for the dependents of retired employees who worked for the Tollway for at least five years. It reimburses 80 percent of the premium cost for dependents of retirees who have the "High Option Indemnity" insurance. Eligibility begins with the effective date of the Plan and ceases with eligibility for Medicare Plan B for the retired employee's dependent.

Officials at both the State Employees' Retirement System and the Group Insurance Division of the Department of Central Management Services said they were not aware of any other State agency with a similar policy.

Exhibit 4-20 shows the amounts expended by the Tollway for calendar years 2000-2002. The amounts have increased and should continue to increase, given the recent Early Retirement Incentive.

Exhibit 4-20
SUPPLEMENTAL MEDICAL REIMBURSEMENT

Year	Amount
2000	$21,906
2001	$23,266
2002	$24,013

Source: Illinois State Toll Highway Authority data.

Request For Proposals

In December 2002, the Tollway issued a Request for Proposals (RFP) to redesign the Tollway's financial processes and systems. The current financial systems were designed and developed in the early 1980s. The objectives of the Financial Systems Redesign Program include:

- Improving customer service;
- Reducing transaction costs;
- Improving work flow;
- Reducing use of paper;
- Improving productivity of Tollway staff; and
- Improving access to information.

According to the RFP, the Tollway has become a more sophisticated business over the last several years and the financial systems have not kept up with these changes.

Many processes are paper intensive and manual effort is increasing. Increased integration is required with other State of Illinois agencies such as the Comptroller, Treasurer, and Central Management Services.

FINANCIAL POLICIES AND PROCEDURES	
RECOMMENDATION NUMBER 8	***The Illinois State Toll Highway Authority should develop and implement adequate formalized policies and procedures governing financial control. The Tollway Authority should also take steps to ensure that all expenditures are appropriate and supported by adequate documentation.***
TOLLWAY'S RESPONSE	The new Controller plans to create written financial operating policies and procedures under current operations. Once reviewed, the Controller and new CFO will make any necessary recommendations to senior management to improve financial operating procedures.

CONTRACTS

The Tollway does not have a centralized listing of contracts. In August 2002, we asked the Tollway for a list of all contracts over $100,000 that were currently open or were completed in 2002. Each department provided a list of contracts related to its areas. In many cases, the lists provided contained duplicate contracts that were listed both for their department and in a list provided by the Procurement Services Division. The list provided by Procurement Services was more comprehensive than other departments but was not a complete list of Tollway contracts. A centralized list could assist management in monitoring contracts, such as the goods and services that are outsourced, their cost, etc. As of February 2003, the Tollway had approximately $300 million in open contracts.

Contract Review

For most of the contracts in our sample, the Tollway competitively bid the contracts and awarded the contract to the highest-ranking bidder. While all contracts contained deliverables, two contracts did not meet those deliverables (see Exhibit 4-21). The sampled contracts contained termination clauses while three of the contracts also contained liquidated damages.

We sampled 21 Tollway contracts to assess the bidding process and monitoring of contract deliverables. More specifically, we sampled contracts to determine:

- If the contracts were competitively bid;
- If the contracts were awarded to the highest ranked or lowest cost bidder;
- Whether the contracts contained deliverables;

- **$** Whether the deliverables were met; and
- **$** Whether the contracts contained enforcement provisions.

Exhibit 4-21
CONTRACT AWARDING – AUDIT SAMPLE

Sample #	Contract Description	Competitively Bid?	Awarded to Highest Ranked or Lowest Cost Bidder?	Contract Contains Deliverables?	Deliverables Met?
1	Construction	Yes	Yes	Yes	Yes
2	Consulting	Yes	Yes	Yes	Yes
3	Information Technology Maintenance	Yes	Yes	Yes	Yes
4	Health Benefits	Yes	Yes	Yes	Yes
5	General Consulting Engineer	Yes	Yes	Yes	Yes
6	I-PASS Customer Service	Yes	Yes	Yes	Yes
7	Merchant Card Services	Yes	Yes	Yes	Yes
8	Life Insurance Benefits	Yes	Yes	Yes	Yes
9	Pavement Condition Assessment	Yes	Yes	Yes	Yes
10	Land Surveying	Yes	Could Not Determine	Yes	**No**
11	Legislative Liaison Services	Not a separate contract; subcontract of sample #18			
12	Construction	Yes	Yes	Yes	Yes
13	Vehicle Purchase[1]	Yes	Yes	Yes	Yes
14	Transponder Supplier	**No**	n/a[2]	Yes	Yes
15	Property Insurance	Yes	Yes	Yes	Yes
16	Credit Card Processing	Emergency purchase while contract was being re-bid			
17	Computer Equipment and Software	Yes	Yes	Yes	Yes
18	Legislative Liaison Services	Yes	Yes	Yes	Yes
19	Toll Violation Processing	Yes	**No**	Yes	**No**[4]
20	Legal Services	n/a[3]	n/a[3]	Yes	Yes
21	Traffic Engineer	Yes	Yes	Yes	Yes

Notes:
[1] Contract was bid through the Department of Central Management Services.
[2] Contract was a sole source procurement.
[3] Contract for legal services was exempted from the Procurement Code.
[4] Most deliverables were completed or were in progress, but were not completed by the due date specified in the contract.

Source: Illinois State Toll Highway Authority contract reviewed by the Office of the Auditor General

One of the contracts sampled was actually a subcontract of another contract in our sample. Both of these contracts were for legislative liaison services. Of the remaining 20 contracts, 17 were competitively bid (for example, through an RFP process or through the Department of Central Management Services). The three contracts that were not competitively bid were:

- **$** Transponder supplier – This contract for transponders was cited as a sole source procurement per Section 30 ILCS 500/20-25 of the Illinois Procurement Code.
- **$** Credit card processing – This was an emergency purchase to cover a two-month period while the RFP for credit card processing was re-bid.

- **$** Legal services – This contract for legal services was exempt from the Procurement Code per Section 30 ILCS 500/1-10(b)(7).

Selection Criteria

For most contracts in our sample, the RFP stated the criteria for evaluation. The bidder that received the most points (highest ranked bidder) was awarded the contract; or, for contracts such as construction and vehicle purchases, the bids must conform to exact specifications and the lowest cost bidder was awarded the contract.

Of the 17 contracts in our sample that were competitively bid, 15 were awarded to either the highest ranking bidder or the lowest cost bidder as appropriate. One of the contracts, for Toll Violation Processing, was awarded to the second highest ranked bidder after negotiations with the highest ranked bidder fell through. For one contract we could not determine from documentation if the contract was awarded to the highest ranked bidder. This contract was for land surveying and was awarded by a selection committee in 1999. According to a Tollway official, since it was a 1999 contract, the Construction Services unit does not have the scoring sheet.

All of the contracts in our sample contained deliverables. However, for 2 of 19 contracts (11%), the required deliverables were not fully met:

- **$** Land Surveying – Required to submit semi-monthly progress reports, staffing reports, and a monthly narrative report within five working days following the report period. Reports were not submitted semi-monthly as required and were not submitted within the allotted time period. Some reports covered several months.
- **$** Toll Violation Processing – The contract contained several specific deliverables with due dates. While most deliverables were completed or were in progress, they were not completed by the due date specified in the contract.

CONTRACTS	
RECOMMENDATION NUMBER **9**	***The Illinois State Toll Highway Authority should maintain a centralized listing of contracts to facilitate monitoring of contracts and ensure that deliverables are received and are timely.***
TOLLWAY'S RESPONSE	The Authority will work toward establishing a centralized listing of contracts. The Procurement Services Division will create and maintain a master list of all Authority contracts. This list will be updated periodically, after monthly Board meetings where contracts and change orders are approved. Deliverables will continue to be monitored to ensure timely receipt.

Chapter Five

UNCOLLECTED TOLLS

CHAPTER CONCLUSIONS

The Illinois State Toll Highway Authority's collection of tolls needs to be improved. In 2002, the Tollway did not collect $11.2 million in tolls, or three percent of estimated toll revenue of $375.4 million for the year. The Tollway's three percent uncollected toll rate was among highest of the toll roads that provided this information in our survey of states' toll roads. An additional $532,988 in tolls were not paid by I-PASS customers (e.g., due to a lack of funds in their I-PASS accounts) from August through December 2002 (prior to August 2002 the Tollway's computer system did not capture this data).

- Tollway officials indicated that in 2002 they did not have dedicated staff to work collecting delinquent I-PASS revenue. Therefore, for all of 2002 they only billed I-PASS customers for $259,242 for delinquent revenue.

- Tollway officials attributed most of the $11.2 million in uncollected tolls to motorists who did not pay the required toll.

- Based on a detailed review of toll collections for the month of December 2002, 16.2 percent of expected cash revenue from unattended automatic lanes was not collected.

- Six percent of tolls at I-PASS only lanes were not collected. Comparatively, at manual lanes (which have toll collectors), only 0.3 percent of expected revenue was not collected in December 2002. The Tollway follows up when the amount of cash collected by toll collectors differs from expected tolls by more than a pre-established amount.

- The Tollway did not effectively collect from motorists who did not pay tolls and reported collecting only $214,923 from toll evaders for 2002. The Tollway did enter into a three-year $37.9 million contract with TransCore in summer 2002 to develop and implement a system to collect tolls from toll evaders. The system was still being developed during our audit fieldwork.

- The Trust Indenture governing the toll roads does not allow free passage except to certain official vehicles, such as law enforcement or fire trucks. However, the Tollway did not adequately track the free usage by organizations that have these vehicles.

INTRODUCTION

One of the determinations in Senate Joint Resolution Number 72 directed the Office of the Auditor General to *". . . examine the process by which the Authority collects, transports, counts, and deposits toll collections . . . ."* In order to fulfill this determination, we examined the Tollway's collection of tolls, including a review of the activities undertaken by the Toll Audit Division, which plays an important role in identifying the amount of tolls that are not being collected. We also performed site reviews at the Money Room on multiple occasions as well as conducted site visits at attended and unattended toll plazas, and observed tolls being collected and transported to the Money Room by a money truck. We were assisted in our review of the Tollway's cash handling process by staff from the Illinois Gaming Board who have experience in conducting reviews of casinos' handling of cash (see Chapter Six).

TOLL COLLECTION PROCESS

Tolls are collected at toll plazas located throughout the Tollway system. Most plazas have several lanes for motorists to pay their tolls. The Tollway has established 10 classes of toll rates. Each class is applied to a different type of vehicle. For example, motorcycles and automobiles pay the lowest tolls, and trucks with multiple axles pay the highest tolls.

There are three types of toll plazas: unattended ramps, attended ramps, and mainline. In addition, there are three different ways that tolls are collected. They are collected by automatic toll collecting machines in automatic lanes, by toll collectors in manual lanes, or electronically using I-PASS.

- **$ Automatic Lanes** – These lanes are located at both attended and unattended plazas. Toll collection equipment at automatic lanes immediately sorts and counts coins, then drops them through a trap door unsorted into a cash vault system usually located in a passageway underneath the highway. The vault is locked. A computer system indicates when vaults are getting full and should be replaced. Only authorized personnel are allowed to enter and change out full vaults which are then picked up by the money truck.

- **$ Manual Lanes** – Each manual lane is manned by a toll collector who collects the toll from the motorist; manual lanes also handle I-PASS. All unusual occurrences must be recorded on a daily activity log.

- **$ I-PASS –** Tolls are collected electronically through the I-PASS program. Motorists who sign up for I-PASS receive a transponder. As they pass through the I-PASS lanes at toll plazas, their toll charge is electronically deducted from their I-PASS account. Most I-PASS lanes are not gated and are unmanned.

UNCOLLECTED TOLL REVENUE

In 2002, the Tollway had uncollected toll revenue of $11.2 million, or three percent of the total estimated toll revenue of $375.4 million for the year. Exhibit 5-1 summarizes the uncollected tolls by month for 2001 and 2002. According to Tollway officials, the uncollected tolls, which are the variance between actual toll revenue and expected toll revenue, are primarily due to toll violators and evaders.

In addition to the $11.2 million in uncollected cash tolls, from August through December 2002, $532,988 was uncollected from I-PASS customers. Prior to August, the Tollway's computer system did not capture this data. An example of such an uncollected I-PASS toll is if the I-PASS customer does not have sufficient funds in the I-PASS account. Tollway officials stated that in 2002 they did not have dedicated staff to work collecting delinquent I-PASS revenue. Therefore, for all of 2002 they only billed I-PASS customers for $259,242 for delinquent revenue.

Exhibit 5-1
UNCOLLECTED CASH TOLLS

Month	2001 Uncollected Tolls	2002 Uncollected Tolls
January	$870,358	$642,928
February	$662,285	$1,156,011
March	$843,019	$823,926
April	$621,945	$809,258
May	$741,513	$949,620
June	$872,481	$951,420
July	$812,363	$986,165
August	$729,982	$1,061,749
September	$604,780	$989,902
October	$686,531	$1,006,980
November	$782,908	$935,292
December	$740,073	$912,752
Total	(A) **$8,968,237**	**$11,226,003**

Notes:
(A) Total does not add due to rounding.

Source: Illinois State Toll Highway Authority data.

We examined cash toll collections for the month of December 2002 in detail and focused on the activities of the Toll Audit Division of Illinois State Toll Highway Authority. The Toll Audit Division (Toll Audit) is responsible for identifying and reconciling differences between computed or expected toll revenue and actual toll revenue. As vehicles pass through the lanes at toll plazas, data is captured by one or more controls and is sent to Toll Audit. These controls consist of treadles, vedet loops, validators, and plaza recording equipment.

Toll Audit uses various sources of toll collection data to derive the expected toll collection revenue amount. This computed figure is then compared to the actual toll collection amount and discrepancies are followed up on. The difference between the two is called cash variance.

- **$ Treadle.** Located under the pavement in the lanes, it automatically counts the number of axles going through the lane.
- **$ Vedet Loop.** This is a vehicle detector, which is located in the lanes and counts how many masses (vehicles) go through the lane.

In December 2002, the difference between expected revenue ($30.7 million) and actual revenue ($29.8 million) was negative $912,752 (see Exhibit 5-2).

The largest variance, negative $453,590, was from I-PASS only lanes. The second largest variance, negative $391,363, was from automatic lanes at attended and unattended plazas and ramps. Manual lanes accounted for negative $25,697. Lost revenue from non-pay events, such as emergency vehicles and individuals that request an envelope to pay at a later time at manual lanes, was negative $42,101.

Exhibit 5-2
UNCOLLECTED TOLLS BY TYPE OF LANE
December 2002

Lane Type	Expected Revenue	Over/ Under	Percent Uncollected
I-PASS Only	$7,535,202	-$453,590	6.0%
Automatic (Unattended)	$4,419,049	-$426,795	9.7%
Automatic (Attended)	$9,318,183	(B) $35,431	-0.4%
Manual	$9,377,833	-$25,697	0.3%
Manual -Non-Pay Events (A)	$42,101	-$42,101	100%
Total	**$30,692,368**	**-$912,752**	**3.0%**

Notes:
(A) Non-pay events include emergency vehicles and individuals requesting an envelope to pay at a later time.
(B) Tollway officials attribute more than expected revenue to customers without exact change depositing 50 cents in automatic lanes rather than waiting in line at a manual lane.

Source: Illinois State Toll Highway Authority data.

I-PASS Lanes

In the month of December 2002, Toll Audit calculated that there were 919,585 violations that occurred in I-PASS only lanes resulting in uncollected tolls of $453,590, which represented 6 percent of the $7,535,202 in total expected revenue. In addition, there were another 192,460 violations in I-PASS only lanes by vehicles with transponders, generally caused by insufficient funds. These violations totaled $49,157 and may be collected at a later date.

When an I-PASS customer goes through the toll plaza, the I-PASS transponder deducts the amount of the toll from prepaid customers or charge customers who post pay. Since most I-PASS lanes are unmanned and have no physical gates, there is little to prevent motorists without I-PASS accounts from evading a toll by passing through the I-PASS lanes. I-PASS lanes are equipped with vedet loops to count the number of masses that go through the lane. If the I-PASS transponder malfunctions, or if the vehicle does not have a transponder, it is recorded as being a violation. On January 1, 2003, there were 874,797 transponders assigned to I-PASS customers.

One way I-PASS accounts are paid is by credit card. According to Tollway officials, between 11,000 and 14,000 credit cards for I-PASS customers expire each month; as of February 20, 2003, only 300 expired accounts from December 2002 remained. The Tollway sends reminder letters to I-PASS customers who have credit cards expiring in the upcoming month.

Automatic Lanes

In December 2002, lost revenue due to violations in automatic lanes totaled $391,363, or 3.6 percent of expected cash revenue. There are automatic lanes at attended and unattended ramps and at mainline attended plazas. Cash variance mainly due to violations is much greater at unattended ramps than at attended ramps and mainline attended plazas. Lanes at unattended ramps do not have physical gates to prevent toll

violators from simply driving through. Gates are not practical since there are not lane walkers at the unattended ramps to fix problems such as coin jams. Without the lane walkers, vehicles would not be able to exit the plaza if a malfunction occurs.

In December 2002, tolls not paid at unattended automatic ramp lanes totaled $426,795, or 16.2 percent of the expected cash revenue, compared to only a 0.6 percent cash variance for automatic lanes at attended ramps. Exhibit 5-3 shows cash shortfall for mainline attended plazas, attended automatic ramps, and unattended automatic ramps. The Exhibit shows that most of the violations are occurring in automatic lanes at unattended ramps (see also Exhibit 5-4).

There are 38 unattended ramps throughout the Tollway and 37 had a negative cash variance for December 2002. Automatic lanes on the East-West Tollway (I-88) had the highest average cash variance, negative 5.71 percent. The Tri-State had the largest cash variance, negative $167,074. Appendix C shows a complete list of cash variance for automatic lanes by plaza for December 2002.

Tollway officials stated that variance in revenue occurring at automatic lanes at attended plazas may be attributed to equipment jams or malfunctions, errors in the Money Room, full vaults, employee theft, and toll evasion.

Exhibit 5-3
AUTOMATIC LANE CASH VARIANCE
Cash Only – Excludes I-PASS
December 2002 [A]

Mainline Attended Plazas

Tollway	Expected Cash	Over/ Under	Percent Variance
Northwest	$1,899,674	[B] $24,399	1.3%
Tri-State	$3,668,237	-$8,134	-0.2%
East-West	$933,760	[B] $7,256	0.8%
North-South	$885,214	-$3,191	-0.4%
Totals [C]	**$7,386,885**	**$20,331**	**0.3%**

Attended Automatic Ramps

Tollway	Expected Cash	Over/ Under	Percent Variance
Northwest	n/a	n/a	n/a
Tri-State	$568,575	[B] $705	0.1%
East-West	$41,924	[B] $197	0.5%
North-South	$134,228	-$5,077	-3.8%
Totals [C]	**$744,728**	**-$4,175**	**-0.6%**

Unattended Automatic Ramps

Tollway	Expected Cash	Over/ Under	Percent Variance
Northwest	$776,101	-$73,657	-9.5%
Tri-State	$848,342	-$159,646	-18.8%
East-West	$521,016	-$92,853	-17.8%
North-South	$488,092	-$100,639	-20.6%
Totals [C]	**$2,633,550**	**-$426,795**	**-16.2%**

Notes:
[A] Exhibit does not include $19,276 from spillage that could not be associated with a specific vault or lane.
[B] Tollway officials attribute more than expected revenue is due to customers without exact change depositing 50 cents in automatic lanes rather than waiting in line at a manual lane.
[C] Totals may not add due to rounding.

Source: Illinois State Toll Highway Authority data summarized by the Office of the Auditor General.

Appendix C shows a complete listing of variance by plaza for all lanes. The North-South Tollway (I-355) had the highest average percent cash variance, negative 8.97 percent. The Tri-State had the largest cash variance, negative $445,866.

Exhibit 5-4
AUTOMATIC LANES WITH CASH VARIANCE GREATER THAN TEN PERCENT
Cash Only – Excludes I-PASS
By Plaza for December 2002

Plaza Name	Type	Total Transactions	Expected Cash Revenue	Actual Cash Revenue	[B] Cash Variance	% Cash Variance
NORTHWEST TOLLWAY (I-90)						
Arlington Heights	Unattended Ramp	632,277	$96,796	$80,619	-$16,177	-16.71%
Beverly Road	Unattended Ramp	357,352	$62,323	$51,918	-$10,405	-16.70%
Barrington Road	Unattended Ramp	363,537	$65,678	$56,116	-$9,562	-14.56%
Route 31	Unattended Ramp	698,814	$143,359	$122,780	-$20,579	-14.35%
Route 25	Unattended Ramp	222,540	$50,366	$43,322	-$7,044	-13.99%
Roselle Road	Unattended Ramp	300,637	$51,100	$45,354	-$5,746	-11.24%
Randall Road	Unattended Ramp	186,975	$39,242	$34,930	-$4,313	-10.99%
TRI-STATE TOLLWAY (I-294)						
75th Street	Unattended Ramp	228,621	$42,290	$28,763	-$13,526	-31.99%
159th Street	Unattended Ramp	365,648	$115,224	$81,592	-$33,632	-29.19%
Willow Road	Unattended Ramp	430,901	$142,009	$112,449	-$29,560	-20.82%
95th Street	Unattended Ramp	415,998	$102,356	$83,544	-$18,811	-18.38%
Lake Cook Road	Unattended Ramp	390,368	$124,672	$102,936	-$21,735	-17.43%
Golf Road	Unattended Ramp	510,157	$168,838	$144,657	-$24,181	-14.32%
Buckley Road	Unattended Ramp	222,700	$40,180	$34,814	-$5,366	-13.36%
Half Day Road	Unattended Ramp	281,422	$50,378	$44,464	-$5,915	-11.74%
Route 60	Unattended Ramp	341,748	$62,396	$55,477	-$6,919	-11.09%
EAST-WEST TOLLWAY (I-88)						
Orchard Road	Unattended Ramp	102,627	$20,549	$14,557	-$5,992	-29.16%
Highland Avenue	Unattended Ramp	423,620	$63,885	$50,505	-$13,380	-20.94%
Spring Road	Unattended Ramp	269,090	$53,496	$42,638	-$10,858	-20.30%
Peace Road	Unattended Ramp	220,158	$64,526	$51,500	-$13,026	-20.19%
Midwest Road	Unattended Ramp	296,401	$58,516	$47,449	-$11,067	-18.91%
Farnsworth Avenue	Unattended Ramp	693,288	$136,552	$111,117	-$25,435	-18.63%
Route 31	Unattended Ramp	93,199	$22,431	$19,130	-$3,301	-14.71%
Winfield Road	Unattended Ramp	198,726	$15,543	$13,614	-$1,928	-12.41%
Dixon (DeKalb)	Unattended Ramp	85,519	$46,435	$41,522	-$4,913	-10.58%
NORTH-SOUTH TOLLWAY (I-355)						
63rd Street	Unattended Ramp	547,534	$95,611	$72,895	-$22,716	-23.76%
Maple Avenue	Unattended Ramp	385,565	$57,991	$44,445	-$13,546	-23.36%
Ogden Avenue	Unattended Ramp	117,455	$17,392	$13,466	-$3,926	-22.57%
75th Street	Unattended Ramp	648,368	$144,761	$114,729	-$30,032	-20.75%
Boughton Road	Unattended Ramp	115,088	$20,571	$16,604	-$3,967	-19.28%
Roosevelt Road	Unattended Ramp	412,811	$82,928	$67,515	-$15,412	-18.59%
Butterfield Road	Unattended Ramp	478,171	$68,838	$57,798	-$11,041	-16.04%
Total for plazas with cash variance greater than 10%		**11,037,315**	**$2,327,232**	**$1,903,219**	**-$424,011**	**-18.22%**
Total for the remaining Plazas		**25,091,343**	**$8,437,931**	**$8,451,305**	**$13,372**	**0.16%**
Spillage[A]					**$19,276**	
Grand Total		**36,128,658**	**$10,765,163**	**$10,354,524**	**-$391,363**	**-3.64%**

[A] In December 2002, there was a $19,276 Money Room adjustment for spillage that was not attributable to a specific plaza. [B] Cash Variance column may not add due to rounding.

Source: Illinois State Toll Highway Authority data summarized by the Office of the Auditor General.

Manual Lanes

Toll collectors at manual lanes collected $7,569,456 in December 2002 and had a total cash variance of negative $25,697 in December 2002, a variance of 0.3 percent of what Toll Audit computed they should have collected.

Several factors can cause variance in revenue at manual lanes. These include improper validating of vehicles by toll collectors (e.g., wrong toll charged), equipment malfunction, and incorrect change to customers. Toll Services staff stated the $25,697 revenue loss was primarily due to validation errors by the toll collectors.

There are more controls for manual lanes than for automatic lanes. In addition to having treadles and vedet loops, manual lanes have validators and plaza recording equipment.

- **Validators.** Every time a transaction occurs (a toll is paid) the toll collector is required to enter information on a terminal keyboard. This act of entering the amount paid, the vehicle class, etc. is called "validation."

- **Plaza Recording Equipment.** The current toll collection system utilizes the Tollway's wide area network to record validations, revenue, and I-PASS transactions. This data is transmitted on-line to the Toll Audit Division.

The toll collector is responsible for visually classifying each vehicle, validating (recording the computed amount of) the toll by pressing the appropriate vehicle class validation button, and collecting the toll. Different toll rates apply to each of ten vehicle classes.

The treadles and vedet loops are used as checks to ensure that the toll collector visually classifies each vehicle correctly and collects money for every vehicle that passes through the lane. This data is used by Toll Audit for reconciliation.

When a toll collector's bank (collected amount) is under or over by a specified dollar amount, Toll Audit sends a form (TC-32) to the Toll Services Division noting the discrepancy. Toll Services reviews the TC-32 and determines if discipline is necessary. Discipline includes retraining, suspension, or termination, depending on the situation.

We reviewed Toll Audit data for two days (December 12, 2002 and December 25, 2002), and identified 11 employees whose banks were under or over by the amount necessary to generate a TC-32. We reviewed TC-32s and disciplinary actions for each employee and found that actions were taken for all 11 employees.

Uncollected Toll Rates in Other Tollways

The Illinois Tollway had one of the highest percentages of tolls that were not collected of the other states we surveyed. Exhibit 5-5 lists the percentage of tolls that

were uncollected by other states responding to our survey. The highest percentage of tolls uncollected, five percent, was reported by Colorado's E-470 Public Highway Authority. Illinois' uncollected toll rate of three percent was third highest among the toll roads that provided this information in our survey.

Exhibit 5-5
TOLLS UNCOLLECTED BY STATES

State	**Toll Road**	**% Uncollected**
Ohio	Ohio Turnpike Commission	0%
Indiana	Indiana DOT – Toll Road District	Insignificant
Kansas	Kansas Turnpike Authority	<1%
Virginia	Virginia DOT – Pocahontas Parkway	<1%
California	Transportation Corridor Agencies	1.5%
Florida	Orlando-Orange County Expressway Authority	1.84%
Maryland	Maryland Transportation Authority	1-2%
Florida	Florida Turnpike Enterprise	<2%
New Jersey	South Jersey Transportation Authority	2%
Florida	Miami-Dade Expressway Authority	2.3%
Illinois	***Illinois State Toll Highway Authority***	***3%***
Virginia	Richmond Metropolitan Authority	3-3.5%
Colorado	E-470 Public Highway Authority	5%

Source: Summary of other states survey questionnaire responses by the Office of the Auditor General.

The penalty charged by survey respondents for evading tolls ranged from $15 to just over $100. The Illinois Tollway charges $20 for evading a toll. Pennsylvania's Turnpike Commission, however, bases its toll evasion penalties on vehicle class. When asked what types enforcement methods are employed, most of the responses focused on photo or video monitoring systems.

Conclusion

In 2002, the Tollway did not collect $11.2 million in tolls, or three percent of estimated toll revenue of $375.4 million for the year. Prior Auditor General financial and compliance audits of the Illinois State Toll Highway Authority have contained findings noting that toll violations were not being collected on a regular basis. The Tollway reported that $214,923 was collected from toll evaders for 2002. In 2002, only five full-time Tollway employees worked on violation processing.

Given the large amount of toll revenue that is not being collected by the Tollway, increased effort is needed to collect this revenue. In summer 2002, the Tollway entered into a $37.9 million contract with TransCore to implement a new system to collect from toll violators. The Tollway's initial investment is expected to be $14.7 million for system design, software, hardware, installation, testing, and integration, as well as $4.4 million for operational costs paid over 30 months. The remaining $18.8 million includes processing notices and warnings for pursuable violations, customer services, payment processing, scofflaw suspension processing, evidence preparation for hearings, automated phone services, and production reports to the Tollway. The company is expected to hire 70 to 90 people to provide violation notice processing and customer services as outlined above.

This new Violation Enforcement System (VES) will use photographs of the license plate of the violator, which will then be used to identify the owner from the license plate by matching it with data obtained from the Secretary of State. Once the violator is identified, a violation notice and fine will be sent. In addition, State law (625 ILCS 5/3-704.2(a)) states that the Illinois Secretary of State shall suspend the vehicle registration of anyone who has five or more toll violations or evasions. The Tollway expects to collect $15 million in calendar year 2003 from scofflaws.

In early 2003, the Tollway began sending out violation notices to individuals who had more than 50 violations (chronic backlog violators). As of February 28, 2003, Tollway officials stated they had issued approximately 25,000 violation notices, totaling $2.4 million in fines and tolls. They noted that an additional 500,000 violations existed for the chronic backlog violators, of which they were processing about 5,000 per day. Tollway officials also estimated that as of February 15, 2003, there were an additional 3.2 million potentially enforceable violation images for violators with between 1 and 49 violations.

Given that the collection process undertaken by TransCore is still in the development stage, we were unable to assess its effectiveness. The Tollway should closely monitor the implementation of the new Violation Enforcement System (VES), especially in I-PASS and unattended ramp lanes, and make any needed modifications to ensure that as much toll revenue as possible is collected.

In addition, the Tollway should take other steps to target efforts at toll plazas with high rates of uncollected tolls. For example, lane walkers could periodically be assigned to unmanned plazas. Also, as discussed in Chapter Six, additional improvements could be made in the Tollway's handling of its toll collections.

TOLL COLLECTION	
RECOMMENDATION NUMBER **10**	***The Illinois State Toll Highway Authority should take cost effective steps to reduce the amount of tolls that are not being collected. In addition, the Tollway should closely monitor the implementation of the new Violation Enforcement System to determine whether it functions as intended and is cost effective.***
TOLLWAY'S RESPONSE	The Tollway has already taken steps to reduce uncollected tolls by contracting with Transcore for a violation enforcement processing system. The implementation of this system is being closely monitored. In May, we hired a new executive manager for this program who was instrumental in the implementation and management of the largest ordinance and regulatory hearing system in the country in his previous positions with the City of Chicago.

LIMITATIONS OF TOLL AUDIT DATA

For the Toll Audit Division's controls to be most effective, accurate information on the numbers and classes of traffic using the Tollway is required. The greater the instances where actual traffic data is not known, and estimated traffic data must be used, the greater the likelihood that the Toll Audit's reconciliation of toll collections will not be accurate.

In August 2002, the Tollway began using a new Integrated Toll Collection System (ITCS) to estimate expected revenue at each plaza and lane. The old system (STAR) could not automatically determine vehicle class when reporting toll revenue. It relied on treadles and vedets.

ITCS is transaction-based. ITCS can determine the vehicle class (based on treadles, loop and coins per transaction) and the expected revenue reports are more specific than they were under the STAR system. For unattended automatic lanes, axle (treadles) counts determine vehicle class. The coin count verifies this. When treadles malfunction, the system relies on the vehicle (vedet loop) count and coins received to determine class. Loop equipment rarely malfunctions because it is on the side of the road and not as vulnerable to vehicle weight pressures, litter, road salt and weather.

Understated Uncollected Toll Revenue

The amount of uncollected toll revenue that is computed by the Toll Audit Division is likely understated. Automatic vehicle classification is not in place yet for the I-PASS lanes. Evaders of I-PASS are calculated as Class 1 (passenger vehicles), regardless of vehicle type; the only exception is in Truck IPO lanes where a violator is recorded at the truck rate. Tollway officials stated the implementation of a new automatic classification system (PEEK system) in the spring of 2003 will correct this problem and assist in estimating expected revenue. Given the increasing use of I-PASS, implementation of a vehicle classification system is critical because calculating all violators as Class 1 in I-PASS lanes understates the expected revenue figures.

Some lanes have only the vedet loops which count "masses of metal" as they pass through the lane. The lane equipment is able to read the I-PASS transponder and "collect" the revenue based on the classification of the transponder as it was originally issued. A violation is only recorded in the lanes affected if there is no transponder to read, or a transponder that was read is identified as insufficient, invalid, lost/stolen, etc.

Equipment Malfunctions

The number of violations is not exact because of equipment malfunctions (such as treadles failing). When an equipment malfunction occurs, the Toll Audit Division will likely know that a vehicle has passed through the automatic lane, but may not be able to tell whether it was a passenger vehicle or a large truck (which pay different tolls). For calculating the expected cash when a malfunction occurs, the Toll Audit Division adjusts

the data collected by using historical traffic count data from the lane to calculate the expected revenue. To adjust revenue, Toll Audit uses the Class 1 rate. Since the Class 1 rate is the lowest toll rate, Toll Audit's traffic count likely understates traffic counts for commercial vehicles.

Malfunctions with toll collecting equipment as well as the equipment used to record vehicles going through the toll plazas affects the Tollway's ability to accurately reconcile the differences between computed and actual toll revenue. Because of various types of malfunctions, the Toll Audit Division has to estimate traffic flows in order to reconcile computed and actual cash.

The Illinois State Toll Highway Authority contracts with TransCore to provide and service toll collecting equipment. In December 2002, the Tollway reported 1,296 malfunctions with toll collecting equipment. On average, it took TransCore 3 hours and 16 minutes to fix these malfunctions. These problems include coin jams, gate malfunctions, broken parts, and malfunctioning lights.

- **Coin Jams** are especially a problem at unattended ramps. When a jam occurs, it is identified by the computer system. Since there are no lane walkers at unattended ramps, TransCore technicians must be notified and dispatched to fix the problem. Since paid tolls are not registered until the jam is fixed, each vehicle is recorded as a violator even if the toll is paid. Because of this, violations are recorded at the default passenger rate (i.e., Class 1), and therefore, inaccurately report actual traffic. When coin jams occur, there is no way to accurately monitor toll violators or evaders. In addition, revenue may be lost if the toll is not paid because motorists believe the toll collecting machine is broken.

- **Treadles** are used to count the number of axles that go through a lane do malfunction. When treadles malfunction, they are replaced by Tollway personnel. In December 2002, the Toll Services Division recorded 29 lanes with treadle failures and replaced 16 of the 29 during December. The other 13 treadles were still broken at the end of December. It took the Tollway an average of 23 days to replace the 16 treadles.

- **Vedet loops** must be used when treadles fail. However, the vedet loops are not as accurate as treadles since the vedet loops only count masses not axles. Therefore, when treadle failures occur, Toll Audit Division's reconciliation is not as accurate.

- **Data** is sometimes lost by the plaza recording equipment. However, Tollway officials said they may lose some transactions but it is not significant.

Since the reconciliation between actual cash collected and expected cash is a critical management control over the toll collection process, it is important to minimize the number of instances when equipment fails and, thus, data needed to determine actual traffic or tolls is lost. Furthermore, in order for the Violation Enforcement System to

function properly, the Tollway needs to rely heavily on its toll collection and toll monitoring equipment. Therefore, the Tollway should take steps to decrease equipment malfunctions and work to correct malfunctions in a timely manner.

TOLL COLLECTION SYSTEM	
RECOMMENDATION NUMBER 11	***The Illinois State Toll Highway Authority should implement system improvements and analyze equipment malfunctions to develop a plan to ensure that there is accurate and reliable information to identify toll violators and evaders, and should accurately account for toll revenue.***
TOLLWAY'S RESPONSE	The Authority installed new lane equipment in 2002. Therefore, there were some problems that needed to be ironed out. The Authority already monitors equipment malfunctions and the maintainer's service level. Damages have been assessed in the past when service levels dropped below the levels specified in the contract.

FREE PASSAGE ON THE TOLLWAY

The Toll Highway Act does not permit vehicles to have free passage on toll roads except when on official Toll Highway Authority business. This also includes an exception for any law enforcement, fire, or emergency vehicles.

> . . . No person shall be permitted to use any toll highway without paying the toll established under this Section except when on official Toll Highway Authority business which includes police and other emergency vehicles. However, any law enforcement agency vehicle, fire department vehicle, or other emergency vehicle that is plainly marked shall not be required to pay a toll to use a toll highway. (605 ILCS 10/19)

The Tollway's Trust Indenture also does not permit vehicles to have free passage on toll roads with certain exceptions which are generally governmental or emergency vehicles such as police, fire, and ambulance.

> Section 714. Classification of Tolls; Free Passage.
> 1. Tolls for using the Tollway System shall be classified in a reasonable way to cover all traffic.
> 2. The Authority shall not grant free passage for the use of the Tollway System, except (i) to doctors, officers and employees of the Authority, members of the Authority's advisory committee and elected executive officers of the State of Illinois whose offices are established by the Illinois Constitution when necessary or incidental to the conduct of the business of the Authority, (ii) to officers of the Illinois State Police Force in the performance of duties for the policing of the

> Tollway System, (iii) to fire department, police department and public or private ambulance service or rescue squad service vehicles while engaged in the performance of an emergency service or duty necessitating the use of the Tollway System.

The Tollway's Advisory Committee, whose members are listed above as being entitled to free passage on the Tollway, has been abolished.

Tollway employees receive an I-PASS transponder that should be used only for travel to and from work and official Tollway business. If the employee accidentally uses the transponder for personal use, it must be reported to the employee's supervisor the next working day. Supervisors can request copies of activity reports to review an employee's usage. Each month, the Toll Audit Division randomly selects a sample of employee transponder accounts for review. If personal use exists, the benefit can be revoked or further disciplinary action can also be taken, including termination.

The Tollway also listed 293 entities that are permitted free passes on the toll roads. These mainly included fire and police departments. These organizations receive transponders based on the number they request.

When asked how they monitored usage, a Tollway official stated that the entities are required to sign and return a monthly statement of activity to attest that the activity was for official business. The monthly statements provide the number of transactions at each plaza by class of vehicle. The Tollway did not have the total dollar amount of free tolls provided to these organizations in 2002.

The Tollway's monitoring of the free passes given to entities needs to be improved. The Tollway does not prepare summary statistical information on free use of the toll roads by the entities that have passes. Therefore, we are unable to report the extent of such usage. Such information would be helpful in assessing the reasonableness of such usage and in identifying patterns or instances that may be indicative of non-business use of the free passes which results in lost revenue to the Tollway (such as use on toll roads that are geographically distant from the area served by the entity and instances where the time or level of use may be questionable).

FREE PASSES	
RECOMMENDATION NUMBER 12	***The Illinois State Toll Highway Authority should establish controls to monitor the use of free passes, such as preparing summary reports on entities' use of free passes, reviewing the reports to identify instances where the level of usage or time of usage may indicate that the passes are being used for non-business purposes, and following up on such instances.***
TOLLWAY'S RESPONSE	There are already reports available to monitor free passage. In addition, the toll collectors complete an unusual occurrence report for any emergency or police vehicles passing through their lane.
AUDITOR COMMENTS	The Tollway informed us that they did not have summary reports to monitor the use of free passes. When we requested the Tollway to provide summary statistics on monthly usage of free passes, they responded: *"This is not an easy request. The monthly invoices provide number of transactions at each plaza by class. However, to provide 12 months of invoices for every entity is a huge task."*

Chapter Six

COLLECTION AND COUNTING OF TOLLS

CHAPTER CONCLUSIONS

The Illinois State Toll Highway Authority's toll collection and cash counting processes can be improved in many areas. Areas of improvement identified included:

- Limiting access to the Money Room.
- Improving surveillance over the handling of toll collections.
- Improving other operational controls.

In addition, while many recommendations from prior reviews of the Tollway's toll collection and cash handling practices have been implemented, others still have not been implemented.

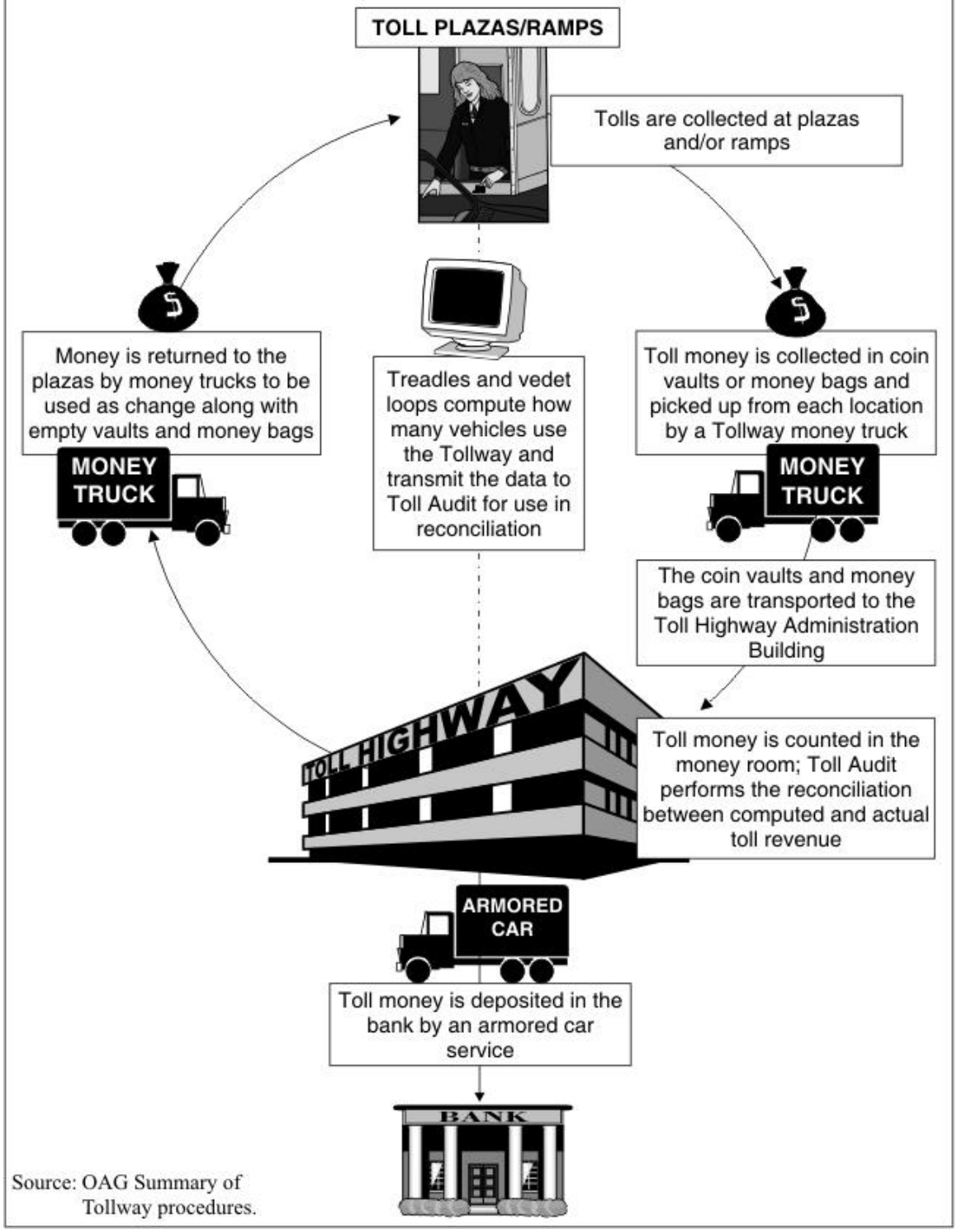
CASH HANDLING

Tolls paid at automatic lanes are collected in coin vault boxes. Tolls paid at manual lanes are counted by toll collection personnel and put in zippered canvas bags with locking devices. The vaults and bags are picked up by Money Truck Drivers and taken to the Tollway's Central Administration Building in Downers Grove, Illinois. The money is then counted by employees in the Money Room and prepared for deposit. Some coins are rolled and taken back to the plazas by Money Truck Drivers to be used as change by the toll collectors. The money for deposit is kept in the vault until it is picked up by an armored car service. Exhibit 6-1 summarizes the toll collection process.

We reviewed the Tollway's handling of cash, focusing on the operations of the Money Room, and identified areas where cash handling practices and controls need to be improved.

Money Truck Drivers from the Tollway's Cash Handling Division pick up toll revenue from plazas throughout the Tollway system. Money Truck Drivers hold commercial driver's licenses and must submit to random drug testing. Tracking forms are completed by Money Truck Drivers for each step of the money pick-up/transport process.

Exhibit 6-1
TOLL COLLECTION PROCESS



Source: OAG Summary of Tollway procedures.

Coin Counting

Money Room employees inspect the vault skids and complete a summary report. Then they open the vaults with a key, dump the coins on the counting machine table, and enter the vault number into the machine. Money Room employees remove foreign objects and push the coins into the machine to count the coins and sort them by denomination into bags. The counting machine sends data to the Toll Audit Division documenting the amount of toll revenue in each bag.

Color-coded tags are put on each bag to indicate denomination of coins. Money Room Counters put the full coin bags on a conveyer belt that leads to a scale where the bags are weighed. After the count is complete, the machine prints a receipt that is taken to the Money Room office. At the end of the day, the machine prints a grand total receipt that is also taken to the Money Room office. Tollway officials said a physical count of bags is performed at the end of the day's count and compared to records generated by the Money Room office.

Currency Counting

Money Room Counters remove the moneybags from bins, put them on the opening table, and remove any coins or currency. The Money Room counters verify that the number of bags and the serial numbers stitched on each bag match what is listed on the tracking form. After currency is removed from the bags, the coins and currency in the bags is run through a counting machine. Then the Money Room Counters calculate the total dollar amount and record the figure on a final count form.

The Money Room Supervisor fills out a bank deposit slip for each revenue day and a copy is forwarded to the Toll Audit Division. The Supervisor then bags the money and prepares a breakdown sheet and the Daily Transmittal Cash form; all forms and paperwork are sent to Toll Audit.

When the armored car arrives, the Supervisor counts the bags (by denomination) and compares to the corresponding form. Then a Money Room employee uses a forklift to take the skid to the dock where the armored car driver counts the bags before loading it into the truck. Information is recorded on the "armored car log book." The armored car driver signs the logbook before being permitted to drive away. The Supervisor takes the logbook and the Cash Handling Transmittal form to the Money Room office.

Before examining the Tollway's cash collection processes, we reviewed two prior examinations conducted by the Illinois State Police and Arthur Andersen in 2000 that were conducted as a result of a theft in the Money Room. These examinations, along with a Tollway internal audit, had recommendations in areas that included surveillance, security, segregation of duties, and technology. The Tollway implemented many of the recommendations and generally indicated that the recommendations not implemented were cost-prohibitive or operationally impractical due to the physical logistics of the Money Room (see Exhibit 6-2).

Exhibit 6-2
EXAMPLES OF PRIOR RECOMMENDATIONS NOT IMPLEMENTED

Recommendation	Organization*	Tollway Comments
Creating a secure area on the dock to store overflow vaults.	ISP, AA	Denied - too costly.
Closing and locking the doors to the currency counting cubicles.	AA	Pending.
Only allowing Money Room office employees in the office.	AA	Being considered - currently reviewing feasibility, along with coordination of necessary departments.
Consider staggering shifts of Money Room office employees.	AA	Declined - too costly per overtime considerations.
Adding an additional supervisor to ensure optimal coverage of all areas.	ISP	Declined - budget constraints.
Restrict Money Room employees' movement both within their work areas and their access in and out of the Money Room during the day.	ISP, IA, AA	Not operationally realistic based on the physical aspects of the Money Room (i.e. location of restrooms, break room, etc).
Having toll collectors count their revenue at the end of their shift.	ISP	Given current procedures, this recommendation would incur unnecessary costs.
Installing a metal detector at the Money Room exit.	ISP, AA, IA	Would be costly and ineffective due to not detecting paper currency. It would also adversely affect morale.
Contracting with a laundry cleaning service for Money Room employees' jumpsuits rather than having employees take them home to wash.	AA	Unnecessarily costly, however, the intent of the recommendation will be reviewed by manager and alternatives will be explored.
Assigning a person to the safe at all times.	AA	Manager cannot justify the cost based upon lack of other duties and responsibilities.
Build a wall or otherwise segregate the currency counting area.	ISP	Unnecessary due to the implementation of another recommendation suggesting the closing and locking of currency counting cubicle doors.
Implement "no tailgating policy" to monitor all employee access to the Money Room.	AA	Implies that all Money Room employees have individual access to the Money Room, which is not accurate.
Policy outlining procedures for coin spillage from the automatic counting machines.	AA	Unclear and inapplicable to any known aspect of the Money Room.
Assess the benefit of having employees assigned to the coin wrapping machines pull change orders for the Money Truck Drivers.	AA	This was assessed and determined that Money Truck Drivers will pull their own change orders since it is their own responsibility (with supervisor verification).
Using colored money bags or alternative labeling methods to reduce the risk of mislabeling.	AA	Does not provide a cost/benefit and would not conclusively eliminate mistagging of bags.
Adding double locks to the rear doors of money trucks, restricting Money Truck Drivers access to money in the back of the truck from the passenger area of the truck.	ISP	Not operationally practical because a major portion of revenue is picked up at unattended facilities, the fleet is constantly interchangeable, and the drivers must have access to the money due to position requirements.
Restricting Money Truck Drivers' access to the Money Room.	AA	Would unfairly restrict drivers from access to the time clock, change orders, mail bin, tower entrance, contact with supervisors.
Shrink wrapping all counted and verified skids.	AA	Not operationally practical due to the frequency of revenue counts.
Adding a full-time maintenance technician.	AA	Current preventative maintenance contracts nullify the implementation of this recommendation.
Using non-reusable serial number tags for money bags used by plaza toll collectors.	ISP	Current practice does not allow the Money Truck Drivers' access to the money in the money bags. This recommendation would not improve current practice.

*AA = Arthur Andersen's 2000 report. ISP = Illinois State Police's 2000 report. IA = Tollway's Internal Audit reports.

Source: Summary by the Office of the Auditor General of Arthur Andersen, State Police, and Tollway internal audit reports.

CASH HANDLING CONTROLS

We received assistance from the Illinois Gaming Board in our review of the Money Room. The Gaming Board staff has experience auditing, investigating and assessing control procedures as they relate to the handling, counting, and processing of currency at riverboat casinos in Illinois. Staff from both the Gaming Board and the Office of the Auditor General conducted site examinations of the Money Room. The Gaming Board provided the Office of the Auditor General with observations and recommendations based on their examination.

The following observations and strategies for improvement resulted from the Money Room site visits by the Office of the Auditor General and the Gaming Board.

- **$ Access Issues.** Several issues related to access to the Money Room were identified:
  - Money Room employees have unrestricted access to the vault, coin count and currency count areas of the Money Room. In order to maintain control and accountability over the Money Room activity, employees should have restricted access to the vault, coin count, and currency count areas. Additionally, all entrances and exits to these areas should be monitored and documented on a log.

  - Money Truck Drivers have unrestricted access to the Money Room, pull and load their own orders (funds) in the Money Room, and transfer the funds from the Money Room to the loading dock. Money Truck Drivers should not be allowed inside the Money Room. Designated Money Room employees should pull and load the order. Both the Money Room employees and the Money Truck Drivers should verify the order prior to loading it onto the truck.

  - The washrooms are located outside the Money Room and sign-in area. Since both coin and paper counts are performed simultaneously, employees leaving the Money Room to go to the restroom could compromise the monetary integrity of this area. Additional rest room facilities should be provided for Money Room personnel which would be housed within the Money Room.

  - Employees, including the supervisors, are not searched or checked with a metal detector upon exit from the Money Room. Procedures should be established to include inspection of all persons exiting the Money Room with a metal detector.

  - Supervisors have access to the Money Room prior to the arrival of the Money Room employees. In addition, supervisors have access to the vault. Supervisors should not enter the Money Room unaccompanied.

- Armored truck drivers are allowed access to the Money Room. These drivers are not Tollway employees and should not have access to the Money Room.

$ **Money Room Video Surveillance.** The limited video surveillance coverage in the Money Room is not adequate. The currency counting cubicles have one surveillance camera, which is a fixed camera. This particular camera was positioned on the count table. However, this focus is not adequate to provide the appropriate level of security to safeguard the significant amount of currency being processed in this area. All of the cameras in the coin counting area and some of the cameras in the bill counting area are located behind the Money Room employees who count the currency. Due to this, the camera views are obstructed. This was verified during a visit to the Tollway Surveillance Room. The Surveillance Room is unattended. The surveillance is taped and is maintained for six months. There should be increased video surveillance in each currency counting station. The angles should have a downward (on the table) view, a forward view, and a backward view.

$ **Garbage Cans.** Garbage cans are placed throughout the Money Room. Money could easily be dropped in the garbage cans and removed from the building. Additionally, there are no controls over the garbage cans, which are emptied by a janitor after hours.

$ **Scale Calibration.** Tollway officials informed us that the scale used to weigh moneybags is serviced and tested quarterly. We reviewed the service record logbook and found that the last three times the scale was serviced were in March, September, and December 2002. A quarterly servicing was missed in June 2002. Also, a "certified weight" should be obtained to test the accuracy of the scales on a daily basis. Additionally, the scales should be routinely calibrated by the appropriate vendor.

$ **Coin Counting Machines.** The coin counting machines are subject to a quarterly preventative maintenance routine that includes cleaning and coin sweeps if needed. Otherwise nothing is done unless the machines break down. Preventative maintenance is completed only by the vendor's technician, not Money Room employees. The vendor should be able to provide some training to Tollway personnel to, at a minimum, clear jams in the equipment and perform routine cleaning to possibly prevent equipment malfunctions.

$ **Coin Vault Maintenance.** During the coin count process, we noticed that the coin counter operator opened the filled coin vaults with a "reset key," but he also had to use a screwdriver to pry open the door to release the coins. This is an indication that many of the vault lock mechanisms are in need of replacement and/or repair. This additional step of using a screwdriver to unlock the vault door slows down the count process and indicates potential lock failure. The vendor should be phasing in new vaults, since this should be part of the preventive

maintenance process. Each vault is serially numbered so the vendor should have no problem tracking which vaults are older and which ones need to be replaced.

- **$ Money Truck Surveillance.** The money trucks are not equipped with any type of equipment to monitor the physical activity of the Money Truck Drivers. Each money truck should have surveillance remote cameras installed to monitor the driver's movement; a global position tracking system could also be considered.

- **$ Pocket-less Uniforms.** Employees are required to wear pocket-less uniforms, but the managers, supervisors, and Money Truck Drivers do not wear pocket-less uniforms. All persons entering the Money Room should wear pocket-less uniforms.

- **$ Casino Tokens.** Eight canvas bags were observed on a shelf within the vault area which contained Casino tokens and were labeled Hollywood and Grand Victoria. Arrangements should be made with the casinos to routinely exchange tokens.

- **$ Separate Counting Rooms.** The coin and paper counts are not performed in separate counting rooms. They should be performed in separate counting rooms in order to maintain control over each count process and to ensure the counts are accurate and complete.

- **$ Vaults and Money Bags.** During both the coin and paper count process, once the vault box/money bag is emptied, the inside of the vault box/money bag should be shown to the surveillance camera to verify that it is completely empty.

- **$ Loose Coin.** Loose coin was noted on the floor throughout the Money Room. Management stated that the loose coins are swept up daily and counted daily and added into the last day of the month's count or used to cover variances. The swept coin (loose coin) should be included in the daily revenue count.

CASH HANDLING CONTROLS	
RECOMMENDATION NUMBER **13**	***The Illinois State Toll Highway Authority should develop a plan to address the areas detailed in this chapter to improve controls over the safeguarding of toll collections.***
TOLLWAY'S RESPONSE	Most of the observations mentioned in the audit report have been or will be implemented. We will continue to make improvements based on the best practices of other cash handling businesses.

Chapter Seven

REAL ESTATE

CHAPTER CONCLUSIONS

The Property Management Division does not have controls in place to adequately track all property parcels acquired by the Tollway. There is no single current, comprehensive listing of all property acquired by the Tollway.

- The Tollway cannot easily identify potential excess real estate because it has to use both electronic and manual processes. Staff cannot readily determine whether the Tollway actually acquired each property initially identified, its current use, whether the property is excess and not needed by the Tollway, or whether ownership has been sold or otherwise conveyed to another party.

- There were some inconsistencies in the documentation contained in the files for the 11 properties acquired or conveyed by the Tollway in 2001 and 2002. Also, files did not contain current licenses for 19 of the 31 appraisers on the Tollway's approved appraiser list.

- The Tollway should consider using the Geographic Information System (GIS) to maintain complete information on all its real estate properties, including how each property is being used, such as for roads, oases, maintenance facilities, easements, utilities, fiber optic lines, and rental property.

ACQUISITION PROCESS

The Tollway's Property Management Division is responsible for acquiring, tracking, and disposing of real property for the Tollway. The Division is located within the Engineering Department, which is responsible for designing the construction projects and identifying properties that need to be acquired for each project.

The Toll Highway Act grants the Tollway the authority to acquire, either by purchase or condemnation, the property, buildings, and grounds necessary and convenient for an authorized purpose (605 ILCS 10/9.5). In addition to the provisions of the Toll Highway Act, the Tollway must also comply with the provisions of the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act, Public Law 91-646. These provisions were made applicable to the Tollway by amendments to the Toll Highway Act in 1998.

The Board of Directors passes a resolution authorizing funds for the project. The properties needed are identified and the survey and title information necessary to begin

the acquisition process is obtained. Property Management may acquire various property interests for the Tollway's operations:

- **Fee Simple Title** – All property acquired for the purpose of toll highway mainline right-of-way, ramps, toll plazas, oases, and maintenance facilities should be acquired in fee simple, unless authorized to the contrary.
- **Permanent Easement** – Permanent easement interest may be acquired where lesser interests in land may be sufficient for the Tollway's needs and purposes.
- **Temporary Easement** – A temporary easement interest may be appropriate where the entire property or portion is needed for a specified period of time.

EASEMENTS

- **Permanent Easements** – Examples where a permanent easement might be sufficient for Tollway purposes include drainage easements, slope easements, and access easements.
- **Temporary Easement** – Examples of temporary easements include construction easements needed during highway construction and access easements to adjacent property.

Source: Illinois State Toll Highway Authority data.

- **Access Control** – The toll highway system is a limited access system, and acquisition for all mainline, ramps, toll plazas, oases, and maintenance facilities should include all rights of access to ingress and egress from adjacent properties, unless otherwise authorized by the Tollway.

The Engineering Department provides Property Management Division staff the overall right-of-way requirements, including where each type of property interest must be acquired. Then Property Management Division staff identify all affected properties and order all title commitments. Title commitments must include current property information, plus contiguous properties owned by the same owner, and any sales within five years prior. Staff also must contract with surveyors, who prepare legal descriptions of affected properties.

Once all this information has been collected, each property (parcel) must be appraised. A minimum of one appraisal for each acquisition is required and each appraisal must be reviewed by another appraiser to ensure that it meets all the requirements set forth in the law. Both the appraiser and the reviewing appraiser must be licensed by the State. The Tollway maintains a list of approved appraisers; these are appraisers who have been State certified and their credentials have been accepted by the Tollway.

Property Management Division procedures state that the Property Manager will assign parcels to the appraisers based on the complexity of the property, the geographical location, and similar characteristics and ownership. However, there are no written procedures for selecting the appraisers.

The Property Management Division has recently updated its forms and procedures regarding appraisals. The revised documents include certifications required of all state contractors, such as a drug-free workplace and no bribery convictions. In addition, the new requirements also include a certification that the appraiser will not accept an assignment where there is a conflict of interest and to report when one exists. Prior to this revision, there was no such conflict of interest provision. Additionally, the newest revision requires a copy of the appraiser's State license to be submitted along with the other information.

Testing of Appraiser Files

We examined the current list of appraisers and the files on each appraiser kept in the Property Management Division. The current list had 31 appraisers who were approved by the Tollway. Property Management staff identified eight appraisers from the list as those used in the most recent acquisition project, Cal-Sag. This project is associated with the widening of the Tri-State.

The Property Management Division files contained current State licenses for all 8 appraisers who had been given assignments on the Cal-Sag project. However, the files lacked current licenses for 19 (61%) of the other appraisers on the current approved list. In fact, 4 of the 19 files had no license at all in the file. Many of the licenses had expired at least three years ago, as indicated in Exhibit 7-1.

Exhibit 7-1
CURRENT APPRAISER LIST LICENSE EXPIRATIONS

Expiration Date	**# of Licenses**
License current	12
Expiration 1995	4
Expiration 1997	6
Expiration 1999	0
Expiration 2001	5
No license in file	4
Total	**31**

Source: Illinois State Toll Highway Authority data analyzed by the Office of the Auditor General.

When we reviewed Tollway expenditures, we found payments made in late 2001 and in 2002 to two appraisers who did not have current copies of their licenses on file. Payments to these two appraisers totaled $18,270 since October 2001. The Property Manager stated that *"this is one of those areas where there does not seem to have been a written protocol or generally understood procedure (or assignment of responsibility) in 2001"* to determine who was responsible for maintaining and reviewing the appraiser files for appropriate documents and who approved the requests for payment to the appraisers.

Tollway staff stated that they had worked to ensure that all the appraisers from the recent projects had supplied a copy of the current license and are currently working on updating the list and sending the new certifications to all appraisers on the current list.

APPRAISERS	
RECOMMENDATION NUMBER 14	***The Illinois State Toll Highway Authority should ensure that all currently approved appraisers submit a copy of their current State license. Additionally, the Tollway should develop written procedures for selecting and approving appraisers.***
TOLLWAY'S RESPONSE	Revision of procedures regarding appraisers occurred in June 2002. Proper documentation exists for appraisals ordered after that date. The Authority will ensure that these procedures are formalized and written.

Negotiations

After the appraisal process is complete, negotiations with the property owner begin. The property owner is sent an Owner Notification Letter, notifying the owner that the Tollway intends to start condemnation proceedings in 60 days if an agreement is not reached. Accompanying this letter are the following documents required by the Illinois Eminent Domain Act:

- Copy of the Attorney General's pamphlet on property owner's rights under the Illinois Eminent Domain Act;
- Worksheet showing square footage and calculation of value (how much the property is worth);
- Copy of the Tollway's Relocation and Moving Assistance Program; and
- Copy of the federal regulations (49 CFR 24.102).

The Toll Highway Act directs the Tollway to offer the full appraisal value to the property owner (605 ILCS 10/9.10). Contingent offers can be made, such as contingent on the property being cleansed of environmental hazards. If the property owner makes a counter-offer, the Tollway can accept if the amount is not unreasonable. There are limits set for how much Property Management Division staff can approve and what must be approved by the Board (see inset).

APPROVAL REQUIREMENTS FOR SETTLEMENTS

- **$** Property Manager can settle up to $1,000 above the appraisal amount.
- **$** Property Manager and Chief Engineer can settle between $1,000 and $5,000 above the appraisal amount.
- **$** Executive Director can settle for $5,000 above the appraisal amount.
- **$** Board of Directors can settle if greater than $5,000 or 5% of appraisal amount.

Source: Illinois State Toll Highway Authority data.

If no agreement can be reached on the price, then the Tollway files for condemnation of the property. The Tollway uses Special Assistant Attorneys General for

the condemnation process and the process can take years. The Tollway receives an Order Vesting Title to the property fairly quickly, which means that the Tollway is the new owner. The court proceedings determine how much the Tollway must pay the original owner for the property; this is the lengthy part. According to the Property Manager, there were still cases from 1995 and 1996 (the acquisition of parcels for the South extension of the North/South toll road) that were still not settled at the end of 2002.

Relocation Expenses

If the property acquired by the Tollway contains a dwelling where the previous owner resided, the Tollway may have to pay relocation costs. These costs can include moving and housing expenses. According to the Property Manager, the Tollway was not required to have a formal relocation program until 1998, when the Toll Highway Act was amended. The amendments required the Tollway to comply with existing federal requirements contained in the Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Funded Assisted Programs Act (42 U.S.C. 4601 *et seq.*). These requirements had previously applied only to programs receiving federal funds.

Even though it was not required to do so, the Tollway established a formal relocation program during its acquisitions for the South extension of the North/South toll road, which began in 1995. A total of 258 parcels were acquired for that project.

Property Management staff reported a total of $652,408 in relocation expenses for the North/South extension project that were paid to 47 owners of parcels acquired for that project. This amount included housing or rent supplement costs as well as moving expenses and other relocation costs. We were only able to reconcile $316,731, or just under 50 percent of the expenses to the computerized accounting records. Of the 47 owners, we could completely match payments for 28; in addition, we partly matched 5 others, leaving 14 owners and their payments completely unmatched. However, accounting records showed that the expenses were not always coded as relocation expenses, which hindered the reconciliation. The average amount paid for relocation was $12,792.

Staff stated that they expected the latest project, the Markham part of the Tri-State widening project, would require relocations. This would be the first relocation project since 1998.

Intergovernmental Agreements

Many times the Tollway must enter into agreements with other government entities, such as villages, townships, counties, and the Illinois Department of Transportation (IDOT). Toll roads cross other roads or require access to these roads that are owned by other government entities. The agreements define responsibilities for maintaining intersections and access points. The Property Manager stated that sometimes the Tollway will buy property and then transfer the ownership to IDOT or vice versa.

For example, IDOT may buy property, build access ramps from its road to a toll highway, and then transfer ownership of ramps to the Tollway. The Tollway does not have to pay IDOT the fair market value of the property.

TRACKING PROPERTY

The Property Management Division does not have controls in place to adequately track all property parcels acquired by the Tollway. There is no single current, comprehensive listing of all property acquired by the Tollway. Information is contained in paper files, in the DocuPact imaging and database system, and in Excel worksheets. Implemented in early 2000, the DocuPact system does not contain historical data before 1995; the Microsoft Excel worksheets that contain this data are also incomplete. Consequently, staff cannot easily identify the number of property parcels owned by the Tollway.

Property Management staff cannot readily determine whether the Tollway actually acquired each property initially identified, its current use, whether the property is excess and not needed by the Tollway, or whether ownership has been sold or otherwise conveyed to another party. When asked for a listing of properties acquired and conveyed since 2001, staff took one month to identify 10 instances. Several months later, an eleventh instance was identified. In addition, staff were unaware of the reporting capabilities of the DocuPact system and thus are not fully utilizing the existing resources available.

When the Tollway identifies a needed property, it is assigned a unique parcel number which indicates where the parcel is located along that roadway. The Tollway cannot use Property Identification Numbers (PINs) used for tax purposes because these numbers could be duplicative across multiple counties. All files related to that property are kept according to the parcel number. Information relating to a parcel can be maintained in four sources.

Working Files

Property Management staff create working files for all parcels that have been identified as necessary for the project. All information relating to each parcel is kept in the working file, including all correspondence, internal memos and documents, appraisals, surveys, title commitments, and the assigned negotiator's notes. Once the acquisition is complete and the file is closed, the file is sent to Central Information Services so that all the original documents can become part of the master file. The file is then returned to the Property Management Division for the file room or off-site storage.

CIS Files

The Central Information Services (CIS) division has the master file on each parcel acquired. The CIS file contains the original legal documents for the parcel – the survey and title documents, deed, appraisals, offer letter, the contract for sale, and final orders

giving title to the Tollway. CIS files are considered to be the "official files" on each property parcel. If the property is eventually sold or otherwise conveyed by the Tollway, the CIS file will contain information concerning the conveyance as well. These files have little or no information on the current use of the real estate or whether it could be excess property.

Excel Worksheets

One Tollway employee has created Excel worksheets listing all parcel numbers for all projects done by the Tollway. The employee has been going through old CIS master files, listings of property acquired for the original toll roads in the 1950's and 1960's, and other information to determine whether each parcel was actually acquired, if the Tollway still owns it, and other information such as related parcels. These Excel worksheets include information on the acquisition date, whether the acquisition required condemnation, and comments. The employee has noted in the comments field whether a parcel was never acquired or that it has since been sold or conveyed. However, this task has been designated a low priority and, therefore, has not been completed. The employee stated that Excel worksheets were also created for projects that are contained in the DocuPact system, which is a duplication of resources and effort.

DocuPact

In early 2000, the Property Management Division began using an integrated database and imaging system to store data on each parcel electronically. The system, called DocuPact, keeps scanned images and related information on each parcel in an Access database. The system was specially designed for the Property Management Division as part of a larger Tollway contract with Unisys. Division staff were involved in the design of the integrated system. The cost for developing the system was $541,936.

All documents in the working file for a parcel are scanned into DocuPact, creating imaged documents that can be easily viewed or printed. Additionally, the database contains 129 fields for information from those documents in eight separate data tables. The data tables contain specific information in these eight areas: costs, appraisals, parcels, property information numbers, easements, authority attorneys, final judgements and titles.

All information contained in the old system was converted to DocuPact. However, scanning the volume of documents in each file takes time. Therefore, according to Tollway officials, a policy decision was made not to enter historical data for earlier projects into the DocuPact system, even though they consider it *"robust, full-featured, with sufficient capacity."*

This decision means that the database system only contains complete data on the south extension of the North/South tollway (I-355) and the current projects for the widening of the Tri-State (I-294). Staff are currently scanning files for property acquired for the original North/South construction, so there is partial data for that project as well. However, it contains little information on the oldest projects like the original Tri-State.

Additionally, not all fields are completed for each parcel. Data entry staff said that information may be missing from the file or it may be difficult to find.

Reports to aid management in tracking real estate are available from the system. Eight standard reports are available with the capability for others if necessary. There are reports for acquired parcels by the acquired date, by the judgment order, and by owner; there also is a report for the easements acquired for parcels. While these reports appear to be focused on specific projects or time periods, they would still be useful for management. However, staff are either unaware of the reports or are not using them. For example, on September 16, 2002, we requested lists of all property acquired and conveyed by the Tollway since January 1, 2001. We received a list of 10 instances – 3 acquisitions and 7 conveyances – on October 16, 2002, one month later. A DocuPact report could have been produced in minutes.

Other than the staff assigned to enter data into the system, the employee who seemed most familiar with DocuPact stated that she mostly used it to view images of scanned documents, not for tracking purposes – partly because DocuPact was not complete. While training had been provided to staff when the system was implemented in 2000, the Property Manager had received no training on DocuPact since beginning his job in February 2002.

One item that would be useful in tracking real estate is a description of the current use and condition of the property parcel: whether or not it is improved by a road, bridge, or building; whether it is used for drainage or access; and whether or not it is excess. Yet none of the four information sources discussed above currently contain this information. A key component of management is to identify all of an organization's assets.

EXCESS PROPERTY

Excess property is defined as any land or rights in land no longer needed by the Tollway. The Tollway has developed a listing of excess property containing nearly 300 parcels; however, because there is no comprehensive listing of property owned by the Tollway that includes the use and condition of each parcel, the Tollway cannot easily identify excess property parcels.

The Tollway has excess property because it purchases real estate based on its anticipated needs. For example, it may purchase extra parcels during a project in anticipation of a future widening or future ramp. Or the project may change after certain properties have been acquired, making those properties not needed. Examples of excess properties include the following:

- T-1A-40 thru T-2C-566C - these are fragments of parcels taken for the construction of the Tri-State Tollway; it is anticipated that all of these will be used in the current project widening the Tri-State from 95th Street to I-394.

- TW-3A-179.2 - (old Dosher school, 3.7 acres in Justice, IL). In 1996, special legislation (605 ILCS 10/9(d)) required that the Authority acquire and demolish the Dosher school. The property has been declared excess and was advertised for sale multiple times beginning in June, 2000. No conforming bids (i.e., unconditional bids at or above the appraised value) have been received. This property is currently being re-evaluated due to (i) changes in the zoning map by the Village in 2002, (ii) establishment of adjacent TIF district by the Village in 2002, and (iii) need to obtain a current appraisal (last appraisal is more than two years old).

- E-5-48 (Swamp Road, Ogle County) This is a piece of vacated Township Road, used for construction access on the I-88 west extension at I-39. The project landlocked a farm, to which the road provides access. The road was to be conveyed to the Township after construction, but the Township refused to accept the conveyance.

- T-5-267E & 267A-E (47th Street bridge & I-294) This is a part of a parcel acquired for the reconstruction of the 47th Street bridge over I-294. For many years neither the township nor the county wanted to assume maintenance responsibility, but it now appears that the Authority may be able to convey this to Hinsdale.

Further, the Tollway is required to purchase "uneconomic remnants" when it acquires real estate. These are pieces of a property that are left with no economic value after the Tollway purchases the rest of the property. If the Tollway purchases property, for example, to build a road through the middle of a property, then the owner would be left with a piece of property on the other side of the road. If that piece is small and cannot be accessed easily, it can be considered an uneconomic remnant.

Identifying Excess Property

Although there are procedures for formally declaring a property excess after it has been identified, there are no procedures for identifying potentially excess property. The Tollway does not keep information readily available on the condition or use of each parcel.

According to the Property Manager, property is usually identified as potentially excess when an interested party contacts the Tollway about purchasing the property. Property Management and other Engineering Department staff review the request, and the Chief Engineer must formally declare the property excess in writing before it can be sold. Determinations on whether property is excess involves both an electronic and manual search of documents.

Property Management staff have developed a list of excess property containing 285 separate parcels that appear to be no longer needed. However, the list does not necessarily correspond to the formal declarations of excess by the Chief Engineer so the listed parcels may or may not have been formally declared excess. The list is updated annually and as Property Management staff become aware of possible excess parcels. Additionally, the list contains the uneconomic remnants acquired by the Tollway.

Of the 285 parcels on the list, most are small pieces that may have little value to a buyer. As shown in Exhibit 7-2, only 10 parcels are at least one acre. Staff noted, however, that under certain circumstances, even the remnants could be combined into usable parcels that could be sold or conveyed to a government unit for a park or other use.

As an example of the limitations of the Tollway's real property information systems, the excess property list contains properties that were never acquired or that are no longer owned by the Tollway. We reviewed the excess real property listing compiled by the Tollway and identified parcels that were greater than one acre in size. We then submitted our list to the Tollway for review. After their review, Tollway officials said two of the properties that were on their list of excess property had never been acquired by the Tollway.

Exhibit 7-2
EXCESS PROPERTY GREATER THAN ONE ACRE

Parcel No.	County	Location	Acres	Access	Remarks
E-2-61.3	DuPage	Meyers Rd. & I-88	8.00	Yes	
E-2-63.6	DuPage	Meyers Rd. & I-88	1.78	Yes	
E-3-32A	Lee	East of Pump Factory Rd.	7.94	No	Leasing – Humphrey 2002
E-7-8A	DeKalb	West of Crego Rd. ROW & north of Tollway	6.60	No	No access if Crego abandoned. Landlocked
E-7-26A	DeKalb	West of Hinckley Rd. & north of Tollway	5.20	No	Landlocked. Tillable. Leased to Cribben 2002.
E-8-28C	Kane	East of IL 47 & South of Tollway	15.80	Yes	Access from IL 47 - Tillable Hold until full interchange complete
T-3B-225.2	Cook	Part of NW 1/4 Sec. 28 - 38-12	6.40	No	Landlocked (Access via T-3B-229.1)
T-6A-140 (A)	DuPage	I 88, I 294 and Roosevelt Rd.	*9.09	No	Permanent easement
T-6B-1405 – 1409	Cook	Madison & High	1.01	Yes	Fronts on High No files in CIS.
		Total	**61.82**		

Notes:
(A) 14 lots total 9 acres and include 2 lots that are more than 1 acre each: 1.663 acres and 1.075 acres. With the exception of one 0.83 acre lot, they are permanent easements without access.

Source: Illinois State Toll Highway Authority data.

Leases of Excess Property

The Tollway leases some usable properties to other parties. Currently, there are seven leases for Tollway properties, although three of these technically expired March 1, 2003. As shown in Exhibit 7-3, the three leases which expired March 1st are farm leases.

Exhibit 7-3
LEASED PROPERTY
March 2003

Parcel Number	Lessee	Lease Start	Lease End	Size	Yearly Payment	Use
T-6BC	Berkeley Park District	10/1/1996	1/1/2017	0.429 acres	$1,000	Children's playground
N-7B-294 N-7B-294.1 N-7B-294.2	Great Lakes REIT Co	7/1/1997	6/30/2007	7,270 sq. ft. 0.167 acres	$4,500	Ground level parking
T-1A-87 (part)	Homewood Construction Co	7/1/1997	6/30/2007	270 sq. ft. 0.006 acres	$315	Garage encroaches in ISTHA ROW
E-8-28C	Individual	3/1/1998	2/28/2003	15.8 acres	$1,000	Farming
T-1A-463 (part)	Individual	5/1/1998	5/1/2003	0.15 acres	$480	Backyard, including swimming pool
E-7-26A	Individual	3/1/1998	2/28/2003	5.2 acres	$550	Farming
E-3-32A	Ray Humphrey Farms	3/1/1998	2/28/2003	7.94 acres	$700	Farming
			Total	**29.692 Acres**	**$ 8,545**	

Source: Illinois State Toll Highway Authority data.

In March 2003, Property Management staff indicated that only one of the farm leases was expected to be extended after new lease appraisals were conducted on the properties. In one case, the lessee had agreed to purchase the property for a reasonable price, so staff had been directed to order a fee appraisal on the property. The other lessee declined to renew the lease at the higher price; Property Management was unsure if another lessee would be sought or if the property would be sold. Further, the lease of backyard property, which expires May 1, 2003, would not be extended as the lessees have agreed to purchase the property. A fee appraisal has been ordered for this parcel as well.

Disposal of Properties

Once the property has been formally declared excess, approvals need to be obtained from the Executive Director and Chief Counsel before it can be disposed. At least one appraisal must be done to determine the current market value. If the person from whom the Tollway acquired the property still owns adjacent property, the property must be offered to that person first.

The property must be advertised and bidders must deposit 10 percent. Procedures state that sealed bids are opened at the next regularly scheduled Board of Directors meeting, at which time the Board shall approve the sale. However, the two sales of property in the last two years were conducted as live public auctions in the Tollway office; each was approved at the next Board meeting.

The bid requirements do not apply to sales and exchanges of real property to other government units when the property is to be used for public purposes. Of the eight times property was conveyed during the last two years, it was conveyed to another government unit in five instances. Other requirements, including the declaration of excess and the appraisal requirements, still apply to these exchanges with other government units.

ACQUISITIONS AND CONVEYANCES

The Property Manager initially provided a list of 10 instances of real estate property parcels acquired or conveyed since January 1, 2001 and in a subsequent response, included another parcel. Four of the 11 instances involved multiple parcels. Exhibit 7-4 lists the Tollway's acquisitions and conveyances in 2001 and 2002.

We reviewed the Central Information Services master files for all 11 transactions, as well as working files for 4 of the 11 parcels. In addition, we reviewed the files for three properties the DocuPact system listed as acquired during the period; however, while contracts for the purchases had been signed late in 2002, the closings did not take place until 2003.

There were 3 acquisitions in the 2-year period and 8 conveyances. Five of the eight conveyances were to other units of government, such as a village or county, at no cost to the government unit; another was to the property's original owners.

Exhibit 7-4
TOLLWAY PROPERTY
ACQUISITIONS AND CONVEYANCES
January 1, 2001 to December 31, 2002

Acquisition Parcel Numbers:	**Price Paid**	**Reason for Purchase**	**Type of Acquisition**
N-4D-96-001	$13,266	Tollway fence encroached on owner's property; acquired by condemnation.	Fee simple title
TW-07-10.9P	$2,400	Easement acquired for Bridge built as part of Tri-State widening.	Permanent easement
NS-02-97-001	$1,500	Easement acquired by condemnation for I-355 construction.	Permanent easement
Conveyance Parcel Numbers:	**Amount Received**	**Reason for Conveyance**	
N-6A-30.5PE	$0	Easement rights granted in exchange for access to public road	
T-12B-30.2 etc.	$0	Parcels were part of access road conveyed to Village of Mettawa; now part of public road system.	
T-12B-40.1 etc.	$0	Parcels were part of access road conveyed to Village of Green Oaks; now part of public road system.	
E-5-34.5 etc.	$0	Easements were released because city of Rochelle built new sewer and the drainage easements were no longer needed.	
N-3B-28.9	$0	Utility easements were acquired for water and sewer lines to an oasis. Property owner re-routed lines in exchange for release of easements.	
NS-04-020.1 etc.	$70,000	Excess parcels	
E-1D-101.3	$0	Easement obtained in June 2001 for relocating a township road to accommodate I-88 widening. The easement was transferred to the township and became part of their road.	
NS-02-075.1	$53,000	Excess parcel	

Source: Illinois State Toll Highway Authority data.

Overall, documentation in each file was not consistent. Exhibit 7-5 summarizes the exceptions. Board resolutions approving the disposal of excess properties were not

always in the files, some files contained little information on the sale, and some files contained little information on the original acquisition. Staff were able to provide copies of Board resolutions and other documents from other sources, but the items were not consistently in every file. Since Board approval is required for each acquisition and conveyance of property, the documentation should be included in each file. In addition, there were other specific problems.

Exhibit 7-5
EXCEPTIONS IN REAL ESTATE FILE DOCUMENTATION

Parcel	No Excess Declaration	No Board Resolution	No Appraisal	No Review Appraisal	No Sale Advertisement	Other
I-355 easement (NS-02-097-001)		X				
I-90 utility easement (N-3B-28.9)	X	X	X	X		
I-294 State access road parcels (T-12B-30.2 etc.)		X	X	X		Excess declaration only item relating to conveyance in file.
I-294 access road parcels (T-12B-40.1 etc.)	X		X	X		Board resolution and quitclaim deed only evidence of conveyance in file.
I-88 widening easement (E-1D-101.3)		X				No documentation in file of amount paid to acquire easement.
I-88 drainage easements (E-5-34.5 etc.)			X	X		
I-355 excess parcel (NS-02-075)				X	X	No evidence of bid deposit in file
I-294 widening parcel [(A)] (TW-2A-02-053)						No documentation of price higher than appraisal

Notes:
[(A)] This parcel was actually acquired in 2003 but was identified in the DocuPact system as acquired in 2002. The contract for purchase was signed in 2002 but the closing did not occur until 2003.

Source: Illinois State Toll Highway Authority data.

Files for 4 of 8 conveyances were missing appraisals of the property. Staff stated that they did not do appraisals on these parcels because they were conveyed to other government units for no remuneration. However, the policies and procedures for the Disposal of Excess Real Property state that once a property is determined excess, *"the Property Management Division Chief will order an appraisal of said property, to be prepared by a State-certified appraiser."* These procedures also state *"[T]here will be a minimum of one appraisal done for each parcel of excess land . . . ."* There is no exception listed in the procedures for parcels where no remuneration is expected. It would be useful to management to know the value of the property so that it can be taken off the Tollway's real estate assets.

Procedures also require the Tollway to offer the property to the person or persons from whom it was initially acquired, provided that the person or persons still owns land abutting the property. Although there were survey and plat documents in each file that show current and prior ownership of the parcel to be disposed of, there was no evidence for any of the eight instances of any review or analysis that determines whether the previous owners still owned property abutting the excess property. Although staff subsequently provided sufficient written explanations for each case, such analyses should be documented in the file to show that staff are complying with procedures.

Documentation was also lacking for one of the two conveyances where an auction was held. In this case, the property was originally appraised at $80,000 and advertised for bid. The property was subsequently re-appraised for a lower amount, and then re-bid. Evidence in the file suggests that the eventual buyer had submitted an earlier bid and applied the required deposit to the later bid. However, the original bid was not in the file, nor was evidence of why the bid was rejected. Property Management staff responded that the eventual buyer had informed them of information that caused the appraisal to be adjusted down to $70,000 and could not explain why the original bid was not in the file.

One of the properties actually acquired in 2003 lacked the documentation of how the amount paid for the property was raised to $900 after the appraisal showed the value at $600. Staff were unable to locate the "Administrative Documentation" which would contain some explanation or justification for the change.

REAL ESTATE RECORDS	
RECOMMENDATION NUMBER 15	***The Illinois State Toll Highway Authority should continue to develop a comprehensive and accurate listing of its real property that allows Tollway officials to determine each property's use, location, and condition. Furthermore, the Tollway should review its real estate to identify properties that are not needed but are excess, so that such property can be sold, leased, or otherwise disposed. Furthermore, real property records should contain all required documentation necessary to support the acquisition or disposition of real property.***
TOLLWAY'S RESPONSE	The Authority concurs with this recommendation and will continue to update real estate records. Systematic review of all properties will be conducted on a periodic basis to identify excess properties and arrange for their productive use and disposal. The Authority has been able to support propriety acquisition and conveyance of properties and will continue to develop a comprehensive listing of real estate.

GEOGRAPHIC INFORMATION SYSTEMS

Geographic Information Systems (GIS) are powerful analytical tools that enables the user to link geographic information to descriptive information. GIS systems have widespread use in government and business, and applications are growing rapidly. Presently the Tollway does not use GIS software. Tollway staff indicated that a Geographic Information System could increase the efficiency of Tollway operations in a variety of areas ranging from land management to construction planning.

GIS systems enable spatial analysis of data, much of which the Tollway already collects, by generating layered maps. One layer may show political boundaries, another may show water bodies, while another shows the Tollway and other major roads. Any data that can be represented geographically can be made into a map layer. Individual layers may be added or removed from the map layout to customize the analysis the Tollway is conducting at a given time. The results of the analysis are typically plotted on a map that is easy to understand. More sophisticated GIS packages also enable the user to conduct analyses such as trip times or the viability of land for development.

The primary advantages of GIS are its ability to help analyze data spatially and visually. Data can be arranged and presented to best understand the issue of concern. For example, the Tollway may be interested in analyzing the maintenance conditions of its roadways. A GIS system would enable to Tollway to assign data to roadway segments such as date since last paving or overall roadway quality. These attributes could then be color-coded (e.g., green for resurfaced within the last year, blue for 1-3 years, etc.) and plotted on a digital map. Tollway employees could then see where maintenance should be focused in the future.

GIS could also be used in planning new roadways. Land parcels along the proposed alignments could be assigned attributes such as the cost of purchasing land, population displaced, or environmental impacts. Each of these data sets could be entered as a layer in the GIS, enabling alternative alignments to be compared objectively and visually. After construction, roadway and land attributes could be plotted on a GIS map, allowing identification of surplus properties.

Implementing a GIS at the Tollway would require purchasing a GIS software package and associated hardware, ensuring that a trained staff member is available to use the software, and digitizing Tollway data. Much of the data needed to generate digital maps may be available for zero or nominal cost from sources such as the U.S. Census Bureau.

The Texas Turnpike Authority and the Florida Turnpike Enterprise currently use GIS software. The Texas Turnpike Authority stated that the GIS technology is extremely useful. The Florida Turnpike Authority responded that GIS is used for location and environmental maps, count maps, and average speed analysis. Florida officials stated

that the current hardware and software cost associated with the Turnpike GIS is approximately $80,000. They noted:

> The Turnpike GIS has become an integral part of the work performed at the Turnpike. Intranet applications have allowed all Turnpike employees and consultants to browse much of the GIS data and create their own reports or maps using the intranet. This site now processes approximately 2500 hits every day.

In 2000, the Tollway contracted with Gannett Fleming to conduct a feasibility study of a GIS program. The $350,000 study evaluated the cost/benefit of a GIS. The study concluded that a GIS could improve various business and work processes at the Tollway. Over 90 percent of Tollway employees interviewed for the study indicated that GIS could help them conduct their tasks more efficiently and cost effectively. Though costly to implement, cost savings were projected to surpass costs during the third year of implementation:

> Expected cost savings through implementation of GIS will be substantial and measurable. Resulting cost benefits will be realized in many areas of ISTHA operations, with savings on staff time that can be redirected to other business needs.

However, due to budget constraints, Tollway decided not to implement the project at the time.

A GIS would help the Tollway maintain complete information on all its real estate properties, including how each property is being used, such as for roads, oases, maintenance facilities, easements, utilities, fiber optic lines, and rental property. According to Tollway IT personnel, such a system could be integrated with the existing DocuPact system to minimize duplication.

GEOGRAPHIC INFORMATION SYSTEMS	
RECOMMENDATION NUMBER **16**	***The Illinois State Toll Highway Authority should consider purchasing Geographic Information System software to help track its real estate, as well as to assist in other areas, such as capital planning and traffic patterns.***
TOLLWAY'S RESPONSE	In 2000, the Authority had feasibility study of a GIS system performed. Due to cost and budget constraints, the system was not pursued.

Chapter Eight

VEHICLES

CHAPTER CONCLUSIONS

The Tollway had a total of 693 vehicles as of December 2002. The total expenditures of the Vehicle Fleet Unit were $11,240,814 in 2002 -- $4,541,380 for new vehicle purchases and $6,699,434 for labor, fuel, maintenance, repair, and other costs.

- Of the Tollway's 693 vehicles, 105 were take-home vehicles that were permanently assigned to employees, including 12 for its Consulting Engineers.

- The total purchase price of the take-home vehicles was $1.75 million.

- The Tollway paid the operating cost of these vehicles – fuel, maintenance, repairs, insurance – which totaled $245,189 in 2001.

- The Tollway's computerized management information system for the vehicle fleet is outdated and does not generate reports which would allow management to better monitor vehicle costs.

- Of the 18 Tollway employees sampled who were assigned a permanent vehicle, 16 either did not complete the required vehicle usage logs or did not complete them correctly. The top seven Tollway executives were provided a vehicle and were not required to complete a daily vehicle log that is required of other employees who are assigned a permanent take-home vehicle; such logs would show the locations and mileage where the vehicle was driven.

- Vehicle usage logs were often not signed by the department chief or division manager to indicate their review and monitoring. Some of the vehicles were used more for commuting than for Tollway business.

After the end of our audit period in 2002, the Tollway changed its policy on assigning vehicles to employees and reduced the number of take-home vehicles from 105 to 48 in February 2003. The 12 vehicles assigned to Consoer Townsend Envirodyne Engineers, Inc. (CTE) were also returned to the Tollway and now the Tollway pays $36 per day per vehicle to CTE.

INTRODUCTION

The Illinois State Toll Highway Authority had 693 vehicles as of December 2002. These vehicles consisted of passenger cars, trucks, and SUVs, District 15 State Police vehicles, and money trucks. The Tollway also owns heavy equipment such as tractors, rollers, pavers, trailers, and a helicopter. Exhibit 8-1 summarizes the organizational unit to which the vehicles were assigned.

The 693 vehicles fall into one of four categories:

1. Permanently Assigned Vehicles – vehicles which are take-home vehicles.
2. Operationally Assigned Vehicles – vehicles used by employees but left at work, such as vehicles used by traveling safety trainers.
3. Maintenance Vehicles – maintenance trucks, snow plows – vehicles which are never taken home by employees.
4. Pool Car Vehicles – vehicles for occasional employee use.

The Tollway also had a total of 196 squad cars and other police vehicles for District Number 15 of the Illinois State Police. The Tollway also made cars available to contractors. Exhibit 8-2 presents a profile of the Tollway vehicle fleet.

Exhibit 8-1
ORGANIZATIONAL UNITS ASSIGNED VEHICLES
December 2002

Office	Number
Engineering	397*
State Police District # 15	196
Operational Services	65
Information Technology	22*
Finance and Administration	9*
Communications	2
Legal	1
Executive Director	1
Total	**693**

Notes:
*Engineering included 306 vehicles for Roadway Maintenance; Information Technology included vehicles for Telecom Technicians; Finance and Administration included vehicles for Safety & Training.

Source: Illinois State Toll Highway Authority data.

Exhibit 8-2
VEHICLE FLEET PROFILE
December 2002

Vehicle Type	Number	Average Purchase Price	Average Cumulative Maintenance Cost	Average Age (Years)
Automobiles	247	$18,320	$3,358	2.9
Light Duty Vans	70	20,986	2,773	4.0
Medium Duty Vans	8	31,557	1,710	1.9
Sport Utility Vehicles	31	21,639	1,800	1.9
Light Trucks	52	18,490	4,235	4.2
Misc. Medium Duty Trucks	28	44,411	21,385	4.5
Misc. Heavy Duty Trucks	2	86,801	58,916	15.3
Money Trucks	11	60,811	13,275	3.0
Plow Trucks	179	61,872	29,778	6.3
Traffic Control Trucks	49	35,396	12,685	2.4
Aerial Lift Trucks	9	90,716	23,966	8.7
Sweepers	7	60,206	25,550	4.6
Total	**693**			**4.07**

Source: Illinois State Toll Highway Authority records analyzed by the Office of the Auditor General.

Vehicle and equipment assets are currently valued at approximately $30 million, which does not include tools and shop equipment. The total expenditures of the Vehicle Fleet Unit were $11,240,814 in 2002, including $4,541,380 to purchase new vehicles and the remaining $6,699,434 for fuel, labor, maintenance, repair, and other costs. Exhibit 8-3 shows the total annual fleet cost for 1997 – 2002.

Exhibit 8-3
VEHICLE FLEET COST

	1997	1998	1999	2000	2001	2002
Total New Vehicle Purchase Cost	$ 0	$581,917	$5,836,721	$5,873,258	$6,074,363	$4,541,380
Payroll Cost	$3,414,331	$3,566,973	$3,972,445	$3,948,899	$4,027,782	$4,106,528
Material and Supplies	$198,414	$217,720	$254,199	$195,495	$199,843	$234,021
Replacement Parts	$1,153,489	$1,322,184	$1,287,883	$1,198,646	$1,139,986	$1,112,956
Fuel Cost	$1,072,174	$834,558	$1,047,748	$1,513,937	$1,453,632	$1,283,364
Outside Services	$232,723	$211,613	$348,827	$228,597	$215,710	$174,938
Other Expenses	$11,734	$4,664	$12,905	$3,650	$6,219	$12,788
Recovery of Expenses	$(86,778)	$(194,055)	$(105,718)	$(107,324)	$(219,230)	$ (225,161)
Total	**$5,996,087**	**$6,545,574**	**$12,655,010**	**$12,855,158**	**$12,898,305**	**$11,240,814**

Source: Illinois State Toll Highway Authority data.

NEW VEHICLE PURCHASES

The Tollway's Vehicle Fleet Unit is one of four units that comprise the Maintenance and Traffic Division, which is part of the Office of Engineering. The Fleet Unit acts as a support entity to all Tollway vehicle users and departments. Ensuring that vehicle users comply with policies and procedures is the responsibility of the vehicle user's department chief. The Fleet Unit is primarily responsible for maintenance and support of the vehicle fleet, completing about 50,000 maintenance work orders per year at 12 garage locations throughout the Tollway system. The Vehicle Fleet Unit is responsible for identifying and recommending replacement and disposal of all Tollway vehicles and equipment.

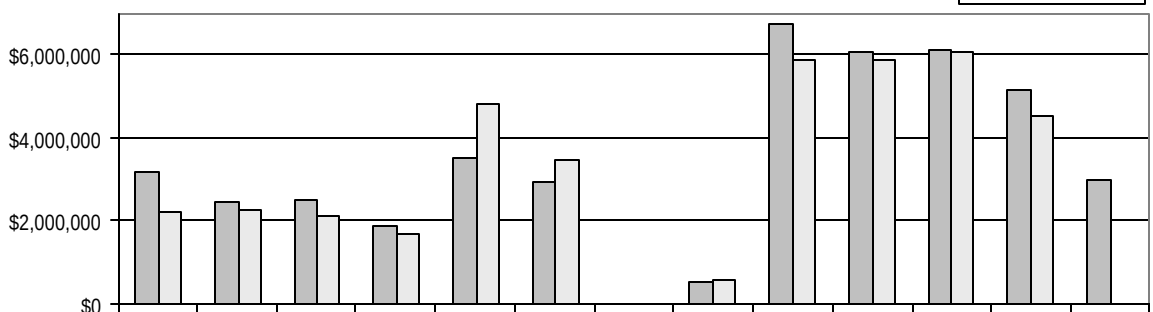
The Tollway was placed within the auspices of the State Procurement Code in 1999. As a result, it is now required to use Illinois Department of Central Management Services' purchasing procedures to acquire its vehicles.

The Tollway first enacted a standard replacement schedule for vehicles and equipment in 1995. The replacement schedule was designed to remove vehicles from service when they are at the end of their economical life. However, the fleet program experienced fluctuations in its annual budget allocation throughout the 1990s (see Exhibit 8-4 for new purchases).

Exhibit 8-4

BUDGETS FOR NEW VEHICLE/EQUIPMENT PURCHASES

($ in millions)



	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
$ Budget	3161341	2446742	2494890	1865228	3522519	2901580	0	542700	6734041	6075676	6087597	5137498	3006625
$ Actual	2195469	2240808	2131705	1677584	4792050	3486783	0	581917	5836721	5873258	6074363	4541380	

Source: Illinois State Toll Highway Authority data.

MANAGEMENT INFORMATION

The majority of the Fleet Unit's record keeping and audit information is managed at Tollway headquarters using the computerized Equipment Management System/Stock Utilization Needs (EMS/SUN). The EMS/SUN system is used for inventory control, vehicle repair history, maintenance scheduling, parts/service orders, and general vehicle and some personnel information. All repairs and parts usage are recorded on the system.

The EMS/SUN system is antiquated. Tollway's computers could not generate exception reports to show equipment that had a particularly high cost of operation; such analytical reviews must be done manually.

Even the 1995 KPMG Operational Assessment said that *"The current fleet management system . . . is difficult to use and requires several months to produce specialized reports given its current configuration."* It was originally built in 1977 and upgraded in 1984. According to the Fleet Unit Manager, the Tollway almost replaced the system in 2001 when the Board of Directors preliminarily budgeted for the replacement. But when the decision to delay a toll increase was made, the funds were reallocated for roadway maintenance.

The EMS/SUN system is incapable of generating exception reports and lacks other specific management tools. The system prints lengthy and cumbersome green-bar printout reports on large computer paper, which managers must manually review page by page to monitor vehicle operations. When asked whether the system generated exception reports, the Fleet Unit Manager responded:

> Unfortunately there are no exception reports. My staff and I must review each report line by line. We have been requesting a new Computerized Fleet management System in the budget for the last ten years or so, unfortunately, funding of such a project has never been available. A new system would flag key areas and allow us to be more proactive. Currently we must watch individual items and look for trends or unusual data.

The Fleet Unit appears to have other management controls. It has a variety of written operating procedures, such as a policy manual, a preventive maintenance program, procedure statements, standard replacement schedules, approval mechanisms, and standard inspection sheets.

Employee Vehicle Usage

As of September 2002, 105 Tollway employees and contractors had permanently assigned take-home vehicles. Some vehicles were assigned to maintenance employees who were on-call 24-hours a day, including light duty trucks and other maintenance vehicles. However, take-home vehicles were also assigned to executives and managers; these vehicles included 2002 Ford Explorers, 2001 Chevrolet Impalas, and a 2000 Ford Crown Victoria. The purchase price of the take-home vehicles was $1.75 million. The cost of operating the take-home vehicles was $245,189 in 2001, which included repair, maintenance, and fuel costs.

For employees with take-home vehicles not essential to their job duties, the Tollway is required to count their vehicle usage as compensation by using the IRS "commuter rule" for valuation of fringe benefits. According to the Tollway, the compensation amount is computed by taking the number of one-way trips made by the employee and multiplying it by $1.50. Conversely, for employees who must have a vehicle as a necessary tool of their job duties (i.e., radio/telecommunications technicians and roadway electrical technicians), the Tollway is not required to count their vehicle usage as compensation.

Of the 105 employees with take-home vehicles in September 2002, 67 were required to count their vehicle use as compensation because their permanently assigned vehicles were not necessary to their job duties. These included vehicles assigned to employees from the construction, maintenance, toll services, and other divisions.

The 1995 KPMG study requested by the Tollway found that vehicles were permanently assigned to senior management as a perk of employment, with no Tollway markings and no specific business purpose. KPMG recommended that Tollway vehicles be marked (except unmarked police or surveillance vehicles) and assigned to individuals on Tollway business. The Tollway did not agree and did not implement this recommendation according to the Vehicle Fleet Unit Manager. In response to our follow-up on this KPMG recommendation, the Vehicle Fleet Unit Manager said on October 8, 2002 that no change was needed based on the Tollway's vehicle policies:

After reviewing the KPMG finding and the Authority vehicle assignments, it was determined no action was warranted as all staff have a business need for the vehicles assigned to them. In addition, we review vehicle assignments periodically to assure compliance with Authority policy.

Post Audit Change

At the end of our audit fieldwork, the Tollway reduced the number of permanently assigned vehicles from 105 to 48, effective February 2003.

Also, all 12 vehicles assigned to contractors were returned. The Tollway now pays its Consulting Engineer, Consoer Townsend Envirodyne Engineers, Inc. (CTE), $36 per day per vehicle.

In addition, Tollway officials said that by May 14, 2003, they had completed marking vehicles with the Tollway logo and number, as well as an I-PASS decal.

NEW VEHICLE ASSIGNMENT POLICY 2003
Permanently assigned vehicles are given only to employees who meet one of the following criteria: $ On-call 24-hours, 7 days per week $ Required to report directly to field locations on a regular basis $ Called in during off-hours to handle emergencies where response directly from home is essential $ Supervisory/management staff who have the responsibility over the above activities.

REVIEW OF VEHICLE USAGE

We sampled 18 Tollway employees who were assigned a permanent vehicle and found that 16 either did not complete the required vehicle usage logs or did not complete them correctly. Furthermore, the vehicle usage logs were often not signed by the department chief or division manager to indicate their review and monitoring. Some of the vehicles were used more for commuting than for Tollway business. The Tollway's Vehicle Procedure and Operators Manual requires all employees assigned a permanent vehicle to complete a vehicle usage log daily and submit it to the Tollway each month.

Sample Results

From the list of 105 employee vehicles, we selected a sample of 18 Tollway employees (primarily department chiefs, managers, supervisors, and foremen) and three consultants and reviewed their vehicle usage logs for all 12 months of 2002. Ten of the 18 employees sampled lacked a completed vehicle usage log for every month (see Exhibit 8-5):

- Seven Tollway executives (six department chiefs and one program executive) sampled did not complete any vehicle usage logs. The Tollway's Fleet Unit Manager said department chiefs did not complete the vehicle logs. However, the Tollway's Vehicle Procedure and Operators Manual does not contain a provision exempting executives from completing vehicle logs.
  - Six of the seven executives did report commuting trips to and from work for tax purposes.
  - One department chief did not file the required commuting (tax) report because the Office of Finance, which collects the information, was not aware that a vehicle had been assigned to a new department chief in September 2002. The employee was notified following our review that reports on the number of trips taken each month would need to be filed.

Vehicle Procedure and Operators Manual: "The permanently assigned vehicle operator . . . is responsible for the completion of a Monthly Vehicle Usage Log. The Authority vehicle operator shall complete the log daily, noting in detail the locations, times and mileage readings for trips each day the Authority vehicle is used."

- Three Tollway employees did not complete one, two, and four of the 12 monthly vehicle usage logs, respectively, for 2002.

Only 2 of 18 employees correctly completed all their monthly vehicle usage logs for 2002. To correctly complete the logs, routine duties and commuting trips must have been recorded separately and commuting trips must have been recorded on the top copy of the logs pursuant to the Tollway's procedures.

If monthly logs are not completed correctly, the Tollway can not be assured that vehicles are being used for business purposes only as required by its procedures manual: *"All Authority vehicles are to be used for Authority business purposes only and in compliance with the Authority's vehicle use policies."*

Vehicle Usage

Three of the six employees for whom data was available used their Tollway vehicles at least 65 percent of the time for commuting to and from work, as shown in Exhibit 8-5. We attempted to determine the commuting miles for the entire sample; however, 12 of 18 employees' vehicle logs lacked this information – 7 executives did not complete monthly usage logs and 5 employees did not complete the logs correctly (e.g., did not separate mileage for commuting and routine duties).

Employees are also required to track the number of times they use their vehicles on weekends, holidays, or other off duty call outs. With one exception, all the non-executive employees who completed their logs reported at least one such call during 2002, including two employees who reported 10 or more such calls.

Exhibit 8-5
RESULTS OF VEHICLE LOG TESTING
January – December 2002

Title	Completed	Completed Correctly	Signed by Chief/Division Manager	Miles for Commuting	Off-Duty Calls*
Chief of Operational Services	0%	n/a	n/a	n/a	n/a
Chief of Information Technology	0%	n/a	n/a	n/a	n/a
Executive of Program Development	0%	n/a	n/a	n/a	n/a
Chief of Finance	0%	n/a	n/a	n/a	n/a
Chief Counsel	0%	n/a	n/a	n/a	n/a
Chief of Administration	0%	n/a	n/a	n/a	n/a
Chief Engineer	0%	n/a	n/a	n/a	n/a
Maintenance and Traffic Manager	100%	8%	0%	Could not calculate	Could not calculate
Roadway Maintenance Foreman	83% (A)	0%	0%	41%	6
Procurement Services Manager - Chief of Operational Services	67%**	0%	67%	70%	10
Engineer of Planning and Programming	100%	0%	100%	Could not calculate	2
Roadway Maintenance Foreman	100%	75%	0%	38%	6
Mechanical Electrical	100%	30%	0%	15%	8
Purchasing Supervisor - Procurement Services Manager	100%	100%	100%	65%	8
Facility Services Manager	100%	50%	8%	Could not calculate	31
Operations and Customer Support Manager	100%	100%	92%	71%	2
Administrative Support Manager	92%(B)	8%	92%	Could not calculate	1
Engineer of Construction	100%	0%	100%	Could not calculate	8

n/a = Not Applicable

Notes:
(A) Number of weekend, holiday, or off-duty call outs.
(B) Each month equals approximately 8.3%; therefore, 92% equals 11 monthly reports completed (out of 12), 83% equals 10 monthly completed, and 67% equals 8 monthly reports completed.

Source: Illinois State Toll Highway Authority's vehicle usage logs analyzed by the Office of the Auditor General.

Consultant Vehicles

The Tollway also provided take-home vehicles for Tollway work to its Consulting Engineer, CTE, pursuant to the 1999 Engineering Consultant Vehicle Operating Agreement between the Tollway and CTE. At the time of our review in 2002, CTE had 12 take-home vehicles; these vehicles were withdrawn in 2003. We tested vehicle usage logs for three CTE employees. The only exceptions noted were mistakes in the odometer readings for one employee in 4 of the 12 monthly logs. For example, in one month, the final entry was a commute home of 131 miles when all other commutes were 10 miles. All the logs were signed by a CTE supervisor.

Review of Logs

Only 3 of 18 employees in our sample had all 12 monthly vehicle usage logs signed by the department chief or division manager. According to the Tollway's Vehicle Procedure and Operators Manual, department chiefs are responsible for their employees' adherence to procedures.

We noted several errors and questionable entries in the vehicle logs sampled. Some mistakes were minor, such as the odometer reading being incorrect initially but corrected in later entries. However, other mistakes were more obvious and should have been detected if the logs were properly reviewed.

For example, the first mileage entry for each month should be the last mileage entry for the previous month. However, one employee used the wrong odometer reading for the previous month (used the last entry from page 2 of the log instead of page 3 which was the last page) which resulted in the beginning odometer reading for the current month being 338 miles less than the previous month. The mistake was not noticed and those miles were logged again. This would indicate that the employee was not completing the log each day but may have completed the log at the end of the month to account for the mileage traveled that month. The same mistake was repeated in a subsequent month.

One employee used an incorrect odometer reading – one month's beginning odometer reading was 338 miles less than the previous month. This resulted in the employee logging the same miles twice.

Another employee made frequent trips to Springfield for Tollway business but recorded inconsistent mileage. Most trips were around 160 miles one way, but one trip was 53 miles to Springfield and 131 miles back home while another trip was 246 miles to Springfield and 200 miles back home. Proper review of the vehicle logs could have identified these questionable entries.

One employee's vehicle usage report had varying mileage to and from Springfield that ranged from 53 miles to 246 miles.

Monthly usage logs are an important control to allow Tollway managers to determine whether Tollway vehicles are being used properly. Review and approval of the usage logs by the department chief or division manager would help ensure that

Tollway vehicles are being used only for proper business purposes and can help identify errors and questionable entries.

CONCLUSION

In 2002, the Tollway had 105 take-home vehicles that were permanently assigned to its employees and its Consulting Engineers. In 2001, these vehicles cost the Tollway $245,189 to operate for gas, maintenance, repairs, and insurance. Only two other toll road systems (California Transportation Corridor Agencies and Florida Turnpike Enterprises) responding to our survey stated they provided vehicles to their consultants. Given the number of such vehicles, their annual cost, and their use by many employees more for normal commuting than for Tollway business, the Tollway needed to review its vehicle assignment policy. In February 2003, the Tollway's Executive Director reduced the number of take-home vehicles by more than one-half.

EMPLOYEE VEHICLE USAGE	
RECOMMENDATION NUMBER 17	***The Illinois State Toll Highway Authority should assign take-home vehicles to employees only when such assignments are required to perform their job duties.*** • ***The Tollway should require all employees assigned a permanent vehicle to complete a monthly vehicle usage log and ensure the logs are properly completed and reviewed to ensure the vehicles were used for only business purposes in accordance with the Tollway Vehicle Procedure and Operators Manual.*** • ***Finally, the Tollway should develop additional computerized information to allow management to more effectively monitor vehicle maintenance costs and usage.***
TOLLWAY'S RESPONSE	Effective February 2003, 58 vehicles were removed from take-home status. Only those vehicles required for the safe and efficient operation of the roadway 24/7 remain permanently assigned. Vehicle logs will be monitored and verified for accuracy pursuant to the Vehicle Procedure and Operators Manual requirements. The Authority is in agreement that a new fleet computer system is needed; however, funding has not been available.

Chapter Nine

BONDS

CHAPTER CONCLUSIONS

The Illinois State Toll Highway Authority had $781 million in revenue bonds outstanding at the end of 2002. These bonds are scheduled to be retired by 2017. The revenue bonds are governed by a Trust Indenture that establishes the requirements and guidelines for the Tollway to follow. The Trust Indenture was established in 1985 and contains provisions considered overly restrictive by the Tollway which may need to be reexamined if new revenue bonds are issued in the future.

- The Tollway has refinanced its revenue bonds. According to the Tollway, it realized $98 million in reductions in debt service due to refunding bond issues since 1987.

- Given historical low interest rates, the Tollway needs to examine if it could realize savings by additional refunding of outstanding bonds prior to their maturity. At the end of 2002, more than $330 million of the remaining bonds were eligible for refunding prior to maturity because the bonds are callable. However, the Tollway's new Chief of Finance said that approximately $300 million of the callable bonds would not be economical to refund because a termination fee would have to be paid. The Tollway plans to examine the remaining $30 million of callable bonds later this fall to determine whether savings could be achieved by refunding them prior to maturity.

TRUST INDENTURE

The Tollway's bond issues are governed by a Trust Indenture between the holders of bonds and the Tollway. The Trust Indenture establishes the rights and obligations of both the bondholders and the Tollway. It creates a pledge of the revenues from operating the Tollway system, including tolls, fees, charges, rents, and other amounts collected to repay the principal and interest on the bonds issued to build and improve the Tollway system. The pledge is not only on the net revenues, but also on any monies in any fund, account, or sub-account held by the Tollway and any other monies, securities, and property of the Tollway.

The Trust Indenture defines the bonds that may be issued (e.g., senior bonds, junior bonds subordinate to the senior bonds). As shown in the inset, bonds may be issued for construction costs, refunding, interest costs, or costs of credit enhancements.

The Trust Indenture frequently refers to the 1985 bonds although these bonds were refunded in 1993. The Tollway's Office of Finance Chief noted that the Trust

Indenture was issued as a "base document"; therefore, when it is amended for later issues, the original references stay.

In accordance with the Toll Highway Act (605 ILCS 10/17), Section 501 of the Trust Indenture states the Tollway's bonds are not an obligation of the State of Illinois. The Toll Highway Act states that:

> (b) The bonds of every issue shall be payable solely out of revenues of the Authority, accumulated reserves or sinking funds, bond proceeds, proceeds of refunding bonds, or investment earnings as the Authority shall specify in a bond resolution…
>
> (h) Nothing in this Act shall be construed to authorize the Authority or any department, board, commission or other agency to create an obligation of the State of Illinois within the meaning of the Constitution or Statutes of Illinois.

PURPOSE OF BONDS
1. Paying construction costs of any project;
2. Refunding or prepaying any Senior Bonds or any other obligations of the Tollway issued or entered into for purposes for which Senior Bonds may be issued, including paying related costs of issuance, costs of redemption of refunded bonds, capitalized interest, costs of credit enhancement or costs of hedge agreements;
3. Making deposits to the Debt Reserve Account or acquiring a reserve account credit facility;
4. Paying interest on any Bond;
5. Paying any costs of issuing Senior Bonds; or
6. Paying costs of credit enhancement or costs of qualified hedge agreements for the additional Senior Bonds.
Source: Illinois State Toll Highway Authority's Trust Indenture.

Under the terms of the Trust Indenture, the Tollway is required to hire consulting engineers and traffic engineers to assist in planning and operations of the tollway system. Both firms are required to have national, favorable reputations for skill and experience. The Tollway has hired Consoer Townsend Envirodyne Engineers, Inc. as the Consulting Engineer, and Wilbur Smith Associates as the Traffic Engineer. A search indicates that both firms enjoy national, favorable reputations in their fields.

Budget

The Trust Indenture requires two actions by the Tollway with regard to budgets. First, the Tollway is required to prepare a tentative budget by October 31 of each year. The tentative budget process requires the Traffic Engineer to submit written estimates of toll revenues for the remaining four months of the current year and for the following year, and requires the Consulting Engineer to recommend the deposit for the renewal and replacement roadway construction program. The Consulting Engineer has 10 days after receipt of the tentative budget to file an objection to the tentative budget. Should the Tollway adopt a tentative budget without concurrence by the Consulting Engineer, a copy of the tentative budget along with the Consulting Engineer's objections and recommended changes are sent to the Trustee and bondholders. Within 14 days of receipt of the notice, the bondholders may request a public hearing where bondholder objections may be heard.

The Trust Indenture requires a second action to finally adopt the annual budget. The Indenture states the annual budget shall finally be adopted on or before January 31 of

each fiscal year and the adopted budget is to be filed with the Trustee for inspection by the bondholders. If the budget is not adopted by January 31st, and until such time as a budget is finally adopted, the budget adopted for the prior fiscal year is continued in effect.

The Tollway may amend the budget at any time during the year. If, however, the amended budget is greater than 110 percent of the original budget, the Tollway must notify the Consulting Engineer who is then given the opportunity to object in writing to the proposed amendment. The Consulting Engineer reviews, comments on, objects to or makes recommendations to the budget but does not approve the budget.

Section 710 of the Trust Indenture requires the tentative budget to include the actual revenues for the first 8 months of the current fiscal year, an estimate of the revenues for the remainder of the current year, and the projected revenues for the next fiscal year.

As of January 31, 2003, the Tollway said its Consulting Engineer has never objected to the tentative budget and any concerns have been worked out prior to completion of a tentative budget.

Tolls

The Trust Indenture requires the Tollway to charge and collect tolls that are sufficient to generate net revenues after operating expenses to pay the interest and principal due on the bonds, as well as the costs to preserve, replace, repair, reconstruct and renew the Tollway System. However, if the Traffic Engineer certifies that the schedule of tolls would be impractical, then the Tollway shall establish a schedule of tolls recommended by the Traffic Engineer in order to comply as nearly as practical with meeting the requirements of the Indenture.

If a reduction in toll rates is being considered, a 10-year estimate of payments by the Consulting Engineer should accompany the Traffic Engineer's certification. If the holders of 50 percent of the amount of bonds outstanding request it, the Trustee may sue to force the Tollway to charge the tolls necessary to meet its obligations.

According to the Tollway, Wilbur Smith Associates (WSA) made a recommendation to increase tolls in a letter dated March 28, 2002. The WSA letter states the following:

> We understand that the Authority has received a report from Consoer Townsend Envirodyne Engineers, Inc. ("CTE"), its Consulting Engineers, regarding the maintenance and operation needs of the Tollway through 2017.
>
> . . . forecasts demonstrate that current toll rates will not generate sufficient revenue to meet the revenue requirements, provided to us by the Authority, to enable the Authority to maintain and operate the Tollway and to meet all of its obligations as they become due.

> Our toll revenue forecasts at each toll level were . . . compared with the projected revenue needs as provided by the Authority. Based on this comparison, an increase of cash tolls from $0.40 to $0.75 at most mainline plazas (with proportional adjustments at other plazas) was found to be at the lowest reasonable toll that the Authority can charge which will enable it to generate sufficient revenues to meet its projected revenue needs . . . .

The WSA letter goes on to note that a further toll rate increase may be needed in the future based on actual revenues and operational needs.

Additionally, the Trust Indenture requires the Tollway to operate the tollway system properly and in a sound and economical manner. It requires that every part and parcel be maintained and kept in good repair, working order, and condition.

Funds

The Trust Indenture requires several funds, accounts, and sub-accounts to be created for specific purposes. For example, it creates the Construction Fund and requires a separate account for each Tollway project – construction, maintenance, reconstruction, etc. It also mandates creating several accounts for paying off the bond principal and interest. Locally-held revolving accounts are also allowed for expenses. In addition, deficiencies in certain accounts may be remedied by transferring from other accounts. These accounts, and the required transfers and deposits, are examined on a test basis during the Auditor General's financial and compliance audit each year.

Defeasing Bonds

The Trust Indenture allows new bonds to be issued to refund existing bonds or other obligations of the Tollway if an opinion of Bond Counsel results in a determination that the Debt Service of the new bonds will not be greater than 105 percent of current Debt Service. It also allows bonds to be issued to pay interest or other costs of existing bonds.

BONDS

The Illinois State Toll Highway Authority had approximately $781 million in revenue bonds outstanding at the end of 2002. These bonds have been issued to pay for the construction of toll roads and for refunding (defeasing) bonds in order to lower debt service. As of January 1, 2003, bonds totaling more than $700 million had been retired.

For example, in 1998 the Tollway issued bonds with interest rates of 4.00 percent to 5.50 percent to refund bonds with interest rates of 5.75 percent to 6.45 percent. According to the Tollway, the refunding reduced debt service by $38.8 million and obtained an economic gain based on present value of $27.8 million. The same was done in other years as shown in Exhibit 9-1.

Exhibit 9-1
BONDS OUTSTANDING
December 31, 2002

Issue Date	Purpose	Callable Status of the Bonds	Interest Rate	Issue Amount	Currently Outstanding	Current Maturity Date	Savings Due to Refunding
December 1985	Refunding	n/a	n/a	$167,200,000	0	n/a – Refunded by 1987 and 1993 issue	No Savings
October 1986	Construction (North-South Tollway)	n/a	n/a	$400,825,000	0	n/a – Refunded by 1993 and 1996 issue	n/a
February 1987	Refunding	n/a	n/a	$139,145,000	0	n/a – Refunded by 1996 issue	$16.7 million
October 1992	Construction (Tri-State Widening)	Not callable	6.30%	$459,650,000	$100,665,000	January 1, 2012	n/a
March 1993	**Refunding (Series A)**	**Callable bonds on or after January 2003**	**3.50%**	$209,145,000	**$29,895,000**	**January 1, 2005**	$33.5 million
March 1993	Refunding (Series A)	Not callable	2.40% to 5.00%		$ 55,650,000	January 1, 2004	
March 1993	**(Series B)**	**Callable, at principal plus accrued interest**	**Variable**	**$178,200,000**	**$178,200,000**	**January 1, 2010**	
October 1996	Refunding	Not callable	4.70% to 6.00%	$145,285,000	$93,375,000	January 1, 2009	$9.1 million
December 1998	Refunding (Series A)	Not callable	4.00% to 5.50%	$202,035,000	$200,505,000	January 1, 2017	$38.8 million
December 1998	**(Series B)**	**Callable, at principal plus accrued interest**	**Variable**	**$123,100,000**	**$123,100,000**	**January 1, 2017**	
			Total	$2,024,585,000	$781,390,000		$98.1 million

n/a = Not Applicable

Note: Bolded and shaded cells are for callable bonds.

Source: Summary by the Office of the Auditor General from Illinois State Toll Highway Authority information, Illinois Economic and Fiscal Commission information, and the 2001 Financial and Compliance Audit of the Illinois State Toll Highway Authority.

Tollway officials said they have refinanced the bonds to the extent possible and future refinancing would have to be a taxable refinancing (the income will be taxable to the bondholders). Only one exception was noted in a September 12, 2002 e-mail by the Tollway's Finance Chief: *"Only the 1993 Series A maturity of 2005 is callable. These are only callable after 2002. The coupon on this is 3.5%. The other issues are either non-callable or are variable rate bonds swapped to fix rate."*

We requested and received assistance from the Illinois Economic and Fiscal Commission in reviewing the Tollway's revenue bonds. The Commission confirmed that the 1993 Series A bonds are subject to optional redemption prior to maturity on or after January 1, 2003 at the redemption price of the principal amount, plus accrued interest. The Commission also noted that the 1993 Series B and 1998 Series B bonds can also be called before their maturity in 2010 and 2017, but at a premium (e.g., termination fee).

The total amount of callable bonds was $331,195,000 at the end of 2002. However, the Tollway's new Chief of Finance said that approximately $300 million of the callable bonds had been previously swapped from variable interest rates to fixed interest rates and would not be economical to refund because a termination fee would have to be paid. The Tollway plans to examine the remaining $30 million of callable

bonds later this fall to determine whether savings could be achieved by refunding them prior to maturity.

The Illinois Economic and Fiscal Commission noted that all Toll Highway bonds have been refunded once as tax-exempt bonds. The bonds which are callable could be refinanced again, but they would then be federally taxable. The Commission stated that the decision to refund a tax-exempt issue with a taxable one would depend on whether savings would outweigh the costs of issuance, higher interest rates, and any call premiums that had to be paid.

The Illinois Economic and Fiscal Commission explained that in addition to lower market interest rates, several other factors may also create an environment for refunding bonds. One such benefit is the opportunity to modify restrictive bond covenants. As an example, the Commission noted that:

> . . . if a bond program required a certain percentage of dedicated revenues to the level of debt service costs ("coverage ratio") which can no longer be achieved by the issuer, they may begin a new program, with a lower coverage ratio requirement, and issue bonds to refund those bonds outstanding under the previous program.

In various interviews, Tollway officials referenced restrictive provisions in the Trust Indenture as impacting Tollway operations. The Tollway's Chief Legal Counsel noted that the Tollway's bonds would need to be defeased to make major changes to Trust Indenture requirements. Another official noted that the Trust Indenture required different types of insurance coverage, which may overlap. If existing Tollway bonds are refunded or new bonds are issued for future projects, the Tollway should examine whether there are Trust Indenture provisions which would beneficial to the Tollway to revise, as well as the potential cost, if any (such as higher rates paid to bondholders), of such revisions. The original Trust Indenture was established in 1985 and may need to be reviewed to determine whether it is consistent with the current operating environment and the future business plans of the Tollway.

CONCLUSION

The Illinois State Toll Highway Authority had $781 million in revenue bonds outstanding on December 31, 2002. These included some bonds that were eligible to be refunded before their maturity dates because they have a call provision. Given the historical low interest rates occurring in 2003, the Tollway should explore its options on refunding bonds. Finally, as noted by the Illinois Economic and Fiscal Commission, when bonds are refinanced or new bonds issued, an opportunity is presented for the Tollway to address covenants or provisions in the Trust Indenture that may be particularly restrictive.

REVENUE BONDS	
RECOMMENDATION NUMBER 18	***The Illinois State Toll Highway Authority should continue to review its outstanding revenue bonds to determine if it is cost effective to call certain bonds and refund them prior to their maturity. Furthermore, the Tollway should identify Trust Indenture covenants which may be overly restrictive that could be modified in subsequent bond issues.***
TOLLWAY'S RESPONSE	The Authority has monitored its debt for opportunities to refinance at lower rates of interest. Although the Authority has $ 330 million of callable debt, the total costs of refinancing the debt make it economically unattractive to proceed with a refinancing or defeasance of the debt.

Chapter Ten

CAPITAL PLANNING AND TOLL ROAD RECONSTRUCTION

CHAPTER CONCLUSIONS

The Illinois State Toll Highway Authority did not have a comprehensive written plan that supports the need for reconstructing and widening the toll roads, some of which were originally constructed 40 years ago. Over the past several years, the Tollway has issued a number of capital planning documents but they show varying cost estimates, timeframes, and priorities. Many documents exist but they failed to merge the financial and engineering components into a single plan. A comprehensive plan that combines project types and description, detailed cost estimates, timelines, revenues, and expenditures is necessary.

- In March 2002, the Tollway proposed a $5.5 billion reconstruction plan which would be paid by a 35 cent toll increase to its current base rate of 40 cents for passenger vehicles (88% increase). However, some of the supporting documentation for the $5.5 billion cost estimate was not prepared until after we requested to see the backup. Furthermore, the cost estimates prepared by the Tollway's Consulting Engineer were not subject to review by the Tollway's own employees.

- Consoer Townsend Envirodyne Engineers, Inc. (CTE) informed us in March 2003 that the $5.5 billion reconstruction cost estimate was the high end cost estimate. This information was not noted by the Tollway when the reconstruction plan was announced in March 2002 nor was it disclosed in other Tollway reports. CTE assumed that most Tollway roads would require full reconstruction and built this assumption into their $5.5 billion cost estimate. There are, however, less expensive alternatives to a complete reconstruction and the cost estimation process for the $5.5 billion reconstruction plan is simplified.

- According to the 2001 Annual Report by CTE, the Tollway will not have sufficient funds to pay for the reconstruction. However, as recently as 1998, the Tollway publicly stated that no toll rate increase was required.

- The Tollway needs to establish a written financial plan to pay for the reconstruction. The Tollway retained the firm of RBC Dain Rauscher in summer 2002 to develop a financing plan by fall 2002, but no plan was issued as of May 1, 2003.

CAPITAL PLANNING

The Toll Highway Act requires the Tollway to prepare an annual capital plan and a 10-year capital plan. To fulfill these responsibilities, as well as those duties required by the Trust Indenture, the Tollway has a contract with CTE. Aside from the duties prescribed by the Trust Indenture (e.g., preparing and submitting certificates, cost estimates, objections and/or recommendations to budgets), CTE is under contract to provide engineering analyses, planning, and scheduling.

The general contract with CTE was for $6.5 million in 2002 and for $7.4 million in 2003. Part of CTE's responsibilities include preparing condition reports, assisting the Tollway in identifying capital needs of the Tollway system, developing capital programs and optimal strategies for preserving the Tollway infrastructure, and serving on behalf of both the bond trustee and Tollway management.

- **$ Renewal and replacement** (R&R) projects maintain, repair or improve the existing infrastructure.
- **$ Capital improvement** projects add to the existing Tollway infrastructure.

According to representatives from CTE, many Renewal and Replacement projects are becoming less cost-effective and may need to become reconstruction projects. CTE indicated that it limited its short-term capital program recommendations in recognition of revenue restrictions at the Tollway. However, in cooperation with the Tollway, CTE could force toll increases under certain provisions of the Trust Indenture.

Capital Plans

The Tollway's Executive Director stated to the Board of Directors during the March 2002 Board meeting that the Tollway needs to change:

> If I were to choose a theme today it would be -- the tollway has to change. Yes, the tollway has to change, but we must make the necessary changes. No one has been able to develop a plan that is both economically feasible and politically palatable. And because the marriage of those two elements has remained so elusive over the years, the tollway has been in limbo, waiting for others to chart a direction, while we continued to put off needed repairs that our independent engineers have told us since 1989 were coming. We are the caretaker of a massive transportation system that services over 1.2 million drivers a day--but we have been unable to do the proper long range planning to preserve that system.

The Tollway has produced numerous capital improvement plans; however, they present a confusing array of different project compilations. Preservation and reconstruction projects are mixed with capacity improvements for widening roads and improving toll plazas. A comprehensive plan that combines projects, costs, timelines, revenues, and expenditures is necessary.

10-Year Plan

In 1970, the Tollway directed its Consulting Engineer, CTE, to develop the first 10-year plan. Since then, a 10-year plan has been formulated each decade. The most recent "10-Year Plan for the Illinois State Toll Highway Authority" was prepared in March 2001 by CTE. This plan is *". . . a strategic document that sets an approach to ensure that the Tollway infrastructure remains a vital and viable component of the transportation system in northern Illinois."*

The 10-year plan assessed the three major components of the Tollway's infrastructure – pavements, bridges, and facilities – and identified four categories of system needs: infrastructure preservation; congestion relief; regional improvements; and system enhancements. Projects are identified and, based on the characteristics of the project, are assigned to either the renewal and replacement program (R&R) or the capital improvement program. The plan shows specific projections for annual expenditures but lacks any revenue forecasts (see Exhibit 10-1).

In the 10-year plan for 2001-2010 (dated March 2001), CTE makes strong statements about the deteriorating condition of the Tollway and says the plan primarily addresses only the critical repair needs and less the reconstruction needs. The plan's Executive Summary states that (p. iii):

- "… this strategy maintains the system integrity through 2005 . . . it cannot be continued beyond this time."
- "The Authority must begin the challenge of replacing System elements that have exceeded their useful and economic service life. . ."
- "Toll revenues . . . will not be sufficient to fully fund the needs of the System identified in this 10-year plan. Additional revenues will be required to fully implement this plan."

Exhibit 10-1
10-YEAR PLAN'S COST OF PLANNED CONSTRUCTION ($ millions)

Year	RR [1]	Improve [2]	Total
2001	$105.7	$31.6	$137.3
2002	$102.5	$20.8	$123.3
2003	$112.6	$10.6	$123.2
2004	$153.1	$4.2	$157.3
2005	$164.4	$22.4	$186.8
2006	$153.1	$115.6	$268.7
2007	$94.5	$130.9	$225.4
2008	$232.9	$99.6	$332.5
2009	$333.9	$174.8	$508.7
2010	$313.2	$261.7	$574.9
Total	**$1,765.9**	**$872.2**	**$2,638.1**

Notes:
[1] RR = Renewal and Replacement which include maintenance, repair, or improvement to existing infrastructure.
[2] Improve = Improvement projects which include additions to the existing infrastructure.

Source: Illinois State Toll Highway Authority's 10-Year Plan.

The March 2001 10-Year plan contained a cover letter from the Tollway Chairman which said the following:

> . . . the magnitude of the infrastructure needs approaches $4.4 billion . . . . as this 10-Year Plan illustrates in detail, the Tollway Authority cannot meet even half of the needed construction obligations because projected revenues fall short of the funding requirements. The 10-Year Plan projects expenditures of only $2.7 billion, and even that is not entirely fundable past 2004 based on current revenue projections.

Annual and Multiple Year Plans

Based on the 10-Year Plan, CTE also prepares an Annual Element Project Summary listing individual work projects that will be active for the coming year, along with a Multi-Year Program covering major projects over the next four years (5-year plan). These serve to update and implement the 10-year plan.

This type of capital planning is fairly common across toll authorities in other states. They generally have a 3-to-5 year work program of relatively committed and budgeted projects and a longer-term improvement plan providing guidance on system development.

15-Year Plan

As financial shortfalls became more pressing, CTE was directed to prepare a capital program for a 15-year period (2003-2017). This 15 Year Capital Improvement Plan for a reconstructed and widened system was presented at the March 2002 Board meeting and carried a cost estimate of $5.5 billion (see Appendix E).

20-Year Plan

The Tollway adopted a 20-year plan for 2003-2022. This plan is a one-page list of projects, including type of project, and construction cost. The total construction cost over 20 years is projected to be $5.85 billion.

Conclusion

The Annual Element, Multi-Year Plan, 10-Year Plan, 15-Year Plan, and 20-Year Plan should contain a more thorough explanation of the criteria and constraints applied to generate the various lists of projects. These plans should be better integrated with each other and be more seamless in their presentation so that the Tollway can more successfully communicate its needs to stakeholders.

Furthermore, consistency in capital planning is needed. For example, the 15-Year Capital Improvement Plan has not appeared in written form beyond project cost spreadsheets. To add to the confusion, after encountering resistance to its $5.5 billion reconstruction plan, the Tollway reported in July 2002 (press release 7/1/02) that CTE had submitted a list of adjustments to the 15-Year Capital Improvement Plan, advancing numerous projects into the first five years of the program without offering any explanation as to how this became possible.

FINANCIAL PLANNING

The rationale and benefits of adopting any particular plan need much more attention by the Tollway staff and the Board of Directors. The Tollway cannot expect the public, the General Assembly, or other stakeholders to acquiesce to a major toll increase without presenting more detailed plans and options, coupled with a public information initiative to make clear what commitments to improvement are being made by Tollway management.

A critical component of a successful capital planning effort is a financing plan to pay for the project. The Tollway's capital plans have not been matched with a feasible financial plan that would support implementation. The Tollway Board has not been able to match revenue with its improvement plans, and has deferred much of the major renewal and replacement and reconstruction. The Tollway's Chairman noted in the 10-Year Plan in March 2001 that:

- ". . . the Tollway Authority cannot meet even half of the needed construction obligations because projected revenues fall short . . . ."
- "Major construction projects cannot be funded under the current 2001-2005 plan and must be deferred . . . ."
- "The 10-year plan does not include construction of any proposed extensions . . . ."

According to CTE's 2001 Annual Report, the Tollway will not have sufficient funds to pay for the reconstruction: "*Towards the end of 2004, revenues are projected to be insufficient to fund the needs of the Tollway System.*" However, as recently as 1998, the Tollway publicly stated that no toll rate increases will be required (see Exhibit 10-2).

Exhibit 10-2
NO TOLL INCREASE NEEDED

"No Toll Rate Increase Planned by Illinois State Toll Highway Authority"

The Illinois State Toll Highway Authority (ISTHA) today reconfirmed earlier announcements that no toll rate increases will be required to fund current operations of the existing roadway system, planned existing roadway capital expenditures or the construction and operation of currently planned expansions of the existing system. This includes the roadwide expansion of the I-PASS electronic toll collection system and the construction of the extension of the North/South Tollway (I-355) from I-55 to I-80.

The construction expenditures which will be required to build the I-355 extension will be funded by the sale of revenue bonds with debt service covered by toll revenues at existing toll rates.

Source: Illinois State Toll Highway Authority press release June 29, 1998.

In March 2002, the Tollway proposed a $5.5 billion reconstruction plan which would be paid by a 35 cent toll increase to its current base rate of 40 cents for passenger vehicles. At the March 2002 Board meeting, the Tollway Board also heard toll increase options and associated revenue forecasts from its traffic and revenue consultant, Wilbur Smith Associates (WSA). However, no written financial plan was presented to match WSA's revenue forecasts with project costs and financing options.

In summer 2002, the Tollway retained the Minneapolis-based firm RBC Dain Rauscher to determine the optimal financing plan for reconstructing the Tollway. The firm was expected to submit a 20-year plan on the options for financing the reconstruction of toll roads in fall 2002 but no report had been issued as of May 1, 2003.

CAPITAL AND FINANCIAL PLANNING	
RECOMMENDATION NUMBER **19**	***The Illinois State Toll Highway Authority should develop a comprehensive written plan which clearly demonstrates whether:*** **$** ***There is a need to reconstruct the toll roads;*** **$** ***How the Tollway intends to pay for the construction, including coordinating project costs with revenues; and*** **$** ***Why the financing strategy is most cost effective for toll road users.***
TOLLWAY'S RESPONSE	The Authority concurs with this recommendation and is beginning the process, which could take as long as a year, to finalize such a plan. We will build on the existing documents to update the system's needs and priorities.

ASSESSMENT OF SYSTEM CONDITION

According to the Tollway's Consulting Engineer CTE, most of the original Tollway roads have had at least three pavement rehabilitation projects and/or overlays and are approaching the end of their useful and economic life. Exhibit 10-3 shows the condition of the toll road pavement.

Exhibit 10-3
PAVEMENT CONDITION

	1997	2000	CHANGE
Excellent/Good	53%	45%	(8%)
Transitional/Fair	46%	53%	7%
Poor/Not Rated	1%	2%	1%

Source: 2001 CTE Annual Report.

In 1994, the Tollway adopted the Illinois Department of Transportation's pavement rating system called Condition Rating System (CRS). This system is a subjective measurement of pavement condition based on a 1 to 9 scale, with 9 representing a newly constructed or resurfaced pavement and 1 representing a completely failed pavement. A CRS value of 6 is considered fair with likely repairs in the next 2 to 7 years. The 10-Year Plan for 2001-2010 notes that independent consultants have reviewed their CRS ratings:

> . . . In 1994 the Authority adopted an IDOT-developed pavement inspection evaluation system which classifies pavement conditions using Condition Rating System (CRS) values. The CRS is a subjective numerical rating system for describing the surface condition of pavements based on visual and electronic inspection procedures . . . . Since 1997, an independent consultant has developed these values for the Authority. . . . In 1998, the Authority engaged the services of a second independent consultant to review and interpret the collected CRS data.

In the semi-automated CRS process, a van equipped with several high-speed cameras and profile sensors drives the highways at normal traffic speeds and collects video images of the pavement surface and profiles the pavement surface. According to the Tollway: *"This equipment is highly specialized and very expensive, making it cost prohibitive for the Authority or CTE to perform this task. Instead, an independent consultant was selected by the Authority to collect this data. Pavetech Inc., later known as Halcyon, was selected to collect the pavement data."*

The Tollway explained that there were some questions concerning the validity of the CRS ratings obtained from this new process. The ratings were not consistent with the previous ratings obtained using manual techniques, and in some instances the results did not appear to accurately represent field conditions:

> Because of its concerns with the CRS ratings, the ISTHA [Illinois State Toll Highway Authority] asked a second consultant, ERES Consultants, through CTE, to evaluate the CRS information and resolve some of the questions regarding the data's validity. ERES Consultants is a consulting engineering firm specializing in pavement services. ERES's review of the ISTHA's CRS ratings did reveal some errors in the data. Basically, the vast majority of the errors consisted of the following items:
>
> - Incorrect distress data for the PCC [Portland Cement Concrete] pavements.
> - Incorrect pavement profile (rideability) values at and near toll plazas. The values were collected in start-and-stop traffic, thus making them invalid.
> - Incorrect transverse joint faulting data for the vast majority of the ISTHA's PCC pavements.
>
> ERES corrected the erroneous information and provided the ISTHA with a preliminary set of revised CRS values. The ISTHA's review of the corrected CRS information indicates that the revised ratings are much more in line with previous surveys and more accurately reflect current pavement conditions throughout the ISTHA network.

CTE stated on January 17, 2003 that the Tollway considered the federal PSR (Pavement Serviceability Rating) system for measuring road conditions but noted that the PSR is based on a windshield survey that is less detailed than CRS which utilizes actual images of nearly the entire pavement. Also, the Tollway deemed PSR inappropriate because it was inconsistent with IDOT practices; IDOT uses the CRS system. The Tollway is part of the State road system and they wanted to collect data that would allow comparison with IDOT roads.

The Tollway's assessment process for the current roadway condition is based on a number of methods and considerations that include the following: (1) annual pavement Condition Rating Surveys (CRS) including consultant videotape and electronic sensor data; (2) annual drainage condition survey; (3) bi-annual Bridge Condition Surveys; (4) facility inspections every four years; and (5) signs and walls inspections every four years. In addition, the CRS in the future will include annual traffic projections by the Tollway's Traffic Engineer, Wilbur Smith Associates.

While the current system for inspecting the road condition produces adequate results, there are newer inspection technologies of which the Tollway could consider taking advantage. Access to newer technology and systems could allow inspections to be done on a more frequent basis and under different weather conditions. Visual inspection systems need to be periodically complemented, such as with physical evaluation systems including friction testing, and non-destructive strength methods (NDT). Newer technologies and systems could be incorporated to improve the condition assessment process.

REVIEW OF $5.5 BILLION RECONSTRUCTION PLAN

We requested from the Tollway the detailed plan that supported the $5.5 billion reconstruction plan submitted to the Board of Directors in March 2002. Other than a three-page summary and a project-by-project cost spreadsheet, however, we were not able to identify a written capital improvement plan that describes the 15-year plan in detail.

In response to our request for the backup for the $5.5 billion cost estimate, the Tollway wrote on September 10, 2002 that the cost estimate was still being prepared: *"The cost estimate backup for the $5.5 billion capital program is being compiled and will be forwarded when received."*

On September 20, 2002, the Tollway provided the backup cost spreadsheets for the plan. When the backup spreadsheets did not add to $5.5 billion (they totaled less than half), we inquired and learned that the dollar amounts in the spreadsheet had to be adjusted for inflation:

> . . . year 2000 costs were the basis for the program costs. The construction costs were escalated at 5% annually to the year of construction. If the project is constructed over 2 years then each half of the project is escalated to its appropriate year of construction. The design costs are also based on year 2000 costs escalated at 5% annually to 2 years prior to construction. Again, if the construction was to take place over 2 years, then so was the design and each portion was escalated accordingly.

Our generalized review indicated that when the spreadsheets were adjusted for inflation at five percent, they approximated $5.5 billion.

Review of Reconstruction Methodology

Based on a review of the three-page summary and the project cost spreadsheets provided by the Tollway, the cost estimation process appears to be broad and high-level relative to the importance of the $5.5 billion total estimated price tag for reconstructing the toll roads. Most costs were based on a uniform per unit cost estimate for a small number of project categories to build up the system improvements. Even recognizing

that the proposed capital improvements span a long range period of 15 to 20 years, the level of detail and justification of the projects could be improved upon.

- **$** Improvements could be made in the justification of the cost estimates underlying the plan by using a larger number of project categories to build up the system-wide costs. Numerous projects on different tollways were given uniform cost estimates.
- **$** A 10 percent contingency fee for some projects could be reduced based on the ample experience of the Tollway for particular resurfacing and rehabilitation projects.
- **$** The 10 percent contingency fee can also be reduced if the project is essentially a fully-designed replication. The engineers should gradually be able to eliminate contingency costs.
- **$** Engineering cost estimates for both design and construction phases need to be evaluated by size of project. Embarking on a $5.5 billion improvement program will permit repackaging the work program more efficiently for contracting purposes, possibly decreasing the unit costs.
- **$** Even though estimates appear to be reasonable for projects with construction costs above $5 million, they may be low for smaller projects, or higher for specialized projects which tend to require higher per unit engineering costs.

The Tollway needs to address the apparent simplified cost estimating process for the long-term plan. This can include establishing engineering cost estimates based on parameters that would allow for large continuing projects, small projects, and specialized projects rather than a flat across-the-board rate. Most recent construction costs from other toll authorities should also be used as a benchmark of Tollway costs.

We also noted that there may be viable alternatives to fully reconstructing the Tollway which should be explored. CTE informed us in March 2003 that the $5.5 billion reconstruction cost estimate was the high end cost estimate. This information was not noted by the Tollway when the reconstruction plan was announced in March 2002 nor was it disclosed in other Tollway reports. CTE assumed that most Tollway roadway would require full reconstruction and built this assumption into their $5.5 billion cost estimate. There are, however, less expensive alternatives to a complete reconstruction, such as rubblization.

Rubblization involves breaking the existing concrete slabs into pieces. Specialized equipment is used to rubblize the old concrete so that the rubblized concrete can serve as high quality base material for new pavement. After rubblization, the fractured concrete is compacted and new asphalt pavement layers are constructed above the rubblized surface. The performance and service life of the new asphalt layers can also be improved using special modifiers (polymers) for the asphalt cement.

According to CTE, two two-mile test sections of the East-West Extension of the Tollway were rehabilitated using rubblization in the late 1990's. CTE's 10-Year Plan states that *"The test segments are being closely monitored, and if performance is satisfactory, this technique may be used on additional sections."*

Approximately $1.9 billion of the $5.5 billion capital plan is for reconstruction. Our consultant Infrastructure Management Group noted that if an alternative such as rubblization would be 35 to 40 percent less expensive than complete reconstruction, up to $700 million could be saved. However, additional future costs would be incurred should such alternatives be used. For example, the roadway may need to be repaired sooner (after 15 years or more) than if the road was completely reconstructed when it could be expected to be repaired after 20-25 years according to IMG. CTE officials stated that they expect the Tollway will consider various alternatives to full reconstruction when project-specific design goes forward. Given the size of the capital plan and the large amount of revenue that is needed to pay for the plan, a critical review of all reconstruction alternatives and their associated costs should be explored.

Tollway Review of Contractor Estimates

When we inquired if the spreadsheets for the $5.5 billion reconstruction plan were CTE's estimate or if they were reviewed by the Tollway to ensure that they were complete and accurate, the Tollway's Chief Engineer stated on September 30, 2002, that the cost estimate was provided by CTE:

> These are CTE's cost estimates. CTE performs all cost estimating for the tollway. Having CTE perform this function keeps consistency in the dollar figures from project to project.

Tollway officials said they meet with CTE twice a month to discuss road construction and maintenance issues. Given the importance and magnitude of the $5.5 billion reconstruction plan, the Tollway staff should independently review its contractors' construction cost estimates and the associated methodologies to ensure that the information is complete and reliable.

The need for the Tollway to independently review its contractors' cost estimating methodologies is evidenced by a recent change that CTE made in estimating the roadway replacement costs calculated for insurance purposes. In 2001, CTE reviewed its methodology and significantly lowered the replacement cost of the toll roads and other capital assets by more than 50 percent from $7.4 billion to $3.6 billion, as shown in Exhibit 10-4.

Exhibit 10-4
TOLLWAY REPLACEMENT COST CALCULATED FOR INSURANCE PURPOSES

Infrastructure Element	Calendar 2000	Calendar 2001	Change
Roadway	$5,896,500,000	$1,600,000,000	($4,296,500,000)
Bridges	$895,300,000	$1,236,000,000	$340,700,000
Toll Plazas	$191,700,000	$171,000,000	($20,700,000)
Retaining Walls	$76,000,000	$170,000,000	$94,000,000
Oases	$110,700,000	$115,000,000	$4,300,000
Information Technology [(1)]	$80,700,000	$77,000,000	($3,700,000)
Noise Walls	$42,300,000	$66,000,000	$23,700,000
Maintenance Facilities	$51,400,000	$61,000,000	$9,600,000
Central Administration Complex	$38,000,000	$40,000,000	$2,000,000
Sign Structures	$23,100,000	$32,000,000	$8,900,000
Total	**$7,405,700,000**	**$3,568,000,000**	**($3,837,700,000)**

Notes:
[(1)] In 2000, Information Technology was called Telecommunications.

Source: CTE Annual Reports for 2000 and 2001.

The insurance section of the 2001 CTE annual report stated, *"In 2001, the methodology used to determine roadway replacement costs was revised to bring it more in line with industry standards."* CTE told us the 2001 cost is for insurance purposes -- the actual reconstruction cost would be higher:

- CTE said the calendar year 2000 costs were for complete reconstruction and were escalated approximately 5 percent annually. The 2001 data is more reflective of replacement costs. *"This report is not merely an update of past reports, but rather, it is a more extensive examination of the Authority's inventory. The methodology used to determine replacement cost formulas, and therefore values, is much more rigorous than in the past."*

- The methodology used in 2001 was for replacement as opposed to complete new roadway construction. *"This new methodology is more in line with industry standards . . . . This approach recognizes that most earthwork, major drainage work, and other large cost drivers would not need to be completely replaced if the roadway is damaged."*

Conclusion

As discussed at the beginning of this chapter, the Tollway's Consulting Engineer, CTE, is responsible for developing the capital program pursuant to the requirements of the Toll Highway Act. As the independent engineer responsible for the oversight of the system, and with special responsibilities under the bond covenants, CTE has the responsibility to ensure that the interests of the bondholders are protected. As such, CTE's relations with the Tollway should be maintained at a consultation level to preserve the integrity of the process. Consequently, given that the Consulting Engineer needs to be independent from the Tollway, the Tollway needs to also critically review the plans and underlying assumptions developed by CTE to ensure that the interests of the Tollway are being served. CTE has been the Tollway's Consulting Engineer since the very beginning of the Tollway more than 40 years ago.

REVIEW OF CAPITAL PLANNING	
RECOMMENDATION NUMBER 20	***The Illinois State Toll Highway Authority should routinely review the work performed by its Consulting Engineer, including the methodologies used to develop road construction options and construction cost estimates.***
TOLLWAY'S RESPONSE	The Authority does meet regularly with its outside consultants and regularly reviews their work. The Authority is very well aware of the methodologies used by its consultants.
AUDITOR COMMENTS	When asked whether the spreadsheets for the $5.5 billion reconstruction plan were CTE's estimate or whether they were reviewed by the Tollway to ensure they were complete and accurate, the Tollway's Chief Engineer stated in September 2002, *"These are CTE's estimates. CTE performs all cost estimating for the tollway. Having CTE perform this function keeps consistency in the dollar figures from project to project."*

Chapter Eleven

EMPLOYEE SURVEY

CHAPTER CONCLUSIONS

The Office of the Auditor General sent a survey to Illinois State Toll Highway Authority employees asking for their input in areas related to the administration and operation of the Tollway. Employees of the Tollway identified areas where the operation and administration of the Tollway could be improved.

- While approximately 75 percent of the responding employees said that the Tollway did a good or adequate job in providing them with supervision, training, policies and procedures, and information on mission and goals, the remaining 25 percent noted that improvements were needed in these areas.

- Employees working in toll collection and roadway maintenance generally had the highest percentage of responses stating that improvements were needed.

- A total of 181 of the 189 employees (96%) who responded to our survey provided written comments, including many who identified areas where they believed improvements at the Tollway could be made.

- The survey asked the employees to identify areas where policies and procedures were not followed, toll collection could be improved, the Tollway performed well, and money could be saved. Examples of areas that employees noted could be improved included better management/supervision; enhanced public relations; increased usage of I-PASS; and a reduction in management staff.

- Areas where employees responded the Tollway performed well included: snow removal; road maintenance; and motorist assistance and accident response.

- Presently, the Tollway does not undertake surveys of employees and has not established a system that routinely solicits input from employees on ways to improve Tollway operations. Not only may such a system identify areas where operations could be improved, it may also help address some of the internal communication and management issues raised by employees in their survey responses. Should routine employee feedback be solicited and received, the Tollway would need to ensure that such feedback is followed-up on in an appropriate manner.

EMPLOYEE SURVEY

On November 13, 2002, the Office of the Auditor General mailed a survey questionnaire to Tollway employees to obtain their input regarding the Tollway's operations. Employees were sorted by their work unit and every second employee (964 of 1,927 employees) was mailed a survey. Twenty percent of employees receiving a survey questionnaire completed and returned the questionnaire. A total of 181 of the 189 employees (96%) who responded to our survey provided written comments, including many who identified areas where they believed improvements at the Tollway could be made.

Exhibit 11-1
ORGANIZATIONAL UNITS OF SURVEY RESPONDENTS

Unit	Total	Percent
Operational Services: Toll Collection	53	28%
Engineering: Roadway Maintenance	43	23%
Engineering: (excluding roadway maintenance)	28	15%
Finance and Administration	21	11%
Operational Services: (excluding toll collection)	16	8%
Information Technology	11	6%
Other	17	9%
Total	**189**	**100%**

Note: Includes organization units for which 10 or more employees responded.

Source: Illinois Auditor General's survey of Illinois State Toll Highway Authority employees.

As shown in Exhibit 11-1, the largest group of respondents were toll collectors and roadway maintenance employees.

The survey asked employees to rate the Tollway in several areas which are important for good management, including whether the Tollway was providing them with information related to mission and goals, policies and procedures, training, supervision, and annual performance evaluations.

The survey also asked the employees to identify areas where policies and procedures were not followed, toll collection could be improved, the Tollway performed well, or money could be saved.

Almost two-thirds of the survey respondents had been employed by the Tollway for more than 10 years, as shown in Exhibit 11-2.

Exhibit 11-2
LENGTH OF SERVICE OF SURVEY RESPONDENTS

Service	Number	Percent
0-5 years	50	27%
6-10 years	17	9%
11-15 years	52	28%
15+ years	68	36%
Total	**187**	**100%**

Note: Excludes 2 surveys that did not respond to this question.

Source: Illinois Auditor General's survey of Illinois State Toll Highway Authority employees.

The majority of Tollway employees responding to our survey said the Tollway did a good or adequate job in providing the following:

- **$** Supervision;
- **$** Information on mission and goals;
- **$** Training; and
- **$** Policies and procedures.

However, approximately one-quarter noted that improvements were needed. Employees working in toll collection and roadway maintenance generally had the highest percentage of responses noting that improvements were needed in the above areas.

Exhibit 11-3 summarizes the responses to these four areas by organizational unit of the responding employees and the following sections discuss the employees' responses:

Exhibit 11-3
RESPONSES TO SURVEY BY TOLLWAY EMPLOYEES

Organizational Unit Where Employee Worked	SUPERVISION		MISSION AND GOALS		TRAINING		POLICIES AND PROCEDURES	
	Good or Adequate	Needs Improve-ment	Good or Adequate	Needs Improve-ment	Good or Adequate	Needs Improve-ment	Good or Adequate	Needs Improve-ment
Operational Services: Toll Collection	62%	38%	49%	51%	63%	37%	57%	43%
Engineering: Roadway Maintenance	65%	35%	77%	23%	72%	28%	79%	21%
Engineering (excluding roadway maintenance)	79%	21%	82%	18%	75%	25%	86%	14%
Finance and Administration	95%	5%	90%	10%	67%	33%	86%	14%
Operational Services (excluding toll collection)	75%	25%	80%	20%	81%	19%	81%	19%
Information Technology	91%	9%	100%	0%	100%	0%	100%	0%
All Others	93%	7%	87%	13%	93%	7%	87%	13%
Total	**74%**	**26%**	**74%**	**26%**	**74%**	**26%**	**76%**	**24%**

Notes: Includes organization units from which 10 or more employees provided responses.

- Operational Services (excluding toll collection) includes employees working in: Cash Handling, Procurement Services and Facility Services.
- Engineering (excluding roadway maintenance) includes employees working in: Fleet Maintenance, Planning and Programming, Design, Property Management and Construction.

Source: Illinois Auditor General's survey of Illinois State Toll Highway Authority employees.

Supervision: *How would you rate the Tollway on providing you with supervision?*

About one quarter (26%) of the Tollway employees responded that the supervision they received needed improvement. The employees' assessment of the supervision they received varied substantially depending upon the organizational unit in which they worked. For example, only five percent of Finance and Administration employees and nine percent of Information Technology employees responded that their supervision needed improvement. However, 38 percent of toll collection and 35 percent of roadway maintenance employees responded that their supervision needed improvement. The need for improved supervision was also noted as part of employees' responses to open-ended questions, as discussed later in this Chapter.

Mission and Goals: *How would you rate the Tollway on providing you with information on the Tollway's mission and goals?*

Almost three-quarters of the survey respondents rated the Tollway as being good or adequate in providing them with information on the Tollway's mission and goals. As with the supervision question, there were certain organizational units where a higher proportion of employees responded that improvement in the communication of the Tollway's mission and goals was needed. It is important that all employees are familiar with and understand not only the overall mission and goals for the agency but also for their respective units within the organization.

Just over one-half of the employees involved in the collection of tolls responded that the Tollway needed to improve in providing them with information on the Tollway's mission and goals. Since toll collection personnel deal directly with the public, it is important that the mission and goals of the Tollway be communicated to them. All Information Technology employees responding to the survey said the Tollway was doing an adequate or good job of providing them with information on missions and goals.

Training: *How would you rate the Tollway on providing you with training?*

Seventy-four percent of Tollway employees said that training was good or adequate. The two organization units in Exhibit 11-3 with the highest percentage of employees responding that training needed to be improved were Toll Collection (37%) and Finance and Administration (33%).

Policies and Procedures: *How would you rate the Tollway on providing you with policies and procedures?*

Seventy-six percent of the survey respondents rated the Tollway as being good or adequate in providing them with policies and procedures. The highest percentage of favorable responses came from Information Technology (100%). Most other organizational units summarized in Exhibit ranged from 79 percent to 87 percent responding that policies and procedures were good or adequate. However, only 57 percent of the employees in toll collection concluded that policies and procedures were good or adequate, with 43 percent responding that they needed improvement.

Completion of Performance Evaluations

More than three-fourths of the survey respondents rated the Tollway as being good or adequate in providing them with annual performance evaluations (Exhibit 11-4). There were, however, substantial percentages of employees responding that noted that the Tollway's annual performance evaluation process needed to be improved, including Toll Collection (36%), Finance and Administration (33%), Fleet Maintenance (25%), and Roadway Maintenance (21%).

Exhibit 11-4
HOW WOULD YOU RATE THE TOLLWAY ON PROVIDING YOU WITH ANNUAL PERFORMANCE EVALUATIONS?

Response	Number	Percent
Good	94	50%
Adequate	49	26%
Needs Improvement	42	22%
No Response	4	2%
Total	**189**	**100%**

Source: Illinois Auditor General's survey of Illinois State Toll Highway Authority employees.

Policies and Procedures Not Followed

One-third of the survey respondents said there were significant instances of established guidelines, policies, or procedures not being followed, as shown in Exhibit 11-5. The majority of employees who responded that guidelines, policies, and procedures were not followed were from Toll Collections (13%) and Roadway Maintenance (8%). Examples of policies and procedures not followed, according to Tollway employees' written comments in the survey, included the following:

- $ Unequal application of rules to employees;
- $ Plaza supervisors not enforcing policies on non-smoking areas and cell phones; and
- $ Collectors staying on break or lunch longer than permitted.

Exhibit 11-5
ARE THERE SIGNIFICANT INSTANCES WHERE POLICIES AND PROCEDURES ARE NOT FOLLOWED?

Response	Number	Percent
Yes	62	33%
No	119	63%
Both	1	1%
No Response	7	4%
Total	**189**	**100%***

Notes:
*Does not total 100% due to rounding.

Source: Illinois Auditor General's survey of Illinois State Toll Highway Authority employees.

AREAS WHERE THE TOLLWAY PERFORMS WELL

Almost 90 percent of the survey respondents (169 of 189 respondents) provided a written comment when asked for areas in which the Tollway performed well. As shown in Exhibit 11-6, 16 percent of the employees responding to the survey indicated that the Tollway was doing well in most or all areas.

The highest specific responses pertained to keeping the toll roads in good working order: good snow removal (35%); good road maintenance (31%); and providing roadway assistance (13%). Also receiving positive responses were toll collection and money handling (11%); safety (8%); engineering, construction, and design (7%); and customer service (6%).

Examples of specific comments received from employees regarding areas where the Tollway performs well included:

- Overall a very well run organization.
- Maintenance of roads, including snow removal. High standards in design, planning and construction of roads and bridges. High level of pride in work.
- The engineers are exceptional in their efforts and obvious dedication; the Toll Service supervisors seem to keep on top of any problems; The Money Room has tightened up on their security in recent years. In general, I believe the employees of the Authority try hard to get the job done. Maybe I'm prejudiced in their behalf but I believe we try to help the public with our services to them. I know I do.

- Routine (both in house and annual contractual) preventative and emergency maintenance of the road system is very good. Snow and ice control program sets the standard for others. Incident response and management ranks above most. Coordination of all operating depts. & functions through central communications dispatch system. Fleet maintenance program of preventative and breakdown maintenance on all vehicles & equipment.

- The Maintenance & Traffic Division does an outstanding job in maintaining the Tollway's vehicles & equipment, & keeping the roadway system safe for the motoring public. The IT Department does an excellent job of safeguarding the Tollway's computer & communications systems.

- We excel at snow & ice control. We take a lot of pride in this operation and we are one of the best in the country. We have a 48 hour policy for replacing damaged guardrail and excel at that. We remove accidents as soon as possible unlike many agencies to minimize the effect on the patrons.

Exhibit 11-6
WHAT DOES THE TOLLWAY DO WELL?

Comment	Number	Percent
Snow Removal	67	35%
Road Maintenance	59	31%
All or Most Areas	31	16%
Motorist Assistance/Accident Response	24	13%
Toll Collection/Money Handling	20	11%
Safety	16	8%
Engineering/Construction/Design	14	7%
Customer Service	11	6%
Employee Relations	8	4%
I-PASS	7	4%
Fleet Maintenance	7	4%
Internal Communication-Positive	5	3%
Supervision/Management-Positive	5	3%
Training Employees	5	3%
No or Few Areas	5	3%
State Police	4	2%
Informing the Public of Road Conditions	3	2%
Supervision/Management-Negative	3	2%
Patronage/Favoritism/Political Connections	3	2%
Internal Communication-Negative	2	1%
Total	**319**	**n/a**

Note: Some responses contained more than one topic area.

Source: Illinois Auditor General's survey of Illinois State Toll Highway Authority employees.

- Money handling. Speedy repair of downed machinery.

- The Authority does an outstanding job in snow removal, construction and toll collection. It is a leader in the industry. The Authority also provides adequate training to its employees in all areas. The Authority is also very good in following the regulatory requirements found in statutes as well as the Trust Indenture and other financial documents governing operations.

- Maintenance; warehouse; snow removal; clean roads – well done. Very helpful to motorists. Safety, monitoring for intoxicated drivers assists police & citizens.

AREAS FOR IMPROVEMENT

Over 70 percent of the employees responded that there were areas where Tollway operations could be improved. The largest area where employees said operations could be improved dealt with management and supervision, as shown in Exhibit 11-7.

Fourteen percent of the employees responded with a comment identifying that management and supervision needed to be improved. Other management areas mentioned were respect or recognition of employees and employee morale, training, elimination of politics, and monitoring of employees' performance.

Staffing issues were also identified, such as qualifications of employees, hiring, reduction of staff and management, and hiring additional staff. Many comments also identified operational areas where improvements could be made. These included public relations, purchasing/procurement, I-PASS, roadway maintenance, toll collection, and computer systems.

Exhibit 11-7
AREAS TO IMPROVE

Comment	Number	Percent
Management/Supervision	26	14%
Respect/Recognition of Employees/Employee Morale	15	8%
Public Relations	15	8%
Internal Communication	14	7%
Purchasing/Procurement	13	7%
Qualifications of Employees	11	6%
I-PASS	10	5%
Eliminate Politics	10	5%
Accountability of Work/ Monitoring of Employees	10	5%
Hiring	9	5%
Equipment Improvements	9	5%
Roadway Maintenance/ Rehabilitation	9	5%
Toll Collection Improvements	8	4%
Computer Systems	7	4%
Toll Evasion Enforcement	7	4%
Training	6	3%
Reduce Staff/Management	6	3%
Hire More Staff	4	2%
Safety	3	2%
Better Signage on Tollway	2	1%
Privatize more Operations	1	1%
Expand Telecommunications	1	1%
Not Applicable	50	26%
Total	**246**	n/a

Note: Some responses contained more than one topic area.

Source: Illinois Auditor General's survey of Illinois State Toll Highway Authority employees.

Specific comments provided by Tollway employees when asked whether there were areas where Tollway operations could be improved included:

- Respect your employees (collectors). We are people too. Collectors know what is going on the road, but they are asked nothing about problems. Supervision is not the ones to ask. Visitors from CA [Central Administration] to plaza could help. Visitors like the "Big Wigs"!! They could talk to collectors to find out what is going on.

- Communications between departments and other entities. Divisions don't talk to each other. Communications don't filter down to supervisors.

- We are shackled to a procurement system which results (due to CMS operations) in petty cost savings but poor purchases and often broken office equipment. We did it much better ourselves.

- Supervision of and relations with employees. Many supervisors are unqualified and often use poor discretion when dealing with employees. Among these, the attitude toward labor is generally indifference and often disdain. There is little, if any, emphasis on employee morale. Instead of trying to instill a sense of pride or self motivation, fear of discipline or unfavorable work assignments seem to be the methods of choice.

- Public relations. Many people think the tollway is funded by tax dollars. We need a pro-active approach to public relations.

- There needs to be a more defined way to make sure toll evaders are ticketed and made to pay their tolls. There are cameras at most locations but it is never known to the people who collect tolls to know if these people are being pursued.

- Human resources. There needs to be a better system for job openings.

- The Tollway needs a new computer system that would integrate all departments. Currently, Engineering/Construction operates on a stand alone Excel System, Toll Violations uses stand alone access, other areas use Quickbooks & departments can't communicate with each other. Therefore activity is sometimes keyed in 3 times.

Improving Toll Collection

We asked employees whether there were ways in which the collection, handling, and safeguarding of tolls could be improved. Over one-third of the survey respondents said there were ways in which the Tollway could improve the collection, handling, and safeguarding of tolls.

As shown in Exhibit 11-8, most employee responses were about improving and increasing use of I-PASS, reducing toll evasions, and adding more manned booths or additional staff. Specific comments regarding toll collections included:

- The greater implementation of the so-called scofflaw revocation of toll evading users' vehicle and drivers licenses. Development of a higher % of toll-at-speed (I-Pass Express) would help remove the congestion at collection points -- BUT it must be enforceable. Also

Exhibit 11-8
WAYS TO IMPROVE TOLL COLLECTION

Comment	Number	Percent
Improve/Increase I-PASS	12	6%
Additional Staff	9	5%
More Booths/More Manned Booths	9	5%
Reduce Toll Evasion	8	4%
Increased Use of Cameras/ Surveillance	5	3%
Better Security	5	3%
Safety	4	2%
Enforce Stop Signs	4	2%
On-Board Tracking System for Money Trucks	3	2%
Better Equipment	3	2%
New Money Bags	3	2%
More Uniform Pricing System	3	2%
Eliminate Theft	3	2%
Closed Barrier System	2	1%
Better Internal Communications	1	1%
Better Training	1	1%
Hiring	1	1%
Privatize	1	1%
Not Applicable/No Response/ Unknown	117	62%
Total	**194**	n/a

Note: Some responses contained more than one topic area.

Source: Illinois Auditor General's survey of Illinois State Toll Highway Authority employees.

w/interstate traffic, acceptance of other electronic systems (a software & accounting difficulty) could also be installed for commercial users.

- In the automatic lanes additional lanewalkers need to be hired so that instead of one lanewalker per direction of travel you have two or more to insure the collection of the full toll amount and all gates exiting these lanes are down at all times.

- They need a better collection for toll evaders. That's lost revenue. Fully automatic plazas need someone there to give change or they will run the plaza tolls when no change is available.

- Better equipment that doesn't malfunction, have change machines accessible or even better. For the most part I think usually when someone is stealing they usually get caught.

- The ridiculous $2.15 toll for semi's. Most of the drivers think this is a real "pain". Make it $2.00 or $2.25.

- The management is constantly looking at ways to improve toll collection, reducing motorist delays etc.

- There are backups at unattended ramps - There needs to be a better way to report problems at these locations and someone at manned plazas to go fix said problems. A good example is plazas at I90 & US 20.

- Employ more toll collectors and turn the unmanned plazas into those that are manned.

- Redo the roads to include I-PASS express lanes & promote I-PASS.

Ways to Save Money

Approximately one-half of the survey respondents said they could suggest ways to save money for the Tollway. The majority of respondents who answered this question "Yes" (meaning they had suggestions for saving money) were from toll collections and roadway maintenance.

Most of the ways that employees suggested could save money, as reflected by Exhibit 11-9, were in the following areas: reduce wasteful spending by central administration; reduce management salaries; and do not use the Department of Central Management Services for procurement. Specific comments made by employees on how to save money included:

- Don't hire so many outside consultants. Especially for engineering.

- Use the talent and skills of tollway personnel instead of going outside of the agency.

- Too many supervisors on one shift. There should be one on each shift. There is no supervisor on midnight shift ever.

- Change to washable uniforms; eliminate reimbursement for dry cleaning. Increase training (safety) to reduce claims.

- Cut upper management to the level of supervisors on salary and so many positions. Too many chiefs no Indians! If someone needs a raise they just get someone new put under their management and they get a raise.

- Look at people who are taking home vehicles in the Central Administration Building - do they really need them for the smooth operation of the toll system? Then look at the guys on 24 hr. call - the one's who actually fix the things that break down - you'll get more mileage for the dollar if you throw these guys a bone!

- I do not believe that the Tollway, despite extensive negative press coverage spends money foolishly, or needs to improve on cost cutting measures without sacrificing safety or morale.

Exhibit 11-9
WAYS TO SAVE MONEY

Comment	Number	Percent
Reduce Management/ Staff/ Salaries	29	15%
Reduce Wasteful Spending/ Central Administration	11	6%
Better Supervision/ Management	10	5%
Purchasing/Procurement (Don't Use CMS)	10	5%
Fewer Vehicles for Employees	8	4%
Less Subcontracting – Use Tollway Personnel	5	3%
Rebuild Roads Instead of Spending Dollars to Maintain	5	3%
Better Equipment	4	2%
Improve I-PASS	4	2%
Training	3	2%
More Subcontracting/ Privatization	3	2%
Toll Evasion Enforcement	3	2%
Hire People with Technical Expertise	3	2%
Employee Input	2	1%
Consolidate with IDOT	2	1%
Reduce Use of Paper	2	1%
Not Applicable/No Response/ Unknown	83	44%
Total	**187**	**n/a**

Note: Some responses contained more than one topic area.

Source: Illinois Auditor General's survey of Illinois State Toll Highway Authority employees.

- There are cameras in the lanes which show patrons getting out of their vehicles to pick up change. We called from the garage to have a trooper respond. The trooper was out of our area and took some time to arrive. Patrons were out there for 15 minutes picking up change. They got away. Possibly rehiring people to pick up the change daily would help.

- Minimize CMS purchases to avoid CMS surcharges. Use CMS only when there is an actual savings of money. Cancel VES contract and bring the operation in house. Evaluate the economic impact of leasing toll equipment and if possible purchase equipment rather than lease it.

- Pare the management force and reduce their salaries, cut lavish spending, use of vehicles, travel expenses, etc. Let the toll workers work without being quite often menaced with petty write-ups by spiteful supervisors who if found to be in the wrong are merely transferred to menace others. Incompetence & nastiness hamper efficiency & a decent work environment.

ADDITIONAL COMMENTS

Employees were given an opportunity to provide additional comments at the end of the survey. Many of the comments were about areas that were mentioned by employees in previous questions. As shown in Exhibit 11-10, the most frequent response was that the Tollway was, in general, doing a good job.

Areas where employees stated that improvements could be made included better supervision or management, better employee relations, and better public relations. Below are some specific comments made by employees when providing additional comments:

Exhibit 11-10
ADDITIONAL COMMENTS

Comment	Number	Percent
The Tollway is a Good Agency/ Operates Efficiently/Assists Motorists/Provides Good Service	25	13%
Better Supervision/Management	18	10%
Better Employee Relations/Benefits/ Improve Morale	17	9%
Eliminate Patronage/Favoritism/ Political Connections	12	6%
Promote Better Public Relations	8	4%
Improve Hiring/Promotion Process	7	4%
Leave the Tollway Alone	6	3%
Educate Public that No Tax Dollars Go to Tollway	6	3%
Improve Training	6	3%
Need to Raise Tolls/Rebuild Roads	5	3%
Eliminate Waste at Central Administration	5	3%
Eliminate Harassment/Abuse of Employees	4	2%
Monitor Employees/Some People Don't Do Their Job	4	2%
Tired of Negative Publicity from Media	3	2%
Don't Need 2 Supervisors on 1 Shift	3	2%
Reduce Staffing/Management	2	1%
Promote/Expand I-PASS	2	1%
Fix/Get Rid of I-PASS	2	1%
More Uniform Pricing Structure of Tolls	2	1%
Closed Barrier System	1	1%
No Response	81	43%
Totals	**219**	**n/a**

Note: Some responses contained more than one topic area.

Source: Illinois Auditor General's survey of Illinois State Toll Highway Authority employees.

- I am sure that somewhere along the line things that could be done to save money or be marginally more efficient. But in the time I have been here I feel the Tollway has done a good job at managing their resources.

- Best way to improve Tollway would be to get politics out of it & run it like a private company.

- The Tollway is always going to the bad guy. But compared to the rest of the country, the tolls are low: that should be applauded. Increase efficiency, maintain road safety, and eliminate grandstanding.

- We need to raise toll rates to get more money to rebuild and widen the existing system. Roads do not last forever!! The improvements are needed now, not after further studies.

- In my 21 years of service I have met hundreds of hardworking dedicated employees who love their job but hate all the negative publicity from the media and politicians.

- The Tollway in general is a great place to work. I'm happy with my chosen career and wouldn't change it. The Tollway needs to reward hard work, foster an attitude where they respect productivity, and reward hard work. People should be hired or promoted based on ability to work with people and capabilities, not because they have good Clout.

- It would be nice if our training was improved, also it would be nice if we could be treated as humans instead of potential thieves. And, I believe patrons would be happier if our employees were friendlier.

- Upper management keeps taking care of their own, unqualified personnel leading the employees.

- Stop hiring people who do not do their job. Don't take away jobs of good people just the bad ones. Management at CA most have never collected a toll!! Don't give a raise to those who can't do their job.

- Some toll plazas have 3 supervisors (1 supervisor & 2 assistants). Why have 2 supervisors on one shift.

- The Tollway admits to losing money on I-Pass. They have poured tons of money into developing the system. It is very costly to have a whole department dedicated to violations. I-Pass units malfunction often. They would not have to raise tolls if they went back to the old way of collecting.

- The tollway needs to raise the tolls - nothing else has remained the same price - why us?

CONCLUSION

The employee responses to the survey sent by the Office of the Auditor General identified areas and concerns that should be reviewed by the Tollway. As demonstrated by the written comments in their survey responses, employees can offer a valuable source of information as the Tollway undertakes efforts to improve its efficiency and effectiveness.

Presently, the Tollway does not conduct surveys of employees or have an established system that routinely solicits input from employees on ways to improve Tollway operations. Such a system may not only identify areas where operations could be improved, but may also help address some of the internal communication and management issues raised by employees in our survey. If routine employee feedback is solicited, the Tollway will need to ensure that such feedback is followed up on in an appropriate manner. The Florida Turnpike Enterprise listed work force surveys in order to stay in touch with key stakeholders as one of the “best practices” that it had implemented.

EMPLOYEE SURVEY	
RECOMMENDATION NUMBER **21**	***The Illinois State Toll Highway Authority should review the results presented in this audit report from our survey of Tollway employees to address areas where employees indicated the Tollway could improve performance. In addition, the Tollway should consider implementing a formal process for routinely soliciting input from employees and for following up on such input.***
TOLLWAY'S RESPONSE	The Tollway values input from employees and has in the past administered an Employee Suggestion Program to formally solicit employee input. We plan to review this program, as well as these audit results, to more effectively use employee input to make improvements at the Tollway.

Chapter Twelve

SURVEY OF STATE TOLL SYSTEMS

CHAPTER CONCLUSIONS

We mailed a survey questionnaire to 32 toll road or turnpike organizations in the United States and in Canada. Including the Illinois Tollway, we received responses from 20 toll systems located in 14 states. Like the Illinois Tollway, many survey respondents have a mix of rural and urban roads. With its last toll increase in 1983, the Illinois Tollway has gone the longest of any of the survey respondents without an increase in tolls. Among the survey respondents, the Illinois Tollway is at the bottom in terms of toll rates for commercial vehicles at an average of nine cents per mile.

- **$** In terms of revenues, the Illinois Tollway was towards the high end among survey respondents with only three respondents reporting higher revenues.

- **$** The percentage of tolls collected electronically among survey respondents was as high as 67 percent. The Illinois Tollway collects 36 percent of its toll revenues electronically and was among the eight states that collected about one-third of their tolls electronically. This percentage has been increasing but was short of the Tollway's goal of 45 percent.

- **$** Based on survey responses, toll evasion rates range from less than 1 percent to 5 percent; the Illinois Tollway reported a toll evasion rate that was in the middle of this range at 3 percent.

- **$** Overall, the system characteristics of the survey respondents are diverse. For example, a few survey respondents operate and/or control functions other than roadways, such as a baseball stadium, canals and tunnels.

- **$** The Illinois Tollway is among 14 state systems with a mission statement, 13 with a capital plan, 13 with a strategic plan and/or an operating plan, and 9 (or less than half) with performance measures. Among survey respondents, the Illinois Tollway's capital plan was the longest at 20 years.

- **$** Seventeen of the 20 respondents have contractors performing an array of services and activities aside from general or traffic consulting. The Illinois Tollway is among 17 respondents contracting for a consulting engineer and 16 with a traffic engineer or consultant.

- **$** Most respondents, including the Illinois Tollway, do not receive funding from governmental bodies (i.e., federal, state, or local).

OVERVIEW

We mailed a survey questionnaire to 32 toll road or turnpike organizations in the United States and in Canada. Including Illinois, we received 20 responses representing 14 states as shown in Exhibit 12-1. Respondents were asked for information from their most recently completed fiscal year.

Exhibit 12-1
SURVEY RESPONDENTS

State	Toll Road
1. California	1. Transportation Corridor Agencies
2. Colorado	2. E-470 Public Highway Authority
3. Florida	3. Florida Turnpike Enterprise
Florida	4. Miami-Dade Expressway Authority
Florida	5. Orlando-Orange County Expressway Authority
4. Georgia	6. Georgia State Road and Tollway Authority
5. Illinois	***7. Illinois State Toll Highway Authority***
6. Indiana	8. Indiana Department of Transportation – Toll Road District
7. Kansas	9. Kansas Turnpike Authority
8. Maryland	10. Maryland Transportation Authority
9. New Jersey	11. New Jersey Highway Authority (Garden State Parkway)
New Jersey	12. South Jersey Transportation Authority
10. New York	13. New York State Thruway Authority
11. Ohio	14. Ohio Turnpike Commission
12. Pennsylvania	15. Pennsylvania Turnpike Commission
13. Texas	16. Texas Turnpike Authority
Texas	17. Harris County Toll Road Authority
Texas	18. North Texas Tollway Authority
14. Virginia	19. Virginia Department of Transportation – Pocahontas Parkway
Virginia	20. Richmond Metropolitan Authority

Source: Illinois Auditor General's survey of toll roads.

The following sections discuss Planning, Performance Measures, Contracting, Pricing and Tolls, and Revenues and Expenditures. First, however, this chapter will examine Geographic and System Characteristics and Organizational Characteristics of the responding toll road systems.

Geographic and System Characteristics

[Appendix Exhibit D-5]

Like Illinois' toll system, many of the toll roads or turnpikes responding have a county based profile. Five of the 20 respondents reported statewide coverage. In terms of the type of geography, 11 of the 20 had a varying mix between urban and rural roads. Only 4 of the 20 had a 100 percent urban profile:

- Harris County Toll Road Authority (Texas)
- Miami-Dade Expressway Authority (Florida)
- North Texas Tollway Authority (Texas)
- Richmond Metropolitan Authority (Virginia)

The Illinois Tollway is among the group of state toll systems with a mixed urban/rural profile, although the majority of the system is urban (62%):

> Essentially, the entire Tri-State (I-294) and North-South (I-355) routes and the portions of the East-West (I-88) and Northwest (I-90) routes from their eastern terminus to the Fox River service urban populations. Additionally, the Northwest route services the city of Rockford. The above percentages reflects a calculation of the centerline miles of the system equating the 75 miles west of the Fox River on the East-West Tollway and approximately 30 miles of the Northwest Tollway which traverse through more rural locations.

Only one responding toll road system (the Ohio Turnpike Commission) reported a 100 percent rural profile. The New York State Thruway Authority has a 641-mile roadway, which crosses the State connecting four major cities.

There are three primary types of system access. These types of access are defined below:

- **$** Closed barrier – e.g., obtaining ticket at entry and paying tolls at exit.
- **$** Open road – e.g., receiving a monthly bill for toll road usage.
- **$** Limited access – e.g., paying tolls at plazas along the toll road.

To determine the scope of other state toll systems, we asked survey recipients how many road miles and how many lane miles comprised their system. Centerline miles is defined as the length of road in miles. Lane miles are the product of centerline (i.e., road) miles and the number of lanes. For example, a four lane road which is two miles long, has eight lane miles.

As far as the type of access to the system, most of the responding toll road systems have limited access. In its survey response regarding the type of access to its system, the Illinois Tollway notes:

> The Illinois State Toll Highway Authority offers three alternate means to pay tolls and therefore has adapted and modified the type of "access" to address congestion with the limited resources available. Given the above categories the Authority has been a combination of Open Road and Limited Access for a number of years. In general, the Illinois Tollway may be characterized as a "limited access" as the system uses a combination of mainline barrier plazas and ramp plazas to collect tolls on a pay-as-you-go basis.

Exhibit 12-2 shows the details of the system characteristics for the 20 survey respondents.

Exhibit 12-2
SYSTEM CHARACTERISTICS

State	Toll Road	Geography	Type Geography	System Access
California	Transportation Corridor Agencies	Orange county	NR	Limited access.
Colorado	E-470 Public Highway Authority	Three counties	75% urban; 25% rural	Limited access; open road; closed system tolling.
Florida	Orlando-Orange County Expressway Authority	Orange county	70% urban; 30% rural	Limited access.
Florida	Florida Turnpike Enterprise	Statewide	60% urban; 40% rural	Closed barrier; limited access.
Florida	Miami-Dade Expressway Authority	Miami-Dade counties	100% urban	Limited access.
Georgia	Georgia State Road and Tollway Authority	Fulton and Glynn counties	NR	Limited access.
Illinois	***Illinois State Toll Highway Authority***	***12 northern counties***	***62% urban; 38% rural***	***Limited access.***
Indiana	Indiana DOT – Toll Road District	Statewide	30% urban; 70% rural	Closed barrier; limited access.
Kansas	Kansas Turnpike Authority	Specified by legislation	10% urban; 90% rural	Closed barrier.
Maryland	Maryland Transportation Authority	Five counties	60% urban; 40% rural	Limited access.
New Jersey	South Jersey Transportation Authority	Six southern counties of New Jersey	35% urban; 65% rural	Limited access.
New Jersey	New Jersey Highway Authority	Certain corridors	53% urban; 47% rural	Limited access.
New York	New York State Thruway Authority	Statewide	641-mile highway crosses the State connecting four major cities.	Closed barrier; limited access.
Ohio	Ohio Turnpike Commission	One toll road	100% rural	Closed barrier.
Pennsylvania	Pennsylvania Turnpike Commission	Statewide	20% urban; 80% rural	Closed barrier; limited access; open road.
Texas	Harris County Toll Road Authority	Harris county	100% urban	Limited access.
Texas	Texas Turnpike Authority	Central Texas	NR	Limited access.
Texas	North Texas Tollway Authority	Four counties	100% urban	Limited access.
Virginia	Richmond Metropolitan Authority	City of Richmond	100% urban	Limited access.
Virginia	Virginia DOT – Pocahontas Parkway	Statewide	25% urban; 75% rural	Limited access; open road, pay as you go; pre-paid account.

NR = No Response

Source: Illinois Auditor General's survey of toll roads.

Organizational Characteristics

Overall, the 20 survey respondents have diverse organizational structures, geographical coverage and system characteristics, including some of which are unique. For example, the New Jersey Highway Authority owns an Arts Center, the South Jersey Transportation Authority owns the Atlantic City International Airport and the Richmond Metropolitan Authority owns a baseball stadium, home to the AAA Richmond Braves. In addition, the South Jersey Transportation Authority manages bus operations. As part of its system, the Pennsylvania Turnpike Commission operates and maintains five tunnels. The New York State Thruway Authority is responsible for a canal system.

All 20 survey respondents have a government or quasi-government organizational type, at either the local or state level with their legal authority deriving from state statute. The Illinois Tollway's survey response characterized its organization type as a "quasi-governmental instrumentality of the State."

Chief Executive Officer

[Appendix Exhibit D-2c]

Seventeen of 20 organizations responding to the survey have a Chief Executive Officer (CEO), including Illinois. The three that do not have a CEO are Indiana Department of Transportation – Toll Road District, Texas Turnpike Authority and Virginia Department of Transportation – Pocahontas Parkway. Each of these organizations is part of their State's Department of Transportation. Ten of the 17 CEO positions are appointed by the organization's Board of Directors. The Joint Boards of the Transportation Corridor Agencies of California select a single CEO. Only two of the CEOs had set terms: New Jersey Highway Authority (five years) and the New York State Thruway Authority (nine years). The other terms varied, such as based on contract, indefinite, set by the Board, or the length of the sitting governor.

Staffing Levels

[Appendix Exhibit D-3]

Staffing levels also vary greatly between organizations, from fewer than 20 (Miami- Dade Expressway Authority) to more than 3,000 (New York State Thruway Authority). Likewise, personnel costs varied from $700,000 (Pocahontas Parkway) to approximately $200 million (New York State Thruway Authority). In addition to the New York State Thruway Authority, the Illinois Tollway, with nearly 2,000 personnel, is at the high end (along with the Pennsylvania Turnpike Commission, the Maryland Transportation Authority and the New Jersey Highway Authority).

PLANNING

Organizational planning begins with a mission statement. The Florida Turnpike Enterprise outlines its management plan as flowing from the "big picture" to "more defined" through vision; mission; values; goals; objectives; and performance measures. Performance measures are discussed in the next section.

Fourteen of the 20 responding toll roads indicated that they have a mission statement. A sample of mission statements is below:

- **Pennsylvania Turnpike Commission:** To operate and manage a safe, reliable, cost effective and valued toll road system.
- **Kansas Turnpike Authority:** To provide safe, high-quality highway transportation services to our customers for the lowest reasonable cost.
- **Orlando-Orange County Expressway Authority (Florida):** It is the mission of the Orlando-Orange County Expressway Authority to implement an expressway system that will improve the mobility and quality of life in Central Florida and provide access to major economic centers consistent with growth management and environmental objectives and to accomplish this mission in a manner which is financially sound and cooperative with other modes of transportation and governmental jurisdictions.
- **New York State Thruway Authority:** We offer a user-fee supported highway and Canal System that delivers high levels of safety and service.

Illinois Tollway's Mission Statement: The Illinois State Toll Highway Authority is dedicated to providing and promoting a safe and efficient system of toll supported highways while ensuring the highest possible level of service to our customers.

Capital Planning
[Appendix Exhibit D-7a & b]

Most of the responding toll road systems (13 of 20), including Illinois, have written capital plans. The length of the responding toll road systems' capital plans ranged from 5 to 20 years. The Illinois State Toll Highway Authority has 5-year, 10-year, 15-year and 20-year capital plans. California's Transportation Corridor Agencies has a 12-year capital plan and the Indiana DOT – Toll Road District has a 10-year capital plan, as does the Pennsylvania Turnpike Commission. The remaining nine respondents have capital plans of less than 10 years.

Not only does the Illinois Tollway have the longest capital plan at 20 years, it is the most expensive at $5.85 billion. Only four other systems responding to our survey (New York State Thruway Authority, Pennsylvania Turnpike Commission, Florida Turnpike Enterprise, and the Maryland Transportation Authority) exceed one billion dollars in their capital plans. However, all three have a shorter timeframe to which their plans apply.

The Pennsylvania Turnpike Commission's Consulting Engineer identified in its May 2002 report to the Pennsylvania Turnpike Commission that total needs identified for the system were approximately $4.8 billion. Furthermore, the Pennsylvania Turnpike Commission Consulting Engineer noted in its report that reconstruction of the Turnpike will take more than 20 years to complete at current funding levels. Like the Illinois Tollway, the Pennsylvania Turnpike Commission system has an aging system where the underlying concrete pavement has exceeded its normal life expectancy. As a result, resurfacing projects have required significant expenditures to maintain ride quality.

As part of its "Five Year Work Plan", the Orlando-Orange County Expressway Authority has a three tiered priority structure for capital projects which states:

1. Projects previously authorized, renewal and replacement projects necessary to maintain physical integrity of the system, projects to enhance safety, and future projects necessary to maintain acceptable levels of traffic operation.
2. Projects that improve an element of the system that safely and properly functions at acceptable level in its current condition.
3. Projects with a lower feasibility level and for projects in which the Expressway Authority's role is not expected to be defined in the near term.

Similarly, in its 10-year plan, Indiana's Toll Road District employs a 5-tier priority system for roadway pavement and a 4-tier system for buildings. Pavement priorities are based upon the severity of observed distresses and surface deterioration. The prioritization system for buildings is based on inspections or service life criteria.

Planning

[Appendix Exhibit D-7a]

A total of 13 of the 20 responding toll road systems reported having a strategic plan, an operating plan, or both. Other planning and/or reporting mechanisms listed by respondents were financial reports; traffic reports; revenue reports; maintenance reports; and a management audit every five years (South Jersey Transportation Authority). Almost all of the respondents (16) have a mix of planning documents.

The Pennsylvania Turnpike Commission has a long-range planning process. In its 62nd annual report, the Commission's Consulting Engineer states: *"Long range planning efforts support the development and prioritization of the 10-year Capital Plan, which is vital to achieving the strategic objective of the Commission to manage the Turnpike System."* Three plans are the product of this process:

1. Service Plaza Long Range Plan;
2. Intelligent Transportation Systems (ITS) Long Range Plan; and,
3. Highway Long Range Plan.

PERFORMANCE MEASURES

Only nine responding states indicated that they have performance measures, including Illinois. For example, Virginia's DOT – Pocahontas Parkway indicates that it uses performance measures for staffing and for the preparation of the Operations and Maintenance budgets.

The Pennsylvania Turnpike Commission responded that it uses operating ratios, cost per lane mile and cost per vehicle to indicate performance. For example, for the year ending May 31, 2002 they reported operating revenue at about $68 per mile, with operating expenses at about $33 per mile. In addition, they compare actual revenues and expenses to those budgeted.

The Florida Turnpike Enterprise uses performance measures to determine the success of established goals, which are:

1. Outstanding service to customers;
2. A well-trained and motivated workforce;
3. Effective and efficient project delivery; and,
4. Financial soundness.

For example, under the goal of outstanding customer service, there are the following performance measures:

- Rating for roadway conditions in the annual Customer Satisfaction Survey.
- Average time to clear accidents and incidents.
- Maintenance Condition Rating by Turnpike segment.
- Average peak-hour travel speed between toll plazas.

The Maryland Transportation Authority has goals related to convenience (moving people and goods conveniently), safety, security, economic development and service. Along with these goals are specific objectives or benchmarks with performance measures. For example, under the goal of convenience, an objective is to increase average peak hour throughput at the Baltimore Harbor crossings toll plazas. The performance measure is the average annual peak hour throughput at the Baltimore Harbor crossings.

Our survey included a question that asked if incentives were provided to employees. The response to this question was nearly evenly divided (9 yes and 8 no). Some of these incentives were related to sick leave or attendance. For example, the Richmond Metropolitan Authority has an award for perfect attendance. A perfect attendance program is also in place at the Maryland Transportation Authority. The South Jersey Transportation Authority permits employees with good attendance to cash in up to 10 days of sick leave while the New York State Thruway Authority has a bonus program for not using sick leave. Three respondents indicate they award bonuses to employees for

superior performance: Florida Turnpike Enterprise, North Texas Tollway Authority, and Richmond Metropolitan Authority.

The Illinois Tollway did not answer this question in our survey. However, during the audit we have identified areas where incentives are provided to the Illinois Tollway employees. For example, in its labor agreement with toll collectors and lane walkers, there is a shift premium and, like the states discussed above, there is an attendance incentive. There is also a provision in the labor contract between the Teamsters and the Illinois Tollway for an hourly incentive (50 cents) for assignments to the Garage Shift and to Highway Emergency Lane Patrol (HELP).

CONTRACTING

Nearly all of the responding states use contractors (17 of 20) aside from general or traffic consulting. Only one respondent answered no with the other two not providing a response. These contractors are used to fill a number of functional areas. Some of these contracts can be categorized as outsourcing. For example, respondents listed the following types of activities for which they contract:

- Fire and emergency services.
- Maintenance of toll equipment.
- Toll processing.
- Janitorial services.
- Customer service/call center.
- Violations processing.
- Weather advisory services.
- Financial advice.
- Concessions.
- Equipment maintenance/Roadway maintenance.
- Outside legal counsel.
- Environmental remediation.
- Security.

Aside from its Consulting and Traffic Engineers, the Illinois Tollway responded that it contracts for financial advisory services.

Our survey asked about two specific types of contracts: engineering and traffic consultation. Seventeen of 20 respondents indicated that they retain a consulting engineer. Most of the contracts for both types of consultants (engineering and traffic) were competitively bid (12 and 13 respectively).

Specifically, a variety of firms serve as contractual consulting engineers (see Exhibit 12-3). One survey respondent, E-470 Public Highway Authority (Colorado), uses multiple contractual consulting engineers.

Exhibit 12-3
CONTRACTUAL CONSULTING ENGINEERS USED BY SURVEY RESPONDENTS

Name of Consultant	Toll Road
CDMG	• Transportation Corridor Agencies (California)
Consoer Townsend Envirodyne Engineers, Inc. (CTE)	• ***Illinois State Toll Highway Authority***
Dade Transportation Consultants (Joint Venture)	• Miami-Dade Expressway Authority (Florida)
HNTB	• Ohio Turnpike Commission • North Texas Tollway Authority • Richmond Metropolitan Authority (Virginia) • Kansas Turnpike Authority
Lovejoy & Assoc.	• E-470 Public Highway Authority (Colorado)
Washington Group	• E-470 Public Highway Authority (Colorado)
URS	• E-470 Public Highway Authority (Colorado)
Persons Brinkerhoff, Kumar, Kleinfelder	• E-470 Public Highway Authority (Colorado)
Michael Baker Jr., Inc.	• Pennsylvania Turnpike Commission
Post Buckley Shuh & Jernigen	• Florida Turnpike Enterprise • Orlando-Orange County Expressway Authority (Florida)
Remmington & Vornick	• South Jersey Transportation Authority
RQAW	• Indiana DOT – Toll Road District
T&M Associates	• New Jersey Highway Authority

Source: Illinois Auditor General's survey of toll roads.

Sixteen state toll road systems also use a traffic consultant. The most frequently utilized traffic consultants were Wilbur Smith Associates (8) and Vollmer Associates (5).

Four respondents indicated they recently have changed either their consulting engineer or traffic consultant. The Ohio Turnpike Commission switched its consulting engineer in 1999 with the expiration of the contract. For those respondents having a traffic consultant, the Miami-Dade Expressway Authority had the most recent change, in 2001.

Survey respondents also indicated that they retain a variety of other consultants. As shown by Exhibit 12-4, the range of activities they perform are diverse. For example, the Illinois Tollway is among six state toll road systems that contract for financial advisory services, the others being Orlando-Orange County Expressway Authority (Florida), Miami-Dade Expressway Authority (Florida), Richmond Metropolitan Authority (Virginia), Ohio Turnpike Commission, and North Texas Tollway Authority. The financial advisory contractor for the Illinois Tollway is RBC Dain Rauscher.

Exhibit 12-4
OTHER CONSULTANT ACTIVITIES REPORTED BY SURVEY RESPONDENTS

- Financial;
- Audit;
- Business development;
- Construction engineering;
- Maintenance management; and,
- Bond counsel.

Source: Illinois Auditor General's survey of toll roads.

PRICING AND TOLLS

Almost all of the survey respondents have some combination of toll rates, depending on: vehicle class; plaza; time of day; distance; and whether there is a discount with the use of electronic toll collection or ETC (e.g., I-PASS or EZ Pass). Exhibit 12-5 shows the breakdown of the toll rate schedules for survey respondents. Most respondents also have multiple vehicle classes.

As shown by Exhibit 12-5, only the New Jersey Highway Authority has more vehicle classifications than Illinois (see Exhibit 4-13 for Illinois' toll classifications). However, the Illinois Tollway is among six states with at least nine vehicle classifications.

Of the responding toll road systems in our survey, only two indicated that they have congestion pricing (see Chapter 14); these are the Transportation Corridor Agencies of California and the New York State Thruway Authority.

Exhibit 12-5
COMPARISON OF TOLL RATE SCHEDULES

Toll Road	Vehicle Classifications	Number of Toll Rates
Transportation Corridor Agencies (California)	3	• Varies by class • Varies by plaza • Varies by time • ETC discount
E-470 Public Highway Authority (Colorado)	5	**$** Varies by distance
Orlando-Orange County Expressway Authority (Florida)	5	• Varies by class • Varies by plaza
Florida Turnpike Enterprise	6	• Varies by class • Varies by distance
Miami-Dade Expressway Authority (Florida)	6	• Varies by class • Varies by distance • ETC discount
Georgia State Road and Tollway Authority	NR	NR
Illinois State Toll Highway Authority	***10***	• ***Varies by class*** • ***Varies by plaza***
Indiana DOT – Toll Road District	9	• Varies by class • Varies by plaza
Kansas Turnpike Authority	8	• Varies by class • Varies by plaza
Maryland Transportation Authority	10 (A)	• Varies by class • Varies by plaza
South Jersey Transportation Authority	7	• Varies by class • Varies by plaza • ETC discount
New Jersey Highway Authority	11	• Varies by class • Varies by plaza
New York State Thruway Authority	9	• Varies by class • Varies by plaza • Varies by time
Ohio Turnpike Commission	9	• Varies by distance • Varies by class
Pennsylvania Turnpike Commission	9	• Varies by class • Varies by plaza
Texas Turnpike Authority	n/a	n/a
Harris County Toll Road Authority (Texas)	5	• Varies by class • Varies by plaza • ETC discount
North Texas Tollway Authority	5	• Varies by class • Varies by plaza • ETC discount
Richmond Metropolitan Authority (Virginia)	4	• Varies by class • Varies by plaza
Virginia DOT – Pocahontas Parkway	5	• Varies by class • Varies by plaza

NR = No Response n/a = Not Applicable or Not Available

Notes:
(A) There are seven classes at the toll plazas except for the Thomas J. Hatem Bridge, where there are three additional classes for commuter vehicles.

Source: Illinois Auditor General's survey of toll roads.

Electronic Toll Collection (ETC) as a percentage of toll collections ranges from zero to as high as 67 percent (North Texas Tollway Authority), as shown in Exhibit 12-6. At 36 percent, the Illinois Tollway's electronic toll collection is among a group of eight states that have around a third of their tolls collected electronically.

As shown in Exhibit 12-7, Illinois is towards the bottom in terms of the average toll rate per mile. Except for New Jersey's passenger car toll rate (2 cents per mile), 12 toll roads that provided responses had average toll rates that were higher than Illinois (3 cents per mile) for passenger cars. For trucks, Illinois had an average toll rate of nine cents per mile along with Indiana.

Exhibit 12-6
ELECTRONIC TOLL COLLECTION

Toll Road	**% Collected Electronically**
North Texas Tollway Authority	67%
Transportation Corridor Agencies (California)	65%
E-470 Public Highway Authority (Colorado)	60%
New Jersey Highway Authority	53%
Orlando-Orange County Expressway Authority (Florida)	49%
New York State Thruway Authority	48%
Virginia DOT – Pocahontas Parkway	45%
South Jersey Transportation Authority	42%
Georgia State Road and Tollway Authority	37%
Richmond Metropolitan Authority (Virginia)	37%
Illinois State Toll Highway Authority	***36%***
Miami-Dade Expressway Authority	35%
Maryland Transportation Authority	35%
Pennsylvania Turnpike Commission	34%
Kansas Turnpike Authority	33%
Florida Turnpike Enterprise	32%
Ohio Turnpike Commission	9%
Indiana DOT – Toll Road District *	0%
Harris County Toll Road Authority (Texas)	NR
Texas Turnpike Authority	n/a

NR = No Response n/a = Not Applicable or Not Available
Notes:
* Indiana is considering using ETC.

Source: Illinois Auditor General's survey of toll roads.

Exhibit 12-7
TOLL RATES
Average Toll Rate per Mile

State	Toll Road	Cars	Trucks
New Jersey	New Jersey Highway Authority	2¢	10¢
New York	New York State Thruway Authority	3¢	12¢
Indiana	Indiana DOT – Toll Road District	3¢	9¢
Illinois	***Illinois State Toll Highway Authority***	***3¢***	***9¢***
Pennsylvania	Pennsylvania Turnpike Commission	4¢	22¢
Ohio	Ohio Turnpike Commission	4¢	12¢
Kansas	Kansas Turnpike Authority	4¢	11¢
New Jersey	South Jersey Transportation Authority	5¢	25¢
Florida	Florida Turnpike Enterprise	6¢	21¢
Florida	Miami-Dade Expressway Authority[A]	7¢	14¢
Georgia	Georgia State Road and Tollway Authority	8¢	NR
Texas	North Texas Tollway Authority [B]	11¢	26¢
Florida	Orlando-Orange County Expressway Authority [C]	11¢	36¢
California	Transportation Corridor Agencies	17¢	68¢
Virginia	Virginia DOT – Pocahontas Parkway	17¢	57¢
Colorado	E-470 Public Highway Authority	18¢	NR

NR = No Response

Notes:
[A] Miami-Dade Expressway Authority has a discounted toll rate which equals 6¢ per mile for cars and 13¢ per mile for trucks.
[B] North Texas has a discounted toll rate which equals 9¢ per mile for cars and 21¢ for trucks.
[C] Orlando-Orange County responded that its average ranged from 8¢ to 11¢ per mile for cars and 22¢ to 36¢ per mile for trucks.

Source: Summary of states' survey responses by the Office of the Auditor General.

Date of Last Toll Increase

The most recent toll increase was in 2003 (E-470 Public Highway Authority-Colorado). At the end of the spectrum was the Illinois Tollway which last increased tolls in 1983. Eleven of the 15 toll road organizations responding to this question have had a toll increase since 1990. The other three toll roads increased tolls in the 1980s. Exhibit 12-8 shows the years of last toll increase.

Exhibit 12-8
MOST RECENT TOLL INCREASES REPORTED BY SURVEY RESPONDENTS

State	Toll Road	Year	% Increase
Colorado	E-470 Public Highway Authority	2003	NR
California	Transportation Corridor Agencies	2002	6.4%
Texas	North Texas Tollway Authority	2002	NR
Kansas	Kansas Turnpike Authority	2001	5%
Florida	Miami-Dade Expressway Authority	2001	1.5%
Ohio	Ohio Turnpike Commission	1999	9%
Virginia	Richmond Metropolitan Authority	1998	NR
New Jersey	South Jersey Transportation Authority	1998	100%
Florida	Florida Turnpike Enterprise	1995	25%
Pennsylvania	Pennsylvania Turnpike Commission	1991	30%
Florida	Orlando-Orange County Expressway Authority	1990	50%
New York	New York State Thruway Authority	1988	32% passenger; 38% commercial
New Jersey	New Jersey Highway Authority	1988	40%
Indiana	Indiana DOT – Toll Road District	1985	10% passenger; 25% commercial
Illinois	***Illinois State Toll Highway Authority***	***1983***	***33%***

Source: Summary of states' survey responses by the Office of the Auditor General.

Toll Evasion and Enforcement

Up to five percent of tolls were uncollected by the toll roads that responded to our survey (see Exhibit 12-9). Illinois was at the high end of this range with three percent of tolls going uncollected.

The penalty charged by survey respondents for evading tolls ranged from $7 to just over $100.

The Illinois Tollway can charge $20 for evading a toll (92 Ill. Adm. Code 2520.223(g)). Pennsylvania's Turnpike Commission, however, bases its toll evasion penalties on vehicle class. When asked what types of enforcement methods are employed, most of the responses mentioned photo or video monitoring systems.

Exhibit 12-9
PERCENTAGE OF TOLLS UNCOLLECTED

Toll Road	Percent Uncollected
E-470 Public Highway Authority (Colorado)	5%
Richmond Metropolitan Authority (Virginia)	3-3.5%
Illinois State Toll Highway Authority	***3%***
Miami-Dade Expressway Authority	2.3%
South Jersey Transportation Authority	2%
Florida Turnpike Enterprise	<2%
Maryland Transportation Authority	1-2%
Orlando-Orange County Expressway Authority (Florida)	1.84%
Transportation Corridor Agencies (California)	1.5%
Virginia DOT – Pocahontas Parkway	<1%
Kansas Turnpike Authority	<1%
Indiana DOT – Toll Road District	Insignificant
Ohio Turnpike Commission	0%

Source: Illinois Auditor General's survey of toll roads.

REVENUES AND EXPENDITURES

At about $389 million, the Illinois Tollway's revenues were at the high end among survey respondents. Three respondents had revenues greater than the Illinois Tollway: Pennsylvania Turnpike Commission; New York State Thruway Authority; and Florida Turnpike Enterprise.

Only three survey respondents indicated that they receive federal funding: Transportation Corridor Agencies (California); New York State Thruway Authority; and Florida Turnpike Enterprise. According to its 2001 Annual Report, a portion of the New York State Thruway Authority's federal funds went to canal operating expenses. In its 2003 budget, federal aid was allocated in its capital program to the Thruway Highway and Bridge System.

The same number of state toll road systems (three) also receive state funding: Ohio Turnpike Commission; Florida Turnpike Enterprise; and New York State Thruway Authority. The Florida Turnpike Enterprise indicated that its state funding was not a recurring revenue stream. Florida and New York indicated that they also receive local funds. The Florida Turnpike Enterprise used a combination of state, federal, local funds and Turnpike revenues for the completion of the Seminole Expressway.

Concessions and Other Sources of Revenue

Ten of the 20 survey respondents receive concession revenues. These concession revenues come from:

- Food;
- Fuel;
- Vending;
- Leases;
- Retail;
- ATM;
- Games;
- Telephones;
- Sundries; and
- Amusement tickets.

Except for four respondents (Richmond Metropolitan Authority-Virginia, Virginia DOT – Pocahontas Parkway, Harris County Toll Road Authority-Texas, and Texas Turnpike Authority), all the state toll road systems receive other types of revenues. One of the most common is rent. Examples of other revenue sources are listed below:

- Transponder sales;
- Parking
- Ads and/or billboards;
- Fiber optics;

- Cell tower leases; and
- Phone permits.

Our survey also asked about investment revenue. Sixteen of the 20 responding states reported earning investment revenue, which ranged from $1.4 million (Georgia State Road and Tollway Authority) to $49.4 million (Pennsylvania Turnpike Commission).

Expenditures

In response to our survey questions about expenditures, we received a diverse array of answers. Due to differing organizational structures and characteristics, expenditures are difficult to categorize and compare. For example, the South Jersey Transportation Authority includes information technology related expenditures in with finance expenditures. With this caveat, most of the respondents had some type of administrative expenditures, which ranged from $642,000 (California Transportation Corridor Agencies) to $10.5 million (Pennsylvania Turnpike Commission).

Half of the responding states indicated they had dedicated legal expenditures. Slightly more surveys (13 of 20) reflected specific expenditures for toll collection activities. Expenditures on toll collection for these organizations ranged from approximately $7 million (South Jersey Transportation Authority) to $66 million (Florida Turnpike Enterprise). The Illinois Tollway reported a similar figure of just under $66 million.

Only seven respondents indicate dedicated vehicle fleet maintenance expenditures. These expenditures have significant differences ($27,242 for the Richmond Metropolitan Authority and $19.4 million for the New York State Thruway Authority). However, as shown in Appendix D, these two organizations have vastly different fleet sizes.

Thirteen respondents make annual debt service payments, including five that paid between $12 and $17 million. Debt service payments increase from this range to $31 million (Maryland Tollway Authority) and on up to $143 million (Florida Turnpike Enterprise). The Florida Turnpike Enterprise also has the highest capital expenditures at $213 million. At nearly $80 million, the Illinois Tollway's debt service is at the higher end of the range of respondents. Only three states have higher debt service payments (New York State Thruway Authority, Transportation Corridor Agencies – California, and Florida Turnpike Enterprise).

Chapter Thirteen

BENCHMARKING

CHAPTER CONCLUSIONS

The Office of the Auditor General compared the Illinois State Toll Highway Authority with the toll roads in other states that responded to our mail survey questionnaire. We compared the Illinois Tollway's performance in selected areas against the performance of 13 other toll roads, a process which is referred to as benchmarking. Conclusions reached as a result of the benchmarking comparisons included:

- **$** The Illinois Tollway is one of the largest toll systems in the United States, both in terms of lane miles and vehicle miles traveled.

- **$** Of the states responding to our survey, the Illinois Tollway had the second lowest toll rate at three cents per mile for passenger vehicles (New Jersey's Garden State Parkway reported 2 cents per mile). Along with Indiana, the Illinois Tollway had the lowest toll rate for a 5-axle commercial vehicle at nine cents per mile.

- **$** The Illinois Tollway reported the third highest number of staff at 1,926, with only the New York State Thruway Authority (3,212 staff) and the Pennsylvania Turnpike Commission (2,390 staff) reporting more staff. The Illinois Tollway's staff per lane mile was also higher than most toll roads, at 1.17 staff per lane mile versus 0.90 staff per lane for the median of the other responding states. However, when analyzed based on vehicle miles traveled (VMT), which takes into account the volume of traffic, Illinois' 0.25 staff per VMT is lower than the median of 0.33 staff per VMT, and also lower than most other large toll roads.

- **$** The Illinois Tollway's administration and operations costs fall in the middle compared to other large toll systems, including the New York State Thruway Authority, New Jersey Highway Authority (Garden State Parkway), Florida Turnpike Enterprise, and Ohio Turnpike Commission.

- **$** The Illinois Tollway reported that 36 percent of its tolls were collected electronically (i.e., through I-PASS); other large toll roads ranged from 9 percent to 53 percent. Several other toll roads reported offering motorists a toll discount if they used electronic toll collection (e.g., I-PASS); the Illinois Tollway does not offer such a discount.

For the benchmarking analysis, the Illinois Tollway was compared to the average and to the median of the responding states. In calculating average and median values for the respondents to the survey, Illinois data were not included.

BACKGROUND

Benchmarking is a process of comparing specific operational attributes of one organization with other related organizations to analyze performance. In this audit, with the assistance of our consultants Infrastructure Management Group (IMG) we compared the performance of the Illinois Tollway with other toll roads using performance indicators, such as the staff cost per lane mile or the operating cost per lane mile. Benchmarking analysis can identify the strengths of an organization along with identifying areas where the organization could improve its operations or reduce its costs.

Benchmarking comparisons generally occur at a high level of an entity's performance. Differences in various factors, such as the size and organizational structure of the toll roads, as well as the climate and age of the toll road, can impact benchmarking comparisons. To help address these factors, the Illinois Tollway's performance was generally compared with the median measure for the other toll roads, since the median (the middle value of all toll roads) is less likely to be affected by outliers. We did not include Illinois in calculating the average or median. Furthermore, in our discussion of the various benchmarking measures, factors which may impact the benchmarking comparisons are noted.

In this chapter, we use several different benchmarking comparisons. Some comparisons are a listing of the actual responses the toll roads provided (such as number of staff and total annual expenditures), while other ratios compare the toll roads' performance, including lane miles and vehicle miles of travel. Lane miles help take into account the size of the toll road, while vehicle miles of traveled help take into account the volume or congestion of traffic on the toll road. Both the size and volume of traffic can impact areas of performance reviewed.

- **Lane Mile:** Total lane miles is the product of the number of miles of a Tollway times the number of lanes. For example, if a toll road is 50 miles long, and has 6 lanes (3 in each direction), the number of lane miles would be 300. Lanes miles are used to take into account the size of a toll road.

- **Vehicle Miles of Travel (VMT):** VMT is the total number of vehicle miles driven on the toll road annually. VMT is a standard industry tool used to measure highway system usage and analyze system congestion.

Based on our survey of other states (see Chapter 12 for a discussion of the survey results and Appendix D for a detailed summary of the survey results) we reviewed the response data and structured comparative tables. Respondents were asked for information from their most recently completed fiscal year. Relatively complete information was received from 13 toll roads and their responses are included in this benchmarking analysis. The 13 toll roads were:

1. Richmond Metropolitan Authority (Virginia)
2. South Jersey Transportation Authority (Atlantic City Expressway)
3. Transportation Corridor Agencies (California)
4. Indiana Department of Transportation – Toll Road District
5. Orlando-Orange County Expressway Authority (Florida)

6. Ohio Turnpike Commission
7. New York State Thruway Authority
8. Pennsylvania Turnpike Commission
9. Florida Turnpike Enterprise
10. Colorado E-470 Public Highway Authority
11. New Jersey Highway Authority (Garden State Parkway)
12. Miami-Dade Expressway Authority (Florida)
13. North Texas Tollway Authority

The Illinois State Toll Highway Authority retained the consulting firm of KPMG Peat Marwick LLP to conduct an operational assessment of the Authority (1995). As part of its assessment of the Illinois Tollway operations, KPMG compared the Illinois Tollway's performance with that of seven other toll roads. These included five toll roads that responded to our survey and are included in our benchmarking comparisons: Ohio Turnpike Commission; New York State Thruway Authority; Pennsylvania Turnpike Commission; Indiana Department of Transportation – Toll Road District; and New Jersey Highway Authority (Garden State Parkway). The remaining two toll roads, the Massachusetts Turnpike Authority and the New Jersey Turnpike Authority, did not respond to our survey.

In regards to benchmarking, the Illinois Tollway stated in its survey response:

> The regional (i.e., commuter/interstate traffic mix, climate), financial and operational (i.e., contiguous system demographics, and age of system) characteristics of the Illinois Tollway, defines a unique mission for the Authority and therefore results in a challenge to identify equal organizations for benchmarking comparisons.
>
> The Illinois Tollway has been compared against the following toll systems in an operational assessment: Garden State Parkway, Massachusetts, New Jersey, New York, Ohio, and Pennsylvania. Some of the differentiating characteristics of these other toll road systems are 1) customer is either more commercial less commuter, 2) operating bridges or tunnels as well as highway systems, and 3) have authority to construct and operate non-highway related facilities, (i.e., ports, civic centers, etc.).

In its survey response, the Florida Turnpike Enterprise indicated it uses the Illinois Tollway as a benchmark toll system.

OVERVIEW OF THE TOLL SYSTEMS

We analyzed the survey responses to determine how the Illinois State Toll Highway Authority compared with the other states responding to our survey in various operational areas. These areas included system length, usage, and toll rates.

System Length

The Illinois Tollway is among the larger toll roads responding to our survey. Exhibit 13-1 summarizes the road and lane miles from the 13 state toll systems providing

us with comparable data. In terms of both road and lane miles, Illinois is among the largest of the 13 toll systems.

The 274 road miles of the Illinois Tollway's system is well above the other respondents' average, but smaller than New York, Pennsylvania, and Florida. These systems have extensive statewide mainlines, in part running across rural areas. Lane miles (1,652) for the Illinois Tollway's system are also above the other states' average. As with road miles, the Illinois Tollway's lane miles are less than the three systems cited above.

Exhibit 13-1
ROAD AND LANE MILES FOR BENCHMARK STATES

Toll Road	**Road Miles**	**Lane Miles**
New York State Thruway Authority	641.0	3,143.0
Pennsylvania Turnpike Commission	531.0	2,508.0
Florida Turnpike Enterprise	449.0	1,925.0
Illinois State Toll Highway Authority	***274.0***	***1,652.0***
Ohio Turnpike Commission	241.0	1,303.5
New Jersey Highway Authority (GSP)	172.3	1,260.0
Indiana DOT – Toll Road District	157.0	634.0
Orlando – Orange County Expressway Authority (Florida)	91.6	462.0
Transportation Corridor Agencies (California)	51.0	218.0
North Texas Tollway Authority	50.5	267.0
South Jersey Transportation Authority	47.0	260.0
E-470 Public Highway Authority (Colorado)	47.0	277.0
Miami-Dade County Expressway	32.0	181.0
Richmond Metropolitan Authority (Virginia)	9.9	50.0*
Average	**193.9**	**960.7**
Median	**91.6**	**462.0**

Notes:
* Estimate.

Source: IMG analysis of Illinois Auditor General survey of states' toll systems.

System Usage

The toll road systems were examined using the annual vehicle miles traveled (VMT) per lane mile. VMT is a standard industry tool used to measure highway system congestion and usage. Based on this measure, overall use of Illinois' Tollway is relatively high; at 7.8 billion VMT, use of the Illinois Tollway's system is second only to New York.

In Illinois, passenger cars accounted for about 90 percent of all toll transactions and commercial vehicles accounted for about 10 percent of all toll transactions. These percentages are close to the averages for the other toll roads. However, certain sections of the Illinois Tollway's system have much higher truck usage. For example, trucks make up over 17 percent of the traffic on the western section of the Northwest Tollway. Exhibit 13-2 summarizes the analysis of system usage.

Exhibit 13-2
SYSTEM USAGE

Toll Road	Vehicle Miles Traveled (VMT) (millions)	Number of Vehicles (millions)	Percent Truck
Transportation Corridor Agencies (California)	677.0	NR	NR
South Jersey Transportation Authority	895.8	NR	NR
Indiana DOT – Toll Road District	1,139.0	55.1	16.3%
Ohio Turnpike Commission	2,809.6	47.7	19.1%
Pennsylvania Turnpike Commission	5,673.4	172.1	12.8%
Florida Turnpike Enterprise	5,743.5	479.4	4.6%
New Jersey Highway Authority (GSP)	6,387.0	418.0	0.5%
Illinois State Toll Highway Authority	***7,824.0***	***482.6***	***10.0%***
New York State Thruway Authority	10,167.6	259.7	13.8%
Richmond Metropolitan Authority (Virginia)	NR	NR	NR
Orlando-Orange County Expressway Authority (Florida)	NR	NR	NR
E-470 Public Highway Authority (Colorado)	NR	31.0	NR
Miami-Dade County Expressway	NR	90.8	2.0%
North Texas Tollway Authority	NR	109.3	1.8%
Average	**4,186.6**	**184.8**	**8.9%**
Median	**4,241.5**	**109.3**	**8.7%**

NR = No Response

Source: IMG analysis of Illinois Auditor General survey of states' toll systems.

Toll Rates

As shown in Exhibit 13-3, Illinois is towards the bottom in terms of the average toll rate per mile. In terms of toll rates for passenger cars, the Illinois Tollway's toll at three cents per mile was one of the lowest of the responding states. New Jersey's Garden State Parkway reported a lower rate of two cents per mile; Indiana Toll Road and New York State Thruway Authority reported the same three cents per mile. According to sample responses, the Illinois Tollway toll rate for a 5-axle commercial truck was the lowest along with Indiana. The Illinois Tollway has not had a toll increase since 1983. All other toll roads in the survey sample have had a toll increase more recently, with more than half increasing their tolls since 1998.

Despite the comparatively low toll rates, the Illinois Tollway generates above average total revenues. This revenue generation can be attributed to heavy use coupled with the relatively low rates charged at other large toll roads.

Exhibit 13-3
AVERAGE TOLL RATES PER MILE

State	Toll Road	Cars	Trucks
New Jersey	New Jersey Highway Authority	2**4**	10**4**
Illinois	***Illinois State Toll Highway Authority***	***34***	***94***
Indiana	Indiana DOT – Toll Road District	3**4**	9**4**
New York	New York State Thruway Authority	3**4**	12**4**
Ohio	Ohio Turnpike Commission	4**4**	12**4**
Pennsylvania	Pennsylvania Turnpike Commission	4**4**	22**4**
New Jersey	South Jersey Transportation Authority	5**4**	25**4**
Florida	Florida Turnpike Enterprise	6**4**	21**4**
Florida	Miami-Dade Expressway Authority	7**4**	14**4**
Texas	North Texas Tollway Authority	11**4** (A)	26**4**
Florida	Orlando-Orange County Expressway Authority	11**4** (B)	36**4**
California	Transportation Corridor Agencies	17**4**	68**4**
Colorado	E-470 Public Highway Authority	18**4**	NR

NR = No Response

Notes:
(A) North Texas also has a discounted toll rate which equals 9**4** per mile for cars and 21**4** for trucks.
(B) Orlando-Orange County responded that its average ranged from 8**4** to 11**4** per mile for cars and 22**4** to 36**4** per mile for trucks.

Source: Office of the Auditor General's summary of state toll roads' survey responses.

STAFFING LEVELS

The Illinois Tollway reported 1,926 staff positions in 2002. This compares to the median of 428 positions for the other 13 responding toll roads. Only New York (3,212 staff) and Pennsylvania (2,390 staff) reported more staff than did the Illinois Tollway. Exhibit 13-4 shows the staffing levels for the 14 toll roads.

Exhibit 13-4
STAFFING LEVELS

Toll Road	Staffing
New York State Thruway Authority	3,212.0
Pennsylvania Turnpike Commission	2,389.9
Illinois State Toll Highway Authority	**1,926.0**
New Jersey Highway Authority (GSP)	1,250.0
Ohio Turnpike Commission	1,072.0
Florida Turnpike Enterprise	620.0
Indiana DOT – Toll Road District	570.0
North Texas Tollway Authority	428.0
South Jersey Transportation Authority	306.0
Richmond Metropolitan Authority (Virginia)	118.0
Transportation Corridor Agencies (California)	81.0
E-470 Public Highway Authority (Colorado)	52.0
Orlando-Orange County Expressway Authority (Florida)	38.5
Miami-Dade County Expressway Authority	17.0
Average	**781.1**
Median	**428.0**

Source: IMG analysis of Illinois Auditor General survey of states' toll systems.

Tollway staffing levels can be impacted by many different factors, one of which is the amount of work outsourced to contractors. For example, the Illinois Tollway's staffing level does not include the 159 State Police District 15 officers which patrol the Illinois Tollway; the Illinois Tollway considers them contractual employees. However, New York and the Indiana Toll Road's staffing levels include 324 and 51 police, respectively. Conversely, the Illinois Tollway does not contract its toll collection services whereas some

other toll roads, such as the Orlando Orange Expressway and Miami-Dade Expressway, contract for such services.

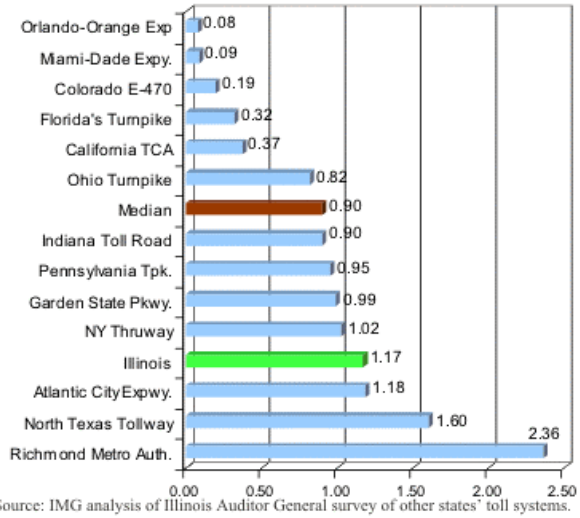
Staff Per Lane Mile

The Illinois Tollway also has more staff per lane mile than the median of the other toll roads: 1.17 versus 0.90, respectively. As shown in Exhibit 13-5, the Illinois Tollway's staff/lane mile ratio is higher than any of the other large toll roads, including Ohio, New York, Pennsylvania, Florida, and Garden State Parkway, which are at or below 1.02 staff per lane mile.

However, as shown by Exhibit 13-6, on a Vehicle Miles Traveled (VMT) basis, the Illinois Tollway had fewer staff per VMT (0.25) than the median (0.33). VMT data was not available for all of the responding toll roads; it was only available for the larger roads and, therefore, the median may actually be lower. The Illinois Tollway's positions per VMT ratio of 0.25 is lower than all of the other large toll roads, except for the Florida Turnpike Enterprise and the Garden State Parkway at 0.11 and 0.20, respectively.

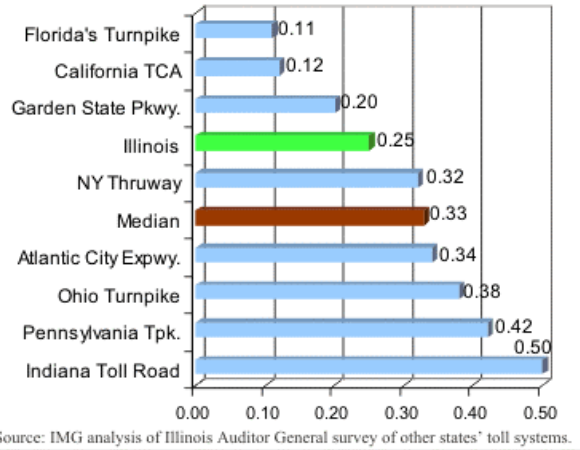
The Illinois Tollway's average staff cost per position at $59,438 compares to the sample median of $53,055 (see Exhibit 13-7). Staff cost includes both salaries and fringe benefits. The Illinois Tollway's staff cost per position was higher than four of the other larger toll roads (Florida, Pennsylvania, New York, and Ohio) and lower than one (Garden State Parkway).

Exhibit 13-5
TOTAL STAFF PER LANE MILE



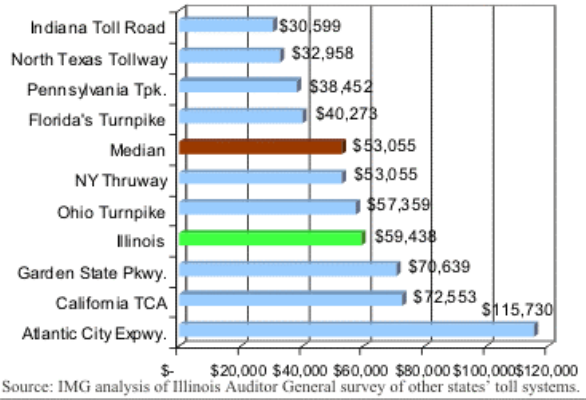
Source: IMG analysis of Illinois Auditor General survey of other states' toll systems.

Exhibit 13-6
STAFF PER VEHICLE MILE TRAVELED (VMT)



Source: IMG analysis of Illinois Auditor General survey of other states' toll systems.

Exhibit 13-7
AVERAGE STAFF COST PER POSITION



Source: IMG analysis of Illinois Auditor General survey of other states' toll systems.

A comparison of salary and fringe benefit costs needs to be seen in the context of cost of living, since suburban Chicago has higher costs than other areas like Harrisburg or rural Ohio, where the headquarters of the Pennsylvania Turnpike Commission and Ohio Turnpike Commission are located.

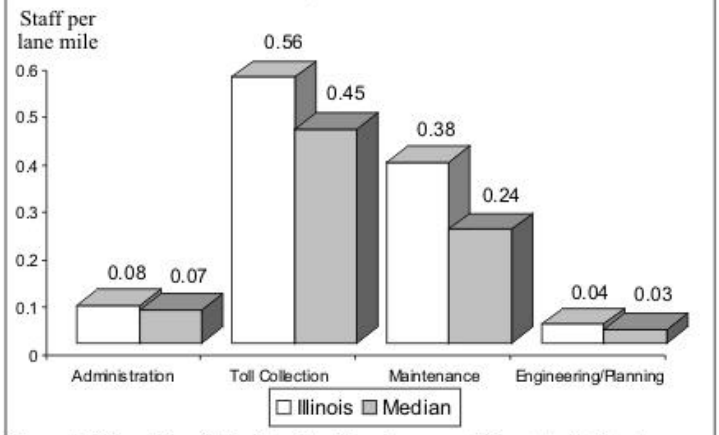
Individual Department Positions

The Illinois Tollway's proportion of positions in administration and operations generally appears similar to the median of the other toll roads. For the purposes of this analysis, administration was defined as staff working in administration, finance, budget, and legal offices. Operations included all other employees.

One area where the Illinois Tollway appeared higher pertained to maintenance staff. Thirty-two percent of the Illinois Tollway's staff were classified as maintenance employees whereas the median for the other toll roads was 23 percent. Of the five larger toll roads, New York and Garden State Parkway have a higher proportion of maintenance positions (48% and 40%, respectively).

On a per lane mile basis, this difference appears as well, as the Illinois Tollway's positions/lane mile for maintenance was over 50 percent greater than the median for the other toll roads (0.38 maintenance staff per lane mile for Illinois Tollway and 0.24 maintenance staff per lane mile for the median for the other toll roads). Only New York had a higher ratio at 0.50 maintenance staff per lane mile.

Exhibit 13-8
COMPARISON OF STAFF PER LANE MILE
(by function)



Source: IMG analysis of Illinois Auditor General survey of other states' toll systems.

The Illinois Tollway's staffing level per lane mile for toll collection is also higher at 0.56 versus the median of 0.45 for the other toll roads.

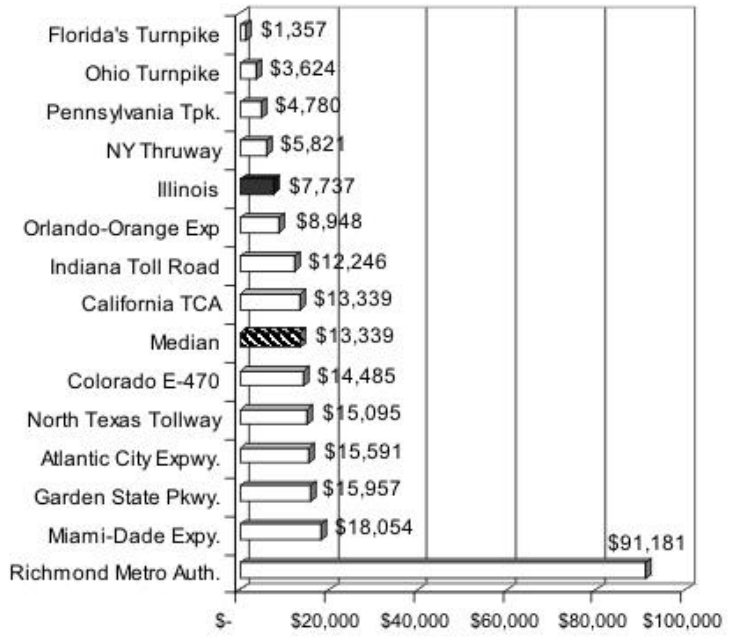
Given that there is a notable difference between Illinois and the peer states, the Illinois Tollway may wish to examine the staffing levels in the maintenance areas. Such a review could include a more detailed analysis of staffing levels and job responsibilities, and whether opportunities for cost savings exist.

OPERATING COSTS

Given that the Illinois Tollway is one of the largest and most heavily used toll road system, its total operating costs are well above the operating costs for most other toll roads responding to our survey. Operating costs include administrative costs.

The Illinois Tollway's administrative costs were $12.8 million. On a per lane mile basis, the Illinois Tollway's administrative costs of $7,737 were significantly less than the median ($13,339). See Exhibit 13-9 for the administrative cost per mile and Exhibit 13-10 for total operating costs.

Exhibit 13-9
ADMINISTRATIVE COST PER LANE MILE



Source: IMG analysis of Illinois Auditor General survey of other states' toll systems.

Other operating costs (at $226 million) are by contrast much higher than most other toll roads in the survey sample, and are exceeded only by New York and the Florida Turnpike Enterprise. Total operating costs (at $239 million), excluding capital expenditures, are well above average and rank third highest behind New York and the Florida Turnpike Enterprise systems.

Exhibit 13-10
TOTAL OPERATING COSTS

Toll Road	Administrative Costs [A]	Other Operating Costs [B]	Total Operating Costs [C]
E-470 Public Highway Authority (Colorado)	$4,012,316	$13,433,690	$17,446,006
Richmond Metropolitan Authority (Virginia)	$4,559,074	$15,233,338	$19,792,412
Miami-Dade County Expressway Authority	$3,267,760	$33,578,614	$36,846,374
Indiana DOT – Toll Road District	$7,763,772	$38,352,918	$46,116,690
Orlando-Orange County Expressway Authority (Florida)	$4,134,000	$43,937,000	$48,071,000
South Jersey Transportation Authority	$4,053,700	$63,596,559	$67,650,259
North Texas Tollway Authority	$4,030,476	$73,368,057	$77,398,533
Ohio Turnpike Commission	$4,724,216	$138,703,407	$143,427,623
Transportation Corridor Agencies (California)	$2,908,000	$172,142,000	$175,050,000
Pennsylvania Turnpike Commission	$11,988,225	$175,470,525	$187,458,750
New Jersey Highway Authority (GSP)	$20,106,009	$180,514,407	$200,620,416
Illinois State Toll Highway Authority	***$12,781,797***	***$226,452,256***	***$239,234,053***
Florida Turnpike Enterprise	$2,611,976	$301,980,745	$304,592,721
New York State Thruway Authority	$18,294,928	$370,245,321	$388,540,249
Average	**$7,111,881**	**$124,658,199**	**$131,770,079**
Median	**$4,134,000**	**$73,368,057**	**$77,398,533**

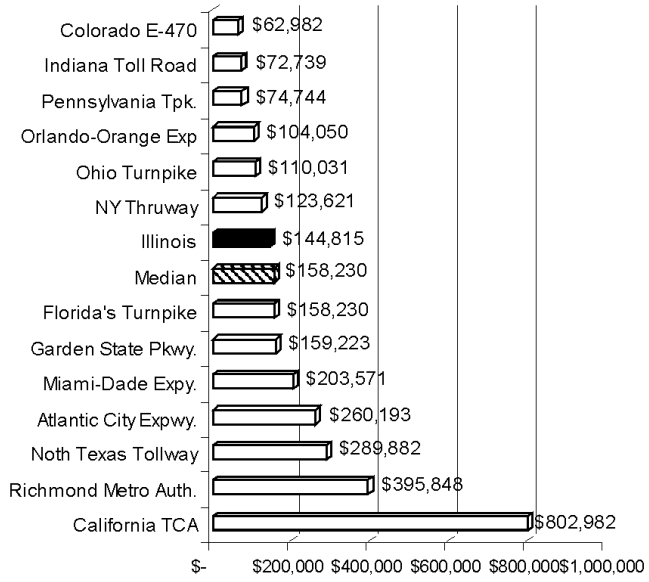
Notes:
[A] **Administrative** costs include expenditures reported by states for administration, budget, finance, and personnel.
[B] **Operating** costs include expenditures reported by states for toll collection, maintenance, police, engineering/planning, debt service and other operations-related expenditures.
[C] **Capital expenditures** are not included in this analysis.

Source: IMG analysis of Illinois Auditor General survey of states' toll systems.

The Illinois Tollway's total operating costs per lane mile (at $144,815), which include administrative costs (but do not include capital costs), are below the median, but are greater than those of the Ohio, New York, and Pennsylvania. The smaller toll roads show operating costs per lane mile being much higher than median (see Exhibit 13-11).

In general, the comparative data suggest that the Illinois Tollway's operating costs are in line with other toll road systems.

Exhibit 13-11
TOTAL OPERATING COSTS PER LANE MILE*



Note: *Includes both administrative costs and operations costs.
Source: IMG analysis of Illinois Auditor General survey of other states' toll systems.

CAPITAL PROGRAM AND DEBT SERVICE

The Illinois Tollway's annual capital expenditures are below the median at $83,371 per lane mile versus $91,380 per lane mile and at the mid-point of the four larger toll roads (New York, New Jersey Highway Authority, Florida Turnpike Enterprise and Ohio).

Debt service per lane mile is about 25 percent lower at $47,721 versus $66,217. It is higher than two of the other four larger toll roads, and lower than two. Exhibit 13-12 summarizes the Infrastructure Management Group's (IMG) analysis of debt service relative to capital and operating expenditures.

Exhibit 13-12
DEBT SERVICE RELATIVE TO CAPITAL AND OPERATING EXPENDITURES

Toll Road	Capital Expenditures per Lane Mile	Debt Service	Debt Service per Lane Mile	Debt Service per VMT	Debt Service as a Percent of Operating Expenditures
South Jersey Transportation Authority	$133,473	$15,171,300	$58,351	$16,936	14.5%
New York State Thruway Authority	$52,239	$85,321,585	$27,147	$8,391	15.4%
Miami-Dade County Expressway Authority	$323,128	$16,462,179	$90,951	NR	17.3%
Indiana DOT – Toll Road District	$56,142	$16,797,064	$26,494	$14,747	20.6%
Ohio Turnpike Commission	$89,851	$54,776,286	$42,022	$19,496	21.0%
New Jersey Highway Authority (GSP)	$45,059	$63,902,428	$50,716	$10,005	24.8%
Florida Turnpike Enterprise	$110,695	$142,611,000	$74,084	$24,830	27.5%
Illinois State Toll Highway Authority	***$83,371***	***$78,834,860***	***$47,721***	***$10,076***	***42.3%***
North Texas Tollway Authority	$92,910	$46,969,512	$175,916	NR	46.0%
Richmond Metropolitan Authority (Virginia)	NR	$12,182,271	$243,645	NR	61.6%
Transportation Corridor Agencies (California)	NR	$112,540,000	$516,239	$166,233	64.3%
Orlando-Orange County Expressway Authority (Florida)	NR	NR	NR	NR	NR
Pennsylvania Turnpike Commission	NR	NR	NR	NR	NR
E-470 Public Highway Authority (Colorado)	NR	NR	NR	NR	NR
Average	**$112,937**	**$56,673,363**	**$130,556**	**$37,234**	**31.3%**
Median	**$91,380**	**$50,872,899**	**$66,217**	**$16,936**	**22.9%**

NR = No Response
Source: IMG analysis of Illinois Auditor General survey of states' toll systems.

Illinois Tollway's debt service per VMT at $10,076 is approximately two-thirds of the median of $16,936. It is also approximately 50 percent lower than Ohio ($19,496) and approximately 60 percent lower than Florida ($24,830), and similar to the Garden State Parkway ($10,005); but it is higher than New York ($8,391).

Most of the other larger toll roads that have reported information on capital plans have not initiated major capital programs on the scale that the Illinois Tollway anticipates. The exception, however, is Florida, which is beginning to carry out its multi-billion dollar program. Thus it appears that the Illinois Tollway is spending at a relatively "normal" rate for toll roads that have not yet embarked on a major capital program.

The existing debt service is lower than for most roads, including some of the larger toll roads, reflecting the Illinois Tollway's high traffic and ability to distribute these costs among a large customer base. The data suggests that the Illinois Tollway should be able to increase the annual debt service costs – and hence its overall outstanding debt – by a factor of 1 or 2 and bear debt costs that are comparable to the larger toll roads.

PROPORTION OF NON-TOLL REVENUE

Ninety-seven percent of the Illinois Tollway's revenue (excluding interest income) comes from toll revenue. The remaining three percent comes from non-toll sources which consist of concessions (primarily service plazas) and miscellaneous revenue, such as fiber-optics and transponder fees (investment income was not included in this analysis). Exhibit 13-13 summarizes our analysis of toll revenue by lane miles, VMT, as a proportion of total operating revenue and non-toll revenue per lane mile.

Exhibit 13-13
COMPARISON OF REVENUE MEASURES

Toll Road	Revenue per Lane Mile	Revenue per VMT	Toll Revenue per Total Operating Revenue	Non-Toll Revenue per Lane Mile
Miami-Dade County Expressway Authority	$303,680	n/a	100%	$269
Transportation Corridor Agencies (California)	$910,583	0.29	100%	$2,844
Pennsylvania Turnpike Commission	$174,442	0.08	97%	$4,912
Florida Turnpike Enterprise	$259,833	0.09	97%	$5,694
Illinois State Toll Highway Authority	***$235,664***	***0.05***	***97%***	***$6,497***
Orlando-Orange County Expressway Authority (Florida)	$331,132	n/a	98%	$6,506
North Texas Tollway Authority	$445,755	n/a	98%	$6,559
New York State Thruway Authority	$148,931	0.05	94%	$7,935
Ohio Turnpike Commission	$155,281	0.07	93%	$10,163
Indiana DOT – Toll Road District	$148,440	0.08	92%	$10,840
New Jersey Highway Authority (GSP)	$182,179	0.04	87%	$22,844
E-470 Public Highway Authority (Colorado)	$199,383	n/a	78%	$33,146
South Jersey Transportation Authority	$228,741	0.07	83%	$38,308
Richmond Metropolitan Authority (Virginia)	$539,658	n/a	100%	NR
Average	**$309,849**	n/a	**94%**	**12,502**
Median	**$228,741**	n/a	**97%**	**7,247**

NR = No Response n/a = Not Applicable or Not Available

Source: IMG analysis of Illinois Auditor General survey of states' toll systems.

At 97 percent, the Illinois Tollway has the same percent of revenue from toll sources as the median of the responding states. The larger toll roads earned the same percentage of non-toll revenue (Pennsylvania and Florida – 3%) or greater: New York (6%) and Ohio (7%).

The Illinois Tollway's non-toll earnings per lane mile are below the sample median at $6,497 versus $7,247. Three of the larger toll roads, Ohio ($10,163), New York ($7,935) and Garden State Parkway ($22,844), earned more than the Illinois Tollway per lane mile and two earned less, Pennsylvania ($4,912) and Florida ($5,694).

The Illinois Tollway appears to be earning non-toll revenues as would be expected for a road of its type. Nevertheless, it may be losing out on some opportunities to maximize revenues from non-toll sources. This may in part reflect the heavily depreciated state of the existing oasis and the need to reconstruct these, as the recent agreement anticipates. The reconstruction of the oases is discussed in Chapter Four.

These adequate earnings may also reflect the primarily urban nature of the Illinois Tollway where service plaza revenues will not be as high due to the shorter average drive distance and the abundant availability of alternatives.

ELECTRONIC TOLL COLLECTION

The use of electronic toll collection (ETC) on the Illinois Tollway's system is somewhat below median for the sample, but not out of line with experience for large toll roads. Illinois Tollway implemented the I-PASS system for ETC in the early 1990s and has steadily increased the number of transponders in use on its system. Other toll roads have been very active in converting customers to ETC. Only the Indiana Toll Road District in the sample reported no ETC system.

In terms of ETC, the Illinois Tollway is somewhat below the median at 36 percent. In contrast, the New York State Thruway Authority, a comparable older toll road, reports 48 percent ETC. The New Jersey Highway Authority, which is another larger toll road, reported 53 percent ETC. New urban toll roads such as the Transportation Corridor Agencies and the North Texas Tollway Authority report over 60 percent ETC rates. On the other end of the spectrum, the Ohio Turnpike Commission reported a 9 percent ETC rate.

Exhibit 13-14 summarizes the Infrastructure Management Group's review of the profiles of the electronic toll collection systems used by the toll roads responding to our survey. The cash deposit required by the Illinois Tollway to obtain a transponder ($20) is average for the sample, as is the preferential deposit for credit card accounts ($10) that provide automatic payment/replenishment. Over one-half the toll roads in the sample charge no transponder deposit for credit card accounts. However, the Illinois Tollway's deposit amounts were recently reduced in 2001 from higher levels, and this reduction, coupled with the I-PASS mobile marketing units, were successful in generating major growth in ETC accounts.

Exhibit 13-14
ELECTRONIC TOLL COLLECTION SYSTEM PROFILES

Toll Road	Name of ETC System	Cash Deposit	Credit Card Deposit	Minimum Replenish	Cost to Start	Monthly Fee	Toll Reduction
Richmond Metropolitan Authority (Virginia)	SmartTag	$15.00	$0.00	$35.00	$35.00	$0.00	
South Jersey Transportation Authority	EZ Pass	$10.00	$0.00	$25.00	$25.00	$1.00	20-40%
Transportation Corridor Agencies (California)	Fasttrack	$30.00	$0.00	$30.00	$30.00	$1.00	up to $0.25-$1.00 per trip
Indiana DOT – Toll Road District	None	n/a	n/a	n/a	n/a	n/a	n/a
Orlando-Orange County Expressway Authority (Florida)	E-Pass	$26.63	$26.63	$40.00	$51.63	$0.00	5% off $40+ per mo., 10% off $80+
Ohio Turnpike Commission	Ready Toll		Credit card required	$75.00	$100.00		0
New York State Thruway Authority	EZ Pass	$10.00	$0.00	$25.00	$25.00	$1.00	Annual Permit
Pennsylvania Turnpike Commission	EZ Pass	$10.00	$0.00	$25.00	$25.00	$1.00	0
Florida Turnpike Enterprise	SunPass	$26.50	$26.50	$10.00	$51.50	$0.00	10-50% if 40+ per mo.
E-470 Public Highway Authority (Colorado)	EXpress Toll	$20.00	$35.00	$35.00	$35.00		Earn $10 for referral
New Jersey Highway Authority (GSP)	EZ Pass	$10.00	$0.00	$25.00	$25.00	$1.00	0
Miami-Dade County Expressway Authority	SunPass	$26.50	$26.50	$10.00	$51.50	$0.00	10%
North Texas Tollway Authority	TollTag	$25.00	$0.00	$40.00	$40.00	$0.00	20-25%
Illinois State Toll Highway Authority	***I-PASS***	***$20.00***	***$10.00***	***$40.00***	***$50.00***		***0***
Average		**$19.06**	**$10.42**	**$31.25**	**$41.22**	**$0.50**	

n/a = Not Applicable or Not Available
Source: IMG analysis of Illinois Auditor General survey of states' toll systems.

The Illinois Tollway has a relatively high minimum replenishment ($40), resulting in a cost to open a credit card account ($50) that is above the average. In addition, there is a $2 monthly statement fee which adds to the cost burden if a statement is desired by the customer, further raising the overall cost of an electronic toll collection account. Illinois Tollway offers no toll discount for use of ETC; almost one-half the sample roads did offer some discount as an incentive and to reflect the lowered costs of collection with ETC.

The Illinois Tollway does not offer order completion online for opening an account or obtaining the transponder for electronic toll collection; over half the toll roads in the sample do offer online account opening. The Illinois Tollway has installed truck only I-PASS lanes, the only toll system reporting such implementation.

SAFETY

The density of traffic on the Illinois Tollway system results in a higher accident rate than comparable toll roads. Yet fatal accidents are less prevalent, possibly reflecting the higher density and lower speeds of operation. Toll roads traditionally promote safety as well as convenience and time savings to attract patrons. Possibly reflecting its status as a densely used urban connector for the Chicago area, the Illinois Tollway's system shows a relatively high number of accidents and fatalities but a relatively low incidence per volume of traffic as measured by VMT.

The number of accidents reported for the Illinois Tollway is the second highest in the sample, and is essentially the same as New York. The number of fatalities reported for the Illinois Tollway is substantially above the median for the sample, and is fourth in overall fatalities for the sample. The number of accidents per 100 million VMT reported for the Illinois Tollway is above the median for the sample, and is well above some of its peers like the New York, Ohio, and Pennsylvania toll roads. The number of fatalities reported per 100 million VMT for the Illinois Tollway is substantially below the median for the sample, and is well below comparable results for New York, Ohio, or the Garden State Parkway. This measure is also well below the Indiana Toll Road District as shown in Exhibit 13-15.

Exhibit 13-15
COMPARATIVE SAFETY DATA

Toll Road	Accidents	Fatalities	Accidents per 100 million VMT	Fatalities rate per 100 million VMT	Fatalities per 100 million Accidents
Richmond Metropolitan Authority (Virginia)	30	0	n/a	n/a	n/a
South Jersey Transportation Authority	572	4	0.64	0.45	0.70
Indiana DOT – Toll Road District	1,063	9	0.93	0.79	0.85
Orlando-Orange County Expressway Authority (Florida)	956	3	n/a	n/a	n/a
Ohio Turnpike Commission	2,092	14	0.74	0.50	0.67
New York State Thruway Authority	10,059	51	0.99	0.50	0.51
Pennsylvania Turnpike Commission	4,831	19	0.85	0.33	0.39
Florida Turnpike Enterprise	2,714	72	0.47	1.25	2.65
New Jersey Highway Authority (GSP)	7,163	45	1.12	0.70	0.63
Illinois State Toll Highway Authority	***10,051***	***32***	***1.28***	***0.41***	***0.32***
Average	**3,276**	**24**	**0.82**	**0.65**	**0.91**
Median	**2,092**	**14**	**0.85**	**0.50**	**0.67**

n/a = Not Applicable or Not Available.

Source: IMG analysis of Office of the Auditor General's survey data.

CONCLUSION

Benchmarking an entity's performance against peer entities can be a useful management tool to identify areas where performance can be improved or innovations implemented. According to the Illinois Tollway, it is an urban toll road in a cold weather environment and that makes it different from other toll roads. While every entity can consider itself to be somewhat different, that should not prevent all possible comparisons. For example, this benchmarking effort indicates that the Illinois Tollway often compares in the middle of many of other larger toll roads and identifies areas where it may be possible to make improvements.

BENCHMARKING	
RECOMMENDATION NUMBER **22**	***The Illinois State Toll Highway Authority should routinely benchmark its performance with other peer toll roads. Furthermore, the Illinois Tollway should examine the following items identified in our benchmarking analysis: maintenance staffing costs, opportunities to increase non-toll revenue, and ways in which to increase motorists' use of I-PASS.***
TOLLWAY'S RESPONSE	We concur and one of the Executive Director's stated goals is to work toward implementing the best practices not only in the toll industry but business in general.

Chapter Fourteen

BEST PRACTICES

CHAPTER CONCLUSIONS

We surveyed states' toll road systems and conducted detailed interviews with officials from three toll roads in other states to identify "best practices." Best practices can be defined as the processes, practices, and systems identified in public and private organizations that performed exceptionally well and are widely recognized as improving an organization's performance and efficiency in specific areas. Successfully identifying and applying best practices can reduce business expenses and improve organizational efficiency. Best practices identified in other states included: implementing cost containment initiatives; improving employees' customer orientation; conducting customer surveys; improving communication with stakeholders; and better controlling the traffic congestion on their roads.

OVERVIEW

As part of our management audit, we obtained information on what other toll roads were doing that could be viewed as a "best practice." Best practices can be defined as the processes, practices, and systems identified in public and private organizations that performed exceptionally well and are widely recognized as improving an organization's performance and efficiency in specific areas. Successfully identifying and applying best practices can reduce business expenses and improve organizational efficiency. Our consultant, Infrastructure Management Group (IMG), conducted detailed interviews of senior management at three large toll roads:

- Florida Turnpike Enterprise (FTE);
- New York State Thruway Authority (NYSTA); and
- Indiana Department of Transportation – Toll Road District.

In addition, as part of our survey of states' toll roads, we asked about best practices. The responses received from the other states can be found in Appendix D. As part of its response to our survey, the Illinois State Toll Highway Authority cited the following as its best practices:

- Truck I-PASS only lanes;
- Employee cross-training;
- Use of I-PASS only lanes as intermediate measure to address congestion relief in light of budget constraints;
- Mobile I-PASS distribution system; and
- Safety/Training program impact on Worker's Compensation.

The best practices presented in this chapter may or may not be completely applicable in Illinois. The Illinois Tollway may already be implementing some of these; others may have been determined to be not practical. However, according to the other toll roads in the United States, these are practices that have proven successful to them. There are a number of best practices presented in this chapter based on interviews, a review of various toll road reports and material, and research. The best practices address areas such as revenues and expenditures, stakeholder relations, and toll road management.

Cost Containment

Efforts at cost containment help create public confidence that revenue growth (whether from toll increases or otherwise) will be available for capital rehabilitation and improvements. The best practices cited above by the Illinois State Toll Highway Authority (e.g., employee cross training, safety/training program impact on Worker's Compensation) can reduce operating costs.

The New York State Thruway Authority (NYSTA) faced growing highway and off-road obligations with an unchanged toll structure since 1988. NYSTA's Board initiated a cost containment philosophy and a hiring freeze in the mid-1990s. NYSTA:

- **$** Reduced the number of employees by over 16 percent since 1996, mostly through attrition, largely impacting toll collectors as electronic toll collection has expanded.
- **$** Outsourced wherever possible, even though it is in a highly constrained and unionized environment.
- **$** Reduced its budget (the budget for 2003 has been reduced by 1.6 percent relative to 2002). Absolute reductions have occurred in other years as well.

The Garden State Parkway (New Jersey Highway Authority) has a "cost containment committee" that meets regularly. The committee pushes each department to consider ways to reduce costs. This has resulted in a number of incremental savings, such as:

- **$** New ways to reduce lawn mower tire blowouts;
- **$** Reductions in utility bill charges; and,
- **$** Better scrutiny of worker's compensation medical charges.

CUSTOMER ORIENTATION

The Florida Turnpike Enterprise (FTE) has undertaken extensive programs to improve customer satisfaction. For example, FTE embarked upon a comprehensive series of four-hour training courses termed Customer Awareness and Team Training (CATT) in January 2003. This program was modeled after the Walt Disney Company's approach with the purpose of instilling key service values and standards so that all

employees will incorporate them into their daily habits. The FTE expects all its employees and consultants (over 4,000) to participate in small groups of 40 each. The CATT program is also known as the "We Drive Smiles" approach, in which everyone understands that their roles have a direct impact on customer satisfaction.

The NYSTA has training programs (focused on toll collectors) that emphasize customer service, showing video examples of difficult or absurd situations and role-playing sessions dealing with unreasonable customers. The Indiana Toll Road District also provides training for its toll collectors in various aspects of customer service.

Customer Surveys

It is important for toll roads to have a clear sense of how customers are reacting to the services provided. One method of obtaining a sense of customer perspectives is through customer surveys. Several toll road organizations were identified that survey their customers. For example:

- FTE conducts an annual survey sent to holders of its SunPass tags along with its regular newsletter.
- NYSTA conducts a bi-annual survey of passenger and commercial users through surveys handed out at tollbooths and mailed to EZ Pass account holders and to residents living near NYSTA.
- Florida's Orlando-Orange County Expressway publishes the results of its survey on its website.

The Indiana Toll Road District also carries out occasional surveys of its users. For instance, it carried out a survey to understand user requirements for electronic tolling. It used the survey to obtain other information, such as origin and destination information.

Other Stakeholders

Some toll agencies form partnerships with other stakeholders in their region to advance mutual interests and share costs. The NYSTA has developed several partnerships with public agencies that have been productive for NYSTA. For example, NYSTA and the New York State Department of Transportation (NYSDOT) share their federal interstate maintenance funding for capital improvements. This, in part, reflects NYSTA's interstate mileage that attracts these federal funds and in part various costs are shifted from NYSDOT to NYSTA over time. According to the Illinois Tollway and Illinois Department of Transportation (IDOT) officials, of the $700 million in road funding provided by the federal government to IDOT in 2002, approximately $47 million was attributable to the Illinois Tollway's 274 lane miles. According to an IDOT official, the federal government uses a formula to allocate road funds to states which utilizes factors such as lane miles, vehicles traveled, and bridges.

NYSTA also participates in a shared benefits account with NYSDOT, whereby certain activities and services are credited to each side and offset, without the transfer of

funds. This occurs, for example, in the mutual use of a sign shop. NYSTA has also partnered with New York State energy and environmental agencies to establish electronic platforms for trucks to use at concession parking and rest areas, partly funded by private power companies as a research and development activity.

In Florida, FTE has entered into agreements with the Florida Department of Transportation (FDOT) to construct tolled median lanes in FDOT interstate rights-of-way, adding capacity to the State road system. FTE also partners with the Walt Disney Company and other theme park providers to expand access capacity and even to sell event tickets at concession kiosks.

The Indiana Toll Road District is looking at adopting electronic toll collection. At the same time, it is seeking to become a participant in the Inter-Agency Group (IAG) that features interoperable EZ-Pass technology (for multi-state use of transponders) and reciprocal accounting and billing by the driver's home agency.

Communication

In the area of communication, the Illinois Tollway has faced major stakeholder communication issues in conveying its future plans and especially in communicating its plan to raise tolls to pay for reconstruction costs. Several states have taken a proactive approach to communications, marketing and press relations.

For example, the Washington State's Department of Transportation (WASHDOT) produces the "Gray Book: Measures, Markers and Mileposts." This document is published quarterly and is accessible on its website. Much of the information presented in this document consists of performance measures showing WASHDOT's performance over time. Both positive and negative outcomes are included in the Gray Book.

Other toll road organizations, like FTE, the Orlando-Orange County Expressway Authority (Florida) and the New York State Thruway Authority publish semi-annual or annual newsletters addressed to the general public. In 2002, FTE also developed a new newsletter called Sun Passages targeted to its electronic toll account holders, providing new electronic toll collection information and general information to this important constituency.

At least one toll road has established stakeholder councils. FTE has two councils which allow for communication with stakeholders:

- **$** Patron Advisory Council, consisting of toll road users. The council meets on a regular basis to discuss issues relating to the toll road system; and
- **$** Corporate Advisory Council, consisting of leading business and government leaders whom can provide advice on the management of a large organization.

Website

An organization's website is an important device for communicating with its public. Furthermore, many organizations (from airlines to banks to governments) have found that effective websites can significantly reduce the costs of servicing routine customer needs. The Illinois Tollway website could be revamped to:

- **$** Allow I-PASS accounts to be established online (Orlando-Orange County Expressway Authority and the California Transportation Corridor Agencies);
- **$** Allow online I-PASS account access (NYSTA, the New Jersey Turnpike Authority and the Orlando-Orange County Expressway Authority);
- **$** Provide incident management information, traffic cams, and up-to-date weather information (NYSTA);
- **$** Provide traffic statistics (Orlando-Orange County Expressway Authority);
- **$** Enable users to calculate toll rates prior to travel (California Transportation Corridor Agencies, FTE); and
- **$** Expand Frequently Asked Questions (FTE and Miami- Dade Expressway Authority).

DEMAND MANAGEMENT

Demand management relates to the management of traffic congestion. Traffic congestion has been a persistent condition on untolled urban roads and is now an increasing phenomenon on urban toll roads. Despite user charges (i.e., tolls) there is excess demand for urban toll road capacity. Demand management can help a toll road continue to deliver high levels of service and safety.

One form of demand management is congestion pricing. In its survey response, the Illinois Tollway indicates that it is seeking a federal grant to study congestion pricing. Increased use of I-PASS would also help reduce congestion.

CONGESTION PRICING
Congestion pricing charges a premium to road users who want to drive during peak periods such as rush hour or holiday weekends. Drivers pay a toll to enter congested areas. The toll varies according to the level of congestion with higher tolls during peak hours or in peak directions.
Source: Federal Highway Administration.

Other states' practices to manage demand include:

- **$** The Indiana Toll Road District offers a commuter discount card, limited to local traffic passing not more than two toll barriers. In addition, Indiana has a commercial "charge card" to allow regular use truckers to avoid recurrent cash transactions; and

- **$** NYSTA's first priority was to increase capacity by stressing electronic toll collection and they now collect about 75% of rush-hour toll revenues by EZ

PASS. NYSTA also uses moveable barriers to create a reversible lane over the Tappan Zee Bridge and implemented variable prices aimed at reducing rush hour use by commercial trucks and all single occupancy vehicles.

OTHER BEST PRACTICES

Other best practices noted in other states included:

- **$** Adopting financial management guidelines that go beyond what is required by bond covenants;
- **$** Providing management training and team building for all staff;
- **$** Routinely reviewing the practices undertaken at peer toll roads;
- **$** Conducting routine employee surveys; and
- **$** Examining activities that may be more cost-beneficial to outsource, rather than to perform in-house.

BEST PRACTICES	
RECOMMENDATION NUMBER **23**	***The Illinois State Toll Highway Authority should review the applicability of the following "best practices" undertaken by other toll roads:*** • ***Cost containment initiatives;*** • ***Customer orientation training for employees;*** • ***Regular surveys of customers to get their input on the Illinois Tollway's performance;*** • ***Partnering opportunities with public and private entities;*** • ***Improved communications with stakeholders and enhancement of its website; and*** • ***Demand management techniques, such as congestion pricing.***
TOLLWAY'S RESPONSE	As previously stated, the Executive Director's goal is to reform and rebuild the Tollway based on the best practices in the toll industry and business in general.

APPENDIX A

SENATE JOINT RESOLUTION NUMBER 72

92SJ0072 Enrolled LRB9216734REpk

STATE OF ILLINOIS
NINETY-SECOND GENERAL ASSEMBLY
SENATE

Senate Joint Resolution No. 72

Offered by Senator Kathleen K. Parker

WHEREAS, The mission of the Illinois State Toll Highway Authority is to provide and promote a safe and efficient system of toll highways; and

WHEREAS, The Tollway, comprised of the Northwest, the Tri-State, the East-West, and the North-South Tollways, consists of 274 miles (1,650 lane miles), 539 bridge structures, 20 mainline plazas, and 47 ramp plazas; and

WHEREAS, The Toll Highway Authority reported a $374,100,000 budget for 2002, consisting of revenue of $353,900,000 from tolls, $15,200,000 from interest income, and $5,000,000 from concessions and other sources, and expenditures of $180,200,000 for maintenance and operations, $105,500,000 for renewal and replacement, $79,700,000 for debt service, and $8,700,000 for improvements; and

WHEREAS, Thousands of Illinois citizens travel the Tollway system on a daily basis and pay the tolls used to finance Tollway operations; and

WHEREAS, Given the impact of the Tollway on its users, as well as on the transportation needs of the State, it is important that the management and operation of the Tollway be reviewed to ensure that it is making efficient and economical use of its resources; therefore, be it

RESOLVED, BY THE SENATE OF THE NINETY-SECOND GENERAL ASSEMBLY OF THE STATE OF ILLINOIS, THE HOUSE OF REPRESENTATIVES CONCURRING HEREIN, that we respectfully direct the Illinois Auditor General to undertake a management audit of the Illinois State Toll Highway Authority to determine whether

92SJ0072 Enrolled -2- LRB9216734Repk

the Toll Highway Authority is managing or using its resources, including toll and investment-generated revenue, personnel, property, equipment, and space, in an economical and efficient manner; and be it further

RESOLVED, That the audit shall make recommendations to correct any inefficiencies or uneconomical practices; and be it further

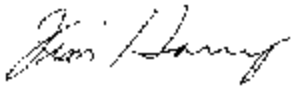
RESOLVED, That the audit shall, in addition, examine the process by which the Authority collects, transports, counts, and deposits toll collections; and be it further

RESOLVED, That the Auditor General shall complete this audit within one year of the date of final passage of this resolution; and be it further

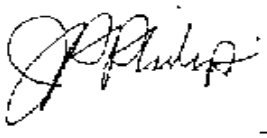
RESOLVED, That the Authority shall pay for the cost of this management audit; and be it further

RESOLVED, That copies of this resolution be delivered to the Auditor General and the Illinois State Toll Highway Authority.

Adopted by the Senate, May 21, 2002.

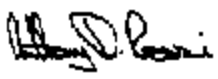


Secretary of the Senate

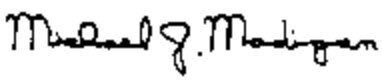


President of the Senate

Concurred in by the House of Representatives, June 2, 2002.



Clerk of House of Representatives



Speaker of House of Representatives

APPENDIX B

SCOPE AND METHODOLOGY

Appendix B
SCOPE AND METHODOLOGY

This audit was conducted in accordance with generally accepted government auditing standards and the audit standards promulgated by the Office of the Auditor General at 74 Ill. Adm. Code 420.310.

We used many methods to gather information for the audit, including reviewing records kept by the Illinois State Toll Highway Authority (Tollway), interviewing Tollway officials, conducting a mail survey of Tollway employees, conducting a mail survey of tollway entities in other states and Canada, and using consultants. (Also see Scope and Methodology in Chapter One.)

EMPLOYEE SURVEY. We selected a sample of one-half of the 1,927 Tollway employees and mailed them a survey questionnaire. In selecting the sample, employees were organized by their organization unit and a random start was selected so every other employee had a chance to be selected. This resulted in a sample that was proportionately stratified by the departments for which employees work to ensure that all areas were represented. The final sample size was 964 and the surveys were mailed in November 2002. A total of 189 employees responded to the survey for a response rate of 20 percent. (See Chapter Eleven for the results of the employee survey.)

SURVEY OF STATES. We identified toll entities in other states and in Canada and mailed a survey questionnaire to 32 toll entities including the Illinois State Toll Highway Authority. Toll entities were identified through internet searches, information from the International Bridge Tunnel and Turnpike Association, and discussions with our consultant, Infrastructure Management Group (IMG). The survey questionnaire was mailed in January 2003 and we received 20 responses for a response rate of 63 percent. Respondents were asked for information from their most recently completed fiscal year. (See Chapter Twelve and Appendix D regarding the survey of states.)

PERSONNEL FILES. We selected a sample of 50 employees during fieldwork and reviewed their personnel files. The sample was judgmentally selected based on position, hire date, recent salary increases, and comments received in the employee surveys. Personnel files were reviewed for completeness and other factors such as whether the employee met the qualifications for their position, performance evaluations were completed, and salary increases were documented. We also examined the job interview files for 16 of the 50 employees in our sample. These 16 recent employees were hired in the last four years. Interview files were examined for completeness and to determine whether the position was posted or advertised, reference checks were performed, and the highest ranking candidate was hired. (See Chapter Three for a discussion of the results.)

VEHICLE LOGS. The Tollway had 105 permanently assigned take home vehicles which included 93 for employees and 12 for their consulting engineers. We selected a sample of vehicle logs for 18 employees and 3 consultants that had take-home vehicles. We examined monthly logs for 2002 to see if logs were being completed, if logs were

completed properly, if logs were signed to indicate review by the Department Chief or Division Manager, and how much the vehicle was being used for commuting purposes. (See Chapter Eight for a discussion of the results.)

CONTRACT FILES. We selected a sample of 21 Tollway contracts. The contracts were selected judgmentally and covered many areas of operation such as construction, engineering, legal services, insurance, surveying, lobbying, information systems, violation enforcement, and vehicle purchases. Contracts were examined to determine whether they were competitively bid and whether preestablished selection criteria were used to evaluate the bids. We also examined how the contracts were monitored, whether they contained deliverable requirements and if those requirements were met, and whether the contracts contained performance measures. (See Chapter 4 for a discussion of the results)

EXPENDITURES. We selected a sample of 165 expenditures from Calendar Year 2001 and 2002. The sample was selected judgmentally from two Tollway general ledger accounts and also a Comptroller's report. We tested the sample for supporting documentation, proper approval, and appropriateness of those expenditures. (See Chapter Four for a discussion of the results)

CONSULTANTS. We retained two consulting firms and obtained assistance from another two State agencies which had expertise relevant to this audit.

- We contracted with the IMG, to assess the Tollway's planning, organizational structure, and revenue management, and also to benchmark the Tollway against other toll roads and to identify best practices. For the benchmarking analysis, the Tollway was compared to the average and to the median of the responding states. In calculating average and median values for the respondents to the survey, the Illinois data were not included.
- We contracted with the firm FPT&W to perform tasks related to personnel, contracts, and expenditures.
- We obtained assistance from the Illinois Gaming Board (IGB) regarding the toll collection process and the operations of the Money Room since the IGB has experience in auditing these functions of Illinois casinos.
- We obtained assistance from the Illinois Economic and Fiscal Commission (IEFC) regarding revenue bonds since the IEFC has expertise in State-issued revenue bonds.

APPENDIX C

CASH VARIANCES

Appendix C
CASH VARIANCE FOR AUTOMATIC LANES BY PLAZA [A]
December 2002

NORTHWEST TOLLWAY (I-90)

Plaza Name	Type	Total Transactions	Expected Cash Revenue	Actual Cash Revenue	[D] Cash Variance	% Cash Variance
Arlington Heights	Unattended Ramp	632,277	$96,796	$80,619	-$16,177	-16.71%
Beverly Road	Unattended Ramp	357,352	$62,323	$51,918	-$10,405	-16.70%
Barrington Road	Unattended Ramp	363,537	$65,678	$56,116	-$9,562	-14.56%
Route 31	Unattended Ramp	698,814	$143,359	$122,780	-$20,579	-14.35%
Route 25	Unattended Ramp	222,540	$50,366	$43,322	-$7,044	-13.99%
Roselle Road	Unattended Ramp	300,637	$51,100	$45,354	-$5,746	-11.24%
Randall Road	Unattended Ramp	186,975	$39,242	$34,930	-$4,313	-10.99%
Route 59	Unattended Ramp	239,997	$23,373	$22,019	-$1,353	-5.79%
Riverside Drive	Unattended Ramp	195,088	$22,252	$21,348	-$904	-4.06%
Route 53	Unattended Ramp	1,009,585	$118,430	$114,352	-$4,077	-3.44%
Marengo	Mainline Attended	839,534	$222,229	$222,775	$546	0.25%
River Road	Mainline Attended	1,482,411	$425,081	$429,814	$4,733	1.11%
Elgin Road	Mainline Attended	843,990	$329,648	$333,685	$4,037	1.22%
Devon Avenue	Mainline Attended	1,362,474	$515,336	$521,845	$6,509	1.26%
South Beloit	Mainline Attended	653,796	$223,942	$228,607	$4,666	2.08%
Belvidere	Mainline Attended	664,696	$183,438	$187,347	$3,909	2.13%
South Rockford	Unattended Ramp	583,723	$103,183	$109,686	$6,503	6.30%
[D] **Northwest Tollway Totals**		**10,637,426**	**$2,675,775**	**$2,626,518**	**-$49,257**	**-1.84%**

TRI-STATE TOLLWAY (I-294)

Plaza Name	Type	Total Transactions	Expected Cash Revenue	Actual Cash Revenue	[D] Cash Variance	% Cash Variance
75th Street	Unattended Ramp	228,621	$42,290	$28,763	-$13,526	-31.99%
159th Street	Unattended Ramp	365,648	$115,224	$81,592	-$33,632	-29.19%
Willow Road	Unattended Ramp	430,901	$142,009	$112,449	-$29,560	-20.82%
95th Street	Unattended Ramp	415,998	$102,356	$83,544	-$18,811	-18.38%
Lake Cook Road	Unattended Ramp	390,368	$124,672	$102,936	-$21,735	-17.43%
Golf Road	Unattended Ramp	510,157	$168,838	$144,657	-$24,181	-14.32%
Buckley Road	Unattended Ramp	222,700	$40,180	$34,814	-$5,366	-13.36%
Half Day Road	Unattended Ramp	281,422	$50,378	$44,464	-$5,915	-11.74%
Route 60	Unattended Ramp	341,748	$62,396	$55,477	-$6,919	-11.09%
O'Hare East	Attended Ramp	431,529	$75,872	$71,198	-$4,674	-6.16%
O'Hare West	Attended Ramp	452,063	$117,760	$113,395	-$4,365	-3.71%
Touhy Avenue	Mainline Attended	1,261,362	$576,233	$561,718	-$14,515	-2.52%
Halsted Street	Attended Ramp/ Unattended Ramp	451,895	$61,787	$60,478	-$1,309	-2.12%
Irving Park Road	Mainline Attended	1,200,000	$439,300	$437,278	-$2,021	-0.46%
Cermack Road	Mainline Attended	1,696,214	$636,987	$635,039	-$1,948	-0.31%
83rd Street	Mainline Attended	794,498	$313,715	$313,434	-$281	-0.09%
Edens Spur	Mainline Attended	689,481	$341,438	$341,228	-$210	-0.06%
Waukegan	Mainline Attended	797,290	$593,665	$593,798	$134	0.02%
163rd Street	Mainline Attended	1,227,759	$458,548	$464,045	$5,497	1.20%

82nd Street	Mainline Attended	785,454	$308,351	$313,562	$5,211	1.69%
I-80 West	Attended Ramp	488,676	$116,564	$118,813	$2,249	1.93%
I-80 East	Attended Ramp	437,013	$103,152	$106,068	$2,916	2.83%
Joliet Road (I-55)	Attended Ramp	1,031,934	$93,439	$99,328	$5,889	6.30%
[D] Tri-State Tollway Totals		**14,932,731**	**$5,085,154**	**$4,918,079**	**-$167,074**	**-3.29%**

EAST-WEST TOLLWAY (I-88)

Plaza Name	Type	Total Transactions	Expected Cash Revenue	Actual Cash Revenue	[D] Cash Variance	% Cash Variance
Orchard Road	Unattended Ramp	102,627	$20,549	$14,557	-$5,992	-29.16%
Highland Avenue	Unattended Ramp	423,620	$63,885	$50,505	-$13,380	-20.94%
Spring Road	Unattended Ramp	269,090	$53,496	$42,638	-$10,858	-20.30%
Peace Road	Unattended Ramp	220,158	$64,526	$51,500	-$13,026	-20.19%
Midwest Road	Unattended Ramp	296,401	$58,516	$47,449	-$11,067	-18.91%
Farnsworth Avenue	Unattended Ramp	693,288	$136,552	$111,117	-$25,435	-18.63%
Route 31	Unattended Ramp	93,199	$22,431	$19,130	-$3,301	-14.71%
Winfield Road	Unattended Ramp	198,726	$15,543	$13,614	-$1,928	-12.41%
Dixon (DeKalb)	Unattended Ramp	85,519	$46,435	$41,522	-$4,913	-10.58%
Naperville Road	Unattended Ramp	301,451	$27,340	$24,847	-$2,493	-9.12%
Dixon (Iowa)	Unattended Ramp	41,258	$11,743	$11,283	-$460	-3.92%
DeKalb [B]	Mainline Attended	0	$0	$0	$0	$0
Dixon [B]	Mainline Attended	0	$0	$0	$0	$0
York Road	Mainline Attended	1,895,263	$679,076	$681,377	$2,301	0.34%
DeKalb West	Attended Ramp	112,046	$41,924	$42,121	$197	0.47%
Aurora	Mainline Attended	643,895	$254,684	$259,639	$4,955	1.95%
[D] East-West Tollway Totals		**5,376,541**	**$1,496,700**	**$1,411,300**	**-$85,400**	**-5.71%**

NORTH-SOUTH TOLLWAY (I-355)

Plaza Name	Type	Total Transactions	Expected Cash Revenue	Actual Cash Revenue	[D] Cash Variance	% Cash Variance
63rd Street	Unattended Ramp	547,534	$95,611	$72,895	-$22,716	-23.76%
Maple Avenue	Unattended Ramp	385,565	$57,991	$44,445	-$13,546	-23.36%
Ogden Avenue	Unattended Ramp	117,455	$17,392	$13,466	-$3,926	-22.57%
75th Street	Unattended Ramp	648,368	$144,761	$114,729	-$30,032	-20.75%
Boughton Road	Unattended Ramp	115,088	$20,571	$16,604	-$3,967	-19.28%
Roosevelt Road	Unattended Ramp	412,811	$82,928	$67,515	-$15,412	-18.59%
Butterfield Road	Unattended Ramp	478,171	$68,838	$57,798	-$11,041	-16.04%
North Avenue	Attended Ramp	547,514	$134,228	$129,151	-$5,077	-3.78%
Army Trail Road	Mainline Attended	950,898	$451,507	$448,890	-$2,617	-0.58%
Boughton Road	Mainline Attended	978,556	$433,707	$433,133	-$573	-0.13%
[D] North-South Tollway Totals		**5,181,960**	**1,507,534**	**1,398,627**	**-108,907**	**-7.22%**
Adjustment for Spillage					**[C] $19,276**	
[D] Grand Totals		**36,128,658**	**$10,765,163**	**$10,354,524**	**-$391,363**	**-3.64%**

Notes:
[A] According to Tollway officials, the reports used to create this appendix were not created at the same time and, therefore, transaction and revenue figures on pages 205-206 may differ from those on pages 207-208.
[B] Mainline Plazas at DeKalb and Dixon do not have Automatic Lanes.
[C] There was $19,275.57 in spillage that could not be associated with a specific vault or collector.
[D] Cash Variance and total columns may not add due to rounding.

Source: Illinois State Toll Highway Authority data summarized by the Office of the Auditor General.

Appendix C
CASH VARIANCE BY PLAZA [A]
December 2002

NORTHWEST TOLLWAY (I-90)

Plaza Name	Type	Total Transactions	Expected Cash Revenue	Actual Cash Revenue	[C] Cash Variance	% Cash Variance
Arlington Heights	Unattended Ramp	632,309	$96,795	$80,619	-$16,176	-16.71%
Beverly Road	Unattended Ramp	376,203	$62,323	$51,918	-$10,405	-16.70%
Barrington Road	Unattended Ramp	363,548	$65,677	$56,116	-$9,561	-14.56%
Route 31	Unattended Ramp	711,984	$143,355	$122,780	-$20,575	-14.35%
Route 25	Unattended Ramp	231,736	$50,366	$43,322	-$7,044	-13.99%
Roselle Road	Unattended Ramp	307,658	$51,100	$45,354	-$5,746	-11.24%
Randall Road	Unattended Ramp	191,545	$39,242	$34,930	-$4,312	-10.99%
Route 59	Unattended Ramp	240,004	$23,373	$22,019	-$1,353	-5.79%
Riverside Drive	Unattended Ramp	195,109	$22,251	$21,348	-$904	-4.06%
Route 53	Unattended Ramp	1,033,910	$118,429	$114,352	-$4,076	-3.44%
Devon Avenue	Mainline Attended	2,789,620	$819,779	$799,558	-$20,221	-2.47%
Elgin Road	Mainline Attended	2,390,548	$701,754	$688,155	-$13,599	-1.94%
South Beloit	Mainline Attended	1,315,831	$589,919	$585,750	-$4,169	-0.71%
Marengo	Mainline Attended	1,293,064	$453,521	$451,618	-$1,903	-0.42%
River Road	Mainline Attended	2,277,360	$692,588	$696,302	$3,713	0.54%
Belvidere	Mainline Attended	1,060,388	$392,773	$395,199	$2,425	0.62%
South Rockford	Unattended Ramp	596,908	$103,182	$109,686	$6,504	6.30%
[C] Northwest Tollway Totals		**16,007,725**	**$4,426,427**	**$4,319,025**	**-$107,402**	**-2.43%**

TRI-STATE TOLLWAY (I-294)

Plaza Name	Type	Total Transactions	Expected Cash Revenue	Actual Cash Revenue	[C] Cash Variance	% Cash Variance
75th Street	Unattended Ramp	232,957	$42,289	$28,763	-$13,526	-31.98%
159th Street	Unattended Ramp	379,239	$115,223	$81,592	-$33,631	-29.19%
Willow Road	Unattended Ramp	430,944	$142,008	$112,449	-$29,559	-20.81%
95th Street	Unattended Ramp	432,555	$102,355	$83,544	-$18,811	-18.38%
Lake Cook Road	Unattended Ramp	390,403	$124,669	$102,936	-$21,732	-17.43%
Golf Road	Unattended Ramp	515,278	$168,837	$144,657	-$24,180	-14.32%
Buckley Road	Unattended Ramp	225,553	$40,180	$34,814	-$5,366	-13.36%
Half Day Road	Unattended Ramp	288,193	$50,378	$44,464	-$5,914	-11.74%
Route 60	Unattended Ramp	341,760	$62,395	$55,477	-$6,918	-11.09%
Touhy Avenue	Mainline Attended	2,549,840	$873,581	$832,719	-$40,862	-4.68%
83rd Street	Mainline Attended	2,250,409	$672,623	$642,568	-$30,055	-4.47%
Waukegan	Mainline Attended	1,947,582	$1,208,647	$1,158,265	-$50,382	-4.17%
Cermack Road	Mainline Attended	4,253,297	$1,257,592	$1,205,688	-$51,904	-4.13%
O'Hare East	Attended Ramp	557,741	$144,262	$138,643	-$5,619	-3.89%
Irving Park Road	Mainline Attended	2,853,548	$761,474	$732,392	-$29,081	-3.82%
163rd Street	Mainline Attended	3,125,857	$1,015,668	$980,430	-$35,239	-3.47%
Edens Spur	Mainline Attended	1,658,574	$639,041	$617,533	-$21,508	-3.37%
82nd Street	Mainline Attended	2,279,524	$676,787	$654,608	-$22,179	-3.28%
O'Hare West	Attended Ramp	651,748	$182,980	$178,199	-$4,781	-2.61%
Halsted Street	Attended Ramp/	624,805	$86,576	$85,068	-$1,509	-1.74%

	Unattended Ramp					
I-80 West	Attended Ramp	769,697	$241,443	$242,472	$1,029	0.43%
I-80 East	Attended Ramp	744,742	$237,555	$239,194	$1,640	0.69%
Joliet Road (I-55)	Attended Ramp	1,652,864	$180,085	$184,305	$4,221	2.34%
(C) Tri-State Tollway Totals		**29,157,110**	**$9,026,646**	**$8,580,780**	**-$445,866**	**-4.94%**

EAST-WEST TOLLWAY (I-88)

Plaza Name	Type	Total Transactions	Expected Cash Revenue	Actual Cash Revenue	(C) Cash Variance	% Cash Variance
Orchard Road	Unattended Ramp	102,631	$20,549	$14,557	-$5,992	-29.16%
Highland Avenue	Unattended Ramp	434,587	$63,884	$50,505	-$13,379	-20.94%
Spring Road	Unattended Ramp	269,109	$53,496	$42,638	-$10,858	-20.30%
Peace Road	Unattended Ramp	236,452	$64,526	$51,500	-$13,026	-20.19%
Midwest Road	Unattended Ramp	305,445	$58,516	$47,449	-$11,066	-18.91%
Farnsworth Avenue	Unattended Ramp	715,066	$136,552	$111,117	-$25,435	-18.63%
Route 31	Unattended Ramp	100,268	$22,431	$19,130	-$3,301	-14.71%
Winfield Road	Unattended Ramp	198,729	$15,542	$13,614	-$1,928	-12.40%
Dixon (DeKalb)	Unattended Ramp	85,549	$46,435	$41,522	-$4,912	-10.58%
Naperville Road	Unattended Ramp	309,096	$27,340	$24,847	-$2,493	-9.12%
Aurora	Mainline Attended	2,052,447	$522,170	$501,291	-$20,879	-4.00%
Dixon (Iowa)	Unattended Ramp	41,263	$11,743	$11,283	-$460	-3.92%
York Road	Mainline Attended	4,582,454	$1,152,533	$1,116,177	-$36,357	-3.15%
DeKalb	Mainline Attended	437,540	$358,109	$351,494	-$6,615	-1.85%
DeKalb West	Attended Ramp	204,147	$84,747	$83,934	-$813	-0.96%
Dixon	Mainline Attended	341,210	$334,298	$331,111	-$3,187	-0.95%
(C) East-West Tollway Totals		**10,415,993**	**$2,972,869**	**$2,812,170**	**-$160,699**	**-5.41%**

NORTH-SOUTH TOLLWAY (I-355)

Plaza Name	Type	Total Transactions	Expected Cash Revenue	Actual Cash Revenue	(C) Cash Variance	% Cash Variance
63rd Street	Unattended Ramp	556,181	$95,609	$72,895	-$22,714	-23.76%
Maple Avenue	Unattended Ramp	381,788	$57,991	$44,445	-$13,546	-23.36%
Ogden Avenue	Unattended Ramp	117,459	$17,392	$13,466	-$3,925	-22.57%
75th Street	Unattended Ramp	666,789	$144,735	$114,729	-$30,006	-20.73%
Boughton Road	Unattended Ramp	121,109	$20,570	$16,604	-$3,967	-19.28%
Roosevelt Road	Unattended Ramp	418,267	$82,926	$67,515	-$15,411	-18.58%
Butterfield Road	Unattended Ramp	486,868	$68,836	$57,798	-$11,039	-16.04%
Army Trail Road	Mainline Attended	3,283,629	$935,977	$873,220	-$62,757	-6.71%
Boughton Road	Mainline Attended	2,614,333	$807,296	$761,865	-$45,431	-5.63%
North Avenue	Attended Ramp	852,794	$198,733	$189,468	-$9,264	-4.66%
(C) North-South Tollway Totals		**9,499,217**	**$2,430,066**	**$2,212,006**	**-$218,060**	**-8.97%**
Adjustment for Spillage					**(B) $19,276**	
(C) Grand Totals		**65,080,045**	**$18,856,008**	**$17,923,981**	**-$912,752**	**-4.84%**

Notes:
(A) According to Tollway officials, the reports used to create this appendix were not created at the same time and, therefore, transaction and revenue figures on pages 205-206 may differ from those on pages 207-208.
(B) There was $19,275.57 in spillage that could not be associated with a specific vault or collector.
(C) Cash Variance and total columns may not add due to rounding.

Source: Illinois State Toll Highway Authority data summarized by the Office of the Auditor General.

APPENDIX D

SURVEY OF STATE TOLL SYSTEMS: SUMMARY

Appendix Exhibit D-1
LIST OF SURVEY RECIPIENTS

	State	Toll Road	Responded	Did Not Respond
1	California	Transportation Corridor Agencies	✓	
2	California	Orange County Transportation Authority		X
3	Canada (Ontario)	Ontario 407 ETR		X
4	Colorado	E-470 Public Highway Authority	✓	
5	Delaware	Delaware Department of Transportation		X
6	Florida	Orlando-Orange County Expressway Authority	✓	
7	Florida	Florida Turnpike Enterprise	✓	
8	Florida	Miami-Dade Expressway Authority	✓	
9	Georgia	Georgia State Road and Tollway Authority	✓	
10	***Illinois***	***Illinois State Toll Highway Authority***	✓	
11	Indiana	Indiana Department of Transportation-Toll Road District	✓	
12	Kansas	Kansas Turnpike Authority	✓	
13	Kentucky	Kentucky Turnpike Authority		X
14	Maine	Maine Turnpike Authority		X
15	Maryland	Maryland Transportation Authority	✓	
16	Massachusetts	Massachusetts Turnpike Authority		X
17	New Hampshire	New Hampshire Dept. of Transportation, Bureau of Turnpikes		X
18	New Jersey	South Jersey Transportation Authority	✓	
19	New Jersey	New Jersey Highway Authority	✓	
20	New Jersey	New Jersey Turnpike Authority		X
21	New York	New York State Thruway Authority	✓	
22	Ohio	Ohio Turnpike Commission	✓	
23	Oklahoma	Oklahoma Transportation Authority		X
24	Pennsylvania	Pennsylvania Turnpike Commission	✓	
25	South Carolina	Southern Connector Association		X
26	Texas	Harris County Toll Road Authority	✓	
27	Texas	Texas Turnpike Authority	✓	
28	Texas	North Texas Tollway Authority	✓	
29	Virginia	Richmond Metropolitan Authority	✓	
30	Virginia	Virginia Department of Transportation – Pocahontas Parkway	✓	
31	Virginia	Toll Road Corp of Virginia		X
32	West Virginia	West Virginia Economic Development and Tourism Authority		X

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-2a
ORGANIZATIONAL CHARACTERISTICS

	State	Toll Road	Type Organization	Legal Authority	Board of Directors?	# of Directors
1	California	Transportation Corridor Agencies	Local government agency	State statute	Yes	27
2	Colorado	E-470 Public Highway Authority	Local government agency	State statute	Yes	8
3	Florida	Orlando-Orange County Expressway Authority	Special district of the State	State statute	Yes	5
4	Florida	Florida Turnpike Enterprise	State government agency	State statute	No	n/a
5	Florida	Miami-Dade Expressway Authority	Local government agency	State statute	Yes	13
6	Georgia	Georgia State Road & Tollway Authority	State government agency	State statute	Yes	5
7	***Illinois***	***Illinois State Toll Highway Authority***	***Quasi-state agency***	***State statute***	***Yes***	***9***
8	Indiana	Indiana DOT – Toll Road District	State government agency	State statute	Yes	9
9	Kansas	Kansas Turnpike Authority	Political subdivision of State	State statute	Yes	5
10	Maryland	Maryland Transportation Authority	State government agency	State statute	Yes	6
11	New Jersey	South Jersey Transportation Authority	State government agency	State statute	Yes	9
12	New Jersey	New Jersey Highway Authority	State government agency	State statute	Yes	8
13	New York	New York State Thruway Authority	Public benefit corporation	State statute	Yes	3
14	Ohio	Ohio Turnpike Commission	Quasi-state agency	State statute	Yes	7
15	Pennsylvania	Pennsylvania Turnpike Commission	Proprietary type component unit of the Commonwealth of Pennsylvania	State statute	Yes	5
16	Texas	Harris County Toll Road Authority	Local government agency	State statute	No (A)	n/a
17	Texas	Texas Turnpike Authority	State government agency	State statute	Yes	3
18	Texas	North Texas Tollway Authority	Local government agency	State statute	Yes	7
19	Virginia	Richmond Metropolitan Authority	Political subdivision of State	State statute	Yes	11
20	Virginia	Virginia DOT – Pocahontas Parkway	State government agency	State statute	Yes	NR

Notes:
(A) Governed by Harris County Commissioner's Court consisting of 4 Commissioners and a County Judge.

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-2b
ORGANIZATIONAL CHARACTERISTICS (continued)

	State	Toll Road	Board Member Terms (years)	Board Composition	Appointment of the Board
1	California	Transportation Corridor Agencies	NR	NR	Member cities and the county.
2	Colorado	E-470 Public Highway Authority	NR	Mayors of municipalities; Commissioners of counties.	Jurisdictions.
3	Florida	Orlando-Orange County Expressway Authority	4	Appointed community representatives; County Chairman; and FDOT District Secretary.	3 by the Governor; 2 ex-officio.
4	Florida	Florida Turnpike Enterprise	n/a	n/a	n/a
5	Florida	Miami-Dade Expressway Authority	4	Various Enterprises - 5 appointed by Governor; 7 appointed by Miami-Dade Co. Board of Commissioners; 1 ex-officio (District 6 FDOT Secretary).	Governor and Miami-Dade Co. Board of Commissioners.
6	Georgia	Georgia State Road & Tollway Authority	Varies	Governor; Commissioner of Transportation; Dir.-Office of Planning & Budget; Appointee of Lt. Gov.; and Appointee of Speaker of the House.	See previous.
7	***Illinois***	***Illinois State Toll Highway Authority***	***4***	***9 public members plus 2 ex-officio (Governor and Secretary of IDOT).***	***Governor with advice and consent of the Senate.***
8	Indiana	Indiana DOT-Toll Road District	2	Governor or designee; Commissioner of Indiana DOT; Budget Director; State Treasurer; and 5 Indiana citizens.	Governor.
9	Kansas	Kansas Turnpike Authority	4	2 members appointed by Governor; Chairman of Kansas Senate Transportation Committee; Member of House Transportation Committee; Secretary of Kansas DOT.	2 members appointed by the Governor; 3 based on their position.
10	Maryland	Maryland Transportation Authority	3	Public members.	Governor with advice and consent of the Senate.
11	New Jersey	South Jersey Transportation Authority	5	7 public; Commissioner of Transportation; and Commerce Commission Secretary (non-voting).	Governor with advice and consent.
12	New Jersey	New Jersey Highway Authority	5	NR	Governor.
13	New York	New York State Thruway Authority	9	Public members.	Governor with Senate confirmation.
14	Ohio	Ohio Turnpike Commission	8	State Senator (1); State Rep (1); ODOT Director (1); Public members (4).	Governor 5; Legislature 2.
15	Pennsylvania	Pennsylvania Turnpike Commission	4	4 public members and Secretary of Transportation.	Governor with Senate confirmation.
16	Texas	Harris County Toll Road Authority	n/a	n/a	n/a
17	Texas	Texas Turnpike Authority	6	3 public members appointed by Governor that oversee TXDOT, including the turnpike authority division.	Governor.
18	Texas	North Texas Tollway Authority	2	Public members.	County commissions 6; Governor 1.
19	Virginia	Richmond Metropolitan Authority	4	All public members with exception of one member from VDOT.	Various government units.
20	Virginia	Virginia DOT-Pocahontas Parkway	NR	NR	NR

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-2c
ORGANIZATIONAL CHARACTERISTICS (cont.)

	State	Toll Road	CEO?	Who Appoints the CEO?	CEO's Term	Desired Qualifications for CEO
1	California	Transportation Corridor Agencies	Yes	The Joint Boards	n/a	Transportation; capital program financing and construction.
2	Colorado	E-470 Public Highway Authority	Yes	Board of Directors	One year with annual renewal	Toll experience, advanced degree(s), management ability.
3	Florida	Orlando-Orange County Expressway Authority	Yes	Board of Directors	By contract	Discretion of the Board. Currently a Ph.D. & PE.
4	Florida	Florida Turnpike Enterprise	Yes	Secretary FDOT	Indefinite	Effective administrator, transportation experience, advanced degree.
5	Florida	Miami-Dade Expressway Authority	Yes	Board of Directors	By contract	Transportation experience, Professional Engineer, Florida registration preferred.
6	Georgia	Georgia State Road & Tollway Authority	Yes	Board of Directors	NR	NR
7	***Illinois***	***Illinois State Toll Highway Authority***	***Yes***	***Board of Directors***	***Determined by the Board***	***Determined by the Board***
8	Indiana	Indiana DOT-Toll Road District	No	n/a	n/a	n/a
9	Kansas	Kansas Turnpike Authority	Yes	Board of Directors	Determined by Board	Determined by Board.
10	Maryland	Maryland Transportation Authority	Yes	Board of Directors	Determined by Board	NR
11	New Jersey	South Jersey Transportation Authority	Yes	Commissioners with direction from the Governor	Not longer than term of sitting governor.	Transportation or public administration.
12	New Jersey	New Jersey Highway Authority	Yes	Governor	5 years	NR
13	New York	New York State Thruway Authority	Yes	Chairman of Board serves as CEO	9 years	NR
14	Ohio	Ohio Turnpike Commission	Yes	Commission	n/a	NR
15	Pennsylvania	Pennsylvania Turnpike Commission	Yes	Board of Directors	No limit	No standard qualifications.
16	Texas	Harris County Toll Road Authority	Yes	Commissioners Court	Indefinite	Engineer, transportation experience.
17	Texas	Texas Turnpike Authority	No	n/a	n/a	Wide range of transportation experience.
18	Texas	North Texas Tollway Authority	Yes	Board of Directors	By contract	NR
19	Virginia	Richmond Metropolitan Authority	Yes	Board of Directors	Indefinite	BS-MS; Transportation experience.
20	Virginia	Virginia DOT-Pocahontas Parkway	No	n/a	n/a	n/a

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-3
ORGANIZATIONAL CHARACTERISTICS: PERSONNEL

	State	Toll Road	Number of Personnel	Total Personnel Costs
1	California	Transportation Corridor Agencies	81	$5,876,755
2	Colorado	E-470 Public Highway Authority	52	$2,364,530
3	Florida	Orlando-Orange County Expressway Authority	38.5	$2,729,213
4	Florida	Florida Turnpike Enterprise	620	$24,969,506
5	Florida	Miami-Dade Expressway Authority	17	$1,169,947
6	Georgia	Georgia State Road & Tollway Authority	n/a	n/a
7	***Illinois***	***Illinois State Toll Highway Authority***	***1,926***	***$115,116,452***
8	Indiana	Indiana Department of Transportation-Toll Road District	519	$17,441,710
9	Kansas	Kansas Turnpike Authority	NR	NR
10	Maryland	Maryland Transportation Authority	1,509	$82,856,652
11	New Jersey	South Jersey Transportation Authority	306	$35,409,300
12	New Jersey	New Jersey Highway Authority	1,250	$88,299,229
13	New York	New York State Thruway Authority	3,212	$199,994,327
14	Ohio	Ohio Turnpike Commission	1,072	$61,817,966
15	Pennsylvania	Pennsylvania Turnpike Commission	2,389	$106,025,425
16	Texas	Harris County Toll Road Authority	NR	NR
17	Texas	Texas Turnpike Authority	32	n/a
18	Texas	North Texas Tollway Authority	428	$14,492,630
19	Virginia	Richmond Metropolitan Authority	118	$4,952,010
20	Virginia	Virginia Department of Transportation-Pocahontas Parkway	32	$700,000

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-4
ORGANIZATIONAL CHARACTERISTICS: VEHICLE FLEETS

	State	Toll Road	Total # of Passenger Vehicles	Take Home Vehicles for Employees?	# of Take Home Vehicles	Take Home Vehicles for Contractors?	# of Take Home Vehicles
1	California	Transportation Corridor Agencies	7	Yes	4	Yes	3
2	Colorado	E-470 Public Highway Authority	14	No	n/a	No	n/a
3	Florida	Orlando-Orange County Expressway Authority	8	Yes	5	No	n/a
4	Florida	Florida Turnpike Enterprise	147	Yes	14	Yes	2
5	Florida	Miami-Dade Expressway Authority	5	No	n/a	No	n/a
6	Georgia	Georgia State Road & Tollway Authority	0	No	n/a	No	n/a
7	***Illinois***	***Illinois State Toll Highway Authority*** (A)	***296***	***Yes***	***107***	***Yes***	***186*** (B)
8	Indiana	Indiana DOT-Toll Road District	120	Yes	73	No	n/a
9	Kansas	Kansas Turnpike Authority	NR	Yes	NR	No	n/a
10	Maryland	Maryland Transportation Authority	325	Yes	121	No	n/a
11	New Jersey	South Jersey Transportation Authority	15	Yes	15 + State Police	No	n/a
12	New Jersey	New Jersey Highway Authority	85	Yes	60	No	n/a
13	New York	New York State Thruway Authority	603	Yes	255	No	n/a
14	Ohio	Ohio Turnpike Commission	30	Yes	20	No	n/a
15	Pennsylvania	Pennsylvania Turnpike Commission	144	Yes	n/a	No	n/a
16	Texas	Harris County Toll Road Authority	NR	NR	NR	NR	NR
17	Texas	Texas Turnpike Authority	0	No	n/a	No	n/a
18	Texas	North Texas Tollway Authority	19	Yes	13	No	n/a
19	Virginia	Richmond Metropolitan Authority	22	Yes	2	No	n/a
20	Virginia	Virginia DOT-Pocahontas Parkway	1	No	n/a	No	n/a

Notes:
(A) Numbers are as reported in Illinois Tollway's survey response and may not agree with those reported in the chapters due to different reporting methodologies.
(B) Includes vehicles of the Illinois State Police District 15.

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-5a
SYSTEM CHARACTERISTICS

	State	Toll Road	Geography	Type Geography	System Access
1	California	Transportation Corridor Agencies	Orange County, CA	NR	Limited access.
2	Colorado	E-470 Public Highway Authority	Three counties	75% urban; 25% rural	Limited access; open road; closed system tolling.
3	Florida	Orlando-Orange County Expressway Authority	Orange County, FL	70% urban; 30% rural	Limited access.
4	Florida	Florida Turnpike Enterprise	Statewide	60% urban; 40% rural	Closed barrier; limited access.
5	Florida	Miami-Dade Expressway Authority	Miami-Dade Counties	100% urban	Limited access.
6	Georgia	Georgia State Road & Tollway Authority	Fulton and Glynn Counties	NR	Limited access.
7	***Illinois***	***Illinois State Toll Highway Authority***	***12 Northern Illinois Counties***	***62% urban; 38% rural***	***Limited access.***
8	Indiana	Indiana DOT – Toll Road District	Statewide	30% urban; 70% rural	Closed barrier; limited access.
9	Kansas	Kansas Turnpike Authority	Specified by legislation	10% urban; 90% rural	Closed barrier.
10	Maryland	Maryland Transportation Authority	Five counties	60% urban; 40% rural	Limited access.
11	New Jersey	South Jersey Transportation Authority	Six southern counties of New Jersey	35% urban; 65% rural	Limited access.
12	New Jersey	New Jersey Highway Authority	Certain corridors	53% urban; 47% rural	Limited access.
13	New York	New York State Thruway Authority	Statewide	641 mile highway crosses the State connecting 4 major cities.	Closed barrier; limited access.
14	Ohio	Ohio Turnpike Commission	One toll road	100% rural	Closed barrier.
15	Pennsylvania	Pennsylvania Turnpike Commission	Statewide	20% urban; 80% rural	Closed barrier; limited access; open road.
16	Texas	Harris County Toll Road Authority	Harris County	100% urban	Limited access.
17	Texas	Texas Turnpike Authority	Central Texas	NR	Limited access.
18	Texas	North Texas Tollway Authority	Four counties	100% urban	Limited access.
19	Virginia	Richmond Metropolitan Authority	City of Richmond	100% urban	Limited access.
20	Virginia	Virginia DOT – Pocahontas Parkway	Statewide	25% urban; 75% rural	Limited access; open road, pay as you go; pre-paid account.

Notes:

- Limited access: paying tolls at plazas along the toll road.
- Closed barrier: obtaining ticket at entry and paying tolls at exit.
- Open road: receiving a monthly bill for toll road usage.

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-5b
SYSTEM CHARACTERISTICS (cont.)

	State	Toll Road	Total Road Miles (A)	Total Lane Miles (A)	# of Plazas: Ramps	# of Plazas: Mainline
1	California	Transportation Corridor Agencies	51	218	14	5
2	Colorado	E-470 Public Highway Authority	47	277	30	5
3	Florida	Orlando-Orange County Expressway Authority	91.6	462	46	11
4	Florida	Florida Turnpike Enterprise	449	1,925	112	23
5	Florida	Miami-Dade Expressway Authority	32	181	1	4
6	Georgia	Georgia State Road & Tollway Authority	10.4	NR	1	1
7	***Illinois***	***Illinois State Toll Highway Authority***	***274***	***1,652***	***46***	***20***
8	Indiana	Indiana DOT – Toll Road District	157	634	17	3
9	Kansas	Kansas Turnpike Authority	236	968	20	2
10	Maryland	Maryland Transportation Authority	103.3	553	0	7
11	New Jersey	South Jersey Transportation Authority	47	260	9	2
12	New Jersey	New Jersey Highway Authority	172.3	1,260	35	11
13	New York	New York State Thruway Authority	641	3,143	NR	61
14	Ohio	Ohio Turnpike Commission	241	1303.5	28	2
15	Pennsylvania	Pennsylvania Turnpike Commission	531	2508	18	41
16	Texas	Harris County Toll Road Authority	NR	NR	NR	NR
17	Texas	Texas Turnpike Authority (B)	n/a	n/a	n/a	n/a
18	Texas	North Texas Tollway Authority	50.5	267	26	7
19	Virginia	Richmond Metropolitan Authority	9.9	NR	4	3
20	Virginia	Virginia DOT – Pocahontas Parkway	8.8	35.2	2	1

Notes:
(A) Road miles or centerline miles: The length of a road, in miles.
Lane miles: The product of centerline miles and number of lanes (e.g., a four-lane road, two miles long has eight lane miles).
(B) The Texas Turnpike Authority toll road is in the design/construction phase and is not yet open.

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-6
SYSTEM CHARACTERISTICS: UTILIZATION

	State	Toll Road	Annual Vehicle Use: Autos	Annual Vehicle Use: Trucks	Annual Miles Driven	Safety: Accidents (most recent year)	Safety: Fatalities (most recent year)
1	California	Transportation Corridor Agencies	83,500,000	2%	677,000,000	NR	NR
2	Colorado	E-470 Public Highway Authority	31,000,000	NR	n/a	400 (since 1991)	7 (since 1991)
3	Florida	Orlando-Orange County Expressway Authority	n/a	n/a	n/a	956	3
4	Florida	Florida Turnpike Enterprise	457,581,000	21,834,000	5,743,464,000	2,714	72
5	Florida	Miami-Dade Expressway Authority	89,000,000	1,800,000	NR	NR	NR
6	Georgia	Georgia State Road & Tollway Authority	50,700,000	NR	NR	NR	NR
7	***Illinois***	***Illinois State Toll Highway Authority***	***90%***	***10%***	***7,820,000,000***	***10,051***	***32***
8	Indiana	Indiana DOT – Toll Road District	46,141,000	9,003,000	113,800,000	1,063	9
9	Kansas	Kansas Turnpike Authority	26,951,428	4,015,545	1,352,128,352	NR	NR
10	Maryland	Maryland Transportation Authority	115,650,600	9,600,200	8,890,200,000	3,917	30
11	New Jersey	South Jersey Transportation Authority	97%	0.5%	895,809,173	572	4
12	New Jersey	New Jersey Highway Authority	416,000,000	2,000,000	6,387,000,000	7,163	45
13	New York	New York State Thruway Authority	223,944,525	35,777,367	10,167,643,399	10,059	51
14	Ohio	Ohio Turnpike Commission	38,613,940	9,092,929	2,809,604,067	2,092	14
15	Pennsylvania	Pennsylvania Turnpike Commission	149,999,358	22,088,472	5,673,399,115	4,831	19
16	Texas	Harris County Toll Road Authority	NR	NR	NR	NR	NR
17	Texas	Texas Turnpike Authority [A]	n/a	n/a	n/a	n/a	n/a
18	Texas	North Texas Tollway Authority	107,284,640	1,972,867	NR	NR	NR
19	Virginia	Richmond Metropolitan Authority	NR	NR	NR	20-40	0
20	Virginia	Virginia DOT – Pocahontas Parkway	1,888,185	38,534	n/a	n/a	n/a

Notes:
[A] The Texas Turnpike Authority toll road is in the design/construction phase and is not yet open.

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-7a PLANNING					
	State	Toll Road	Mission Statement?	Planning Documents Used	Performance Measures?
1	California	Transportation Corridor Agencies	Yes	Capital plan.	Yes
2	Colorado	E-470 Public Highway Authority	Yes	Capital plan; operating plan; strategic plan; traffic report; financial report; maintenance report.	No
3	Florida	Orlando-Orange County Expressway Authority	Yes	Capital plan; traffic report; financial report.	No
4	Florida	Florida Turnpike Enterprise	Yes	Capital plan; operating plan; strategic plan; traffic report; financial report.	Yes
5	Florida	Miami-Dade Expressway Authority	Yes	Capital plan; operating plan; traffic report.	Yes
6	Georgia	Georgia State Road & Tollway Authority	Yes	Strategic plan; financial report.	No
7	***Illinois***	***Illinois State Toll Highway Authority***	***Yes***	***Capital plan; strategic plan; traffic report; financial report; consulting engineer's report.***	***Yes***
8	Indiana	Indiana DOT-Toll Road District	No	Capital plan; traffic report; financial report.	No
9	Kansas	Kansas Turnpike Authority	Yes	Capital plan; strategic plan; traffic report; financial report.	No
10	Maryland	Maryland Transportation Authority	Yes	Capital plan.	Yes
11	New Jersey	South Jersey Transportation Authority	NR	Operating plan; traffic report; financial report; management audit every five years.	No
12	New Jersey	New Jersey Highway Authority	No	Capital plan; financial report.	No
13	New York	New York State Thruway Authority	Yes	Capital plan; operating plan; strategic plan; traffic report; financial report.	Yes
14	Ohio	Ohio Turnpike Commission	No	Capital plan; operating plan; strategic plan; traffic report; financial report.	NR
15	Pennsylvania	Pennsylvania Turnpike Commission	Yes	Capital plan; operating plan; strategic plan; traffic report; financial report.	Yes
16	Texas	Harris County Toll Road Authority	No	NR	NR
17	Texas	Texas Turnpike Authority	Yes	Official Statement includes the GEC report and traffic & revenue report.	Yes
18	Texas	North Texas Tollway Authority	Yes	Strategic plan; financial report.	No
19	Virginia	Richmond Metropolitan Authority	Yes	Operating plan; traffic report; financial report.	No
20	Virginia	Virginia DOT-Pocahontas Parkway	No	Operating plan; strategic plan; traffic report; financial report.	Yes

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-7b PLANNING (cont.)				
	State	Toll Road	Length of Capital Plan (Years)	Total Cost of Plan [B]
1	California	Transportation Corridor Agencies	7 to 12 [A]	NR
2	Colorado	E-470 Public Highway Authority	5	$147,529,300
3	Florida	Orlando-Orange County Expressway Authority	5	$781,281,000
4	Florida	Florida Turnpike Enterprise	5	$2,213,700,000
5	Florida	Miami-Dade Expressway Authority	5	$899,990,000
6	Georgia	Georgia State Road & Tollway Authority	n/a	n/a
7	***Illinois***	***Illinois State Toll Highway Authority***	***20***	***$5,850,000,000***
8	Indiana	Indiana DOT-Toll Road District	10	$250,533,000
9	Kansas	Kansas Turnpike Authority	NR	NR
10	Maryland	Maryland Transportation Authority	5	$1,137,602,000
11	New Jersey	South Jersey Transportation Authority	5	$61,783,408
12	New Jersey	New Jersey Highway Authority	5	n/a
13	New York	New York State Thruway Authority	6	$1,486,000,000
14	Ohio	Ohio Turnpike Commission	8	$450,000,000
15	Pennsylvania	Pennsylvania Turnpike Commission	10	$1,600,000,000
16	Texas	Harris County Toll Road Authority	NR	NR
17	Texas	Texas Turnpike Authority	n/a	n/a
18	Texas	North Texas Tollway Authority	NR	NR
19	Virginia	Richmond Metropolitan Authority	5-10	$45,000,000
20	Virginia	Virginia DOT-Pocahontas Parkway	NR	NR

Notes:
[A] The Transportation Corridor Agencies have two components to their system with two separate plans (San Joaquin Hills Transportation Corridor Agency – 7 years and the Foothill/Eastern Transportation Corridor Agency – 12 years).
[B] Few respondents provided a breakdown of plan details (e.g., cost of repairs or major maintenance).

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-8
CONTRACTING

	State	Toll Road	Contractors?	Amount Contracted	Areas Contracted
1	California	Transportation Corridor Agencies	Yes	$13,500,000	Customer service, call center; violations processing; toll attendants and managers; system maintenance.
2	Colorado	E-470 Public Highway Authority	Yes	NR	Road operations (toll collection violation).
3	Florida	Orlando-Orange County Expressway Authority	Yes	$28,000,000	Toll collection; hardware & software for toll collection system; E-Pass service center staffing; building and roadway maintenance; legal; violation enforcement staffing; service patrol and police; general system consultant; financial advisor; various engineering and general engineering.
4	Florida	Florida Turnpike Enterprise	Yes	$95,814,626	Maintenance; toll collection; highway patrol; other personal services and consulting fees.
5	Florida	Miami-Dade Expressway Authority	Yes	$8,000,000	Roadway maintenance/facility maintenance; toll operations.
6	Georgia	Georgia State Road & Tollway Authority	Yes	NR	Toll collection, landscape; lane cleaning.
7	***Illinois***	***Illinois State Toll Highway Authority***	***Yes***	***$28,000,000***	***State Police-District 15; toll collection equipment lease/maintenance; transponder distribution and customer service.***
8	Indiana	Indiana DOT-Toll Road District	Yes	$9,680,000	Design consultants; environmental remediation; janitorial services; weather advisory services; temp employees.
9	Kansas	Kansas Turnpike Authority	No	n/a	n/a
10	Maryland	Maryland Transportation Authority	Yes	$200,000	Maintenance and service contract (e.g., elevator maintenance, overhead door maintenance, service of heating, air conditioning, etc.)
11	New Jersey	South Jersey Transportation Authority	Yes	$4,400,000	NR
12	New Jersey	New Jersey Highway Authority	Yes	$2,300,000	Guide rail repair; attenuator repair; snow removal; garbage disposal; line striping; raised pavement marker; casting replacement; major drain cleaning; large tree removal; hazardous waste; recycling.
13	New York	New York State Thruway Authority	Yes	$23,716,606	Electronic toll collection account management; outside legal counsel; revenue counting services; armored car services; occupational and medical testing services; security; janitorial services; waste disposal; miscellaneous professional service contracts.
14	Ohio	Ohio Turnpike Commission	Yes	NR	Food concessions; fuel concessions; janitorial; Ohio State Highway Patrol.
15	Pennsylvania	Pennsylvania Turnpike Commission	Yes	n/a	Fire and ambulance service; repair of toll and communication equipment.
16	Texas	Harris County Toll Road Authority	NR	NR	NR
17	Texas	Texas Turnpike Authority	Yes	n/a	Contracting all areas except top management and their support staff.
18	Texas	North Texas Tollway Authority	NR	NR	NR
19	Virginia	Richmond Metropolitan Authority	Yes	$1,191,040	Maintenance of toll equipment; electronic toll collection processing.
20	Virginia	Virginia DOT – Pocahontas Parkway	Yes	$580,000	Toll operations.

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-9
CONTRACTUAL CONSULTANTS

	State	Toll Road	Contractual Consulting Engineer?	Name of Consultant	Selection Method (A)	Annual Contract Amount
1	California	Transportation Corridor Agencies	Yes	CDMG	Competitive	$105,110,897
2	Colorado	E-470 Public Highway Authority	Yes	Lovejoy & Assoc., URS, Persons Brinkerhoff, Kumar, Kleinfelder, Washington Group	Competitive	NR
3	Florida	Orlando-Orange County Expressway Authority	Yes	Post Buckley Shuh & Jernigen	Non-competitive	$1,700,000
4	Florida	Florida Turnpike Enterprise	Yes	Post Buckley Shuh & Jernigen	Competitive	$19,931,000
5	Florida	Miami-Dade Expressway Authority	Yes	Dade Transportation Consultants (Joint Venture)	Competitive	$1,000,000
6	Georgia	Georgia State Road & Tollway Authority	No	n/a	n/a	n/a
7	***Illinois***	***Illinois State Toll Highway Authority***	***Yes***	***CTE***	***Competitive***	***$7,400,000***
8	Indiana	Indiana DOT – Toll Road District	Yes	RQAW	Competitive	$220,000
9	Kansas	Kansas Turnpike Authority	Yes	HNTB	Non-competitive	Pay as services used.
10	Maryland	Maryland Transportation Authority	Yes	Various	Competitive	$20,000,000
11	New Jersey	South Jersey Transportation Authority	Yes	Remmington & Vornick	Non-competitive	$35,000 guaranteed, about $500,000 annual
12	New Jersey	New Jersey Highway Authority	Yes	T&M Associates	Competitive	On call services
13	New York	New York State Thruway Authority	Yes	Numerous: selected on a per project basis.	Non-competitive	Varies
14	Ohio	Ohio Turnpike Commission	Yes	HNTB	Competitive	$175,000
15	Pennsylvania	Pennsylvania Turnpike Commission	Yes	Michael Baker Jr., Inc.	Competitive	$4,000,000
16	Texas	Harris County Toll Road Authority	NR	NR	NR	NR
17	Texas	Texas Turnpike Authority	Yes	NR	Competitive	NR
18	Texas	North Texas Tollway Authority	Yes	HNTB	Competitive	$2,693,500
19	Virginia	Richmond Metropolitan Authority	Yes	Howard Needles Tammen & Bergendoff	Non-competitive	$1 million plus
20	Virginia	Virginia DOT – Pocahontas Parkway	No	n/a	n/a	n/a

Notes:
(A) Few respondents indicated whether there had been a change in consultants or the reason for the change. Of the five that indicated a change in consultant, one was in 1956 (Pennsylvania), three were changed in the mid to late 1980s (two Florida systems and Indiana), and one was in March of 1999 (Ohio).

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-9
CONTRACTUAL CONSULTANTS (cont.)

	State	Toll Road	Contractual Traffic Consultant?	Name of Consultant	Selection Method (A)	Annual Contract Amount
1	California	Transportation Corridor Agencies	Yes	Vollmer Associates	Competitive	$1,847,450
2	Colorado	E-470 Public Highway Authority	Yes	Vollmer Associates	Competitive	NR
3	Florida	Orlando-Orange County Expressway Authority	Yes	Vollmer Associates and HDR Engineering	Non-competitive	$477,000
4	Florida	Florida Turnpike Enterprise	Yes	URS	Competitive	$7,807,000
5	Florida	Miami-Dade Expressway Authority	Yes	Wilbur Smith Associates	Competitive	$450,000
6	Georgia	Georgia State Road & Tollway Authority	Yes	Wilbur Smith Associates	Competitive	$300,000
7	***Illinois***	***Illinois State Toll Highway Authority***	***Yes***	***Wilbur Smith Associates***	***Competitive***	***$2,000,000***
8	Indiana	Indiana DOT-Toll Road District	Yes	Wilbur Smith Associates	Competitive	$35,000
9	Kansas	Kansas Turnpike Authority	No	n/a	n/a	n/a
10	Maryland	Maryland Transportation Authority	No	n/a	n/a	n/a
11	New Jersey	South Jersey Transportation Authority	Yes	Wilbur Smith Associates	Competitive	$50,000 + assignments
12	New Jersey	New Jersey Highway Authority	Yes	Vollmer Associates	Competitive	On call services
13	New York	New York State Thruway Authority	Yes	Vollmer Associates	Competitive	$200,000
14	Ohio	Ohio Turnpike Commission	Yes	URS	Competitive	$144,000
15	Pennsylvania	Pennsylvania Turnpike Commission	Yes	Wilbur Smith Associates; Gannett Fleming, Inc.; URS Corp.	Competitive	$1,000,000
16	Texas	Harris County Toll Road Authority	NR	NR	NR	NR
17	Texas	Texas Turnpike Authority	Yes	NR	Competitive	NR
18	Texas	North Texas Tollway Authority	Yes	Wilbur Smith Associates	Non-competitive	$78,321
19	Virginia	Richmond Metropolitan Authority	Yes	Wilbur Smith Associates	Non-competitive	$50-100,000
20	Virginia	Virginia DOT-Pocahontas Parkway	No	n/a	n/a	n/a

Notes:
(A) Four respondents indicated a change in traffic consultant (Orlando-Orange County Expressway Authority in 1998, Miami-Dade Expressway Authority in 2001, Indiana DOT – Toll Road District in 1955, and the South Jersey Transportation Authority in 1997).

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-10
OTHER CONTRACTUAL CONSULTANTS

	State	Toll Road	Other Consultant?	Name or Type of Consultant(s)
1	California	Transportation Corridor Agencies	Yes	Many.
2	Colorado	E-470 Public Highway Authority	Yes	NR
3	Florida	Orlando-Orange County Expressway Authority	Yes	Toll collection, hardware & software for toll collection system, E-PASS service center staffing, building & roadway maintenance, legal, violation enforcement staffing, service patrol & police, general system consultant, financial advisor and various engineering-general engineering.
4	Florida	Florida Turnpike Enterprise	Yes	Business development – KPMG; Construction Engineering – Parsons Brinckerhoff; ITS/Traffic Operations – TransCore.
5	Florida	Miami-Dade Expressway Authority	Yes	Underwriters, legislative, legal, financial, public relations, auditor/accounting, consortium, design, materials testing and property appraisers.
6	Georgia	Georgia State Road & Tollway Authority	No	n/a
7	***Illinois***	***Illinois State Toll Highway Authority***	***Yes***	***Financial advisory services.***
8	Indiana	Indiana DOT – Toll Road District	Yes	Auditor (Crowe Chizek).
9	Kansas	Kansas Turnpike Authority	No	n/a
10	Maryland	Maryland Transportation Authority	Yes	Planning; traffic engineering; design; construction inspection; constructability review; security assessment.
11	New Jersey	South Jersey Transportation Authority	Yes	Airport, Lawyers, Project Specific Engineers.
12	New Jersey	New Jersey Highway Authority	Yes	Alaimo Group, Birdsall Engineering, Hatch Mott MacDonald, Schoor DePalma, Maitra Assoc., Maser Consulting, Langan Engineering.
13	New York	New York State Thruway Authority	Yes	Numerous.
14	Ohio	Ohio Turnpike Commission	Yes	Financial.
15	Pennsylvania	Pennsylvania Turnpike Commission	Yes	Various functions.
16	Texas	Harris County Toll Road Authority	NR	NR
17	Texas	Texas Turnpike Authority	Yes	All disciplines.
18	Texas	North Texas Tollway Authority	Yes	Financial advisor; Legal Counsel; maintenance management; bond counsel.
19	Virginia	Richmond Metropolitan Authority	Yes	Davenport & Co. - Financial Advisory Services.
20	Virginia	Virginia DOT – Pocahontas Parkway	No	n/a

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-11
PRICING & TOLLS

	State	Toll Road	Congestion Pricing?	Average Toll Rate Per Mile: Cars	Average Toll Rate Per Mile: Commercial	Most Recent Toll Increase	% Increase
1	California	Transportation Corridor Agencies	Yes	$0.17	$0.68	2002	6.4%
2	Colorado	E-470 Public Highway Authority	No	$0.18	NR	2003	NR
3	Florida	Orlando-Orange County Expressway Authority	No	$0.08 to $0.11	$0.22 to $0.36	1990	50%
4	Florida	Florida Turnpike Enterprise	No	$0.06	$0.21	1995	25%
5	Florida	Miami-Dade Expressway Authority	No	$0.06 to $0.068 (A)	$0.13 to 0.14 (A)	2001	1.5%
6	Georgia	Georgia State Road & Tollway Authority	No	$0.08	NR	n/a	n/a
7	***Illinois***	***Illinois State Toll Highway Authority***	***No***	***$0.03***	***$0.092***	***1983***	***33%***
8	Indiana	Indiana DOT-Toll Road District	No	$0.03	$0.09	1985	10% cars; 25% commercial
9	Kansas	Kansas Turnpike Authority	No	$0.038	$0.113	2001	5%
10	Maryland	Maryland Transportation Authority	No	n/a	n/a	n/a	n/a
11	New Jersey	South Jersey Transportation Authority	No	$0.05	$0.25	1998	100%
12	New Jersey	New Jersey Highway Authority	No	$0.022	$0.099	1988	40%
13	New York	New York State Thruway Authority	Yes	$0.031	$0.12	1988	32% passenger; 38% commercial
14	Ohio	Ohio Turnpike Commission	No	$0.04	$0.12	1999	9%
15	Pennsylvania	Pennsylvania Turnpike Commission	No	$0.04	$0.22	1991	30%
16	Texas	Harris County Toll Road Authority	No	NR	NR	NR	NR
17	Texas	Texas Turnpike Authority	NR	n/a	n/a	n/a	n/a
18	Texas	North Texas Tollway Authority	No	$0.09 to $0.11 (A)	$0.21 to $0.26 (A)	2002	NR
19	Virginia	Richmond Metropolitan Authority	No	NR	NR	1998	NR
20	Virginia	Virginia DOT – Pocahontas Parkway	No	$0.17	$0.57	NR	NR

Notes:
(A) Differential pricing if toll paid using electronic toll collection.

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-11
PRICING & TOLLS (cont.)

	State	Toll Road	% of Toll Collected Electronically	% of Toll Uncollected	Annual Amount Spent on Collection of Violations	Annual Amount Collected from Violations	Violation Penalty
1	California	Transportation Corridor Agencies	65%	1.5%	$3,200,000	$7,500,000	$30
2	Colorado	E-470 Public Highway Authority	60%	5%	$380,000	$586,600	$7-100
3	Florida	Orlando-Orange County Expressway Authority	48.73%	1.84%	$310,000	$317,000	$114.50
4	Florida	Florida Turnpike Enterprise	31.65%	<2%	n/a	n/a	$100
5	Florida	Miami-Dade Expressway Authority	35%	2.3%	$4,600,000 (B)	$45,000,000 (B)	$100
6	Georgia	Georgia State Road & Tollway Authority	37%	NR	NR	NR	$25
7	***Illinois***	***Illinois State Toll Highway Authority*** (A)	***36.3%***	***3%***	***$252,000***	***$1,060,000*** (A)	***$20***
8	Indiana	Indiana DOT – Toll Road District	0%	Insignificant	$0	$0	$0
9	Kansas	Kansas Turnpike Authority	33%	<1%	$.00	NR	NR
10	Maryland	Maryland Transportation Authority	35%	1-2%	Minimal.	$738,263	$15
11	New Jersey	South Jersey Transportation Authority	42%	2%	Done by regional consortium.	NR	NR
12	New Jersey	New Jersey Highway Authority	53%	NR	$60,000	Authority does not receive.	$49
13	New York	New York State Thruway Authority	48.3%	n/a	$2,400,000	$4,600,000	$25
14	Ohio	Ohio Turnpike Commission	9%	0%	n/a	n/a	NR
15	Pennsylvania	Pennsylvania Turnpike Commission	34%	n/a	n/a	n/a	Based on vehicle class
16	Texas	Harris County Toll Road Authority	NR	NR	NR	NR	NR
17	Texas	Texas Turnpike Authority	n/a	n/a	n/a	n/a	n/a
18	Texas	North Texas Tollway Authority	67%	NR	NR	NR	NR
19	Virginia	Richmond Metropolitan Authority	37%	3-3.5%	n/a	NR	n/a
20	Virginia	Virginia DOT – Pocahontas Parkway	45%	<1%	$0	n/a	1st: $0; 2nd: $25; 3rd: $50

Notes:
(A) The Illinois Tollway's response in its survey questionnaire, which is reported under the column "Annual Amount Collected from Violators," is for receivables from toll violators – the actual amount collected was $214,000. The numbers in this appendix are as reported in Illinois Tollway's survey response and may not agree with those reported within the report's chapters.
(B) Projected.

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-12
REVENUES & EXPENDITUERS

	State	Toll Road	Total Annual Revenues	Total Annual Expenditures	Toll Revenue as a % of Total	Concessions as a % of Total	Other Sources of Revenue as % of Total [A]
1	California	Transportation Corridor Agencies	$198,507,000	$175,050,000	68%	n/a	32%
2	Colorado	E-470 Public Highway Authority	$55,229,031	$17,446,006	60%	n/a	40%
3	Florida	Orlando-Orange County Expressway Authority	$152,983,000	$48,071,000	93%	n/a	7%
4	Florida	Florida Turnpike Enterprise	$500,179,000	$517,679,721	82%	2%	18%
5	Florida	Miami-Dade Expressway Authority	$54,966,166	$95,332,565	83%	n/a	17%
6	Georgia	Georgia State Road & Tollway Authority	$21,694,195	NR	91%	n/a	9%
7	***Illinois***	***Illinois State Toll Highway Authority*** [B]	***$389,317,000***	***$376,963,247***	***91%***	***1%***	***9%***
8	Indiana	Indiana DOT – Toll Road District	$94,110,983	$81,710,423	88%	6%	12%
9	Kansas	Kansas Turnpike Authority	$73,409,543	$74,404,258	91%	2%	9%
10	Maryland	Maryland Transportation Authority	$262,356,887	$230,846,071	70%	3%	30%
11	New Jersey	South Jersey Transportation Authority	$59,472,600	$104,849,105	82%	3%	18%
12	New Jersey	New Jersey Highway Authority	$229,544,983	$257,395,288	85%	6%	15%
13	New York	New York State Thruway Authority	$468,090,067	$552,728,995	88%	3%	12%
14	Ohio	Ohio Turnpike Commission	$202,412,087	$260,550,246	90%	6%	10%
15	Pennsylvania	Pennsylvania Turnpike Commission	$437,500,582	$187,458,749	86%	3%	14%
16	Texas	Harris County Toll Road Authority	$234,674,765	NR	100%	n/a	0%
17	Texas	Texas Turnpike Authority [C]	n/a	n/a	n/a	n/a	n/a
18	Texas	North Texas Tollway Authority	$119,016,556	$102,205,384	90%	n/a	10%
19	Virginia	Richmond Metropolitan Authority	$26,982,922	$19,792,412	93%	n/a	7%
20	Virginia	Virginia DOT – Pocahontas Parkway	$1,963,126	$531,104	100%	n/a	0%

Notes:
[A] Includes concessions.
[B] Numbers are as reported in Illinois Tollway's survey response and may not agree with those reported in the chapters due to different reporting methodologies.
[C] The Texas Turnpike Authority toll road is in the design/construction phase and is not yet open.

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-13
BEST PRACTICES

	State	Toll Road	Best Practices Identified by Other States
1	California	Transportation Corridor Agencies	• Use of currency accepting toll payment machines. • Use of multiple camera technologies to capture toll violator images. • Use of enhanced image processing operating systems.
2	Colorado	E-470 Public Highway Authority	• Open road tolling. • Barrier free full speed mainline plazas. • In-house electronic toll collection (ETC) capability. • Customer service priority. • Superior maintenance and facilities.
3	Florida	Orlando-Orange County Expressway Authority	• Private contracting. • Open road tolling. • Negative balance for ETC accounts. • Video tolling. • All electronic service centers.
4	Florida	Florida Turnpike Enterprise	• Planning underway for open road tolling. • Planning for possible express toll lanes on the interstate. • Innovative marketing techniques to increase Sunpass participation. • New uses of, and revenue enhancements from, service plazas. • Customer and work force surveys to stay in touch with key stakeholders.
5	Florida	Miami-Dade Expressway Authority	• Researching: Open road tolling. • Researching: Value pricing lanes. • Researching: Congestion pricing.
6	Georgia	Georgia State Road & Tollway Authority	NR
7	***Illinois***	***Illinois State Toll Highway Authority***	• ***Truck I-Pass only lanes.*** • ***Employee cross-training.*** • ***Use of I-Pass only lanes as intermediate measure to address congestion relief effort in light of budget constraints.*** • ***Mobile I-Pass distribution system.*** • ***Saftey/Training program impact on Worker's Compensation.***
8	Indiana	Indiana DOT-Toll Road District	NR
9	Kansas	Kansas Turnpike Authority	• Updating service areas. • Ease of Electronic Toll Collection System. • Maintain a cooperative but separate relationship with Kansas DOT.
10	Maryland	Maryland Transportation Authority	• Open road tolling. • Front and rear cameras. • Lane closure information on internet. • Security enhancements.
11	New Jersey	South Jersey Transportation Authority	• 5-year management audit. • Training toll collectors as tourist services representatives. • Joint marketing with State and Convention Authorities. • Capital funding support from impacted traffic generators. • Maximum 1 ramp charge per trip (ETC) to accommodate short on-offs and promote use of road for shopping.

Appendix Exhibit D-13 BEST PRACTICES (continued)			
12	New Jersey	New Jersey Highway Authority	• Active cost containment committee to assure most efficient use of resources. • Active senior management committee structure to regularly review capital requests, technology initiatives and priorities and compensation issues. • Beautification/wildflower program. • Promotional training programs in tolls and maintenance.
13	New York	New York State Thruway Authority	• Quality initiative.
14	Ohio	Ohio Turnpike Commission	NR
15	Pennsylvania	Pennsylvania Turnpike Commission	• Installation of E-Z Pass electronic toll collection system. • Future planning for all electronic highway system. • Use of strategic long range plan. • Use of ten year capital planning process. • Focus on customer service.
16	Texas	Harris County Toll Road Authority	NR
17	Texas	Texas Turnpike Authority	• Exclusive development agreements. • TIFIA loan/bond anticipation notes. • Right of Way (ROW) donation by local entities.
18	Texas	North Texas Tollway Authority	• Capital planning model. • Customer service program (tolltag and violation). • Asset management (GASB 34). • RITE (toll collection system). • Express lanes.
19	Virginia	Richmond Metropolitan Authority	NR
20	Virginia	Virginia DOT-Pocahontas Parkway	• Open road tolling. • Customer service. • Public private partnerships.
n/a = Not Available or Not Applicable NR = No Response			
Source: Summary of survey responses by the Illinois Auditor General's Office.			

Appendix Exhibit D-14
BENCHMARKING

	State	Toll Road	Benchmark Organizations Identified by Other States
1	California	Transportation Corridor Agencies	None.
2	Colorado	E-470 Public Highway Authority	All.
3	Florida	Orlando-Orange County Expressway Authority	n/a
4	Florida	Florida Turnpike Enterprise	Orlando-Orange County Expressway Authority; Miami-Dade Expressway Authority; Tampa-Hillsborough County Expressway Authority; Illinois; Kansas; Massachusetts; New Jersey; New York Thruway; Oklahoma; Ohio; Pennsylvania; Texas.
5	Florida	Miami-Dade Expressway Authority	Orlando-Orange County Expressway Authority; Tampa-Hillsborough County Expressway Authority; Turnpike District; I-15 in San Diego, CA; SR91 in Santa Ana, CA.
6	Georgia	Georgia State Road & Tollway Authority	n/a
7	***Illinois***	***Illinois State Toll Highway Authority***	**Garden State Parkway; Massachusetts; New Jersey; New York; Ohio; Pennsylvania.**
8	Indiana	Indiana DOT – Toll Road District	None.
9	Kansas	Kansas Turnpike Authority	Ohio.
10	Maryland	Maryland Transportation Authority	New York State Thruway.
11	New Jersey	South Jersey Transportation Authority	North Texas Tollway ; Orlando-Orange County.
12	New Jersey	New Jersey Highway Authority	New Jersey Transportation Authority ; South Jersey Transportation Authority.
13	New York	New York State Thruway Authority	Varies depending on what aspect we are looking at.
14	Ohio	Ohio Turnpike Commission	Pennsylvania; West Virginia; Indiana; New York; New Jersey ; Kansas.
15	Pennsylvania	Pennsylvania Turnpike Commission	New York State Thruway Ohio Turnpike.
16	Texas	Harris County Toll Road Authority	NR
17	Texas	Texas Turnpike Authority	Florida Turnpikes.
18	Texas	North Texas Tollway Authority	Orlando-Orange County Expressway Authority ; Harris County Toll Road Authority.
19	Virginia	Richmond Metropolitan Authority	Dulles Toll Road.
20	Virginia	Virginia DOT – Pocahontas Parkway	Richmond Metropolitan Authority; Powhite Parkway Extension; Dulles Toll Road; Dulles Greenway; Coleman Bridge; Chesapeake Expressway.

n/a = Not Available or Not Applicable NR = No Response

Source: Summary of survey responses by the Illinois Auditor General's Office.

Appendix Exhibit D-15 RESPONDENTS' WEBSITES			
	State	**Toll Road**	**Website Address**
1	California	Transportation Corridor Agencies	www.tcagencies.com
2	Colorado	E-470 Public Highway Authority	www.e-470.com.cnchost.com
3	Florida	Orlando-Orange County Expressway Authority	www.expresswayauthority.com
4	Florida	Florida Turnpike Enterprise	www11.myflorida.com/turnpikepio
5	Florida	Miami-Dade Expressway Authority	www.mdx-way.com
6	Georgia	Georgia State Road & Tollway Authority	www.georgiatolls.com
7	***Illinois***	***Illinois State Toll Highway Authority***	***www.illinoistollway.com***
8	Indiana	Indiana DOT-Toll Road District	www.in.gov/dot/div/traffic/districts/toll_road_district.html
9	Kansas	Kansas Turnpike Authority	www.ksturnpike.com
10	Maryland	Maryland Transportation Authority	www.mdta.state.md.us
11	New Jersey	South Jersey Transportation Authority	www.sjta.com
12	New Jersey	New Jersey Highway Authority	www.gspkwy.state.nj.us
13	New York	New York State Thruway Authority	www.thruway.state.ny.us
14	Ohio	Ohio Turnpike Commission	www.ohioturnpike.org
15	Pennsylvania	Pennsylvania Turnpike Commission	www.paturnpike.com
16	Texas	Harris County Toll Road Authority	www.hctra.com
17	Texas	Texas Turnpike Authority	www.texastollways.com or: www.txdot.state.tx.us/tta
18	Texas	North Texas Tollway Authority	www.ntta.org
19	Virginia	Richmond Metropolitan Authority	www.rmaonline.org
20	Virginia	Virginia DOT-Pocahontas Parkway	www.PocahontasParkway.com
Source: Summary of survey responses by the Illinois Auditor General's Office.			

APPENDIX E

TOLLWAY'S PROPOSED CAPITAL PROGRAM (2003-2017)

Executive Summary

Proposed Capital Program for 2003 - 2017

The Illinois State Toll Highway Authority (Authority) is a user-financed administrative agency of the State of Illinois whose purpose is to operate, maintain and service a system of toll roads located in northern Illinois. The Tollway system is an important component of the transportation network. When it opened in 1958, it was envisioned as a high-speed bypass around the urban core of Chicago. However, over the last four decades, the Tollway system has evolved to not only provide this function, but to also serve both commercial and commuter-oriented traffic within the Chicago metropolitan region. Today, the Tollway system provides high quality, safe, and efficient transportation in the regions it serves by effectively managing and allocating its resources.

As the Authority enters its fifth decade of operation, it faces the challenge of maintaining a roadway that carries more traffic than any other comparable toll facility in the United States with revenues that only grow marginally each year. Most of the original routes of the system (Tri-State, Northwest, and East-West Tollways) still consist of the original concrete pavement, which is now over forty years old and which has been resurfaced with an asphalt overlay several times. Many of the support facilities, such as maintenance yards, also date back to the year of opening of the system in 1958. Prudent maintenance and repair programs of the Authority have extended the lives of these roadways and facilities well beyond their original design lives. However, as these infrastructure elements continue to age, the Authority must address increased maintenance and repair needs, and it must ultimately decide on strategies for the replacement of system elements that have outlived their useful lives. This involves many challenges.

First, the agency must continue to maintain the integrity of the Tollway infrastructure, which include roadways, structures, plazas, maintenance facilities and administrative facilities. Second, the planning of future Tollway activities is an ongoing process requiring constant change in response to ever-changing travel needs of the motoring public and the condition of Tollway facilities. The Authority must adjust to unforeseen factors that may call for the re-ordering of project priorities, new construction not currently planned, and for the orderly implementation of needed expansion and rehabilitation projects. Finally, the Authority must begin the challenge of replacing system elements that have exceeded their useful and economic service life.

Beginning in mid-1998, the Authority embarked upon the development of a long-range strategy for maintaining and preserving the physical assets of the Tollway system. The objectives of this strategy were to:

1. Remain in compliance with the requirements of the Trust Indenture to maintain the Tollway System in good repair for the duration of the outstanding bonds.

2. Maintain the viability of the Tollway system as a vital component in the overall transportation network in northern Illinois, and to enable the Tollway to serve as a key component of future plans for the roadway network.

3. Identify the financial requirements for infrastructure preservation

As the Authority's Consulting Engineer, Consoer Townsend Envirodyne Engineers, Inc., (CTE) performed studies and assisted the Authority in identifying the needs of the system and in developing optional strategies for the long term preservation of Tollway assets. Once system needs were identified and prioritized, specific projects and associated cost estimates were developed. Logical project phasing and sequencing were then developed to balance annual project expenditures and to minimize inconvenience to the travelling public.

System Needs

The condition of the Tollway system was assessed and the justification for recommended improvements can be separated into three basic categories:

- ***Infrastructure Preservation:*** Normal maintenance, resurfacing, rehabilitation and reconstruction of the Tollway system
- ***Congestion Relief:*** Implementation of IPASS, additional IPASS Express lanes, and Roadway widenings
- ***System Enhancements:*** Improved interchanges, new interchanges, & noisewalls

Between 2003 and 2017, approximately $500 million has been budgeted for "Additional Capital Needs". These needs include facilities, interchanges, and interim improvements.

In 2018, the North-South pavement will be nearly 30 years old and may require maintenance. The same is true for other parts of the system in the following years. Revenues beyond 2017 will be used to fund the normal cycle of repairs.

Following is a listing of major capital roadway projects by Tollroad:

PROPOSED CAPITAL PROGRAM			
MAJOR ROADWAY PROJECT LISTING			
2003 through 2017			
YEAR OF CONSTRUCTION	IMPROVEMENT TYPE	APPROXIMATE LIMITS	TOTAL PROJECT COSTS
Tri-State Tollway			
2003/04	Reconstruct & Widen	I-394 to I-80	$144,000,000
2005			$106,100,000
2003/2004	Reconstruct & Widen	I-80 to 95th St.	$170,100,000
2005			$145,700,000
2006	Reconstruct & Widen (includes Devon Interchange)	Balmoral Ave. to Dempster St.	$103,200,000
2007			$108,400,000
2010	Reconstruct & Widen	Dempster St. to IL Route 176	$262,500,000
2011			$258,400,000
2014	Rehabilitation	Edens Expressway to Milwaukee Rd. Railroad	$36,400,000
2014	Concrete Pavement Restoration	SB 95th St. to Balmoral Ave.	$21,100,000
2014	Concrete Pavement Restoration	NB 95th St. to Balmoral Ave.	$21,100,000
2014	Partial Reconstruction & Resurfacing	Hinsdale Oasis to I-88	$31,700,000
2014	Partial Reconstruction & Resurfacing	Roosevelt Rd. to Wolf Rd.	$124,900,000
2014	Partial Reconstruction & Resurfacing	95th St. to 83rd St. Plaza 39 & 75th St. to I-55 Ramp	$66,900,000
2016	Reconstruction	IL Route 176 to Russell Rd.	$139,900,000
2017	Reconstruction	IL Route 176 to Russell Rd.	$146,900,000
Northwest Tollway			
2008	Reconstruct & Widen	Elgin Plaza 9 to Sandwald Rd.	$59,900,000
2009			$62,900,000
2008	Reconstruct & Widen	East River Rd. to Elmhurst Rd.	$217,900,000
2009			$228,800,000
2008	Reconstruct & Widen	Elmhurst Rd. to IL Route 53	$92,500,000
2009			$97,100,000
2008	Reconstruct & Widen	IL Route 53 to Elgin Plaza 9	$170,400,000
2009			$178,900,000
2012	Reconstruction	Sandwald Rd. to Newburg Rd.	$105,300,000
2013			$110,600,000
2014			$116,100,000
2015	Reconstruction	Newburg Rd. to Rockton Rd.	$94,200,000
2016	Reconstruction	Newburg Rd. to Rockton Rd.	$98,900,000
East West Tollway			
2003	Reconstruction	IL Route 59 to Washington St.	$34,300,000
2005	Reconstruct & Widen	Washington St. to East of Naperville Rd.	$26,100,000
2005	Reconstruction	East of Naperville Rd. to I-355	$21,500,000
2006			$22,600,000
2005	Widen	IL Route 59 to Washington St. & East of Naperville Rd.	$53,400,000
2006			$56,100,000
2006	Reconstruct & Widen	Orchard Rd. to Fox River	$62,300,000
2010	Reconstruction	I-355 to Eisenhower Expressway	$78,000,000
2011			$76,800,000
2010	Widen	I-355 to Eisenhower Expressway	$92,300,000
2011			$90,800,000
2012	Reconstruction	US 30 to DeKalb Plaza 66	$239,000,000
2013			$251,000,000
2012	Reconstruction	DeKalb Plaza to Somonauk Rd.	$30,900,000
2013			$32,400,000
2012	Reconstruction	Somonauk Rd. to Orchard Rd.	$105,400,000
2013			$110,600,000
North South Tollway			
2003	Replace Shoulders	I-55 to Army Trail Rd.	$12,100,000
2003	Concrete Pavement Restoration & Auxiliary Lane Construction	75th St. to Ogden Ave.	$49,800,000
2011	Concrete Pavement Restoration (Excludes 15.5-19.4)	I-55 to Army Trail Rd.	$26,300,000
TOTAL MAJOR ROADWAY & BRIDGE NEEDS		2003 - 2017	$4,992,500,000
TOTAL ADDITIONAL CAPITAL NEEDS (including interchanges, facilities & systemwide interim repairs)		2003 - 2017	$500,000,000
TOTAL CAPITAL NEEDS		2003 - 2017	$5,492,500,000

Project Phasing

The Proposed Capital Program considered project phasing once the project list was compiled. This involved determining logical project sequencing, project prioritization, and providing provisions for project continuity, which allows for stabilization of the annual project expenditures.

The relative priorities of various projects were considered along with the geographic proximity of projects to establish logical project sequencing and to provide continuity among repair projects. It was assumed that, whenever possible, roadway widening would occur at the same time as roadway reconstruction and, short project sections (i.e., less than 1 mile) would be combined into larger segments. The intent was to minimize construction time within any given highway section by scheduling all work in one project. This will minimize inconvenience to the travelling public and will lessen the impact of reduced revenues because of the avoidance of construction areas by Tollway patrons.

Summary

The Authority must continue to maintain the integrity of System infrastructure, including roadways, plazas and maintenance facilities. The planning of future Tollway activities is an ongoing process requiring constant change in response to ever-changing travel needs of the motoring public. The Authority must adjust to new, unforeseen factors that may call for alteration of project priorities, new construction not currently planned, and for the orderly accomplishment of needed expansion and rehabilitation projects. The Authority must begin the challenge of replacing System elements that have exceeded their useful and economic service life if the Tollway is to remain a key transportation facility in northern Illinois. This Proposed Capital Program identifies System needs and provides improvements to address these needs through the end of year 2017. Implementation of the Proposed Capital Program will enable the Authority to effectively manage its resources and continue to provide motorists with the high-level of quality services they have come to expect.

APPENDIX F

ILLINOIS STATE TOLL HIGHWAY AUTHORITY'S RESPONSE TO THE AUDIT REPORT

Note: This Appendix contains the complete written responses of the Illinois State Toll Highway Authority. Following the Tollway's responses are two numbered Auditor Comments. Numbers for the Auditor Comments appear in the right margin of the Tollway's response.

The Illinois State Toll Highway Authority
2700 Ogden Avenue
Downers Grove, Illinois 60515-1703
630/241-6800
Fax: 630/241-6100
T.D.D. 630/241-6898
Road Conditions: 1-800-TOLL-FYI
www.illinoistollway.com

May 19, 2003

William G. Holland
Illinois Auditor General
ILES Park Plaza
740 East Ash Street
Springfield, IL 627032

Dear Mr. Holland:

Thank you for your efforts on the Management Audit of the Illinois Toll Highway Authority ("ISTHA".) I know that you and your staff have expended significant time and resources on this endeavor.

Obviously, I (along with my new management team) have been at the Authority only a fairly short time. Notwithstanding the brevity of my tenure, I concur with the audit's overarching theme that much can and should be changed with regard to ISTHA's operations. To that very end, Governor Blagojevich has charged me with the responsibility of reviewing every aspect of the Authority's operations and rebuilding the agency into the premier toll authority in the nation.

While I cannot address the Authority's past management and operations, I can certainly confirm that many of the items noted in the audit have already been favorably resolved or otherwise addressed and the future holds even more in store.

It is my sincere hope that, in time, ISTHA will be among the toll organizations your office and others will look to as exemplifying the "best practices" within the field.

Again, thank you for the consideration you demonstrated during this process.

Sincerely,

Jack Hartman
Executive Director

Recommendation #1:

- ***Examine current organizational structure, establish a Chief Operating Officer position and increase emphasis on improved communications.***

Response: The Authority concurs with this recommendation. A Chief of Staff position was created in 2003. An Office of Communications was also established in 2003. We are reviewing the current organizational structure to determine if any combinations of functions will be beneficial to the organization.

Recommendation #2:

- ***Continue to develop operational & strategic planning efforts***

Response: The recent change in administration both at the state and organizational level provides us the platform and opportunity to more effectively strategically plan.

The new planning process (Balanced Scorecard), will be jointly developed and approved by Tollway management and its Board of Directors. It will identify goals and objectives that link to our Mission Statement and provide for strategies that have milestones and specific deliverables. Relevant deliverables will be made available to the public. The strategic plan and annual management plan will be linked.

Recommendation #3:

- ***Ensure personnel files contain all required information, ensure employee's suitability for the position is documented and consider past performance before granting raises or promotions.***

Response: We concur with this finding and established, in March 2003, new personnel procedures to ensure more complete employee files containing all relevant documentation. Management is reviewing the current policies and procedures as they relate to employee performance, compensation and position changes.

Recommendation #4:

- ***Examine current interview and hiring practices.***

Response: In February 2003, the Tollway began fingerprinting and criminal background checks on all current employees. All new employees are also now required to authorize a criminal conviction record search and fingerprinting. The Tollway is in the process of finalizing all policies and procedures in this area, and will establish a related written policy for the personnel policies and procedures manual.

Recommendation #5:

- ***Improve monitoring of overtime.***

Response**:** The Authority concurs that improvement is needed in the monitoring of overtime and is in the process of updating and modifying existing policies and procedures.

Recommendation #6:

- ***Ensure cash flow analyses is based on documented assumptions and methodologies and made available to the public.***

Response: The Authority concurs that regular cash flow analyses should be performed and documented. Both our annual budget and Comprehensive Annual Financial Report disclose annual cash flow information and are publicly available.

Recommendation #7:

- ***Undertake a review of non-toll revenue sources to pursue other methods of generating revenue. Consider adjusting commercial tolls and enforce overweight truck regulations.***

Response: The Authority is studying other sources of non-toll revenue such as advertising and policies/technologies that would allow us to better enforce overweight truck regulations. The Tollway is also in the midst of an Oases Redevelopment Project that should yield increased concession revenues when completed.

Recommendation #8:

- ***Implement formalized policies and procedures for financial control and ensure that expenditures are adequately supported.***

Response: The new Controller plans to create written financial operating policies and procedures under current operations. Once reviewed, the Controller and new CFO will make any necessary recommendations to senior management to improve financial operating procedures.

Recommendation #9:

- ***Maintain a centralized listing of contracts, ensure deliverables are received and timely and include enforcement provisions in contracts.***

Response: The Authority will work toward establishing a centralized listing of contracts. The Procurement Services Division will create and maintain a master list of all Authority contracts. This list will be updated periodically, after monthly Board meetings where contracts and change orders are approved. Deliverables will continue to be monitored to ensure timely receipt.

Recommendation #10:

- ***Take cost effective steps to reduce the amount of uncollected tolls and monitor implementation of new VES system.***

Response: The Tollway has already taken steps to reduce uncollected tolls by contracting with Transcore for a violation enforcement processing system. The implementation of this system is being closely monitored In May, we hired a new executive manager for this program who was instrumental in the implementation and management of the largest ordinance and regulatory hearing system in the country in his previous positions with the City of Chicago.

Recommendation #11:

- ***Implement system improvements and analyze equipment malfunctions to develop a plan to ensure accurate and reliable information***

Response: The Authority installed new lane equipment in 2002. Therefore, there were some problems that needed to be ironed out. The Authority already monitors equipment malfunctions and the maintainer's service level. Damages have been assessed in the past when service levels dropped below the levels specified in the contract.

Recommendation #12:

- ***Establish controls to monitor free passage***

Response: There are already reports available to monitor free passage. In addition, the toll collectors complete an unusual occurrence report for any emergency or police vehicles passing through their lane.

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Recommendation #13:

- ***Improve controls over safeguarding of toll collections***

Response: Most of the observations mentioned in the audit report have been or will be implemented. We will continue to make improvements based on the best practices of other cash handling businesses.

Recommendation #14:

- ***Ensure all appraisers submit copy of their current state license. Develop written procedures for selecting and approving appraisers.***

Response: Revision of procedures regarding appraisers occurred in June 2002. Proper documentation exists for appraisals ordered after that date. The Authority will ensure that these procedures are formalized and written.

Recommendation #15:

- ***Develop comprehensive listing of real property and identify excess property. Records should contain all required documentation to support acquisition or disposition of real property.***

Response: The Authority concurs with this recommendation and will continue to update real estate records. Systematic review of all properties will be conducted on a periodic basis to identify excess properties and arrange for their productive use and disposal. The Authority has been able to support propriety acquisition and conveyance of properties and will continue to develop a comprehensive listing of real estate.

Recommendation #16:

- ***Consider purchasing GIS software.***

Response: In 2000, the Authority had feasibility study of a GIS system performed. Due to cost and budget constraints, the system was not pursued.

Recommendation #17:

- ***Assign take-home vehicles only when required for job, require employees to fill out usage log and develop additional computerized information to allow management to monitor vehicle usage.***

Response: Effective February 2003, 58 vehicles were removed from take-home status. Only those vehicles required for the safe and efficient operation of the roadway 24/7 remain permanently assigned. Vehicle logs will be monitored and verified for accuracy pursuant to the Vehicle Procedure and Operators Manual requirements.

The Authority is in agreement that a new fleet computer system is needed; however, funding has not been available.

Recommendation #18:

- ***Review outstanding revenue bonds to determine if refunding is cost effective. Prepare summary of Trust Indenture requirements and identify overly restrictive covenants to be modified in later bond issues.***

Response: The Authority has monitored its debt for opportunities to refinance at lower rates of interest. Although the Authority has $ 330 million of callable debt, the total costs

of refinancing the debt make it economically unattractive to proceed with a refinancing or defeasance of the debt.

Recommendation #19:

- ***Develop comprehensive plan for reconstruction.***

Response: The Authority concurs with this recommendation and is beginning the process, which could take as long as a year, to finalize such a plan. We will build on the existing documents to update the system's needs and priorities.

Recommendation #20:

- ***Review work performed by the consulting engineer.***

Response: The Authority does meet regularly with its outside consultants and regularly reviews their work. The Authority is very well aware of the methodologies used by its consultants.

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Recommendation #21:

- ***Review employee survey comments and establish routine surveys to employees.***

Response: The Tollway values input from employees and has in the past administered an Employee Suggestion Program to formally solicit employee input. We plan to review this program, as well as these audit results, to more effectively use employee input to make improvements at the Tollway.

Recommendation #22:

- ***Routinely benchmark performance with other toll roads.***

Response: We concur and one of the Executive Director's stated goals is to work toward implementing the best practices not only in the toll industry but business in general.

Recommendation #23:

- ***Review the applicability of the following "best practices" undertaken by other tollways.***

Response: As previously stated, the Executive Director's goal is to reform and rebuild the Tollway based on the best practices in the toll industry and business in general.

AUDITOR COMMENTS

1. The Tollway informed us that they did not have summary reports to monitor the use of free passes. When we requested the Tollway to provide summary statistics on monthly usage of free passes, they responded: *"This is not an easy request. The monthly invoices provide number of transactions at each plaza by class. However, to provide 12 months of invoices for every entity is a huge task."*

2. When asked whether the spreadsheets for the $5.5 billion reconstruction plan were CTE's estimate or whether they were reviewed by the Tollway to ensure they were complete and accurate, the Tollway's Chief Engineer stated in September 2002, *"These are CTE's estimates. CTE performs all cost estimating for the tollway. Having CTE perform this function keeps consistency in the dollar figures from project to project."*