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REVIEW OF THE TRANSPORTATION PLANNING PROCESS IN THE CHICAGO METROPOLITAN AREA

March 1993

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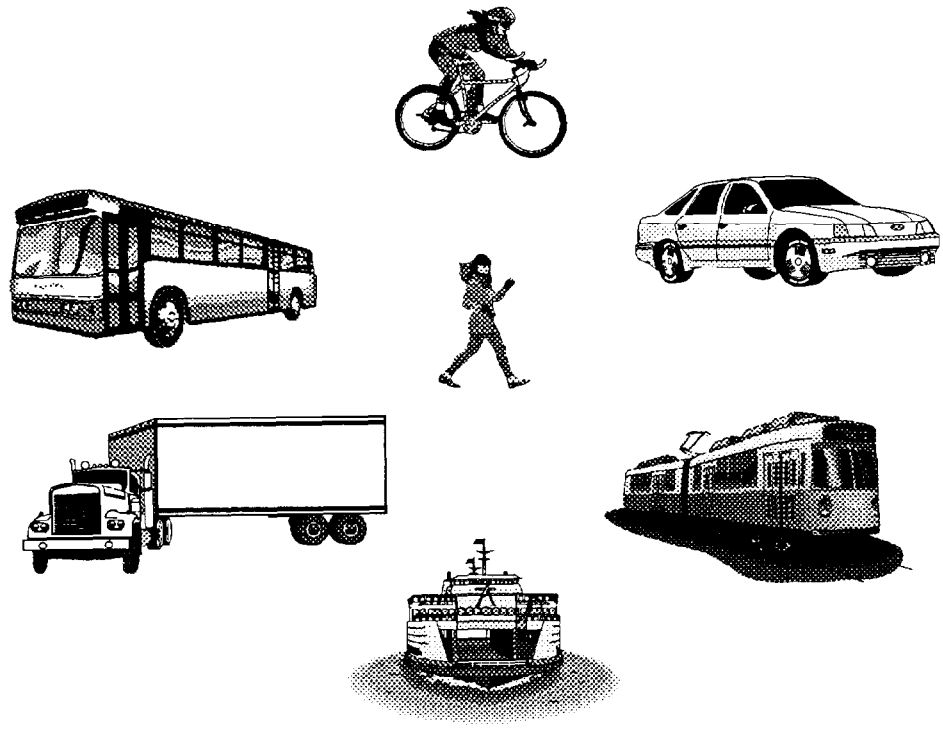

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This report is the second of a series produced for the Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA) by the Volpe National Transportation Systems Center (Volpe Center), Research and Special Programs Administration, U.S. Department of Transportation. The report was written by William Lyons, Volpe Center Project Manager, Beth Deysher and Michael Jacobs of the Volpe Center, and contractors Frederick Salvucci, Center for Transportation Studies, Massachusetts Institute of Technology, and Margarita Gagliardi. Overall guidance for the planning review, including production of this report, was provided by the Program Manager, Deborah Burns of the Office of Planning, FTA. The federal review team, consisting of staff from FTA Headquarters and Region V, and FHWA Headquarters, Region 5, and the Illinois Division, and the Volpe Center, participated in the site visit in Chicago, and reviewed drafts of this report. Staff from the Chicago Area Transportation Study (CATS) and the Illinois Department of Transportation also reviewed the draft report. The assistance of staff from CATS, the Regional Transportation Authority, the Chicago Transit Authority, Metra, Pace, and the Illinois Department Transportation throughout the review is also gratefully acknowledged. Participating state, regional, and local staff are listed in Appendix 1.

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Glossary of Acronyms

AA/DAIS -	Alternatives Analysis/Draft Environmental Impact Statement
ADA -	Americans With Disabilities Act
CAAA -	Clean Air Act Amendments of 1990
CATS -	Chicago Area Transportation Study
CBD -	Central Business District
CMP -	Congestion Management Program
CTA -	Chicago Transit Authority
DPW -	Department of Public Works
FAUS -	Federal Aid Urban System
FHWA -	Federal Highway Administration, US Department of Transportation
FTA -	Federal Transit Administration, US Department of Transportation
HC -	Hydrocarbon
IDOT -	Illinois Department of Transportation
IEPA -	Illinois Environmental Protection Agency
ISTEA -	Intermodal Surface Transportation Efficiency Act of 1991
IVHS -	Intelligent Vehicle Highway System
Metra -	the commuter rail operator
MPO -	Metropolitan Planning Organization
NEPA -	National Environmental Protection Act
NIPC -	Northeastern Illinois Planning Commission
NIRPC -	Northwestern Indiana Regional Planning Commission
O & M -	Operating and Maintenance
Pace -	the suburban bus division of RTA
RTA -	Regional Transportation Authority
SIP -	State Implementation Plan
SRAs -	Strategic Regional Arterials
TCM -	Transportation Control Measure
TIP -	Transportation Improvement Program
TSM -	Transportation Systems Management
UPWP -	Unified Planning Work Program
UTPP -	Urban Transportation Planning Process
VHT -	Vehicle Hours Travelled
VMT -	Vehicles Miles Travelled
Volpe Center -	John A. Volpe National Transportation Systems Center, US Department of Transportation

I. Summary of Observations, Findings and Suggestions

This formal, comprehensive review of the planning process in the Chicago urbanized area, conducted by Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) headquarters and regional staff, with input from state, regional and local transportation entities, takes the place of the 1992 compliance review of the Chicago metropolitan planning organization (MPO) which otherwise would be conducted by FHWA field and FTA regional staff. The Chicago Area Transportation Study (CATS) has been found to be in compliance with the regulations in 23 CFR Part 450.

The federal review team has made a series of observations and suggestions on each segment of the planning process, highlights of which are listed below. It is hoped that these findings will help improve an already competent process. Sections of the following analysis where each point is discussed in greater detail are noted in parentheses.

1. Roles and responsibilities of agencies participating in the Chicago area urban transportation planning process (III. and IV.):

   A. The CATS Policy Committee could consider fostering a more proactive role in regional transportation planning. CATS could go beyond serving as a forum for local governments, to actively initiating solutions to the serious transportation problems confronting the area (IV. A.).

   B. CATS should increase formal coordination with the NIRPC in the transportation planning process, particularly in matters related to the CAAA. NIRPC and CATS should identify opportunities to coordinate efforts throughout all stages of the planning process, in addition to exchanging participation in committees.

   C. CATS, the RTA, and the transit operators could expand outreach efforts to include private groups; labor organizations; financial and real estate associations; and environmental and other public organizations. Development of a consensus among competing groups on regional strategies early in the planning process may be useful in preparing to deal with CAAA compliance requirements and avoiding the litigation occurring in other regions (IV.A and V.E.).

   D. Roles and responsibilities of CATS and other agencies involved in the transportation planning process in the urbanized area, including the NIPC, the NIRPC, and the Metropolitan Planning Council, should be updated and formalized in working agreements. Roles and responsibilities could also be described in brochure form to improve public understanding of how the process works, thereby encouraging public participation.

2. The Unified Planning Work Program (III. C.):

   A. The UPWP should include significant non-federally funded work.

   B. The method used to distribute federal funds through the UPWP could be reexamined. The use of historically determined percentages to distribute funds among recipient agencies may not allow the flexibility required for regional compliance with the CAAA and ADA.

3. Transportation Planning (IV. A.):

   A. The long-range planning process should provide greater influence over the actual allocation of area-wide transportation resources. Allocation based on traditional formulas may not be flexible enough to allow the area to deal with funding shortfalls and the challenges of meeting transportation and air quality objectives.

   B. Use of advanced technology to enhance capacity and improve system performance could be further reflected in the planning process. Although the review was conducted prior to finalization of ISTEA, actions in this area will prepare the region for compliance with future related ISTEA requirements. Operation Greenlight represents some initial progress in these areas.

   C. Design of pedestrian and bicycle facilities could be more explicitly reflected in the Chicago area planning process. Although there are brief references to the importance of these facilities in the long range plan, and related projects are in Operation Actions, incorporation of these areas as full components in the planning process will assist the region to comply with future related ISTEA requirements.

   D. Operation Greenlight, a comprehensive initiative to identify opportunities to avoid congestion while accommodating economic and population growth, could integrate additional important objectives -- CAAA requirements and VMT reductions; and pedestrian and other environmental concerns.

4. The TIP process (IV.B.):

   A. The TIP should include significant non-federally funded projects.

   B. The Programming of Transit and Highway Elements in the TIP should occur at the same time.

   C. The CATS Work Program Committee could take a more active role in determining project rankings in the TIP. Currently, priorities are primarily determined by the project implementors. This may undermine the ability of participants in the UTPP to take a global view of the way individual projects fit together as part of a regional whole.

5. The Overall 3-C Transportation Planning Process (V.):

   A. Standardized formal processes should be applied routinely to evaluate the results of all major highway and transit investments. As MPO, with responsibilities for assuring the credibility of the 3-C planning process, CATS should take an active role in coordinating and otherwise encouraging efforts of all involved agencies to complete routine evaluations of major investments.

   B. The UTPP should be broadened beyond traditional transportation objectives. The UTPP should develop explicit provisions for compliance with the CAAA and ADA as required by these acts (for example, lowering emissions by reducing VMT to improve air quality).

6. Integration of Transportation and Air Quality Planning (V. D.):

   A. The transportation component of the SIP should be amended to comply with the CAAA, incorporating contingency measures as required by the Act. Although SIP amendments are not the responsibility of the MPO, CATS is working with IDOT and IEPA to develop recommendations for the transportation component of the SIP.

   B. CATS (or some other regional body) should directly address air quality concerns and the TCMs that will be employed to alleviate them, as a direct output of both the transit and highway corridor planning process. CATS, with involvement of public agencies and interest groups, are addressing air quality and transportation planning issues through the Air Quality Executive Committee and the ISTEA Subcommittee of the Policy Committee.

   C. CATS and state agencies are encouraged to work with the legislature to finalize an employee trip reduction program, to be included in a revised SIP, as expeditiously as possible. The inability to secure legislative approval for such a program raises concerns about whether this CAAA requirement will be satisfied in a timely manner.

7. Travel Demand Forecasting (VI. A.):

   A. Demand and other forecasting undertaken by CATS and the service boards should be coordinated, and software packages and data should be shared to assure that efforts are complementary.

   B. Demand models should ideally reflect changed demand at employee levels generated by initiatives to serve the goals of the CAAA. This information helps identify ways to reduce VMT below highway capacity while maintaining mobility.

C. CATS and Metra should provide a concise description of their modeling procedures. A clear, concise description of overall network analysis, demand modeling, and traffic assignment procedures, input requirements, and key assumptions, would improve communications, understanding, and consensus building among staff of the various concerned agencies.

8. Planning by the RTA and Its Service Boards (VII.):

A. The RTA and its operating agencies are commended for developing comprehensive strategic plans. These agencies should complete updates to reflect the changing planning environment (e.g., the ADA, the CAAA, and ISTEA), and coordinate development with the Transportation Plan produced by CATS. For example, the operational objectives of all four agencies could be broadened to describe and quantify how each will contribute to improved regional air quality through transit service.

B. The RTA and its boards could evaluate alternatives to formula based methods of resource allocation. Ultimately, allocations should further accomplishment of objectives identified in CATS, RTA, and operating agencies' strategic plans. Probable shortages of funds and the new requirements for air quality improvements and transit accessibility could require a more strategic and flexible means of allocation.

C. ADA compliance and its long-term implications for capital programs and operations should be explicit in revisions to the TIP and long-range plans.

D. CTA should perform risk management planning to reduce insurance, claims, and other related costs.

E. CTA and Metra should continue periodic condition surveys of their infrastructure by asset category as inputs to capital programming and planning.

F. CTA, Metra, and Pace should develop formal criteria for capital programming decisions as part of capital planning. Pace described a capital programming framework but was unable to provide documentation to the team for review.

G. CTA should strengthen human resource planning, particularly to anticipate and provide for succession of key staff.

II. Introduction

A. Background

On August 12-15, 1991, a team of representatives from the Federal Highway Administration (FHWA) Headquarters, Division, and Regional offices; the Federal Transit Administration (FTA) Headquarters and Regional offices; and the U.S. Department of Transportation's Volpe National Transportation Systems Center (Volpe Center) met with representatives of the Chicago Area Transportation Study (CATS), which is the Metropolitan Planning Organization (MPO), the Illinois Department of Transportation (IDOT) and regional and local agencies to conduct a review of transportation planning in the Chicago urbanized area.

Prior to the site visit, the team reviewed extensive documentation on the planning process in the area. The site visit consisted of structured meetings with staff from regional, local and State agencies responsible for transportation and air quality planning, and the major public transit providers. Participants in the review are listed in Appendix 1. The agenda for the meetings is presented in Appendix 2. The team also conducted follow-up discussions after the meetings.

This report evaluates transportation planning in the area, and summarizes the results of the review in a series of findings and suggestions on planning practices.

The State and the MPO must self-certify that the Urban Transportation Planning Process (UTPP) is in conformance with federal regulations set forth in 23 CFR Part 450. The federal regulations are designed to ensure that urban areas apply a continuing, cooperative, and comprehensive transportation planning process to develop plans and programs which address identified transportation needs in the area, and which are consistent with the overall planned development of the urbanized area.

Self-certification is intended to grant increased responsibility for transportation planning to States and MPOs. Self-certification is also a prerequisite for receiving federal funds for highway and mass transit projects. Certification statements must be provided to FHWA and FTA with each new or substantially revised Transportation Improvement Program (TIP).

As stated in the preamble to the FHWA/FTA joint planning regulations in the June 30, 1983 **Federal Register**, self-certification does not relieve FHWA and FTA of oversight responsibilities and the obligation to review and evaluate the planning process. These responsibilities are discharged through periodic policy and technical committee meeting attendance and review of related program documentation, including the Unified Planning Work Programs (UPWP), technical reports, the TIP, and grant progress reports.

Periodic independent reviews are also appropriate mechanisms for evaluating the planning process. The FHWA and FTA judge the credibility of the self-certification independently to enable the FTA Regional Administrators/Area Directors and FHWA Division Administrators to make the statutory findings required under Section 8(c) of the UMT Act and 23 U.S.C. Section 134, on behalf of the Secretary of Transportation. This ensures that the planning process is being

carried out by the MPO, in cooperation with the State and transit operators, in a fashion consistent with the joint planning regulations.

This formal comprehensive review of the planning process in the Chicago urbanized area, conducted by FHWA and FTA Headquarters and Regional staff (Appendix 1), with input from State, regional, and local transportation entities, takes the place of the 1992 review of the Chicago MPO which otherwise would be conducted by FHWA and FTA field staff. CATS has been found to be in conformance with the regulations in 23 CFR Part 450. In addition, the review team has made a series of suggestions on planning practice, as summarized in section VII of this report.

B. Scope of the Planning Review

A purpose of the review was to allow FHWA and FTA to determine how successfully the UTPP addresses broadly defined regional transportation needs, and whether the planning process meets the requirements of the joint planning regulations. Another purpose was to assess the ability of the existing planning process to address broader responsibilities described under the guidelines implementing the Clean Air Act Amendments of 1990 (CAAA), and in the reauthorization of the surface transportation legislation. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), which became law after this review was conducted, includes a requirement for federal certification of the planning process in urbanized areas over 200,000 population. It is expected that this review will assist the Chicago urbanized area in preparing for future formal certification reviews.

The team reviewed support documentation that included the State Implementation Plan (SIP), the State air quality planning document; the TIP; the 2010 Transportation System Development Plan for Northeastern Illinois (long range transportation plan); the Regional Transportation Authority's Strategic Plan; the UPWP; and other technical materials related to the UTPP. (Documents are listed in Appendix 3.)

The review focused on the transportation and air quality planning activities of CATS; IDOT; and the Regional Transportation Authority (RTA), and its three divisions -- the Chicago Transit Authority (CTA), Metra, the commuter rail operator, and Pace, the suburban bus division of RTA. Although the Chicago urbanized area has two MPOs -- CATS and the Northwestern Indiana Regional Planning Commission (NIRPC) -- this review focused on CATS.

C. Objectives of the Planning Review

In conducting the planning review, the objectives of FHWA and FTA were to determine if:

- planning activities of the MPO are conducted in accordance with FHWA and FTA urban transportation planning process regulations, policies, and procedures;
- the transportation planning process involves representation and input on transportation needs from all levels of government, transit operators, the public, and other interest groups;
- the UPWP adequately reflects all aspects of the UTPP and all transportation planning in the area;
- the transportation planning products, including the TIP and Long Range Transportation Plan, reflect the identified transportation needs, priorities and funding resources;
- products of the transportation planning process are multi-modal in perspective, complete, based on current information, and interrelated;
- requirements and objectives of the CAAA, and Americans With Disabilities Act (ADA) are incorporated into the planning process and supported by transportation development activities.

D. Local Transportation Issues

To understand the regional context in which transportation planning is performed in the Chicago urbanized area, the review team identified the following major transportation issues.

Issue 1: The six county Chicago area is confronting severe and increasing levels of congestion. There will be increases in population of more than 15 percent, in employment of more than 22 percent, and in households of almost 30 percent by 2010, the period of the long range plan.

Issue 2: The Chicago area is designated as a "severe" nonattainment area for ozone under the CAAA. As a consequence, it must incorporate air quality objectives into the transportation planning process so that transportation programs will help to attain the mandated air quality standards.

Issue 3: Because the area must deal simultaneously with mounting congestion and air quality concerns, the planning process will have to balance potentially conflicting air quality and transportation objectives. For example, CAAA requirements for area-wide reductions in vehicle miles travelled (VMT) could conflict with transit financial management objectives to meet statutory farebox recovery rates, and eliminate "marginal" service. Targets of VMT reductions could conflict with

congestion related objectives to increase automobile speeds and improve convenience for drivers.

Issue 4: CATS has traditionally provided a forum for bringing state and local governments, transit agencies, and others together to reach consensus on regional issues. This degree of broad participation has served as a model to other MPOs.

Issue 5: In the Chicago urbanized area many decisions involving allocation of transportation resources are based primarily on historical formulas, and not on the MPO planning process. The MPO planning process does not produce these allocations, but works with them as predetermined. This approach may limit the ability to flexibly plan how best to apply transportation resources to accomplish complex and occasionally conflicting regional transportation and air quality objectives.

Issue 6: There are concerns about the financial security of public transit operations area-wide. The three major public transit operators already receive substantial subsidies, which require meeting statutory fare recovery ratios of 50%. Ridership is declining for CTA and the entire RTA area, and the rail operators face significant demands of an aging rail infrastructure. All operators are concerned about maintaining levels of service while satisfying new ADA and CAAA mandates.

Issue 7: In its long range planning, the RTA must accommodate rapidly growing metropolitan population, increasing road congestion, and shifting transit markets with limited capital resources. Important and competing claims are made for capital by Pace and Metra to respond to suburban growth and road congestion, and by CTA to maintain its aging infrastructure. RTA estimates that it will require $6 billion over the next ten years just to restore its plant to good operating condition.

Issue 8: Placement of a third major airport is politically controversial. Because four potential sites were being considered while the 2010 Long Range Plan was developed, the socioeconomic and transportation aspects of the new airport were not considered. Major ground transportation facilities will inevitably be required to accommodate the new airport, which will have major effects on long range planning.

III. Organization and Management of the Planning Process

A. Metropolitan Planning Organization Designation

The Chicago urbanized area has two MPOs -- CATS and the Northwestern Indiana Regional Planning Commission (NIRPC). The City of Chicago is within the boundaries of the CATS region, which was the focus of this review. The Policy Committee of CATS was formally designated as the MPO for northeastern Illinois in 1975 and reconfirmed in 1981. The northeastern Illinois region is comprised of six counties: McHenry, Lake, Cook, Kane, Dupage, and Will. Chicago is located almost entirely within Cook County; the surrounding counties are referred to as "the collar counties."

NIRPC, the MPO for the other part of the urbanized area, is comprised of neighboring counties in the northwest corner of Indiana. The two MPOs coordinate transportation plans and programs and participate in the other's technical committee processes. NIRPC is a member of the CATS Work Program Committee and CATS is a member of NIRPC's Transportation Policy Committee. The staffs of both agencies work together on technical studies with bi-state significance.

B. MPO Members - Roles and Responsibilities

Appendix 4 provides a list of the MPO members. The CATS Policy Committee, which is multi-modal in nature, is comprised of transportation representatives from the federal, State, regional, and local governments, and transportation operators. Each member participates in regional planning and programming related to transportation improvement. Appendix 5 documents additional responsibilities of each member.

C. Unified Planning Work Program (UPWP)

The UPWP is developed annually by the staffs of the "recipient agencies" and the Unified Planning Work Program Committee. The recipient agencies, which are those receiving federal transportation planning funds, are CATS, the Northeastern Illinois Planning Commission (NIPC), RTA, CTA, Metra, Pace, the Council of Mayors, and the City of Chicago. The UPWP committee consists of voting members -- IDOT, RTA, CTA, NIPC, the City of Chicago, the Council of Mayors, and the five "collar" counties; and non-voting members -- FHWA, FTA, and the Illinois Environmental Protection Agency (IEPA).

The UPWP process begins in the fall with the preparation of planning guidelines, which identify the regional issues to be addressed by specific UPWP projects. Over the course of the winter, agencies develop proposals for projects to undertake during the fiscal year, which begins the following July 1st. The budgets are constrained by the amount of FTA and FHWA funding that will be available.

Each recipient agency is granted a percentage of available planning funds based on a pre-determined historical formula. CATS receives 40%, the City of Chicago 14%, NIPC 15%, the CTA 11%, Metra 5%, Pace 5%, RTA 4%, and the Council of Mayors 6%. Each recipient

agency shares proportionately in any increase or decrease in funds. The Work Program Committee receives a financially constrained list of projects from the recipient agencies for approval; the Committee may ask that proposals be rewritten, and as a source for information exchange, may encourage coordination of related tasks. The Committee does not develop and apply criteria to select regionally significant planning tasks.

Most of the recipient agencies use their own local funds to supplement the projects that are included in the UPWP. This allows agencies to undertake their high priority planning efforts even though there may not be sufficient federal funds to support them. Planning projects funded with local funds, without federal funds, are excluded from the UPWP.

A preliminary UPWP is sent to FTA and FHWA in March of each year. Their comments are addressed prior to the completion of the final document in June. Approximately two-thirds of the UPWP funding goes toward routine, ongoing aspects of planning, including plan and program preparation, data collection, modeling, operations analysis and public participation. The remainder of the funds go toward emphasis areas. CATS is unaware of any audit or accounting problems at any of the recipient agencies.

Once the fiscal year starts, program administration on behalf of the MPO is carried out by IDOT and the City of Chicago (for FHWA PL and FTA funds, respectively). All recipient agencies submit quarterly reports describing work accomplished and funds expended or contracted. CATS combines these in a unified report which it provides to all UPWP Committee members, including FHWA and FTA. At the end of the year, CATS prepares a year-end report which summarizes work elements behind schedule and accomplished work. CATS also develops a list of all products of the UPWP, including technical reports, developed over the last three years by CATS, as well as by the Council of Mayors, RTA, CTA, Pace, and the NIPC.

When projects are carried-over from the previous year it is because of contracting delays, especially for the CTA, rather than over-programming.

Observations and Suggestions

1) **Non-federally funded UPWP activities** -- CATS provided the review team with a list of FY 92 UPWP work elements funded both with and without federal funds. The non-federally funded projects were excluded from the UPWP, and no project descriptions were provided. Approximately one-third of the funds that support CATS planning activities come from non-federal sources.

   The joint planning regulations require that all transportation planning activities be included in the UPWP whether or not they are federally funded. Because the UPWP excludes significant activities that are solely funded by State and local sources, it does not provide a complete picture.

Future UPWP's should reflect all significant projects, regardless of funding source. These projects should be limited to those of regional significance, and not routine activities such as transit route analysis, which would burden UPWP development. This would encourage an integrated and comprehensive understanding of area-wide highway and transit service planning, which is primarily funded with State and local funds. It will also improve the quality of the 3-C planning process, providing a more coordinated and informed mechanism for programming scarce transportation resources and making it more likely that capital investment decisions will have a foundation in the planning process.

2) **Method for allocating planning funds** -- The method for allocating planning funds should be reviewed. There should be a focus on how best to assure the flexibility required to allocate scarce planning resources to accomplish regional transportation and air quality objectives. The current method is fixed, based on historical allocations, and may not allow adequate responsiveness to changing demands of the planning process. Instituting a more flexible allocation process would improve the ability to address changing and potentially conflicting priorities, and be consistent with the new provisions in ISTEA.

   Using the CAAA as one example, allocation of planning funds to each recipient agency could be based on the dollars required to complete specific work elements focused on meeting CAAA requirements. As a result, agencies directly responsible for instituting regionally significant and legally mandated Transportation Control Measures (TCM's) might receive a higher allocation of funds.

   CATS staff indicated that there had been earlier attempts to change the funding allocation reflected in the UPWP. Although previous attempts to change allocation methods were unsuccessful, the staff indicated that the issue is being reviewed by the Work Program Committee.

D. Self-Certification

Self-certification of the planning process is done annually in October, at the time of TIP endorsement by the MPOs -- CATS and the NIRPC. NIRPC is responsible for its own independent self-certification. CATS staff recommends a resolution of self-certification to the Policy Committee, reflecting the findings of a consideration of all pertinent laws and regulations. If the Committee approves the resolution, it is transmitted to the IDOT which follows similar procedures and prepares a memorandum detailing its findings. FTA and FHWA receive documentation of this process along with the TIP.

Observations and Suggestions -- The self-certification process presently meets all FTA and FHWA requirements. However, since both the CAAA and ISTEA have placed new responsibilities on the planning process and MPOs, it would be timely for CATS to prepare for these new responsibilities by reviewing its overall planning processes.

IV. Products of the Process

A. Transportation Plan

The long-range transportation plan for the northeastern Illinois area, adopted in 1989, describes improvements necessary to meet growing regional travel needs through the year 2010. Population, employment, travel, and congestion estimates are derived from a 1980 base year. NIPC compiled the population and employment forecasts.

Under any potential federal, State, and local funding scenarios, the urbanized area is faced with complex and difficult transportation investment choices. The funding resources projected to be available for transportation improvements will continue to be very limited, while the demands on the system increase. Difficult choices apply both to trade-offs between modes (automobile versus transit) and among transit providers with competing requirements.

The CATS long-range plan initiates the process of identifying and selecting these choices, and maps a course of action for the area. The plan proposes major new facilities, such as highways and rail lines, estimates financial needs for expansion and maintenance through 2010, and provides a range of financial forecasts. The plan concludes that maintenance of existing structures will cost $10.1 billion for highway and $10.4 billion for transit, and facility expansion and right-of-way preservation will cost $3.0 billion for highway and $1.9 billion for transit, for a total financial need projection of $25 billion through 2010. The plan contrasts these needs to highway and transit funding forecasts under pessimistic and optimistic scenarios. Only the "more optimistic" highway forecast comes close to meeting needs. The other highway forecasts and all the transit forecasts fall far short of meeting estimated needs.

Currently, many major resource allocation decisions for planning, capital, and operating funds for transit are made based on historical formulas, and not on a "top-down" long range planning process involving the MPO. The role of formulas in UPWP allocation and TIP project selection, and related issues, are discussed in the UPWP and TIP sections (III.C. and IV.B.).

Capital and operating funds are allocated by the RTA to its three service boards primarily based on historical percentages, and not on long-range regional objectives generated through the MPO planning process. The RTA and its service boards then conduct planning to determine the best uses of the allocated funds. The long-range regional transit planning effort deals with many of the agency level decisions as "predetermined," rather than as subject to influence through long-range planning.

Operation Green Light, a coordinated effort to provide short-range transportation planning for the region, is an eight-point multi-modal plan for addressing congestion problems and mobility in the area through FY 1995. Operation Green Light includes major highway and transit improvements, primarily Transportation Systems Management (TSM), and focuses on preservation and enhancement of the efficiency of existing facilities. It includes a range of projects to be implemented over five years in the following categories:

- developing major transit and highway facilities;
- identifying and creating a strategic regional arterial network;
- improving other key arterial roadways;
- identifying strategic transit improvements;
- improving freeway traffic management;
- improving arterial traffic management;
- reducing demand for highway use; and
- increasing environmental consideration.

The capital program of Operation Green Light includes $300 million in FY '90, $422 million in FY '91, and a total program of $1.6 billion to be spent from FY 90 -- 95 in IDOT funds for both Highway and Transit Programs. The three largest areas of the six year capital program are the Strategic Regional Arterial (SRA) Network ($459 million); Major Transportation Facilities to rebuild existing expressways ($338 million); and Supplemental Arterials to supplement expressways with widening and signal improvements and relieve pressure on lower level arterials ($204 million).

Operation Green Light provides a planning framework for reaching consensus on those projects which will ultimately be programmed for implementation. Although the Operation Green Light documents reviewed refer to environmental concerns, the overwhelming emphasis is on congestion relief and improved mobility.

Observations and Suggestions

1) **The overall process** -- The long and short-range transportation plans are carried out methodically and address regional priorities, demographic trends, development, land use, and environmental concerns. Groups such as the Council of Mayors, the transit operating agencies, State agencies (such as IDOT), the NIPC and local departments of public works and traffic engineering participate in the development of the plans. The public was involved in development of the long range plan through membership of the private provider representative on the subcommittee, three rounds of public meetings, and formal public hearings. The plan was also presented at regional council meetings.

2) **Prioritization and plans** -- The long-range planning process should provide greater influence over the actual allocation of area-wide transportation resources. Allocation based on traditional formulas may not be flexible enough to allow the area to deal with funding shortfalls and the challenges of meeting transportation and air quality objectives.

The likely shortfall in available funding and requirements of the CAAA will require more rigorous prioritization among potential investments. Shortfalls could be substantial enough to require reconsideration of basic transportation and land use strategies.

ISTEA's provisions for flexible funding will require prioritization of transportation projects, regardless of mode, based on regional objectives developed through the planning process.

3) **Operation Green Light and air quality concerns** -- As the major short-range planning effort for the urbanized area, Operation Green Light could be broadened in outlook to reflect integrated transportation and air quality concerns. The plan could indicate how the highway and transit strategies will reduce congestion and improve air quality.

B. Transportation Improvement Program

In the Chicago urbanized area, the first formal step in the creation of a new TIP is the adoption by CATS of the fiscal marks for the federal portion of the program. These estimates are used for both the highway and transit components of the TIP and are derived after consultation with IDOT, the RTA, and other involved agencies. Generally, the adopted marks prove to be reasonable estimates of federal funding that will be available to the urbanized area.

CATS prepares and approves the TIP and its annual element. The implementing agencies, who are also members of CATS, propose lists of prioritized projects to include in the TIP. Because the TIP must be fiscally constrained, the lists of projects from the implementing agencies must be within the regionally established funding marks.

The Work Program Committee, composed of technical staff representing the 20 agencies on the CATS Policy Committee plus six additional agencies, collates the proposals to produce an Integrated Proposals document. Projects that would take the TIP over the agreed-upon marks have been rejected in the MPO forum. The Work Program Committee completes its review of the TIP and its annual element, which are then sent to the Policy Committee for final approval toward the end of each calendar year.

Private transportation providers are represented in this process through membership on the Work Program Committee, and participate in the consideration of issues which concern them. Representatives of private railroads and transit providers, and the Chicagoland Chamber of Commerce are formal voting members on the Work Committee. Public groups are not represented on the Work Committee; public input to the TIP process is primarily indirect, through the Council of Mayors.

For some years, air quality improvement efforts have driven the implementation of TCMs in the TIP. Conformity of the TIP with the SIP has been determined annually by the Air Quality Executive Committee. The SIP identifies scheduled implementation of TCMs, and specifies hydrocarbon (HC) reduction goals to be achieved through the TIP process. Calculated HC reductions are targeted for achievement in each TIP through implementation of the TCMs recognized by the area as appropriate during SIP development and implementation.

After the TIP is adopted, the implementation of projects is monitored and reported to FTA and FHWA in a variety of ways. All implementors present award and status reports to the Work Program Committee, and a completion analysis is done for the FHWA portion. Overall progress is reported by CATS following receipt of detailed progress reports from the responsible individual agency. Additionally, there is a mechanism in place to amend the TIP as needed during the course of a year.

Federal Aid Urban System (FAUS) funds are allocated by population to each of eleven regional councils of mayors in northeastern Illinois. The MPO staff maintains status reports tracking FAUS funds allotted to and expended by each council since 1972. The status report is updated as necessary, at least quarterly.

Each municipality evaluates its own needs and submits projects for consideration for FAUS funding to the respective council. The municipality must certify its ability to provide the local match and, in some councils, must use local funds to pay for engineering and right of way. A number of councils have increased the local match from the minimum 25% to as much as 50% to spread federal funds among more projects.

There are many more projects in development than there are FAUS funds to pay for them. Each of the councils has developed policies and procedures for use in ranking FAUS projects in a priority order. The councils rate projects using objective criteria such as the effect on peak and off-peak hour travel times, accident experience within the project boundaries, and cost. Once the projects are evaluated, the local elected officials discuss other considerations brought to them by the sponsoring municipalities and finalize the FAUS program to be submitted for inclusion in the TIP.

The local jurisdictions rely on subregional planning staff (IDOT or city DPWs) to work with in-house engineers, consulting firms and IDOT to resolve problems that arise in bringing projects to construction. If a project's scope changes during the engineering phase, or if there are substantial delays anticipated in implementing the project, the council may reevaluate all projects submitted and amend its FAUS program accordingly. To facilitate the total expenditure of FAUS funds on an annual basis, the councils of mayors have instituted a borrowing and lending process. An Executive Committee, composed of two locally elected officials from each of the eleven councils, has the power to approve borrowing and lending between councils. Each council has the opportunity to reach equity at the end of each Federal Highway Act.

Observations and Suggestions

1) **Coordination of TIP development** -- The process for developing the TIP and its annual element functions fairly efficiently, considering the complexities of the Chicago urbanized area. However, projects generated, implemented and funded solely by local units of government are excluded from the TIP. For example, one town might have a traffic mitigation project planned which should be coordinated with planned improvements to regional arterials or facilities in neighboring jurisdictions. If this and other significant local projects were accounted for in the TIP, it would encourage improved coordination and create

opportunities for efficiencies and greater benefits from all programmed traffic and transit improvements.

2) **A regional view on TIP priorities** -- CATS could have a more active role in determining project rankings in the TIP. CATS works with the implementing agencies, who are also CATS members, to determine fiscal constraints for the TIP. Project rankings and selection, however, are primarily determined by the project implementors. Although the Work Program Committee has the authority to approve and disapprove projects, it is unusual for this authority to be exercised other than when projects exceed funding constraints. Thus, implementors may not be forced to view how their projects fit into the overall regional "big picture." This approach to project selection may limit the ability to take an integrated multi-modal view of projects individually and in combination, and may diminish the ability to accomplish regional transportation and air quality objectives.

V. Elements of the 3-C Transportation Planning Process and Related Activities

A. Evaluation of the Impact of Recent Major Transportation Investments

The CATS urbanized area does not appear to have formal guidelines on when to evaluate major highway and transit investments, and the methodologies to be applied. Evaluations are not formally recognized as the responsibility of specific agencies or unified working groups, and are not routinely undertaken. These evaluations should be elements of a sound 3-C planning process, contrasting actual and forecasted impacts on: costs; ridership (in the case of transit); automobile usage (and vehicle miles travelled); and other relevant impacts, including land use and air quality. These analyses would allow testing of assumptions made during project approval related to land use, demographics, and pricing policies, and would allow a critical assessment of the validity of these analytical methodologies.

Specific examples were provided of recent studies of the impacts of some major investments. On the transit side, the only recent major investment in the urbanized area is the extension of CTA rail service to O'Hare Airport. Both CATS and the CTA noted that they evaluated before and after trends on the line, although no specific information on methodologies or conclusions was made available as part of this review. The Chicago DPW is listed in the UPWP as planning an evaluation of the impacts of the line on transportation use, economic development, airport use, and workplace location, to be completed by June 30, 1992. The UPWP also describes an evaluation by the Chicago DPW of the impacts on transportation use of substantial renovation of the Jackson Park transit line.

On the highway side, the review team was not able to identify examples of evaluations of the results of major investments. Major investments that could be candidates for this type of formal analysis include the major segment of the I-355 Tollway completed last year, and the extension of I-290, completed in the early 1980's. Both of these projects would provide opportunities to improve the understanding of the effects in the Chicago area of highway investments on travel and land use, and to test the ability to forecast costs and benefits.

Observations and Suggestions -- Routine evaluations of major investments -- Although major highway and transit investments occur regularly throughout the Chicago area, there are no formal guidelines for when or how to undertake formal evaluations of results. There also does not appear to be a clear definition of which agencies should be responsible for these evaluations.

For example, construction of new rail service to serve Chicago's southwest corridor is now underway. Both CATS and the CTA should develop a formal process to evaluate the impact of this investment, particularly because it was subjected to the Alternatives Analysis process and should have good data on the baseline and anticipated results.

Similar formal processes should be applied routinely to evaluate the results of all major highway and transit investments. CATS does not need to be directly responsible for undertaking all analyses. As the MPO with responsibilities for assuring the credibility of the 3-C planning

process, CATS should take an active role in coordinating and otherwise encouraging efforts of all involved agencies to complete routine evaluations of major investments.

B. Monitoring, Surveillance and Reporting

CATS has an extensive data collection program, with approximately a five-year horizon. While not all activities are programmed in the UPWP, there are consistent ongoing efforts to maintain current data and identify trends. CBD data is maintained at the block level and other data is maintained at the quarter section level. NIPC prepares demographic, employment, development and other Census-generated data, which are then applied uniformly by all regional planning agencies. Current data is based on the 1990 Census results.

During the next year, CATS plans to develop: an area-wide household travel survey; transportation facts (both transit and highway); Census data summaries for the UTPP; and an expressway atlas. CATS will also collect travel time data and conduct special surveys, including: origin/destination studies; long distance travel survey; external cordon line survey; expressway users survey; license plate matching and CBD occupancy counts. CATS also sponsors a data users forum for the information it generates and provides an index of this data. Appendix 3 summarizes relevant recent CATS publications.

Other data collection efforts are undertaken by other regional agencies, independently of CATS. Data on the physical condition and performance of infrastructure and facilities is collected and maintained by the responsible organization. For example, the City of Chicago conducts surface condition ratings for its roads, Metra monitors bridges and overpasses, and CTA monitors track condition and its vehicles. Pace, Metra, and CTA follow the FTA Section 15 Uniform System of Accounts and Records, and provide annual reports on transit finance and operations to FTA. Highway Performance Management System (HPMS) data are collected by sub-regional planning staffs.

Observations and Suggestions

1) **Importance of timely data** -- CATS staff was concerned that they may not be able to conduct all of the data gathering activities they view as necessary because of a shortage of funding and staff. This issue should be monitored particularly because of the concerns expressed above on the rigidity of UPWP funding allocations and changing priorities, such as the CAAA requirements. This was substantiated by at least one of the transit operating agencies, which expressed a concern over the timeliness with which CATS satisfies data requests.

2) **Concerns about data base compatibility** -- There was some discussion of the lack of compatibility among data bases and software programs used by all of the planning groups in the area; this should be evaluated and any problems should be resolved.

3) **Discrepancies in ridership forecasts** -- There appears to be some discrepancy between ridership demand forecasts generated by CATS and the individual transit operating agencies. Specifically, Metra staff indicated that the forecasts they have developed in-house for the

Rail Alternatives Planning Study may differ from CATS projections. The Metra staff indicated, however, that these differences would be resolved between the technical staffs of the two agencies.

C. Ongoing and Corridor Multi-Modal Planning Approach

Economic, demographic, and land-use planning is performed primarily by NIPC; this information is used by other agencies conducting planning studies in the area. Current data is based on the 1990 Census results. As transportation plans are developed, the goal is to integrate the most current economic, demographic and land-use data, reflected in updated projections.

Corridor and multi-modal transportation planning is conducted by a wide variety of agencies, depending on the nature of the project, funding source, and impetus behind the planning study. For example, the Southwest Corridor AA/DEIS was completed by the City of Chicago's Department of Public Works (DPW); the Phase I South Corridor Transit Study was completed by the RTA; and the Central Area Circulator AA/DEIS was completed under the auspices of the City of Chicago, but directed by a ten-member Governance Board of a new organization created by the Mayor -- the Chicago Central Area Circulator Project. The latter two studies were evaluated as part of this review (refer to Appendix 3).

The Central Area Circulator followed FTA Major Investment Guidelines and addressed a range of transit alternatives, ranging from the "do-nothing," to TSM, bus, and light rail alternatives. The Phase I South Corridor Transit Study also evaluated a number of existing public transit modes. Phase II of this study will provide a more traditional evaluation of the alternatives which were produced as part of the Phase I effort; these also range from the do-nothing to TSM (primarily fare integration options), bus, and rail alternatives.

Highway-related studies can also have a variety of "sponsors," depending primarily on the classification of the proposed improvements. For example, arterial roadway improvement studies tend to be addressed by the DPW, whereas interstate highway segments are addressed by IDOT. In addition, subarea studies pertaining to highway improvements have been completed for: Kane County (1989-90); Lake County (1986-87); DuPage County (1984-85); South Cook County (1984-85); McHenry County (1985); North Cook County (1983-84); and Will County (1981-82). No highway improvement or highway project implementation studies were evaluated as part of this review.

Observations and Suggestions

1) **The need for a multi-modal perspective** -- Planning analyses should have a genuinely multi-modal perspective. In the two studies reviewed, "multi-modal" is limited to transit modal alternatives (bus compared to rail). Roadways were only discussed in the context of bus alternatives. Consequently, the trade-offs between transit and highway investments were not evaluated. For example, CATS staff indicated that the Southwest Corridor AA/DEIS evaluated HOV/busway alternatives. There were no examples provided of evaluating transit and non-transit highway tradeoffs.

2) **Consideration of air quality and TCMs in corridor planning** -- This review points to the need for CATS (or some other regional body) to directly address air quality concerns, and the TCMs that will be employed to alleviate them, as a direct output of both the transit and highway corridor planning process. While transit improvements are universally considered to be TCMs, neither of the corridor studies reviewed evaluated the transit alternatives in terms of their contribution toward transportation control and improved air quality.

   Air quality considerations were addressed in both transit corridor studies, although at greatly different levels of detail. The Phase I South Corridor Transit Study treated the issue quite generically, while the Central Area Circulator AA/DEIS identified emission and carbon monoxide impacts of the various alternatives. CATS staff indicated that highway implementation studies, particularly those requiring a full EIS, also identified emission and carbon monoxide impacts.

3) **Reactive versus proactive approaches** -- Corridor and subarea studies could be less "reactive" and more "proactive." Rather than anticipating and influencing the development process through corridor-specific transportation improvements, the planning process tends to react to changing demographic patterns and emerging development centers. Although this can be partly explained due to the relative maturity of the Chicago CBD, it is an issue that deserves some attention. For example, Metra staff are now reacting to the Sears relocation from the CBD to a suburban location not presently served by commuter rail or rapid transit service; this project could have adverse consequences for vehicle miles travelled (VMT) and air quality.

4) **Costing methodologies** -- Both of the transit corridor studies reviewed included the development of operating, maintenance and capital costs for the various alternatives. This information was utilized in the development of cost-effectiveness indices for each alternative in the Central Area Circulator AA/DEIS, and will be similarly refined and applied during Phase II of the South Corridor Transit Study. The approach to conducting the studies reflects a reasonably realistic view of funding which may be available to the area for project implementation and operation.

D. Consideration of Air Quality

The Chicago urbanized area is designated as a severe nonattainment area for ozone. The severe ozone designation is compounded by a multi-state ozone designation, and will require that the SIP include plans for large employers to institute trip reduction programs and VMT reduction strategies to adequately deal with the air quality problem. Within two years of enactment of the CAAA, SIP revisions are due that require employers of 100 or more to increase the average passengers per vehicle work trip by not less than 25 percent above the average for all area work trips. This requirement is the basis for Regulation XV in the Los Angeles area. CATS, IEPA, and IDOT have drafted legislation proposing an employee trip reduction program, but this has not been approved by the Illinois General Assembly. CATS and the state agencies are

proceeding with planning studies, including demonstrations, that will support a employee program once it is approved.

A substantial shift of the CAAA away from "process" and toward "outcome" will create new pressures on the planning process and relationships between public agencies and business. The planning process must go beyond proposing TCMs as actions in the plans to identify initiatives that will reduce VMT and vehicle usage at the scale required to bring the area into compliance with the CAAA requirements. Requirements for VMT reductions and employer trip reduction efforts could require substantial changes in the relationships between government and business, which should not be under-estimated. Other possible expansions of environmental regulations into parking policies and land use and development may be necessary to effect required travel changes. Accomplishing these results without damaging the economic attractiveness of the Chicago area will be a challenge to the planning process.

To date, conformity of the transportation plan and TIP with the SIP and TCMs has been eased through positive working relationships between CATS, NIPC, and the IEPA; the transportation control plan is developed by CATS staff with review and comment by the CATS Air Quality Executive Committee, and approved by the CATS Policy Committee and IEPA. Through mutual review, the parties ensure that consistent base data and growth projections are used for air quality and transportation planning purposes.

Potential TCMs were considered by the CATS Air Quality Executive Committee to identify candidate measures with potential for implementation in the Chicago area. Implementors chose projects incorporating air quality benefits with the understanding that any inability to implement a particular project would require the substitution of another project of equal air quality benefit. The Air Quality Committee set an emissions reduction target based on an expected four year projection. Additionally, "non-TIP" measures such as ridesharing commitments were also included.

Because TCMs are coordinated with the TIP process and include only projects with committed funds, implementation is assured and monitored. The TIP is in turn monitored for actual schedule performance by IEPA.

TIP projects, which presently are limited to those that are federally funded, are monitored for their effect on air quality through an annual impact assessment. This assessment has not identified any significant adverse effects on air quality. Consequently, CATS staff believe it unlikely that significant impacts will be generated by the smaller number of non-federally funded projects excluded from the TIP.

Air quality studies are included in the UPWP. Of the two percent of the total UPWP budget used for Environmental/Energy studies, the main portion will be used by CATS to analyze and implement the TCMs called for in the CAAA, with less emphasis on the SIP update. CATS spent over $300,000 for air quality work in FY 92; over $1,000,000 is programmed for air quality work by all agencies in the FY 93 UPWP. The two percent amount translates to $300,000 annually available for air quality planning. The discussion focused on the adequacy of this amount -- CATS indicated that it expects that this amount may have to double.

The emissions estimates are prepared by IEPA and the Lake Michigan Ozone Study. The 1990 emissions estimates are being created, and are based upon 1990 NIPC figures for population and employment, and 1990 CATS figures for travel and congestion. The agencies use CAT's Transportation Model Output and the EPA's MOBILE 4.1 to calculate mobile source emissions. A mixture of data from transportation models and empirical data is used. The empirical data is from areas outside the Chicago area. Currently, IEPA is working with the Radian Corporation on the Lake Michigan Ozone Study, which also includes the surrounding States of Wisconsin, Indiana, and Michigan. The Radian Corporation is developing software to collect hourly emissions, providing more detailed analysis using MOBILE 4.1.

Emissions impacts are analyzed for the non-federally funded transportation projects funded by the State of Illinois, and expansion projects funded by the Illinois State Toll Highway Authority that are excluded in the TIP.

Observations and Suggestions

1) **Overall air quality compliance** -- The planning for air quality compliance to date has been carried out in a satisfactory manner.

2) **Non-federal projects** -- One improvement would be to incorporate regionally significant non-federally funded projects into the TIP and the UPWP to provide a more comprehensive picture of transportation investments as they relate to air quality.

3) **CAAA pressures** -- The challenges and changes required to deal effectively with the severe ozone problem could require new levels of institutional and financial commitment to bring the area into compliance with the CAAA of 1990. CATS has initiated substantial efforts to encourage employers to participate in the process of compliance with the new law. Nonetheless, because of the magnitude of the problem inherent in the "severe" determination, it must be anticipated that substantial new pressures will be generated on the urban transportation planning process in Chicago when final guidance is established by EPA.

   The process in place to deal with the SIP and the efforts to initiate communication with employers are good strategic actions. These results, combined with efforts to maintain the economic attractiveness of the Chicago area, could require changes in fundamental orientation of the strategic plans of the RTA and its service boards. For example, it might be necessary to expand transit services beyond levels that are consistent with available subsidies and mandated fare recovery ratios.

4) **Employee trip reduction program** -- The inability to secure legislative approval for an employee trip reduction program raises concerns about whether this CAAA requirement will be satisfied in a timely manner. CATS and state agencies are encouraged to work with the legislature to finalize a program, to be included in a revised SIP, as expeditiously as possible.

E. Outreach Efforts

Both CATS and the transit operators conduct outreach efforts independently of one another. Both rely on citizen input at public meetings. In addition, the transit operators have direct citizen input through their mandated Citizen Advisory Committees.

Citizen Participation

A major source of citizen input to the CATS transportation planning process and development of the long range plan and TIP is indirect, through the local elected officials who serve on the CATS Policy Committee. Public concerns, including requests for information and comments on plans, can be reflected through the Council of Mayors and regional councils to CATS. The Council of Mayors provides a forum for disseminating information and solicits comments on regional transportation plans and programs. CATS Policy Committee representatives meet with individual citizens and groups at the regional councils. The region's transit agencies often present projects and programs, such as the Strategic Regional Arterial (SRA) system and other Operation Greenlight initiatives to local councils for review and comment. The NIPC also provides opportunities for public participation by holding hearings on the long-range plan and conducting reviews of various programs for consistency with comprehensive plans and policies. CATS and the other planning agencies also provide opportunities for public comment through public meetings and hearings.

The public may also comment at Work Program Committee meetings. For specific studies, such as the Strategic Regional Arterial studies, the subregional planning staff is responsible for assuring citizen participation. For larger studies, such as the Third Airport study, formal Citizens Advisory Committee are created to encourage public involvement.

Public meetings are held throughout the development of the Long Range Transportation Plan to afford the public opportunity for comment as the plan is developed. Public comment on the TIP is obtained through the regional councils of mayors and Work Program Committee.

Information from citizen participation related to transit projects and issues generally flows from the three transit operators to RTA. For example, after RTA establishes the annual budget marks, CTA, Pace, and Metra hold separate public hearings, followed by a public hearing at RTA. In addition, by statute, RTA requires that CTA, Pace and Metra have Citizen Advisory Boards. Their charter is to provide the transit operator boards with policy input.

The CTA Citizens Advisory Board, nominated by the CTA Board, generally represents ridership groups and the city population. The board must have one member over the age of sixty-five, but representation of other interest groups is not mandated. Metra Citizen Advisory Board

members are nominated outside of Metra by the mass transit districts and the five "collar" counties surrounding Cook County. It is mandated that membership must represent the six counties and the City of Chicago. Although not mandated, there is one disabled member. Members of the Pace Citizens Advisory Board do not represent particular interest groups or geographical areas. They are, however, required to have broad knowledge of issues in the area. Presently, membership consists of elected and appointed local officials, a city planner, and a member of the architectural field.

CTA has two advisory committees dealing with disability access issues. Membership of the Advisory Committee on Services for the Disabled is comprised of representatives of various disability access interest groups, transportation providers for the disabled, plus public agency representatives. The Joint Implementation Committee members are chosen by the Illinois Human Rights Commission. Representatives of various disability access interest groups also sit on this committee. Although membership and interest may overlap at times, there have been no attempts to combine these two committees. Pace also has a self-nominating ADA advisory committee which discusses ADA issues.

The transit operators have different forms of community outreach. For example, Pace has a Marketing and Development Program in which Pace representatives visit employers, developers and municipal planning staffs to discuss service options and improvements or incorporation of transit planning into development projects. CTA maintains contact with several hundred communities to keep them informed of fare and service changes. Metra's Division of External Affairs works with communities on transportation issues, acting as a liaison between elected local officials and Metra.

Minority Participation

Minorities and women can participate in the transportation planning process through the Minority Association of Transportation Providers, to which CATS provides technical assistance. Several minority and female private transportation providers have developed transportation proposals to implement:

- reverse commute services to provide dependable services to transport unemployed inner-city residents directly to suburban job sites;

- inner-city circulation services that propose to provide reliable route services designed to meet the needs of transit-dependent, economically disadvantaged and elderly residents. These services transport health care clients unable to utilize public transit systems to their regularly scheduled appointments, as well as public aid recipients;

- shuttles to transport the homeless to shelters and job training centers;

- circulation services to link expanding suburban residential, office and shopping centers, and transport suburban residents to commuter stations;

- demand response services that are telephone-dispatched and provide door-to-door services for the elderly and disabled.

To maintain continuous contact with over ninety minority and female private transportation providers, CATS has developed a Directory of Minority Transportation Providers. CATS staff also serves as liaison to the minority Association of Private Transportation Providers, newly established to develop minority- and female- owned transportation businesses. Examples of Association participants are businesses interested in providing counter-flow commute service for inner city residents to suburban employment locations.

Private Sector

CATS has included private providers in its transportation plans and programs since 1983. Private providers are represented on the CATS Policy and Work Program Committee as voting members through the Private Providers Steering Committee. The private providers are observers at the Unified Work Program Committee meetings and participants on the Transportation Operations and Mobility Limited Advisory Committees.

To encourage involvement of the private sector operators in the transportation planning and programming process, CATS staff:

- Provide support for regular meetings of the Private Providers Steering Committee, which consists of private transportation providers and representatives from the public transportation carriers. The Steering Committee provides a forum where private sector issues and concerns are identified and coordinated as input to the planning process.

- Coordinate annual meetings of all the private providers serving the area, including bus, taxi, limousine, and third party vanpool owners and operators.

- Oversee the regional process established to review private sector complaints and ensure that problems are addressed at the appropriate level.

Staff involvement ranges from routine exchange of information and advising the private sector of issues affecting their operations, to granting public planning and operating funds to the private providers in the form of planning grants and service contracts.

CATS annually produces a report entitled "Privatization Activities for the Northeastern Illinois Region." All public operators in the area, the City of Chicago, and IDOT's Division of Public Transportation, report on their efforts to include the private sector in their plans and programs. The report responds to FTA Circular C 7005.1 and supplements the area's TIP and Annual Element.

For transit, private sector outreach relies on communications between the transit operators and RTA. Although the transit operators occasionally speak to private providers, these providers do not directly participate in the planning process through committees such as the Citizens Advisory Committees.

Observations and Suggestions

1) **Adequacy of public involvement** -- The quality of public input would improve if citizens and private and minority transportation providers were to receive a broader perspective on regional needs and the projects or ideas associated with those needs. The outreach efforts performed by CATS adequately cover minority, citizen, and private transportation provider sectors. The process could be improved through a more extensive effort to focus on regional transportation issues and the trade-offs among highway and transit needs; CATS could take the lead in emphasizing this outreach effort. For example, the public's involvement appears to be limited to specific projects. Citizens groups can form in response to specific projects.

2) **Expansion of public groups represented** -- The transit operators have successfully brought citizens into the planning process through the Citizen's Advisory Committees. Consideration could be given to further encouraging interest groups, such as the disabled or elderly, and regional representation on the Boards.

3) **Expansion of outreach** -- CATS and the transit operators could consider expanding outreach efforts to include private groups such as employer associations; labor organizations; financial, real estate, and development associations; and environmental organizations. Development of a consensus among competing groups on regional strategies early in the planning process may be particularly useful in preparing to deal with the CAAA and its compliance requirements. A broadly based consensus would also be valuable for anticipating and planning for the unprecedented levels of citizen and business involvement that could be generated by TCMs such as employer based trip reduction plans, and avoiding CAAA-based litigation that is occurring in other areas.

VI. Tools, Skills, and Data Base for Transportation Planning

A. Travel Demand Forecasting

Context

Evaluation of modeling procedures related to travel demand forecasting was limited: 1) there was a small amount of time available to review this complex topic during the site visit; 2) CATS and the other area agencies engaged in modeling activities did not prepare written responses to the modeling sections of the questionnaire, and did not make formal presentations to the review team; and 3) a limited set of documents was obtained on-site following the discussion; these were of varying quality and currency, and described only certain aspects of local modeling issues and procedures.

Institutional Background

CATS prepares travel forecasts for most of the regional transportation agencies, including the City of Chicago. Metra is also active in this area, and has its own set of travel demand models. Other agencies do some of their own demand analyses in a more limited way.

Observations and Suggestions

1) **Different results from different models** -- CATS and Metra, using their respective models, produce different estimates of travel (e.g., different estimates of trip ends for the same geographic areas). Attempts are made to reconcile or rationalize differences by manually examining their respective estimates and negotiating any changes (in inputs and/or outputs).

   This situation is not unique among large urbanized areas, as each agency obviously has its own mission, objectives, technical beliefs and preferences. Nonetheless, all concerned agencies ideally should negotiate common models and input assumptions. (These can be embedded in different hardware and software environments.) This would provide elected officials and the public with: a single set of "officially" recognized travel estimates for base case conditions; and sets of travel forecasts for various TCM and transportation investment scenarios that are internally consistent and reflect logical differences.

2) **Mainframe versus PC-based environments** -- CATS might consider the advantages and disadvantages of converting to a PC-based modeling environment. The CATS models are mainframe-based. They have no plans to move to a PC-based modeling environment.

   Choice of computer hardware and software environments is a local option, and the mainframe software is providing the capability that CATS feels it needs. However, a switch to a PC-based environment could have several advantages.

   - Given the typical processing requirements of multi-modal urban travel demand analyses, and the price-performance improvements in recent years in desktop computing technologies, PCs probably could provide all needed capabilities more

effectively and less expensively, plus provide increased computer capabilities for other activities.

- The other area agencies engaged in travel demand analyses, including CATS' "customers," are PC-based, and do not have familiarity with or access to the mainframe resources used by CATS. A switch by CATS to a PC-based environment could improve consistency among agencies in procedures and results, and data sharing would be encouraged and made more efficient.

- PC-based models would lessen the reliance on CATS to run (mainframe-based) models for other agencies. These agencies, in turn, could benefit from increased professional growth opportunities for their own staffs, and from increased in-house capabilities. These advantages should be weighed against potential disadvantages of fragmented model applications, or reduced consistency in applications.

3) **Lack of supply variables** -- Neither the CATS nor the Metra trip generation models explicitly incorporates transportation supply variables. This can be said, of course, of almost all such models used in this country. However, this appears to be a more notable deficiency in light of the shifting emphasis toward analysis of proposed congestion mitigation and transportation control measures. The required set of analytical tools should encompass the ability to estimate in a rational, systematic fashion the probable impacts of these measures not only on trip characteristics (destination, mode, and routing choices), but also on trip frequency.

4) **Limitations of "capacity-restrained" assignments** -- CATS could consider developing alternative approaches to evaluate strategies. CATS performs "capacity-restrained" highway assignments strictly on a 24-hour basis. A standardized set of "BPR" curves (dating back to the Bureau of Public Roads, the predecessor of FHWA) is used to adjust speeds for each iteration based on prior iteration volume-capacity relationships.

   While some other areas also rely on this approach, it has serious conceptual and applicability limitations. Twenty-four hour capacity restrained assignment techniques do not use actual capacities (e.g., 24 times the hourly capacity, or 96 times the 15-minute capacity), but rather, apply implicit estimates of how road capacity will be used over a 24-hour period. They do not provide capabilities to explicitly estimate and evaluate changes on a facility in time-of-day patterns, and thus are poor tools with which to evaluate proposed actions that are likely to have significant impacts on peak travel conditions. Rather, alternative approaches and techniques (e.g., time-specific trip generation or distribution models, peak hour or peak period capacity restraint assignment techniques, simulation models) should be developed to help evaluate proposed congestion mitigation strategies and TCMs, for example.

5) **Technical approach to line-haul services** -- Representation and analysis of access to transit line-haul services is a very important and complex component of urban travel demand analysis. For example, only portions of the resident and working populations of many travel analysis zones typically are within walking distance of line-haul or feeder transit

stops. It thus is very important in network analysis and modeling processes to somehow distinguish among the various markets within zones.

CATS procedures seem sensitive to these issues. An undated CATS report, "Network Sensitive Mode-Choice Models" (describing models calibrated on 1970 data, with no reference more recent than February 1976), notes that: "a Monte Carlo technique is used in conjunction with explicit zonal probability distributions to estimate the distance between a trip-maker and the transit network; and a two-stage approach is used for mode choice modeling (binary mode choice and submode choice models)." How these access-related issues are reflected in distribution models and in specific forecasting procedures, however, was not clear either from the limited discussion or limited documentation.

6) **Need for a concise description of modeling procedures** -- A clear, concise description of CATS' and Metra's overall network analysis, demand modeling, and traffic assignment procedures, including network coding conventions, input requirements, and key assumptions, would be very useful from the perspective of improving communications, understanding, and consensus building among staff of the various concerned agencies.

B. Costing Methodologies

Operating and maintenance (O & M) costs are primarily developed by the three transit operating agencies and the RTA, or other agencies implementing projects. Costs are based on historical data for similar work or transit services provided in the area. O & M costs reflect actual wage rates for a crafts (e.g., driver/operator, electrician, track gang, etc.) as well as localized labor contracts. Vehicle O & M costs tend to reflect an average cost per mile of operation.

Capital costing methodologies vary among the three transit operating agencies, due to the significant differences in the types of services offered and the degree of confidence in cost estimates, which depends largely on the level of engineering that has been performed. For example, RTA staff explained that due to the large number of alternatives being considered, the cost estimates found in the phase I alternatives analysis referred to above are based on conceptual level sketch-planning rather than hard engineering. As each option (and ultimately the preferred option) is evaluated and progresses through planning and preliminary engineering, the costs are refined to reflect finer levels of detail. This refinement process appears to be used uniformly across the transit operating agencies.

The development of highway project capital costs was not evaluated as part of this review.

Observations and Suggestions -- Both operating and maintenance costs and capital cost projections are generated using sound planning and engineering methodologies, and are consistent with federal major investment analysis guidelines. Additionally, the data generated by the operating agencies (or the lead agency in the alternatives analysis) was described as shared throughout the area and used to update related information at the regional level.

VII. Ongoing Transit Planning

A. Organizational Issues

The RTA conducts transit planning and oversees three transit divisions: the CTA provides buses and rapid transit to Chicago, Metra provides commuter rail to the six county region, and Pace is the suburban bus division of RTA.

The RTA plays the lead role in developing the strategic transit plans for the area. The last Strategic Plan, published in 1989, is deemed to still reflect regional priorities, and is in the process of being implemented. It will be updated in early 1992 to reflect ten emphasis areas for the area, including:

- fare policies;
- holding the line on operating and maintenance costs;
- reaching a state of good repair for system facilities; and
- financing and funding options.

Additionally, the plan will provide strategies for addressing declining transit ridership in the area (a 4-5% loss in mid-1991 over the same period in 1990).

Each of the three operating agencies also produces strategic plans which should be generally consistent with the overall RTA plan. There are clear links, for example, between the RTA plan and the capital programs contained in each of the operating agencies' plans. This is largely the result of the "investment banker" role RTA plays for each of the operating agencies, with oversight responsibilities for both capital improvements and agency operating budgets.

The relationship between the operating agencies and CATS is functionally more removed than that between the agencies and RTA, although there is apparently interaction among the technical staff, including through technical advisory committees. Membership of the chairmen of RTA, CTA, Pace and Metra on the CATS Policy Committee contributes to consistency of regional transit planning activities.

Although the RTA has produced a Strategic Plan, of the three operating agencies, only Pace provided a strategic plan for the team to review. Information on strategic planning by CTA and Metra was limited to that gained from discussion of activities underway, and from review of other related planning documents. Work is currently underway at CTA to produce a strategic plan. Metra is in the process of developing what it terms a strategic operations plan. The Pace update to its 1988 Strategic Plan has been completed, but was not available for review.

The RTA Strategic Plan successfully integrates capital and operating programs, financial planning, and strategic market analysis. Metra, Pace, and CTA planning documents reflect competent operations planning, and emphasize a broad range of measurable objectives. These documents, however, do not focus on the contribution transit makes to regional air quality, and do not fully describe planned efforts to comply with ADA requirements.

In general, allocation of capital investment, planning, and operating resources among the three RTA service boards is based primarily on historical formulas, and not the "top-down" long range planning process involving the RTA or CATS. With occasional shifts for new initiatives or shifts in priorities, resources are distributed based on fixed percentage shares for CTA, Metra, and Pace. Much of the planning for how best to use these fixed resources is undertaken by the service boards directly.

The long-range plans and corridor studies prepared by the individual operating agencies emphasize traditional roles of transit systems as providers of fixed-route bus and rail services. There are some references to TSM, but analysis is undertaken independently of related highway initiatives. The documents indicate little or no consideration of opportunities to contribute directly or indirectly to less traditional forms of mobility improvement -- ride-sharing, bicycles, pedestrian facilities, transit management associations, parking policy, and other techniques. In the Pace 1989 Development Guidelines, there is recognition of the importance of coordination of real estate development and transit service, and the role of shared-ride and management policies, including parking controls and variable work hours, to relieve congestion.

While TCMs as an outcome of planning could have a positive impact on the region, and are important under the CAAA, they are not explicitly addressed in the RTA strategic plan, or the long range plans of the three operators.

Observations and Suggestions

1) **Linkage of plans** -- The transit planning process could be improved by better articulation of the link between the RTA strategic plan and individual operating agency service and capital planning efforts, and future strategic plans. While these connections are recognized and exist to some degree, the area-wide planning process would benefit from more explicit links.

2) **Priority setting in strategic plans** -- The forthcoming strategic plans of the RTA and the service boards could develop a reasonable priority setting mechanism to deal with the likely lack of funds.

   The strategic plans for the RTA and the individual operating agencies should reflect regional transit priorities and contain strategies for providing and financing services. The 1989 RTA strategic plan was used to seek the approved bond funding authorization from the State of Illinois. However, even after the successful bond fund authorization, available funding might be inadequate to support current strategic plans -- it would cost $6.1 billion in 1987 dollars to bring assets to "good condition," with no expansion.

3) **Consideration of air quality objectives** -- In the updates to the long range plans, the RTA and the three operating agencies could describe and quantify how each will contribute to improved regional air quality through transit service. This would require broadening the operational objectives now identified in the plans of all four agencies.

4) **Evaluation of modified resource allocation mechanisms** -- The RTA and its boards could evaluate alternative methods to distribute capital, planning, and operat[illegible] resources to assure consistency with regional and RTA-wide strategic long range plans and objectives. Ultimately, all allocations should further accomplish these objectives. Probable shortages of funds and the demands of the CAAA and ADA could require a more strategic and flexible means of allocation than is possible with formulas based on tradition. Competition for flexible ISTEA funds may also require that transit proposals be presented in terms of contribution to regional objectives.

5) **Involvement in TSM and TCM strategies** -- The long-range plans of the RTA and the operating agencies could be broadened in focus to include transportation system management and transportation control measures, in combination with traditional fixed-route service.

6) **Reconciliation of potentially contradictory policies within the various long range planning documents** -- There appear to be major inconsistencies between policies to accomplish:

   - the CAAA mandates to reduce vehicle trips and VMT;
   - the desire to maintain the economic attraction of the Chicago area;
   - RTA policies to reduce or rationalize urban services and expand services; and
   - the mandate for 50% farebox recovery.

   It would be unrealistic to expect the RTA and its operating agencies to pursue all policies simultaneously, and produce satisfactory results. However, contradictions in these policies should be confronted, explored, and resolved as early as possible in the strategic planning processes of the agencies. Consistent and realistic policies could then be reflected in the regional long range plan, and provide the foundation for TIPs.

B. Performance of Existing Service and Development of New Service

The evaluation of existing service and development of new service is performed by the individual operating agencies, applying guidelines developed by the RTA. Each agency gathers and evaluates extensive data on operations, most notably ridership, service measures (on-time performance, equipment failures, etc.); costs; and revenues.

Because of the statutory requirement in the RTA Act for a 50% farebox return for the RTA system as a whole, planning for each agency has a particular focus on cost recovery and efficiency. For example, Pace is very successful at analyzing strategic options in terms of trade-offs between future farebox returns and ridership changes ten years into the future.

The operating agencies link both existing service and the development of new service to the RTA's market driven approach, and reflect the NIPC data on population, employment, development and other demographic indicators. For example, the Pace Strategic Plan used the general regional markets developed in the RTA Strategic Plan for demographic analysis.

There are many positive things happening in the generation of service planning data in the Chicago area. All three agencies maintain data bases with data sufficiently disaggregated to support both route-segment and route-level planning. Each operating agency generates a tremendous quantity of service data, some of which is collected hourly. The data is reported uniformly to the RTA and FTA, under the Section 15 program. The agencies very competently apply the data at appropriate levels of aggregation for a broad range of performance analyses, from route level to long range policy-making.

RTA and the operating agencies use this information as a marketing tool to target new customers or lure back those that have left the system. The CTA "Service Standards" report is an impressive planning document that begins with mission and goals, which are linked to service standards. Standardized performance criteria are applied to evaluate and redesign existing routes, propose new routes, or eliminate service. Two examples of the sophistication of analysis are the use of variable cost recovery as the key measure of effectiveness, and plans to apply more accurate and detailed route level data collected from automatic passenger counters.

Pace similarly develops a systematic set of service guidelines and evaluation standards for new and existing bus service based on agency goals. Included are standards and guidelines for reviewing, eliminating or adding routes; adjusting frequency of service; and market development. Pace also makes extensive use of automated passenger counters to collect ridership and schedule adherence data.

Metra analyses ridership, operations, and financial performance in-depth. The results are periodic on-time performance, capacity utilization, station passenger counts, ridership trends, and management analysis reports. Use of capacity and passenger mile statistics in route utilization evaluation seemed particularly innovative.

Observations and Suggestions -- An area that could continue to be carefully monitored is the reduction in passenger boardings per mile at the CTA despite the service expansion on a number of routes.

If service is increased in response to new pressures from the CAAA, these expansions should be monitored closely to identify whether actual demand meets expectations.

Although Metra collects and analyzes an impressive range of performance data, there did not appear to be any system-wide guidelines for service adjustments in the documents provided for review. If not already developed, these guidelines could be a valuable tool for service planning.

C. Capital Planning (Transit Structure, Vehicle and Equipment Planning)

This section expands on the earlier discussion on costing methodologies in the planning process (section VI.B).

Capital planning at Pace is a fairly straight-forward process. Bus procurements are based on their life-cycle replacement schedule and facility improvements are based on an existing conditions inventory and needs assessment. Capital needs have been prioritized and are reflected

in the five-year capital program, which is in place and is being implemented. federally funded projects are reflected in the TIP and generally reflect Operation Green Light goals. Pace staff indicated that capital planning efforts are not contained in the UPWP because they are not normally federally funded.

Metra's capital planning efforts are also well-defined. Condition surveys of all major structures and facilities have been completed, with the exception of stations, which is presently underway. In addition, regularly scheduled inspections of major facilities are conducted (some due to Federal Railroad Administration requirements). The biggest single capital requirement facing Metra is the need to rehabilitate/renovate 700 undergrade bridges, system-wide.

Rolling stock planning follows traditional methods and is closely tied to service/operations planning in defining standards, and monitoring seat utilization and train lengths. Cost development reflects market data for recent similar rolling stock procurements nation-wide. Metra also has an approved five-year capital plan which is consistent with regional plans and goals as well as the TIP.

Long-range capital planning at Metra is underway as part of a rail alternatives study. This study will evaluate ten alignments, providing service extensions or connecting existing rail lines. Metra staff is performing its own travel demand forecasts as part of this effort and will reconcile any differences with previous CATS forecasts during the study.

Capital planning for CTA's surface division is similar to that of Pace, basing bus procurements on life-cycle replacements, and programming facilities for improvement based on a completed conditions inventory and needs assessment.

The CTA rail division has focused primarily on returning the aging system to a state of good repair, particularly its extensive system of elevated structures. Inspection of facilities is an ongoing process; a needs assessment has been completed. Planning for rolling stock procurements reflects service plans and was described as on an appropriate timetable for meeting the needs of the year 2000, although CTA staff would like it to occur more rapidly. Similar to the other two operating agencies, there is an approved five-year capital program, appropriately reflected in the TIP and consistent with all other regional transportation plans.

The extension of rail service to Chicago's southwest corridor is currently under construction. Following this, CTA staff indicated that they do not foresee implementing additional service extensions during the next five years. (This is despite the fact that the RTA has completed the Phase I AA/DEIS on the South Corridor and will soon be conducting the second phase of this study.)

Observations and Suggestions

1) **The need for prioritization** -- Each of the three operating agencies should continue their programs to update system inventories to aid their capital planning efforts. In addition, the CTA and Metra could begin to refine their capital program development process to include more quantifiable project selection criteria. Presently, project priorities are identified

through staff experience and consensus. While this may have been effective in the past, more explicit prioritization strategies may be required to deal with the uncertainties caused by new CAAA and ADA requirements.

2) **Explicit links between capital plans** -- There could be more explicit links between the agency capital plans and the overall RTA strategic plan. In addition, as noted in the UPWP discussion (section III.C) and TIP discussion (section IV.B), all planning activities, whether federally funded or not, should be documented to produce more complete and useful documents.

D. Transit Management Analysis

Service productivity and efficiency planning were reviewed in section VII.B.

Personnel management, organizational planning and safety are key priorities at all three operating agencies and are closely coordinated with each agency's respective labor unions. All three agencies keep extensive safety records. Each agency coordinates training programs with their safety program, particularly in the area of driver (or motor operator) safety. Drug testing at each agency presently exceeds federal requirements and has been conducted for many years.

Discussion with the CTA staff identified a major concern regarding the aging work force and the need for stronger succession planning within the agency. Pace identifies a succession planning program for its managers by 1991 as an objective in its Strategic Plan.

Observations and Suggestions -- Considering the aging leadership and the substantial new challenges CTA will face, the agency should develop a succession plan for key personnel and coordinate it closely with training programs in order to meet staffing needs most efficiently.

Further, the CTA should coordinate their extensive safety programs with the agency's overall risk management strategies.

E. Financial Planning

Financial planning for the transit operating agencies is coordinated and led by the RTA, and is well documented. RTA has successfully met a number of serious operating budget and capital funding challenges over the past 3-5 years. The State, region, and City of Chicago have provided a dedicated funding source for RTA.

Like many transit agencies, RTA and the individual operating agencies are facing decreasing ridership and revenues, increasing costs and, at best, operating subsidies and capital funding remaining constant (absent inflation). At the time of this review, the CTA was examining ways to close a growing operating budget funding gap. The staff indicated that this could be accomplished by productivity and other in-house cost reductions. Eventually service reductions may have to be considered.

Capital program financial planning is monitored by both the State of Illinois, which provides bonding authority, and FTA. The capital budgets summarized by RTA and the detailed capital budgets provided by each of the operating agencies reflect reasonable funding scenarios. One issue of concern pertained to the uncertainty of federal funding, absent the re-authorization of the Surface Transportation Act.

Financial reporting is also generated by the RTA and meets FTA requirements and policies. No issues of note were identified with the financial planning process.

F. Planning for the Americans with Disabilities Act (ADA)

Planning for the mobility-impaired in the Chicago area has been aided since 1977 by a Mobility Limited Advisory Committee, a forum of representatives of planning and operating agencies, and of groups of elderly and disabled persons and social service agencies. The RTA's Regional Plan for Transportation of the Disabled was adopted on November 5, 1989 and was updated in 1992 to reflect guidance from the ADA. The Regional Plan established a unified set of policies for providing public transportation for people with disabilities in the region.

In addition to paratransit services, the CTA provides fully accessible service on 38% of its surface routes. Forty percent of all CTA buses are currently accessible. The rail division has 800 accessible cars (out of a pool of 1,200) and has an additional 256 accessible cars on order. Its key station plan has not been finalized but progress is being made to complete this effort.

Pace also provides paratransit service, in addition to having 20-30% of its bus fleet fully accessible. Its goal is to have the entire fleet of buses accessible through scheduled vehicle replacements by the year 2000. Pace estimates the capital costs of compliance with ADA to be $34 million.

Metra's plans to comply with ADA include four elements: 1) accessible cars, including purchase of 173 cab-control cars, and replacement of existing cars with new purchases (additional costs -- $129.4 million); 2) a key station program which will result in 80% of its stations being accessible; 3) paratransit service to parallel rail service for riders certified as disabled; and 4) regularly scheduled meetings of an Accessibility Advisory Committee. Metra is also conducting training for key personnel on sensitivity to disabled riders.

Observations and Suggestions -- The updated long range plans of the RTA and the operating agencies should reflect ADA requirements.

The agencies and CATS are realistically addressing the requirements of ADA, have established timetables for fully complying with the Act, and have identified the financial resources required to comply with the Act. However, the long-range implications for capital planning and operations compliance with ADA should be explicitly reflected in revisions to the TIP and long range plans. Compliance will require substantial capital expenditures for lift equipped buses, accessible rail coaches, platform modifications, elevator and other access improvements, increased maintenance capacity, training of personnel to deal sensitively with the needs of new customers, and increased paratransit service.

The current TIP (October 1990) and various budget and planning documents of the individual agencies include plans to increase accessibility. However, the full ramifications of the ADA requirements for capital and operations planning are reflected neither in the TIP nor the strategic plans of RTA and the operating agencies, which predate the May 1990 passage of ADA and subsequent publication of the regulations. For example, CTA's observation that ADA will replace maintenance of facilities as the major consideration in station renewal should be reflected in future plans.

G. Outreach Activities

Outreach activities of the RTA and operating agencies were discussed with outreach activities of CATS in section V.E.

H. Planning Activities for a Drug-Free Work Place

As noted in section VII.D, each of the operating agencies has an extensive drug (including alcohol) testing program which exceeds federal requirements and includes therapeutic and self-help programs. Staff indicated that promoting a drug-free work place is a high priority and is tied in with overall safety programs.

I. Capital and Operating Plans

This section has been incorporated into earlier discussions of capital planning (section VII.C) and the performance of existing service and development of new service (section VII.B).

APPENDIX 1

Participants in Chicago Pilot Review

Members of Federal Review Team:

Federal Transit Administration

Headquarters
Brian Sterman, Deputy Regional Administrator (Region II)
Paul L. Verchinski, Planning Program Manager

Central Area (Region V)
Donald Gismondi, Director, Office of Grants Management
Paul Fish, Senior Transportation Representative

Headquarters
Deborah Burns, Project Manager

Federal Highway Administration

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Tony Solury, Community Planner

Region 5
Samuel Herrera, Transportation Planning Engineer

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Dick McLane, Systems Engineer
Byron Low, Research Engineer

US Dept. of Transportation/Volpe National Transportation Systems Center

William Lyons, Volpe Center Project Manager
Michael Jacobs, Chief, Service Assessment Division
Margarita Gagliardi (consultant)
Frederick Salvucci, Massachusetts Institute of Technology (consultant)

APPENDIX 1, Cont.

Chicago Region Participants:

Chicago Area Transportation Study

Artistide Biciunas, Executive Director
Andy Plummer, Deputy Director
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City of Chicago

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Gary Foyle
Jack Groner
Jerry Hoff
Jevonne Johnson
Pat McAtee
Wayne Miczek
Paul Oppenheim
Tim Rhoades

Pace

Vicky Tan
Jim Jarzab
Bill Reynolds

APPENDIX 2

Agenda for Urban Transportation Planning Review Meeting

August 12-15, 1991

Chicago Area Transportation Study
300 West Adams St.
Chicago, IL 60606

Monday, August 12

1:00 - 1:15		Arrival.
1:15 -	Donald Gismondi, FTA Samuel Herrera, FHWA	Welcome and introductory remarks.
	Brian Sterman, FTA Tony Solury, FHWA	Objectives for planning review.
	CATS	Introductory remarks.
		Introduction of participants.
2:00 - 4:30	William Lyons USDOT/Volpe Center	Meeting overview and schedule.
		Discussion of urban transportation planning process (Roman numerals following topics below refer to attached questionnaire, which provides discussion questions).
		Format for general sessions - topic overview from CATS with discussion led by review team members.
	FTA Regional and FHWA Divisional staff	How the process works in the Chicago Region.
		Local transportation issues (I.B).
		Organization and management of the process -- Agencies' roles and responsibilities (II).
		Products of the process (III).

Tuesday, August 13

9:00 - 10:00	FTA Regional and FHWA Divisional staff	Complete discussion of: How the process works in the Chicago Region. Local transportation issues (I.B). Organization and management of the process -- Agencies' roles and responsibilities (II). Products of the process (III).
10:00 - 11:00	Michael Jacobs, Volpe Center	Elements of 3-C process (multi-modal dimension) (IV).
11:00 - 12:00	Fred Salvucci, MIT	Approach to air quality (Clean Air Act) (IV.D).
1:00 - 4:30	RTA	Presentation on regional applications 1) Tools, skills, and data base for transportation planning (V). 2) Transportation planning techniques applied in the Region and by operating agencies (VI).

Wednesday, August 14

		Continue discussion of: of planning techniques and related issues (V and VI).
9:00 - 12:00		**Breakout session**
	Michael Jacobs, Volpe Center	Travel demand forecasting -- Regional and operating agencies (V.A).

Wednesday, August 14

		General session
9:00 - 4:30	Margarita Gagliardi, Volpe Center	Focus on CTA, Metra, and Pace
		Costing methodologies (V.B).
		Ongoing transit planning (VI).
		Organizational issues - strategic planning (VI.A).
		Service performance and development (VI.B).
		Structure, vehicle, and equipment planning (VI.C).
		Transit management analysis (VI.D).
		Financial planning (VI.E).
		Americans with Disabilities Act (VI.F).
		Outreach activities (citizen and minority participation, DBE, private sector involvement) (VI.G).
		Planning for a Drug-Free Work Place (VI.H).
		Transit Capital and Operating Plans and Programs (VI.I).

Thursday, August 15

9:00 - 11:00		Continuation of breakout sessions as required.
11:00 - 1:00	Donald Gismondi, FTA	Meeting summary.
		Regional concerns.
		Next steps.

APPENDIX 3

Documentation Provided by Chicago Regional Agencies

CATS

State Implementation Plan - Chapter VII, "Transportation Control Plans"

Unified Planning Work Program - "Unified Work Program for Transportation, Northeastern Illinois, Fiscal Year 1992, June 28, 1991"

Transportation Improvement Program - "FY 91 Annual Report and FY 92-95 Multi-year Program, Final Endorsement by the Policy Committee of CATS, October 11, 1990"

Long Range Transportation Plan - Highway: "2010 Transportation System Development Plan for Northeastern Illinois, June 1990"

Operation Green Light Annual Report, November, 1990, U.S. Department of Transportation.

"FY 92 Work Elements, August 1, 1991"

"Household Travel Survey: Volume One, Documentation For the Chicago Central Business District," September 1989.

"Household Travel Survey: Volume Two, Documentation for McHenry County", April 1990.

"Implementation of the Clean Air Act Amendments of 1990 in Northeastern Illinois", June 13, 1991

"Privatization Activities for the Northeastern Illinois Region", September, 1990

"Products of the Urban Transportation Planning Process"

"Transportation Facts About the Northeastern Illinois Region"

RTA

"Regional Transportation Authority Strategic Plan," January 1989

"1991 Annual Budget and Five-Year Program"

"South Corridor Transit Study: Phase II Alternative Concepts", August 29, 1991

"RTA Program Management Oversight Report for the First Quarter 1991", June, 1991

APPENDIX 3, Cont.

CTA

Chart - "CTA 1991 Capital Improvement Program"

Map - "Proposed Lift Equipment Routes", May 1, 1991

"Bus Route & Rapid Transit Station Performance Report, Period 4, 1991", July, 1991

"Operations Review", Vol. 6, No. 2, Spring 1990

"Service Standards", September, 1990

Metra

"FY 91 Program and Budget"

"Capacity Utilization of Trains, Commuter Rail System", June, 1991

"Commuter Rail System Fall 1988 Station Passenger Count Summary Results, January, 1990

"Commuter Rail System On-Time Performance Report", June, 1991

"Commuter Rail System Ridership Trends", June, 1991

"The Formation and Historical Development of Metra, November, 1987

"Market Analysis of Access Travel to Metra Suburban Rail Stations, June 1989

"Outer Circumferential Corridor, Project Status Report #1, October, 1990

"Rail Alternatives Planning Study, Proposed Alternatives for Sketch Planning and Prioritization, February, 1989

"Quarterly Management Analysis of Commuter Rail Operations, Revenue and Expense", October - December, 1990

"Wisconsin Central Corridor Commuter Rail Service, Project Proposal, October, 1990

APPENDIX 3, Cont.

Pace

"1991 Operating and Capital Program 1991-93 Financial Plan", Final, November 1990

Chart - "Pace Business Plan", April 12, 1991

"Documentation of Locally Developed Process for the Consideration of Private Enterprise Participation Required for Section 3 and 9 Programs," September, 1990

"Pace Development Guidelines", December, 1989

"Pace Joint Development Policy"

"Pace Policy on Competition", Effective January 1, 1990

"Passenger Facility and Park-n-Ride Guidelines", May, 1991

"Service Criteria and Performance Guidelines for Fixed Route Service", Revised April, 1991

"Strategic Plan", November, 1988

"Transit Service Sponsor Costs: A Public/Private Case Study", Transportation Research Board, Washington D.C., January 22-26, 1989

City of Chicago

"Chicago Central Area Circulator Project: AA/DEIS", August, 1991

APPENDIX 4

MPO Members -- CATS Policy Committee

State

Kirk Brown, Chairman
Secretary
Illinois Department of Transportation

Regional

Laura A. Jibben
Executive Director
Representing Regional Transportation Authority

Sheila A. Schultz
President
Northeastern Illinois Planning Commission

Representatives of Local Government

Jack B. Williams
President, Village of Franklin Park
Representing CATS Council of Mayors

David S. Williams, Jr.
Commissioner, Department of Public Works
Representing city of Chicago

Robert L. Hedrick
Chief Engineer, Highway Department
Representing Cook County

Donald G. Zeilenga
Director, Division of Transportation
Representing DuPage County

Nabi R. Fakroddin
Director, Division of Transportation
Representing Kane County

Robert Depke
Chairman
Lake County

James R. Rakow
Superintendent of Highways
Representing McHenry County

Roy S. Cousins
Superintendent of Highways
Representing Will County

Transportation Operations

Alfred H. Salvage
Executive Director, Chicago Transit Authority

Michael W. Payette
Vice President, Chicago & North Western Transportation Company
Representing Railroad Companies

Jeffrey R. Ladd
Chairman, Commuter Rail Board (Metra)

John D. Rita
Chairman, South Suburban Mass Transit District
Representing Mass Transit Districts

John McCarthy
President, Continental Air Transport
Representing Private Transportation Providers

Florence H. Boone
Chairman, Suburban Bus Board (Pace)

Robert L Hickman
Executive Director, Illinois State Toll Highway Authority

U.S.

Jay W. Miller
Division Administrator
Representing Federal Highway Administration

Joel P. Ettinger
Area Director
Representing Federal Transit Administration

Secretary - Aristide E. Biciunas
Executive Director, Chicago Area Transportation Study

APPENDIX 5

Agency Roles

In addition to participating in the regional planning and programming process, each agency has specific roles:

IDOT: provides statewide and intermodal perspective, and performs EIS and implements major facilities

RTA: coordinates transit programs development and acts as transit banker, comptroller and advocate for the region

NIPC: ensures consistency with comprehensive planning and provides regional development direction

Council of Mayors: programs FAUS funds and acts as a forum for local officials

City of Chicago: performs EIS and implements major facilities in Chicago, including major projects for CTA

Counties: plan and implement county transportation facilities

CTA, Metra, Pace: perform system operating studies, develop capital programs and provide operating perspective

Railroad companies, mass transit districts and private providers: provide the private sector perspective to the planning forum

ISTHA: performs EIS for major facilities and is potentially the builder/operator of major highway facilities in the region

FHWA, FTA: preview national policy

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