

**METROPOLITAN TRANSPORTATION SUPPORT INITIATIVE
METSI**

**For the Illinois Department of Transportation (IDOT)
Bureau of Urban Program Planning**

QUARTERLY REPORT
For the quarter ending September 30, 2007

Joseph DiJohn, Research Professor
Director, Metropolitan Transportation Support Initiative
Urban Transportation Center
University of Illinois at Chicago
412 South Peoria Street, Suite 340
Chicago, Illinois 60607

Tel: (312) 996-1458
Fax: (312) 413-0006
E-mail: joedi@uic.edu

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METROPOLITAN TRANSPORTATION SUPPORT INITIATIVE (METSU)

QUARTERLY REPORT

For the quarter ending September 30, 2007

CURRENT QUARTER ACTIVITIES

GENERAL AND ADMINISTRATIVE

The following are highlights for the most recent quarter:

-The Emergency Ride Home Pilot Program CMAQ grant developed by UTC was successfully transferred to Pace Suburban Bus Division of the RTA for implementation.

-Presented a paper "The Impact of Freight Congestion on the Chicago Region Commute" at the IDOT Planning Conference on September 14.

-Published an article titled "Chicago Mass Transit's Periodic Financial Woes" in the Fall Edition of *First & Fastest*. Coauthors are David Young and Norman Carlson.

-Provided Economic Development Administration with a support letter on behalf of CMAP for a grant to provide information and technical assistance to distressed communities.

-Planning continues for the Fall Symposium titled "Innovative Public/Private Financing for Supply Chain Infrastructure" to take place on November 20.

-Arranged for Julie Hamos to discuss the General Assembly's efforts to enact a transit funding bill at the Chicago Chapter of TRF on October 1.

-Preparing the Fall issue of the *Connector* Newsletter for printing and distribution next quarter.

Below is a description of progress during the quarter. Please note the progress report below on the IDOT funded project Improving Operational Performance of Ramp Metering Systems, which was added as an amendment to the METSU contract.

RESEARCH PROGRAM

Improving Operational Performance of Ramp Metering Systems

In order to implement ramp metering rates for two operating modes currently used by ATMS, updated Time of Day (TOD) and Local Traffic Responsive (LTR) tables should be developed. We have developed a software program that automates this procedure by processing the traffic data and fitting the best curves to the observed data. Critical occupancies at the locations of mainline loop detectors are then identified and LTR metering rates for various occupancy levels are estimated with the goal to maintain operating volume below critical occupancy level. For the updated TOD tables, the input is redirected from real-time occupancy measurements to historical weighted averages. An average rate of every fifteen minutes is used in TOD estimation, however software provides an option to change the interval to alternative intervals, (e.g., every thirty minutes).

Regional Intermodal Freight Planning

Kazuya Kawamura continues as a member of CMAP Intermodal Advisory Task Force (IATF) and as the chair of the Research and Planning Subcommittee. He is working on the creation of the publicly accessible web site that will post freight performance data.

Center for Freight & Infrastructure Research and Education (CFIRE)

CFIRE is one of ten National University Transportation Centers that were established under SAFETEA-LU and is led by the University of Wisconsin, Madison and will focus on issues of sustainability and freight transport. UIC received notice to proceed on the following activities:

Program Development

Dr. Kawamura will be responsible for the development, administration, monitoring and evaluation of activities undertaken by the UIC team. He will also participate in the knowledge exchange with other freight scholars and practitioners through conferences, meetings and presentations.

Making Truck-Rail Intermodal Competitive

Dr. Kawamura is the principal investigator for the proposed study that focuses on finding the public policy options that help intermodal become more competitive in the broader segments of freight markets including short to medium distance shipments. The match funds for this activity will come from Midwest state DOTs and METSI. A graduate Research Assistant has been hired for the project and will be developing the database of freight industry contacts and shippers to be interviewed.

Mississippi Valley Freight Coalition (MVFCC)

UTC staff will provide logistical and technical support on an as needed basis to facilitate the initiatives being planned under the MVFCC effort. An additional role that UIC can play is to assure that the key stakeholders in the Chicago region are kept fully informed and will be able to supply support if necessary.

External/Continuing Education and Outreach

These activities include the aforementioned web-based freight performance indicator, as well as supporting the conferences that are aimed at bringing key stakeholders in the region together to support freight issues.

Lake County Commuter Coalition

There has been little committee activity since the inauguration of the early morning, reverse commute train on Metra UP North Line called the "Sunrise Express" which began April 2. The new service has been averaging a total of over 200 riders per day, in both directions.

McHenry County Transportation Study Implementation

Staff continues to participate on the McHenry County Transportation Study Implementation Task Force (ITF). A grant application in the amount of \$350k was made to the McHenry County Senior Services to provide funding for the pilot paratransit program in conjunction with Pace.

Freight Congestion

Undertaking research into the impact of freight congestion on the Chicago region's commute. Presented a paper at the IDOT Planning Conference on September 14 and preparing a paper for presentation to the national Transportation Research Forum meeting in March, 2008.

Highways and Sprawl

We are updating our assessment of sprawl for presentation at the October American Collegiate Schools of Planning national meeting held this year in Milwaukee. It highlights the role of homeownership in 'sprawl.' Using data through 2006 we show that the 70 percent homeownership level in the Chicago area is higher than places that cannot 'sprawl' such as Los Angeles, San Francisco and Seattle due to topographic constraints and Portland due partly to growth management regulations (Table 1). In fact, due largely to the growing prosperity of the Chicago area and the favorable physical landscape, the 15.4 point increase is the largest among the metropolitan areas for which data have been reported—not just the ones reported in Table 1.

Table 1
Homeownership Rates in Selected Large Metropolitan Areas¹
(in percent and change in percentage points respectively)

Metro area	2006 percent	Change in percent 1986-2004 ²
Chicago	70	15.4
Atlanta	68	10.9
Detroit	76	6.0
New York	54	4.5
Los Angeles	54	3.2
Boston	65	3.5
San Francisco	59	1.9
Portland	66	1.7
Seattle	64	1.1

1. The U.S. Bureau of the Census has reported homeownership rates in the 75 largest metropolitan areas since 1986.

2. From 2004 to 2005 major changes in metro area boundaries make the 1986-2004 change more meaningful than a 1986 –2006 change.

The paper further argues that due to a number of demographic factors, household size and age of the population, the rate of sprawl in the Chicago area will much more reflect the population growth rate. In the past the rate of sprawl (urban land) grew much faster than the rate of population increase. Clearly as the homeownership rate increases it adds to sprawl but at 70 percent the current rate is not expected to grow much beyond this level. Detroit exhibits a higher rate but the bulk of the Detroit population is suburban and Chicago will likely continue to have a strong rental market within the Chicago city limits.

The underlining point here is that the transportation network in the Chicago region allows the homeownership rate to rise to its current high level. The transportation system is not the major cause of sprawl but rather the desire for homeownership and the affordability of homes.

Lake County Report

Staff is finishing final draft report on the important demographic and economic changes in Lake County, during the beginning of this millennium, that drive the increases in peak-period traffic. We find that while the county is growing the other factors that contribute to traffic congestion are not growing as fast as might be expected. Automobile ownership appears to be growing at the same rate as population growth (different than recent history when automobile ownership was growing faster). Labor force participation is decreasing and the county is aging with noticeable increases in the retired population. This demographic section is part of an overall Lake County Transportation Report.

American Community Survey: Trends in Commuting Behavior by Population Subgroups

Staff is renewing the Special Sworn Status from the Census Bureau to study the seasonal effects of work trips using non-public data from the ACS. The research will determine how the year will be divided into transportation demand periods to assess seasonality. Progress so far has been hindered by the disclosure requirements at the desired spatial resolution.

Spatial Accessibility Indices for Transit

The development of indices will enhance the functionality of an accessibility measurement tool that will facilitate transportation planning practice in the Chicago region and have begun discussions with CMAP on how to best use the indices.

Emergency Ride Home (ERH)

The CMAQ grant was successfully transferred to Pace.

Database and Library

Staff continues developing a database, library and web site for UTC and METSI.

Lake County Coordinated Transportation Services Committee

The Lake County Paratransit Provider Survey report was made available to Pace for their Lake County Paratransit Plan and to RTA for their RTAP grant. There is nothing new to report.

Locomotive Horns

Ashish Sen, Director Emeritus, is working with CMAP and IDOT to maintain the exemption granted to northeastern Illinois by the FRA. The matter has been sent to the Committee on National Statistics (CNSTAT) of the National Academies. There is nothing new to report.

Longitudinal Employer-Household Dynamics (LEHD) Data

The UTC team has conducted extensive analysis of the LEHD data for Illinois obtained from IDES and have identified shortcomings in previously released data. These deficiencies have been made known to Census, FHWA as well as to planning and transportation agencies in the Chicago region. We are now working with the new data set recently released by the Census.

Moss Thesis Proposal

Advising a graduate student undertaking a thesis proposal to identify what, if any benefits can moss as applied to vertical concrete walls bring to noise, air, visual and temperature pollution mitigation efforts along transportation corridors.

Loop Detector Data

Staff has begun analyzing loop detector data from the region's expressways for the purpose of analysis and potential use in real time traveler information systems.

Burnham Plan

Undertaking research into the transportation components of the Burnham Plan in anticipation of the 100-year anniversary in 2008.

UIC Green Campus Initiative

Assisting the University in developing a transportation component of the campus plan to reduce green house gases and congestion. The project will develop transportation data, survey campus faculty and staff and make recommendations to reduce greenhouse gases and improve the efficiency and effectiveness of transportation and parking on campus.

TECHNICAL ASSISTANCE

Association for Commuter Transportation (ACT)

Participate as a member on the Board of Directors and to develop jointly sponsored workshops.

CMAP Intermodal Advisory Task Force (IATF)

Continue participation on the Task Force and attended meeting on August 30.

CMAP Private Providers Task Force

Meetings were held with John McCarthy, Continental Airport Express, Tony Pagano, UIC and Bill Kiley, CMAP on July 13 and September 24 to discuss involvement with the public sector and private providers.

CMAP Comprehensive Plan Development

Met with CMAP on July 11, 19 and September 26 to discuss participation in the Regional Comprehensive Plan Development.

Greater North Michigan Avenue Association (GNMAA)

There has been little activity with the Transportation Committee.

IDOT- DPIT

The final scope of work and budget for the Database project has been approved by IDOT and a presentation was given to the ICCT. Contract was approved on October 26.

Interagency Coordinating Committee on Transportation (ICCT)

Participated in the meeting held on September 6 and gave report on the status of the Database contract with IDOT- DPIT.

Peoria MPO

Met with Peoria MPO staff at the IDOT Planning Conference and offered assistance with their consultant to complete their transportation modeling tasks.

Champaign MPO

Work on trip generation has been completed. A paper based on this research will be submitted for presentation to the annual TRB meeting and for publication in the TRF. Met with MPO staff at the IDOT Planning Conference and offered additional assistance.

Moving Beyond Congestion

Provided support for the RTA effort and attended rally at the Thompson Bldg. on September 5.

Civic Conservation Alliance

Met with consultant and CTA on July 30 to discuss ways of improving CTA service.

WORKSHOPS, TRAINING AND VISITING SCHOLARS

2007 Global Supply Chain Forum: Innovative Public/Private Financing for Supply Chain Infrastructure

The Steering Committee has been meeting bi-weekly in preparation for the full day event on November 20. The committee is composed of CMAP, Chicagoland Chamber, UIC and Metropolis 2020 with DiJohn and Kawamura participating. The keynote speaker, Dennis Neumann, Chairman, Bank of New York Capital Funding, has been identified.

Safe Routes to Schools: Why They Matter to Kids, Communities and TDM Professionals

Cosponsored a net conference with the Association for Commuter Transportation on July 26.

IDOT Fall Planning Conference

Five UTC staff members attended the conference on September 13 and 14 and Joe DiJohn presented a paper titled "The Impact of Freight Congestion on the Chicago Region's Commute".

Illinois Transportation Security Summit

Participated in the IDOT sponsored summit held in Oakbrook on September 17 through 19.

Understanding the Transportation Models and Asking the Right Questions Webinar

Cosponsored a webinar with the Center for Neighborhood Technology on September 25.

After School Matters

Participated in a UIC Great Cities Institute Workshop by presenting a lecture on the region's public transit and its history.

ITE Midwest Meeting

Assisting in the planning and development of the annual meeting to be held in Chicago in 2008.

PLANNED ACTIVITIES FOR NEXT QUARTER

RESEARCH PROGRAM

Improving Operational Performance of Ramp Metering Systems- The task is ongoing.

Regional Intermodal Freight Planning- Continue participation with CMAP and the Global Supply Chain Forum.

Center for Freight & Infrastructure Research and Education (CFIRE)

Program Development- Development has begun.

Making Truck-Rail Intermodal Competitive- Received notice to proceed and contact database is underway.

Mississippi Valley Freight Coalition (MVFCC)- Activities are underway.

External/Continuing Education and Outreach- Activities are underway.

Lake County Commuter Coalition- Continue participation with the coalition.

McHenry County Transportation Study Implementation (ITF)- Participating in committee and subcommittee activities on paratransit and taxi vouchers. The next meeting has not been scheduled.

Freight Congestion- Continue research and develop paper for presentation to TRF in March.

Highways and Sprawl- Research continues in the areas of changing travel times and Census 2000 and ACS and a final draft report should be completed this quarter. A paper will be presented at the October annual meeting of the American Collegiate Schools of Planning in Milwaukee, Wisconsin.

Lake County Report- Complete draft report and submit for publication.

American Community Survey: Trends in Commuting Behavior by Population Subgroups- Prepare a paper on the seasonal effects of work trips.

Spatial Accessibility Indices for Transit- Continue the development of indices and collaborate with CMAP on how to best incorporate the work into the planning process.

Database and Library- Continue development of a database of transportation information for use in determining research focus and to provide data to constituent transportation and planning

agencies. Also, continue development of library and associated website.

Lake County Coordinated Transportation Services Committee- Will be available to assist in Pace's Lake County Paratransit Plan and the RTA's RTAP grant for Lake County.

Locomotive Horns- Await reply from CNSTAT and direction from CMAP work group.

Longitudinal Employer-Household Dynamics (LEHD) Data- Working with the 2004 data set from the Bureau of the Census to identify and rectify shortcomings, if any. Continuing the collaboration with IDES.

Moss Thesis Proposal- Participate in thesis defense.

Loop Detector Data- The speculative work is ongoing.

Burnham Plan- Research transportation components will be ongoing.

UIC Green Campus Initiative- The project will be ongoing for 12 months.

TECHNICAL ASSISTANCE

ACT- Continued activity on Board of Directors and seek to continue co-sponsoring workshops.

CMAP Intermodal Advisory Task Force (IATF)- Ongoing assistance to CMAP and attend next meeting on October 25.

CMAP Private Providers Task Force- Arrange luncheon meeting in November with public sector and private providers.

CMAP Regional Comprehensive Plan Development- Continue participation as requested by CMAP and provide research input into white papers.

GNMAA- Provide ongoing assistance to GNMAA Transportation Committee.

IDOT- DPIT- Statewide database project approved and will be underway separate from METSI.

ICCT- Continue participation and plan to attend meeting on December 6.

Peoria MPO- Await comment from Peoria regarding the travel demand models.

Champaign MPO- Continue to provide assistance with trip distribution modeling.

Moving Beyond Congestion- Continue to provide assistance to the RTA effort by participating in the higher education committee.

WORKSHOPS, TRAINING AND VISITING SCHOLARS

The Status of Transit Funding by Rep. Julie Hamos

Rep. Hamos will present Senate Bill 572, the transit funding bill, at the TRF Chicago Chapter meeting at DePaul University on October 1.

Planning Transit Routes that Meet Your Community's Goals Webinar- The webinar jointly sponsored with Center for Neighborhood Technology will be held on November 9.

2007 Global Supply Chain Forum: Innovative Public/Private Financing for Supply Chain Infrastructure- The symposium jointly sponsored with CMAP, Chicagoland Chamber of Commerce, Chicago Metropolitan 2020 and UIC will be held on November 20.

Transit Riders Alliance Campaign- Planning to invite Rick Harnish, Midwest High Speed Rail Association to present the campaign to support all types of passenger transportation, including public transit.

American Public Transportation Association (APTA) Annual Meeting- Planning to attend annual conference in October.

American Collegiate Schools of Planning Annual Meeting- Planning to attend annual conference and present paper in October.

ITE Midwest Conference- Continue planning for conference to be held in Chicago in 2008.

PROJECTS COMPLETED DURING CURRENT CALENDAR YEAR

UTC Advisory Board Meeting

RTA Transit Check Ridership Analysis

TRB Annual Meeting

RTA Human Services Transportation Plan

CMAP Innovation and Integration Summit

Using BRT to Reduce Urban Air Pollution Workshop

New Data on the Horizon: LEHD and the CTTT

Center for Tax and Budget Accountability Lake County Workshop

Views on Urban Sprawl Workshop

Business Leaders for Transportation

TRF Officers Meeting

Engaging Businesses Successfully in TDM: Canadian Success Stories Workshop

Design and Construction of Intermodal Terminals Workshop

New Data on the Horizon: LEHD & CTTT, Chicago Chapter TRF Workshop

Congestion Pricing and Urban Partnership Workshop

Employer-Based Alternative Commute Initiative- Rest Your Car

Transit Higher Education Working Group

REMI Web Training Course

You Get What You Incent Webinar

Richard J. Daley Forum

Truck Parking in the GCM Corridor

A Look at Employer TDM Programs in the Midwest Netconference

Chicagoland Chamber of Commerce Annual Breakfast

Transport Chicago

Emergency Ride Home CMAQ Grant Transfer

Commuter Rail University Fare Study

RTA Human Services Transportation Plan (HSTP)

Transit Check Ridership Analysis

CMAQ Economic Development Grant Support Letter

Safe Routes to Schools: Why They Matter to Kids, Communities and TDM Professionals

IDOT Fall Planning Conference Presentation

Illinois Transportation Security Summit

CMAQ Human Services Committee

Understanding the Transportation Models and Asking the Right Questions Webinar

After School Matters Workshop

Civic Conservation Alliance Meeting on the CTA

10/04/07