

Strategic Plan
Urban Transportation Center
University of Illinois, Chicago
March 13, 2001

Introduction

The Urban Transportation Center's last strategic plan was completed in November 1998. This plan integrated the center's plans with the University's goals in terms of obtaining Federal Research Funds, increasing the rate of graduation of PhD students, employing additional post doctoral researchers, attracting prominent researchers to work with the center, and funding an additional full-time faculty member. Funding of the Metropolitan Support Initiative (METSI) through IDOT, the earmarked funds from the Federal Transit Administration for the Job Access Reverse Commute (JARC) work, hiring P.S. Sriraj and Jung Taek Lee as Research Assistant Professors, and hiring Kazuya Kawamura as an Assistant Professor in Urban Planning and Policy mean that several of these goals have been accomplished.

In addition, Siim Soot retired as Director and Sue McNeil assumed the position of Director and Professor of Urban Planning and Policy in August 2000. As part of this transition, the center embarked on a strategic planning process. During the fall 2000 semester, the director met with each of the center faculty and staff individually. In addition she met with faculty in other parts of the university interested in transportation, and the center's advisory board. Regular weekly staff meetings addressed issues such as visibility, ongoing support and graduate student culture. In December 2000, the center faculty, staff and students explored strengths, weaknesses, opportunities and threats (SWOT) through an introspective review of activities, culture and programs. In January 2001, the center faculty, staff, and students were joined by faculty from other parts of the University for a one-day retreat that focused on issues and directions. This strategic plan is a result of these meetings and reflects ideas and concept that arose from the discussions.

Mission:

The Urban Transportation Center at the University of Illinois at Chicago seeks to understand and improve urban transportation through the creation, application and dissemination of transportation knowledge while also making use of the Chicago metropolitan area as a living laboratory.

Vision:

The Urban Transportation Center will be a nationally recognized center for research, education and training in planning, analyzing and modeling urban transportation. With a stable funding base and a stimulating collaborative interdisciplinary environment, the center is a focal point for researchers in various disciplines interested in intellectually challenging urban transportation issues and problems. The center also serves to educate and train the next generation of transportation professionals and leaders.

Focus Areas

Research in the center focuses on six areas:

- Intelligent Transportation Systems

- Transportation Planning for Highways, Transit and Freight
- Transportation/ Transit and Operations including safety
- Transportation Land Use and Environmental Interactions
- Equity and Social Issues in Transportation
- Transportation Asset Management

All the focus areas are interdisciplinary and would not naturally be associated with any single discipline typically found in a university. The first four areas have been associated with the center for a number of years. The latter two areas are recent additions. Interest in equity and social issues in transportation has emerged as faculty have addressed challenging problems related to welfare to work transportation and environmental justice. This work also embraces both traditional and non-traditional transportation options. Interest in transportation asset management reflects previous work of the director and the interest in the field among local and national agencies.

These focus areas draw on the skills and interests of the faculty in the following areas.

- Network modeling
- Data management
- Data analysis
- Data visualization
- Economic analysis
- Policy analysis

Self Assessment

In December 2000, the faculty, staff and students of UTC explored the strengths and weaknesses of the center, as well as opportunities and threats to the center.

Strengths and weaknesses

The following strengths were identified:

- Knowledgeable, well-connected and engaged advisory board.
- Organizational culture that provides for a comfortable working environment.
- Effective and highly functioning mechanisms for internal communication.
- Breadth of skills and background especially computing resources.
- Achievement of a critical mass of people.
- Good relationships between faculty and students in terms of accessibility.
- Strong local and national reputation.
- Strategic location both locally for access to local agencies and nationally for workshops, and external visitors.
- Openness among faculty and students that means there is a willingness to learn new things.
- Availability of local transportation problems
- Improving quality of students.

The following weaknesses were identified:

- Breadth of the center means that we are not clearly identified with a particular area.
- Lack of permanent funding so we are always scrambling to make sure commitments to students and staff are covered.
- Small numbers of PhD students means there is little continuity of knowledge.

- Relationship with the university, the college and other departments needs to be developed so our colleagues and the administration understand what we do.
- Space – we have outgrown our existing space.
- Over commitment of faculty and staff to projects.
- Insufficient peer reviewed publications.
- Computing facilities for research assistants.
- Rigidity of course requirements including internship.
- Need for training research assistants in basic skills (for example, GIS).

Opportunities

Having established a base of funding, and having reached a critical mass of researchers and the necessary support staff, the Center is poised to take advantage of the many opportunities. Our strategic location provides us with an opportunity to become a world leader in urban transportation research. Our METSI funding provides a solid foundation for our work in this (six-county) area. This funding has been renewed.

Some recent developments external to the Center also present some interesting opportunities. The Great Cities Universities have obtained funding for a transportation initiative. University of Alabama at Birmingham has taken the lead but we will be participating in planning meetings that will set the direction and determine how funding is allocated among the member universities. Similarly, Michael Shiffer joined the faculty of Urban Planning to head the Data Visualization Laboratory. Mike has extensive background in transportation and is interested in urban transportation problems. This is an opportunity to develop a collaborative relationship and build on the data visualization strengths of the laboratory that complement our data management and analysis skills.

Other faculty with transportation interests who have not previously or regularly been involved with UTC are Saurav Bhatta, Urban Planning; John McDonald, Economics and Finance; Anthony Pagano, Business; Joseph Persky, Economics; and Jane Hagstrom, Information and Decision Sciences. Recent hires in Industrial Engineering have skills of value and relevant to solving transportation problems but are unlikely to be aware of the center. Civil and Materials Engineering is also seeking to hire a junior faculty member in transportation operations. Links and liaisons with these faculty only serve to strengthen the center and should be developed.

The timing is now right if we wish to pursue either the next round of competitively won University Transportation Centers or if we wish to lobby for an earmarked center. We anticipate the next round of funding to be very competitive as University of Michigan is eager to win the UTC back from University of Wisconsin, and many universities will be considering funding for earmarked transportation centers under the reauthorization of the transportation funding in 2003 as this is one of the remaining avenues for securing transportation funding.

We also need to learn to make use of the media. The Chicago Tribune and the Sun-Times regularly have transportation articles but too infrequently quote UTC faculty. We need to take advantage of these opportunities by sending out regular press releases through UIC public affairs office and submitting articles and information to media outlets on campus including our own web site.

Threats

The biggest threat to the Center lies in not knowing what it is. We initially said we work in four areas – ITS, transit planning, transportation and land use, and freight and intermodal studies ---

but we also have expertise and are doing projects in asset management, equity and safety. These have been added to the list, but may give the appearance of being unfocused. In the past we have been opportunistic and taken advantage of funding as it became available. We may need to sharpen our focus.

Recruiting and retaining good PhD students has always been challenging. The change from the Planning and Policy Analysis (PPA) to Urban Planning and Policy (UPP) PhD Program is not going smoothly. Courses are not in place and the unit seems to be having trouble defining what the program is. It is also easy for students to get lost or not get admitted because the UPP PhD admissions committee is looking for different skills to those we need in our students.

We also need to better define our local competition. Although we already work with Northwestern University, how do we build a collaborative rather than a competitive partnership? Similarly we need to understand how we can work with the Engineering Office for Transportation Research, headed by Peter Nelson.

Strategic Directions

Specific recommendations of directions in which the center should move have been defined as strategic initiatives. For each of these strategic initiatives we describe some specific projects.

Develop a national presence for the center

- Leverage current projects into national projects.
- Develop interdisciplinary campus-wide projects.
- Promote the work of center-affiliated researchers through publications and participation in conferences.
- Work towards establishing a national transportation research center at UIC.
- Explore opportunities for collaboration with other universities such as Northwestern and Illinois Institute of Technology that are located in close proximity to enhance visibility and leverage resources.

Enhance the educational programs associated with the center

- Develop the PhD program including attracting and recruiting first-rate students. We will work with other research units and the academic programs of CUPPA to address this issue. We have participated in funding proposals to request support for PhD student support, recruiting and student development.
- Review and revise the transportation curriculum in urban planning
- Enhance the educational experience for graduate students. This includes linking project work to overarching research questions, providing appropriate tools (computing, and software) and training on productivity tools, improving advising, and promoting a graduate and faculty student culture that integrates research as part of the educational experience and encourages collaboration.
- Create a formalized internship program for students drawing on the resources of our advisory board.

Explore new educational and outreach efforts

- Explore opportunities to offer continuing education, short courses and professional development to local transportation executives and mid-level managers.
- Work with the advisory board to identify opportunities and be responsive to issues.

Develop new research areas

- Promote our research capabilities in freight planning and asset management and obtain research support. These areas are of national importance and are directly relevant to the Chicago area. Recent faculty hires bring new expertise to the center in these areas.

Promote the center and market our skills

- Enhance the visibility of center faculty including participation in conferences and professional meetings by providing travel support.
- Continue the "UTC Connector," working paper series and Friday seminar series
- Enhance the website.
- Develop one-page descriptions for all active research projects.

Develop mechanisms for embracing other researchers across the campus.

- Set up a Faculty Advisory Council (FAC) to work with the center director on this initiative. The FAC will meet monthly and include the faculty from across the campus involved in transportation related research. Activities will include defining the role of UTC in the university and what it means to be "center faculty," identifying opportunities for collaboration, identifying qualified graduate students interested in transportation, and discussion of administrative issues.

Center Staffing and Physical Attributes

- Develop a career track for research faculty
- Restructure administrative positions to match administrative needs of the center
- Reconfigure existing space to make more efficient use of open areas.
- Seek additional space in close proximity to existing space.

Resources Required

The resources required to accomplish the proposed activities will most likely come from a variety of sources. First, we need a nationally recognized supportive dean in the College of Urban Planning and Public Affairs. While our interim dean has been totally supportive, the center and the college needs to have a permanent dean.

Second, we need space. In order for the Urban Transportation Center to fulfill its existing commitments and continue to make strides to the next level of prominence and national recognition we will need to increase the number of offices for our Research Faculty, research assistants and support staff. We will need to remodel our current space and add on at least two contiguous offices in the 330 Suite of CUPPA Hall. Currently we house 12 Faculty and Staff, and 20 Graduate Research Assistants in 14 office spaces.

With our two million dollar FTA JARC grant we will need to increase our staff in order to fulfill the obligations of the proposal. We have hired a new Research Transportation Program Manager who will need an office. We will also need to hire several new Research Assistants for this project who will also need space. With these new hires we will be unable to house them in appropriate spaces that will allow them to work efficiently.

Finally, we need resources to jump-start the PhD program in the college that will help us to establish a research pedagogy that produces outstanding graduates. While UTC administers no academic program, as it is a research unit, realizing the mission of UTC depends heavily on CUPPA academic programs. CUPPA students enrolled in the MUPP (Masters) and PPA (PhD)

programs serve as research assistants on a wide variety of technical assistance and research projects. Enhancing both the quality and quantity of research accomplished through UTC requires attracting and retaining first-rate doctoral students. We believe that the college needs to

- Develop and disseminate recruiting materials
- Encourage potential students to visit the campus and meet with faculty and students
- Provide guaranteed financial assistance to a select group of outstanding applicants (subject to satisfactory progress) for the duration of the program.
- Develop a program focused on a broad range of educational experiences that include classroom instruction, research projects, a dissertation and participation in seminars and professional meeting.

Conclusion

The center has an excellent foundation from which we can continue to grow. The environment in which we work by its very nature is dynamic. The center itself continually changes as faculty, staff and students come and go, and the challenging transportation problems of the State of Illinois and the Chicago region change in importance, visibility and criticality. We need to be able to respond to these changes within the context of a university environment. We need to refine our own ideas, add new ideas, build on our strengths, and address our weaknesses. Implementing our strategic plan, beginning in 2001, will serve as a focus for the activities of the center.