TRANSPORT CHICAGO

2016

31st ANNUAL CONFERENCE

JUNE 10, 2016 | UIC FORUM

WELCOME TO TRANSPORT CHICAGO 2016

Transport Chicago is an annual conference that provides a forum for the exchange of knowledge in transportation research, policies, and practice. The conference, first held in 1986, explores a broad range of transportation modes and issues. This event regularly attracts academics and professionals from the Chicago region and beyond, offering an excellent opportunity for the transportation community to make connections and share experiences.

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2016 CONFERENCE STEERING COMMITTEE

Dear Colleagues,

Welcome to the 2016 Transport Chicago Conference. Now in our 31st year, we continue to strive to provide conference attendees with a forum for the exchange of knowledge in transportation research, trends, policy, and practice. This year's program includes a broad range of topics spanning all modes of transportation.

Transport Chicago is unique. It is a non-profit volunteer organization in which professionals from across Chicago's transportation planning and engineering industry come together. We work throughout the year, elect a new Board each summer, and attract up to two dozen volunteers to help on countless tasks associated with the organization. I have personally volunteered with Transport Chicago for four years, and I am thankful for the lasting friendships and connections it has fostered.

As I assess our transportation landscape today, I am reminded of our interconnectivity. Technological developments in transportation are exciting, from transit fare payment to ridesharing to automated toll collection to driverless cars and countless other advances. At the same time, we cannot divorce new trends from the need to collectively resolve seemingly intractable problems in government that impact us all. Transport Chicago provides an opportunity for us to celebrate our shared successes, while thinking critically about solutions to our most serious, shared challenges.

The Transport Chicago Steering Committee is pleased to welcome our keynote speakers. Our Morning Keynote address features State Representative Al Riley, Assistant Majority Leader in the Illinois House of Representatives. Our Lunchtime Panel on Transportation Innovation features leaders from Uber, Lyft, and Via, companies that have developed new business models for solutions in urban mobility.

Please take the opportunity to network with fellow transportation professionals and enjoy today's conference. We would like to thank you for your support of our organization and we look forward to continue to provide a quality conference in the years to come.

Sincerely,

Josh Sikich
President | Transport Chicago 2016 Steering Committee

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CONFERENCE SCHEDULE

MORNING

8:45—9:45 AM

MORNING RECEPTION AND BREAKFAST

8:45—9:45 AM

MORNING KEYNOTE

STATE REPRESENTATIVE AL RILEY, ASSISTANT MAJORITY LEADER, 38TH DISTRICT CM / 1.0

10:00—11:00 AM

SESSION 1

A. BUS SOUP (ROOM D)
TRACK: WILD & CRAZY TRANSIT CM / 1.0

B. TRANSFORMATIVE TRANSPORTATION (ROOM F)
TRACK: PLANNING & PLACES CM / 1.0

C. GOING FOR BROKE (ROOM I)
TRACK: DATA & INNOVATION CM / 1.0

11:15 AM—12:15 PM

SESSION 2

A. WHAT DOES THE FOX SAY? (ROOM D)
TRACK: WILD & CRAZY TRANSIT CM / 1.0

B. NOTORIOUS T.O.D. (ROOM F)
TRACK: PLANNING & PLACES CM / 1.0

C. MEET THE JETSONS (ROOM I)
TRACK: DATA & INNOVATION CM / 1.0

CM / 1.0 *Up to 5.0 PDH / AICP CM credits available for attending all conference sessions (AICP CM credits are pending confirmation)*

AFTERNOON

12:30—1:00 PM

LUNCH AND SPONSOR ACKNOWLEDGEMENTS

1:00—2:00 PM

LUNCH KEYNOTE PANEL

TRANSPORTATION INNOVATION WITH UBER, LYFT, AND VIA CM / 1.0

2:00 - 3:00 PM

POSTER SESSION (MAIN HALL)

2:15 - 2:45 PM

WILDCARD SESSIONS

3:00—4:00 PM

SESSION 3

A. ASK THE DECISION-MAKERS (ROOM D) CM / 1.0

B. BIKES AND BLOCKS (ROOM F)
TRACK: PLANNING & PLACES CM / 1.0

C. I LIKE BIG DATA (ROOM I)
TRACK: DATA & INNOVATION CM / 1.0

4:00—5:30 PM

RECEPTION

OUR KEYNOTE SPEAKERS

MORNING 8:45—9:45 AM
STATE REPRESENTATIVE AL RILEY

State Representative Al Riley is Assistant Majority Leader in the Illinois House of Representatives 99th General Assembly and serves the 38th District in Chicago's Southland region. He is a member of the Appropriations-Public Safety Committee and Transportation: Vehicles & Safety Committee, to name a few.

Riley's focus has been to use his professional and political experience in advancing the issues of resource allocation and equity for the Southland region of the Chicago metropolitan area. The landmark Mass Transit bill included a permanent south suburban seat on the Metra board, money for innovative transit solutions for PACE, a bond issue promise for new cars and improvements on the Metra Electric line and development of the SouthEast Service line.

Professionally, Riley is an urban planner and statistician. Prior to coming to Springfield in 2007, Riley's career included service on the research staff of the American Society of Planning Officials in the early '70's. Some of his other areas of service include being a Chief Planner and Director in county government and holding executive positions in the private sector. Riley taught urban studies and public health planning at the University of Illinois at Chicago, and was an adjunct professor of Public Administration and Statistics at Governors State University for eleven years. He holds Bachelors degrees in Economic Geography and Secondary Education from Chicago State University, Master of Urban Planning and Policy Analysis and Statistics, and Doctoral study in Public Policy Analysis from the University of Illinois at Chicago.

AFTERNOON 1:00—2:00 PM
TRANSPORTATION INNOVATION

MODERATED BY SHARON FEIGON, EXECUTIVE DIRECTOR OF SHARED USE MOBILITY CENTER

MARCO MCCOTTRY, UBER

Marco McCottry is currently General Manager of Uber in Illinois and Indiana. Marco, a Cleveland native, previously ran Uber's operations in Central Texas and Oklahoma. Marco led Uber Austin to become one of Uber's fastest growing U.S. markets, achieving over 2.5 million trips in its first year of operations.

Marco joined Uber in August 2014. Prior to Uber, Marco led mergers and acquisitions as Corporate Development & Planning Manager for Eaton Corporation and worked in investment banking at National City Bank. Marco graduated from Columbia University, where he played basketball, and holds an MBA from the Wharton School of Business. He lives in Chicago with his wife Courtney and new baby, Navy.

Chicago is Uber's 4th largest U.S. market, and the company employs more than 300 full-time workers across the city. In addition, approximately 35,000 drivers use the Uber platform on a monthly basis to earn money. From Uber's founding in 2009 to launches in over 300 cities today, Uber's rapidly expanding global presence continues to bring people and their cities closer.

DAVID KATCHER, LYFT

David Katcher is currently the General Manager for Lyft in Chicago. He joined Lyft after several years at Groupon where he held a variety of roles across management, operations, and product. Prior to Groupon, David was a Manager in Deloitte Consulting's Strategy practice where he focused on customer strategy and cost reduction. David is a graduate of the University of Illinois and Columbia Business School and resides in Arlington Heights with his wife and two young children.

Chicago is one of Lyft's top markets where it has operated since May 2013. Lyft continues to see strong growth in Chicago with the launch of Lyft Line, Lyft's shared ride product, in December 2015 and Express Drive, Lyft's car rental program, in March 2016. Lyft is committed to reducing car ownership and providing a better way of transportation for the people of Chicago.

CHRIS SNYDER, VIA

Chris Snyder is Via's General Manager in Chicago. Prior to joining Via, Chris developed analytics-driven social media tools and built supercomputers designed to discover new pharmaceutical drugs. He received his undergraduate degree in social studies from Harvard University.

Via is re-engineering public transit by providing shared rides in comfortable vehicles at affordable, flat fares. Via's technology utilizes sophisticated algorithms that dynamically produce the best route and most efficient pickup and drop-off points for each passenger, creating a truly seamless system without the need to rely on fixed routes. Targeting the gap between outdated public transit and expensive private car services, Via currently operates in New York City and Chicago, has provided more than three million rides, and is growing rapidly. Founded in 2012 by Daniel Ramot and Oren Shoval, Via has raised over $38M to date and is headquartered in New York, with offices in Tel Aviv and Chicago.

BUS SOUP

TRACK: WILD & CRAZY TRANSIT

SESSION 1A
10:00 AM – ROOM D
MODERATOR: JASON BIERNAT

MANY PATHS CAN LEAD TO BETTER TRANSIT SERVICE. HOWEVER, EACH PATH HAS ITS OWN SET OF UNIQUE OBSTACLES. THESE OBSTACLES CAN TAKE MANY FORMS. FRAGMENTED SUBURBAN MUNICIPALITIES WITH QUICKLY CHANGING POPULATION AND EMPLOYMENT PATTERNS MAKE IT CHALLENGING TO IMPLEMENT RAPID TRANSIT. ACTUAL PHYSICAL OBSTACLES CAN KEEP THOSE WITH DISABILITIES FROM ACCESSING FIXED-ROUTE SERVICES, CREATING DEMAND FOR MORE EXPENSIVE DEMAND RESPONSE SERVICE. TRAFFIC SIGNALS CAN HELP CREATE EFFICIENT FLOWS OF TRAFFIC. HOWEVER, BUSES DO NOT ALWAYS GO WITH THE SAME FLOW AS GENERAL TRAFFIC. TRANSIT SIGNAL PRIORITY (TSP) CAN GIVE A BOOST TO BUSES AND HELP KEEP THEM ON SCHEDULE. LEARN HOW THESE GURUS OVERCAME THE ODDS AND CREATED BETTER SERVICE FOR ALL!

A RAPID PACE FOR CHICAGO SUBURBS

CHARLOTTE OBODZINSKI
PACE SUBURBAN BUS

SARA HAGE
HNTB

Pace Suburban Bus is implementing the future of bus rapid transit in Chicago's suburban region through an enhancement of existing surface transportation infrastructure. Pace's Strategic Plan, Vision 2020, highlights a combined bus-based Arterial Rapid Transit (ART) and expressway network for northeastern Illinois' 8 million residents. At full build out, the Pace Rapid Transit Network will provide 655 miles of ART service and 230 miles of expressway based service.

Highlights of ART, identified as the "Pulse" service, include branded transit vehicles, stations, transit signal priority, real-time information, on-board Wi-Fi and frequent service. Features of the expressway service include vehicles equipped with high-back reclining seats, park & ride stations, bus on shoulder operations, as well as free WiFi. Pace began implementing Vision 2020 with the rollout of bus on shoulder operations on I-55 and plans to launch their second bus on shoulder corridor in 2017. The first Pulse service of the planned 24-corridor ART network – the Pulse Milwaukee Line – will operate along a 7.6-mile corridor connecting Chicago with the suburban community of Niles.

This presentation will illustrate the incremental implementation of Pace's Rapid Transit Network throughout suburban Chicago. It will address the challenges of providing rapid transit in a multijurisdictional metropolitan / suburban region with changing population and employment patterns as well as strategies for overcoming those challenges.

ADA TITLE II/III REQUIREMENTS FOR TRANSIT AGENCIES AND CASE STUDIES OF BUS STOP COMPLIANCE

STEPHEN G. METZER
DLZ

The Federal Transit Administration (FTA) has a number of regulations in 49 Code of Federal Regulations, intended to carry out the requirements of Section 504 of the Rehabilitation Act of 1973. These regulations pertain to all transit entities receiving federal financial assistance from the Department of Transportation. Most transit agencies are also subject to the Americans with Disabilities Act regulations of the U.S. Department of Justice (USDOJ).

This presentation will touch on the USDOJ's ADA compliance requirements of transit agencies. Information will be provided on the differences in the requirements of ADA Titles II and III, what is required under each, and how to ensure that transit agencies can determine if their facilities, services, policies, and practices are accessible to persons with disabilities. Given the importance of fixed route bus service accessibility, information on the specific ADA standard requirements of bus stops and shelters will be presented. Inaccessible bus stops typically result in increases on the demand-response program of transit agencies at a much higher cost per trip than fixed rate service. Data on various case studies of ADA compliance investigations of bus stops and shelters will be also presented, a majority of which found a significantly high percentage of non-compliant facilities.

IMPLEMENTING A REGIONAL TRANSIT SIGNAL PRIORITY (TSP) SYSTEM IN NORTHEASTERN ILLINOIS

MARK E. PITSTICK
REGIONAL TRANSPORTATION AUTHORITY (RTA)

KEVIN D. STANCIEL
REGIONAL TRANSPORTATION AUTHORITY (RTA)

Transportation agencies in Northeastern Illinois; including the Regional Transportation Authority (RTA), Chicago Transit Authority (CTA), Pace Suburban Bus, Chicago Department of Transportation (CDOT), Illinois Department of Transportation (IDOT), and other local departments of transportation; are jointly implementing a regional Transit Signal Priority (TSP) system to improve bus performance on major arterials. This $40 million TSP program involves approximately 400 intersections covering about 100 miles of roadway on 13 strategic bus transit corridors.

The goal of this program is to implement an interoperable TSP system that allows buses operated by the CTA or Pace to request and receive priority at intersections operated by various highway agencies – thereby reducing bus travel time and/or improving travel time reliability. Additional objectives include using existing bus and roadside equipment to the extent possible, as well as utilizing off-the-shelf technology for bus-to-intersection communication.

Building on lessons learned from prior TSP demonstrations in limited geographic areas, the stakeholder agencies followed a systems engineering approach to develop regional TSP standards and implementation guidelines that are now being utilized to guide TSP deployment on multiple corridors throughout Chicagoland. The program's focus on an interoperable system is allowing expansion of TSP to corridors that cross jurisdictional boundaries or those that include multiple bus routes operated by different transit agencies. This presentation will highlight the technical and institutional challenges faced by the transportation agencies as they implement the regional TSP system, as well as the opportunities that have arisen for collaboration and advancement of this promising technology.

SESSION 1B
10:00 AM – ROOM F
MODERATOR: ANGELA NG

TRANSFORMATIVE TRANSPORTATION

TRACK: PLANNING & PLACES

AS CHICAGO'S TRANSPORTATION INFRASTRUCTURE HAS BEEN DOMINATED BY A RAIL AND CAR BINARY FOR THE LAST CENTURY, DISCUSSION OF OTHER ALTERNATIVES HAS FREQUENTLY FALLEN BY THE WAYSIDE. THIS SESSION AIMS TO EXPLORE POSSIBILITIES BEYOND THESE MODES, WITH NOVEL APPROACHES TO TRANSFORM TRANSPORTATION BOTH WITHIN THE REGION AND THE WORLD AT LARGE. SESSION ATTENDEES WILL HEAR ABOUT EFFORTS TO BETTER FACILITATE REGIONAL BIKE AND PEDESTRIAN TRAVEL, EXPLORE HOW TO BETTER UTILIZE CHICAGO'S EXTENSIVE WATERWAYS, AND CONSIDER HOW TO HELP MOBILITY OPTIONS TRANSCEND THE BARRIERS OF DIFFERING MODES, INSTITUTIONAL BOUNDARIES, AND DIFFERENT PAYMENT STRUCTURES.

LITTLE VILLAGE PASEO FEASIBILITY STUDY - FINDINGS AND NEXT STEPS

PHILIP BANEA
CHICAGO DEPARTMENT OF TRANSPORTATION

Due to a lack of open space and bike facilities in the Little Village community, the Chicago Department of Planning and Development approached the Chicago Department of Transportation to initiate a feasibility study for the "Little Village Paseo." The study, which began in late 2014 and was recently completed, looked into transforming roughly 1.3 miles of unused, at-grade rail (currently owned by BNSF) into a multi-use path that connects pedestrians and bicyclists in Little Village with parks, schools, and current/future bike facilities in Little Village and neighboring Pilsen. Specifically, the study assessed existing traffic conditions, determined the path's endpoints, examined traffic options for path/road crossings, and developed draft design concepts for gateway areas, which would be located towards the endpoints of the proposed project. A public outreach effort was also incorporated into the study process, in order to obtain input for the draft traffic recommendations and design concepts.

Through the study, it was determined that the path would be feasible to build from a traffic standpoint and that the Little Village community is so far supportive of the proposed project (environmental testing and survey work will have to be conducted after the feasibility/traffic study stage). The type of traffic recommendations includes refuge islands, crosswalks, and sidewalk improvements near the crossings. The presentation will go over the highlights of the study and next steps in the overall project process.

OUR RIVER SYSTEM: THE REGION'S NEXT TRANSPORTATION CORRIDOR?

MADELINE SHEPHERD
METROPOLITAN PLANNING COUNCIL

As a component of the Great Rivers Chicago initiative, the Metropolitan Planning Council (MPC) analyzed the future of the city's river network as a transportation corridor for people and goods in the region. The river system—made up of the Chicago, Calumet and Des Plaines Rivers—offers a unique right-of-way that connects much of the region to the Loop and other centers of activity and offers a strategic transportation link for waterborne freight. MPC's goal for this research was to determine the degree to which the rivers could offer a useful supplement to the existing road and rail transportation system.

MPC divided this analysis into three components. MPC evaluated the potential for additional stops along existing water taxi routes and expanding service to areas that it currently does not serve, considered the potential for a continuous riverfront bike and pedestrian trail akin to the existing Lakefront trail, and identified trends in freight usage of the river corridors by examining trends in employment, adjacent land use and barge commodity tonnage.

This presentation will delve into how analysis was conducted, including path analysis and network implications, and show how recommendations were identified.

MOBILITY AS A SERVICE: AN IDEA THAT CAN BOOST PUBLIC TRANSIT

MARTIN HOWELL
CUBIC

Mobility as a Service (MaaS) is a concept gaining ground in transportation. The idea behind it is that we are all travelers, not specifically transit riders or drivers, and we seek to buy a service that is not system specific, but a way to get from here to there.

MaaS combines services from public and private providers (public transit, rideshare, bike share, autonomous vehicles, parking, etc.) through a unified gateway that creates and manages the trip, which users can pay for with a single account. Users can pay per trip or a monthly fee for a set distance from a mobile app.

Proof-of-concept trials in Finland and Sweden have been successful and are paving the way to broader analysis and application to the international community. For this approach to work, we need to start with a single account for all paid transportation services. Tolling, transit, bike share, parking and services like Uber and Lyft, would bill to one account. Under the per-trip model each service bills according to their rates and the customer receives one monthly bill. There is more pricing cooperation between providers, so a flat rate could be offered and supported by creative pricing for multi-modal trips. It's an idea that could lead to a decline in car ownership and also significantly increase the efficiency and utilization of transit providers in a region.

SESSION 1C
10:00 AM – ROOM I
MODERATOR: MATT BEAMER

GOING FOR BROKE

TRACK: DATA & INNOVATION

WITH GROWING POPULATION CENTERS AND AGING INFRASTRUCTURE, OUR CURRENT TRANSPORTATION SYSTEMS ARE OFTEN UNDER INCREASING STRESS. HOW DO WE ASSESS WHAT INFRASTRUCTURE INVESTMENTS TO MAKE AND HOW TO PAY FOR THEM WITHOUT "GOING BROKE"? THIS SESSION HIGHLIGHTS TRANSPORTATION INFRASTRUCTURE FUNDING DECISIONS IN ILLINOIS AND MASSACHUSETTS, WITH LESSONS THAT COULD BE APPLIED TO OTHER LOCALITIES.

PLANNING FOR PERFORMANCE TOOL

STEVEN WOELFEL
MASSACHUSETTS DOT

NATHAN HIGGINS
CAMBRIDGE SYSTEMATICS

DAVID BAUMGARTNER
CAMBRIDGE SYSTEMATICS

The Planning for Performance (PFP) Tool is a spreadsheet-based tool developed to help the Massachusetts Department of Transportation (MassDOT) understand the tradeoffs and performance implications of capital budgeting decisions. It was recently used to support development of the five-year MassDOT Capital Investment Plan (CIP).

The PFP Tool, as applied to MassDOT, incorporates all divisions of the department: Highway, Rail and Transit, Aeronautics, and Registry. Within each department, each asset category is represented with a performance measure. Models were utilized or developed to relate spending to performance over time in each asset category; these relationships were taken from the models that MassDOT uses for internal planning purposes, or developed from scratch when existing models were not available.

The PFP Tool visualizes the performance of each asset category, allowing the user to see the impacts of different allocations of spending across asset categories. The PFP Tool is also financially constrained and respects the "color of money": each available funding source and its eligible uses are included in the tool, ensuring money restricted to certain asset categories cannot be allocated to other areas.

Finally, the PFP Tool includes an optimization routine, in which the user can apply weights to each asset category. Based on these weights, the PFP Tool incrementally allocates available funds in the most "economically efficient" way, putting funding where it provides the biggest bang for the buck.

This presentation will include a demonstration of how the PFP Tool works, and explain how it was developed and used by MassDOT.

UNLOCKING THE DOORS TO AN ADEQUATELY FUNDED STATE TRANSPORTATION SYSTEM

PETER SKOSEY
METROPOLITAN PLANNING COUNCIL

Illinois is at a crossroads: The state's commitment to transportation infrastructure has substantially declined over the past two decades. If the state continues to underfund transportation infrastructure, the state's economy will suffer from increasing maintenance costs and rising congestion, and its mobility system will be hobbled by slow transit lines and falling bridges.

On the other hand, should the state acknowledge its underlying needs and make investments, it could reduce the cost of living for residents and encourage more business creation.

Over the past year, the Metropolitan Planning Council (MPC) has undertaken a statewide funding needs analysis to determine what our transportation agencies need to bring Illinois' road and rail infrastructure to a state of good repair. MPC has demonstrated that a total of $43 billion is needed over the next ten years if we want to avoid the pitfalls of a transportation system stuck in perpetual decline.

This presentation will detail how MPC conducted this analysis of statewide transportation needs and describe the funding sources MPC suggests to address these problems as well as other necessary long-term policy changes.

WHAT DOES THE FOX SAY?

TRACK: WILD & CRAZY TRANSIT

SESSION 2A
11:15 AM – ROOM D
MODERATOR: MATTHEW NIEMET

BREAKING DOWN MARKET PROFILES AND PROPERLY ASSESSING CUSTOMER NEEDS IS CRUCIAL TO ENSURE THE IMPLEMENTATION OF SUCCESSFUL TRANSPORTATION SOLUTIONS, REGARDLESS OF MODE OR REGION. THIS PRESENTATION WILL PROVIDE INSIGHTS INTO CUSTOMER PAYMENT PREFERENCES ACROSS THE GLOBE, EXPERIENCES WITH LOCAL TRANSPORTATION MARKETING, AND FOCUSED MARKET RESEARCH THAT DETAILS HOW TRANSIT IN THE REGION CAN BETTER RESPOND TO CUSTOMER NEEDS.

CUSTOMER ENGAGEMENT: PUT A RING ON IT

ANGELA MILLER
SACHS

We have seen many changes to how consumers purchase products and services – including in transportation, where demand for flexibility and on-demand payment via cash, card, and mobile have transformed the industry. A review of the current landscape reveals that each transit network has unique opportunities and challenges to servicing customers – from providing self-service and full-service offerings, to creating seamless payment experiences for commuters and visitors alike.

This session will be supported by global research conducted by New York research firm Sachs Insights, addressing the use of qualitative market research to understand passenger needs and behaviors, and to co-create solutions that contribute to ideal payment experiences. This collaborative research is enabling us to better understand and create for positive passenger experiences in cities and transit systems globally.

Our session will demonstrate the value of qualitative research with transportation customers (agencies and passengers) to better explore needs with a specific view on the shifting role of payment experiences. We plan to present case studies and incorporate interactive audience participation to give attendees a hands-on experience that can be applied within teams and organizations.

RIDE ON: MARKETING TRANSIT IN A CROWDED SPACE

MARK MINOR
REGIONAL TRANSPORTATION AUTHORITY (RTA)

In January 2015 the RTA, in collaboration with CTA, Metra and Pace, launched the Ride On. marketing campaign to promote the convenience and benefits of public transportation in the Chicago region. Before launching the campaign, the RTA used existing market data along with the results from a benchmarking research effort to ensure that the campaign would be effective in growing ridership, increasing public awareness of transit and improving the public's perception of the transit system.

In October 2015, the RTA conducted research to see the impact of the Ride On. campaign. The research found that the quality of the advertising has been high, resulting in the campaign being well recognized by consumers. Consumers are able to appropriately link it back to the RTA and Service Boards at a high rate and they believe in the messaging of the ads and they are showing an interest in using the transit system.

Overall, the research shows that the Ride On. campaign is making a difference for the region's transit system. Awareness of the Service Board brands – CTA, Metra and Pace – has increased since the campaign launched and we are seeing improvements in perceptions of the transit system. When using an innovative technique called Media Mapping, which controls for certain variables, consumers that recognized the campaign were found to hold more favorable perceptions of the Service Boards than non-recognizers, including whether transit offers a great value for the money, is family-friendly and helps travelers make the most of their time.

ASSESSING THE POTENTIAL FOR DEMAND ADAPTIVE TRANSIT IN CHICAGO VIA A STATED PREFERENCE CHOICE SURVEY

CHARLOTTE FREI
WIGHT AND CO.

MICHAEL HYLAND
NORTHWESTERN UNIVERSITY

A stated-preference survey was designed and implemented to evaluate the market potential for flexible, demand-adaptive transit. To examine the influence of emerging technology-enabled services, this study estimates the relative importance of choice dimensions including weather, attributes of the mode, and traveler access to real-time information on traditional and flexible transit mode choice.

The survey instrument employed a dp-efficient design and the Google Maps API to capture precise origins and destinations in order to create realistic choice scenarios. The stated-preference experiments offered respondents a choice between traditional transit, car, and a hypothetical flexible transit mode. Wait time, access time, travel time, cost and number of transfers were varied across the choice scenarios.

The parameters for a choice model were estimated using choice experiment data of Chicago travelers (Nobs = 1,280). Results suggest transfers, wait time and access time are valued 1.5 to 3 times more than travel time; implications for the design and delivery of flexible, technology-enabled services are discussed.

SESSION 2B
11:15 AM – ROOM F
MODERATOR: BRIAN HACKER

NOTORIOUS T.O.D.

TRACK: PLANNING & PLACES

AS URBAN AREAS CONTINUE TO ATTRACT JOBS AND NEW RESIDENTS, A DIVERSE MIX OF TRANSPORTATION OPTIONS IS VITAL TO SUPPORTING ECONOMIC DEVELOPMENT AND PROVIDING A DESIRABLE QUALITY OF LIFE. HOW CAN WE INVEST IN INFRASTRUCTURE AND SET POLICIES TO CREATE DYNAMIC TRANSPORTATION SYSTEMS THAT MEET THE PUBLIC NEED FOR BOTH TODAY AND TOMORROW? THIS SESSION ATTEMPTS TO ADDRESS THAT QUESTION BY EXPLORING CURRENT STRATEGIES BEING EMPLOYED IN THE FIELD TO ENCOURAGE MULTI-MODAL TRAVEL, PROMOTE AFFORDABLE HOUSING NEAR TRANSIT, AND LEVERAGE CAPITAL INVESTMENTS.

PARKING CASH OUT: REMOVING THE INCENTIVE TO DRIVE

LINDSAY BAYLEY
CHICAGO METROPOLITAN AGENCY FOR PLANNING

We have local, regional, and federal policy goals to increase the number of people riding transit, bicycling, and walking, yet federal tax policy works against these goals by encouraging people to drive. Parking is a tax-exempt fringe benefit that employers can offer to their employees. Employers can also offer transit benefits, allowing employees to pay for transit before taxes to lower their taxable income and purchase transit passes. The practice of providing free parking to employees, however, is much more prevalent and has an enormous impact on commuter mode choice. Parking cash out is a policy that gives commuters the option of receiving free parking or its equivalent cash value.

National estimates suggest that over 90% of commuters receive free parking, and over 50% of drivers park for free at downtown central business districts (CBDs). When employers provide parking for free, employees underestimate the value of the space. If employers were, instead, to offer employees free parking OR the cash equivalent of providing that space, our central business districts would likely see the same number of visitors with fewer single occupant vehicles. This policy is called "parking cash out."

Parking cash out would strengthen our existing policies to increase transit ridership and carpooling in the region, improve equity, lower pollution, help fund local transit, and increase local and federal revenue without a tax increase. By simply allowing employees to choose between free parking or its cash equivalent, we can make strides toward reaching a number of important regional policy goals.

STALLED OUT: HOW EMPTY PARKING SPACES SHRINK NEIGHBORHOOD AFFORDABILITY

JAMES LEYBA
CENTER FOR NEIGHBORHOOD TECHNOLOGY

Affordability explores the relationship between unused parking and neighborhood affordability. Many cities, including Chicago, mandate the minimum number of parking spaces new developments need to build. However, these minimum requirements don't always reflect real demand.

For this study, CNT interviewed multifamily developers in Chicago and went to the parking lots and garages of 40 apartment buildings, both market-rate and subsidized, to see how much parking was being used. Researchers went at 4:00 a.m., when most tenants have parked their cars and are asleep in bed.

The study found that:

- A single indoor parking space costs $37,300 to construct, which makes it more expensive to build market rate and subsidized buildings near transit.
- The supply of parking exceeds demand. Buildings offered two spots for every three units. According to our analysis, they only used one for every three.
- As parking supply goes up, much of it sits empty. Apartments with fewer spaces saw a greater percentage of their parking used.
- Apartment buildings near frequent transit need less parking. Buildings within ten minutes of a CTA train stop provided one spot for every two units. Even then, one-third of the spots sat empty.

This presentation will conclude with land use and development strategies to reduce parking and pass on the savings in development costs to build more affordable and compact communities near transit.

TRANSPORTATION INVESTMENT AND ECONOMIC DEVELOPMENT

ROCCO ZUCCHERO
ILLINOIS STATE TOLL HIGHWAY AUTHORITY

While delivering several major capital projects envisioned in CMAP's GO TO 2040 comprehensive regional plan, the Illinois Tollway has invested billions of dollars improving and expanding infrastructure across northern Illinois. New and improved interchanges, capacity improvements and enhanced transit options have all been delivered in part by the Illinois Tollway's Move Illinois capital program.

The benefits of these investments are being realized by the local communities in which they serve. Not only do the investments provide congestion relief and improved mobility but also provide significant economic benefits by attracting new businesses in the areas of investment. The success is attributed to the Tollway's commitment to improving mobility, as well as the local community vision and willingness to partner and invest with the Tollway.

A collaborative planning process between the Tollway, CMAP and local communities from the inception of the project benefits both the local community and Tollway and enables the parties to leverage assets and resources for the success of all those involved.

Economic and job creation models are often used to support investments, but what is most evident along the Tollway is the real and visible growth and development that has occurred in these key areas of investment. This presentation will focus on case studies of partnerships that resulted in successful economic development along the Tollway system. The past success is also guiding the tollway vision for future infrastructure investment.

MEET THE JETSONS

TRACK: DATA & INNOVATION

SESSION 2C
11:15 AM – ROOM I
MODERATOR: ELAINE MCKENZIE

WHAT CHALLENGES LIE BETWEEN THE PRESENT-DAY AND THE FUTURE PROMISE OF A CV/AV TECHNOLOGY?

WHAT DOES OUR SELF-DRIVING FUTURE MEAN FOR TRANSPORTATION PLANNING?

WILL THE GOOGLE CAR REPLACE MY BUS?

PANELISTS INCLUDE:

JONATHON HART
CDM SMITH

CHRIS KOPP
HNTB

SAM VAN HECKE
CAMBRIDGE SYSTEMATICS

Transportation technology is changing at the fastest pace since the invention of the automobile. In the not-so-distant future, connected and autonomous vehicles will potentially yield tremendous direct benefits and also bring myriad externalities to cities, transportation agencies, and everyday travelers. This impending paradigm shift suggests many questions: What does a self-driving future look like? What are the implications to planners, policy makers, and citizens? What steps need to be taken now to prepare for this future? This interactive discussion session will engage three experts with different perspectives on connected and autonomous vehicles. Each panel member will be challenged to address a specific question in 5 minutes or less, followed by a 30 minute Q & A session.

POSTER SESSION
2:00PM MAIN HALL

POSTER SESSION
COORDINATED BY: RACHAEL MINCHELLA

COMMUTER-STYLE ELECTRIC INTERURBAN RAILWAYS AND MODERN REGIONAL TRANSIT: RISE, FALL, AND REUSE

JOHN G. ALLEN & HERBERT G. LEVINSON

The electric interurban railway was a fast, heavy-duty adaptation of street railway technology for suburban, rural, and intercity travel. Achieving its greatest prosperity in the early 20th century, it almost died out by the early 1960s. Some of the longer-lasting interurbans, particularly the three major Chicago interurbans and Pacific Electric in Los Angeles, were largely comparable in their rights-of-way and rolling stock with conventional electrified commuter railroads. Despite considerable differences, these commuter-carrying interurbans shared an overall history of growth, consolidation, decline, and abandonment.

One of these, the South Shore Line in northern Indiana, survives as an electrified commuter railroad. A second, the Norristown High-Speed Line in suburban Philadelphia, continues as a suburban rapid transit line. Portions of several others have been reused for rapid transit or light rail. Even though these interurbans were largely business failures, the revival of many segments suggests that their underlying transportation bases were sound.

BRONZEVILLE COMMUNITY SUSTAINABLE TRANSPORTATION PLAN

HSUAN-HUI HU
UNIVERSITY OF ILLINOIS AT CHICAGO

The Bronzeville Community Sustainable Transportation Plan is a community-based conceptual plan designed to prioritize transportation needs and develop near- and medium-term improvements in the Bronzeville community of Chicago. This plan is built on many planning studies, which have identified that Bronzeville has exponential potential to become a vibrant and distinct place that supports a variety of leisurely, cultural, and commercial activity, thereby stimulating economic development.

The purpose of this plan is to provide a framework for improving multi-modal transportation environment throughout the Bronzeville community, particularly making streets accommodate all users' needs while respecting environments. The plan presents guiding principles and associated recommendations to promote safe, sustainable travel choices and improve access for all street users and people with disabilities of all kinds in Bronzeville.

The plan sets forth a vision that Bronzeville is a community where everyone can get to their destinations safely, conveniently, and comfortably with limited environment impacts. The plan's bold vision is driven by three imperatives - accessible, safe and secure, and green - which are based on community interests and current mode users' experiences and articulate the plan's future achievements. With this vision in mind, this plan proposes six strategies:

Accessible
1. Enhance connectivity among different transportation modes.
2. Enhance comprehensive and intuitive wayfinding and signage.

Safe and secure
1. Improve safe and convenient crossing.
2. Optimize street space to enhance all users' comfort.
3. Increase land use diversity and density.

Green
1. Increase street impervious surfaces and canopy coverage.

A METHOD FOR MEASURING ACCURACY OF REAL-TIME DISSEMINATION OF CONSTRUCTION INFORMATION TO TRAVELLERS

MD TOUSHIK AHMED NILOY
SOUTHERN ILLINOIS UNIVERSITY CARBONDALE

High volumes of traffic in metropolitan areas during peak hours place large demands on our transportation infrastructure. Tools such as Intelligent Transportation Systems (ITS) can help manage these facilities and inform travelers of pertinent information. In particular, this study demonstrates a method for measuring the accuracy of the real-time construction traveler information using traffic cameras and other sources.

Because 23 CFR 511 requires transportation agencies to start reviewing the accuracy of their traveler information, including lane-closing construction projects, this method could provide guidance for such agencies. The results of the example application indicated that 62% of on-going lane-closing construction projects in metropolitan areas could be viewed with cameras, but 38% projects were not close enough to a camera and would require other data sources. Findings from this research could serve as the basis for traffic agencies to design and to setup traffic cameras precisely to disseminate construction information to travelers.

UTILIZING VISSIM/VISWALK MODELING APPLICATIONS IN TRAFFIC OPERATION ANALYSIS

CHARLES TEUER & XIN TIAN
DLZ CORPORATION

VISSIM is microscopic traffic simulation software for modeling multimodal traffic flows. It models driving behaviors including: car-following, lane-changing and lateral behavior within a lane. It can be used to analyze the operations of any transportation mode and their combinations including cars, trucks, public buses, shuttle buses, trains, taxis, bikes and pedestrians. VISWALK simulates and models walking behaviors. By combining VISSIM and VISWALK the interactions between the roadway traffic and pedestrians can be modeled realistically.

VISSIM/VISWALK can be applied in complex traffic operational analysis, including highway design, highway interchange design, arterial and intersection design, urban streets design and traffic analysis, downtown with high volume of pedestrians, and traffic congestion managements. Various project applications with VISSIM/VISWALK are presented in the paper. Model development, model calibration and scenario application are included. Data used as inputs and data used as calibration targets are discussed. Model calibration and the problems associated with model calibration are a specific interest in the application of the program.

POSTER SESSION 2:00PM MAIN HALL

DOWNTOWN VALDOSTA TRUCK TRAFFIC MITIGATION STUDY

CHRISTOPHER LINDSEY
CAMBRIDGE SYSTEMATICS

While there is currently much attention directed at freight planning for states and large cities, less focus has been placed on suburban, exurban, and rural areas. Often, these communities struggle with mobility and quality of life issues related to trucks in particular. These issues may be overlooked in state and regional planning, which tend to focus on broader mobility and economic challenges.

This project takes place in Valdosta, a community of about 50,000 people in south Georgia. The overall goal of the project is to alleviate the localized impacts of heavy truck movements through downtown Valdosta on U.S. 84, a critical rural freight corridor with connectivity to the Port of Savannah. The primary objective is to develop operational and/or geometric solutions to mitigate the truck traffic impacts on the local portion of U.S. 84 without imposing a hardship on shippers or carriers that rely on the corridor. The project combines freight data from various national and state sources (vehicle classification counts from the Georgia Department of Transportation and truck travel time data from the FHWA's National Performance Management Research Data Set) with locally collected data (stakeholder interviews and truck following data) to better understand truck operations in downtown. The benefit of this approach is that it preserves regional and state-level interests in maintaining performance on the freight corridor while balancing the community's need to relieve the burden of heavy trucks through downtown. It can be applied to rural, suburban, and exurban communities facing similar issues nationwide.

USING DYNAMIC TRANSIT COMPETITIVENESS INDEX TOOL TO DETERMINE TRANSIT NEED AND ALIGNMENTS

ROBERT MCHANEY & ERIK CEMPEL
CAMBRIDGE SYSTEMATICS

Until 2013, the City of Arlington, Texas (COA) was the largest city in the United States without a fixed-route public transit system. COA recently established a short-term agreement with Dallas Area Rapid Transit to provide fixed-route service, and commissioned a study to determine the need for future fixed-route and commuter transit. The approach to determine the transit need consists of an in-depth examination of current and future demographics, land-use, city and regional plans, and travel patterns. The Transit Competitive Index (TCI) was a key tool used to assist planners with determining the competitiveness of transit within the COA.

TCI is a composite metric that provides a single score of the transit market conditions and opportunities for any user-defined origin, destination, or origin-destination pair within a given transit service area or region. It reveals how competitive transit is relative to the automobile while remaining completely independent from the existing transit network or quality of service. For COA twelve local composite zones were selected for analysis, and were measured to determine the likelihood of success of transit operations between two areas. The results showed promising results for several local zonal pairs, especially those linking areas of high residential density with downtown, the University of Texas area, and major commercial areas. Further analysis using the TCI was conducted linking COA to regional destinations, resulting in setting the foundation for local and regional transit alignments. This approach can be applied to any size urban area, or communities within an urban area.

POSTER SESSION 2:00PM MAIN HALL

GIS BASED IDENTIFICATION OF PEDESTRIAN – VEHICLE CRASH HOT SPOTS AND POTENTIALLY HAZARDOUS PACE BUS STOPS

LISHAN CHEN
PACE SUBURBAN BUS

Safety plays an essential role in public transit system operation. This project uses GIS based methodology including the Esri ArcGIS spatial statistics toolbox to identify possible unsafe Pace bus stops in suburban Cook County. First, Moran's I statistics is applied to analyze the spatial pattern of five-year (2008 – 2012) IDOT pedestrian – vehicle crash records based on simultaneously evaluating crash locations and crash counts at each location. Moran's I index values are evaluated based on their z-scores and p-values for significance. Then the Getis-Ord Gi* model is utilized to conduct hot spot analysis for the crashes. The Pace bus stops with potential risk for pedestrian are identified by overlaying and selecting stops falling within the influence areas of the hot spots and ranked by the crash counts. Further, these possible unsafe bus stops are evaluated and discussed with considerations on average daily ridership, land use, population density.

TRANSIT ORIENTED DEVELOPMENT, VACANT BUILDINGS AND BIG DATA

AUDREY HENDERSON
KNOWLEDGE EMPOWERMENT

Transit Oriented Development (TOD) holds many advantages: promoting walkability, reducing car traffic and even enhancing property values for nearby residences and businesses. However, TOD often isn't considered in areas with high rates of vacant and abandoned properties. What if big data could be employed to emphasize assets and resources adjacent to vacant and abandoned properties – including convenient transit?

As it turns out, such a tool is presently under development. It's called Hidden Value in Abandoned Buildings (HViAB), and it's the jointly developed product of myself and Dan Fehrenbach (who performed the initial programming, but who is no longer actively involved with the project). The tool focuses on developing a database of amenities and resources (including transit) located within a half-mile radius of a vacant or abandoned building.

The idea behind HViAB is to reveal the value of a vacant or abandoned building primarily because of where it is located. It doesn't take much imagination to visualize how such a tool could be used to promote TOD in areas with high numbers of vacant and abandoned buildings. Doing so would accomplish three desirable goals: reintroducing vacant and abandoned properties to constructive use, reducing crime and other undesirable developments associated with vacant properties – and of course, promoting TOD.

POSTER SESSION 2:00PM MAIN HALL

THE RETURN ON INVESTMENT FOR PASSENGER RAIL

BRIAN TOMPKINS
UNIVERSITY OF ILLINOIS AT CHICAGO

Currently, there is no universal framework that assesses all the impacts of passenger rail systematically, although it is crucial for improving efficiency.

The factors that impact the return on investment for passenger rail is imperative for determining what types of investments have the most benefits, for which type of rail, and for what demographic. Therefore, this research aims to build an integrative framework to assess the impacts of passenger rail. This research aims to build an integrative understanding of the kinds of benefits that accrue from passenger rail investment. Passenger rail impacts were investigated by a (1) literature review on the return on investment for passenger rail, (2) analysis of survey data from transportation professionals and (3) a knowledge-intensive collection of data from interviews with transportation professionals. Based on these impacts, an integrative theory-driven framework was created. The framework identifies key elements that can dictate the impacts of passenger rail. This research is presumed to create viable contributions to transportation industry leaders interested in developing new ways of creating public/private support and ways of obtaining funding for passenger rail projects that have been successful in other projects and are referenced in the insights and data provided.

CENSUS MINI-FILM FESTIVAL AND PANEL DISCUSSION ON THE VALUE OF CENSUS DATA

MARY R. LUPA
WSP/PARSONS BRINCKERHOFF
CLAIRE BOZIC
CHICAGO METROPOLITAN AGENCY FOR PLANNING
ED CHRISTOPHER
CONSULTANT

Transportation planners depend on Census and other data to understand their regions, conduct spatial analysis, build traffic models, and to assist decision makers in answering policy questions. Together the Decennial Census, the American Community Survey (ACS) and a custom tabulation of the ACS designed for transportation planners known as the Census Transportation Planning Package (CTTP) make up the cornerstone of the planners' data arsenal. These products are explained in the film clip forum being proposed.

The purpose of this 27 minute film clip forum is to share some history of the census and to get the flavor of six decennial census collection years with commercials the Census Bureau produced for each decade from 1940 to 2010. Another short clip will introduce the CTPP and show how it is used by transportation planners. In this poster format, we will provide a loop of the film clips at the poster table with headphones available. Interested parties can experience some or all of the clips then address questions to the authors. Emerging issues with respect to Census data collection will include:

- Funding for Census products.
- Changes to the ACS.
- Future CTPP products.

This poster session reflects the ease with which ideas can be communicated using film and video components. Transportation planners have grasped this reality in recent years. In the Census Video Clips and Forum Discussion they will get to experience it.

WILDCARD SESSION

2:15PM

MODERATED BY: IAN BROWN & ED BURY

IN ADDITION TO OUR USUAL LINEUP OF MODERATED SESSIONS, TRANSPORT CHICAGO WILL ALSO FEATURE A 30-MINUTE WILDCARD SESSION. WITH WILDCARD SESSIONS, YOU SET THE AGENDA AND LEAD THE DISCUSSION! HAVE A NEW PROJECT YOU'D LIKE TO PRESENT? AN EMERGING TOPIC THAT YOU DIDN'T SEE ON THE CONFERENCE PROGRAM? BRING YOUR IDEAS AND PROPOSE A SESSION!

FORMAT:

- We will be taking submissions throughout the morning of the conference. All you need to submit an idea is your name and a brief description of the session you'd like to host.
- The format of the session is up to you. You can give a presentation, moderate a panel, or host an informal and interactive discussion for all to participate in.
- Submissions will be posted before lunch, and your fellow conference attendees will vote on their favorites.
- The top picks will be selected to host a 30 minute session from 2:15 to 2:45.
- Feel free to bring along any presentation slides, visual aids, etc., or go analog and just bring yourself!

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ASK THE DECISION MAKERS

SESSION 3A
3:00 PM – ROOM I
MODERATOR: JOSH SIKICH

PANELISTS INCLUDE:

RANDY BLANKENHORN
ILLINOIS SECRETARY OF TRANSPORTATION

LUANN HAMILTON
CHICAGO DEPARTMENT OF TRANSPORTATION DEPUTY COMMISSIONER

LISTEN TO HIGH-LEVEL OFFICIALS DISCUSS THE LATEST PROJECTS AT THEIR AGENCIES AND PARTICIPATE IN A LIVELY DISCUSSION. FIND OUT WHAT GOES INTO DECIDING WHAT GETS BUILT AND HOW.

SESSION 3B
3:00PM – ROOM F
MODERATOR: KEVIN O'NEILL

BIKES AND BLOCKS

TRACK: PLANNING & PLACES

GOOD TRANSPORTATION OPTIONS ARE BUILT FROM A FOUNDATION THAT IS RESPONSIVE TO CUSTOMER NEEDS. ATTENDEES TO THIS SESSION WILL HEAR ABOUT EFFORTS TO PROVIDE THE PROPER FIT FOR TRANSIT USERS THROUGH A DISCUSSION OF NEW COMMUTER RAIL SCHEDULE IMPLEMENTATION, EQUITY CONSIDERATIONS WHEN PLANNING BIKE-SHARE EXPANSIONS THROUGHOUT GREATER CHICAGO, AND THE EFFECT OF INCOME ON THE DEMAND FOR TRANSIT.

WRITING AN EXPRESS SCHEDULE FOR COMMUTER RAIL SERVICE

DANIEL MIODONSKI & LAUREN ROONEY
METRA

Metra's Rock Island District services Chicago's southwest side from downtown to Joliet. On November 1st, 2015, Metra released a new Rock Island District schedule that altered the outbound evening trains in order to provide express service for its riders.

By reconfiguring equipment cycles, Metra is able to provide express service at an earlier time without requiring additional crews or train sets. This was done through extensive analysis that included ridership data, GIS mapping, planning of equipment, and other performance measures.

Metra was able to benefit from GIS mapping, the importance of multi-faceted analysis to create change, and the interdepartmental cooperation that allows changes like this to be successful.
The audience at Transport Chicago would learn through our presentation how commuter rail schedules are written as well as gain an understanding of the logistics that are involved in scheduling and operations.
Major changes to commuter rail schedules do not occur often due to the nature of the service and an expectation of consistency. However, Metra can provide a case study of the analysis and processes that occur when these changes take place.

EQUITY CONSIDERATIONS IN BIKE SHARE

SEAN WIEDEL
CHICAGO DEPARTMENT OF TRANSPORTATION

Since the City of Chicago's Divvy bikeshare program launched in summer 2013, the Chicago Department of Transportation (CDOT) and Motivate International have been building a comprehensive equity program around bikeshare. Elements of bikeshare equity that will be discussed include planning and station siting; extensive and varied outreach to engage diverse communities; economic development and jobs, and programs for low income and unbanked Chicagoans.

In July of 2015, the City of Chicago rolled out the final piece of the equity puzzle, the Divvy for Everyone (D4E) subsidized membership program. While the price of an annual Divvy membership breaks down to just pennies per day, nearly 13% of Chicagoans—those who don't have debit or credit cards—could not access the system. The City also recognized that the annual Divvy membership fee may be too expensive for some people living paycheck-to-paycheck to afford in one payment. D4E is the product of CDOT's efforts to address these financial barriers and to boost access to affordable transportation for those who need it most. Building partnerships in a new field of expert advocates, the not-so-high tech building blocks of the program, and plans for scaling the effort in its second year will all be covered.

DOES THE INCOME LEVEL OF A NEIGHBORHOOD AFFECT TRANSIT DEMAND RESPONSIVENESS?

CAROLINE MILLER
ALLSTATE INSURANCE COMPANY

IAN SAVAGE
NORTHWESTERN UNIVERSITY

Changes in ridership at individual stations on Chicago's mass-transit rail system following fare increases in 2004, 2006 and 2009 are analyzed to determine whether the ridership response varies with the per capita income in the neighborhood surrounding each station. For two of the three fare changes, the decline in ridership is less in higher-income neighborhoods than it is in lower-income neighborhoods. However, a contradictory result is found for the other fare increase. These mixed findings are in line with the prior literature that also found an inconsistent relationship.

SESSION 3C
3:00PM – ROOM D
MODERATOR: SCOTT GREIG

I LIKE BIG DATA
TRACK: DATA & INNOVATION

OPEN DATA SOLUTIONS ARE EMERGING AS A SOURCE OF INFORMATION FOR TRANSPORTATION PROFESSIONALS ACROSS THE PLANNING AND ENGINEERING REALMS AND CAN PROVIDE A WEALTH OF KNOWLEDGE TO PROFESSIONALS AND THE GENERAL PUBLIC ALIKE. LEVERAGING THE POWER OF OPEN DATA CAN EMPOWER PROFESSIONALS TO CONDUCT EFFECTIVE AND WIDE-RANGING ANALYSIS AT THE TOUCH OF A BUTTON. THIS SESSION WILL DEMONSTRATE HOW OPEN DATA ANALYTICS CAN HELP QUANTIFY THE REGION'S ACCESS TO TRANSIT, BRING ABOUT MORE TRANSIT-ORIENTED DEVELOPMENT, AND SUPPORT THE REBUILDING OF OUR REGION'S INFRASTRUCTURE.

UNLOCK THE POWER OF INFRASTRUCTURE BIG DATA

ZHONG CHEN
DYNASTY GROUP

uGRIDD (uGRIDD.com) is an emerging web-based platform that offers sophisticated, but easy to use interfaces to help customers unlock the power of infrastructure big data. Unlike other systems in the infrastructure industry that started off as a software package, uGRIDD was created as an interactive map- based solution platform. uGRIDD's disrupts the traditional way of searching and archiving data by enabling both technical and non-technical individuals to organize and provide easy access of their infrastructure data to whomever they choose, very economically. This is done over popular internet browsers in a secured environment; with no other additional software necessary. Through location of interest inquiries uGRIDD's technology allows users to look at data on a global level and at the most precise local level interactively by a click of a button or roll on a computer mouse.

uGRIDD has solved CTA's big data dilemma for its major rail projects. With the Red Line South track rebuild project, CTA used LiDAR and video scans that were simultaneously georeferenced. This involved terabytes of accurate data normally accessible to only those trained in specialty software. The data was inserted into uGRIDD making it easily accessible to everyone one on the project, with no technical training required. It saved tremendous amounts of time for a project that was severely time constrained. Subsequently uGRIDD has become a standard hosting solution for similar CTA rail projects. After project completion, the georeferenced data is easily found years later with uGRIDD's easy to use tools.

MAKING THE CONNECTION: USING TRANSIT ACCESS TO OPPORTUNITIES FOR PLANNING

WILL GILLESPIE
REGIONAL TRANSPORTATION AUTHORITY (RTA)

The purpose of the transit system is to connect people to the things they need to get to – work, school, groceries, recreation, childcare, and other opportunities. Quantifying transit access to opportunities provides a powerful way to understand the utility of the transit system in meeting the needs of the regional population. This type of measure accounts not only for the ease of moving between places, measured as travel time on transit, but also for the relative attractiveness of the destination, measured by density of opportunities.

Using common tools available to planners, the Regional Transportation Authority has developed a method to accurately calculate travel times on transit throughout the Chicago region when accessing the network by walking or driving to park-and-ride facilities. We can thus quantify the number of opportunities (such as jobs) accessible to the regional population by transit and assess the impact of transit system improvements in a way that is real and meaningful to people in the region.

Initial results show that in 2016 the average worker in the Chicago region can access 27 percent of all regional employment opportunities within 90 minutes by transit. And, the average access time to a job by a worker is 56 minutes by transit. However, these access levels can vary significantly depending on location of residence and this session will further explore some of these variations and how this information might be used to inform future transit improvements.

USING OPEN DATA TO MAKE THE CASE FOR TRANSIT-ORIENTED DEVELOPMENT

YONAH FREEMARK
METROPOLITAN PLANNING COUNCIL

Transit-oriented development (TOD) has gained wide acceptance among city planners for its value in allowing neighborhoods to grow while minimizing impacts on congestion and pollution. The value of TOD investments, however, is not always widely understood by people living in communities served by transit. As a result, proposed developments frequently are heavily contested and their scale is often reduced due to local opposition. Some criticism is founded on aesthetic grounds that cannot be easily countered, but much of it is based on limited information about project impacts.

The Metropolitan Planning Council (MPC) developed a tool, the TOD Calculator (available at metroplanning.org/growchicago), to help address a lack of adequate information about project impacts. This tool allows users to input information about potential developments anywhere in the city of Chicago and instantly receive information about how that project could affect the surrounding neighborhoods through additional taxes, local retail sales, and parked cars, among other outputs.

This presentation will describe the process that MPC undertook to develop this unique tool, which relies on open-source data and neighborhood-specific characteristics and offers first-in-the-nation insights into project impacts. It will also address how the tool has been used on the ground thus far and offer insights into how access to better information improves community dialogue about TOD.

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