Telecommuting:
Minnesota Efforts, Benefits and Future

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May 18, 2020
Presentation Outline

• Organizational Background
• eWorkPlace
  – Overview
  – Driving Forces
• Work Plan Approach
• Telework Benefits and Overall Results
• Conclusions and Some Thoughts
Humphrey School of Public Affairs

- **Mission**: to inspire, educate, and support innovative leaders to advance the common good in a diverse world.
- Ranked in top 10 public policy and planning schools
- 422 students and 46 full-time faculty
- **State and Local Policy Program** is one of 8 research and outreach centers, founded in 1991, with a focus on transportation research

Center for Transportation Studies

- **Mission**: CTS serves as a catalyst for transportation innovation, advancing knowledge through research, education and engagement.
- University-wide Center
- 150 faculty and staff researchers
- Fostering stakeholder and public engagement is a key focus area
What is TPEC?

Transportation Policy and Economic Competitiveness Program (TPEC) is a research program within The State and Local Policy Program: an HHH School Research and outreach center. Focusing on transportation policy and Economic Development.

TPEC Research focuses on...

- Finance
- Industry Clusters and Freight
- Technology
  - automated vehicles
  - telework
What is Telework?

Working away from the office, either from home, another location or while traveling

Can be performed full- or part-time
What is eWorkPlace?

Free telework assistance to Minnesota employers

Helps employers introduce telework and enjoy its benefits

Enables employees to work from home and connect to the office digitally

Benefits: reduces congestion, saves time and money, Improve Environment and is beneficial for employers and employees alike
eWorkPlace Phases

Phase I
Marketing, awareness and implementation campaign
Promoted teleworking and flexible work scheduling
Reduced peak period commuting on congested roads

Phase II
Focused on Hennepin County
Aimed to reduce congestion and improve air quality by increasing telework
Phase III

- March 2017 through December 2018
- Focused on 35W@94 construction project
- Collaboration with Minnesota Department of Transportation (MnDOT), Metro Transit Hennepin County, City of Minneapolis and other involved parties
- Funded by federal TDM grant and MnDOT match
Driving Forces

• Traffic Congestion Doesn’t Have to be Accepted!
• Same Old Approach Will Produce Same Results
• Fed’s challenge to use the four Ts: Tolling, Transit, Technology and Telecommuting to manage congestion
• Minnesota selected to be one of five Urban Partnership Agreements and received over $133 million grant
• Must measure results
Driving Forces

- Transportation cause of 1/3 of greenhouse gas emission
- Even 55 miles per gallon efficiency standard will have modest impact (Sec. Ray LaHood)
- VMT/Trip reduction is the only way
- Telework maybe the best option
- State Climate Action Plan
The Costs of Congestion

• The financial cost of congestion:
  – 8.8B hours of delay and 3.3 Billion gallons of wasted fuel annually*
  – Congestion Cost of $166B and extra 54 hour in urban area*
  – In 2019 Twin Cities metro area yearly delay 56 hours costing $980. $2.08 Billion*

• Congestion hurts family and civic life, impacting:
  – Where people live and work
  – Where they shop
  – How much they pay for goods and services

* Texas Transportation Institute, 2019 Urban Mobility Report
Market Research

- To better understand the barriers and opportunities that exist for telecommuting and provide input in the development of a Marketing/Communications (MARCOM)

- To provide input into branding, advertising and marketing/educational materials.
Work Plan

- Identify Target Employers
- Marketing and Education
- Recruitment
- Migration
- Evaluation and Measurement
Program Services
Program Services

- Wealth of telework information via the eWorkPlace website ([www.eworkplace-mn.com](http://www.eworkplace-mn.com)), toolkits, and blog
  - Managers’ guide
  - Policy templates
  - Selection guide and checklist
  - Solutions to issues/barriers
  - Quick start options
  - Case studies (employer & teleworker)
  - Business reports
  - White papers
  - *Ask the Expert* corner
Events

- Webinars
- Manager telework trainings
- Employee telework trainings
- 35W@94 Open Houses
- Downtown Employer telework event
- Tabling at various employer open houses
Social Media

EWorkPlace
@eWorkPlaceMN

Home
Reviews
Photos

Like
Share
Suggest Edits

Sign Up

Send Message

Tired
Wired
Inspired

Have you heard about eWorkPlace??

@eWorkPlaceMN
Tired Wired Inspired

eWorkPlace MN
@eWorkPlaceMN
• Public program for Twin Cities area employers to implement and promote telecommuting, reduce traffic, and so much more. bit.ly/teleworkMN
• Twin Cities, MN
• eworkplace-mn.com
• Joined May 2009
• 72 Photos and videos

Tweets
1,003

Following
1,376

Followers
655

Likes
816

Lists
9

Moments
0

Summer 2018 – Fall 2018

Hwy 65 to/from downtown
and 12th St ramp
CLOSED Summer 2018

Portland Ave Bridge
OPEN
the bottom line
Evaluation plan

• Longitudinal survey of eWorkplace participants
  – Start of program
  – 3 months after
  – 9 months after

• Commute Tool / Diary
  – Weekly commuting behavior
  – Perception of telework
  – Trip diary: compare a telework day and an office day
Evaluation Objectives

• Observe changes in attitudes towards telework
  – Productivity
  – Available work hour
  – Preferred number of telework days

• Observe changes in travel behaviors
  – Modes
  – Number of trips
  – Length (VMT)
  – Time of day (peak vs. non-peak)
  – I-35W and I-394 usage
Participation Phase 1

- 50+ Employers
  - Non-profit (e.g. Fairview, Wilder)
  - Public (e.g. Hennepin and Carver Counties)
  - Private (e.g. Turck, Ecolab)

- 4200+ employees
  - Participants per employer range from 1 – 1400
  - Employees participating in surveys: 1005
Employer Survey

- **75%** felt productivity stayed the same or increased
- **95%** plan to continue or expand their telework program
- **Benefits**: Increased job satisfaction, productivity, and reduced absenteeism
- **Challenges**: More cultural than technical
- **Lessons**: Seek strong “top down” support. Start with a pilot. Use resources available
90% of participants reported an increase in productivity

85% of supervisors felt telework had a positive effect on productivity

100% of co-workers surveyed felt that teleworkers were accessible and responsive
95% case processing rate
77% decrease in unprocessed in-basket items
9% increase in case processing

“I have noticed that the response time of my staff has improved, and this month’s outcome measures have improved as well.

– HSPHD Support Manager
- **16%** increase in calls answered
- **10%** increase in quick call resolution
- **4.5 out of 5** rating for customer satisfaction

“Telework is a win-win situation – a good fit for the associate as well as our department.”

- *Ecolab IT Manager*
Increased Productivity

67% Employees Reported Increased Productivity

59% Employees Reported Increased Available Work Hours
Road Less Traveled

Teleworkers take 80% fewer trips during the day

Teleworkers take 93% fewer daily trips during peak hours

Teleworkers reduced their daily VMT by 92% vs. non-teleworkers on telework days

-80%

-93%

-92%
Emission Impacts

4,212 eWorkPlace Participants means 8.2 million fewer pounds of CO₂ released each year which is equivalent to planting 1,000 acres of forest
COVID-19 (Telework?) Impact on Traffic Volumes in Minnesota

![Graph showing traffic volume changes](https://metrotransitmn.shinyapps.io/covid-traffic-trends/)

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COVID-19 (Telework?) Impact on Traffic Volumes in Minnesota

March 4, 2020

Decreases in freeway travel are occurring across the Twin Cities metropolitan region.

The map shows the decreases in travel at individual traffic monitoring sites across the Twin Cities Metropolitan area. Traffic monitoring is performed by the Minnesota Department of Transportation (MnDOT) using detectors built into the infrastructure of the roads. These detectors are usually used to estimate congestion along Metro Area highways.

Select a date to see change in the map over time.

03/04/2020

Select a corridor


https://metrotransitmn.shinyapps.io/covid-traffic-trends/
COVID-19 (Telework?) Impact on Traffic Volumes in Minnesota

March 18, 2020

The map shows the decreases in travel at individual traffic monitoring sites across the Twin Cities Metropolitan area. Traffic monitoring is performed by the Minnesota Department of Transportation (MnDOT) using detectors built into the infrastructure of the roads. These detectors are usually used to estimate congestion along Metro area highways.

Select a date to see change in the map over time:

03/18/2020

Select a corridor:

https://metrotransitmn.shinyapps.io/covid-traffic-trends/
COVID-19 (Telework?) Impact on Traffic Volumes in Minnesota

May 13, 2020

Decreases in freeway travel are occurring across the Twin Cities metropolitan region.

The map shows the decreases in travel at individual traffic monitoring sites across the Twin Cities Metropolitan area. Traffic monitoring is performed by the Minnesota Department of Transportation (MnDOT) using detectors built into the infrastructure of the roads. These detectors are usually used to estimate congestion along Metro area highways.

Select a date to see change in the map over time:

05/13/2020

Select a corridor:


https://metrotransitmn.shinyapps.io/covid-traffic-trends/
Recent Traffic Volumes in Minnesota


- County by County report

- As of May 7:
  - 46% decline in Work Place trips
  - 48% decline in transit trips
Telework is growing


- Worked from Home at Least One Day/Week
- Worked Exclusively from Home

<table>
<thead>
<tr>
<th>Year</th>
<th>Worked from Home</th>
<th>Worked Exclusively</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>1997</td>
<td>4.8%</td>
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<td>4.9%</td>
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<tr>
<td>2002</td>
<td>5.3%</td>
<td>2.3%</td>
<td>7.6%</td>
</tr>
<tr>
<td>2005</td>
<td>5.6%</td>
<td>2.2%</td>
<td>7.8%</td>
</tr>
<tr>
<td>2010</td>
<td>6.6%</td>
<td>2.8%</td>
<td>9.4%</td>
</tr>
</tbody>
</table>
Workers who could work at Home

- Workers who could work from home 28.8%
- Who did work at home 24.8%
- Worked at least one day/week at home 8.08%

* US Bureau of Labor Statistics period 2017-2018
Should not forget

Workers who could work at home

Race

- White 29.9%
- Asian 37.0%
- Black 19.7%
- Hispanic 16.2%
Should not forget

Workers who could work at home

Educational Attainment

- Less than High School 4.2%
- High School Graduates 12.6%
- Some college or Associate Degree 24.2%
- Bachelor’s degree or Higher 51.9%
Questions for future

• Will telecommuting be the part of the “new normal?” To what degree will companies continue to allow their employees the freedom to telecommute? Two to three days per week of telecommuting is considered ideal for employee performance.

• What will be the impact of this new normal (if any) on vehicle miles traveled and highway congestion? An approximate 5% reduction in peak period volume could eliminate most of the Minneapolis/St. Paul region’s congestion. How will increased home delivery play into this equation?
Questions for future

• What public policy strategies are needed to ensure that telecommuting continues to the level necessary to reduce trips and to either eliminate or significantly reduce peak period congestion?

• This can have major impacts on transportation investment needs and improvement of air quality.

• We seek to study telecommuting’s geographical and equitable implications during the COVID-19 pandemic. The availability of broadband also will also significantly impact the findings.
Broadband Needs

• Increasing needs for Speed and Capacity

• Ever increasing need for reliability

• Disparity due to cost and availability
THANKS

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