Can More Transit Reduce the Congestion Problem in the GTA?

Unless transit captures over 100% of new travel, it cannot reduce traffic congestion.
Congestion Makes Less Competitive

INTERNATIONAL WORK TRIP TRAVEL TIMES

- Kansas City (2.0M)
- Dallas-Fort Worth (6.4M)
- Houston (5.9M)
- Los Angeles (12.8M)
- Ottawa (1.2M)
- Vancouver (2.4M)
- New York (18.9M)
- London (12.3M)
- Toronto (5.7M)

Sources: Toronto Board of Trade & US Census Bureau

Round Trip Travel Time (Minutes)
Travel by Transit Takes Longer

CANADA: AVERAGE WORK TRIP: 2005

Source: Statistics Canada
Minimum Travel Times Associated with Affluence

ACCESS TO MORE JOBS, MORE ECONOMIC GROWTH

Example:
PRUD’HOMME & LEE
U. Of Paris

Source:
OECD

AUTO

TRANSIT

WALKING

GDP/Per Capita: Richest Nation: 2000

$45,000
$40,000
$35,000
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0

1500 1550 1600 1650 1700 1750 1800 1850 1900 1950 2000
TRANSIT IS IMPORTANT:
NICHE MARKETS
Downtown
Urban Core
Transit is About Downtown
EMPLOYMENT: TORONTO CMA: 2010

Source: City of Toronto & Invest Toronto

- Downtown: 14%
- Little transit travel to other centers (High Income World): 29%
- City of Toronto: Balance: 57%
- Suburbs (905): 57%
Elsewhere: Transit Cannot Compete

THE “LAST KILOMETER” PROBLEM: MOST TRIPS

Annual Cost: More than gross annual income

An auto competitive system for Portland?

800 Meter Subway (Metro) Grid
You Can’t Get to Most Jobs on Transit
SHARE OF JOBS WITHIN 45 MINUTE TRANSIT TRIP : 2008

Boston: 12.6%
San Francisco: 10.5%
New York: 9.8%
Portland: 7.8%
Chicago: 6.3%

Source: Brookings Institution

% of Jobs Within 45 Minutes: Average Worker
Traffic Congestion Increases with Density

HIGH INCOME WORLD: URBAN AREAS

<table>
<thead>
<tr>
<th>Population per Square Kilometer</th>
<th>Vehicle Hours per Square Kilometer</th>
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<tbody>
<tr>
<td>Under 1,000</td>
<td>500</td>
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<tr>
<td>1,000 - 2,000</td>
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<td>2,000 - 3,000</td>
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<td>3,000 - 4,000</td>
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<tr>
<td>4,000 &amp; Over</td>
<td>4,000</td>
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Source: Kenworthy & Laube
More Intense Traffic in Higher Densities

WITHIN US MAJOR METROPOLITAN AREAS: (COUNTIES)

Source: USEPA

422 Counties in 51 Metropolitan Areas
Over 1,000,000


$R^2 = 0.705$

99% confidence level
Europe: More Transit, More Congestion
US & EUROPE BY METROPOLITAN AREA SIZE: 2010

Average Excess Hours in Traffic

Source: INRIX

Metropolitan Area Population

Europe 87 of Most Congested 100
Nearly All Growth in Suburbs: 2001-2006
POPULATION & EMPLOYMENT

**POPULATION**
- City of Toronto: 6%
- Suburbs: 94% (905)

**EMPLOYMENT**
- City of Toronto: 5%
- Suburbs: 95% (905)

Source: Statistics Canada
Projected Population Growth: 2010-2036
TORONTO CMA: DISTRIBUTION

Source: Ontario Ministry of Finance

City of Toronto: 25%
Suburbs (905): 75%

City: 20% of New CMA Jobs 2011-2031
FOCUS ON OBJECTIVES

Difficult demographic challenges
(Example: Old age dependency to double)
Maximize economic growth
Need to minimize travel times

More transit cannot reduce traffic congestion in the GTA