



## **DRAFT FONVCA AGENDA**

### **THURSDAY September 15<sup>th</sup> 2011**

**Place:** DNV Hall 355 W. Queens Rd V7N 2K6  
**Time:** 7:00-9:00pm  
**Chair:** John Hunter – Seymour C.A.  
**Tel:** 604-929-4436 **email:** hunterjohn@telus.net

Regrets:

#### **1. Order/content of Agenda(\*short)**

**Early agenda Item submissions (especially those including electronic support material) - by members who plan to attend - would be appreciated.**

#### **2. Adoption of Minutes of July 21<sup>st</sup>**

<http://www.fonvca.org/agendas/sep2011/minutes-jul2011.pdf>

#### **3. Old Business**

**3.1 Council Agenda Distribution - continued**  
 -Basic Agenda listing still missing from District Dialogue

#### **4. Correspondence Issues**

**4.1 Business arising from 26 regular emails:**

**4.2 Non-Posted letters – 0 this period**

#### **4.3 Roundtable on “Current Affairs”**

A period of roughly 30 minutes for association members to exchange information of common concerns.

- a) DNV Highway 1 Interchange Design Working Group: Katherine Fagerlund
- b) Tree Bylaw & General need to number pages and highlight (eg blackline) changes in bylaws & agreements: John Hunter
- c) Smart Meters – real & virtual concerns/benefits – Corrie
- d) Garbage/Bear Rules – Brian Platts

#### **5. New Business**

**Council and other District issues.**

##### **5.1 Safety of Wi-Fi Revisited**

<http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/prod/wifi-eng.php>  
<http://www.oahpp.ca/resources/documents/Wireless%20technology%20and%20health%20outcomes.pdf>

<http://www.nsnews.com/technology/Residents+deserve+smart+meter+installation/5165297/story.html>

#### **5.2 Municipal Election Questions:**

- 2011 Civic Election is Saturday Nov 19/2011
- Advance Voting on Monday Nov 14<sup>th</sup>
- Nomination Deadline: Oct 14/2011

All FONVCA members are urged to submit their potential list of questions that FONVCA will submit to all candidates to [fonvca@fonvca.org](mailto:fonvca@fonvca.org).

- The first 10 are from 2008, while 11-18 were submitted this year
1. What practical experience qualifies you for local governance?
  2. What three major issues are you most concerned about in the DNV?
  3. What are your primary goals and visions for DNV over the next 5-10 years?
  4. How should North Vancouver be policed? What are the most important issues and how would you address them?
  5. What do you propose to improve different modes of transportation?
  6. Do you advocate increased density? If “Yes”, where and how?
  7. Would you encourage civic involvement by the public?
  8. How should the DNV fund renewal of its aging infrastructure?
  9. How do you propose to provide housing for a broad range of income levels?
  10. What role should community associations play?
  11. What can be done to reduce two of our largest costs – the fire department and the north shore recreation commission?
  12. Will you commit to the removal of all encroachments where citizens have built facilities on or blocked access to public lands, before the next election?
  13. Leaving aside mandatory legislated requirements, do you believe DNV should do “green” projects even if uneconomic in a commercial sense, and why?
  14. Do you believe ratepayers should subsidize those who realistically cannot afford to live on the north shore, and if so, in what circumstances, and why?
  15. Will you push for and support a review of DNV salaries, wages, and benefits as compared to the private sector?
  16. Do you support amalgamation of some or all of the north shore municipalities, and why?
  17. What steps would you, as Mayor, take to balance the needs of the DNV against the needs of the larger community of Metro Vancouver?
  18. Do you believe that there are too many complex bylaws governing our daily lives? If yes, which existing regulations would you like to simplify or eliminate?
  19. What is your view on creating a new municipal auditor general?

#### **5.3 Steps to Improve Community Associations**

[http://www.vcn.bc.ca/citizens-handbook/1\\_07\\_keepppeople.html](http://www.vcn.bc.ca/citizens-handbook/1_07_keepppeople.html)

#### **6. Any Other Business**

##### **6.1 Legal Issues**

- \*a) DNV can enter land/buildings for bylaw enforcement without a warrant: <http://www.oboa.on.ca/training/caselaw/pdf/6%20R.%20v.%20Bichel.pdf>
- \*b) Neighbour Law – BC Branch of Canadian Bar Association [http://www.cba.org/bc/public\\_media/housing/400.aspx](http://www.cba.org/bc/public_media/housing/400.aspx)

##### **6.2 Any Other Issues (2 min each)**

- \*a) Transit trips to work take twice as long as driving <http://www.statcan.gc.ca/pub/11-008-x/2011002/article/11531-eng.pdf>
- \*b) For more issues see <http://www.fonvca.org/agendas/sep2011/extras.pdf>

#### **7. Chair & Date of next meeting.**

**Thursday October 20<sup>th</sup> 2011**

**Diana Belhouse – Delbrook C.A.?**

**ATTACHMENTS** -List of Recent Emails to FONVCA

**OUTSTANDING COUNCIL ITEMS** -Cat Regulation Bylaw; Review of Zoning Bylaw; Securing of vehicle load bylaw; Snow removal for single family homes bylaw.

**FONVCA Received Correspondence/Subject**  
**18 July 2011 → 11 September 2011**

<b>LINK</b>	<b>SUBJECT</b>
<a href="http://www.fonvca.org/letters/2011/18jul-to/Brian_Platts_6aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Brian_Platts_6aug2011.pdf</a>	Bears & Garbage Times
<a href="http://www.fonvca.org/letters/2011/18jul-to/Corrie_Kost_8aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Corrie_Kost_8aug2011.pdf</a>	Thanks to Del Kristalovich
<a href="http://www.fonvca.org/letters/2011/18jul-to/Douglas_Curran_12aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Douglas_Curran_12aug2011.pdf</a>	CGA "Meet Your Neighbour"
<a href="http://www.fonvca.org/letters/2011/18jul-to/Douglas_Curran_21jul2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Douglas_Curran_21jul2011.pdf</a>	A Modern Community Message Board
<a href="http://www.fonvca.org/letters/2011/18jul-to/Douglas_Curran_23aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Douglas_Curran_23aug2011.pdf</a>	A new perspective on libraries
<a href="http://www.fonvca.org/letters/2011/18jul-to/Elise_Roberts_29aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Elise_Roberts_29aug2011.pdf</a>	Alpine Study – Mountain bikes
<a href="http://www.fonvca.org/letters/2011/18jul-to/James_Gordon_25aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/James_Gordon_25aug2011.pdf</a>	Highway 1 Interchange Design Working Group
<a href="http://www.fonvca.org/letters/2011/18jul-to/John_Hunter_21jul2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/John_Hunter_21jul2011.pdf</a>	Tree Bylaw Deficiencies
<a href="http://www.fonvca.org/letters/2011/18jul-to/John_Hunter_21jul2011b.pdf">http://www.fonvca.org/letters/2011/18jul-to/John_Hunter_21jul2011b.pdf</a>	Tree Bylaw Deficiencies
<a href="http://www.fonvca.org/letters/2011/18jul-to/John_Hunter_8aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/John_Hunter_8aug2011.pdf</a>	Bears & Garbage Times
<a href="http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_10aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_10aug2011.pdf</a>	Forest Disc Golf
<a href="http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_29aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_29aug2011.pdf</a>	Mountain Biking
<a href="http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_29jul2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_29jul2011.pdf</a>	Mountain Biking Races
<a href="http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_2aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_2aug2011.pdf</a>	Mountain Biking in Finland
<a href="http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_30aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_30aug2011.pdf</a>	Overlord Racers ignore the Rules!
<a href="http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_31aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_31aug2011.pdf</a>	You rode through Mountain View Park!
<a href="http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_4sep2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_4sep2011.pdf</a>	Mountain Biking Risks
<a href="http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_6aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_6aug2011.pdf</a>	DNV should "twin" with Timaru New Zealand
<a href="http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_7aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_7aug2011.pdf</a>	Mountain Biking and LSCR
<a href="http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_8aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_8aug2011.pdf</a>	Forest Disc Golf
<a href="http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_8sep2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Monica_Craver_8sep2011.pdf</a>	Mountain Biking – 3% solution
<a href="http://www.fonvca.org/letters/2011/18jul-to/Richard_Boulton_31aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Richard_Boulton_31aug2011.pdf</a>	Overlord Racers ignore the Rules!
<a href="http://www.fonvca.org/letters/2011/18jul-to/Wendi_Qureshi_10aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Wendi_Qureshi_10aug2011.pdf</a>	Advisory Committee on Disability Issues Begging for members
<a href="http://www.fonvca.org/letters/2011/18jul-to/Wendi_Qureshi_12aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Wendi_Qureshi_12aug2011.pdf</a>	Whole world doesn't have to move to the DNV
<a href="http://www.fonvca.org/letters/2011/18jul-to/Wendi_Qureshi_15aug2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Wendi_Qureshi_15aug2011.pdf</a>	Municipal Auditor-General
<a href="http://www.fonvca.org/letters/2011/18jul-to/Elizabeth_James_6sep2011.pdf">http://www.fonvca.org/letters/2011/18jul-to/Elizabeth_James_6sep2011.pdf</a>	Question re District liability of biking trails

**Past Chair of FONVCA (Jan 2009-present)**

Sep 2011	John Hunter	Seymour C.A.
Jul 2011	Cathy Adams	Lions Gate C.A.
Jun 2011	Eric Andersen	Blueridge C.A.
May 2011	Dan Ellis	Lynn Valley C.A.
Apr 2011	Brian Platts	Edgemont & Upper Capilano C.A.
Mar 2011	Val Moller	Lions Gate C.A.
Feb 2011	Paul Tubb	Pemberton Heights ← Special focus on 2011-2015 Financial Plan
Jan 2011	Diana Belhouse	S.O.S.
Dec 2010	John Hunter	Seymour C.A. ← Meeting with DNV Staff on Draft#1 OCP
Nov 2010	Cathy Adams	Lions Gate C.A.
Oct 2010	Eric Andersen	Blueridge C.A.
Sep 2010	K'nud Hille	Norgate Park C.A.
Jun 2010	Dan Ellis	Lynn Valley C.A.
May 2010	Val Moller	Lions Gate C.A.
Apr 2010	Paul Tubb	Pemberton Heights
Mar 2010	Brian Platts	Edgemont C.A.
Feb 2010	Special	
Jan 2010	Dianna Belhouse	S.O.S
Nov 2009	K'nud Hill	Norgate Park C.A.
Oct 2009	Dan Ellis	Lynn Valley C.A.
Sep 2009	Brian Platts	Edgemont C.A.
Jul 2009	Val Moller	Lions Gate N.A.
Jun 2009	Eric Andersen	Blueridge C.A.
May 2009	Diana Belhouse	S.O.S
Apr 2009	Lyle Craver	Mt. Fromme R.A.
Mar 2009	Del Kristalovich	Seymour C.A.
Feb 2009	Paul Tubb	Pemberton Heights C.A.
Jan 2009	K'nud Hille	Norgate Park C.A.

**Notetaker**

Dan Ellis
John Hunter
Cathy Adams
Brian Platts/Corrie Kost
Diana Belhouse
Eric Andersen
Brenda Barrick
None
John Hunter
Paul Tubb
Eric Andersen
Cathy Adams
Cathy Adams
Dan Ellis
Diana Belhouse
Diana Belhouse
Eric Andersen
Cathy Adams
Dan Ellis
Cathy Adams
Eric Andersen

# FONVCA

## Minutes July 21<sup>st</sup> 2011

Place: DNV Hall 355 W. Queens Rd V7N 2K6  
Time: 7:00-9:00pm

### Attendees

Dan Ellis	Lynn Valley C.A.
Corrie Kost	EUCCA
John Hunter (notes)	Seymour C.A.
Cathy Adams(Chair))	Lions Gate N.A.
Eric Andersen	Blueridge C.A.
Brian Platts	EUCCA
Val Moller	Lions Gate N.A.
John Miller	Lower Cap. Community R.A.
Diana Belhouse	Delbrook C.A. & NV Save Our Shores Soc.

Regrets: None

The meeting was called to order at 7:05 PM

### 1. ORDER / CONTENT OF AGENDA

Dan added item 5.7 Setting Content of Agenda which was proposed to be discussed after adoption of agenda.

**Note: Items marked with \*** are mainly for information and usually involved little or no discussion by the members present.

### 2. ADOPTION OF June 16<sup>th</sup> 2011 MINUTES

<http://www.fonvca.org/agendas/jul2011/minutes-jun2011.pdf>

Moved by Brian to adopt the June/2011 minutes as circulated. Seconded by Dan. Carried unanimously.

### 5.7 Setting the Agenda

Discussion of a new process for agenda setting for FONVCA – what are we here for – issue of finishing meetings by 9 PM – concern that DNV may see FONVCA as Corrie's vehicle and that Corrie is forced to set the agenda – Corrie may look bad if perceived by Council to be running the FONVCA show – should split off agenda into a separate grouping or page those agenda items that are just for information.

Several attendees expressed the view that we do not need to meet every month, especially in summer. There was some support for fewer meetings but no vote was taken.

However, the conclusion was that as of September, look at 2 weeks' notice of agenda items to Corrie; Corrie to get the agenda out 1.5 weeks (10 days) before the meeting; FONVCA reps are to reply with any comments on the agenda by the Sunday prior to the planned meeting. The material for information only would not be part of the agenda – it would just be sent along as material of interest. Upon reviewing the proposed agenda, the meeting chair will decide if a meeting is warranted.

**ACTION:** Representatives coming to FONVCA meetings should seek items for the agenda from their respective CAs.

### 3. OLD BUSINESS

#### 3.1 Council Agenda Distribution

The deficiencies were still being monitored for future action. A discussion of full public accessibility to the Council agenda took place.

**ACTION:** It was concluded that a group comprised of: Hunter, Andersen, Moller, Platts, Belhouse, Ellis, Adams would meet David Stuart re this issue and tell him that if he needs Council support, FONVCA would seek this.

#### 3.2 Review of Draft 2 of Code of Conduct

After further discussion of this issue, the following Code of Conduct passed, with John Hunter for SCA opposed as per vote of SCA executive.

#### Code of Conduct for FONVCA Representatives

*A representative of a community association must discharge their duties to their association with integrity.*

*Integrity is defined as soundness of moral principle, especially in relation to truth and fair dealing, uprightness, honesty, and sincerity.*

*A representative must act in good faith and refrain from impugning the character or reputation of any FONVCA representative or FONVCA member association.*

*All members of the F.O.N.V.C.A. are expected to demonstrate the highest standard of behaviour towards other members. In accordance with Disciplinary Procedures outlined in Chapter XX of Robert's Rules of Order Newly Revised, a representative may be suspended or expelled for conduct which breaches this standard.*

## 4. CORRESPONDENCE ISSUES

### 4.1 Business arising from 17 regular e-mails

No discussion.

### 4.2 Non-posted letters – 0 this period.

### 4.3 Roundtable on “Current Affairs”

(i) Brian indicated there is a new development proposal adjacent to Edgemont Village for people 55 plus years old. He believes it would fit the intent of the LAP. They will be rental units at about \$4000/month.

(ii) Dan indicated that John Gilmour resigned as president of the LVCA. The new president is now Eric Miura. A new restaurant – Brown’s – is opening in the Village Center in September.

(iii) Hunter mentioned the tree bylaw progress was continuing and that further changes should be made even though it has given 3<sup>rd</sup> reading. Adoption will likely take place in about 6 months. Mentioned new restaurant Calvin’s Cafe across from Parkgate and the Seymour Golf Club.

(iv) Cathy mentioned some problem with water leaking into the wastewater system at the village.

(v) Diane mentioned some property owners along the beach in Deep Cove have ordered beach walkers off the public beach. She also questioned the (slow) timetable for removing encroachments on DNV property.

The dangers/regulation of skateboarding on roads/sidewalks was briefly discussed – particularly wrt differences between DNV & CNV

**On the next FONVCA meeting agenda should be the issue of questions for those running for Council this November.**

## 5. NEW BUSINESS

### Council and other District Issues

Corrie briefly outlined the following agenda items:

### 5.1 Why condo-villes don’t work

[http://www.fonvca.org/letters/2011/13jun-to/Doug\\_Curran\\_5jul2011.pdf](http://www.fonvca.org/letters/2011/13jun-to/Doug_Curran_5jul2011.pdf)  
<http://www.theglobeandmail.com/report-on-business/industry-news/property-report/why-condo-villes-dont-work/article2086193/>  
This item was not discussed because the author did not attend.

### \*5.2 A conversation with climate change sceptic Professor Freeman Dyson

<http://www.independent.co.uk/environment/climate-change/letters-to-a-heretic-an-email-conversation-with-climate-change-sceptic-professor-freeman-dyson-2224912.html>

Counterpoint:

<http://globalsymposium2011.org/wp-content/uploads/2011/05/The-Stockholm-Memorandum.pdf>

## 5.3 Problem Skateboarders?

The dangers/regulation of skateboarding on roads/sidewalks was briefly discussed – particularly wrt differences between DNV & CNV.

For **week-end/evenings** call RCMP non-emergency: 604-985-1311 who will call RCMP or bylaw officer to attend **or** call Bylaw Services 604-990-2400 **Monday to Friday between 7:30am to 4pm** and speak to the Customer Service Clerk.

## 5.4 Global Warming, Trees and Urban Lawns

SUN article (with source) stating that Planting Trees ‘no magic bullet for climate change’:

<http://www.vancouver.sun.com/technology/Planting+trees+magic+bullet+climate+change/4973905/story.html>

Source:

<http://www.nature.com/ngeo/journal/vaop/ncurrent/full/ngeo1182.html>

The following article alleges that “Urban ‘Green’ Spaces May Contribute to Global Warming”

<http://www.sciencedaily.com/releases/2010/01/100119133515.htm>

and correction to above in

<http://www.lawnandlandscape.com/gci-022210-toro-carbon-turf-mowing-sequester-research.aspx> refutes this.

Corrie alleged that **properly maintained** lawns are “beneficial to the environment as a positive sequester of carbon”.

## 5.5 Cycling index in Metro Vancouver

<http://www.cher.ubc.ca/cyclingincities/tools.html>

Nice colored maps show bikeability surface rating of areas in Metro Vancouver.

## 5.6 Walk Score of Neighbourhoods

<http://www.walkscore.com/> for example...

**Main & Mountain Hwy N. Vancouver → score of 72**

**Lynn Valley Mall → score of 87**

**Edgemont Village N. Vancouver → score of 83**

**Gallant Ave N. Vancouver → score of 42**

**Banff Ct N. Vancouver → score of 68**

**Philips and Marine N. Vancouver → score of 77**

**Lonsdale & 13<sup>th</sup> N. Vancouver → score of 88**

**Marine & 16<sup>th</sup> W. Vancouver → score of 88**

**Robson & Denman Vancouver → score of 93**

FONVCA members discussion of this shows that scores are somewhat limited – but may serve as a guideline.

## 6. Any Other Business

### 6.1 Legal Issues

#### \*a) DNV Public Involvement Framework

<http://www.dnv.org/upload/documents/Cpolicy/c1049601b.pdf> 104p

<http://www.dnv.org/article.asp?c=169> as above but html

<http://www.dnv.org/upload/documents/cpolicy/c1049601.pdf>

#### \*b) Is there a law against council receiving input after close of public hearing?

<http://www.dnv.org/article.asp?a=5109>

Corrie alleges “NO” – but it may result in a need to hold a new public hearing.

<http://metrovanwatch.wordpress.com/learning-centre/legal-opinion-use-of-public-hearing-to-block-communication/>

**\*c) Spring 2011 Legal Review by SMS**

<http://www.sms.bc.ca/issue/?issue=77#535>

Corrie noted that in the article about “Consistency Between an Official Community Plan and Zoning Bylaw” the **old test of an “absolute and direct collision” has now been rejected by the courts.**

Source:

<http://www.courts.gov.bc.ca/jdb-txt/SC/11/04/2011BCSC0491cor1.htm>

**\*d) Municipal Governance Articles: Version 2**

<http://www.fonvca.org/agendas/jul2011/municipal-governance.pdf>

The updated set of references on Municipal Governance was distributed.

**\*e) Union Bay SLAPP suit gets slapped down**

[http://www.vancouversun.com/news/District+government+settles+pr  
icey+suit+against+citizen+blogger/5028829/story.html](http://www.vancouversun.com/news/District+government+settles+pr<br/>icey+suit+against+citizen+blogger/5028829/story.html)

“Governments are accountable to the people through the ballot box, and not to judges or juries in courts of law”

“When a government is criticized, its recourse is in the public domain, not the courts. Litigation is a form of force and the government must not silence its critics by force”

**6.2 Any Other Issues (2 min each)**

**a) Seylynn Village is for Sale**

<http://www.collierscanada.com/3173>

Corrie noted that this may have impacts on the future of this approved development.

**b) Local Government Under the Community Charter**

The 606 page 2011/4<sup>th</sup> edition (100 more pages than first edition) was kindly contributed to the community.

**c) The Economics of Recycling**

<http://www.lewrockwell.com/lilley/floy14.1.html>

Corrie noted that this article questions the economics of various recycling programs.

**7. CHAIR AND DATE OF NEXT MEETING**

The August meeting is cancelled. Instead, there will be an informal dinner gathering at Calvin’s Café (3720 Mt. Seymour Parkway) ~ 6pm Thursday August 18<sup>th</sup>.

**The next formal FONVCA meeting:**

**Thursday September 15<sup>th</sup> 2011**

Chair: John Hunter – Seymour C.A.

Meeting adjourned ~ 9:20PM.

## FONVCA Agenda Item 5.1 (Sep/2011)

Home > Healthy Living > It's Your Health > Products

## Healthy Living

### Safety of Wi-Fi Equipment

#### It's Your Health

#### On this page:

- [The Issue](#)
- [Background](#)
- [Health Risks of Wi-Fi](#)
- [Scientific Evidence of Wi-Fi's Safety](#)
- [Minimizing Your Risk](#)
- [The Government of Canada's Role](#)
- [Need More Info?](#)

#### Quick Links

[Safety of Wi-Fi Equipment Video](#)

#### The Issue



A number of media outlets have reported that there might be reason to be concerned about radiation from Wi-Fi equipment and that it could be responsible for a variety of health problems. After reviewing scientific studies, Health Canada has determined that [exposure to radiofrequency \(RF\)](#) energy from [Wi-Fi equipment](#) is not dangerous to the public, including children.

#### Background

Wi-Fi is the technology that allows devices such as computers and video game consoles to communicate data wirelessly. It is often used to link home computers to the internet. Wi-Fi is the second most common form of wireless technology, next to [cell phones](#). It is all around us - in schools, offices, coffee shops and homes. Like other commonly used household products (cordless phones, Bluetooth devices, remote controls for garage door openers and baby monitors), Wi-Fi equipment emits [radiofrequency \(RF\) energy](#).

The RF energy given off by Wi-Fi is a type of non-ionizing radiation. Unlike ionizing radiation (as emitted by [X-ray machines](#)), RF energy from Wi-Fi equipment and other wireless devices cannot break chemical bonds. This means there is a low risk of Wi-Fi causing damage to your body's genetic material.

#### Health Risks of Wi-Fi

Health Canada is aware that some studies have claimed that biological and/or adverse health effects may occur from exposure to RF energy levels below Health Canada's guidelines. However, the biological effects in these studies are not well explained, the results are often not reproducible in other laboratories and the implication of these observations for human health need further study. While Health Canada considered these studies in its risk assessment process, there was no scientific basis to further reduce the limits of human exposure to RF energy.

#### Scientific Evidence of Wi-Fi's Safety

Health Canada has [safety guidelines](#) that limit human exposure to RF energy (such as from Wi-Fi equipment) in areas that are accessible to the general public. The limits in Health Canada's guidelines are comparable to [international exposure standards](#). They are based on an ongoing review of thousands of published peer-reviewed scientific studies on the health impacts of RF energy.

There is no body of scientific evidence that supports the assertion that Wi-Fi is harmful. Studies that use signals from other wireless technologies are useful for shedding light on the possibility of health effects from Wi-Fi. These studies include those that have looked at exposure levels in our environment, and animal/cell-culture bio-effects studies that used similar frequencies to those used by Wi-Fi equipment. Health Canada scientists have also reviewed studies that are specific to Wi-Fi. Some of the findings are directly related to children, while other information can be extrapolated to predict potential health impacts on children.

Health Canada's conclusions are consistent with the findings of other international bodies and regulators, including the [World Health Organization](#), the [International Commission on Non-Ionizing Radiation Protection](#), the [Institute of Electrical and Electronics Engineers](#) and the [U.K. Health Protection Agency](#).



#### Minimizing Your Risk



[Health Canada's](#) position is that no precautionary measures are needed. Wi-Fi exposure levels are typically well below Canadian and international safety limits, and there is no convincing evidence that they are a health hazard. The specified limits for public exposure apply to everyone -including children -and allow for continuous, 24/7 exposure.

#### The Government of Canada's Role



[Health Canada's](#) role is to protect the health of Canadians, so it is the Department's responsibility to research and investigate any possible health effects associated with exposure to RF energy, such as that coming from Wi-Fi equipment. Health Canada has developed guidelines for safe human exposure to RF energy ([Safety Code 6](#)). It is one of a series of codes that specify the requirements for the safe use of radiation-emitting devices, and sets out safety requirements for the installation and use of RF devices that operate in the frequency range from 3 kilohertz (kHz) to 300 gigahertz (GHz). Wi-Fi operates in the 2.4 and 5.8 GHz frequency range.

[Industry Canada](#), the federal regulator responsible for the approval of RF communications equipment and performing compliance assessments, has chosen Health Canada's RF guidelines as its exposure standard. As long as exposures respect these guidelines, Health Canada has determined that there is no scientific reason to consider Wi-Fi equipment dangerous to the public.

### Need More Info?

See the following Health Canada web sections:

- [Wi-Fi - Health Canada video](#)
- [Frequently Asked Questions About Wi-Fi](#)
- [Statement on Radiofrequency Energy and Wi-Fi Equipment](#)
- Health Canada's [Consumer and Clinical Radiation Protection Bureau](#)
- [RF exposure guidelines \(Safety Code 6\)](#)
- [Cell Phone Towers and Base Stations](#)

Also, see the following:

- Health Canada and Industry Canada [FAQ on Radio Frequency Fields](#)
- Industry Canada, Consumer Trends Update - [The Expansion of Cell Phone Services](#)
- Industry Canada's [Guidelines for the Protection of the General Public in Compliance with Safety Code 6](#)
- Industry Canada's [Radio Standards Specification 102](#)
- Industry Canada's [Client Procedures Circular CPC-2-0-03](#)
- World Health Organization, [Electromagnetic fields and public health: mobile phones](#)
- World Health Organization, Electromagnetic fields and public health: [base stations and wireless technologies](#)

Visit the [Consumer Safety Portal](#) for safety information about food, health and consumer products.

For additional articles on health and safety issues go to the [It's Your Health](#) web section.

You can also call toll free at 1-866-225-0709 or TTY at 1-800-267-1245\*

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## Wireless Technology and Health Outcomes: Evidence and Review

### *Are there human health effects related to the use of wireless internet technology (Wi-Fi)?*

**Dr. Ray Copes**, Director of Environmental and Occupational Health, **Ontario Agency for Health Protection and Promotion**

**Dr. Lawrence Loh**, community medicine resident, **Ontario Agency for Health Protection and Promotion**

#### Background

Wireless internet technology (also known by its trademark name Wi-Fi) initially was conceived in the mid 1980s but only came into widespread use in the mid-2000s, most notably as part of municipal free-internet projects<sup>1</sup> (e.g. Toronto Hydro OneZone<sup>2</sup>.) Today, wireless internet is ubiquitous in homes, hotels, airports, and public institutions such as schools, libraries and long-term care homes.

Although Wi-Fi is a relatively new communication technology, use of the radiofrequency (RF) band for communications and other applications is not new and widespread public exposure to these frequencies has occurred for decades. In addition to Wi-Fi, numerous other technologies also employ the RF band, including cellular phones and their base tower infrastructure, conventional television and radio signals, home cordless phones, and microwave ovens.<sup>3</sup>

The RF band is a band of non-ionizing radiation that ranges from 3 kHz – 300,000 MHz<sup>1,4,5</sup>. The RF band is part of the electromagnetic spectrum, with frequencies below those associated with visible light and X-rays and higher than those frequencies associated with power lines. Unlike the much higher frequencies associated with X-rays and ultraviolet radiation, including sunlight, RF lacks sufficient energy to break chemical bonds.

Of these technologies, the bulk of research in RF has been on cellular phones. Cellular phones have been in use longer than Wi-Fi and are associated with higher field strengths. Thus, when considering total RF exposure in terms of power density, duration, distance (from source) and frequency of exposure<sup>6</sup>, it is important to remember that Wi-Fi may represent only a small proportion of an individual's overall RF exposure<sup>3</sup>.

In most countries exposure limits for RF are set at the national level. Industry Canada regulates RF in Canada<sup>7</sup>. For protection of human health from adverse effects of RF exposure, they have adopted Health



Canada's Safety Code 6 (revised 2009), which sets exposure limits<sup>8</sup> for controlled and uncontrolled environments.

Limits for RF are typically specified in two ways. The first is as a specific absorption rates (SARs), which are measured in power absorbed (Watts) per unit mass (kilograms), given as a whole-body average, or a localized measurement<sup>8</sup>. Secondly, limits are also set for power densities measured from the source in Watts per square meter<sup>9</sup>.

SARs are based on non-human primate studies; the predominant health effect addressed is tissue heating, which occurs at 4 W/kg of exposure over whole body. Applying a safety factor of 10, Safety Code 6 sets exposure limits for controlled environments to whole body, head and trunk of 0.4 Watts per kilogram, 8 Watts per kilogram, and 20 Watts per kilogram respectively<sup>8</sup>.

For uncontrolled environments to protect the general public, a safety margin of 50 is used to derive exposure limits to whole-body, head, and trunk of 0.08 Watts per kilogram, 1.6 Watts per kilogram and 4 Watts per kilogram respectively. The International Commission on Non-Ionizing Radiation Protection (ICNIRP) also sets limits on power-density emissions from sources of 10 Watts per square metre<sup>9</sup>.

The recent proliferation of Wi-Fi devices has increased concerns about potential effects of RF exposure on human health and raised questions as to whether exposure limits set on the basis of tissue heating are sufficiently protective. This document considers Wi-Fi exposures in context with other current sources of RF exposure and recent reviews of health outcomes research on RF exposures.

## Methods

This report represents a review of the scientific literature on radio frequency energy and effects on health. It is based on a review of the most up to date published reviews, supplemented by a review of primary literature published after the last review available.

Various reports, regulations and reviews from the World Health Organization, government, commissions, and health agencies, as well as other interest groups (example Council on Man and Radiation (COMAR) or the BioInitiatives Working Group) were sought out and reviewed, and references from these publications also considered for inclusion.

A primary literature review for new publications was then carried out using PubMed. Searches were conducted using MeSH terms "Radio Waves", "Microwaves" and "Electromagnetic Fields" combined with "adverse effects" and "public health". Free text searches were also carried out using search terms "radiofrequency and health", "wi-fi and health", and "cellular phones health".

Title review identified reviews and key large studies, whose abstracts were then reviewed for relevance. Articles were then selected for review if they had been published in reputable peer-reviewed journals, published within the last two years, or had significant public interest or impact. Reference lists of selected articles were then further hand searched for relevant articles and reports.

## Exposure research

Exposure research addresses source intensity and power density, frequency and duration of exposure, and distance from the source, in measuring potential exposures and health effects <sup>6</sup>.

Modeling of RF exposure has been undertaken by researchers at the United Kingdom National Radiological Protection Board. In studies on mobile phone exposures, they found that head and neck exposures to RF with maximum handset use (resembling a controlled exposure of 100% RF absorbed by tissue) was 3.09-4.61 W/kg<sup>10</sup>.

By comparison, for Wi-Fi, the same researchers found that for a child typically using a laptop within good signal range of a wireless router, RF exposure to the head was 0.0057 W/kg. This represents less than 1% of the SAR calculated for a typical mobile phone exposure and well below the 1.6 W/kg limit to head for uncontrolled exposures <sup>3</sup>.

With regards to source power densities, Foster and others demonstrated that maximum and median Wi-Fi exposures were significantly below the exposure limit set by the ICNIRP (see Table 1<sup>6</sup>). Another study found cellular base antenna power densities to be 0.05 W/m<sup>2</sup><sup>11</sup>.

**Table 1 – Comparison of measured RF fields with Wi-Fi (adapted from Foster)**

<b>RF activity being measured or calculated</b>	<b>Maximum time-averaged power density (W/m<sup>2</sup>)</b>	<b>Median time-averaged power density (W/m<sup>2</sup>)</b>
Laptop not communicating with Wi-Fi, measured directly next to Wi-Fi access point	0.007	0.000012
Laptop uploading/downloading file, measured 1 metre away from laptop Wi-Fi card	0.001	0.000016
Laptop uploading/downloading file, average of measurements taken at different distances from laptop	0.04	0.00006

## Outcomes research

As Wi-Fi is a more recent application of RF and generally results in much lower levels of exposure to RF, much of the available scientific literature on potential health effects of RF is based on studies of cell phones.

Multiple biologic outcomes have been explored, including cancer, infertility in animals, behavioural changes, and “electromagnetic hypersensitivity” (EHS), defined as a set of non-specific symptoms such as nausea, headache, and dizziness<sup>12</sup>.

## Reviews by regulatory and standard setting organizations

The Health Protection Agency in the United Kingdom has done extensive work researching the potential effects of Wi-Fi. Their review<sup>13</sup> concluded there is no consistent evidence that Wi-Fi has adverse human health effects; it also concludes by stating there is no reason why schools and other public facilities should not use Wi-Fi equipment.

Health Canada has issued statements reaffirming Safety Code 6:

“Safety Code 6 offers the best protection for Canadian workers and the general public, for several reasons: it is based on [...] evidence [...] from hundreds of peer-reviewed RF studies; has been reviewed and recommended by independent third parties such as the Royal Society of Canada; and [has limits] among the most stringent in the world.”<sup>14</sup>

A recent Health Canada statement released on Aug. 18, 2010, has highlighted that all Wi-Fi devices must meet Safety Code 6 and that “radiofrequency energy emitted from Wi-Fi equipment are typically well below these safety limits.”<sup>15</sup>

The World Health Organization has published extensively about the risks of low-level RF exposure. In a background document about electromagnetic fields, the WHO states:

“No obvious adverse effect of exposure to low level radiofrequency fields has been discovered [...] further research aims to determine whether any less obvious effects might occur at very low exposure levels.”<sup>16</sup>

## Published reviews

The Bio-Initiatives Working Group is an ad-hoc group of scientists and public policy analysts who produced “The BioInitiative Report: A Rationale for a Biologically-based Public Exposure Standard for Electromagnetic Fields.”

This report reached different conclusions and recommendations as compared to the international health and standard setting organizations<sup>17</sup>. The authors review a number of selected papers and draw the conclusion that the evidence clearly supports health effects related to RF exposure and dramatically stated that “it is not unreasonable to question the safety of RF at any level”.

The report goes on to suggest a precautionary level for human exposure to electromagnetic fields that is approximately 10,000 times lower than existing regulatory limits.

This conclusion was reviewed and challenged in a publication by the Committee on Man and Radiation (COMAR)<sup>18</sup>. This 46 member expert group raised a number of criticisms of the BioInitiatives Report, such as selectiveness in papers reviewed, inconsistencies in the review process, and questions as to the impartiality of the reviewers on the panel.

Moreover, the COMAR report also points out that BioInitiatives suggested RF limits of human exposure would affect the use of public safety RF devices, including airport radar installations, and police and emergency communication systems.

The Royal Society of Canada commissioned a panel in 1999 to review the adequacy of Safety Code 6 and possible revisions in view of potential non-thermal biologic effects; the panel report<sup>19</sup> “found no evidence of documented health effects in animals or humans exposed to non-thermal levels of radiofrequency fields” although calling for additional research.

An update by the same panel in 2003<sup>20</sup> repeated the same conclusion, and again noted the need for additional research.

Finally, a third update by many of the original authors was published in 2009<sup>21</sup>. As this is the most recent comprehensive review of the literature on the effects of RF exposure, its conclusions are summarized below.

This most recent review summarizes outcomes from cellular and animal studies as follows:

"Effects of RF fields on various biological systems were investigated in some depth. Although the majority of studies provided no evidence of genotoxic effects, there are a few positive findings that warrant follow up. Some cellular studies provided evidence that gene expression is affected at RF field exposure levels close to current safety limits. If these studies are replicated and confirmed, they will be of importance in understanding how RF fields may interact with biological tissues. It is possible that small temperature elevations may have accounted for some of the observations in cell culture studies. Accordingly, the importance of non-RF heat studies is stressed. Overall, there is little evidence of cellular effects of RF fields of health significance below current safety limits. In the future, it would be of interest to investigate the complex modulation patterns and intensity variations corresponding to the RF fields produced by actual mobile phones."

The review of human clinical studies including those on electromagnetic hypersensitivity is summarized as:

"Various subjective symptoms, including dermatological symptoms (redness, tingling and burning sensations) as well as neurasthenic and vegetative symptoms (fatigue, tiredness, concentration difficulties, dizziness, nausea, heart palpitation, and digestive disturbances and other unpleasing feelings such as a burning sentiment or a faint pain), were suggested as being triggered by exposure to RF fields. However, the limited number of studies conducted to date found no evidence for an association between these reported symptoms of EHS and exposure to electromagnetic fields. Small changes in electrical activity and neurotransmitter biochemistry were observed in some studies, although no evidence of impaired cognitive functioning was attributed to these observations. Scientific evidence to date has found no consistent evidence of altered cardiovascular system or auditory parameters following RF field exposures. A recent study suggested that exposure to RF fields from mobile phones may be associated with sperm quality; this finding warrants follow-up."

The final group of studies reviewed, epidemiological studies, is summarized as:

"At present, the results from epidemiologic studies do not provide sufficient evidence to support a clear association between mobile phone use and an increased risk of head and neck benign tumours. However, there have been reports of a higher risk of brain tumour and acoustic neuroma in some studies.

Exposure assessment in these studies was based largely on self-reports of past mobile phone use. Additional investigations of the possible association between mobile phone use and cancer risk, particularly among chronic heavy users of mobile phones, are needed to clarify this issue."

## Recent studies

Since the publication of the review by Habash et al, additional research has been published. While none of the recent research invalidates or overturns the previously accumulated weight of evidence, some of the recently published studies do provide additional insights.

As indicated by the Habash et al review, numerous case-control studies<sup>22,23,24,25</sup> using cancer as an outcome conducted in different countries around the world have not supported a clear association between cancer and cellular phone use. The most recent study is the INTERPHONE study, whose results were published in June 2010.

In a meta-analysis of several studies of cellphone use and its association with tumours carried out by Hardell et al. there was no demonstrable increase in risk for most tumours considered. However, there was an indication of an increased risk for glioma, acoustic neuroma, and meningioma with ipsilateral cellphone use of greater than 10 years<sup>26</sup>.

A review by Kundi and Hutter described studies conducted in France, Spain and Austria, where participants estimated their distance from a cellular base station. They then rated a list of 18 symptoms (e.g. fatigue, headaches, and sleeping problems) and how frequently they experienced them. None of the studies showed any statistically significant relationship between symptoms and proximity to a base station<sup>27</sup>.

A review on base stations by Khurana and others reviewed 10 studies, eight of which were positive for neuro-behavioural changes or cancer; however, the reviewers did state that the studies reviewed involved low numbers of participants and were of poor methodological quality which limits the reliability of any conclusions<sup>28</sup>. The authors indicated that further research into these outcomes is urgently required.

A review of 46 blind or double-blind studies with exposure to active or sham electromagnetic fields concluded that despite the conviction of sufferers from electromagnetic hypersensitivity that their symptoms are triggered by exposure to electromagnetic fields, repeated experiments have been unable to replicate this phenomenon under controlled conditions. For this reason, clinicians and policymakers are cautioned that a narrow focus on bio-electromagnetic mechanisms is unlikely to help these patients in the long-term.<sup>29</sup>

Three recent publications have looked at the effects of RF exposures or cellphone use in young people. Abramson et al<sup>30</sup> studied 317 7<sup>th</sup> graders. Self reported cellphone use was associated with more rapid but less accurate responses on a computerized cognitive test battery.

As the findings were similar for use of text messaging the authors' opinion was that the behaviours may have been learned through frequent use and were unlikely due to RF exposure. Heinrich et al<sup>31</sup> studied 3022 Bavarian children and adolescents. Half the children and nearly every adolescent owned a mobile phone.

Measured RF exposure was well below ICNIRP reference levels. No statistically significant association was found between measured exposure and chronic symptoms. While concluding that their cross-sectional study did not indicate any association between exposure to RF and chronic well-being in children and adolescents, they called for additional prospective studies to confirm their results. The same group also published a study<sup>32</sup> looking at behavioural problems in the children and adolescents.

The adolescents, but not the children, with the high RF exposures (associated with greater cellphone use) had more overall behavioural problems as assessed by a questionnaire. There was an association between conduct problems and RF exposure for both adolescents and children.

## Conclusions

Research on potential health effects from exposure to RF energy is an active field of investigation. Not surprisingly there is inconsistency and in some cases conflict between the results of individual studies.

Given this inconsistency, it is possible to select the results of individual research studies in support of a variety of opinions; which may range from no risk of health effects on the one hand, to a clear need to reduce current exposure limits on the other.

For this reason, up-to-date reviews of literature which follow a weight of evidence approach are far more useful for informing debate and sound policymaking than reliance on individual studies.

The Royal Society of Canada performed a highly credible review in 1999. Updates to this review have been published; the most recent in 2009. While the most recent review continues to call for additional research to follow up on new findings, after a decade of additional research, there is still no conclusive evidence of adverse effects on health at exposure levels below current Canadian guidelines.

While far from conclusive, there is emerging evidence that long-term frequent use of cellphones may be associated with an increased risk of tumours on the side of the head where the cellphone is used. This is an active area of research and additional studies may confirm or refute this association.

The degree of 'precaution' that should be incorporated into exposure limits for the public is always a subject for debate. There is general agreement that the exposure limits in Health Canada's Safety Code 6 are protective against effects produced through tissue heating. Consistent evidence on the level at which this occurs is available and exposure limits can be set on the basis of this well-established effect and use of safety factors selected by the standard setting organization.

Recently published research demonstrates that Wi-Fi exposure are not only well within recommended limits, but are only a small fraction (less than 1%) of what is received during typical use of cellphones<sup>3</sup>.

For this reason much of the research on possible effects of RF energy has been focused, and will likely continue to focus, on exposures from cellphones rather than the lower exposures associated with RF uses such as Wi-Fi. RF exposures to the public, including school children, from Wi-Fi are far lower than occur with cellphone use and to date there is no plausible evidence that would indicate current public exposures to Wi-Fi are causing adverse effects on health.

Given the experience with other sources of non-ionizing radiation (e.g. power lines) that have been in use much longer than cellphones or Wi-Fi, it is unlikely that all controversies related to potential RF effects will be resolved even after decades of additional research.

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# Residents deserve say on smart meter installation

BY SALLY DE LA RUE BROWNE, NORTH SHORE NEWS JULY 27, 2011

BC Hydro is beginning its roll-out of digital Smart Meters to replace current disk-style hydro meters. Many residents on the North Shore are unaware of the safety concerns and health risks associated with so-called Smart Meters. These wireless devices will use radio frequency waves to monitor use and transmit information about each household's consumption. They are being enthusiastically promoted by government and industry as a "green initiative," supposedly enabling Hydro to efficiently monitor consumption during peak and "down" times, and encourage wise use of energy and resources.

However, the information-carrying radio waves, transmitting 24-7, will effectively blanket homes and neighbourhoods with radiation that could adversely affect not just humans but all living systems. As of May 31, the World Health Organization has reclassified emissions from all microwave wireless devices as a possible human carcinogen in the same category as DDT, car exhaust, lead, etc. The insurance industry does not insure against personal injury liability claims from exposure to wireless devices.

To learn more about what can be done, visit [www.citizensforsafetechnology.org](http://www.citizensforsafetechnology.org).

Whether residents believe the information or not, all of us should have a say regarding the installation of these meters into our homes and businesses without these meters being forced upon us.

Sally de la Rue Browne, North Shore representative Citizens for Safe Technology

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**FONVCA Agenda Item 5.3 Sep/2011**  
[http://www.vcn.bc.ca/citizens-handbook/1\\_07\\_keepeople.html](http://www.vcn.bc.ca/citizens-handbook/1_07_keepeople.html)**Keeping People**

People join community groups to meet people, to have fun, to learn new skills, to pursue an interest, and to link their lives to some higher purpose. They leave if they don't find what they are looking for. Citizens groups need to ask themselves more often: What benefits do we provide? At what cost to members? How can we increase the benefits and decrease the costs? Here are some ideas on where to begin.

**Stay in touch with one another.**

Regular contact is vital. Face to face is best. If you have to meet, getting together in someone's house is better than meeting in a hall.

**Welcome newcomers.**

Introduce them to members of your group. Consider appointing greeters for large meetings and events. Call new contacts to invite them to events, or to pass on information.

Help people find a place in the organization. The most appealing approach is to say, "Tell us the things you like to do and do well and we will find a way to use those talents." The next most appealing is to say: "Here are the jobs we have, but how you get them done is up to you."

Invite newcomers to assume leadership roles. If the same people run everything, newcomers feel excluded.

**Pay attention to group process**

Most volunteer groups do not give adequate attention to how they work together. Decision-making methods are not determined explicitly nor are roles, or healthy behaviours. Some groups make process a topic of discussion by appointing a process watcher.

**Discuss the group contract**

Set aside occasions when members describe what they expect of the group and what the group can expect of them in terms of time and responsibilities. This information should become part of your membership lists.

**Act more, meet less**

The great majority of people detest meetings; too many are the Black Death of community groups. By comparison, activities like tree-planting draw large numbers of people of all ages.

**Keep time demands modest**

Most people lead busy lives. Don't ask them to come to meetings if they don't need to be there. Keep expanding the number of active members to ensure everyone does a little, and no one does too much. Work out realistic time commitments for projects.

**Do it in twos**

Following a practice from Holland, we suggest working in pairs. It improves the quality of communication, makes work less lonely, and ensures tasks get done. Ethnically mixed pairs (such as English and Chinese) can maintain links to different cultures. Gender mixed pairs can take advantage of different ways men and women relate to one another.

**Provide social time and activities**

Endless work drives people away. Schedule social time at the beginning and end of meetings. Turn routine tasks into social events; for example, stuff envelopes while sharing pizza. Some groups form a social committee to plan parties, dinners, and trips.

**Provide skills training**

Many people step out of private life in order to learn something. Providing training, or weaving training into acting, is one of the best ways to get and keep people.

Court of Appeal for British Columbia

R. v. Bichel

Date: 19860620

The judgment of the court was delivered by r.

MACFARLANE J.A.:—The appellant submits that a zoning by-law is inconsistent with s. 8 of the *Canadian Charter of Rights and Freedoms* and, therefore, is of no force and effect under s. 52(1) of the *Constitution Act, 1982*, because it permits a warrantless search of residential premises.

The by-law authorizes a building inspector to enter at all reasonable times upon any property or premises to ascertain whether the regulations and provisions of the by-law are being, or have been, complied with. It is unlawful under the by-law for any person to prevent or obstruct or seek, or attempt to prevent or obstruct, the entry of the building inspector.

A Provincial Court judge held that the provisions of the by-law were of no force and effect. After hearing argument on a stated case, Mr. Justice Dohm held that the Provincial Court judge had erred. This appeal is from that decision which was pronounced on June 26, 1985.

The stated case does not reveal the facts which are necessary for the determination of this appeal. But the argument before the Provincial Court judge, the Supreme Court judge, and before us proceeded on the basis of these facts:

1. The appellant was at all material times the owner and occupant of a private residence which an inspector of the District of North Vancouver sought to inspect.
2. The inspector was attempting to ascertain whether the premises contained a suite which was not in compliance with the zoning by-law.
3. The building inspector went to the premises on three separate days, namely, March 26, April 5, and June 1, 1984. He asked for permission to enter the premises for the purpose of ascertaining whether the zoning by-law was being complied with, and the appellant refused to permit him to enter. The ground of refusal was that the inspector did not have a search warrant.
4. On July 17, 1984, an information was sworn charging the appellant with three counts of unlawfully preventing a District of North Vancouver building inspector from entering the premises. The charge was laid pursuant to Part II, s. 1102(2) of the District of North Vancouver Zoning By-law 3210.

5. Notice having been served upon the Attorney-General of British Columbia and upon the Attorney-General of Canada pursuant to the *Constitutional Question Act*, R.S.B.C. 1979, c. 63, s. 8, the matter came before a Provincial Court judge on November 21, 1984. No plea was entered and no evidence was heard. After argument, the Provincial Court judge held that ss. 1101 and 1102(2) of the by-law were inconsistent with s. 8 of the *Canadian Charter of Rights and Freedoms* and, therefore, of no force and effect. The provincial Attorney-General asked that a case be stated.

The question which was posed in the stated case was:

Did I err in law in determining that s. 1101 and s. 1102(2) of the District of North Vancouver Zoning By-Law are inconsistent with s. 8 of the Canadian Charter of Rights and Freedoms and of no force and effect pursuant to s. 52(1) of the *Constitution Act, 1982*?

The relevant provisions of the District of North Vancouver Zoning By-law were set out in the stated case as follows:

## PART II ENFORCEMENT

### *1101 Inspection*

The Chief Building Inspector, or any Building Inspector employed by the Municipality, is hereby authorised to enter at all reasonable times upon any property or premises to ascertain whether the regulations and provisions herein contained are being or have been complied with.

### *1102 Violations*

(1) It is unlawful for any person to cause, suffer or permit any building or structure to be constructed, reconstructed, altered, moved, extended or used or land to be used in contravention of this By-law or otherwise to contravene or fail to comply with this By-law.

(2) It is unlawful for any person to prevent, or obstruct, or seek or attempt to prevent or obstruct the entry of any Building Inspector, authorised under Section 1101.

### *1103 Remedial Powers*

The Council may, in accordance with the provisions of the Municipal Act, authorise the demolition, removal, or the bringing up to a standard specified in this By-law of any building, structure or thing, in whole or part,

### *1104 Penalties*

Any person convicted of an offence against this By-law shall be liable to a maximum penalty of five hundred dollars and costs, or imprisonment for a period not exceeding sixty days, and every day such offence continues shall be deemed to constitute a separate offence.

Section 8 of the Charter provides:

8. Everyone has the right to be secure against unreasonable search or seizure.

The Provincial Court judge held that ss. 1101 and 1102(2) did not meet the minimum standards nor provide any of the safeguards considered necessary and appropriate by the Supreme Court of Canada in *Hunter et al. v. Southam Inc.* 1984 CanLII 33 (S.C.C.), (1984), 14 C.C.C. (3d) 97, 11 D.L.R. (4th) 641, [1984] 2 S.C.R. 145, and, therefore, infringed s. 8 of the Charter. Mr. Justice Dohm held that *Hunter v. Southam Inc.* did not have any application in these circumstances and that, given the purposes of the by-law and the provision that entry was limited to "all reasonable times", there was no infringement of s. 8. He held that if there was an infringement of s. 8 that it would be justified under s. 1 of the Charter. He did not think that the by-law was inconsistent with the Charter because it did not provide for pre-authorization by an impartial arbiter having the duty to balance the individual right to privacy against the rights of the municipality to enforce its bylaws.

The appellant, while conceding that the enforcement of zoning by-laws is a valid governmental objective, and that inspections are a necessary part of enforcement procedures, submits that an assessment of the constitutionality of such a provision must focus on its reasonable or unreasonable impact on the subject of the search or seizure. It is not enough to focus only on the governmental objective. The appellant submits that in respect to his dwelling-house, an individual has a right to a reasonable expectation of privacy. The appellant relies upon what was said in *Hunter v. Southam*, at p. 109 C.C.C., p. 653 D.L.R., p. 160 S.C.R., by Dickson J. (now C.J.C.), namely, that the purpose of s. 8 is to:

... protect individuals from unjustified State intrusions upon their privacy. That purpose requires a means of *preventing* unjustified searches before they happen, not simply of determining, after the fact, whether they ought to have occurred in the first place. This ... can only be accomplished by a system of *prior authorization*, not one of subsequent validation.

The appellant submits that the by-law is invalid because it does not provide for prior authorization of an inspection by an impartial arbiter. It is submitted that entry into a private residence ought not to be authorized in the absence of proof that there is a sufficient reason for the particular inspection, and that, on balance, that reason is sufficiently important to the municipality in the enforcement of its by-laws to justify the intrusion upon the right of the individual owner and/or occupant to privacy.

The appellant relies upon *R. v. Sheppard* [reflex](#), (1984), 11 C.C.C. (3d) 276, 46 Nfld. & P.E.I.R. 189, 11 C.R.R. 10 (Nfld. C.A.). In that case, a person was charged with a breach of the *Wild Life Act*, R.S.N. 1970, c. 400, in that he had unlawfully in his possession big game, to wit: moose, in violation of s. 52(3) of the *Wild Life Act* regulations. A wildlife officer had seized moose meat from the home of the accused without having first obtained a search warrant. A question arose as to the admissibility of that evidence, it being contended that the search and seizure was an infringement of s. 8 of the *Canadian Charter of Rights and Freedoms*.

The seizure was made pursuant to power contained in s. 10(2) of the *Wild Life Act* which provides:

10(2) Any wild life officer who has reasonable cause to suspect that there is in or upon any house, shop, store, building, wharf, premises, or place, vehicle, speeder, caboose, or railway car, aircraft, vessel, boat, or raft, wild life taken, killed, or dealt with contrary to any of the provisions of this Act or of the regulations may, without warrant, therein or thereon enter and search and for such purpose may stop any such vehicle, speeder, caboose, railway car, aircraft, vessel, boat, or raft.

The trial judge held that s. 8 was not infringed and admitted the evidence. The accused was convicted and he appealed his conviction. The Court of Appeal held that there had been an unreasonable search and seizure and an infringement of s. 8 of the Charter. In reaching that conclusion, the court said, at p. 281:

It is common ground that a peace officer and other public officials, armed with a judicially authorized search warrant, may search a dwelling-house within the confines of his warrant and such a search would not be unreasonable within the meaning of s. 8 of the Charter. But would the search of a dwelling-house without a warrant, even though authorized by statute, be considered reasonable within the meaning of s. 8 of the Charter? The answer can only be in the affirmative if it can be said that such a search "can be demonstrably justified in a free and democratic society". (s. 1 of the Charter.) In our view, it cannot be said that a search of a dwelling-house, without a warrant, for wildlife illegally obtained can be so justified and must be construed as a violation of one's right to be secure against unreasonable search and seizure, guaranteed by s. 8 of the Charter.

The Ontario Court of Appeal has held that administrative searches without a warrant do not violate s. 8 and has distinguished searches in the course of criminal investigations from inspections or audits under a regulatory process. The cases, however, deal with business premises and not with residential premises. In *Re Belgoma Transportation Ltd. and Director of Employment Standards* [reflex](#), (1985), 20 D.L.R. (4th) 156, 51 O.R. (2d) 509, 85 C.L.L.C.



para. 14,033, the issue before the court was whether s. 45 of the *Employment Standards Act*, R.S.O. 1980, c. 137, under which section an employment standards officer may enter upon business premises and require the production of certain documents and remove them for copying, contravene s. 8 of the Canadian *Charter of Rights and Freedoms*. Section 45 of the *Employment Standards Act* provides in part as follows:

45(1) An employment standards officer may, for the purpose of ensuring that the provisions of this Act and the regulations are being complied with,

(a) subject to subsection (2), enter in or upon the lands or premises of a person at any reasonable time or times without a warrant for the purpose of carrying out an inspection, audit or examination;

(2) No employment standards officer shall enter any room or place actually being used as a dwelling without the consent of the occupier except under the authority of a search warrant issued under section 142 of the *Provincial Offences Act*.

The Divisional Court had concluded that the person being investigated under the statute was in a position similar to a person served with a *subpoena daces tecum*, and that the section could not be categorized as providing for "search or seizure". The Court of Appeal declined to decide that question but said, at p. 158 D.L.R., p. 511 O.R.:

Assuming, without deciding, that s. 45 does provide for search or seizure within the true meaning of those words, we are all of the view that for the purposes and under the circumstances of this Act the alleged search or seizure is not unreasonable.

MacKinnon A.C.J.O., speaking for the court, went on to say at p. 159 D.L.R., p. 512 O.R.:

The Act and its regulations impose minimum requirements of employment conditions upon an employer in favour of an employee. The director and his officers are appointed to administer the Act. The headings of the various parts of the Act indicate its concerns: homeworkers; hours of work; minimum wages; overtime pay; public holidays; vacation with pay; equal pay for equal work; benefit plans; pregnancy leave; termination of employment, and administration. Section 45 (the section under consideration here) falls under the part of the Act dealing with administration. The last part of the Act covers offences and penalties.

The standards to be applied to the reasonableness of a search or seizure and the necessity for a warrant with respect to criminal investigations cannot be the same as those to be applied to search or seizure within an administrative and regulatory context. Under the *Employment Standards Act*, there is no

necessity that the officer have evidence that the Act has been breached. In the course of carrying out administrative duties under the Act, what is commonly called a "spot audit" may be carried out, which helps ensure that the provisions of the Act are being complied with. The limited powers given for this purpose as set out in the section are not unreasonable. The "search" or "seizure" in the instant case, if such it is, is not aimed at detecting criminal activity, but rather, as indicated, in ensuring and securing compliance with the regulatory provisions of the Act enacted for the purpose of protecting the public interest.

So far as the citizen is concerned, there is protection afforded to him with regard to his dwelling under s. 45(2). As can be seen, this subsection prohibits an employment standards officer from entering a room or place used as a dwelling without the consent of the occupier, except under the authority of a search warrant. As stated, it does not appear to us to be unreasonable to permit such an officer to enter business premises and require production for inspection and copying of certain records, which request or demand can, of course, be refused without any search taking place or any documents or records being seized.

*Re Belgoma* was followed in *R. v. Quesnel* 1985 CanLII 165 (ON C.A.), (1985), 24 C.C.C. (3d) 78, 53 O.R. (2d) 338. In that case a person had been charged with failing, upon request of an inspector of a marketing board, to permit the inspector to enter the lands and premises of the accused for the purpose of ascertaining whether there had been compliance with the *Farm Products Marketing Act*, R.S.O. 1980, c. 158.

The legislation authorized the board to appoint persons to:

(ii) enter on lands or premises used for the producing of any regulated product and measure the area of land used to produce the regulated product or perform a count of the regulated product;

There was no requirement for a search warrant and the inspector did not have one when he asked to enter the premises of the accused. The trial judge held that the inspection was not a search or seizure and that the inspection did not contravene the Charter. The Court of Appeal upheld that decision. At p. 83, Finlayson J.A. said:

The distinction between criminal proceedings and provincial regulatory schemes is emphasized in *R. v. Rao* (1984), 46 O.R. (2(1) 80, 9 D.L.R. (4th) 542, 12 C.C.C. (3d) 97. Mr. Justice Martin, speaking for the Court, distinguishes between statutes conferring on designated officials the right to enter and inspect premises without a warrant, which are licensed or in which a business is being carried on that is subject to regulation by statute, on the one hand, and the position at common law, on the other hand, where there is no power to search premises without a warrant (or with a warrant except for stolen

goods) save as an incident to lawful arrest. At p. 96 O.R., p. 558 D.L.R., p. 112 C.C.C., he states:

"In my view, however, a clear distinction must be drawn between a general power to enter private premises without a warrant to search for contraband or evidence of crime and a power conferred on designated officials to enter premises for inspection and audit purposes and to seize records, samples or products in relation to businesses and activities subject to government regulation."

It would appear from the above quoted authorities, that when acting under a statute which sets up a regulatory scheme, the distinction between an inspection and a search or seizure is academic except as to remedy. An inspector who is denied permission to enter premises cannot insist on doing so but must be content to lay a complaint under his authorizing statute: see *Belgoma, supra*.

In the case at bar, we are dealing with a regulated product and those who engage in the production of same. I would find on the basis of *Belgoma* that there was not here an unreasonable search and seizure within the meaning of the Charter and, therefore, this objection to the charge must fail. There was an "inspection" as contemplated by the legislation and it was permissible whether stigmatized as a "search or seizure" or not.

I agree that a distinction must be drawn between searches in the course of a criminal investigation, and inspections in the course of ensuring that there is compliance with building or zoning by-laws. In the former, a warrant procedure is appropriate, as was the case in *R. v. Sheppard*. In the latter, such a procedure is inappropriate as indicated in *Re Belgoma* and *R. v. Quesnel*.

The appellant has also relied upon American authorities, principally, *Camara v. Municipal Court of City and County of San Francisco*, 18 L. Ed. 2d 930. The facts of that case are similar to those in the case at bar. Mr. Camara was charged with three counts of refusing to permit building inspectors to inspect his residence without a warrant under a municipal ordinance that provided that: "Authorized employees of the City departments or City agencies, so far as may be necessary for the performance of their duties, shall, upon presentation of proper credentials, have the right to enter, at reasonable times, any building, structure, or premises in the City to perform any duty imposed upon them by the Municipal Code."

The United States Supreme Court, in a 6-3 decision, held that the municipal ordinance was unconstitutional, and that administrative searches of the kind at issue were significant intrusions upon the interest protected by the Fourth Amendment of the United States Constitution, which provides:

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

The *Camara* case involved a reconsideration and the overruling of the earlier decision of the U.S. Supreme Court in *Frank v. Maryland*, 359 U. S. 360 (a 5-4 decision). But the court in *Frank v. Maryland*, and both the majority and minority in *Camara* agreed that constitutionality depended upon reasonableness, and that, generally, administrative inspections were reasonable.

The majority in *Camara* held that in the case of an administrative search it is unnecessary for an inspector to show that he or she has probable cause to believe that a particular dwelling contains violations of the minimum standards prescribed by the code being enforced (*Camara*, p. 938).

The majority in *Camara*, while agreeing that the only effective way to seek universal compliance with minimum health and safety standards is through routine periodic inspections of all structures, held that the reasonableness of a particular situation must be left to an independent judicial official to determine. In their view, a warrant procedure was necessary to satisfy the requirements of the Fourth Amendment.

The basis for that view was expressed in the majority judgment of Mr. Justice White (at p. 937, 18 L. Ed. 2d):

Under the present system, when the inspector demands entry, the occupant has no way of knowing whether enforcement of the municipal code involved requires inspection of his premises, no way of knowing the lawful limits of the inspector's power to search, and no way of knowing whether the inspector himself is acting under proper authorization. These are questions which may be reviewed by a neutral magistrate without any reassessment of the basic agency decision to canvass an area. Yet, only by refusing entry and risking a criminal conviction can the occupant at present challenge the inspector's decision to search. And even if the occupant possesses sufficient fortitude to take this risk, as appellant did here, he may never learn any more about the reason for the inspection than that the law generally allows housing inspectors to gain entry. The practical effect of this system is to leave the occupant subject to the discretion of the official in the field. This is precisely the discretion to invade private property which we have consistently circumscribed by a requirement that a disinterested party warrant the need to search. See cases cited, p. 935, supra. We simply cannot say that the protections provided by the warrant procedure are not needed in this context; broad statutory safeguards are no substitute for individualized review, particularly when those safeguards may only be invoked at the risk of a criminal penalty.

Mr. Justice Clark, in a vigorous dissent, analyzed the majority view, and rejected it (pp. 952-3). He said.

The Court then addresses itself to the propriety of warrantless area inspections. The basis of "probable cause" for area inspection warrants, the Court says, begins with the Fourth Amendment's reasonableness requirement; in determining whether an inspection is reasonable "the need for the inspection must be weighed in terms of these reasonable goals of code enforcement." It adds that there are "a number of persuasive factors" supporting "the reasonableness of area code-enforcement inspections." It is interesting to note that the factors the Court relies upon are the identical ones my Brother Frankfurter gave for excusing warrants in *Frank v. Maryland, supra*. They are: long acceptance historically; the great public interest in health and safety; and the impersonal nature of the inspection — not for evidence of crime — but for the public welfare. Upon this reasoning, the Court concludes that probable cause exists "if reasonable legislative or administrative standards for conducting an area inspection are satisfied with respect to a particular dwelling." These standards will vary, it says, according to the code program and the condition of the area with reference thereto rather than the condition of a particular dwelling. The majority seem to hold that warrants may be obtained after a refusal of initial entry; I can find no such constitutional distinction or command. These boxcar warrants will be identical as to every dwelling in the area, save the street number itself. I daresay they will be printed up in pads of a thousand or more — with space for the street number to be inserted — and issued by magistrates in broadcast fashion as a matter of course.

I ask: Why go through such an exercise, such a pretense? As the same essentials are being followed under the present procedure, I ask: Why the ceremony, the delay, the expense, the abuse of the search warrant? In my view this will not only destroy its integrity but will degrade the magistrate issuing them and soon bring disrepute not only upon the practice but upon the judicial process. It will be very costly to the city in paperwork incident to the issuance of the paper warrants, in loss of time of inspectors and waste of the time of magistrates and will result in more annoyance to the public. It will also be more burdensome to the occupant of the premises to be inspected. Under a search warrant the inspector can enter any time he chooses. Under the existing procedures he can enter only at reasonable times and invariably the convenience of the occupant is considered.

I prefer the minority view in *Camara*.

I turn now to consider what was said by Dickson J. (now C.J.C.) in *Hunter v. Southam, supra*, at pp. 108-9 C.C.C., pp. 652-3 D.L.R., pp. 159-61 S.C.R.:

The guarantee of security from *unreasonable* search and seizure only protects a *reasonable* expectation. This limitation on the right guaranteed by s. 8, whether it is expressed negatively as freedom from "unreasonable" search and seizure, or positively as an entitlement to a "reasonable" expectation of privacy, indicates

that an assessment must be made as to whether in a particular situation the public's interest in being left alone by government must give way to the government's interest in intruding on the individual's privacy in order to advance its goals, notably those of law enforcement.

The question that remains, and the one upon which the present appeal hinges, is how this assessment is to be made. When is it to be made, by whom and on what basis? Here again, I think the proper approach is a purposive one.

(A) *When is the balance of interests to be assessed?*

If the issue to be resolved in assessing the constitutionality of searches under s. 10 were whether *in fact* the governmental interest in carrying out a given search outweighed that of the individual in resisting the governmental intrusion upon his privacy, then it would be appropriate to determine the balance of the competing interests *after* the search had been conducted. Such a *post facto* analysis would, however, be seriously at odds with the purpose of s. 8. That purpose is, as I have said, to protect individuals from unjustified State intrusions upon their privacy. That purpose requires a means of *preventing* unjustified searches before they happen, not simply determining, after the fact, whether they ought to have occurred in the first place. This, in my view, can only be accomplished by a system of *prior authorization*, not one of subsequent validation.

A requirement of **prior authorization, usually in the form of a valid warrant**, has been a consistent prerequisite for a valid search and seizure both at common law and under most statutes. Such a requirement puts the onus on the State to demonstrate the superiority of its interests to that of the individual. As such it accords with the apparent intention of the Charter to prefer, where feasible, the right of the individual to be free from State interference to the interests of the State in advancing its purposes through such interference.

I recognize that it may not be reasonable in every instance to insist on prior authorization in order to validate governmental intrusions upon individuals' expectations of privacy. **Nevertheless, where it is feasible to obtain prior authorization, I would hold that such authorization is a pre-condition for a valid search and seizure.**

Section 8 protects two rights: the right to personal privacy, and the right to be protected from an overzealous use of official power in the search for evidence to support a criminal prosecution. The latter right involves an element of protection against self-incrimination. (An analysis of those related concerns is found in *Frank v. Maryland*, supra, at p. 381.) Greater care must be exercised when personal liberty is jeopardized, as is the case where entry is sought during a criminal investigation but, nevertheless, the right of an individual to personal privacy must be carefully protected.

Although it is desirable that a consistent standard be applied to identify the point at which the interests of the State prevail over those of the individual (*Hunter v. Southam*, p. 114 C.C.C. , p. 658 D.L.R., p. 167 S.C.R.), in the end the standard is one of reasonableness.

The standard proposed in *Hunter v. Southam* involves prior authorization by a judicial officer based upon proof of reasonable and probable grounds justifying intrusion. It is reasonable that such a standard be applied in a criminal investigation, or when a search is being made of the type contemplated by the *Combines Investigation Act*. That type of search involves intrusion without notice, whether it be convenient or inconvenient. It may involve a serious invasion of privacy, for instance a search through personal property. It may involve a deprivation of personal property. A police raid inevitably involves personal stigma. The search warrant procedure is needed and applies well in that type of situation.

Different considerations apply to administrative inspections. Under the North Vancouver Zoning By-law, the inspection is limited to "reasonable times." The householder may refuse entry if the inspector comes at an inconvenient time. In this case, the inspectors returned on three separate occasions, endeavouring to find a time which best suited the householder. The householder may demand that the inspector produce identification, and may ask why the inspection is being undertaken. The householder, if not satisfied, may ask the inspector to return another day, and may make appropriate inquiries of the municipality concerning the inspector, and the proposed inspection. I do not think any of those steps would be characterized as *preventing* or *obstructing* entry of a building inspector so as to constitute an offence under s. 1102(2) of the by-law. An inspection involves a minimal intrusion into the privacy of a person, if conducted at a reasonable time. It does not involve a search or a seizure of personal property. It involves looking at construction, wiring, plumbing and heating, and at things which may affect health or safety. There is no stigma attached to the inspection. It is something that may be reasonably expected by all members of the community, in whose interest it is to maintain health and safety standards. Once it is recognized that such inspections must proceed on a routine basis, area by area, without proof in advance of an infraction by any particular householder, then it would be an empty and futile gesture, in my opinion, to have an independent official hear the reasons why a search is to be made and give a prior authorization. The fact that an infraction may be discovered, and a penalty imposed, does not persuade me that a cumbersome and ineffective procedure should be put in place. It would not protect the individual violator from being discovered. Nor is it in the public interest that he should be so protected.

I agree with the minority in *Camara* that if such a system of inspection is reasonable, then it cannot be characterized as an unreasonable search and seizure. The majority in *Camara* appear to have concluded that the procedure was reasonable, but that the constitutional requirement that there be a warrant must prevail. We do not have any such rigid constitutional requirement in Canada.

*Hunter v. Southam* holds that prior authorization is a precondition for a valid search and seizure if it is feasible and reasonable to insist upon prior authorization. In my opinion, it would not be reasonable to insist upon prior authorization of administrative inspections, which could only be an expensive, routine measure incapable of providing any real protection to the householder.

I have concluded that the by-law is not inconsistent with s. 8, and would affirm the judgment of Mr. Justice Dohm.

I would dismiss the appeal.

*Appeal dismissed.*

[ScanLII Collection]



## Neighbour Law

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Script 400 gives information only, not legal advice. If you have a legal problem or need legal advice, you should speak to a lawyer. For the name of a lawyer to consult, call Lawyer Referral at 604.687.3221 in the lower mainland or 1.800.663.1919 elsewhere in British Columbia.

Many of us have had occasional problems with neighbours involving noise, untidy premises, dogs, fences, trees and hedges, secondhand smoke, water damage, or trespass. This script describes the laws that deal with these types of problems. In most cases, you can try talking to the person causing the problem. They may not be aware of the effect they're having on their neighbours and talking to them may solve the problem. But if that doesn't work, you have other options, which this script describes.

### Noise

We've all had our peace and quiet disturbed by squealing tires, loud stereos, barking dogs, or noisy equipment. What can you do to stop it? First, try talking to the person causing the noise. They may not realize how irritating it is.

If that doesn't work, call your city hall and ask if there is a noise bylaw. If there is one, talk to the person who enforces it. For example, in Vancouver, you would call the Environmental Health Officers. Each municipality's noise bylaw is different, but most are quite broad. In Vancouver and many other municipalities, the bylaw covers noise from animals and birds, heavy-duty equipment, lawnmowers, loud parties, stereos and many other things. Usually, the municipality's enforcement officer will try to solve the problem informally. If they can't, they may prosecute the person in court for violating the bylaw.

If the noise is on a weekend or at night, and city hall is closed, you can call the police. And if a person is screaming, shouting, swearing or singing to the point they are creating a nuisance, they may be causing a common disturbance – an offence under the *Criminal Code*. In all these cases, call the police and report it. The *Criminal Code* is available at <http://laws-lois.justice.gc.ca>.

You can also sue the person causing the noise. You could sue for damages for nuisance or negligence, or ask the court to order the person to stop the noise.

### Untidy premises

Most municipalities have bylaws to control things like garbage, junk, overgrown gardens, or abandoned vehicles. For example, in Vancouver, every property owner must keep their property in neat and tidy condition, in keeping with a reasonable standard of maintenance common in the neighbourhood. So, if talking to the neighbour doesn't help, your next step is the local government. Explain your situation to the person who enforces bylaws. They may investigate and if your complaint is valid, order the owner to clean up the property. If the owner doesn't, the municipality can clean it up and then bill the owner for the cost of the cleanup.

### Dogs

If you own a dog, you should be familiar with your legal responsibilities. These are described in four places: local bylaws, provincial laws, the *Criminal Code*, and the common law, as explained below.

#### 1. Local bylaws

Local bylaws cover licensing and may prohibit dogs from being in certain places. You can find a copy of local bylaws at your public library, courthouse library, or local government offices. Many local bylaws are also available on the municipality's website.

Many local governments have passed bylaws to prohibit dogs running loose. In Vancouver, for example, dogs cannot be on the street or in a public place unless they're on a leash not more than 8 feet long (2.5 meters) – except in off-leash parks. As well, female dogs must be kept confined and housed when they're in heat.

The Vancouver animal control bylaw also requires “aggressive” dogs – dogs with a known tendency to attack or bite, or dogs that have bitten another domestic animal or person without provocation – to be muzzled or kept indoors or in a pen.

The city may seize and impound (for up to 3 weeks) a dog that has bitten someone. A dog found running loose, or unlicensed, will be taken to the Pound and, if it isn't claimed within three days, it may be put up for sale or destroyed. The owner could also be charged fees for impounding the dog, keeping it at the Pound, and any veterinarian services it needs. The owner may get a ticket for violating the bylaw.

Health bylaws in Vancouver and elsewhere prohibit dogs in restaurants and other places where food is kept or handled. The bylaws don't apply to private homes or prohibit "seeing-eye" or other types of service dogs.

Vancouver has a "pooper-scooper" bylaw, and your municipality may have one too. It requires you to pick up your dog's excrement if it's on property that is not yours. If you don't, you can be fined up to \$2000. This law does not apply to "seeing-eye" dogs or service dogs working with people with disabilities.

Vancouver's animal control bylaw also regulates the noise of barking or howling dogs. For example, if your neighbours complain that your dog's barking unreasonably disturbs the peace and quiet of the neighbourhood, you could be fined up to \$2,000. Other local governments also regulate dog barking in their noise-control bylaws.

## 2. Provincial laws

The BC *Livestock Act* protects farm animals from attacks by dogs. For example, anyone can kill a dog on the spot if it's seen running at large and attacking or viciously chasing cattle, goats, horses, sheep, swine, or game.

Under section 49 of the BC *Community Charter*, local governments may seize and impound some dangerous dogs. The local government may apply to provincial court for an order to destroy the dog. The local government does not need a specific local bylaw to exercise these powers.

Both these BC laws are available at [www.bclaws.ca](http://www.bclaws.ca).

## 3. The Criminal Code

It's against the *Criminal Code* to willfully cause unnecessary pain or suffering or injury to any animal or to willfully neglect or fail to provide suitable and adequate food, water, shelter and care for it. If you don't take reasonable care of your dog, you could face a fine or jail term and a criminal record. And if you don't take reasonable care to avoid harming others, and your dog attacks and injures someone, you could be charged with criminal negligence. The Criminal Code is available at <http://laws-lois.justice.gc.ca>.

## 4. If your dog injures someone – common law

If your dog injures someone, that person may sue you under the common law in civil court. If they succeed, you'll have to pay them for the injuries your dog caused them. You should check with your insurance agent to find out if your house insurance would cover you in this case. Better yet, if you have a dog that is likely to bite or attack a person, always keep it under control or get rid of it.

## Fences

Fences make good neighbours: that's the common saying. But they can also cause problems. Local bylaws often control how high a fence can be, both natural fences, such as hedges, and fences that you build. If your neighbour builds a fence higher than the bylaw allows, you can talk to them about it. You can also call the city, which can order the person to obey the law. Unless you do these things, the city does not normally check every fence.

A fence on the property boundary belongs to both property owners. People often share the cost of a fence, but they don't have to. Both are responsible to keep it in good shape and they have to get permission from the other one to take it down. The section below called "Trespass" has more on fences.

## Trees and hedges

If your neighbour's tree branches hang over your property, you can cut them, but only up to the property line. You cannot go onto your neighbor's property or destroy the tree. The reverse case is also true.

If your tree damages your neighbour's property, for example, a branch falls on their roof during a storm, are you responsible? No, not unless you caused the damage intentionally or through negligence. Negligence means you did not take reasonable care or you were warned or knew the tree was damaged or diseased and may fall. But if your tree roots go under their property and damage their pipes, lawn, or foundation, you may be responsible under the common law principle of "nuisance". It depends on the facts of the case, but normally, courts will not allow use of a property that

causes substantial discomfort to others or damages their property.

### **Secondhand smoke**

If your neighbour's smoke comes into your house, as in all these cases, you can talk to them. If that doesn't work, what to do depends on the situation. Does the smoke come from a tenant? If so, does the lease prohibit smoking? If not, you still have the right to "quiet enjoyment" of your property. And the smoke may violate that right or be a nuisance under the common law. You would need legal advice on this.

### **Water damage**

Normally, a neighbor is not responsible for damage caused by the natural conditions of land. In other words, if rain runs from a neighbour's yard onto your property and makes it soggy, the neighbour is not responsible. But if a neighbour changes their property and that causes more rainwater to come run onto your property, they may be responsible. They have a duty to be reasonable. If they are careless, for example, leaving a sprinkler running too long, which in turn floods your property, they may have to pay you for the damage. Again, you would need legal advice on this.

### **Trespass**

If a neighbour comes onto your property without your permission, they are trespassing. If they don't leave when you ask them to, you should call the police. If a neighbour builds a fence or other structure, such as a shed, that encroaches on (comes onto) your property, this is also a trespass. Often the encroachment is unintentional and you can solve the problem by getting a proper survey. If talking with your neighbour and getting a survey don't solve the problem, you can sue them for trespassing. Usually, a court will order the neighbour to remove and relocate the fence or structure so it's off your property.

### **What if no bylaw, provincial law, or the *Criminal Code* deals with your problem?**

You may have a problem that these laws do not cover. For example, your neighbour's property may be producing a terrible smell. In this case, you could try alternative dispute resolution. It may be the best and most cost-effective way to resolve neighbour disputes, because the relationship between you and your neighbour continues and you don't want to harm or destroy it. For information on alternative dispute resolution, see the website of the Dispute Resolution Office of the Ministry of Attorney General at [www.ag.gov.bc.ca/dro](http://www.ag.gov.bc.ca/dro).

Or you may decide to sue your neighbour. In that case, you should talk to a lawyer immediately because the laws may set a time limit for starting a lawsuit.

[updated September 2010]

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## Article

# Commuting to work: Results of the 2010 General Social Survey

by *Martin Turcotte*



August 24, 2011



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- . not available for any reference period
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- ... not applicable
- 0 true zero or a value rounded to zero
- 0<sup>s</sup> value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- <sup>p</sup> preliminary
- <sup>r</sup> revised
- x suppressed to meet the confidentiality requirements of the *Statistics Act*
- E use with caution
- F too unreliable to be published

# Commuting to work: Results of the 2010 General Social Survey

by *Martin Turcotte*

## Introduction

For many workers, commuting to work is routine and causes little concern. Others, however, consider it a waste of time and a source of stress and frustration. This is especially true for workers whose commutes seem to take an eternity and are made even slower by traffic congestion.

Often irritating workers, traffic slowdowns and capacity problems in the road system are serious issues. In addition to delaying deliveries and reducing business productivity, traffic congestion contributes to urban smog and pollution—diminishing environmental quality and jeopardizing public health.

This article examines various facets of travelling between home and work. Part 1 begins with information about commuting times and how frequently workers are caught in traffic. In particular, it compares commuting times in major metropolitan areas by mode of transportation used by workers. Part 2 looks at workers' perceptions of the time they spend commuting. Are they happy with this time or not? In the past, there was no way of answering this question, but now there is data from the General Social Survey which allows this question to be addressed.

In Part 3, the focus is on car users' perceptions of public transit. Have they ever tried using public transit to get to their current place of work? Is it convenient for them? In Part 4, a connection is drawn between the characteristics of commuting to work (commuting time, recurrence of traffic congestion, etc.) and selected subjective measures of quality of life, including stress levels and satisfaction with work–life balance. For more information, see the box entitled "What you should know about this study".

## Part 1: Commuting times by place of residence, mode of transportation, residential density and traffic congestion

### The larger and more populous the region, the longer it takes to get to work

In 2010, it took Canadian workers an average of 26 minutes to get to work on a typical day (the average includes all modes of transportation). This average was affected by various factors, including where workers lived. In general, travel times are longer in large metropolitan areas, where workers have to travel greater distances and traffic congestion is more frequent (Table 1).

For example, average commuting time was longest (30 minutes) in the six largest census metropolitan areas (areas with at least 1 million residents: Toronto, Montréal, Vancouver, Ottawa–Gatineau, Calgary and Edmonton). In the 10 census metropolitan areas (CMA)<sup>1</sup> with between 250,000 and fewer than 1 million residents in 2006, average commuting time was shorter (25 minutes).

Smaller census metropolitan areas with fewer than 250,000 residents had the shortest commuting times, averaging 19 minutes. In general, these smaller CMAs have many places of work that are not difficult to get to, in part because traffic congestion occurs less frequently. Average commuting times were the same in census agglomerations (areas with between 10,000 and 100,000 residents).

Commuting times were slightly longer in areas outside census agglomerations and census metropolitan areas (23 minutes on average). This might be because some people who live outside the boundaries of census metropolitan areas commute into those areas. In addition to travelling long distances, these workers may encounter traffic congestion if they commute into major centres.

## What you should know about this study

This article is based on data from Statistics Canada's 2010 General Social Survey on Time Use, which included questions on time stress and the sense of well-being. A section of the survey also dealt with commuting to work.

This study is about people whose main activity during the week preceding the interview was working at a paid job or for themselves. People who were on vacation that week are excluded, as are those who worked at home and did not commute to work. The result is a sample of 6,650 respondents representing about 13.2 million workers in 2010.

### Definitions

**Commuting time:** To measure how much time workers spend commuting, they were asked: "On a usual day last week, how many minutes did it take you to go one way from home to work?"

**Mode of transportation:** There were three modes of transportation reported: car or private vehicle, public transit and active transportation.

**Car users:** includes both passengers and drivers who use a private motor vehicle to commute to work.

**Public transit users:** includes passengers of public transit systems, including streetcars, subways, light-rail transit, commuter trains and ferries.

**Active transportation:** includes walking and cycling.

Respondents were given the opportunity to report more than one mode of transportation for their commute to work and people who reported using public transit in combination with some other mode of transportation (car, walking) are included with public transit users.

When Canada's six largest metropolitan areas are compared, a positive relationship between population size and commuting times is found. Of those six areas, the two most populous—Toronto and Montréal—have the longest commuting times (33 minutes and 31 minutes respectively). In both, 27% of workers had travel times of 45 minutes or more, which is much greater than in any other CMA or other area (Table 1). For more details on commuting in Toronto, Montréal and Vancouver, see the "Getting to work in Toronto, Montréal and Vancouver" text box.

### Commuting takes longer by public transit than by car

How someone gets to work is associated with how long it takes to get to work. Workers who walk or bicycle to work have shorter trips (14 minutes on average) while public transit users spend considerably more time travelling to work (44 minutes). Car users, including passengers, fall somewhere in the middle. Since the vast majority of workers travel in private vehicles, their average commuting time of 24 minutes is very close to the average for all workers.

It makes sense to compare the commuting times of car users and public transit users based on the size of the metropolitan area. In 2010, in the six largest metropolitan areas, car users took an average of 27 minutes to get to work, while public transit users took 44 minutes. In mid-sized metropolitan areas (areas with between 250,000 and 1 million residents), the difference in average commuting times was larger—23 minutes for car users and 46 minutes for public transit users.

The gap is not due to distance travelled, as public transit users generally travel shorter distances. Among workers in CMAs with at least 250,000 residents who travel less than 5 kilometres to get to work, car users had an average commuting time of 10 minutes, compared with 26 minutes for public transit users (data not shown). The same held true for longer distance categories.<sup>2</sup> Since the use of public transit involves walking, waiting and sometimes traffic congestion, it is not surprising that commuting times are generally longer for public transit users. Nevertheless, the use of bus lanes and underground rail lines can speed up public transit commutes and even make them

shorter than automobile commutes. However, when average commuting times for public transit users and car users are compared, automobile commutes are shorter.

The conclusions concerning commuting times by mode of transportation are much the same when proportions of users are considered. For example, in 2010, among workers in metropolitan areas with a population of at least 250,000 who lived 5 or more kilometres from their place of work, 45% of public transit users had morning commutes of 45 minutes or more, compared with 18% of car users (data not shown).

### Low residential density neighbourhoods are less conducive to public transit

Access to public transit is closely tied to urban land use. It is much easier to provide efficient public transit in the high-density residential neighbourhoods typical of the central areas of major cities. The pool of potential users per square kilometre is much larger in such areas. This has an impact on public transit users who live in lower-density residential neighbourhoods—their commuting times are longer because the

**Table 1 Average commuting time to work and proportion of workers, by selected characteristics, 2010**

	Commuting time				
	Average	Less than 15 minutes	15 to 29 minutes	30 to 44 minutes	45 minutes or more
	minutes	percentage			
<b>Total Canada</b>	<b>26</b>	<b>30</b>	<b>33</b>	<b>19</b>	<b>17</b>
<b>Type of region of residence</b>					
Census metropolitan areas of 1,000,000 or more residents†	30	19	33	25	23
Census metropolitan areas of 250,000 to 999,999 residents	25*	29*	38*	18*	15*
Census metropolitan areas of less than 250,000 residents	19*	41*	39*	13*	7*
Census agglomerations	19*	49*	31	11*	10*
Outside of census metropolitan areas and census agglomerations	23*	41*	29*	15*	15*
<b>Census metropolitan area</b>					
Toronto†	33	15	33	25	27
Montréal	31	20	27	27	27
Vancouver	30*	22*	33	25	21*
Ottawa—Gatineau	27*	15 <sup>E</sup>	50*	21	14 <sup>E*</sup>
Calgary	26*	21 <sup>E</sup>	33	29	16 <sup>E*</sup>
Edmonton	23*	27*	41	20	12 <sup>E*</sup>
<b>Mode of transportation</b>					
Car or private vehicle†	24	31	36	18	15
Public transit	44*	5*	21*	30*	43*
Active transportation (walking or cycling)	14*	57*	27*	14*	F
<b>Type of region and mode of transportation</b>					
<b>Census metropolitan areas of 1,000,000 or more residents</b>					
Car/private vehicle†	27	21	37	24	18
Public transit	44*	5 <sup>E*</sup>	20*	31*	44*
<b>Census metropolitan areas of 250,000 to 999,999 residents</b>					
Car/private vehicle†	23	31	40	17	12
Public transit	46*	F	25 <sup>E*</sup>	29 <sup>E*</sup>	42*

† reference group

\* statistically significant difference from reference group at  $p < 0.05$

Source: Statistics Canada, General Social Survey, 2010.



## Getting to work in Toronto, Montréal and Vancouver

Data from the General Social Survey can provide a more detailed picture of commuting times in Canada's three largest metropolitan areas, as the number of survey respondents from these three areas allows for more detailed analysis.

Average commuting times in these three CMAs followed the general trend: they were longer for public transit users than for car users. In Toronto and Vancouver, it took public transit users about 20 minutes longer than car users to get to work, while in Montréal, the difference was much smaller (about 10 minutes) (text box table).

CMAs are named after their central municipality, but they also contain other municipalities, which may be described as 'neighbouring', 'peripheral' or 'suburban' municipalities. The urbanization of most peripheral municipalities has been a function of automobile use. In contrast, many neighbourhoods in Toronto, Montréal and Vancouver are densely populated, which favours active modes of transportation or public transit. These differences in urban planning and the development of road systems can have a major impact on how workers commute to work.

In these three areas, workers living in the central municipality were much more likely to use public transit than workers in neighbouring municipalities. The difference was particularly pronounced in Montréal, where 41% of workers living in the city of Montréal commuted by public transit, compared with 11% of workers in neighbouring municipalities.

The differences in commuting times within the three areas were small. In the Vancouver area, the average commuting time was 27 minutes for workers living in the central municipality, compared with 31 minutes for workers residing in neighbouring municipalities (text box table). In the Montréal area, it took workers from the city of Montréal an average of 28 minutes

to get to work, while the average commuting time for their counterparts in neighbouring municipalities, such as Laval or Longueuil, was 34 minutes. In the Toronto area, commuting times were the same for workers residing in the central municipality and workers in neighbouring municipalities (33 minutes).

These relatively minor differences may be due to the fact that many workers from peripheral municipalities do not have to travel to the central municipality to get to their place of work. Prior to economic expansion into the suburbs, the suburban municipalities played an essentially residential role within the census metropolitan area. This is no longer the case, since a great many jobs are outside the central municipality/city centre. According to 2006 Census data, for example, employment grew even more rapidly in the peripheral municipalities than in the central municipalities.<sup>1</sup>

Workers in the greatest metropolitan areas are more likely to experience traffic congestion daily on their way to work (Table 2). In the Toronto CMA, 29% of full-time workers were caught in traffic jams every day of the week, compared with 26% of their counterparts in Montréal and 25% of full-time workers in Vancouver (results not shown). In the Montréal metropolitan area, residents of the central municipality, i.e. of the city of Montréal, were less likely to experience traffic congestion every day (18% of full-time workers compared to 29% of those in the surrounding municipalities). The same held true in Vancouver with respective proportions of 17% of full-time workers living in the city of Vancouver caught daily in traffic compared with 28% of those living in surrounding municipalities.

1. Statistics Canada. 2007. *Commuting Patterns and Places of Work of Canadians, 2006 Census*, Statistics Canada Catalogue No. 97-561.

## Getting to work in Toronto, Montréal and Vancouver (continued)

### Mode of transportation and average commuting time to get to work in Montréal, Toronto and Vancouver census metropolitan areas

	Mode of transportation			Average commuting time to work		
	Toronto	Montréal	Vancouver	Toronto	Montréal	Vancouver
	percentage using public transit			minutes		
<b>Mode of transportation</b>						
Car†	...	...	...	29	30	25
Public transit	...	...	...	49*	39*	48*
<b>Place of residence</b>						
Central municipality†	29	41	32	33	28	27
Neighbouring municipalities	16*	11 <sup>E*</sup>	17*	33	34*	31

† reference group

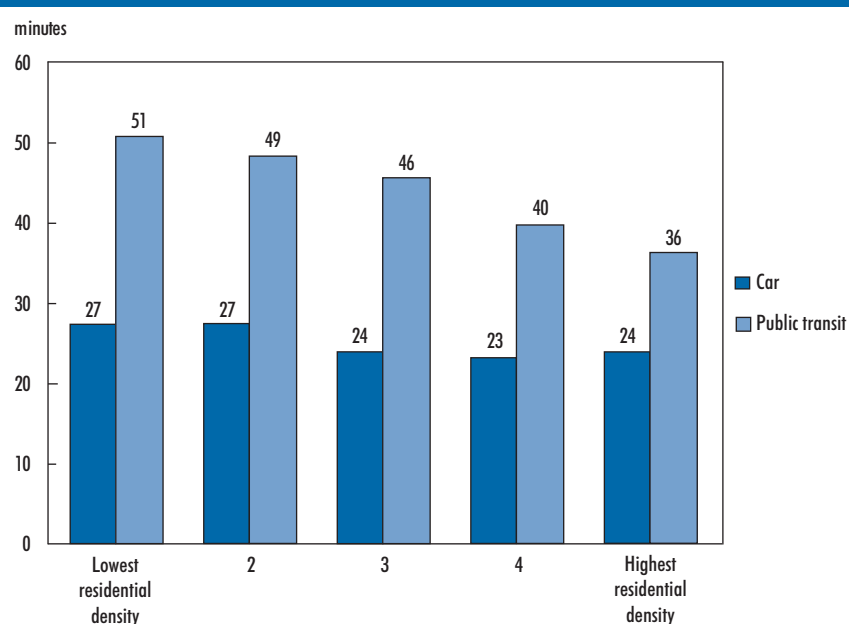
\* statistically significant difference from reference group at  $p < 0.05$

Source: Statistics Canada, General Social Survey, 2010.

distances are greater. Less frequent service may also increase public transit commuting times if transfers are necessary and schedules are out of sync.

The impact of neighbourhood is evident when public transit users in metropolitan areas with 250,000 or more residents are examined. In neighbourhoods with the highest residential density, typical of city centres, public transit users' average commuting time was 36 minutes. In comparison, public transit users in the lowest residential density neighbourhoods took an average of 51 minutes to get to work. On the other hand, there was little or no connection between residential density and the commuting times of car users (Chart 1).

**Chart 1 In low-density neighbourhoods, public transit takes more time**



Note: For workers living in a census metropolitan area of 250,000 or more residents.

Source: Statistics Canada, General Social Survey, 2010.

### Traffic congestion makes commutes longer and affects many workers

In the 2010 General Social Survey, workers were asked for the first time whether traffic congestion was recurrent, occasional or non-existent during their daily commute to work. The following analysis is confined to full-time workers as respondents were asked about the frequency of congestion during an entire week.

In 2010, nearly 20% of full-time workers reported experiencing traffic congestion every day they commuted to work. Another 8% said they encountered congestion three or four times a week. On the other hand, a majority of workers (51%) said they were never caught in traffic jams on the way to work (Table 2).

Congestion problems were more frequent for car users in larger metropolitan areas. In the largest metropolitan areas, for example, about 30% of car users who were employed full time experienced heavy traffic every work day. In comparison, this was the case for 8% of workers

living outside census metropolitan areas and census agglomerations.

Public transit users were not immune from traffic problems (Chart 2). This is attributable in part to the fact that many buses use the same road lanes as private cars and that some workers drive to park-and-ride lots before taking public transit. In 2010, in the six largest metropolitan areas, 53% of public transit users encountered congestion at least one day a week, compared with 67% of car users. However, they experienced congestion less frequently than car users (22% of public transit users were caught in traffic at least three days a week, compared with 41% of car users). It is impossible to differentiate between subway users and bus riders.

Not surprisingly, car users in large metropolitan areas who frequently experienced traffic congestion had longer commuting times (Chart 3). Congestion had a particularly large impact on workers who commuted more than 25 kilometres: those who never encountered congestion took

an average of 36 minutes to get to work, while those who were caught in traffic at least three days a week took 51 minutes.

### Part 2: Workers' perceptions of commuting time

#### Most workers are satisfied with their commuting times

Some people may consider a commute to work of 45 minutes or more acceptable, while others may find this hard to bear. How satisfied are workers with their commuting times?

In general, satisfaction with commuting times was high: 39% said they were very satisfied with the amount of time it took to get to work, and another 46% said they were satisfied. This leaves 15% of workers who were dissatisfied with the amount of time required to travel to work. The proportion of dissatisfied workers was highest (20%) in census metropolitan areas with 1 million residents or more. Outside these areas, the proportion of dissatisfied workers ranged from 8% to 10% (Table 3).

**Table 2 Frequency of traffic congestion by type of region of residence and mode of transportation, full-time workers, 2010**

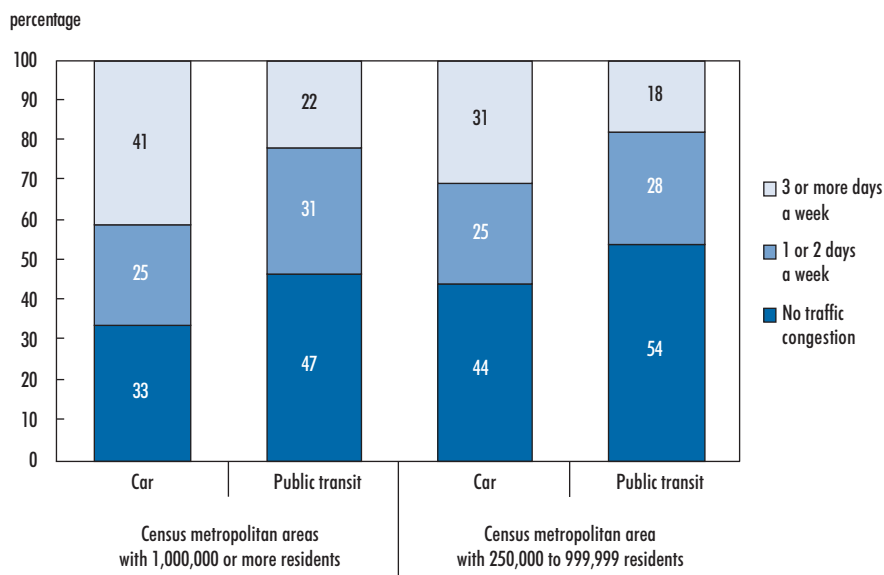
	Type of region of residence					Outside census metropolitan areas and census agglomerations
	Total	Census metropolitan areas of 1,000,000 or more residents†	Census metropolitan areas of 250,000 to 999,999 residents	Census metropolitan areas of less than 250,000 residents	Census agglomerations	
	percentage					
<b>All full-time workers</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
No traffic congestion	51	38	47*	53*	67*	78*
1 or 2 days a week	22	26	25	24	15	11*
3 or 4 days a week	8	10	10	8	7*	4 <sup>E*</sup>
Every day	19	26	19*	16*	11*	8*
<b>Car drivers and passengers</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
No traffic congestion	50	33	44*	52*	65*	77*
1 or 2 days a week	21	25	25	24	16*	11*
3 or 4 days a week	9	12	10	8 <sup>E*</sup>	7*	4 <sup>E*</sup>
Every day	20	30	20*	16*	12*	8*

† reference group

\* statistically significant difference from reference group at  $p < 0.05$

Source: Statistics Canada, General Social Survey, 2010.

**Chart 2 Many public transit users experience traffic congestion 3 or more days a week**



Note: For full-time workers living in a census metropolitan area of 250,000 or more residents.  
Source: Statistics Canada, General Social Survey, 2010.

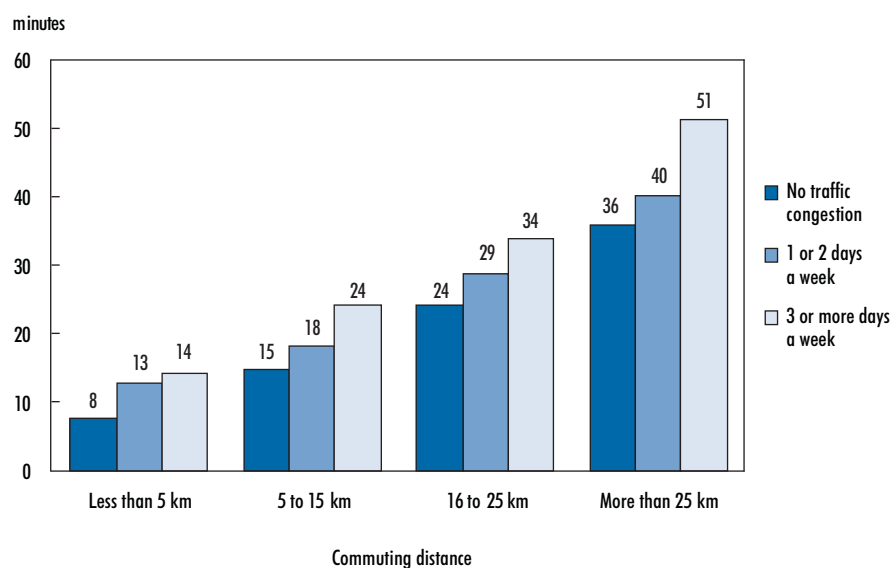
Not surprisingly, dissatisfaction increased with commuting time. Nevertheless, a slight majority (55%) of those who took 45 minutes or more to get to work said they were satisfied or very satisfied with their commuting time. People who choose to live a long distance from their place of work might be more likely to accept the fact that it takes them a considerable amount of time to commute.

**Traffic congestion is a major source of dissatisfaction**

As with commuting time, traffic congestion leaves people very dissatisfied. In the absence of traffic congestion, a large majority of workers said they were satisfied or very satisfied with their commuting times. For example, 24% of those who had commuting times of 45 minutes or longer but never experienced traffic congestion said they were dissatisfied with that length of time (Table 3). The proportion was substantially higher (64%) for those who spent the same amount of time commuting but were caught in traffic at least three days a week.

The results were similar for other categories of commuting time, with very low levels of dissatisfaction for workers who never encountered congestion and much higher levels for those who did so every day or most days.

**Chart 3 Influence of traffic congestion on time spent commuting in the car, by commuting distance**



Note: For full-time workers living in a census metropolitan area of 250,000 or more residents.  
Source: Statistics Canada, General Social Survey, 2010.

**Public transit users are more tolerant of longer commuting times**

In larger metropolitan areas, 6% of workers who used an active mode of transportation (walking or bicycling) to get to work were dissatisfied with their commuting time. Public transit users were more likely than car users to be dissatisfied with their commuting times (23% versus 18%). Public transit users' higher level of dissatisfaction was primarily due to the fact it took them longer on average than car users to get to work.

However, when commuting times were taken into account, a complex relationship between transportation

**Table 3 Satisfaction with time spent commuting to work, 2010**

	Degree of satisfaction		
	Very dissatisfied or dissatisfied	Satisfied	Very satisfied
	percentage		
<b>Total Canada</b>	<b>15</b>	<b>46</b>	<b>39</b>
<b>Type of region of residence</b>			
Census metropolitan areas of 1,000,000 or more residents†	20	49	31
Census metropolitan areas of 250,000 to 999,999 residents	14*	48	38*
Census metropolitan areas of less than 250,000 residents	8*	46	46*
Census agglomerations	9*	42*	49*
Outside of census metropolitan areas and census agglomerations	10*	41*	49*
<b>Time spent commuting to work</b>			
Less than 15 minutes†	4	26	70
15 to 29 minutes	7*	55*	38*
30 to 44 minutes	16*	63*	21*
45 minutes or more	45*	46*	9*
<b>Time spent commuting to work and frequency of traffic congestion<sup>1</sup></b>			
<b>Less than 15 minutes</b>			
No congestion†	3 <sup>E</sup>	19	78
1 or 2 days a week	4 <sup>E</sup>	39*	57*
3 or more days a week	12 <sup>E*</sup>	54*	34*
<b>15 to 29 minutes</b>			
No congestion†	3 <sup>E</sup>	43	54
1 or 2 days a week	2 <sup>E</sup>	67*	31*
3 or more days a week	23*	66*	11*
<b>30 to 44 minutes</b>			
No congestion†	5 <sup>E</sup>	57	38
1 or 2 days a week	10 <sup>E</sup>	74*	16 <sup>E*</sup>
3 or more days a week	33*	62	5 <sup>E*</sup>
<b>45 minutes or more</b>			
No congestion†	24	57	20
1 or 2 days a week	38*	52	10 <sup>E*</sup>
3 or more days a week	64*	34*	F
<b>Mode of transportation<sup>2</sup></b>			
Car/private vehicle†	18	49	32
Public transit	23*	52	25*
Active transportation (walking or cycling)	6 <sup>E*</sup>	27*	66*

† reference group

\* statistically significant difference from reference group at  $p < 0.05$

1. For full-time workers only.

2. Workers living in census metropolitan areas of 250,000 residents or more only.

Source: Statistics Canada, General Social Survey, 2010.

## Changes in round-trip commuting times

The round-trip commute between home and work is not always direct. Many workers make one or more stops en route—to drop off their children at school or daycare, buy a few things at the grocery store or pick up clothing at the dry-cleaner's. Obviously, these stops and side trips increase total commuting time between home and work.

If the entire duration of travel between home and place of work includes such side trips, the average round-trip commute was 65 minutes in 2010 for workers making a round trip on weekdays between their home and their main place of work. The average round-trip commuting time has increased: it was 63 minutes in 2005, 59 minutes in 1998 and 54 minutes in 1992. In 2010, it was longer in the three largest metropolitan areas: 81 minutes in Toronto, 76 minutes in Montréal and 74 minutes in Vancouver.

For all workers, side trips to buy goods and services were the largest contributors to the increase in round-trip commuting times to work, followed by travel for child-care activities (appointments, school, etc.) and travel to restaurants.

For more information on the methods used to estimate round trip commuting times, please refer to: Turcotte, Martin. 2007. *The time it takes to get to work and back*. Statistics Canada Catalogue no. 89-622.

mode and satisfaction level emerged (Chart 4). For shorter commuting times, public transit users were less satisfied than car users. Yet, as commuting time increased, the pattern was reversed. For example, 21% of car users with commuting times between 30 and 44 minutes said they were dissatisfied, compared with 10% of public transit users.

### Part 3: What workers think about public transit

A major goal of urban transportation is to encourage car users to leave the comfort and convenience of their automobiles and take public transit. In Canada in 2010, 82% of workers travelled to work by car, 12% took public transit, and 6% walked or bicycled.

In the 2010 General Social Survey, workers who did not use public transit were asked if they had ever tried using public transit to travel to work. They were also asked how they rated the level of convenience of public transit.

Of the 10.6 million workers who commuted by car, 15%, or 1.6 million, had tried using public transit to get to work. Slightly less than half (47%) of those who had tried public transit felt that it was a convenient way to get to work.

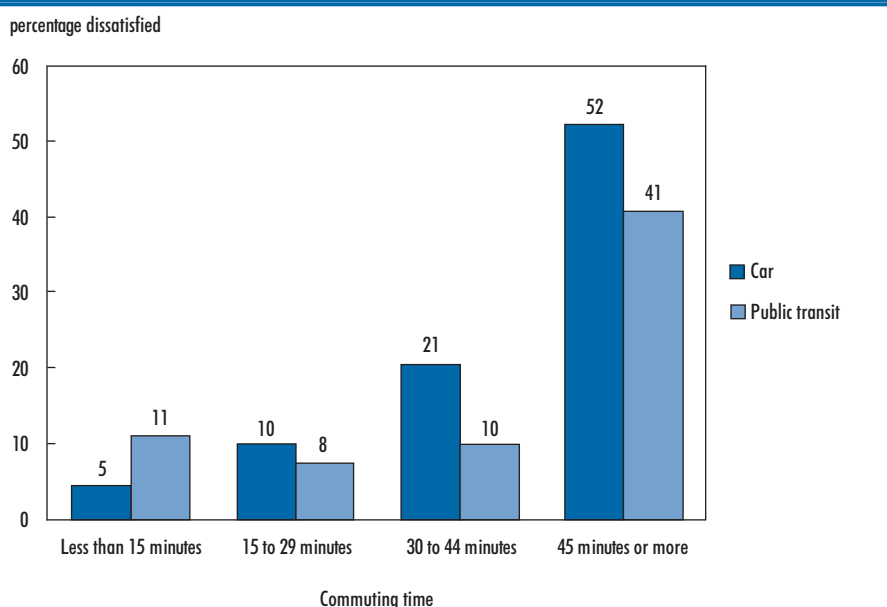
The same question was asked of the 9 million car users who had never tried using public transit to commute to work. Of that group, 15% thought that it would be convenient (Figure 1).

In summary, of the 10.6 million car users, just over 2 million felt that public transit would be convenient for them, while about 8.3 million thought it would be somewhat or very inconvenient.

### Part 4: The impact of commuting on stress, well-being and work-life balance

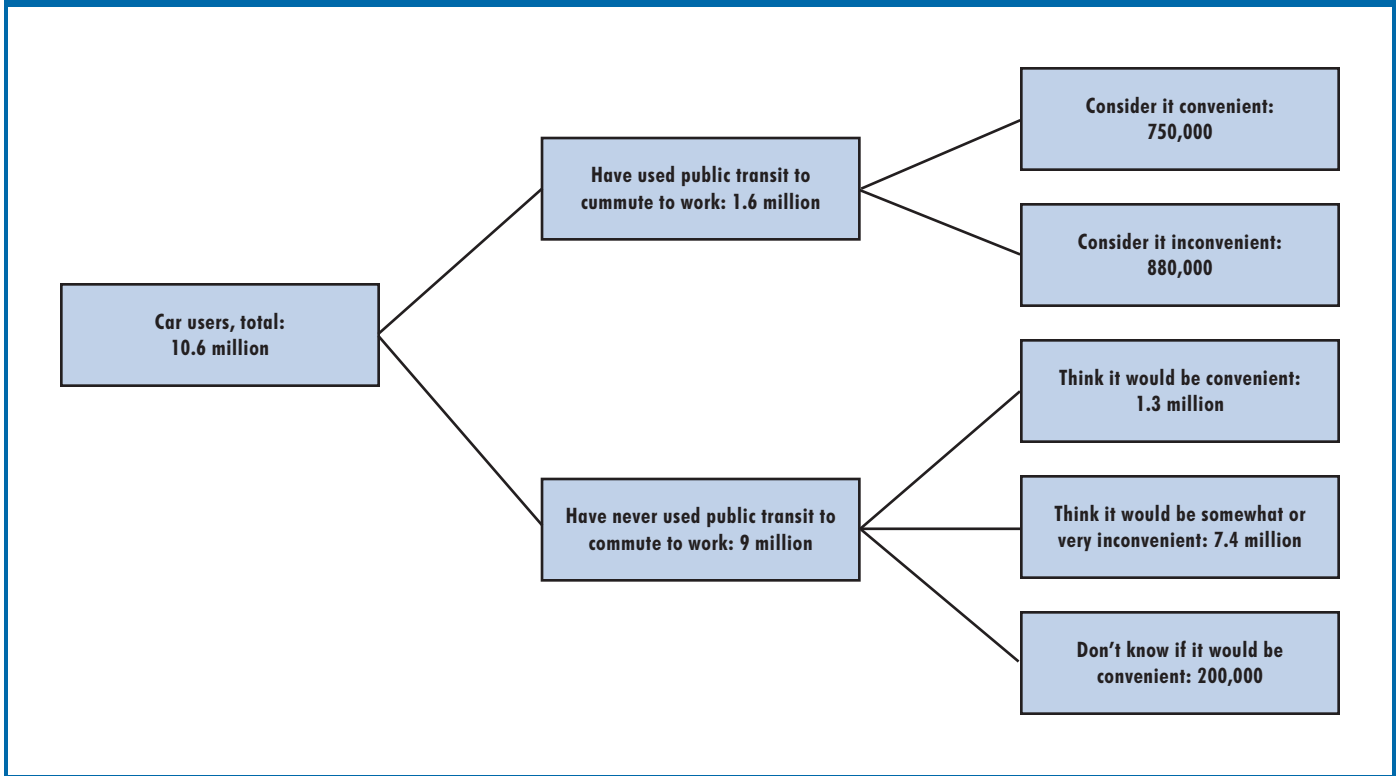
A number of factors come into play in the choice of where to live. One of them is distance from work. If it is assumed that for people who choose to live far from where they work, the advantages of the location are well worth the time spent commuting.

**Chart 4 Car users with the longest commutes more likely than public transit users to be dissatisfied with commuting time**



Note: For full-time workers living in a census metropolitan area of 250,000 or more residents.  
Source: Statistics Canada, General Social Survey, 2010.

**Figure 1 A majority of car users find public transit inconvenient**



Accordingly, general well-being or satisfaction should be similar regardless of the amount of time it takes to commute to work. However, the results of the General Social Survey on Time Use show this is not the case and that longer commuting times are associated with higher stress and less satisfaction with work-life balance.

**Workers with longer commutes find most days stressful**

The connection between commuting times and stress was clear. Of the full-time workers who took 45 minutes or more to travel to work, 36% said that most days were quite or extremely stressful. In contrast, this was the case for 23% of workers whose commuting time was less than 15 minutes (Table 4).

The same type of difference was observed for the frequency with which workers experienced traffic congestion. Of those who

were caught in traffic at least three days a week (about one out of four workers), 38% said that most days were quite or extremely stressful. The corresponding proportion was 25% for those who never encountered traffic problems on their way to work.

High stress levels are associated with a number of other factors such as health status, hours worked, presence of children and occupation (Table 4). Some of these factors, such as hours worked or health status, had a greater impact on stress levels than did commuting times. For example, 43% of full-time workers who were in fair or poor health described most days as quite or extremely stressful, compared with 21% of those who were in excellent health. On the other hand, many factors were less closely associated with stress than commuting time, such as the presence of children, education and household income.

Moreover, when the impact of all these factors was kept constant in a regression model, the general conclusion was unchanged: workers who experienced traffic congestion more frequently and workers who had longer commuting times were more likely to rate most days as quite or extremely stressful (data not shown).

The association between commuting times, the frequency of traffic congestion and a series of time-stress indicators is presented in Chart 5. For each indicator, an increase in commuting time is associated with an increase in the prevalence of stress. For example, 39% of full-time workers who took less than 15 minutes to travel to the office felt that they felt pressed for time every day. Among those whose commuting time was 45 minutes or more, the proportion was almost one out of two (49%). The feeling of being trapped in a routine and the impression that there is no time for fun also increased with commuting time.

**Table 4 Commuting time, traffic congestion and other factors associated with stress and work–family balance, full-time workers, 2010**

	Workers describing most of their days as somewhat or very stressful	Workers satisfied or very satisfied with their work–family balance
	percentage	
<b>Time spent commuting to work</b>		
Less than 15 minutes†	23	79
15 to 29 minutes	26	73*
30 to 44 minutes	32*	70*
45 minutes or more	36*	65*
<b>Frequency of traffic congestion</b>		
No congestion†	25	78
1 or 2 days a week	23	71*
3 or more days a week	38*	64*
<b>Sex</b>		
Male†	26	74
Female	31*	72
<b>Age</b>		
Less than 25 years†	18	76
25 to 34 years	27*	67*
35 to 44 years	34*	69*
45 to 54 years	29*	76
55 years or more	24*	82*
<b>Children present at home</b>		
No†	27	75
Yes	31	70
<b>Self-reported health</b>		
Excellent†	21	83
Very good	23	78*
Good	32*	69*
Fairly good or bad	43*	54*
<b>Education</b>		
High school diploma or less†	26	76
College or trade school diploma	29	74
University degree	29*	69*
<b>Household income</b>		
Less than \$60,000†	28	73
\$60,000 to \$99,999	27	73
\$100,000 or more	30	74
Not stated	26	73
<b>Occupation</b>		
Management occupations†	38	67
Professional occupations	31*	70
Technologists, technicians and technical occupations	30*	71
Clerical occupations	30*	76*
Sales and service occupations	25*	75*
Trades, transport and equipment operators and related occupations	23*	75*
Occupations unique to primary industries	21*	82*
Occupations unique to processing, manufacturing and utilities	22*	78*
<b>Hours worked per week</b>		
30 to 39 hours†	23	82
40 to 49 hours	24	76*
50 hours or more	40*	60*

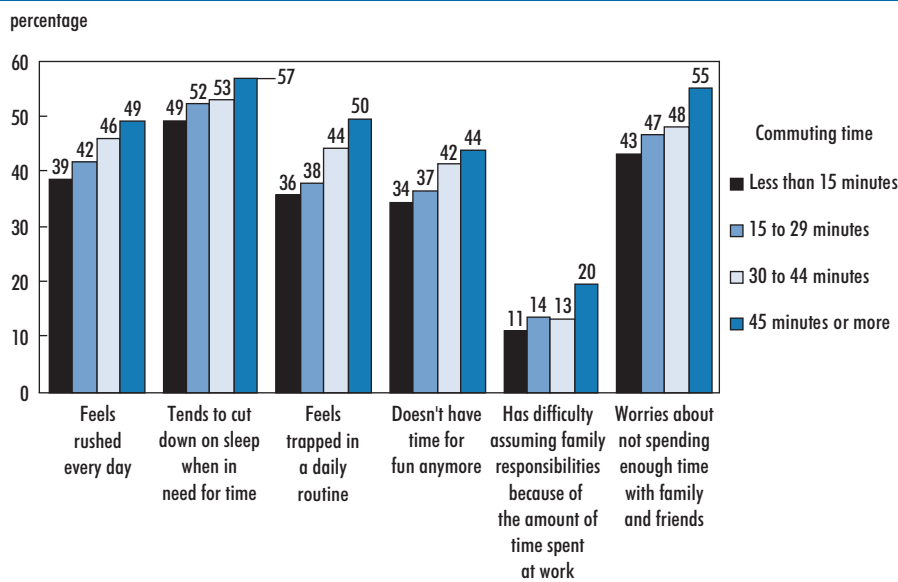
† reference group

\* statistically significant difference from reference group at  $p < 0.05$

Source: Statistics Canada, General Social Survey, 2010.



**Chart 5 The likelihood of feeling trapped in a daily routine increases with commuting time**



Note: For full-time workers.  
Source: Statistics Canada, General Social Survey, 2010.

In general, workers were satisfied with the amount of time it took them to travel to work. However, dissatisfaction was more common in larger urban centres, where it was observed that frequent encounters with traffic congestion had quite a large impact on the likelihood of being dissatisfied with commuting times.

Most car users (85%) had never used public transit to travel to their current place of work. Of that group, 15% believed that public transit would be convenient for them. The other 85% thought it would be somewhat or very inconvenient for them (or did not know). Of the 15% of car users who had used public transit to get to work, just under half believed that public transit would be convenient for them.

Longer commuting times were associated with higher stress levels in full-time workers. The same was true for those who often experienced traffic congestion.



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1. Québec City, Winnipeg, Hamilton, London, Kitchener, St. Catharines–Niagara, Halifax, Oshawa, Victoria and Windsor.
2. These results were confirmed by a linear regression model, based on the worker population in the largest metropolitan areas. The independent variables in the model were distance, distance squared, frequency of encounters with traffic congestion and mode of transportation used (car versus public transit). All these variables were statistically significant, and the regression's  $R^2$  was 0.49. For equivalent distance and frequency of traffic congestion, public transit users took an average of 17 minutes longer to get to work than car users.

### Workers with longer commutes less satisfied with their work–life balance

In addition to higher stress levels, longer commuting times were associated with work–life balance. Specifically, 79% of people who had commuting times of less than 15 minutes said they were satisfied or very satisfied with their balance between work and family life. This proportion declined as commuting time increased—reaching 65% among workers who took 45 minutes or more to get to work (Table 4). People whose commuting time was 45 minutes or more were also more likely to say that they had difficulty fulfilling their family responsibilities because of the time they spent at work (Chart 5). The feeling of not having enough time for family and friends also increased with commuting time.

### Summary

In 2010, it took workers an average of 26 minutes to travel to work. Workers in Toronto, Montréal and Vancouver had the longest commuting times, at 33, 31 and 30 minutes respectively.

Public transit users took longer to get to work than car users living an equivalent distance from their place of work. For example, in Canada's six largest metropolitan areas, each of which has a population of at least 1 million, public transit users' average commuting time was 44 minutes. In contrast, the average commuting time for car users was 27 minutes.

Not surprisingly, traffic congestion was more common in larger metropolitan areas and affected more car users. In the major centres, public transit users were not immune from the effects of traffic congestion—in the six largest metropolitan areas, one out of five public transit users reported experiencing traffic congestion at least three days a week. This was less than the two out of five car users who were in the same situation.