

Mobility monitor

Transportation Data

Monitoring today,
for tomorrow.

This issue

Carpooling and vehicle occupancy in Calgary

January 2008
Issue #21

KEY FINDING

The number of people registered with carpool.ca, the City's ride-matching service partner, has been increasing at a faster rate than the population growth rate.

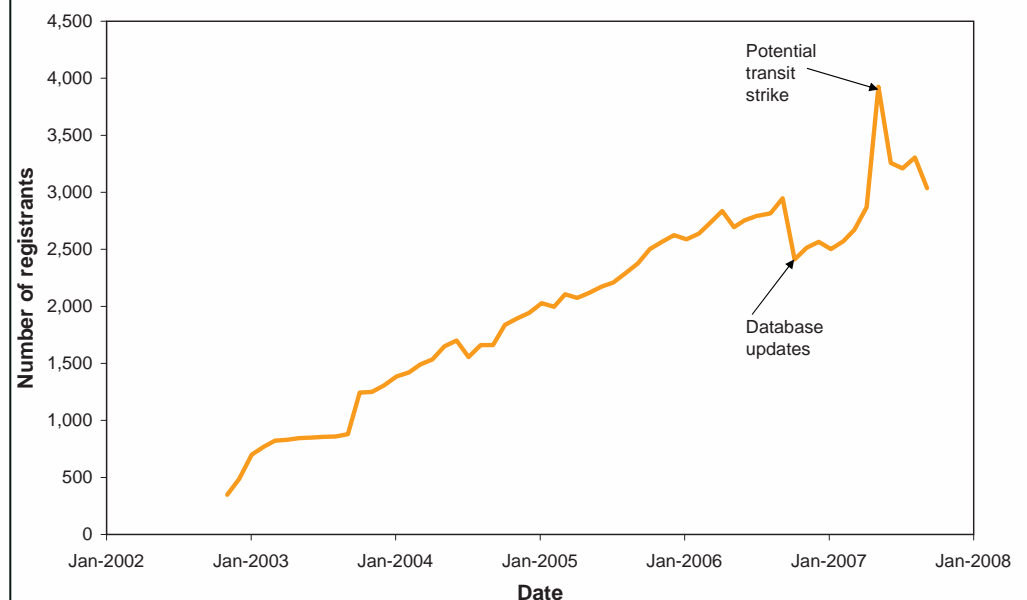
Calgary's carpool program is one of The City's initiatives to encourage alternatives to driving alone. The program was implemented in response to Council Priorities.

In 2002 The City of Calgary partnered with Carpool.ca to promote carpooling throughout the region and to make the ride-matching services of www.carpool.ca available to all commuters in the Calgary area.

Calgary's carpool program has the largest ride match database in Canada with over 3,000 Calgary commuters registered.

The drop in October 2006 was due to updates to the database. The spike in May 2007 reflected concerns about the possibility of a transit strike.

Number of Calgary registrants on Carpool.ca



KEY FINDING

Vehicle occupancy (people per vehicle) has been decreasing.

All of the main screen line counts and the downtown cordon counts show drop in vehicle occupancy from the 1970s to the 1990s. During the 1990s the vehicle occupancy leveled off. Starting in the late 1990s vehicle occupancy crossing the downtown cordon began to fall again.

In 2007 vehicle occupancy crossing the downtown cordon increased slightly. Analysis of a.m. peak period person trips to the downtown shows a decrease in the number of trips in single occupant vehicle trips from 2006 to 2007. This corresponds to an increase in the number of trips by transit, walking and cycling.

Sources of information

The carpool data was provided from Carpool.ca registration records. The vehicle occupancy data was obtained from the screen line and cordon count program.

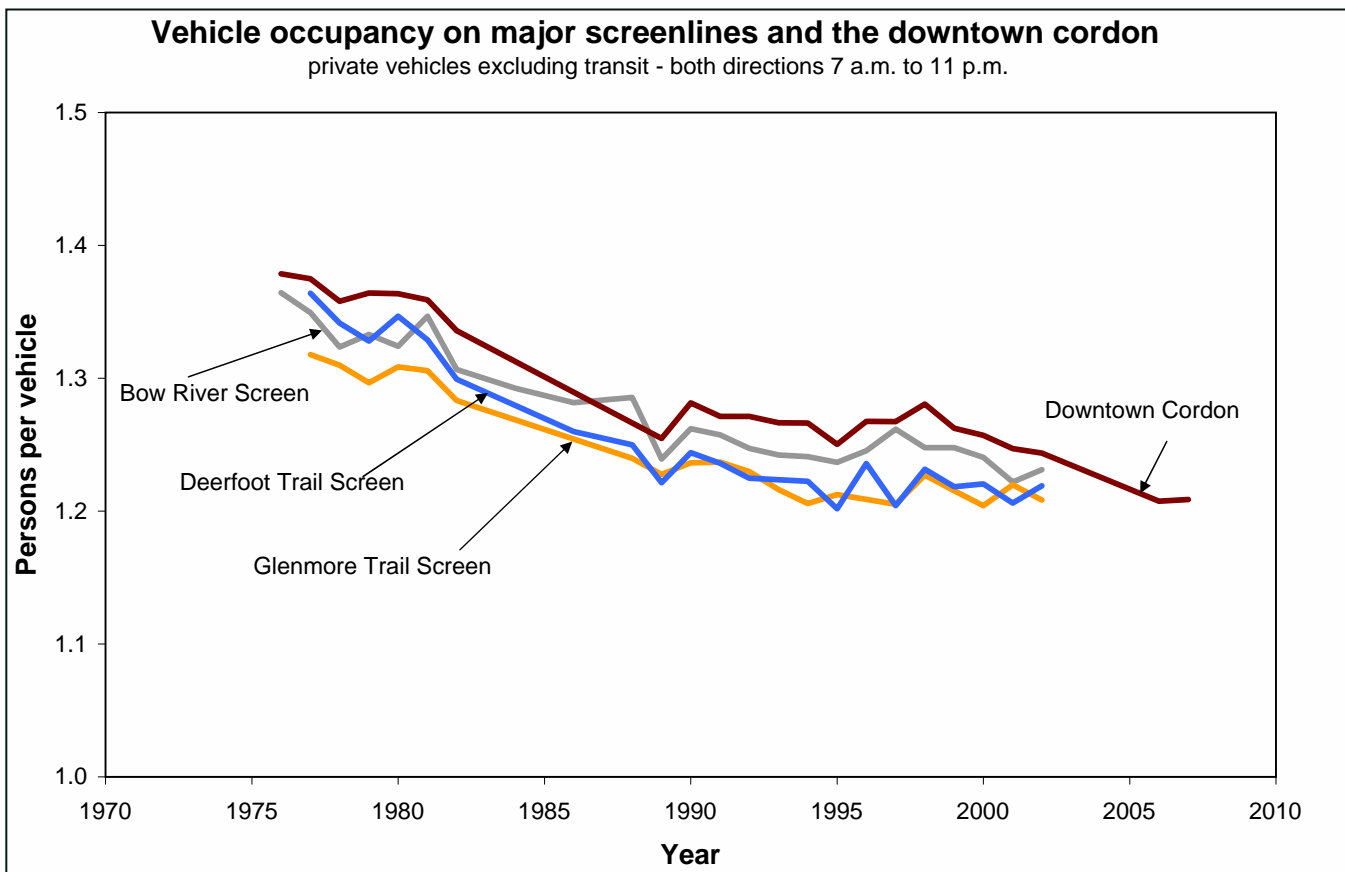
What are cordons and screen lines?

A cordon is a line around an area of interest, such as the downtown. All traffic crossing this line is counted to monitor changes in traffic over time. A screen line is similar, but is a line that cuts through the entire city, for example, the Deerfoot Trail screen line.

The City counts traffic crossing screen lines and the downtown cordon. The counts include the number of people crossing by each of the primary modes of travel, automobile driver, automobile passenger, transit, walk and cycle.

What is vehicle occupancy?

Vehicle occupancy is the average number of people traveling in automobiles, excluding transit vehicles, divided by the number of vehicles. The vehicle occupancy was counted on all of the main screenlines until 2002. The vehicle occupancy was collected only on the downtown cordon in 2006 and 2007.



KEY FINDING

The City of Calgary is encouraging carpooling through a variety of actions.

The main focus of the current carpooling program has been to encourage carpooling to and from the downtown. Some strategies are highlighted below.

Alternative transportation fairs and special events

The City conducts alternative transportation fairs and coordinates special events to promote carpooling and other travel options, including the following.

- Go Green for St Patrick's Day,
- The Commuter Challenge and
- Rideshare Week.

Calgary Parking Authority

The Calgary Parking Authority (CPA) is an active partner in the carpooling program.

The CPA recently announced a carpool parking strategy whereby 50 per cent of all new monthly parking contracts will be reserved for carpools.

During the weekday morning peak 12 per cent of vehicles entering CPA parking facilities contained more than one occupant. This equates to more than 23 per cent of the person trips entering CPA parking facilities in the AM peak, from observations conducted during May 2007.

Carpool lots

Carpool parking lots are an integral part of The City's carpool vision and providing these facilities is consistent with Council Priorities and Calgary Transportation Plan objectives.

The City and the province collaborated on the implementation of a carpool parking lot that accommodates about 250 vehicles near the Trans Canada Highway and Stoney Trail interchange in North West Calgary.

Transportation Demand Management (TDM) strategy and master plan

The City of Calgary has initiated a study to identify and prioritize transportation demand management initiatives that influence commuter travel choices, and develop a strategy and implementation plan to set future direction. This study will look at carpooling, walking and cycling.

Employer partnerships

The City of Calgary promotes carpooling through employer partnerships that include 39 of the city's larger employers, engaged in promoting commuter options in the workplace.

High Occupancy Vehicle (HOV) lanes

The City will be reviewing opportunities for HOV lanes. Carpool lots and ride matching programs are integral to the success of any HOV program.

Carpool spaces in new developments

In recent years The City has required new developments in the downtown to provide dedicated carpool spaces. Many of these carpooling spaces are now becoming available as construction of these projects is completed.

New performance measure

The City is looking at new ways to track the effectiveness of carpooling and HOV initiatives.

In 2007, out of 97,715 people entering the downtown between 7 a.m. and 9 a.m., 30,051 were driving alone, 15,077 were in carpools of two or more people, 42,963 were on transit, 6,697 were walking, 1,715 were cycling, 628 were in trucks and 584 were in other buses.

If people, who walk, cycle or carpool as passengers, were to choose to drive alone, the downtown road network would need 15 new lanes of traffic to accommodate the additional vehicles.

Survey of Carpool.ca registrants

A biannual survey of people in Calgary registered with carpool.ca found the following:

- Carpoolers are saving over \$840 per year per carpooler. The vast majority of new participants indicate their motivation for carpooling is a result of fuel prices (carpooling to save money).
- Carpoolers are reducing annual vehicle kilometers traveled (VKT), by over 9 million annually. Based on the reduction in vehicle kilometers traveled carpoolers have reduced carbon dioxide emissions by over 12,000 tonnes annually

Implications

Encouraging carpooling demonstrates The City's commitment to provide alternatives to driving alone. Promoting carpooling has the potential to increase the numbers of carpool trips beyond what is shown on the carpool.ca database.

The rapid growth in carpool.ca registration presents a positive view of the effectiveness of the carpooling program. In contrast the trend in vehicle occupancy crossing the downtown cordon shows little impact of increased carpooling.

These observations are not necessarily in conflict. The number of people involved in the carpool program, while growing rapidly, makes up a small proportion of total commuters. The 2006 Civic Census reported 574,655 employed people in Calgary, as compared to over 3,000 people in the car pool program in 2007.

There are other factors, such as vehicle availability, more varied work schedules, more dispersed work locations and smaller families that are pushing vehicle occupancy down.

The City's current carpooling program has not yet had a major impact on Calgary's overall traffic. However, it has demonstrated that such a program can improve the formation of carpools.

Recommendations

Consider ways to expand the carpooling program to increase the number of carpools to a range where it can have an impact on overall vehicle occupancy.

Continue to develop and build partnerships with other organizations to encourage carpooling.

Continue to collect vehicle occupancy data to measure the effect of carpooling policies.

Study the factors that affect people's decisions to choose or not choose carpooling as an option, with the goal of identifying more opportunities to promote carpooling.

Carpool.ca

The website (www.carpool.ca) provides commuters with information relating to carpooling as well as access to a secure on-line ride matching service. Carpool.ca's secure database provides Calgary commuters with the means of finding like-minded commuters to carpool with.

How accurate and reliable are these data?

How concerned should you be by the potential for error in the data presented in The Mobility Monitor? The number of registrants on the carpool.ca website is based on registration records and is highly reliable. The vehicle occupancy estimates on the screenlines are based on manual counts for a single day. Traffic volumes can vary by 10% from day to day. The City tries to minimize variation in its counting practices, but it cannot be eliminated.

It must be kept in mind that no one source of information can claim to be infallible. Consideration and appropriate weighting of other sources of information is to be encouraged before making decisions.

The Mobility Monitor

The Mobility Monitor is part of the Ongoing Monitoring and Implementation Program (OMIP) for the Calgary Transportation Plan (CTP). The purpose of the Mobility Monitor is to report on strategic trends and events that affect the implementation of the CTP, and to recommend future actions. The Mobility Monitor is produced by the Transportation Data division of Transportation Planning.

