

Dimensions of Diversity: 2006 Census Snapshot

Diversity in Destinations: The Journey to Work in the Lower Mainland

The recent (April 2nd) release of the 2006 Census Place of Work data provides the opportunity to describe the changing pattern of the journey to work made by the Lower Mainland's residents. As background to our preliminary analysis of these data, the Census categorizes workers (the employed labour force) into three major groups: those who have a usual place of work outside the home; those who have no fixed place of work; and those who work at (or from) home. The April 2nd release provides details on workers who have a usual place of work outside the home. [For a discussion of trends relating to all three categories, please see our earlier report on changing places of work that is posted to our website].

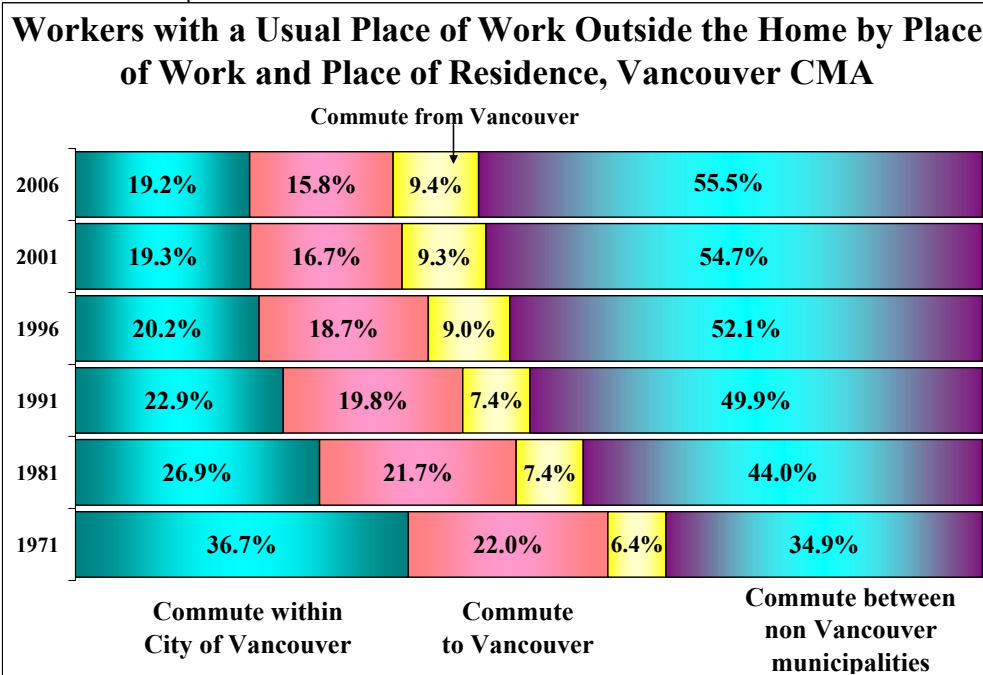
The most recent release details the location of workers' residence and of their usual place of work. Mapping the data on these locational pairs provides a matrix of journey to work travel between home and work for all municipalities in the region. The release also provides the opportunity to tabulate with these pairs other journey to work related data, including, for example, commuting distance, mode of transport, period of construction of the workers place of residence, or age and occupation of workers. All of these dimensions are important variables in painting a more complete picture of the complex interaction of work, workers and the daily journey to work.

A note about the journey to work: simply put, once someone steps out the door to travel to a usual place of work they are, effectively, a commuter, even if they travel only a couple of blocks from home to work. Certainly there are people who commute short distances and others who travel long ones, but all represent travel between residence and (usual) place of work. The reason for prefacing the analysis with this comment is that the recently related data are typically considered at the municipal level, and often inter-municipal travel is characterized as "*commuting*" while intra-municipal travel (within a municipality) is seen as "*local travel*" in spite of the fact that inter-municipal travel may in fact be for much shorter distances than intra-municipal commuting.

For example, someone who travels from a house on the west side of Boundary Road to a usual place of work on the east side is traveling a very short distance but is still an inter-municipal commuter (between the Cities of Vancouver and Burnaby). A person traveling from an apartment in Vancouver's Coal Harbour to a place of work in Champlain Heights, while traveling intra-municipally, is traveling much further, and is much less a "local traveler" than their Boundary Road peer. From a road based perspective, the distance from Coal Harbour to Boundary and Marine in Vancouver is about the same distance as traveling from the north end of Scott Road in Surrey to Boundary and Marine. Given this, it is more realistic to consider all people who work at usual places of work outside the home as commuters, some short haul and some longer.

Considering first the long run trends within the Vancouver Census Metropolitan Area (the CMA is equivalent to the newly named Metro Vancouver, or the Regional District formerly known as Greater Vancouver), the 2006 data show a continuation of the trend away from the City of Vancouver as the focal destination for the daily journey to work. In 1971, 36.7 percent of the CMA's commuters (people who had a usual place of work outside the home) lived and worked in the City of Vancouver, and almost a quarter more (22.0 percent) lived in one of the surrounding municipalities and traveled to the City of Vancouver for work (Figure 1). The reverse flow (from the City of Vancouver to a surrounding municipality) was only 6.4 percent of commuters. Thus, 35 years ago, 59 percent of commuters worked in the City of Vancouver while only 41 percent worked in other municipalities (34.9 percent were residents of these municipalities and 6.4 were residents of the City of Vancouver).

Figure 1



By 2006, this pattern had changed significantly; the majority of commuters were working outside of the City of Vancouver, with 56 percent of the region’s workers living, working and commuting between non-Vancouver municipalities, and an additional 9.4 percent commuting from the City of

Vancouver to usual places of work in other municipalities in throughout the CMA.

The typical commuter is therefore no longer trying to get to and from a place of work in the City of Vancouver, but rather is journeying elsewhere throughout the region. Since 1971 residents of other municipalities who had a place of work in the City of Vancouver declined steeply as a share of the commuting workforce, falling from nearly one in four (22 percent) commuters in 1971 to only one in eight (15.8 percent) in 2006. Similarly, people living

and working within the City of Vancouver also continued to decline as a share of the region’s journey-to-workers, falling from 36.7 percent share in 1971 to 19.2 percent in 2006.

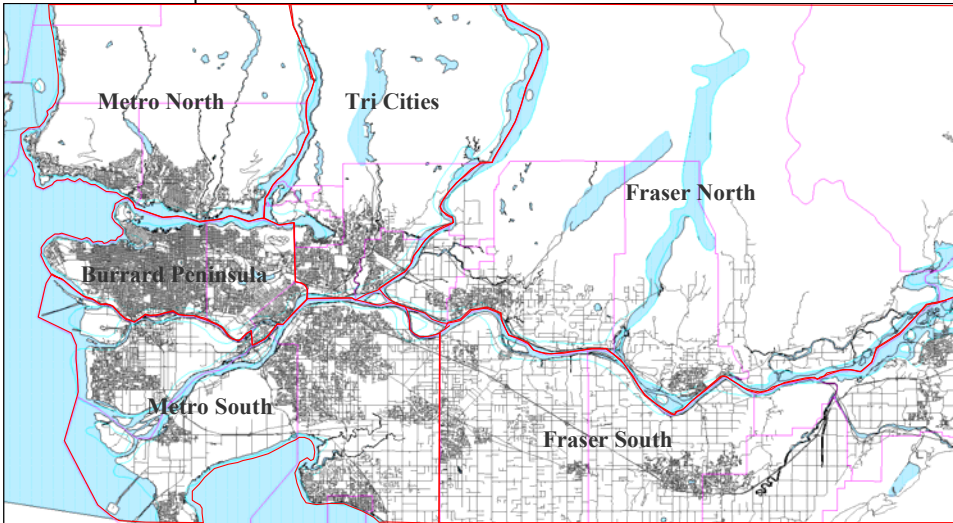
While commuting between and within other municipalities has increased significantly in share over the past 35 years, commuting from the City of Vancouver to these municipalities has also increased: by 2006 almost ten percent of commuters traveled from a place of residence in the City of Vancouver to a place of work in another municipality, compared to only 6.4 percent in 1971.

With population (places of residence) growing more rapidly outside of the City of Vancouver than within it, the growth in the rest of the CMA’s share of travel is to be anticipated. What has surprised many is the fact that this population growth has not had a proportionate impact on work related travel to the City of Vancouver. Part of the reason for this is that employment has also been growing considerably faster outside of the City of Vancouver than within it, and in many of these other municipalities employment has been growing not only faster than it has in the City of Vancouver, but also faster than their population. Employment growth in these surrounding municipalities has in turn increased the range of employment opportunities (locations) and resulted in a decline in the share of workers destined for the City of Vancouver, including those resident in the City of Vancouver.

Given the diminished relative role of the City of Vancouver in the region’s journey to work, it is essential to examine the journey on a sub-regional basis, considering the extent to which each part of the region is the place of residence, and place of work, for the region’s employed labour force. With almost thirty municipal and similar administrative areas in the Lower Mainland (the Greater Vancouver, Fraser Valley and Squamish-Lillooet Regional Districts), it is essential for purposes of general discussion to aggregate these small (and relatively arbitrarily delimited) areas into larger areas; thus, rather than considering municipalities individually, we have aggregated them in into six large geographical sub-regions¹: They include Metro North (Squamish Lillooet RD and the North

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Shore); Burrard Peninsula, Metro South (south of the Fraser east to include Surrey), Fraser South

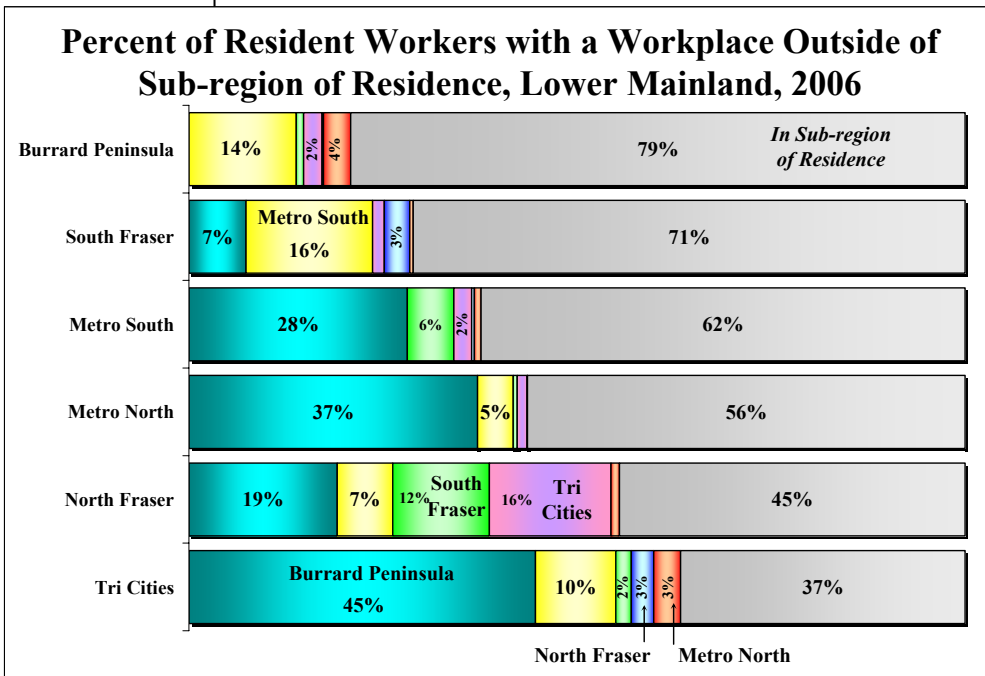


(south of the Fraser east to the Canyon), Fraser North (north of the Fraser from the Pitt River to the Canyon), and the Tri-Cities. This aggregation permits consideration of the second dimension of the place of residence and of work matrix, the degree to which people in the region live and work in the same sub-region.

While on average 66 percent of Metro Vancouver's residents with a usual place of work outside the home lived and worked within the

same sub-region, this average is not particularly representative of the pattern in individual sub-regions. For example, only 37 percent of the Tri-Cities' resident workers with a usual place of work outside the home had a workplace within the Tri-Cities. The Fraser North (45 percent), Metro North (56 percent) and Metro South were also below the regional average of 66 percent (Figure 2). The two above average sub-regions were South Fraser (where 71 percent of the resident workers had their usual place of work within the same sub-region) and Burrard Peninsula (79 percent). Thus the Burrard Peninsula has the greatest degree of "within sub-region" commuting, while the Tri-Cities has the greatest degree of "beyond sub-region" commuting of its residents.

Figure 2



A further dimension of the region's journey to work pattern is shown in the locations of where "beyond sub-region" commuters traveled to for their usual places of work. In no case does the Burrard Peninsula account for the majority of employment destinations for other sub-region's residents, although in some cases it does account for the largest share of employment locations for people working outside their sub-region of residence. Consider first the Tri Cities where 37 percent of its resident workers are employed somewhere within the Tri Cities. The largest single employment destination for Tri Cities' out of

sub-region commuters was the Burrard Peninsula, which accounted for 45 percent of the places of work for its resident workers, followed by Metro South (employment for ten percent of them), Metro North (three percent), Fraser North (three percent), and South Fraser (two percent).

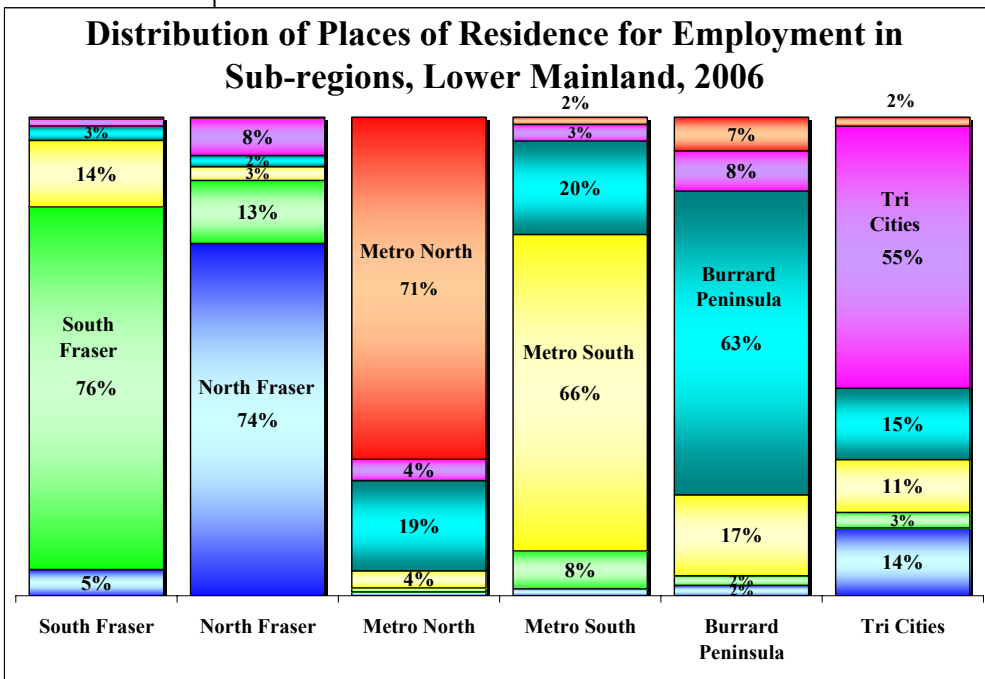
In contrast, consider the South Fraser sub-region: the Burrard Peninsula provides employment locations for only seven percent of the South Fraser's resident workforce, with Metro South providing employment for more than double this share (16 percent). Thus while some residents of South Fraser travel the long distance to the Burrard Peninsula for work, the greatest share of workplaces for its residents that are outside of the sub-region are found in the neighbouring Metro South sub-region. This trend to proximity is seen in other regions as well, with both Metro South and North's largest share being the Burrard Peninsula (28 and 37 percent respectively). While the North Fraser region sees the greatest share of its commuters destined for the Burrard Peninsula (19 percent), this share is closely followed by the more proximate Tri Cities (16 percent) and the South Fraser region (12 percent).

So far, we have been looking at the pattern of where people go to work -- of where in the region the residents of a particular sub-region have their usual place of work -- from the origin (place of residence) perspective. But the Census data also permit looking at the journey to work from another perspective, that of the destinations where the people who have a usual place of work in a particular sub-region start their commute, of where a sub-region's workers come from.

When looking at the journey to work from the destination's perspective, we find that more than half of the jobs (again defined as a usual places of work) in every sub-region were held by residents of the sub-region (Figure 3). While the South Fraser region saw the largest share of its employment held by local residents (76 percent), other sub-regions fell relatively close, with 74 percent of the jobs in North Fraser, and 71 percent of Metro North's filled by people resident in these sub-regions.

Figure 3

Note that not only do sub-area residents (within commuters) represent the overwhelming majority



of workers for jobs located in these sub-regions, but the largest source of in-commuters are residents of proximate sub-regions. For example, for jobs located in the South Fraser sub-region, the largest external sources of workers were the adjacent sub-regions of Metro South (14 percent of the South Fraser jobs), and North Fraser (five percent).

An interesting pairing occurs in the Metro South and Burrard Peninsula sub-regions. In both cases, local residents account for approximately two thirds of the jobs (66 percent and 63 percent respectively). That said, they are also each other's largest

external source of workers, with residents of the Burrard Peninsula holding 20 percent of Metro South's jobs and Metro South residents filling 17 percent of the Burrard Peninsula's jobs. Metro South sees a further eight percent of its jobs filled from the South Fraser sub-region, with the remainder of the Burrard Peninsula's jobs held by residents of the Tri Cities (eight percent), and Metro North (seven percent).

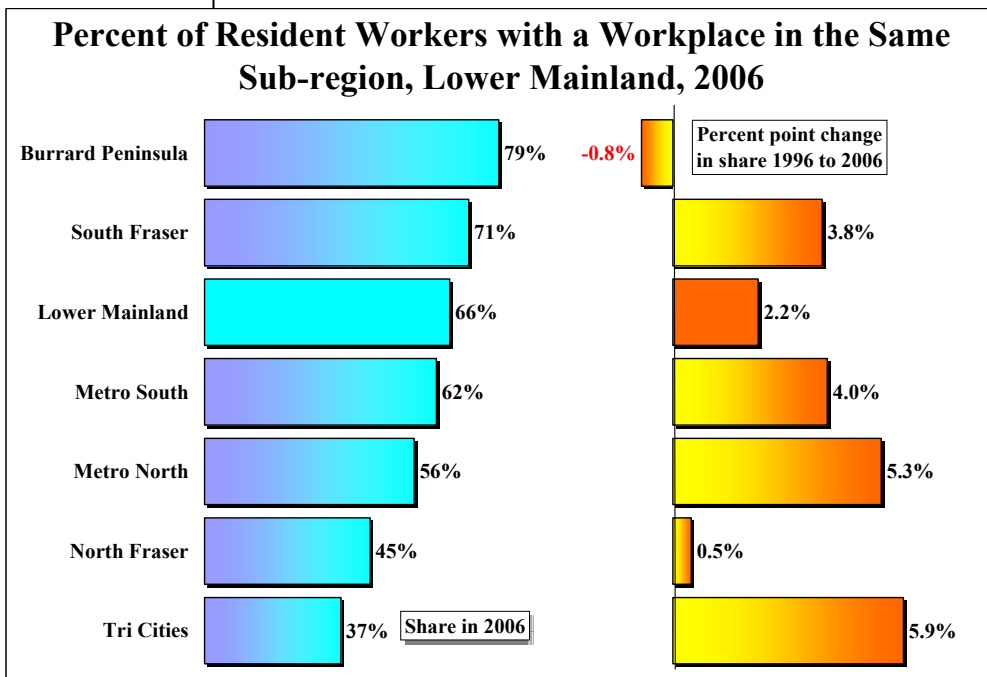
The Tri-Cities not only had the smallest share of its residents working within its boundaries (37 percent, Figure 1), it also had the smallest share (55 percent) of local jobs held by its residents. A further 15 percent of the Tri Cities’ jobs were held by residents of the Burrard Peninsula, 14 percent by residents of North Fraser, and 11 percent by residents of Metro South.

Considering the journey to work from both the origin (place of residence) and destination (usual place of work) perspective shows that proximity plays a significant role, with a sub-region’s residents playing the major role in sub-regional employment. Much of the external supply of workers was found to be coming from adjacent sub-regions. At least at this level of aggregation (our six sub-regions) people generally live and work within the same sub-region, and hence most commuting is within sub-region, as contrasted with between sub-region.

Having said this, it is important to comment on the variance about this generalization. First, note that the sub-regions where residents hold the smallest share of sub-region employment (and hence where there is the greatest relative degree of inward between sub-region commuting) have a common characteristic – they have a lot of adjacent sub-areas. Thus the Tri-Cities has workers coming from the East, West and South; Metro South from the East, West and North; and the Burrard Peninsula from the North, East and South. This suggests that accessibility and regional proximity increase the role that the region’s workforce plays in a specific sub-region’s economy.

As a second comment about the general conclusion, it is important to note that the 2006 Census represent a snapshot on the journey to work at one point in time. As the opening discussion about the diminishing role of the City of Vancouver in regional travel over the past three decades showed, the pattern of the journey to work in the region is changing. Overall, the proportion of residents working in their sub-region of residence increased by 2.2 percentage points between 1996 and 2006. The Tri-Cities sub-region, which had the lowest share of resident workers who worked within that sub-region (37 percent), had the greatest percentage point increase in that share over the 1996 to 2006 period (a 5.9 percentage point increase from 30.7 percent to 36.6 percent). Similar significant point gains were seen in the Metro-North, Metro South, and South Fraser. In contrast, the Burrard Peninsula, with the greatest share, saw the share of its residents living and working in the sub-area decline by 0.8 percent from 80 percent in 1996 to 79.2 percent in 2006.

Figure 4



The reason for this regional shift towards more “within sub region commuting” (with the exception of the Burrard Peninsula) is that employment, in many of the non-Burrard Peninsula sub-regions has been growing faster than the resident workforce. Given the general importance of proximity in the journey to work, this means a greater opportunity to commute within, but also between, sub-regions. The reasons for the differential in employment and labour force growth in sub-regions, and some of the more detailed implications for the journey to work will be fuel for a future report.

Data Definitions

Place of work status - Refers to the place of work of non-institutional residents 15 years of age and over who worked at some time since January 1, 2005. The variable usually relates to the individual's job held in the week prior to enumeration. However, if the person did not work during that week but had worked at some time since January 1, 2005, the information relates to the job held longest during that period.

Responses - worked at home (including farms); Worked outside Canada; No fixed workplace address; Worked at the address specified below (usual workplace address)

Worked at home – Persons whose job is located in the same building as their place of residence, persons who live and work on the same farm, building superintendents and teleworkers who spend most of their work week working at home.

Worked outside Canada – Persons who work at a location outside Canada. This can include diplomats, Armed Forces personnel and other persons enumerated abroad. This category also includes recent immigrants who may not currently be employed, but whose job of longest duration since January 1, 2005 was held outside Canada.

No fixed workplace address – Persons who do not go from home to the same workplace location at the beginning of each shift. Such persons include building and landscape contractors, traveling salespersons, independent truck drivers, etc.

Worked at the address specified below – Persons who are not included in the categories described above and who report to the same (usual) workplace location at the beginning of each shift are included here. Respondents are asked to provide the street address, city, town, village, township, municipality or Indian reserve, province/territory and postal code of their workplace. If the full street address was not known, the name of the building or nearest street intersection could be substituted. Workers who spend less than one-half of their workweek working at their home office are asked to report the full address of their employer. Persons whose workplace location varied, but who reported regularly to an employer's address at the beginning of each shift, are asked to report the full address of the employer.