

## By the Numbers: Regional Accessibility

Regional accessibility can generally be defined as the degree to which a good or service is available to as many people within the region as possible. Therefore, one means of considering accessibility is to determine where the centre of the region is recognizing the distribution of the regional population. While the demographic centroid of the region recognizes underlying population, a similar calculation can be made for the employment centroid, through considering the distribution of the regions employment.

A further step in considering issues of regional accessibility is to recognize the transportation network that residents must travel upon to reach those goods and services (or for the goods and services to reach them). From a transportation perspective, accessibility therefore considers the ease of reaching the range of goods and services. Generally-speaking, the most straightforward means to assessing transportation accessibility is to consider it on a time or cost basis. In order to develop a picture of transportation accessibility within the region, a time-travel matrix for 957 traffic zones was used to determine aggregate travel times between each zone and all other zones in the Lower Mainland.

Ranking the zones by the time required to access different parts of the region by different modes of transportation (auto and transit) results in an assessment of the parts of the region that exhibit the lowest travel costs (i.e. lowest aggregate travel times). Furthermore, weighting the travel time matrices by the population resident in each traffic zone reveals the zones that are the most accessible for the region's residents, and hence those zones that maintain a competitive advantage with respect to accessibility.

From a competitive advantage perspective, zones with greater accessibility (lowest travel times for the greatest number of people) can be viewed in many different dimensions:

- These zones represent parts of the region where distribution activities (of goods, services or people) would best be located so as to minimize distribution costs (particularly as they relate to time).
- These zones represent ideal locations for population-serving activities such as health care or retail services, as they would most efficiently serve the region's residents due to ease of access.
- These zones would also represent strategic residential locations as time (and hence costs) would be minimized for the diversity of trips residents would take on their daily journeys.















