St. John’s Region

1.0 – Introduction

Newfoundland and Labrador’s most dominant service centre, St. John’s (population = 100,645) is also the province’s capital and largest community (Government of Newfoundland and Labrador, 2011a) (Figure 1.1). This profile will provide an introduction to the St. John’s region, including a discussion of the region’s commuting structure, demographics, workforce education, and industrial composition.

Figure 1.1 – St. John’s Location

2.0 – Overview/Structure
While it is the province’s most populous centre, St. John’s still depends to a great extent upon nearby communities for a large proportion of its labour needs. The nature and extent of this dependence is quantified by examining the decay effects of commuters to the centre. Figure 2.1 depicts the St. John’s ‘function region,’ with superimposed distance bands. The St. John’s functional region is defined in this context as the area where commuting flows are dominated by St. John’s (i.e. most workers either commute to St. John’s or to a community where most of their workers, in turn, travel to St. John’s). According to Figure 2.1, the St. John’s functional region extends from an inner core of 0-15 km to a maximum extent approximately 60-100 km away from St. John’s.
The nature of the St. John’s commuting pattern is explored further in Figure 2.2, which depicts the cumulative graph of commuting flows in the St. John’s region, with increasing distance travelled. This figure depicts the change in commuting intensity for different travel distances in the region (i.e. how far most people are commuting). While the intensity of commuting in the St. John’s region decreases with increased distances throughout the entire region, the intensity decreases in uneven jumps at distances that represent local and regional commuting (approximately 10-15 km and 25 to 35 km, respectively), and the regional limit (approximately 100 km). These benchmarks correspond with the benchmarks established in Figure 2.1, and are important because they represent the established limits of commuting distance for people who work in the different hierarchical levels within the St. John’s region. Generally, the most dominant, highest order flows are located in the core, and the secondary regional flows are located in the secondary (regional) zone, to the regional limit.

![Functional Region Worker Commuting Distance](image)

**Figure 2.2 – St. John’s Cumulative Work Force, by Commuting Distance**

While the city of St. John’s is the dominant centre in the St. John’s functional region, the importance of other, secondary centres can be determined by analyzing the pattern of commuting flows associated with them (Figure 2.3). Secondary centres are centres that draw a net positive
amount of commuters from a number of different communities (St. John’s included), and labour supply communities are communities in which more people commute out than commute in. The St. John’s functional region features one secondary employment centre, Mount Pearl (Figure 2.4). Both cities are major sources of employment for the region, and play important roles in its economy.

Figure 2.3 – St. John’s Functional Region Commuting Patterns
Figure 2.4 – St. John’s Functional Region Centre Hierarchy
3.0 – Demographics

A viable and sustainable demographic structure is an important and desirable component for any region to have in order to facilitate economic growth. This is especially true in Newfoundland and Labrador, where outmigration and falling birth rates across much of the province have created not ideal conditions for creating and sustaining any amount of economic activity. In this section, the demographics of the St. John’s region will be examined from both a regional and community perspective.

3.1 – Regional Trends

To get a sense of the demographic viability of the St. John’s functional region, a balanced view that considers the entire population is required. As such, a ‘demographic index’ was developed that summarizes the relative viability of all age cohorts (i.e. age groups (e.g. 0-5; 5-10, etc…)) in a single number. This index was created by comparing the relative sizes of age cohorts in the real world to idealized ‘high growth’ and ‘low growth’ cohort distributions. The result of this calculation is displayed in Figure 3.1, for all of the province’s functional regions. Generally, the higher the index value for a functional region, the more viable its demographic structure is. For the purposes of this graph, the red line (index = 0.25) represents the transition between a ‘population decline’ situation (i.e. too few people in younger cohorts to sustain the population at its current level) below the line and a ‘low growth’ situation (i.e. there are just enough people in younger cohorts to sustain the population at its current level) above it. It should be noted that St. John’s is well above the line, which indicates that, as a region overall, St. John’s is in a situation where the population is growing at a low rate.
While the demographic index depicted in Figure 3.1 indicates that, overall, the St. John’s region is in a situation of low population growth, it does not specify which cohorts are responsible for this situation. To rectify this, the relative size of each age cohort in the St. John’s region is displayed, along with the ‘low growth’ and ‘high growth’ benchmarks, in Figure 3.2. Generally, while a region with a population distributed along the top of the red bars would be growing rapidly, one with a population distributed along the top of the blue bars would be growing, but slowly. The actual population distribution of the St. John’s region is depicted in Figure 3.2 by the white bars. In an ideal situation, the population of the St. John’s would be growing moderately, and therefore its distribution would be located in between the red and the blue bars on the graph. It is clear that in reality while there are near-ideal numbers of younger people (< 29 years old) and older adults (55+ years old), this is offset to some extent by moderately too many people in many of the older cohorts (35-54 years old). The combination of
the over balance of workers in their most productive years and the large numbers of younger people means that the region is economically well positioned for stability and growth in the foreseeable future, if the younger people stay in the region.

Figure 3.2 – St. John’s Functional Region: Demographic Profile

To get an idea of how the demographic situation is presently developing, the ratio of births to deaths in the region is presented in Figure 3.3. A value of 1.0 roughly means that the population is sustaining itself, because the number of births is equal to the number of deaths in a particular year. For the St. John’s region, the situation is good, as this number is above both this sustaining benchmark of 1.0, and the average provincial level. While more study into the fertility situation is needed, this indicates that the demographics of the St. John’s region are improving with time whereby the birth/death ratio exceeds 1.0.
While there is some variability in the demographic index within the St. John’s region on the community level, it is encouraging to note that most communities are above the low growth benchmark. Figure 3.4 depicts the demographic index values for the communities in the St. John’s functional region for which data was available. On a community level, while one community is declining (Mall Bay), the rest are either growing (e.g. Torbay, Mount Pearl) or are borderline (e.g. Avondale, Conception Bay South). The implication of this sub-regional demographic strength is that the strength displayed at the regional level is spread throughout the region, so any projections or growth strategies for the St. John’s functional region apply to the integrated labour market of both St. John’s and its commuting supply communities.
4.0 – Education

Education is a second indicator strongly related to the economic viability of a region. Due to the competitive and complex nature of the modern economy, a highly skilled and diverse workforce is an important factor underlying economic growth in any area. Similar to the section on demographics, the educational profile of the St. John’s region will be examined from both a regional and community perspective.
4.1 – Regional Trends

To determine how balanced, overall, the educational profile of the St. John’s functional region is, an education index was calculated (Figure 4.1). This index is a sum of workforce concentration in a number of educational categories (no certification (negative), high school, applied trades, college diploma, university diploma, university bachelor’s degree, university medical degree, university masters degree, university doctorate degree), where regions receive a score greater than one if they, on average, have more than the provincial average of workers in the tested categories. In other words, regions receive a score greater than one if they are a higher-level centre and service a population greater than their own region (e.g. St. John’s), and they receive a score lower than one if they are a lower order centre that is overshadowed by a neighbouring centre (e.g. Bay Bulls/Witless Bay).

In terms of the education index, St. John’s, with a score of approximately 2.75, is by far the most dominant centre in the province, given its size and location. This means that it accrues spin-offs from servicing population beyond its borders more than any other region, on a per capita basis. The primary result of this is that St. John’s has a dominant advantage over neighbouring centres (e.g. Bell Island, Bay Bulls-Witless Bay) when competing for central functions.
4.2 – Community-Level Trends

Similar to demographic structure, no investigation of the educational profile of the St. John’s functional region would be complete without first evaluating the sub-regional variability. Location quotients (LQs) are used to measure this variability in workforce education amongst communities in the region (Figure 4.2). In this case, LQs are used to measure local concentration in each education level with respect to the provincial average. A value of 1.0 for an education level means that the community’s share of workers with that level is equal to the provincial average. A value greater than 1.0 means that workers with that education level are clustered in the community, while a value less than 1.0 means that the community has a lower than average number of workers with that education, given its population.

When LQs are calculated for education levels by community in the St. John’s region, the homogeneity of provincial dominance within the St. John’s region becomes evident (Figure 4.2).
Unlike other regions in the province, most of the communities in the St. John’s region contain higher than average numbers of highly educated innovators (i.e. workers with university degrees etc.), and lower than average numbers of people with less than a high school diploma. This trend is fully presented, on a community level, in Figures 4.3 and 4.4.

Figure 4.2 – Education-Level Location Quotient (LQ): St. John’s vs. Rest of Region
Figure 4.3 – Education-Level LQ by Community (St. John’s Functional Region)

Figure 4.4 – Education-Level LQ by Community (St. John’s Functional Region) (cont…)
5.0 – Industrial Diversity:

Knowledge of the industrial composition of a region provides an insight into a number of different indicators, including information about its economic base, the complexity (and potential stability) of its economy, and the extent to which it serves as a central service centre for surrounding regions. This section concerning the industrial composition of the St. John’s region will be examined from both a regional and community perspective.

5.1 – Regional Trends

The analysis and implications of the industrial composition of the St. John’s functional region mirrors that of the educational profile. To evaluate the overall balance of employment in different industries in the region, an industry index was created using the same methods as the education index. In this case, however, the index was created for the relative proportion of workers employed in the industries depicted in Table 5.1. The results of the index, by functional region, are shown in Figure 5.1. Like education, St. John’s has an industry index value that well exceeds all other regions, which means that, once again, the St. John’s region is well positioned to compete with neighbouring regions for employment across a variety of industries.

Table 5.1 – Industry Index Variables

<table>
<thead>
<tr>
<th>Industry</th>
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<tbody>
<tr>
<td>Manufacturing</td>
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<tr>
<td>Finance and insurance</td>
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<tr>
<td>Transportation and warehousing</td>
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<tr>
<td>Retail trade</td>
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<tr>
<td>Real estate and rental and leasing</td>
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<tr>
<td>Accommodation and food services</td>
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<tr>
<td>Arts, entertainment and recreation</td>
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<tr>
<td>Health care and social assistance</td>
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<tr>
<td>Construction</td>
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<tr>
<td>Educational services</td>
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<tr>
<td>Public administration</td>
</tr>
<tr>
<td>Other services</td>
</tr>
<tr>
<td>Agriculture, forestry, fishing and hunting</td>
</tr>
<tr>
<td>Professional, scientific and technical services</td>
</tr>
<tr>
<td>Mining and oil and gas extraction</td>
</tr>
<tr>
<td>Wholesale trade</td>
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<tr>
<td>Admin. and support, waste management &amp; remediation services</td>
</tr>
<tr>
<td>Information and cultural industries</td>
</tr>
<tr>
<td>Utilities</td>
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<tr>
<td>Management of companies and enterprises</td>
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While the industry index confirms that the overall industrial mix of the St. John’s region is competitive for its size, it is important to know which industries are the most important sources of employment in the region, and what its current strengths are. To perform this analysis, location quotients, which quantify the region’s overall dependence on each industry, were used (**Figure 5.2**). In line with the industry index, the St. John’s region has above average regional concentration in most of the available industries. The most dominant industries are the professional, scientific, and technical services (LQ = 1.69), information and cultural (1.69), and management in companies and enterprises (1.43) industries. The industries with the least per-capita representation in the St. John’s region are the agriculture, forestry, fishing, and hunting (0.19), and manufacturing (0.47) industries. While many industries are clustered in the St. John’s region, none exhibit extreme (>2) dependence, which suggests that the economy of the St. John’s region is likely very stable.
5.2 – Community-Level Trends

Like the demographic index, the industrial mix dominance of the St. John’s functional region is not entirely clustered in the city of St. John’s itself. However, while other communities in the region receive positive industry index values (e.g. Mount Pearl, Conception Bay South), St. John’s is clearly the dominant centre in the region (Figure 5.3). This is a sign of diversity in the St. John’s economy, and indicates while a number of services and functions in the St. John’s region are clustered in the town of St. John’s, they are accessible to most of the rest of the region.
To fully investigate the industrial dominance of the St. John’s region, location quotients (LQs) are also presented for each industry, by community, in Figure 5.4. Cells highlighted yellow represent higher than (provincial) average concentrations of an industry in a town. The diversity and strength of almost the entire region is evident through the presence of almost every industry in almost every community. Beyond this, it is interesting to note that that the region’s role as the province’s most dominant central place is filled by the region as a whole, because while the concentration of central place services are above one for most communities in the region, concentrations in economic base activities (primary (extraction) and manufacturing industries) are below one for most communities. For the purposes of this project, it is also interesting to note that the St. John’s region is a dominant centre for the ‘arts’ industry, as well, with a presence in all but three communities (Bauline, Pouch Cove, and Avondale).
While the labour force in the St. John’s region may be spread throughout the communities, the city of St. John’s dominates the region with respect to business activity. Of the regional totals, almost 70% of businesses (Figure 5.5) and over 80% of workers (jobs) (Figure 5.6), are located in the city of St. John’s. As a result, it is important to consider the St. John’s labour force as a hierarchical regional entity, as the region’s functions are very centralized despite the high degree of mobility of its labour force.
Figure 5.5 – Percent of Total Businesses, by Community (St. John’s Functional Region)
Figure 5.6 – Percent of Total Workforce, by Community (St. John’s Functional Region)
6.0 – Summary/Conclusions:

• Overall in region there is regional diversification in industry and education
• Employment opportunities and industrial diversity both largely clustered in St. John’s, but the high degree of connectivity through commuting ensures that the benefits are dispersed throughout the region
  – e.g. Conception Bay South and Paradise as ‘bedroom communities’
• The dominant provincial and regional centre
  – High degree of commuting in and around the region
  – Benefits the most from large centre spin-offs
• Long term demographic sustainability needs further study
  – However, initial findings are of strength
7.0 – References:
