Corner Brook Region

1.0 – Introduction

Corner Brook is a community of approximately 20,085 people located on the west coast of the island of Newfoundland (Government of Newfoundland and Labrador, 2011a) (Figure 1.1). A regional service centre, Corner Brook is located 694 km away from St. John’s, the province’s capital and largest community (Government of Newfoundland and Labrador, 2011b). This profile will provide an introduction to the Corner Brook region, including a discussion of the region’s commuting structure, demographics, workforce education, and industrial composition.

Figure 1.1 – Corner Brook Location
2.0 – Overview/Structure

As a regional centre, the Corner Brook labour market is dependent upon commuting to some extent. The nature and extent of this dependence is quantified by examining the decay effects of commuters to the centre. **Figure 2.1** depicts the Corner Brook ‘function region,’ with superimposed distance bands. The Corner Brook functional region is defined in this context as the area where commuting flows are dominated by Corner Brook (i.e. most workers either commute to Corner Brook or to a community where most of their workers, in turn, travel to Corner Brook). According to **Figure 2.1**, the Corner Brook functional region extends from an inner core of 0 - 26 km to a maximum extent approximately 60 – 90 km away from Corner Brook. Any commuting outside of this area is negligible.

![Functional Region Labour Commuting Ranges](image)

*Figure 2.1 – Corner Brook Functional Region Commuting Ranges*
The nature of Corner Brook’s commuting pattern is explored further in Figure 2.2, which depicts the cumulative graph of commuting flows in the Corner Brook 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 Corner Brook region decreases with increased distances throughout the entire region, the intensity decreases in uneven jumps at distances that represent local and regional commuting (approximately 15-20 km and 30 km, respectively), and the regional limit (approximately 85 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 Corner Brook region. Generally, the most dominant, highest order flows are located in the core (~60%), 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 – Corner Brook Cumulative Work Force, by Commuting Distance

While the city of Corner Brook is the dominant centre in the Corner Brook 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 (Corner Brook included), and labour supply communities are communities in which more people commute out than commute in. The Corner Brook functional region features two secondary employment centres, in addition to the first order centre of Corner Brook: Pasadena and Deer Lake (Figure 2.4). Both of these communities provide employment opportunities for the region, and play important roles in its economy.

![Functional Region Primary Labour Commuting Patterns](image)

**Figure 2.3 – Corner Brook Functional Region Commuting Patterns**
Figure 2.4 – Corner Brook 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 Corner Brook 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 Corner Brook 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 Corner Brook is just above the line, which indicates that, as a region overall, Corner Brook is in a situation where the population can sustain its population (at its current level) without requiring an increase in either fertility rate or immigration.
While the demographic index depicted in Figure 3.1 indicates that, overall, the Corner Brook region is in a situation of population stability, it does not specify which cohorts are responsible for this situation. To rectify this, the relative size of each age cohort in the Corner Brook 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 Corner Brook region is depicted in Figure 3.2 by the white bars. In an ideal situation, the population of the Corner Brook 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 ideal numbers of older adults (55+ years old), this is offset by too few people in the younger cohorts (< 29 years old), and too many people in many of the older cohorts (35-54 years old). While the over balance of workers...
in their most productive years does mean that the region is economically well positioned for approximately the next 15 years, the situation will get somewhat more difficult once this period ends, unless action is taken in the interim period to address the shortage of younger workers.

![Corner Brook FR -- Demographics](image)

Figure 3.2 – Corner Brook 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. Since 2009 the situation is good for the Corner Brook region because this number is above both the sustaining benchmark of 1.0. However, the ratio is still slightly below the provincial level. While more study into the fertility situation is needed, this indicates that the demographics of the Corner Brook region are improving over time.
While the demographic situation and outlook for the Corner Brook region overall is one of stability and potential stagnation, there is a large amount of variability within the region on the community level. Figure 3.4 depicts the demographic index values for the communities in the Corner Brook functional region for which data was available. On a community level, while a number of towns are indeed declining (e.g. McIver’s, Humber Arm South), some are either growing (e.g. Hughes Brook, Massey Drive) or are borderline (e.g. Mount Moriah, Pasadena). The implication of this variability is that any projections or growth strategies for the Corner Brook functional region should focus predominantly on the community and local labour market in question, because the ability to sustain a workforce in the long term varies markedly throughout the region.

Figure 3.3 – Corner Brook Functional Region: Birth/Death Ratio

3.2 – Community-Level Trends
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 Corner Brook 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 Corner Brook 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. Grand Falls-Windsor), 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, Corner Brook, with a score of approximately 2.75, is the most dominant centre in the province (aside from St. John’s), given its size and location. This means that it accrues spin-offs from servicing population beyond its borders more than any other region (aside from St. John’s), on a per capita basis. One result of this is that Corner Brook has an advantage over neighbouring centres (e.g. Stephenville, Rocky Harbour) when competing for central functions.
Similar to demographic structure, no investigation of the educational profile of the Corner Brook 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 Corner Brook region, a clear dichotomy emerges between Corner Brook (the largest employment centre) and every
other community (Figure 4.2) whereby people with post graduate degrees are much higher than the rest of the region. This is likely due to spinoffs (e.g. increased services, short commuting distances) present in Corner Brook but for communities beyond the core this spinoff decreases. Therefore, Corner Brook contains higher than average numbers of highly educated innovators (i.e. workers with university degrees and college diplomas), while the rest of the region contains higher numbers of workers that, while very important, are required everywhere (i.e. workers with trades diplomas) and people with less than a high school diploma. This trend is fully explored, on a community level, in Figures 4.3 and 4.4.

![Figure 4.2 – Education-Level Location Quotient (LQ): Corner Brook vs. Rest of Region](image-url)
Figure 4.3 – Education-Level LQ by Community (Corner Brook Functional Region)

Figure 4.4 – Education-Level LQ by Community (Corner Brook 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 Corner Brook 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 Corner Brook 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, Corner Brook has an industry index value that exceeds all other regions (excluding St. John’s), which means that, once again, the Corner Brook 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>
</tr>
<tr>
<td>Finance and insurance</td>
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<tr>
<td>Transportation and warehousing</td>
</tr>
<tr>
<td>Retail trade</td>
</tr>
<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>
</tr>
<tr>
<td>Admin. and support. waste management &amp; remediation services</td>
</tr>
<tr>
<td>Information and cultural industries</td>
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<tr>
<td>Utilities</td>
</tr>
</tbody>
</table>
Figure 5.1 – Industry Index by Functional Region

While the industry index confirms that the overall industrial mix of the Corner Brook region is very 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). There is above average regional concentration in the management in companies and enterprises (LQ = 2.51), retail trade (1.34), finance and insurance (1.29), arts, entertainment and recreation (1.24), health care and social assistance (1.18), manufacturing (1.08), construction (1.04), accommodation and food services (1.03), and real estate and rental and leasing (1.02) sectors, and less than average concentration in the rest. With almost two and a half times the provincial number of workers per person, the Corner Brook
functional region is especially dependent upon the management in companies and enterprises industry, which reflects the city’s role of regional centre.

![Corner Brook Location Quotient -- Employment by Industry (2006)](image)

Figure 5.2 – Industry LQ (Corner Brook Functional Region)

5.2 – Community-Level Trends

The community-level trend of functional region dominance by the city of Corner Brook exhibited in the other sections is also evident in the industrial composition data. According to the industry index, Corner Brook exceeds the provincial average number of jobs (for all sectors considered together) by a far greater amount than any other community in the region (Figure 5.3). In addition, the other three positive communities (Deer Lake, Pasadena, and Humber Arm South) are all located in Corner Brook’s core commuting area. This is a sign of diversity in the Corner Brook economy, and indicates a number of services and functions in the Corner Brook region are clustered in and around the city of Corner Brook. For other communities to
independently achieve the stability associated with having workers spread across a number of different industries, they must diversify their economies.

Figure 5.3 – Industry Index by Community (Corner Brook Functional Region)

To fully investigate the dichotomy between communities located in the Corner Brook core commuting area and the other communities in the wider 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 difference between the core region and the other communities is demonstrated through differing concentrations of primary extraction industries (particularly agriculture, forestry, fishing, and hunting). While many outlying communities are very dependent upon these industries, they represent a small proportion of employment in most of the core communities. It is interesting to note that the regional dependence on management shown in Figure 5.2 is clustered in the core of
the region, and is split between Corner Brook and Steady Brook. For the purposes of this project, it is also interesting to note that the only communities which have a recordable and higher than expected number of people in the ‘arts’ industry are located in the core of the region, as well.

In addition to industrial diversity, the regional dominance of the Corner Brook core commuting area extends to economic size of its economy, as well. Of the regional totals, almost 80% of businesses (Figure 5.5) and 85% of workers (Figure 5.6), are located in the city of Corner Brook. As a result, it is important to consider the Corner Brook labour force as a regional entity with respect to industrial composition, which extends to the limit of its immediate commuting catchment area.
Figure 5.5 – Percent of Total Businesses, by Community (Corner Brook Functional Region)
6.0 – Summary/Conclusions:

- Overall there is regional diversification in industry and education
- There is local clustering in employment opportunities and industrial diversity around the regional centre
  - Central functions found within commuting distance of Corner Brook, economic base activities found in communities beyond
- The province’s second most dominant regional centre
  - High degree of commuting in and around the region
  - Local communities benefit from large centre spin-off factors
- Long term demographic sustainability needs further study
  - There are indications of a stabilizing demographic structure
7.0 – References:

http://www.communityaccounts.ca/communityaccounts/onlinedata/display_table.asp?_=0bfAjIydpaWrnbSTh5-FvJxxxGiWlb7NqpODvZyxXoqE