

Creating Indicators to Support Evidence-based Planning within the Halifax Regional Centre

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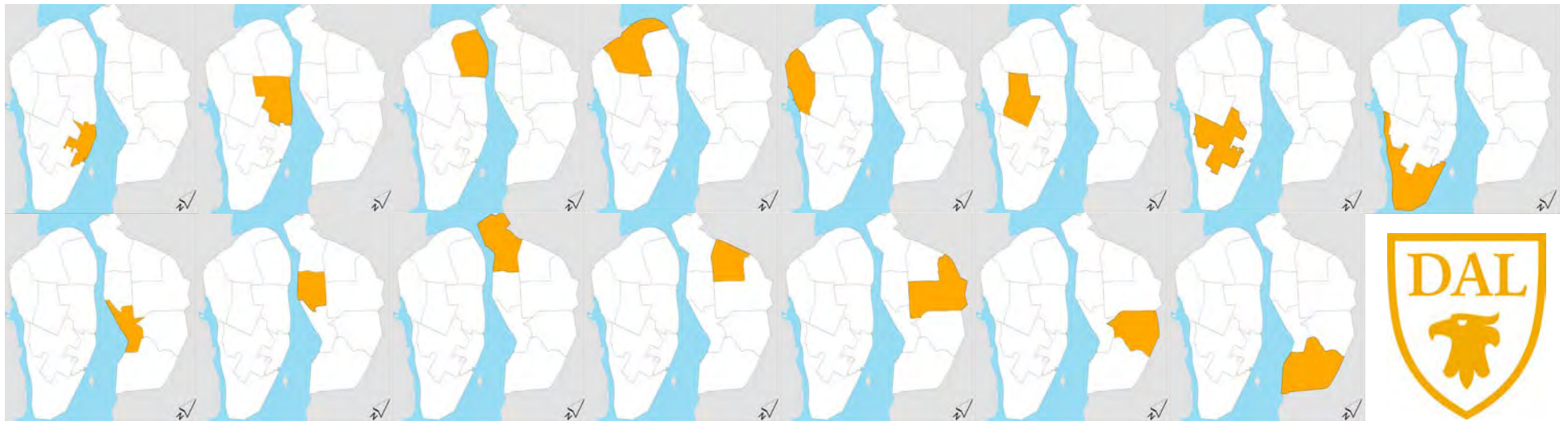




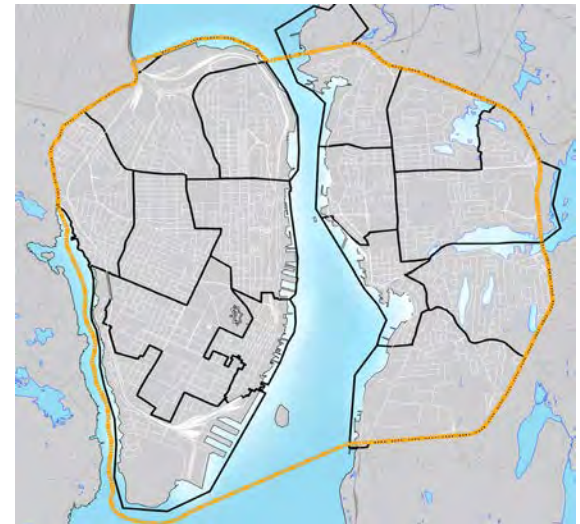
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(A brief introduction)

Overview



Background

The Regional Municipal Planning Strategy, adopted in 2006, defined the Halifax Regional Centre (RC) as Dartmouth, between the Circumferential Highway and Halifax Harbour, and peninsular Halifax (RMPS, 2014; Figure 1).

Connected by the Halifax Harbour via the Alderney and Woodside ferries, both sides have limited land-based 'entry points' for automobiles, these are restricted by the land form and the entry points off the Circumferential Highway. There are ten such points on the Dartmouth side, and six on the Halifax side.

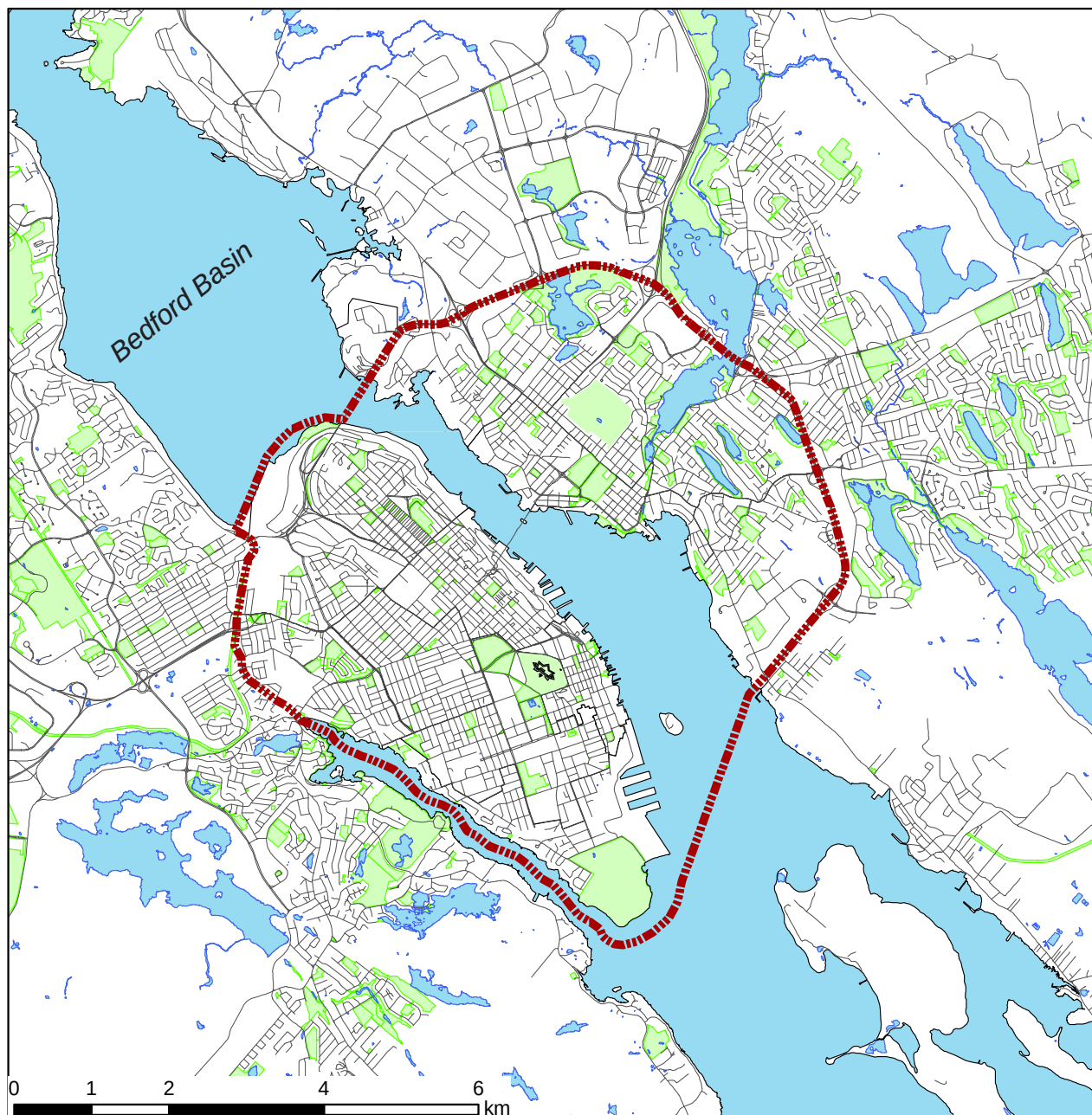
Described as the heart of its municipality and the economic hub of Atlantic Canada, the Halifax RC is a diverse place: with a dynamic waterfront, which includes a vibrant shipping industry, naval base and popular public spaces; government; seven post-secondary institutions; major health care facilities; numerous historic landmarks; several distinct residential and mixed-use neighbourhoods; and significant cultural and entertainment sectors. Due to the HRCs diversity, city

planners have been working toward subdividing the region into more meaningful sections to optimize planning decisions and policies. As part of the Regional Centre Urban Design Study (2006/2007), over 40 unique neighbourhoods were identified. This fine-grained geographic resolution proved impractical for planning purposes. In 2009, the Downtown Halifax Secondary Municipal Planning Strategy, divided Downtown Halifax into nine precincts, each with distinct character, building forms and functions (DHSMPS, 2014).

Currently, a comprehensive plan, the Regional Centre Plan, is being drafted; it will replace the four community municipal planning strategies and four land use by-laws that currently regulate the HRC (Halifax, 2015). One aspect of the Regional Centre Plan is the creation of sub-regional geographic planning districts within the Halifax RC (Halifax, 2015b). These sub-regional planning districts will then be populated with indicator data, leading to more finely-tuned and strategic planning policies with respect to residential and employment

capacities, public space, transportation, economic development, and community services and health. These planning districts need to be small enough to capture the essence of diversity within the RC, allowing for a more comprehensive understanding of the urban fabric, and large enough to be practical.

Halifax Regional Centre



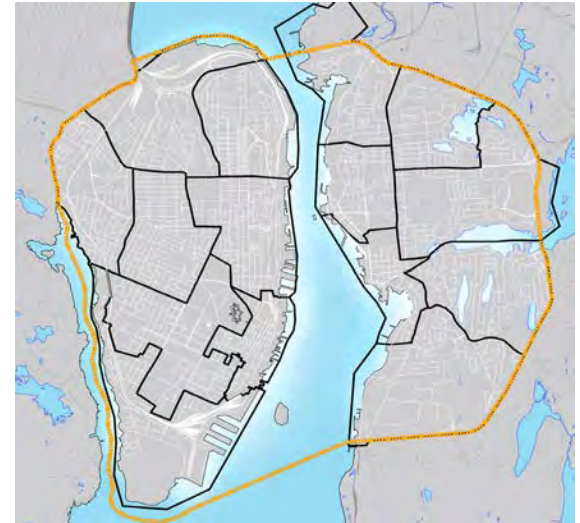
Halifax Regional Centre

0 15 30 60 90 120 150 km



Figure 1. The Halifax Regional Centre is defined as Dartmouth, between the Circumferential Highway and Halifax Harbour and Peninsular Halifax (RMPS, 2014).

Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006. Map created by T. Davidson.



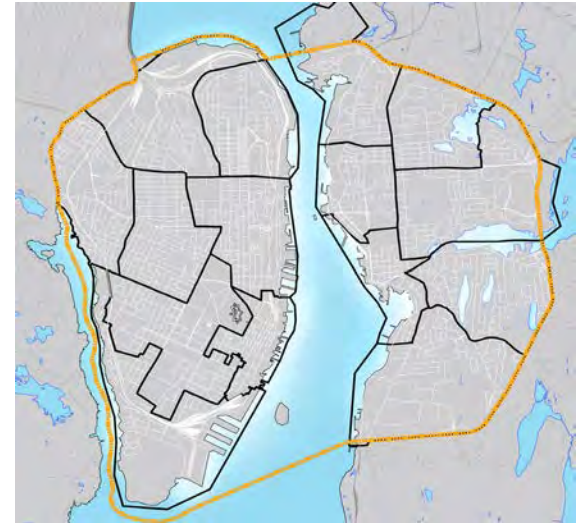
Goal & Objectives

Develop a set of indicators
useful for future planning of
the Halifax Regional Centre

Goal

1. Explore and identify readily available data that are useful in construction of indicators for
Halifax Regional Centre planning
2. Create sub-regional geographic area planning districts within the Halifax Regional Centre
3. Develop example indicators using identified data
4. Illustrate how the developed indicators are distributed within the Halifax Regional Centre
5. Provide examples of application scenarios using the developed indicators

Objectives



Process

Iterative Approach

Sub-regional geographic boundaries based upon prior work by city planners investigations' of urban form and neighbourhood characteristics were used as a starting point for this investigation. The initial phase involved modifying these 'conceptual' boundaries via exploration of physical characteristics such as the built form, physical barriers, transportation infrastructure, walkability, land uses, and overall function; this was completed in consultation with knowledgeable city planners. Twelve Districts emerged at this stage (*HRC Districts 1*, Figure 3a, pg 20).

During initial exploration, current functional boundaries within the Halifax Regional Centre (RC) were also examined for suitability, two appeared most relevant: those used by the HRM Regional Police Force, and the zones created by the Emergency Management Office. Using major roads as their dividing lines, the police force splits the Halifax Peninsula into five zones and the RC of Dartmouth into four. While these zones are appropriate in size, their dividing

lines split some previously developed regions (e.g. the downtown planning zone of Halifax). The Emergency Management Office approach splits the entire province into four regional areas, but within urban areas there are smaller zones to facilitate evacuation and emergency response planning. For the Halifax RC there are a total of 30 zones, 18 in Halifax and 12 in Dartmouth; too many for our purposes.

The preliminary 'conceptual' district lines were then overlaid with two candidate 'building block' administrative area units, Census Tracts (CTs) and Dissemination Areas (DAs), refer to *Data & Area Unit* Section below. The CT boundaries proved to be unsuitable as they crossed too many of the physical-based 'conceptual' boundary lines to be useful. The DA boundaries, however, being significantly smaller, allow for greater flexibility.

Through ground-truthing, and further consultation and evaluation of the physical characteristics, *HRC District 1* and the DA boundaries were merged into one, producing

HRC Districts 2, with 15 districts, 8 eight in Halifax and seven in Dartmouth (Figure 3b, pg 20). The DA boundaries were followed as closely as possible during this phase to facilitate the use of indicator data (refer to *Methodological Notes #1*, pg 37).

After additional consultation with city planners and further refinement of *HRC District 2*, a third set of boundaries, *HRC District 3*, also containing 15 districts was created (Figure 3c, pg 20). A small hitch between H2 and H6 was removed, and the boundary between H3 and H4 was moved to Massachusetts Avenue. There was some also minor smoothing of the H4 west boundary in order to follow Joseph Howe Drive and the RC boundary line. The north boundary of District H1 was extended to include the Cogswell Interchange, as it falls within the DH-1 zoning region. In Dartmouth, the main change involved moving the boundary between D4 and D5 to follow the east shoreline of Albro Lake, allowing for inclusion of the small number of homes south of the lake. The boundaries of Districts D6/D7 along Portland Street, and D4/D5 along

Construction of Districts

Woodland Avenue were also smoothed.

The final boundary iteration (*HRC Districts 4*, Figure 3d, pg 21) involved some substantive changes. In District H1 the previous boundaries had generally followed the DH-1 zone, in *HRC Districts 4* this zoning is followed explicitly. The boundary between H4 and H5 moved slightly to the north, following Bayers Road the entire way to the end of the RC, culminating at Joseph Howe Drive. In Dartmouth, the boundary between D1 and D2 shifted north to Thistle Street, moving the Dartmouth Commons into D1.

District Boundary Evolution

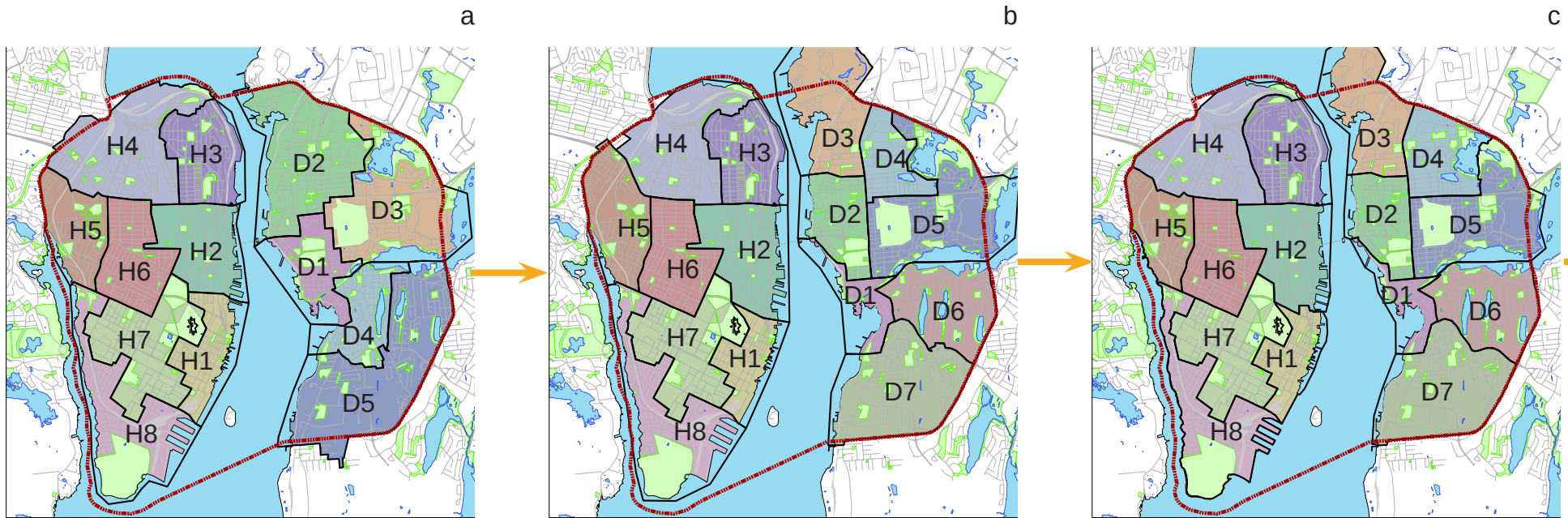
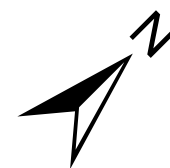
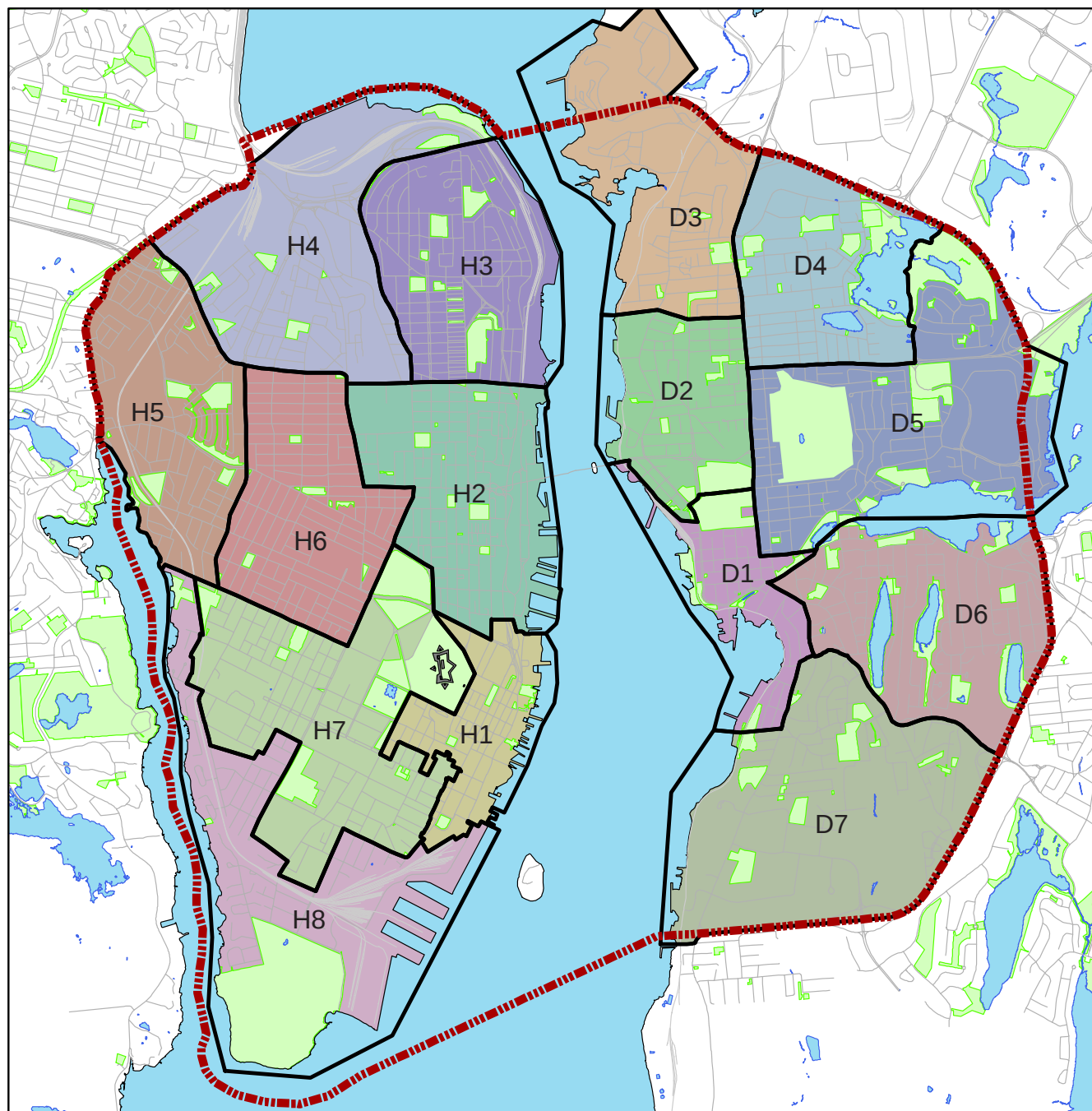


Figure 8. Evolution of the Halifax Regional Centre districts from *HRC Districts 1* (a), *2* (b), *3* (c) and the final set of boundaries *HRC Districts 4* (d).

Construction of Districts



 Regional Centre Boundary

HRC Districts 4

Code Name

-  D1
-  D2
-  D3
-  D4
-  D5
-  D6
-  D7
-  H1
-  H2
-  H3
-  H4
-  H5
-  H6
-  H7
-  H8



Data Sources

Sources of data used to develop indicators in the Halifax Regional Centre include:

- 1) HRM Geodatabase (Halifax, 2015c) and Halifax Open Data
- 2) Statistics Canada Census Data

Indicator Data

1) Data from the HRM Geodatabase and Halifax Open Data is used to determine the amount of land area (m²) of each zoning type in each district, this is used in conjunction with demographic data (census data, see below) to determine spatial indicators related to residential density, and the amount of park space per person (refer to *Methodological Notes* #1, pg 37).

2) Census data is used to develop socio-spatial indicators for the Halifax Regional Centre (refer to *Methodological Notes* #2,3, pg 37). Data categories include:

- population demographics
- education levels
- rate of government transfer
- unemployment rate
- median household income
- rental rates
- housing payment amounts
- type of employment
- dominant transportation mode

Area Units

Dissemination Area (DA) data is the finest grained administrative unit readily available from Statistics Canada that has associated socio-demographic data. Research has shown that using finer-grained DA data, as opposed to larger Census Tracts (CTs), can best approximate what's happening 'on the ground' in small to medium sized cities (Prouse *et al.*, 2014). Therefore, DAs became the building blocks for area unit analysis (Figure 2 shows CT and DA boundaries for the Halifax Regional Centre).

Data & Area Units

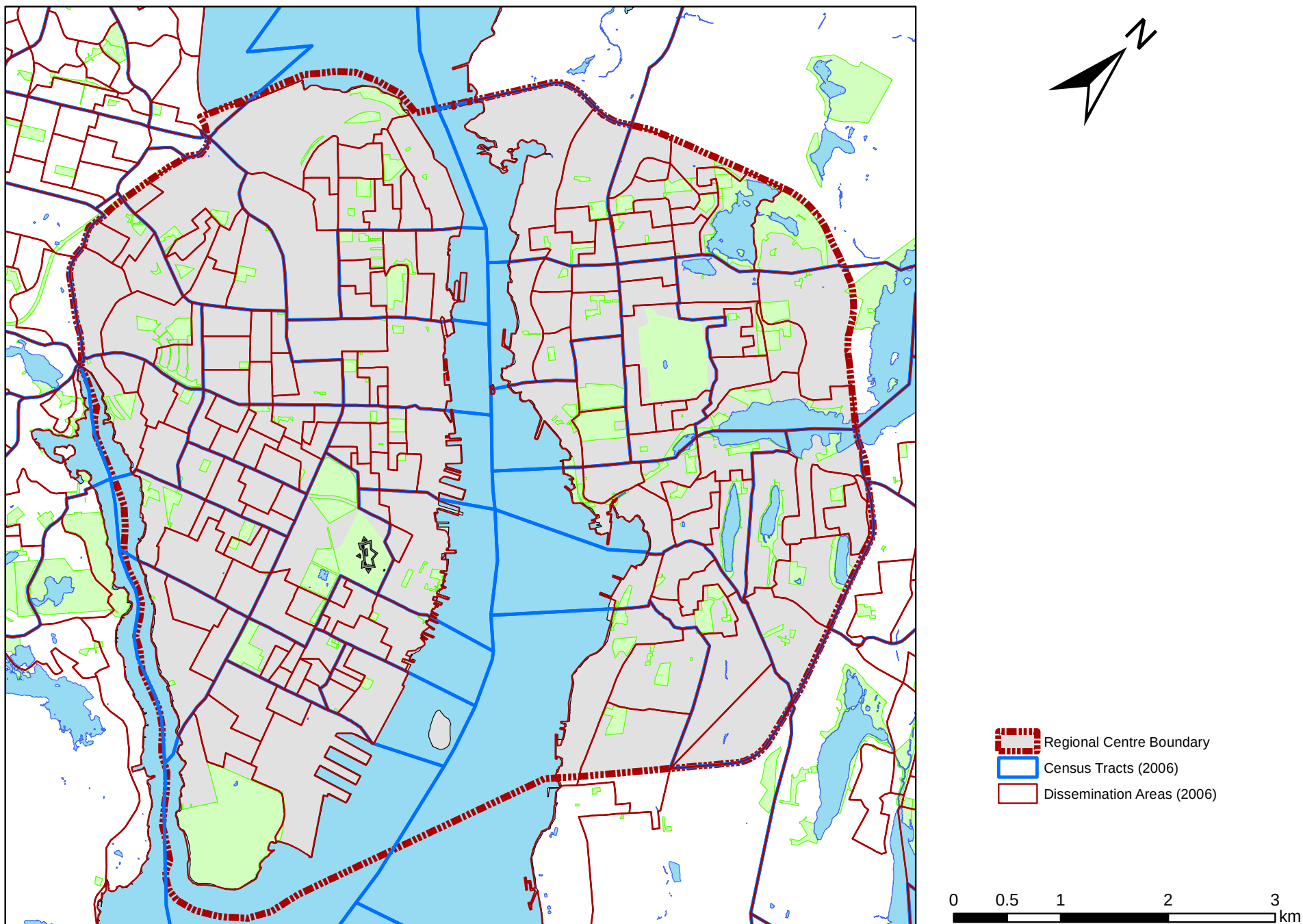


Figure 2. Dissemination Area and Census Tract boundaries within the Halifax Regional Centre.

Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006. Map created by T. Davidson.

Data Quality

There are several issues related to data quality: the deteriorating value of census data, changing Dissemination Area (DA) boundaries, and repressed data. The comprehensive mandatory long form census was replaced by the voluntary National Household Survey (NHS) in 2011; when compared, much of the data exhibited similar patterns between years, some however changed significantly. The median household incomes in District D7 is one example (Figure 3).

These inexplicable variations, and low NHS response rates, which approach 50% in some CT's in the Regional Centre (Cities Centre University of Toronto, 2013), are recognized by Statistics Canada (2013) who note the lack of comparability between the data sets and caution users from comparing the NHS with past surveys (see sidebar). Because this lack of comparability is particularly troublesome for low-income residents in small geographic areas (Prouse *et al.*, 2014), the 2006 Census data was used for detailed district analysis. Further, a time series indicator analysis

between census years was not possible (refer to *Limitations & Recommendations* Section, pg 101, for further discussion of this issue).

The variability of DA boundaries and higher chance of repressed data are two features of DA-level data which unfortunately cannot be overcome. The majority of indicators contain a minimum of three repressed DAs, which appear white on maps. Repressed data also adds a level of uncertainty when aggregating data, though this is mitigated via using ratios and rates. In districts such as D3, which contains a small number of DAs, this lack of data can make a major impact upon the indicator ratios.

“Given the sensitivity of most income indicators to such methodological differences, users should use caution when comparing income estimates from the NHS to other household income surveys, administrative data or 2006 Census data or earlier censuses.”

(Statistics Canada, 2013)

Data & Area Units

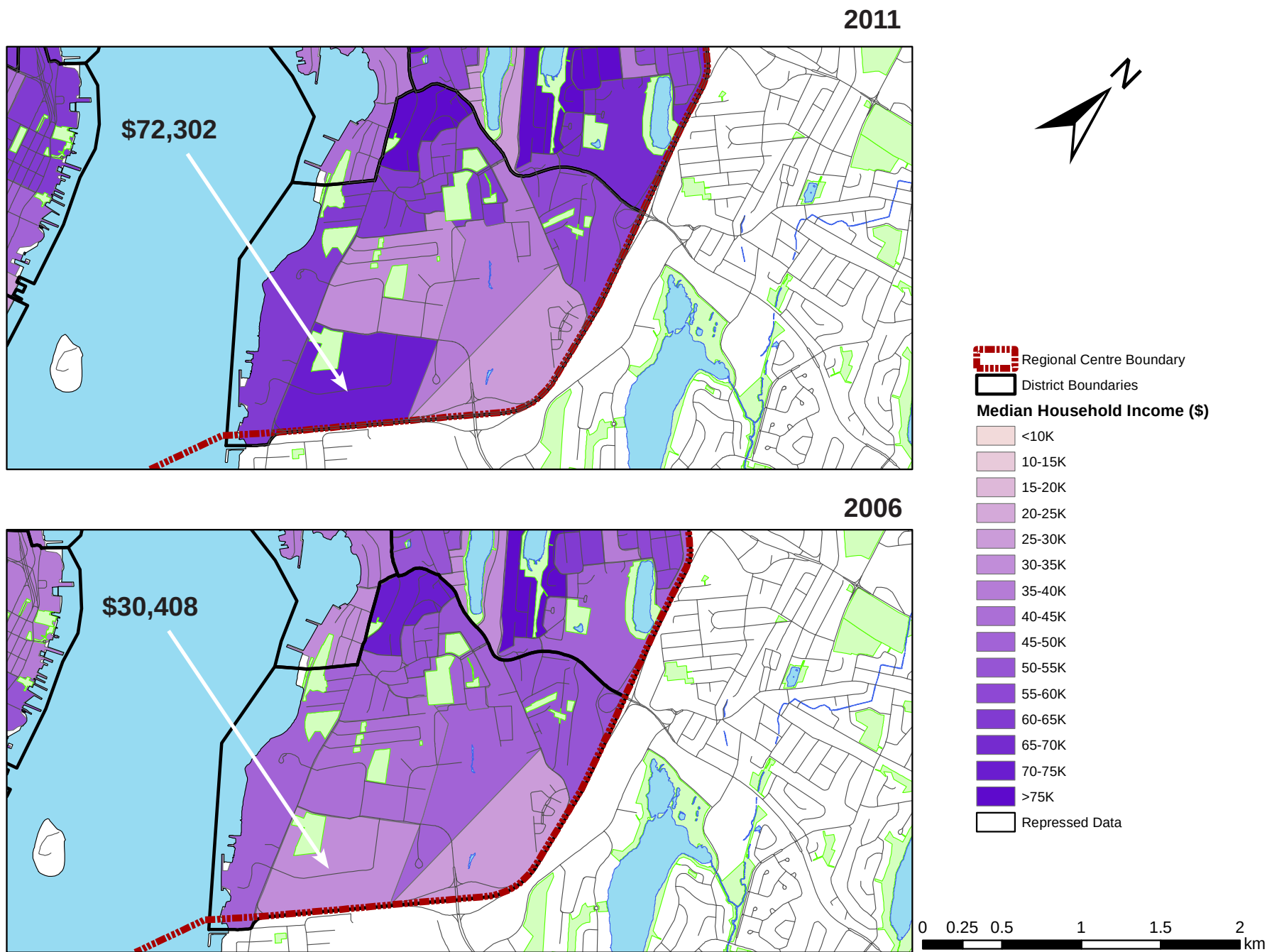


Figure 3. Example from District D7 showing significant variation in median household income from the 2011 National Household Survey (top panel) and the 2006 Census (lower panel).

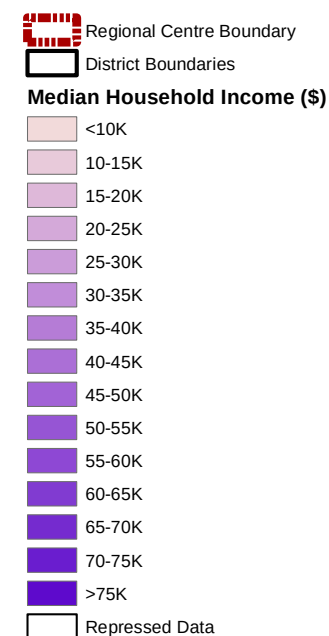
Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006. Map created by T. Davidson.

Data Aggregation

Using the district boundaries as edges, Dissemination Area (DA) data was then aggregated. Some DA boundaries did not fit 'neatly' within the District boundaries and had to be adjusted manually, see *Boundary Adjustments* sub-section.

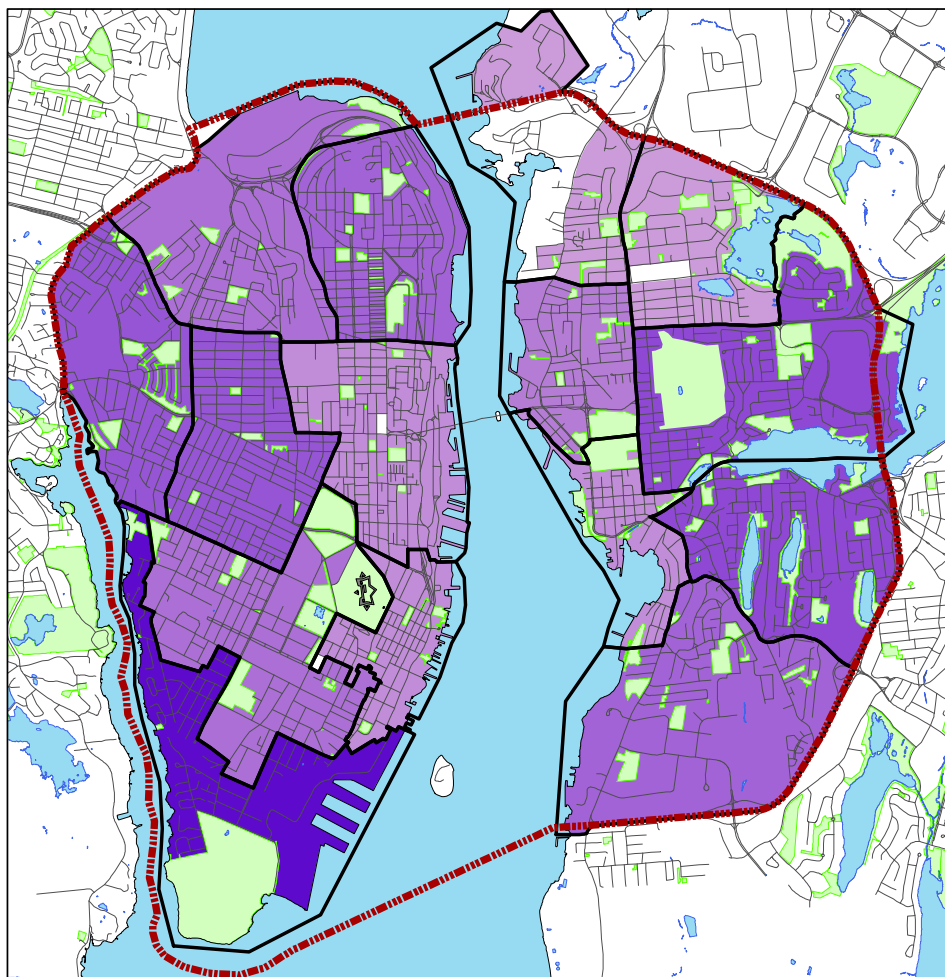
Aggregation can mask heterogeneity. Smaller units will always better represent what is happening 'on-the-ground' than larger units. Depending on the data type, aggregation offers district-level representation ranging from poor to appropriate.

For example, when aggregated, the lowest category for median household income becomes ~\$28k, whereas DA-level data has a number of DAs in the <\$20k category (Figure 3). Examples of indicators for which aggregation to district level may be appropriate are government transfer and rental versus ownership. Refer to *Recommendations & Limitations* Section, pg 101, for further discussion of this issue.



Data & Area Units

Aggregated



Non-Aggregated

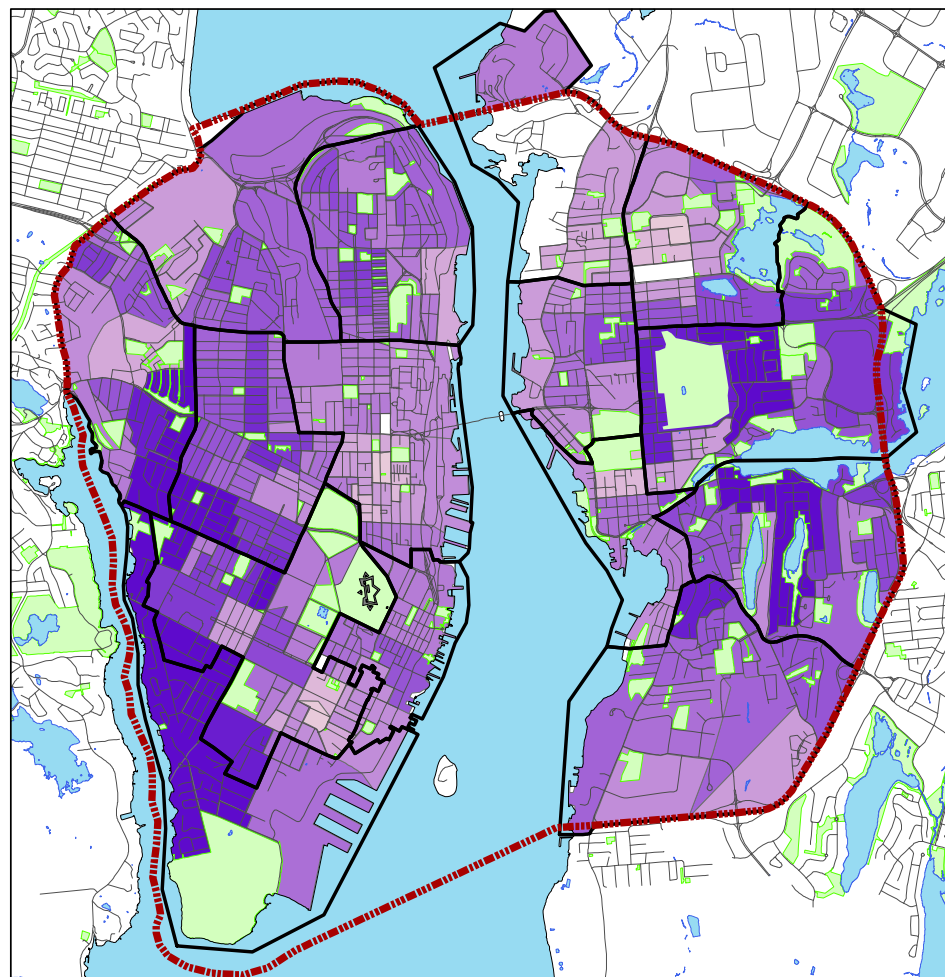


Figure 3. Illustration of how aggregating Dissemination Area (DA) data can mask heterogeneity. The lowest median household income in the Regional Centre when aggregated is ~ 25-30k, this falls to ~ 15-20k when data is not aggregated.

Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006. Map created by T. Davidson.

Boundary Adjustments

Not all Dissemination Areas (DAs) fit neatly within district boundaries: some transverse district boundaries; extend beyond the Halifax Regional Centre (RC); and some areas, while technically outside of the Halifax RC, are more 'connected' to it than elsewhere. These cases required extra levels of manipulation (refer to *Methodological Notes #1*, pg 37).

For example, the small number of homes bordering Russell Lake are technically outside of the RC boundary of the Circumferential Highway, but they can only be accessed by moving through the RC. Upon speaking with planners, it was decided that they should be considered part of the RC for planning purposes. These types of regions require DAs to be split into block level population data. Each block is given a percentage value of its respective DA, which is then used to weight the socio-economic and demographic data (shown in Appendix A; refer to *Methodological Notes #3*, pg 37). These weighted numbers were only used for district aggregation, DA maps use the unadjusted values (appearing

in the *Cross District* Section, pg 71). A particularly problematic example of this occurred in the north part of Dartmouth, in a DA which includes the Burnside Industrial Park, making it one of the largest DAs. Moreover, it is shaped awkwardly, containing two separated areas within the RC (Figure 4).

While this method worked well for the vast majority of districts, for H1 (*HRC Districts 4*), this technique proved inappropriate because the zoning line for the DH-1 zoning type split the block-level data. In this case, a simple percentage of the total area was used to create weighting for the data, either at the block or DA level. When DA's or blocks were split, the presence of residential type buildings was evaluated to ensure proper inclusion of the demographic data. For example, following the DH-1 zoning in H1, DA 12090357 was split between H1 and H2. Similarly, rather than following the Dissemination Block Line, the DH-1 zoning boundary split block number 1209035744 in two. Ground-truthing revealed that the area included within H1 was made up of non-

residential uses. Therefore, the population and associated socio-demographic data was included in H2 (Figure 5).

Two areas technically outside of the Halifax RC, which are now included, are the communities of Wallace Heights (D3) which is north west of Shannon Park, and Lakeshore Park (D5) on the south shore of Lake Micmac and (Figure 6). These areas only have road access from within the RC.

A neighbourhood south of the Circumferential Highway at the bottom of D7 was excluded for the opposite reason, the area is not well connected to the Halifax RC even though most of the DA lies within the Halifax RC boundary.

Data & Area Units

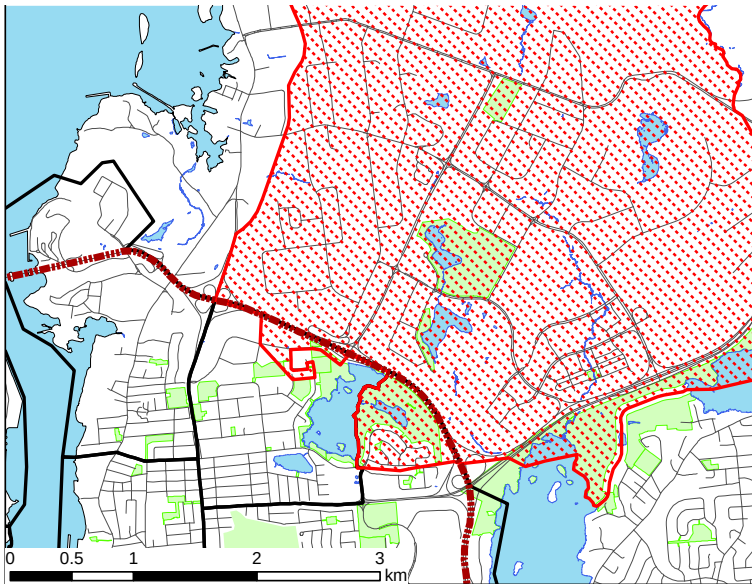


Figure 4. An example of a large Dissemination Area which required splitting at the block level and weighting of associated socio-economic data.

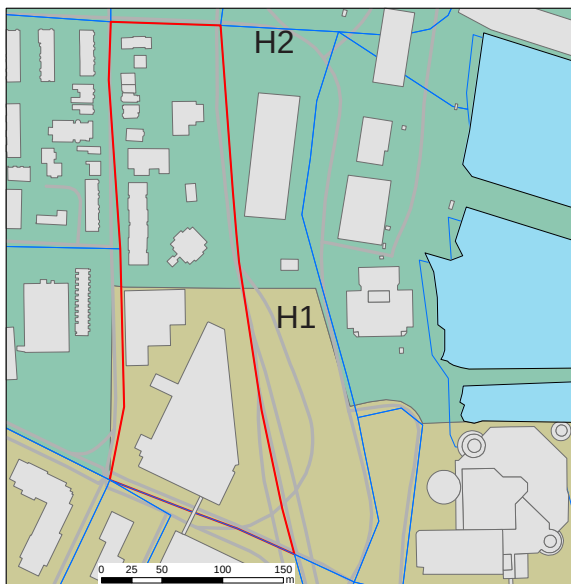


Figure 5. Dissemination block #1209035744 (red) is split between H1 and H2. The H1 portion contains no residents, associated socio-demographic data is therefore included in H2.

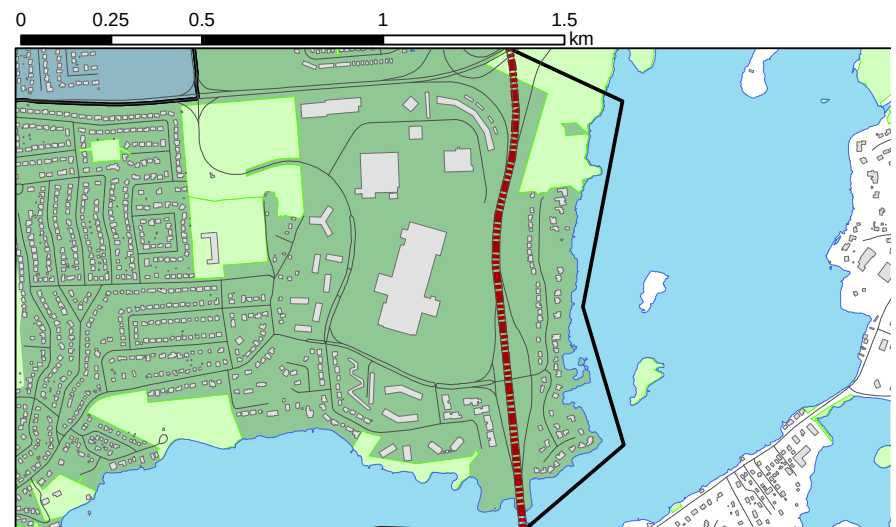


Figure 6. Areas of Wallace Heights (D3 - top panel), and Lakeshore Park (D5- lower panel) which have been included in the Regional Centre (RC) as they only have road access via the RC.

Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006. Map created by T. Davidson.

Generalized Zoning Types

To determine the various proportions of zoning types and residential population and park space densities a general zoning map was created (Figure 7). Using the existing zoning for the peninsula and Dartmouth, all existing zoning was agglomerated into seven general zones:

Residential
Industrial
Park
Mixed Commercial
Institution and Open Space
Military*
Holding

Using these general zoning categories and ArcMap's (ESRI, 2012) measure tool, the area of each zoning type was calculated for each district (refer to *Methodological Notes #1*, pg 37). This method overestimates the amount of residential area as the road network is included in the residential component of the zoning. Within the available geo-data, the road network is not zoned, nor is there a road network that is polygon-based (only line data is available).

Residential population density for each District is calculated according to,

$$\text{Residential population density (km}^2\text{)} = \text{District population} / \text{Residential zoned space (km}^2\text{)}$$

where, *Residential zoned space* is residential plus mixed commercial. Within the HRM, commercial zoning allows for a residential component in almost every commercially-zoned area, although refer to *Methodological Notes #5*, pg 37. Using publicly available data, however, there is no way to discern how a particular lot of land is actually being used beyond its zoning type. Therefore, the mixed commercial zoning type needs to be included within the population density calculation even though some areas may be used exclusively for commercial operations.

Other specific zoning designations are treated so differently between Dartmouth and Halifax, that they were categorized differently (see *District park density* for example). Zoning designations were therefore based on a “best fit” for generalization, and these differed between Halifax and Dartmouth.

District park density (amount of park space per person),

$$\text{Park density (m}^2\text{)} = \text{Park space (m}^2\text{)} / \text{Population,}$$

is calculated using the Halifax OpenData HRM_Parks.shp layer (Halifax, 2015b), with some minor adjustments. Halifax zones its parks under RPK (Regional Parks), and P (Park and Institutional Zone), which includes non-park space such as cemeteries, hospitals, schools, universities, churches, libraries, museums, and court houses. Dartmouth separates out institutional uses from its parks, through the P or PK (Park), OS (Open Space), and S (Institutional) Zones. As such, in Halifax, only areas that are actual parks are considered in the park density calculation. In Dartmouth, all areas zoned P and PK are included (although some of the areas zoned P were not included in the HRM_Park.shp file).

*see *Methodological Notes #4*, pg 37

Reclassification of Data

Halifax Regional Centre Generalized Zoning Types

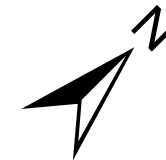
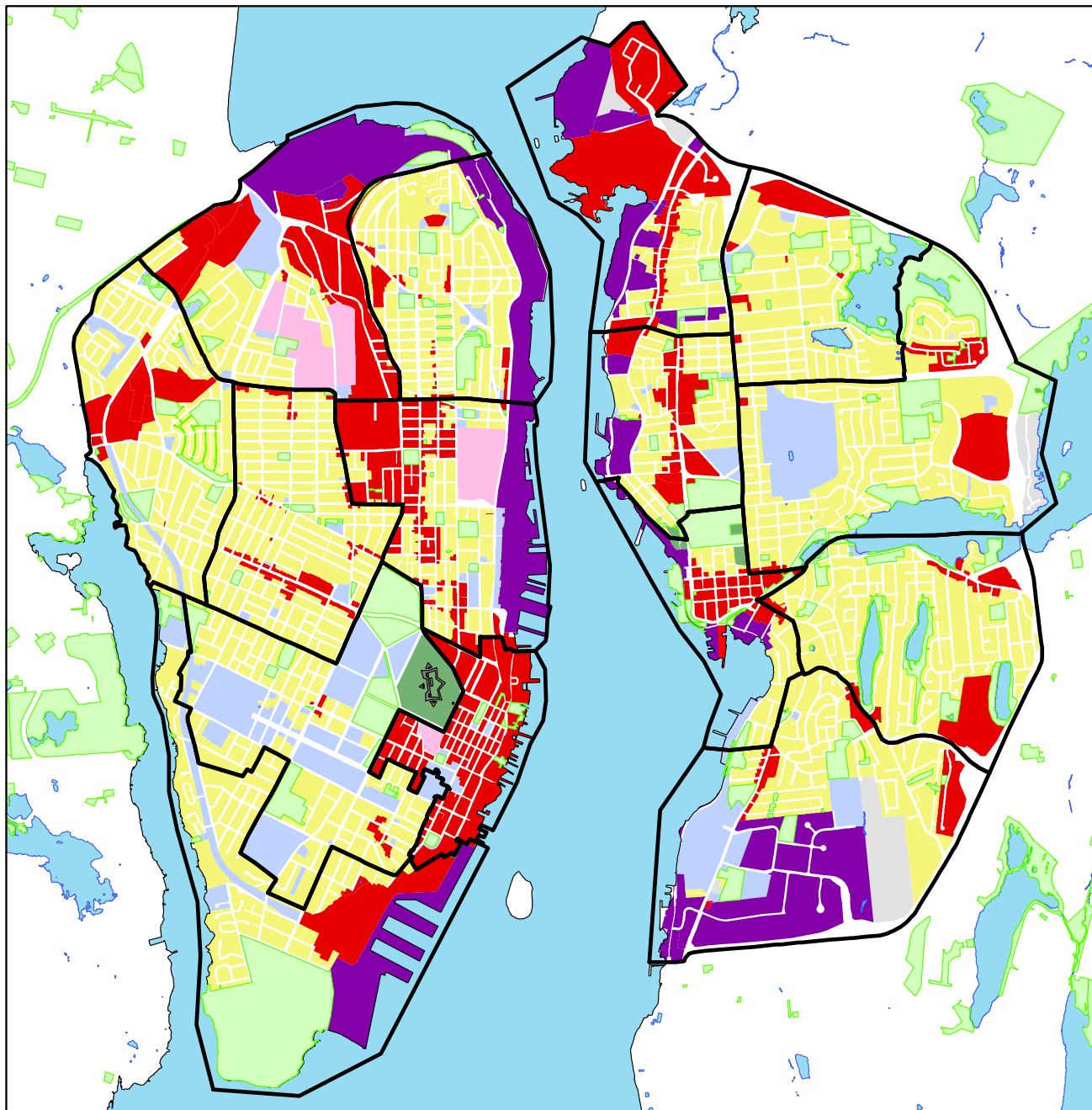


Figure 7. Types of zoning in the Halifax Regional Centre. Areas are used to determine residential population density and amount of park space per person.

Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006. Map created by T. Davidson.

Generalized Industry Groups

To simplify analysis of the types of employment of residents within the Halifax Regional Centre districts, the NAICS (North America Industry Classification System) data was consolidated into 10 groups.

Reclassification of Data

Consolidated Industry	NAICS Category	NAICS Code
Natural Resources and energy	Agriculture, forestry, fishing and hunting	11
	Mining and oil and gas extraction	21
	Utilities	22
Manufacturing Industries	Construction	23
	Manufacturing	31-33
Retail and Trade	Wholesale trade	41
	Retail trade	44-45
	Transportation and warehousing	48-49
Finance and Communication Services	Information and cultural industries	51
	Finance and insurance	52
	Real estate and rental and leasing	53
Professional and Management Services	Professional, scientific and technical services	54
	Management of companies and enterprises	55
Education	Educational services	61
Healthcare and Social Assistance	Health care and social assistance	62
Entertainment and Food Services	Arts, entertainment and recreation	71
	Accommodation and food services	72
Public Admin	Public administration	91
Other	Other services (except public administration)	81
	Administrative and support, waste management and remediation services	56

District Profiles

For each of the 15 districts, detailed profiles (located in the *District Profile* Section, pg 39) describe the following:

- key functions
- defining features
- predominant zoning types
- key demographic indicators
- population structure
- characteristic photographs
- description of patterns across districts

Cross District Comparison

In order to compare districts to one another, indicator data is compiled and displayed graphically and/or spatially. The full compliment of indicators are analyzed in the *Cross District* Section (refer to *Methodological Notes #6*, pg 37):

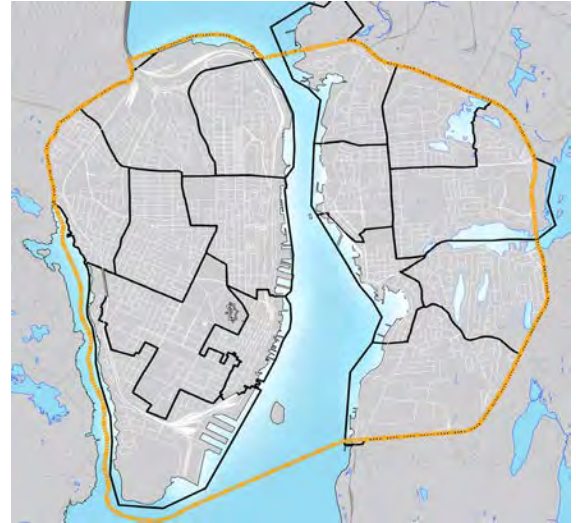
- population demographics
- education levels
- rate of government transfer
- unemployment rate
- median household income
- rental rates
- housing payment amounts
- type of employment
- dominant transportation mode
- residential density
- park space density

District Profiling



1. Digitizing errors by the authors may have occurred during district boundary delineation, there may also be similar errors inherent to the HRM geodatabase.
2. Census Canada rounds its data to the nearest 0 or 5 to maintain privacy, only population data is not rounded.
3. Rounding of indicator data takes place at the end of calculations. In situations where weighting to numbers occurs, the decimal carries through the equation and the final number is rounded.
4. Military Space was removed from the livable area calculation, although Willow Park has a residential component for military personnel.
5. The C3 zone in Dartmouth does not allow for residential uses, and was therefore excluded from the residential zoning type calculation.
6. The data analysis here within contains no forecasting or trend analysis.

Methodological Notes



District Profiles

D1

Key Functions

Employment, Business, Ferry Terminal, Recreation



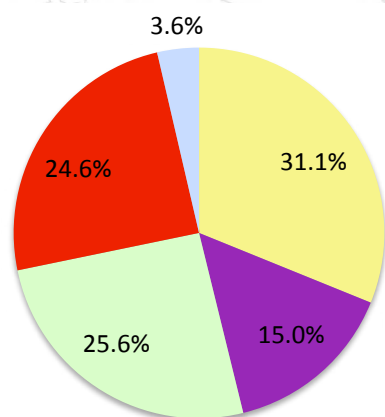
Image source: Penelope Kuhn

Defining Features

The heart of Dartmouth resides within District D1. Anchored by Alderney Landing on the waterfront, the complex houses a library, theatre, offices, art gallery, restaurants, shops, a weekly market and the Ferry Terminal. Flanking Alderney Landing is Ferry Terminal Park, which has the head of the Dartmouth Harbourfront Trail which runs 3 km, terminating at the Woodside Ferry Terminal. The Dartmouth Common offers walking trails, sports fields, tennis court, beach volleyball court, skateboard park (coming), community garden, and pizza oven. The main retail, business and financial district of D1, along Portland Street, consists predominantly of 2-story mixed-use buildings. An area currently undergoing intense development along the waterfront, King's Wharf, has three condominium towers with ground-level retail and commercial space.

Zoning Types

Predominant zoning types in D1 are residential, mixed commercial and park. There is section of industrial use along the waterfront.



Residential
Industrial
Park
Mixed Commercial
Institutional and Open Space
Military Holding



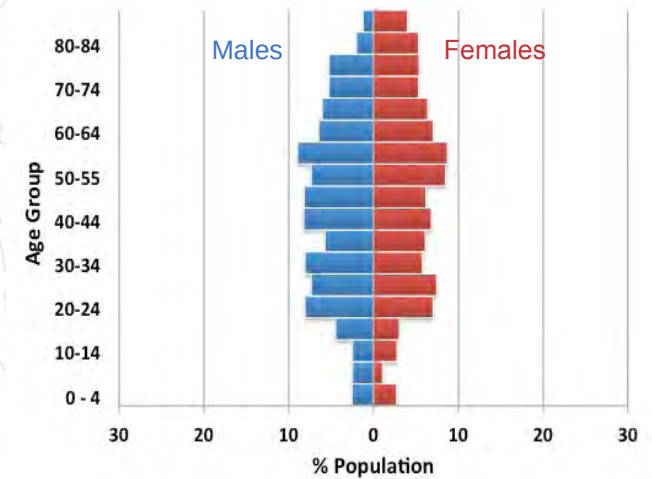
Key Demographic Indicators

Indicator	District D1 (Rank)	Regional Centre (RC)	HRM	NS
Population	2,760	94,809	-	-
Residential Population Density (#People/km ²)	5,434	3,922	-	-
Government Transfer (% of Income)	13.1 (7 th)	11.6	8.8	13.6
Unemployment Rate (%)	3.8 (14 th)	7.2	6.3	9.1
No Post-Secondary (%)	35.6 (6 th)	28.8	32.5	39.5
Median Household Income (\$)	33,173 (11 th)	44,692	54,108	46,605
Percentage of Renters (%)	74.8 (6 th)	62.0	36.0	27.6

Indicator Summary

District D1 covers the downtown of Dartmouth, and it has the second smallest population in all districts, next to District D3. Residential population density is the 4th highest in the Regional Centre (RC). A relatively rapid population increase is expected by development of a few large condominiums. The socioeconomic status (e.g., income and educational levels) is lower than many of the districts on the Halifax side, and it is about the middle among the districts on the Dartmouth side. The unemployment rate is one of the lowest in all of the districts in the RC, and a higher percentage of employed persons are engaged in professional jobs than those in the rest of Dartmouth. While there is no concrete reason to believe otherwise, the sample size of respondents in the census for the employment question is low and this unemployment rate needs to be viewed with caution.

Population Structure



Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006; Map created by T. Davidson & P. Kuhn.



Image source: Penelope Kuhn

D2

Key Functions

Transit hub, Connectivity (McDonald Bridge), Commercial, Education



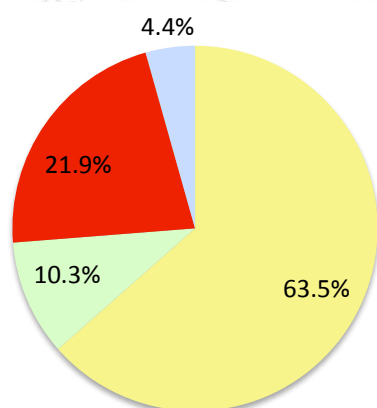
Image source: Penelope Kuhn

Defining Features

District D2 contains the McDonald Bridge, a key connection between central Dartmouth and Halifax; the Bridge Terminal, a major transit hub, is adjacent to the bridge. Located beside the Dartmouth Common is the Dartmouth High School which serves the Dartmouth side of the RC and beyond. The main residential area, Harbourview, has a mix of single-family dwellings and mid-rise apartments. Wyse Road, an important artery through D2, is a key retail area with numerous businesses, including two major grocery stores, pharmacies, the Dartmouth Sportsplex, and restaurants.

Zoning Types

The majority (~64%) of D2 is zoned for residential use, mixed commercial use is the second largest zoning type.



Residential
Industrial
Park
Mixed Commercial
Institutional and Open Space
Military
Holding



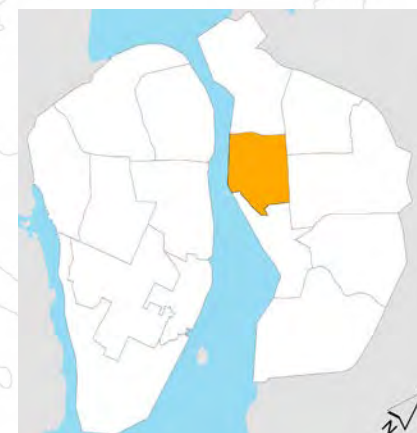
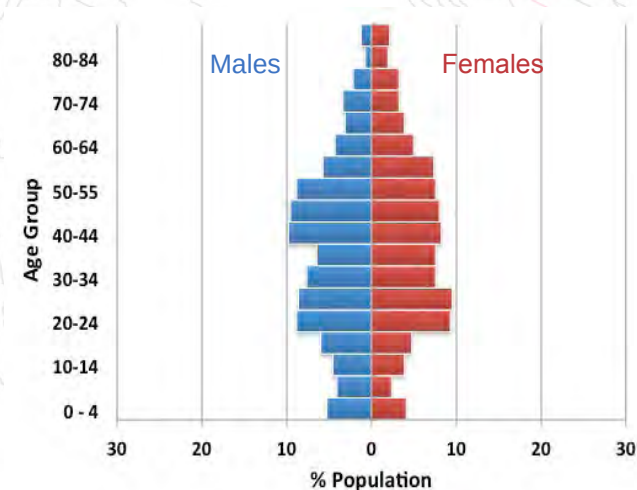
Key Demographic Indicators

Indicator	District D2 (Rank)	Regional Centre (RC)	HRM	NS
Population	4,516	94,809	-	-
Residential Population Density (#People/km ²)	3,717	3,922	-	-
Government Transfer (% of Income)	17.4 (4 th)	11.6	8.8	13.6
Unemployment Rate (%)	6.8 (9 th)	7.2	6.3	9.1
No Post-Secondary (%)	40.7 (3 rd)	28.8	32.5	39.5
Median Household Income (\$)	37,769 (10 th)	44,692	54,108	46,605
Percentage of Renters (%)	64.3 (7 th)	62.0	36.0	27.6

Indicator Summary

Much of the socio-demographic indicators for D2 fall in either the mid-range or the low end of district rates. Unemployment and rental percentage are in the mid-range for district rates, and both are directly comparable to Regional Centre (RC) averages. Median household income is in the lower third for districts, at just under \$38,000. This however is unsurprising based on the high levels of government transfer (nearly double the HRM rate), low education levels, and industry employment ratios (nearly 20% of D2 is employed within the retail and trade Sector). Residential density numbers are just below the RC average, at ~3,700 people/km². D2 also has the second highest rates of transit use in the RC, a combination of necessity due to lower income levels, and convenience, with the Bridge Terminal Transit Hub located within the district.

Population Structure



Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006; Map created by T. Davidson & P. Kuhn.



Image source: Penelope Kuhn

D3

Key Functions

Employment, Connectivity (MacKay Bridge), Commercial

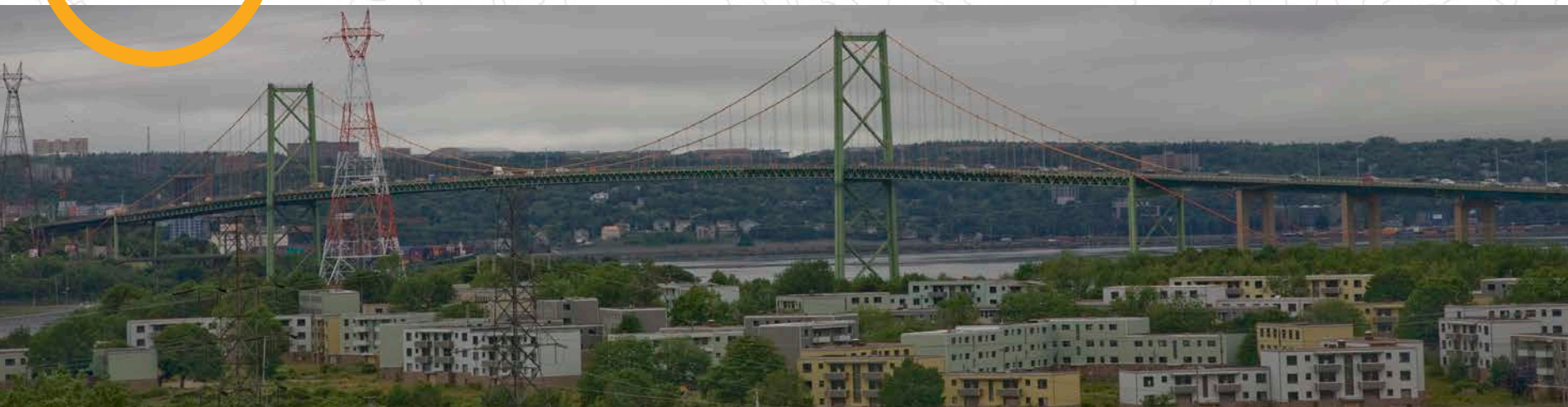


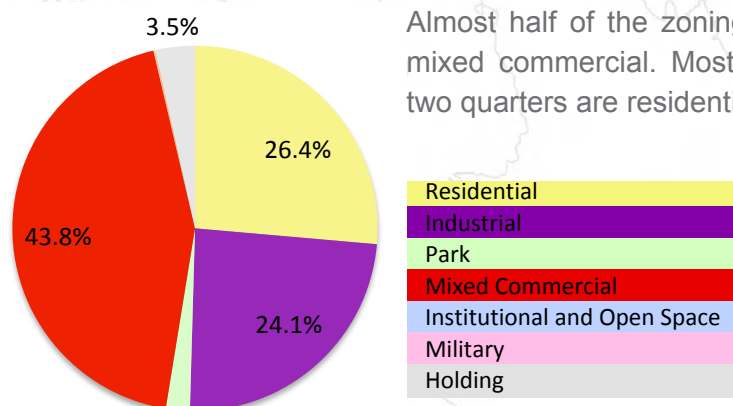
Image source: Penelope Kuhn

Defining Features

D3 is home to two large government institutions, the federally run Bedford Institute of Oceanography, and the provincial generating station at Tufts Cove. The abandoned military housing complex, Shannon Park, owned by Canada Lands, is slated for redevelopment. The McKay Bridge connects Dartmouth and communities east of Dartmouth to Halifax. Lined with a mix of commercial outlets, Windmill Road runs through D3; it connects D2 and Downtown Dartmouth (D1) to Burnside Industrial Park and the Circumferential Highway (through D6). There are two main residential areas in D3, Wallace Heights which is predominantly mid-rise apartments, and the Tufts Cove area which has a mix of single-family dwellings and multi-dwelling units. Shannon Park French Immersion and Harbour View elementary schools are in .

Zoning Types

Almost half of the zoning in District D3 is mixed commercial. Most of the remaining two quarters are residential and industrial.



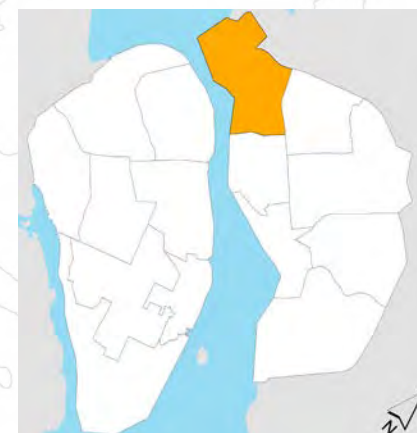
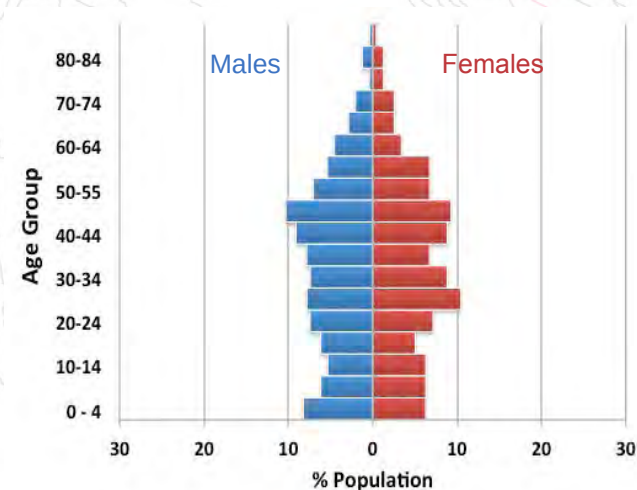
Key Demographic Indicators

Indicator	District D3 (Rank)	Regional Centre (RC)	HRM	NS
Population	2,665	94,809	-	-
Residential Population Density (#People/km ²)	1,567	3,922	-	-
Government Transfer (% of Income)	22.7 (1 st)	11.6	8.8	13.6
Unemployment Rate (%)	11.1 (1 st)	7.2	6.3	9.1
No Post-Secondary (%)	47.7 (2 nd)	28.8	32.5	39.5
Median Household Income (\$)	28,635 (15 th)	44,692	54,108	46,605
Percentage of Renters (%)	75.3 (4 th)	62.0	36.0	27.6

Indicator Summary

District D3 contains a large portion of transitional area (Shannon Park), and associated Dissemination Areas often do not contain data. D3 is also the most socioeconomically disadvantaged district in the Regional Centre (RC). Median household income is the lowest (\$28,600), and unemployment rates (11%) are the highest of all 15 districts. There is the smallest proportion of people engaged in employment requiring advanced education—e.g., professional, managerial, public service, and health care—which reflects on the district having one of the highest rates of residents with no high school diploma. There is also the highest rates of residents receiving government transfer payment in the RC. While it has one of the highest public transportation ridership rates, which exceed RC, HRM or NS averages, it also has a high rate of automobile commuters (69.4%) and the lowest rate of active transportation use (5.0%). This suggests that D3 is one of the best candidate districts to target for public transportation development.

Population Structure



Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006; Map created by T. Davidson & P. Kuhn.



Image source: Penelope Kuhn

D4

Key Functions

Affordable Housing, Outdoor Recreation, Commercial



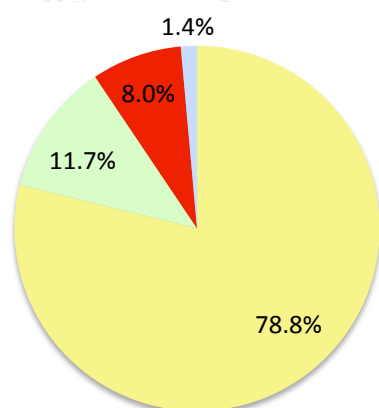
Image source: Penelope Kuhn

Defining Features

District D4 offers affordable housing and contains a mixture of mid-rise apartments and single/multi-family dwellings. D4 is home to John MacNeil Elementary School, John Martin Junior High School, Gray Memorial Arena, Jason MacCulloch Park and the Dartmouth North Community Centre, which also contains the Dartmouth North library. Albro Lake offers recreational fishing and swimming opportunities. Retail and commercial space line the northern border of the district, this includes some mixed-use low-rise buildings and a new retail/commercial complex. Victoria Road and the Circumferential Highway act as physical barriers along the northern and western edges of the district.

Zoning Types

Over three fourths of District D4 is used for residential purposes. Park and mixed commercial zoning make up most of the remaining zoning.



Residential
Industrial
Park
Mixed Commercial
Institutional and Open Space
Military Holding



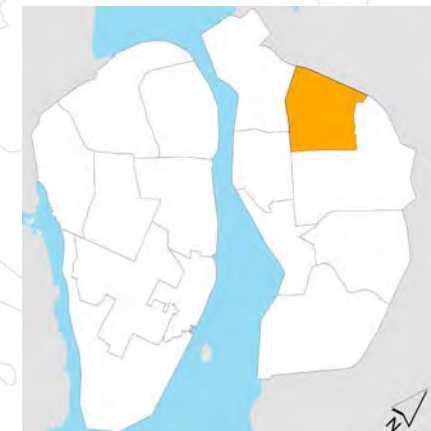
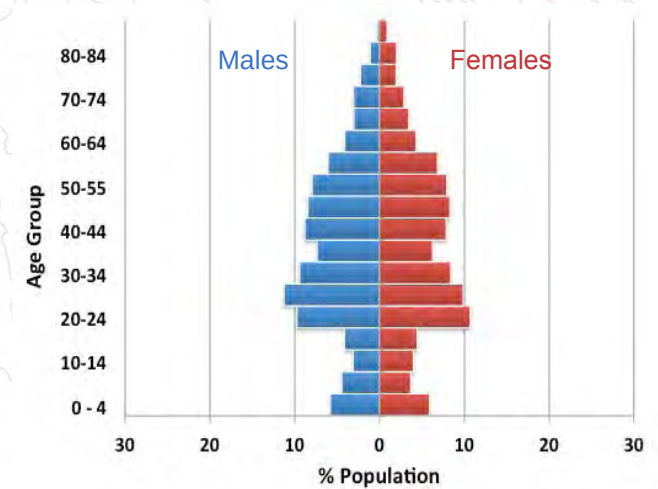
Key Demographic Indicators

Indicator	District D4 (Rank)	Regional Centre (RC)	HRM	NS
Population	7,118	94,809	-	-
Residential Population Density (#People/km ²)	4,377	3,922	-	-
Government Transfer (% of Income)	19.1 (3 rd)	11.6	8.8	13.6
Unemployment Rate (%)	7.3 (7 th)	7.2	6.3	9.1
No Post-Secondary (%)	51.1 (1 st)	28.8	32.5	39.5
Median Household Income (\$)	29,601 (14 th)	44,692	54,108	46,605
Percentage of Renters (%)	81.8 (1 st)	62.0	36.0	27.6

Indicator Summary

District D4 has ~6% higher rates of government transfer than the Regional Centre (RC), 19.1 vs 11.6% respectively, and its median household income of ~\$29,600, is more than \$15K less than the HRM average. This likely reflects the concentration of younger, low-income households, as the 20-34 year old cohort represents the largest percentage of the population. The average rate of low education (those with no post-secondary education) for D4 is about 51%, which means you are more likely to stop your education before or after high school than you are to continue it, this represents a rate 20% higher than the RC average. Rental rates (81.8%) in the district are 32% higher than in the RC (62%) and more than double the rate of HRM (36%).

Population Structure



Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006. Map created by T. Davidson & P. Kuhn.



Image source: Penelope Kuhn

D5

Key Functions

Residential, Commercial (Mic Mac Mall), Recreation

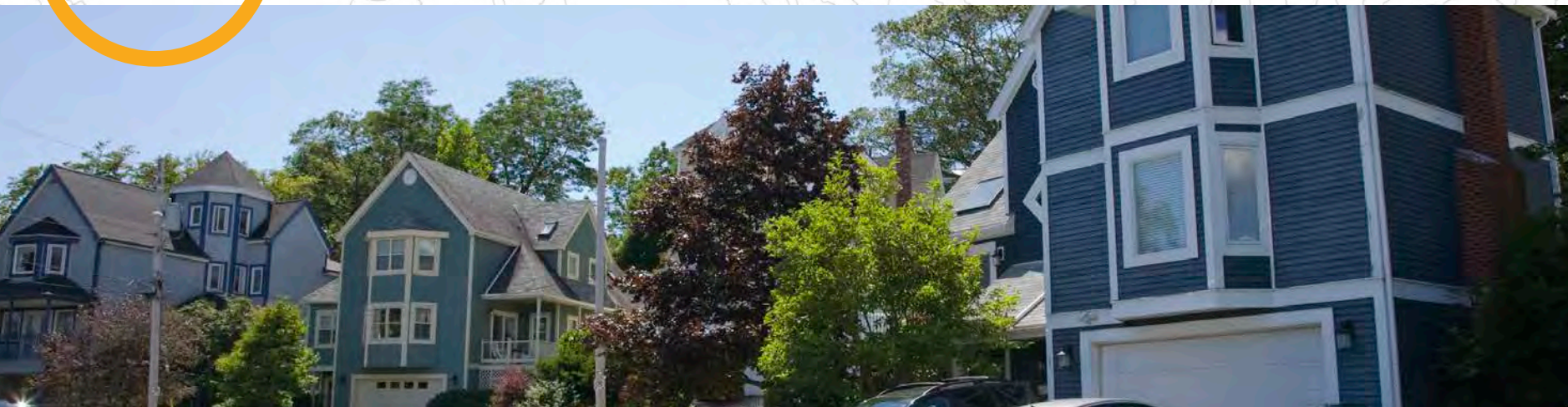


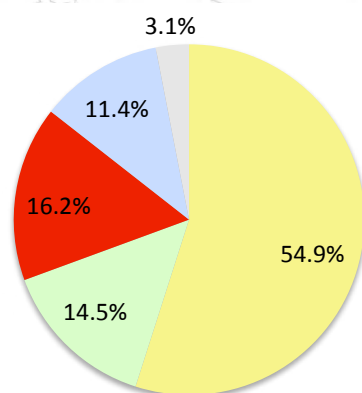
Image source: Penelope Kuhn

Defining Features

District D5 contains five residential areas: Crichton Park, Lakeshore Park Terrace, Lancaster Ridge, the Flower Streets and Brightwood. While predominantly single-family dwellings, there are some townhouses, apartments and condominiums in the vicinity of Mic Mac shopping mall. Sullivan's Pond is a popular public space, which has a multi-use trail, gardens, and a gazebo. Lake Banook has world-class canoe, kayak and rowing facilities, and a Blue Flag beach at Birch Cove Park. Other recreation amenities include the Brightwood Golf and Country Club, Banook Canoe Club, North Star Rowing Club, and walking trails. Victoria Road, which borders D2, is an important transportation connector: funneling traffic from two directions onto the McDonald Bridge.

Zoning Types

Approximately 55% of District D5 is composed of residential zoning. Mixed commercial and park zoning are the next two largest zoning types.



Key Demographic Indicators

Indicator	District D5 (Rank)	Regional Centre (RC)	HRM	NS
Population	6,838	94,809	-	-
Residential Population Density (#People/km ²)	2,590	3,922	-	-
Government Transfer (% of Income)	9.5 (10 th)	11.6	8.8	13.6
Unemployment Rate (%)	3.5 (15 th)	7.2	6.3	9.1
No Post-Secondary (%)	23.4 (10 th)	28.8	32.5	39.5
Median Household Income (\$)	55,380 (3 rd)	44,692	54,108	46,605
Percentage of Renters (%)	46.8 (11 th)	62.0	36.0	27.6

Indicator Summary

District D5 has a fairly even distribution of all age groups, likely owing to a wide range of housing types and amenities. It has a smaller proportion of renters than most districts including Halifax and Dartmouth sides, and its median household income is one of the highest in the Regional Centre (RC). It attracts professionals and the unemployment is the lowest of all districts, at 3.5%, which is about half of the RC average. The use of active transportation is relatively poor, with the highest rates of automobile commuters (75%), although less than the provincial average (84%).

Population Structure

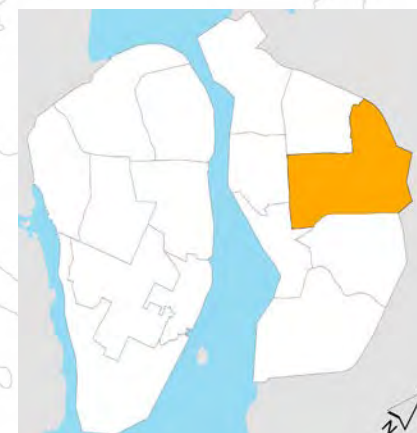
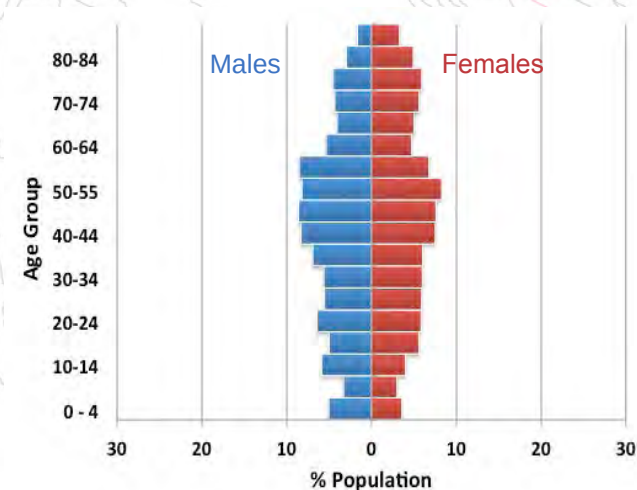


Image source: Penelope Kuhn

Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006; Map created by T. Davidson & P. Kuhn.

D6

Key Functions

Residential, Recreation, Business



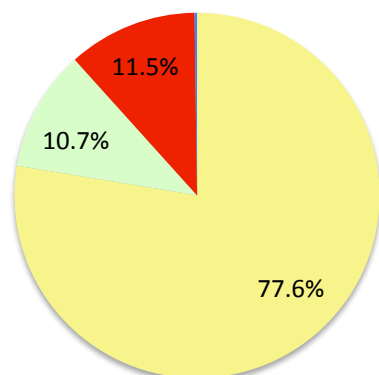
Image source: Penelope Kuhn

Defining Features

With the exception of a large supermarket, Penhorn Plaza, and some mixed-use along Portland street, D6 is predominantly residential. Much of the housing is single-family dwelling and mid-rise apartments. The district also has numerous recreation outlets: the Findlay Community Centre; St. George's Tennis Club; and Maynard, Oat Hill and Penhorn Lakes. The southern shore of Lake Banook, which is home to the Senobe and Mic Mac Amateur Aquatics Clubs, a multi-use trail, and Silver Hills and Grahams Grove Parks is also in D6. Hawthorn and Alderney Elementary Schools are in this district.

Zoning Types

Over three fourths of the zoning type in District D6 is residential. Mixed commercial and park are the next two largest zoning types.



Residential
Industrial
Park
Mixed Commercial
Institutional and Open Space
Military
Holding



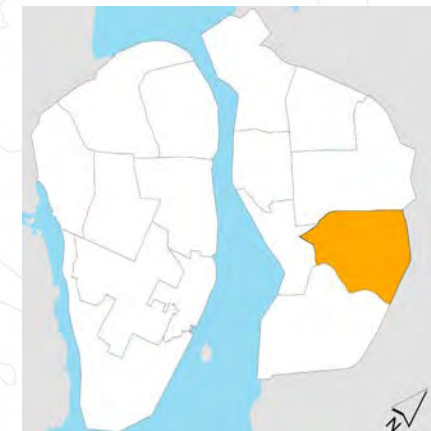
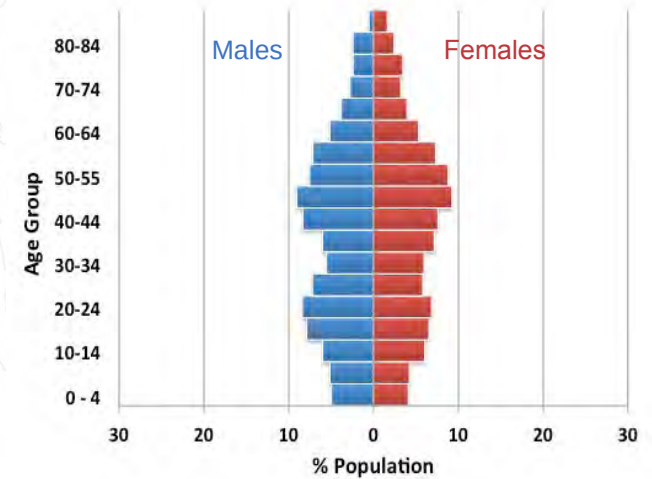
Key Demographic Indicators

Indicator	District D6 (Rank)	Regional Centre (RC)	HRM	NS
Population	6,302	94,809	-	-
Residential Population Density (#People/km ²)	3,024	3,922	-	-
Government Transfer (% of Income)	9.8 (9 th)	11.6	8.8	13.6
Unemployment Rate (%)	6.0 (12 th)	7.2	6.3	9.1
No Post-Secondary (%)	29.1 (9 th)	28.8	32.5	39.5
Median Household Income (\$)	56,721 (2 nd)	44,692	54,108	46,605
Percentage of Renters (%)	42.4 (14 th)	62.0	36.0	27.6

Indicator Summary

The population structure of District D6 suggests that there are two resident groups—an older population in established neighbourhoods and younger families with young children in relatively affordable housing areas. The median household income is the second highest (\$56,700) after District H8, the wealthy South End of Halifax. It is also one of the most house owner-predominant districts, though the ownership rate is still substantially lower compared with the rest of HRM or the province. As in other relatively wealthy districts on the Dartmouth side, the rates of active transportation and public transit use are poor (13% and 16.4% respectively), with a relatively high rate of automobile use for commuting (67%).

Population Structure



Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006; Map created by T. Davidson & P. Kuhn.



Image source: Penelope Kuhn

D7

Key Functions

Industrial Park, Community College, Ferry Terminal, Hospital



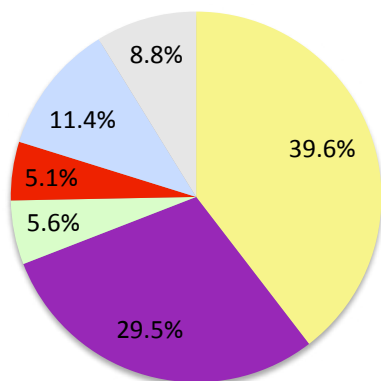
Image source: Penelope Kuhn

Defining Features

District D7 is home to some major employers of the Regional Centre: the Nova Scotia Community College's (NSCC) modern Waterfront Campus, and the Dartmouth General and Mount Hope Hospitals which service the province. There is also a large business section, industrial park and wharf in the south of the district. The Trans Canada Multi-Use Trail runs along the waterfront connecting the North Woodside Community Centre, NSCC, and the Woodside Ferry Terminal. Residential areas are located in the north and west: Woodside and Southdale. The predominant housing type in D7 is single-family dwelling, there is also a section in the west that includes mini-homes and mid-rise apartments. Southdale-North Woodside Elementary School and Prince Arthur Junior High are in the Southdale area.

Zoning Types

Together, residential and industrial zoning make up ~70% of the zoning in District D7. Institutional and open space is the next largest zoning type.



Residential
Industrial
Park
Mixed Commercial
Institutional and Open Space
Military
Holding



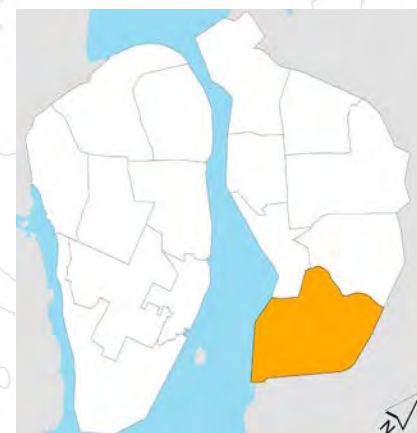
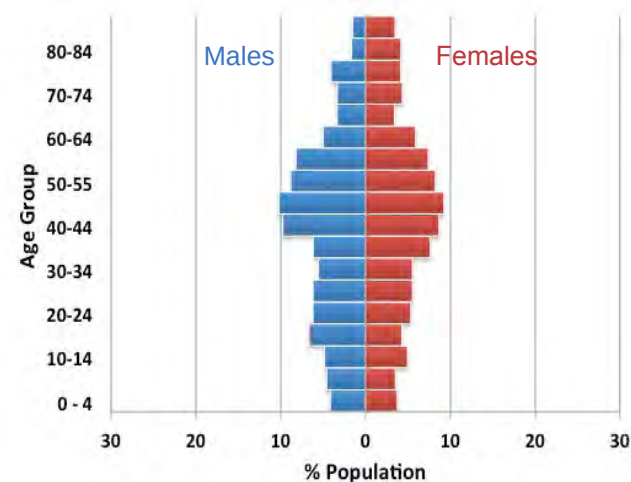
Key Demographic Indicators

Indicator	District D7 (Rank)	Regional Centre (RC)	HRM	NS
Population	4,991	94,809	-	-
Residential Population Density (#People/km ²)	3,214	3,922	-	-
Government Transfer (% of Income)	14.3 (6 th)	11.6	8.8	13.6
Unemployment Rate (%)	6.0 (11 th)	7.2	6.3	9.1
No Post-Secondary (%)	39.3 (4 th)	28.8	32.5	39.5
Median Household Income (\$)	46,723 (6 th)	44,692	54,108	46,605
Percentage of Renters (%)	44.8 (12 th)	62.0	36.0	27.6

Indicator Summary

District D7 is in the middle of the pack for most of the indicator characteristics. Government transfer payment (14%) is higher than the HRM (8.8%) and NS average (13.6%), though it is by no means one of the highest within the districts. The unemployment rates are lower than both Halifax and Dartmouth side averages, while the levels of education appear to be low in general. This might be reflective of the local employment opportunities for diverse educational levels. Median household income is around the provincial average, and somewhat higher than the Regional Centre average. Particularly poor performance is on active transportation use and automobile use. D7 has the second highest rates of automobile commutes, and the third lowest rates of people engaging in active transportation.

Population Structure



Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006; Map created by T. Davidson & P. Kuhn.



Image source: Penelope Kuhn

H1

Key Functions

Waterfront, Commerce, Civic



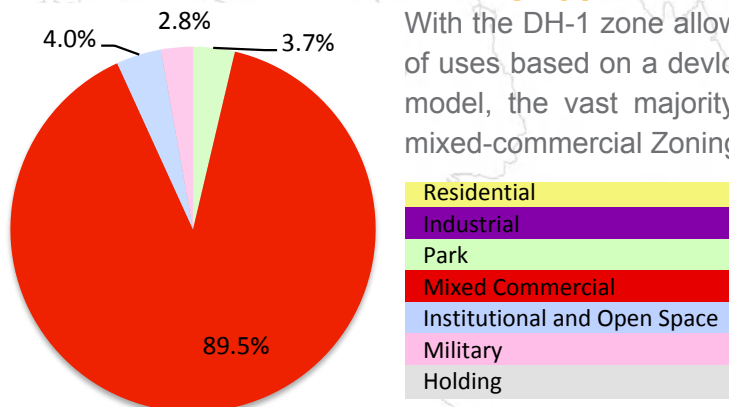
Image source: Tim Davidson

Defining Features

The H1 District is home to the business centre of the Maritimes. There are a large number of office buildings, along with the many commercial functions that help to support these businesses. The H1 District has a wide array of civic functions, including city hall and the court house. As the traditional centre of both Halifax and the Maritimes, many buildings have heritage value associated with them, this district also includes the Barrington Street Heritage Conservation District. A pedestrian focussed waterfront area hosts public art, large-scale events, and includes the Historic Properties, a popular tourist destination. The majority of the district is typified by mid and high-rise apartment forms. Much of this development is mixed with commercial development, where businesses occupy the ground floor.

Zoning Types

With the DH-1 zone allowing for a multitude of uses based on a development agreement model, the vast majority of the area has mixed-commercial Zoning.



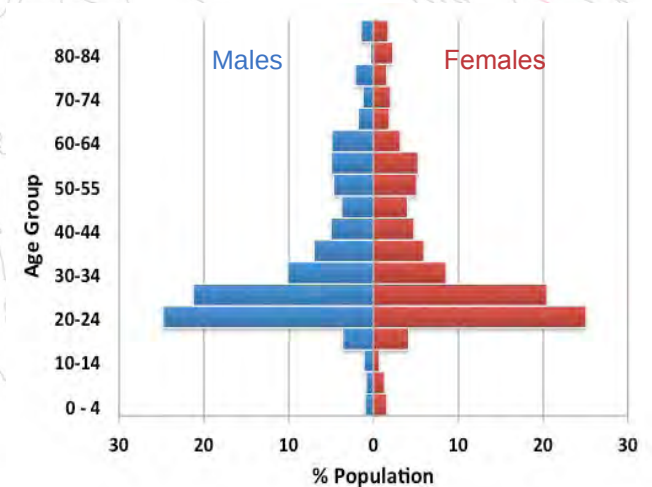
Key Demographic Indicators

Indicator	District H1 (Rank)	Regional Centre (RC)	HRM	NS
Population	3,364	94,809	-	-
Residential Population Density (#People/km ²)	3,467	3,922	-	-
Government Transfer (% of Income)	7.5 (12 th)	11.6	8.8	13.6
Unemployment Rate (%)	7.1 (8 th)	7.2	6.3	9.1
No Post-Secondary (%)	19.5 (13 th)	28.8	32.5	39.5
Median Household Income (\$)	32,761 (12 th)	44,692	54,108	46,605
Percentage of Renters (%)	81.5 (2 nd)	62.0	36.0	27.6

Indicator Summary

As the boundaries of this district are defined by the DH-1 zoning (Downtown Halifax), H1 has the smallest total area on the Halifax side. This smaller landmass combined with zoning which allows for residential use in the entire district, but little actual housing areas, skews the density calculation down to ~500 people/km², significantly less than the Regional Centre (RC) average of 3,922 people/km². H1 has high rates of residential rental, nearly 3x the NS rate (27.6%). This is likely the result of developers wishing to maintain ownership of the land. The median household income, at \$32,761, is quite low, ~\$10k less than the RC average. This is mostly likely a result of the large cohort of 20-29 year olds, bringing down the district average. Unemployment wise, D1 is right in the middle of district rankings at 7.1%, which surprisingly does not follow through to median household income, as at ~\$33,000 is in the bottom 3rd of district ranks, reflecting the number of people employed in the entertainment and food services.

Population Structure



Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006; Map created by T. Davidson & P. Kuhn.



Image source: Tim Davidson

H2

Key Functions

Residential , Commercial, Military, Port Industrial



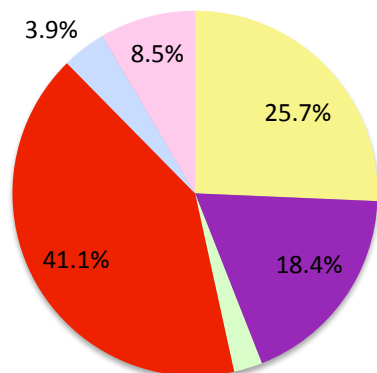
Image source: Tim Davidson

Defining Features

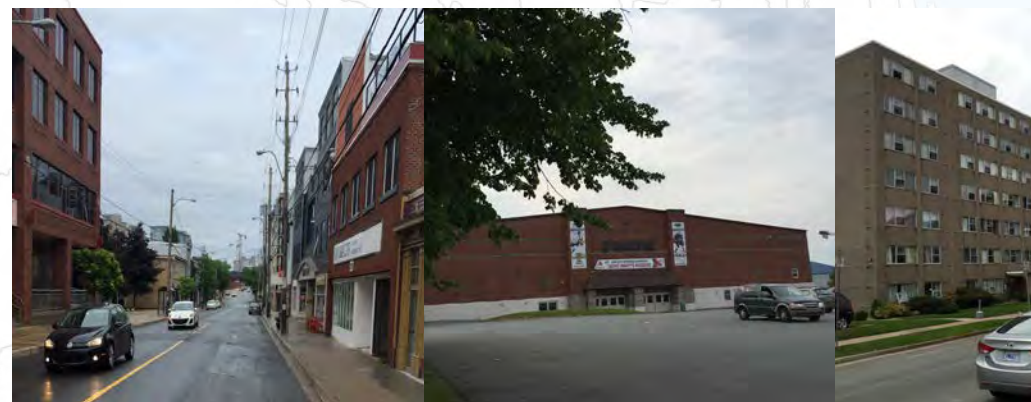
Halifax's working waterfront begins in this district and moves towards the Bedford Basin. The waterfront also contains a Canadian Forces Base. The rest of District H2 has more of a residential focus, but contains a wide array of housing types. The Halifax Forum, in the northwest corner of the district, is a draw for both its recreational component, and the community aspects it provides. Movement wise, Barrington Street is the main north/south connector, and North Street connects to the MacDonald Bridge and Dartmouth. The two most commercial focused streets are Gottingen and Agricola. The former providing a number of social services and the later providing restaurant and niche commercial services.

Zoning Types

There is a wide mix of zoning types included in this district, these fall under the special planning area of *Brunswick Comprehensive Development District*.



Residential
Industrial
Park
Mixed Commercial
Institutional and Open Space
Military
Holding



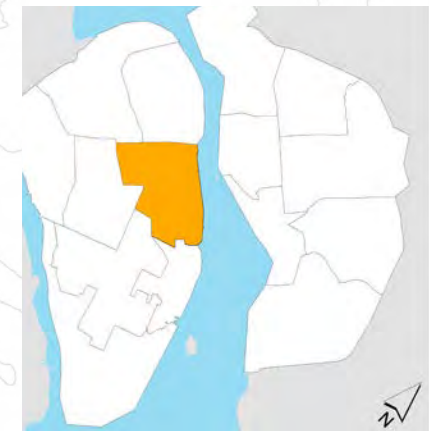
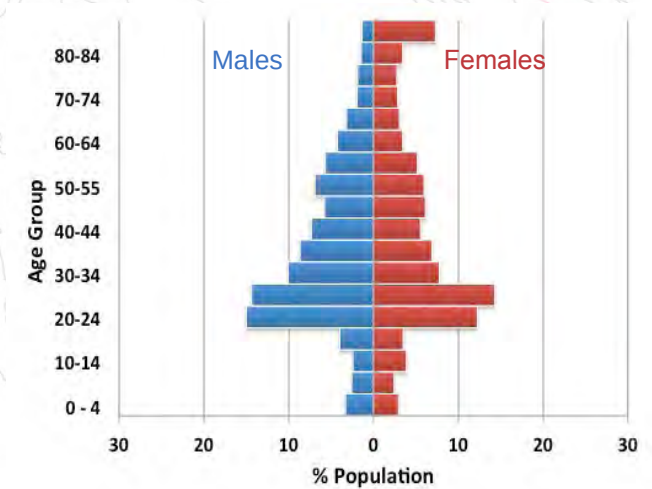
Key Demographic Indicators

Indicator	District H2 (Rank)	Regional Centre (RC)	HRM	NS
Population	8,900	94,809	-	-
Residential Population Density (#People/km ²)	6,047	3,922	-	-
Government Transfer (% of Income)	15.2 (5 th)	11.6	8.8	13.6
Unemployment Rate (%)	9.2 (2 nd)	7.2	6.3	9.1
No Post-Secondary (%)	31.9 (7 th)	28.8	32.5	39.5
Median Household Income (\$)	30,048 (13 th)	44,692	54,108	46,605
Percentage of Renters (%)	79.2 (3 rd)	62.0	36.0	27.6

Indicator Summary

With a residential population density of ~6,000 people/km², District H2 is one of the more dense areas on the peninsula. All other indicators for the district are on the low end of the spectrum. Unemployment at 9.2%, is the second highest in the Regional Centre, and the highest on the Halifax side. Median household income at ~\$30,000, is the smallest on the Halifax side, and begins to explain the high rental rates. Many of these indicator numbers can be explained by the quantity of subsidized housing areas, and elder care homes, which also helps to explain the 15.2% of income through government transfer. We see this elder-care-facility population manifested with a relatively large 65+ cohort, especially in the 85+ category on the female side.

Population Structure



Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006; Map created by T. Davidson & P. Kuhn.



Image source: Tim Davidson



Key Functions

Connection, Residential, Port Industrial



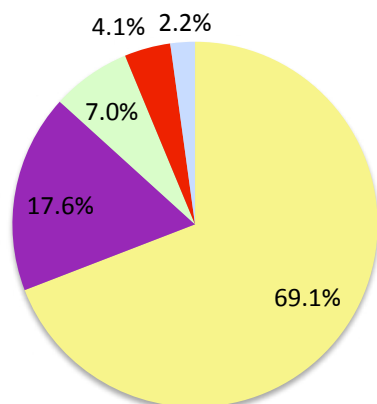
Image source: Tim Davidson

Defining Features

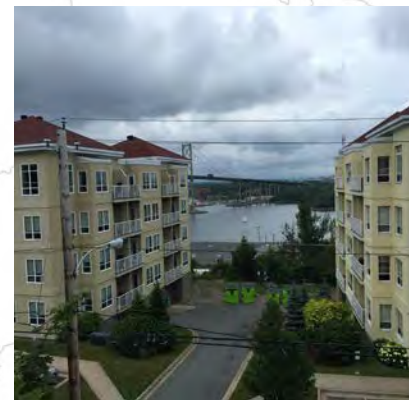
District H3 is home to the Hydrostone Market which has been designated a Parks Canada Federal Heritage site. While the vast majority of the district is dedicated to a housing function, Halifax's working waterfront continues moving through this district to the adjoining districts, H2 and H4. The major north-south thoroughfare for this district is Barrington Street, it also acts as the main connection to the MacKay Bridge in Dartmouth. Moving east-west, the combination of Devonshire Avenue and Lady Hammond Road eventually connect to Highway #2 and #111. The dominant housing typology in H3 is the single-family home.

Zoning Types

About ~75% of the H3 District is zoned to allow for residential uses, with some industrial use on the waterfront.



Residential
Industrial
Park
Mixed Commercial
Institutional and Open Space
Military
Holding



Key Demographic Indicators

Indicator	District H3 (Rank)	Regional Centre (RC)	HRM	NS
Population	8,378	94,809	-	-
Residential Population Density (#People/km ²)	5,520	3,922	-	-
Government Transfer (% of Income)	12.7 (8 th)	11.6	8.8	13.6
Unemployment Rate (%)	8.0 (5 th)	7.2	6.3	9.1
No Post-Secondary (%)	31.6 (8 th)	28.8	32.5	39.5
Median Household Income (\$)	45,057 (7 th)	44,692	54,108	46,605
Percentage of Renters (%)	44.6 (13 th)	62.0	36.0	27.6

Indicator Summary

With the exception of residential population density, District H3 has fairly average indicator numbers. Government transfer, low education levels, and median household income all fall in the mid-range of districts. The low percentage of renters can be explained by the number of established neighbourhoods, and the residential form favouring single-family homes. The residential population density is less than half (1,500 people more per km²) that of the Regional Centre average, this can likely be attributed to the large percentage of the district zoned to include residential uses (~75%). Unemployment rates at 8%, are slightly above average due to a number of Dissemination Areas north of Young Street with >25% unemployment rates, sending the overall district rate higher.

Population Structure

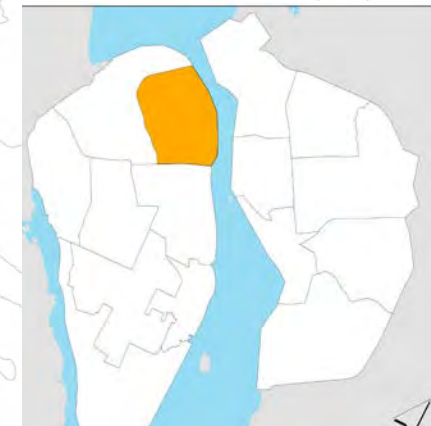
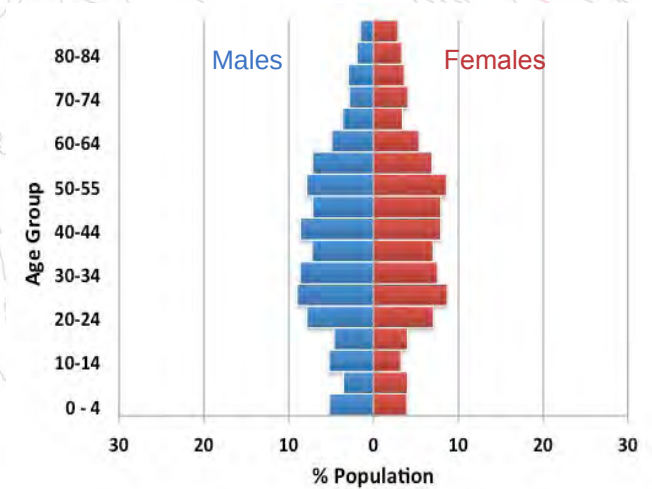


Image source: Tim Davidson

Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006; Map created by T. Davidson & P. Kuhn.



Key Functions

Industrial, Port Industrial, Military



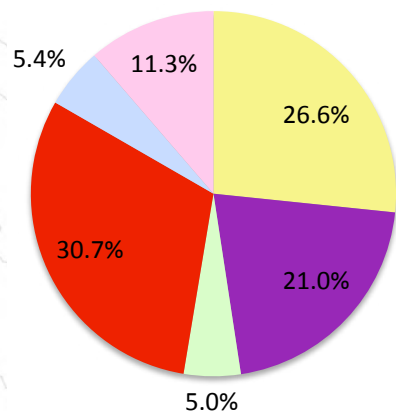
Image source: Tim Davidson

Defining Features

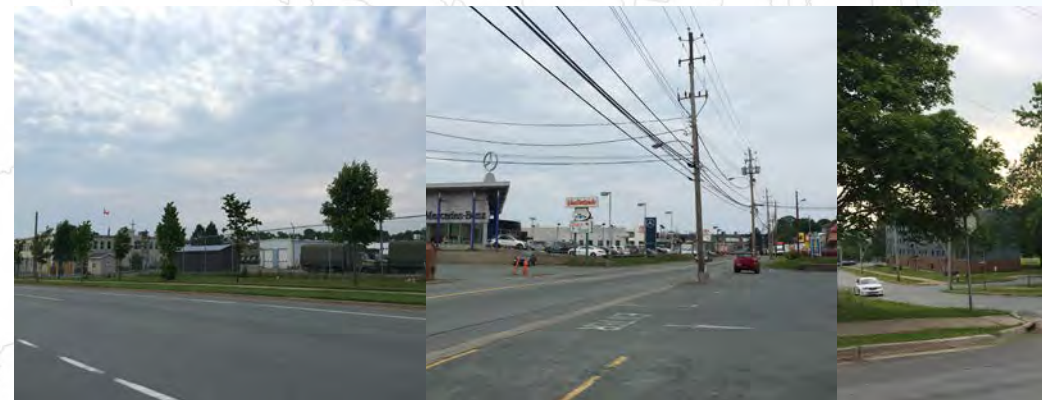
The H4 District has a few key areas that define its use. To the north, the Fairview Cove Container Terminal has water access to the Bedford Basin, and provides the HRM with a working port area. Kempt Road is home to one of the two remaining industrial areas in Halifax, and is home to the region's car dealerships/lots. The Department of Defense has a strong presence in the area, with CFB Halifax - Willow Park, and Windsor Park, the DND housing area. Along the western edge, Bayers Road Shopping Centre provides a local commercial hub, supplemented by the commercial/retail strip mall north of Young Street. The housing form for the district is typified by single-family homes in the south-west portion of the district, and small 3-4 story mid-rise apartments, many of which are within the Windsor Park area.

Zoning Types

H4 has the most equitable zoning mix, with residential, industrial, and mixed-commercial each representing over 20% of the land area.



Residential
Industrial
Park
Mixed Commercial
Institutional and Open Space
Military
Holding



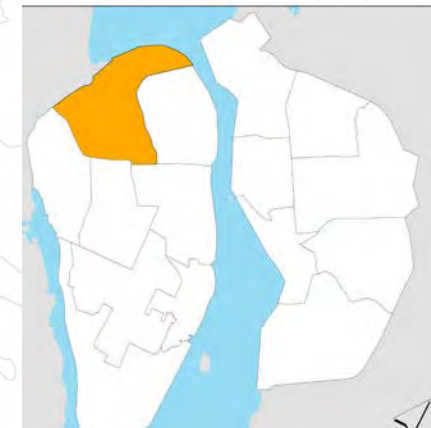
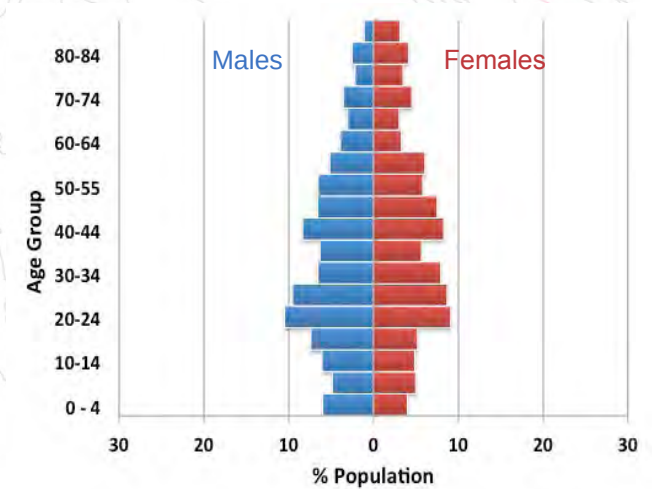
Key Demographic Indicators

Indicator	District H4 (Rank)	Regional Centre (RC)	HRM	NS
Population	4,576	94,809	-	-
Residential Population Density (#People/km ²)	2,763	3,922	-	-
Government Transfer (% of Income)	21.3 (2 nd)	11.6	8.8	13.6
Unemployment Rate (%)	8.4 (3 rd)	7.2	6.3	9.1
No Post-Secondary (%)	38.0 (5 th)	28.8	32.5	39.5
Median Household Income (\$)	41,437 (9 th)	44,692	54,108	46,605
Percentage of Renters (%)	63.7 (8 th)	62.0	36.0	27.6

Indicator Summary

With government transfer representing over 20% of District H4's income, one would expect the remaining indicators to be equally concerning. Both unemployment and education rates fall in the bottom third for district rankings, yet the median household income (~\$41,500), is near the middle. However, this number is about \$5,000 less than the NS average, likely due to a combination of high rates of government transfer, lower levels of education, and industry employment being concentrated in lower-paying industries (retail and trade makes up over 20% of district employment). Residential population density is on the lower end, but this is more a reflection of the Halifax zoning, which permits residential uses in commercially-zoned areas.

Population Structure



Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006; Map created by T. Davidson & P. Kuhn.



Image source: Tim Davidson

H5

Key Functions

Retail, Residential



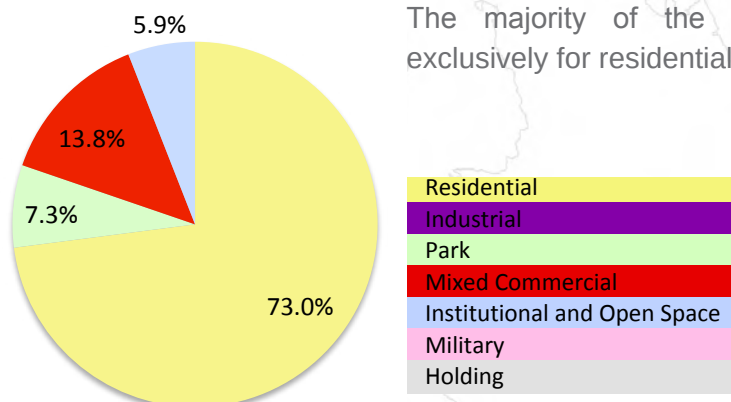
Image source: Tim Davidson

Defining Features

While the main focus of District H5 is the single-family residential component that dominates the district, the main draw of the area is the Halifax Shopping Centre. H5 contains a number of schools: St. Agnes School, Westmount Elementary, and Eastern College. The district also contains a small amount of waterfront along the Northwest Arm, which includes Flynn Park. The main north-south connector within H5 is Mumford Road and MacDonald Street. The main east-west connection is Chebucto Road. Much of the housing in the area consists of single-family homes interspersed with small, mid-rise apartment buildings.

Zoning Types

The majority of the district is zoned exclusively for residential use.



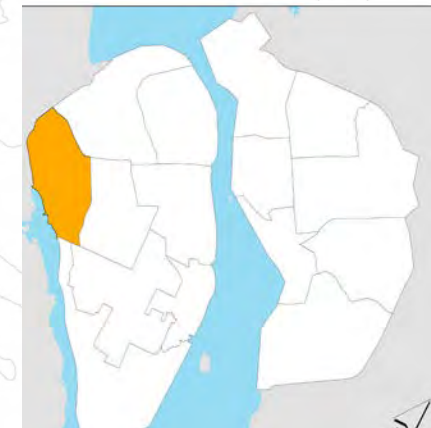
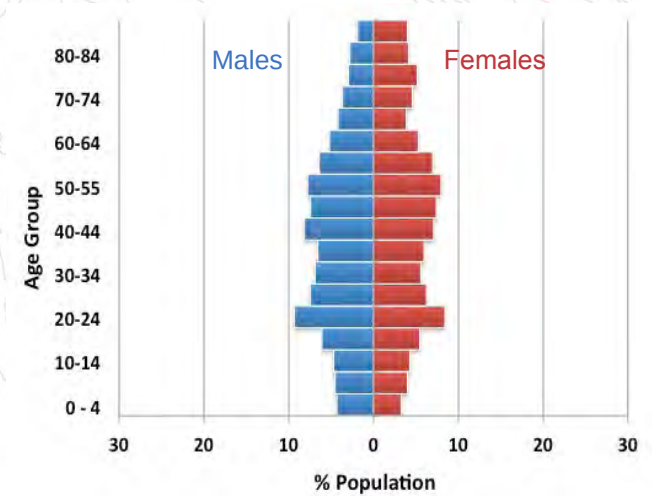
Key Demographic Indicators

Indicator	District H5 (Rank)	Regional Centre (RC)	HRM	NS
Population	5,701	94,809	-	-
Residential Population Density (#People/km ²)	3,026	3,922	-	-
Government Transfer (% of Income)	7.8 (11 th)	11.6	8.8	13.6
Unemployment Rate (%)	5.4 (13 th)	7.2	6.3	9.1
No Post-Secondary (%)	20.2 (12 th)	28.8	32.5	39.5
Median Household Income (\$)	50,476 (5 th)	44,692	54,108	46,605
Percentage of Renters (%)	51.8 (10 th)	62.0	36.0	27.6

Indicator Summary

The indicator numbers for District H5 show a stable residential base. All data is in the lower third for districts, and median household income is about \$5,000 greater than the Regional Centre (RC) average. In particular, the unemployment rate of 5.4% is the second lowest in Halifax, and below the HRM average. District employment shows an interesting spread of industry employment, as the two highest categories are retail and trade, and healthcare and social assistance (19.5 and 15.6% respectively). One area for concern is the relatively large 65+ cohort, a trend and concern echoed in many NS communities. Residential population density is below the RC average by about 900 people per km², which is likely the result of a predominantly low-height housing typology.

Population Structure



Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006; Map created by T. Davidson & P. Kuhn.



Image source: Tim Davidson

H6

Key Functions
Commercial, Residential



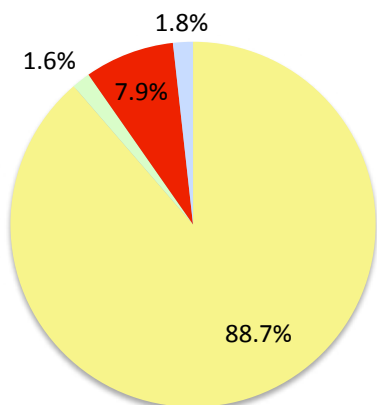
Image source: Tim Davidson

Defining Features

In District H6, the main draw is the Quinpool Road commercial district. This street predominantly has small businesses operating out of the ground floor, with either apartments or offices above. Near the east end of Quinpool, there are both larger sized commercial operations, and a number of apartment buildings and hotels. The majority of the district space is designated for residential-uses, which has manifested as smaller family homes, on small tree-lined streets.

Zoning Types

While the vast majority of the district is designated for residential uses, there is a small concentration of commercial use along Quinpool Road.



Residential
Industrial
Park
Mixed Commercial
Institutional and Open Space
Military
Holding



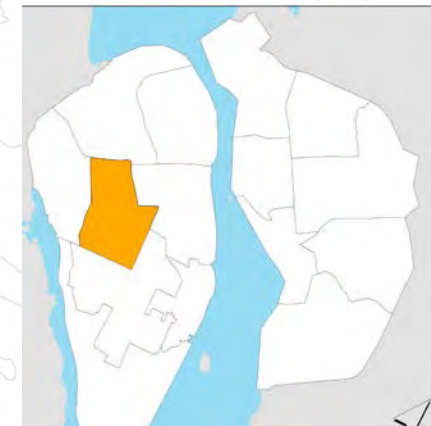
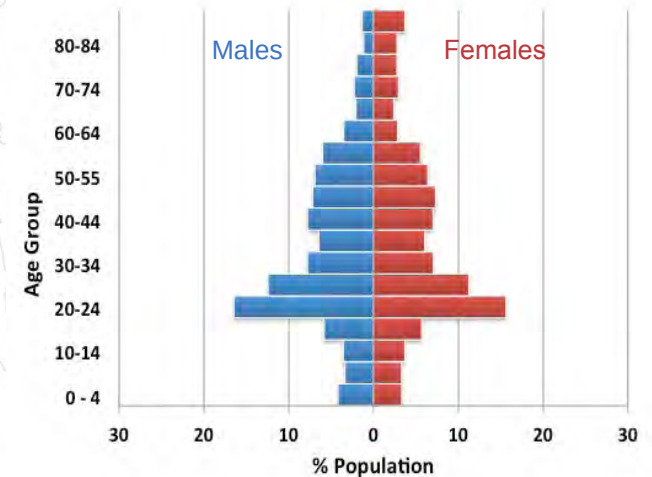
Key Demographic Indicators

Indicator	District H6 (Rank)	Regional Centre (RC)	HRM	NS
Population	12,318	94,809	-	-
Residential Population Density (#People/km ²)	6,198	3,922	-	-
Government Transfer (% of Income)	6.7 (13 th)	11.6	8.8	13.6
Unemployment Rate (%)	7.7 (6 th)	7.2	6.3	9.1
No Post-Secondary (%)	20.6 (11 th)	28.8	32.5	39.5
Median Household Income (\$)	52,775 (4 th)	44,692	54,108	46,605
Percentage of Renters (%)	55.3 (9 th)	62.0	36.0	27.6

Indicator Summary

Indicator data in District H6 is quite varied. The population structure indicates a strong presence of students and young professionals, this is reflected somewhat in the above average unemployment rate. Yet the rest of the indicators suggest a much more stable population, with low rates of government transfer (6.7%), higher education levels, and a rental rate below that of the Regional Centre (RC) average. Employment category participation is relatively even, with no category accounting for more than 15% of total employment. The district's relatively large median household income is likely the result of employment structure, with ~32% of residents employed in fields requiring advanced education (e.g. finance, professional service, healthcare). Mid-range rental rates would imply lower-levels of residential density, yet H6's density of 6,198 people per km² is the second highest in the RC.

Population Structure



Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006; Map created by T. Davidson & P. Kuhn.

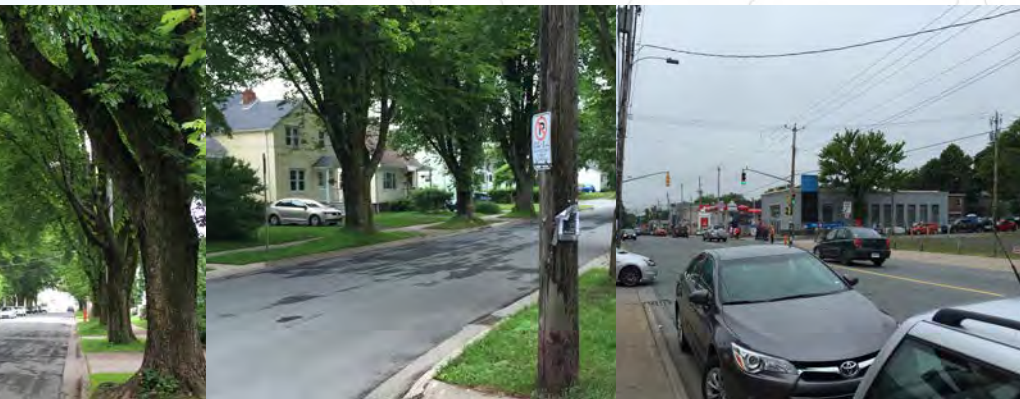


Image source: Tim Davidson

H7

Key Functions

University, Hospital, Park and Open Space



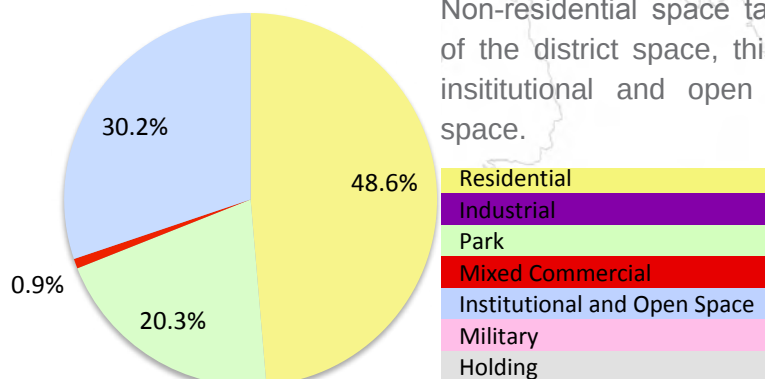
Image source: Tim Davidson

Defining Features

District H7 is one of the most unique in the Regional Centre due its concentration of a number of important functions for the area. Within this district there are three Dalhousie University campuses, the University of King's College, and St. Mary's University; which cause a major influx of young people to the area during the academic year. The IWK Health Centre and Victoria General Hospital on University Avenue are substantial employers of health professionals. Also in H7 are two major park spaces with distinct heritage value: Citadel Hill is a National Historic Site, while the Public Gardens offers a large Victorian Garden in the centre of the city.

Zoning Types

Non-residential space takes up over 50% of the district space, this is split between insitutional and open space and park space.



Key Demographic Indicators

Indicator	District H7 (Rank)	Regional Centre (RC)	HRM	NS
Population	13,401	94,809	-	-
Residential Population Density (#People/km ²)	8,526	3,922	-	-
Government Transfer (% of Income)	6.7 (14 th)	11.6	8.8	13.6
Unemployment Rate (%)	8.2 (4 th)	7.2	6.3	9.1
No Post-Secondary (%)	15.5 (14 th)	28.8	32.5	39.5
Median Household Income (\$)	41,657 (8 th)	44,692	54,108	46,605
Percentage of Renters (%)	75.3 (5 th)	62.0	36.0	27.6

Indicator Summary

Much of the indicator data in District H7 can be explained by the large percentage of residents in the 20-29 cohort (largely composed of university students). For instance, high rates (84.5%) of post-secondary education are to be expected, as is the mid-range median household income (\$41,657). Rental rates (75.3%) above the Regional Centre (RC) average (62%) is also unsurprising, a result of both taller residential buildings in the south-east portion of the district, and the tendency of students to keep rental payments low by sharing space in homes. This follows through to the residential population density, at 8,526 persons per km², H7 is the most dense district in the RC. This density number is also driven up by the fact that over 50% of the district is zoned for non-residential use (park and institution/open space). Interestingly, while the unemployment rate in H7 (8.3%) is greater than the RC average, government transfer rates (6.7%), are far below the RC average (11.6%).

Population Structure

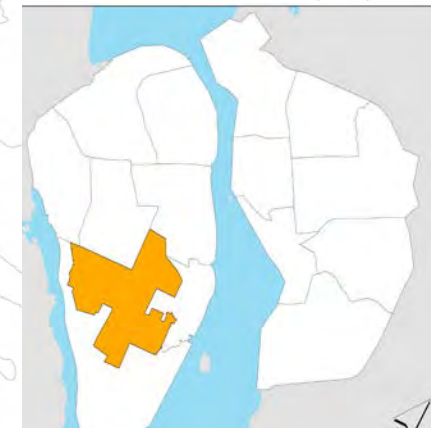
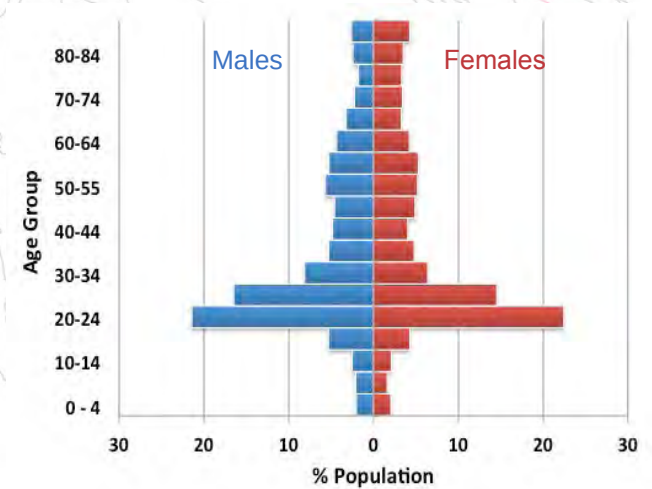


Image source: Tim Davidson

Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006; Map created by T. Davidson & P. Kuhn.

H8

Key Functions

Residential, Port Industrial, Park



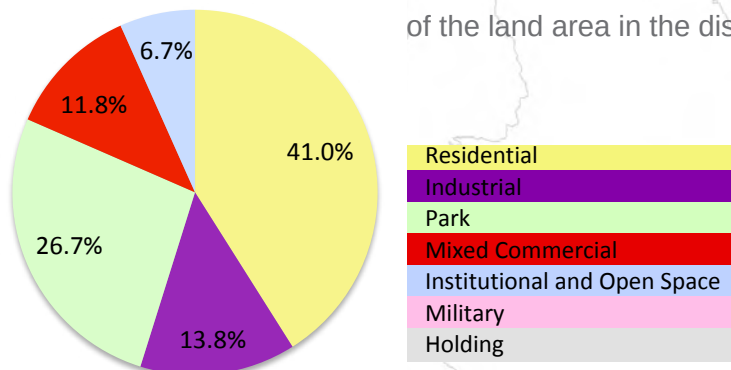
Image source: Tim Davidson

Defining Features

District H8 includes a number of very diverse features. The east side of this district is home to a working port, and the focal point of the peninsula rail network. The port area also contains the Seaport Market and the Canadian Museum of Immigration at Pier 21. On the Northwest Arm, there is the Waeogwotic Club, St. Mary's Boat Club, and further south, the Atlantic School of Theology. Point Pleasant Park, an 185 acre regional park, is located at the southern tip of the peninsula. The park takes up a large portion (~26%) of the district, with the remainder occupied mainly by single-family estate homes.

Zoning Types

Point Pleasant Park accounts for over 25% of the land area in the district.



Key Demographic Indicators

Indicator	District H8 (Rank)	Regional Centre (RC)	HRM	NS
Population	3,242	94,809	-	-
Residential Population Density (#People/km ²)	2,074	3,922	-	-
Government Transfer (% of Income)	4.0 (15 th)	11.6	8.8	13.6
Unemployment Rate (%)	6.4 (10 th)	7.2	6.3	9.1
No Post-Secondary (%)	7.3 (15 th)	28.8	32.5	39.5
Median Household Income (\$)	120,979 (1 st)	44,692	54,108	46,605
Percentage of Renters (%)	24.0 (15 th)	62.0	36.0	27.6

Indicator Summary

Much of the indicator data in District H8 is related to the high level of median household income, which at ~\$121,000, is more than double the median income of the HRM (~\$54,000). There are low levels of government transfer (4%), and numbers of renters (24%), and high levels of post-secondary education (92%). Only the unemployment rate falls within the mid-range of district rates, and at 6.4%, it is directly comparable to the HRM average (6.3%). Even though Point Pleasant Park takes 26.7% of the land area, and the port takes 13.8%, the residential population density is 2,074 persons per km², just over half of the RC average (3,922 people per km²). This low density can be attributed to the high percentage of large single-family dwellings situated on large lots.

Population Structure

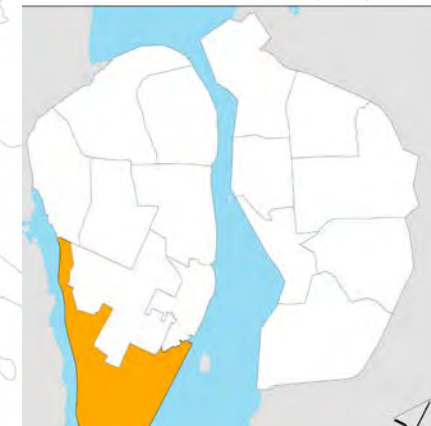
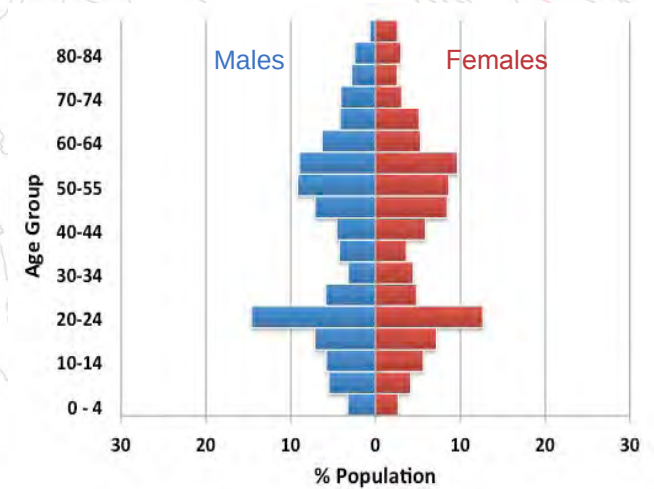
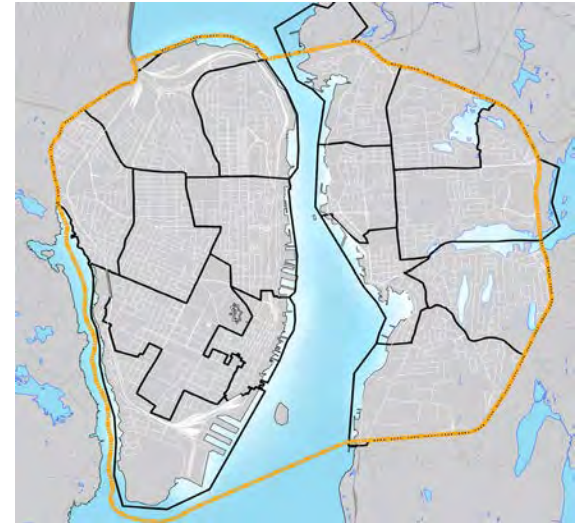


Image source: Tim Davidson

Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006; Map created by T. Davidson & P. Kuhn.



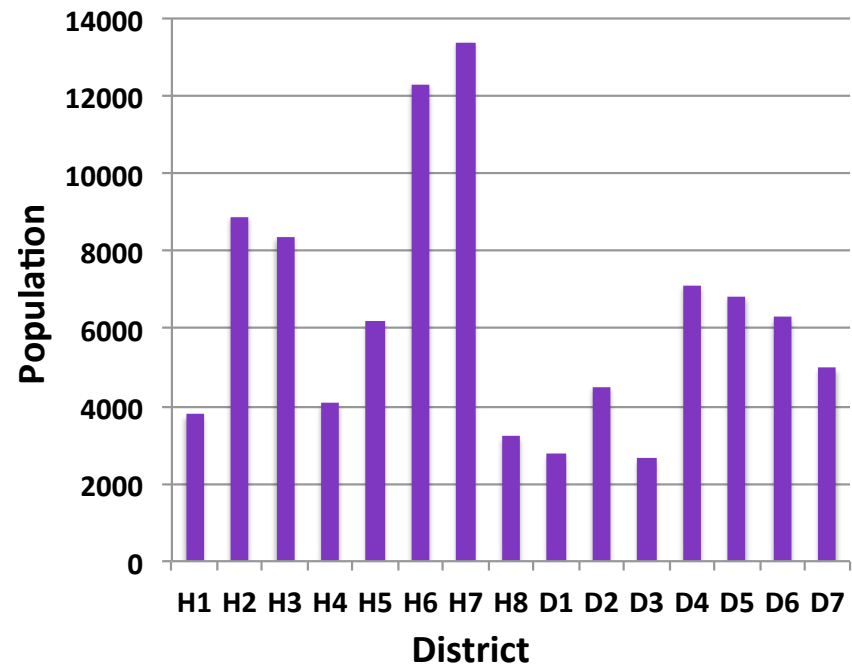
Cross District Comparison

The Regional Centre (), has a population of approximately 95,000 people. Population varies over 4-fold among the districts, from just under 3,000 in D3 to over 13,000 in H7. RC zoning types allows for residential uses in $\sim 23 \text{ km}^2$, resulting in an overall average density of ~ 4000 people per km^2 . The residence allowable space in both Dartmouth and Halifax are comparable (11 vs 12.7 km^2). H7, the district with the highest density ($\sim 8,500$ people per km^2) has a relatively large population ($13,401$), and livable area equivalent to the RC average (1.57 km^2). The lowest density district, D3 ($\sim 1,570$ people per km^2), has a population of $2,404$. It contains Shannon Park: a large area of land which is zoned as mixed commercial but currently sits empty. District D3's density will likely increase with redevelopment of Shannon Park.

On average, park density per resident in the RC is 38.3 m^2 , and it varies across districts from 2.7 m^2 per person in H6, to 84.5 m^2 in D1. District H8 which includes Point Pleasant Park, is an extreme outlier, as its $762,339 \text{ m}^2$ of park space gives a district park density $\sim 243 \text{ m}^2$ of park space per person. Halifax in general has more park space overall, but less per person than Dartmouth.

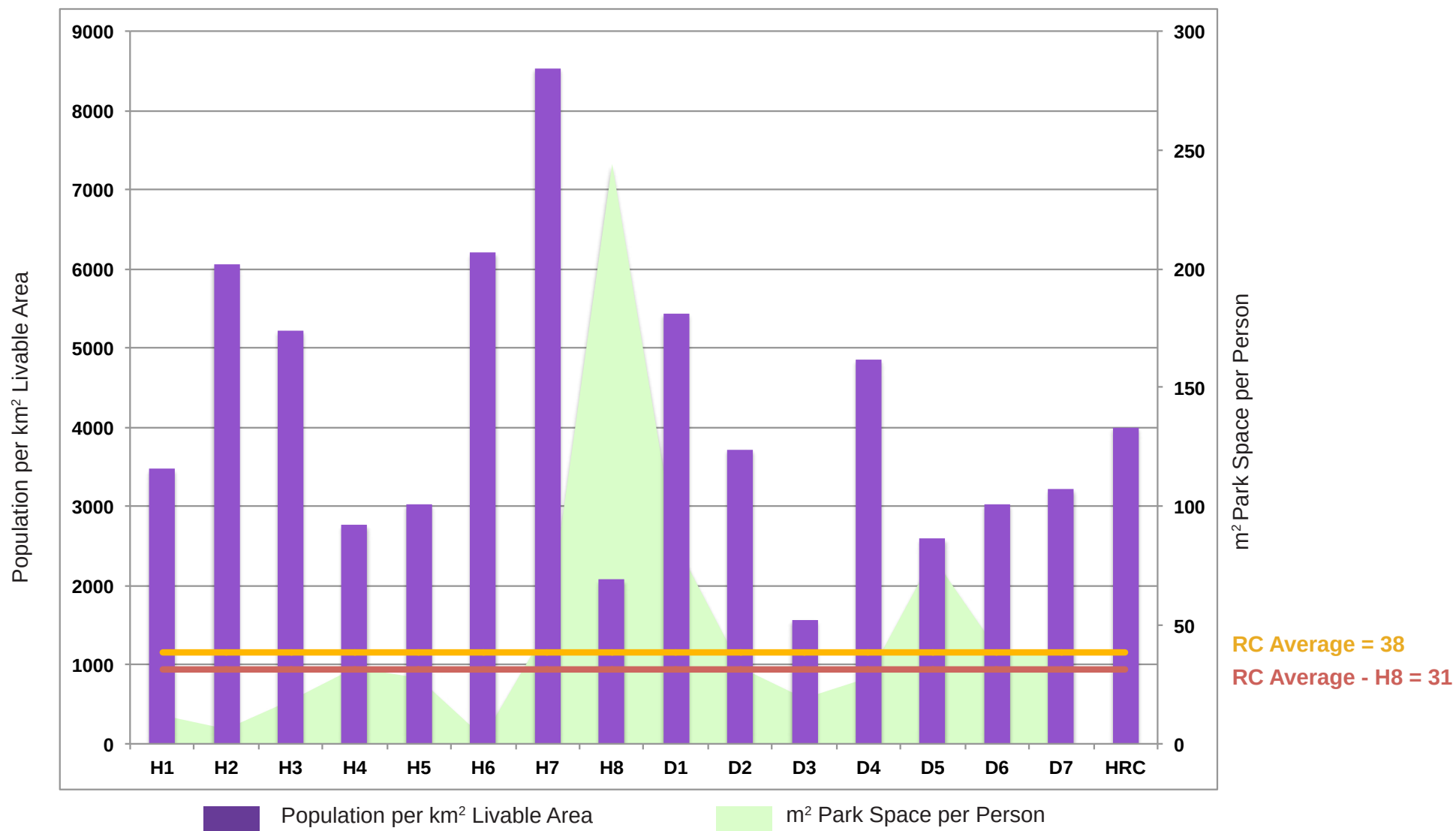
Removal of District H8 from the RC calculation drops the average to $\sim 31 \text{ m}^2$ per, a decrease of $\sim 7 \text{ m}^2$ per person. Of the 15 districts, 11 have less park space per person than the RC average. Districts H1, H2 and H6 have the lowest amount of park space per person, all are less than 10 m^2 per person; however, they are directly adjacent to the Citadel Regional Park ($210,292 \text{ m}^2$) and the Public Gardens ($183,315$

m^2) in District H7. While the service areas of the larger parks will extend beyond the boundaries of the RC districts, the true effect of regional scale parks on district calculations needs further examination (refer to *Planning Services for Spatial Equity - Example #2*, pg 94).



Population Density & Park Space

There is approximately 3,628,000 m^2 of park space found in the Regional Centre, about 38 m^2 per resident

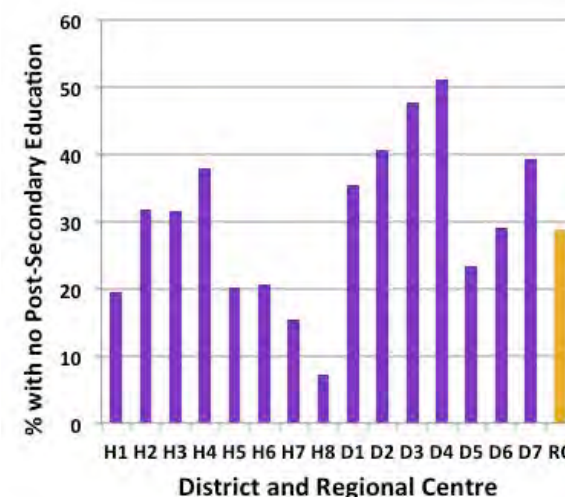


Residents of the Halifax Regional Centre (RC) are relatively more educated than the rest of Nova Scotia. The low education rate—measured as proportion of people without high school diploma—is 28.8%, 10% lower than the Nova Scotia average (39.5%), and 4% lower than the HRM average (32.5%). Of the RC districts, H8 has the lowest rate (7.3%) of low education (thus most educated): 92.7% of the residents in this district have some post high school training. This is five times as high as the Nova Scotia average. District D4 is at the other end of the spectrum. Just over half of D4's residents are more likely to have stopped their education at high school graduation (or less).

Residents in the Halifax side of the RC have a 14% greater likelihood of moving past high school than residents in the Dartmouth side. Only District H4 in Halifax has a greater low education rate than the HRM average (thus less educated overall). In the Dartmouth side, only Districts D5 and D6 have smaller low education rates than the HRM; many districts in the Dartmouth side have low education levels which are comparable to the rest of the

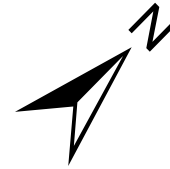
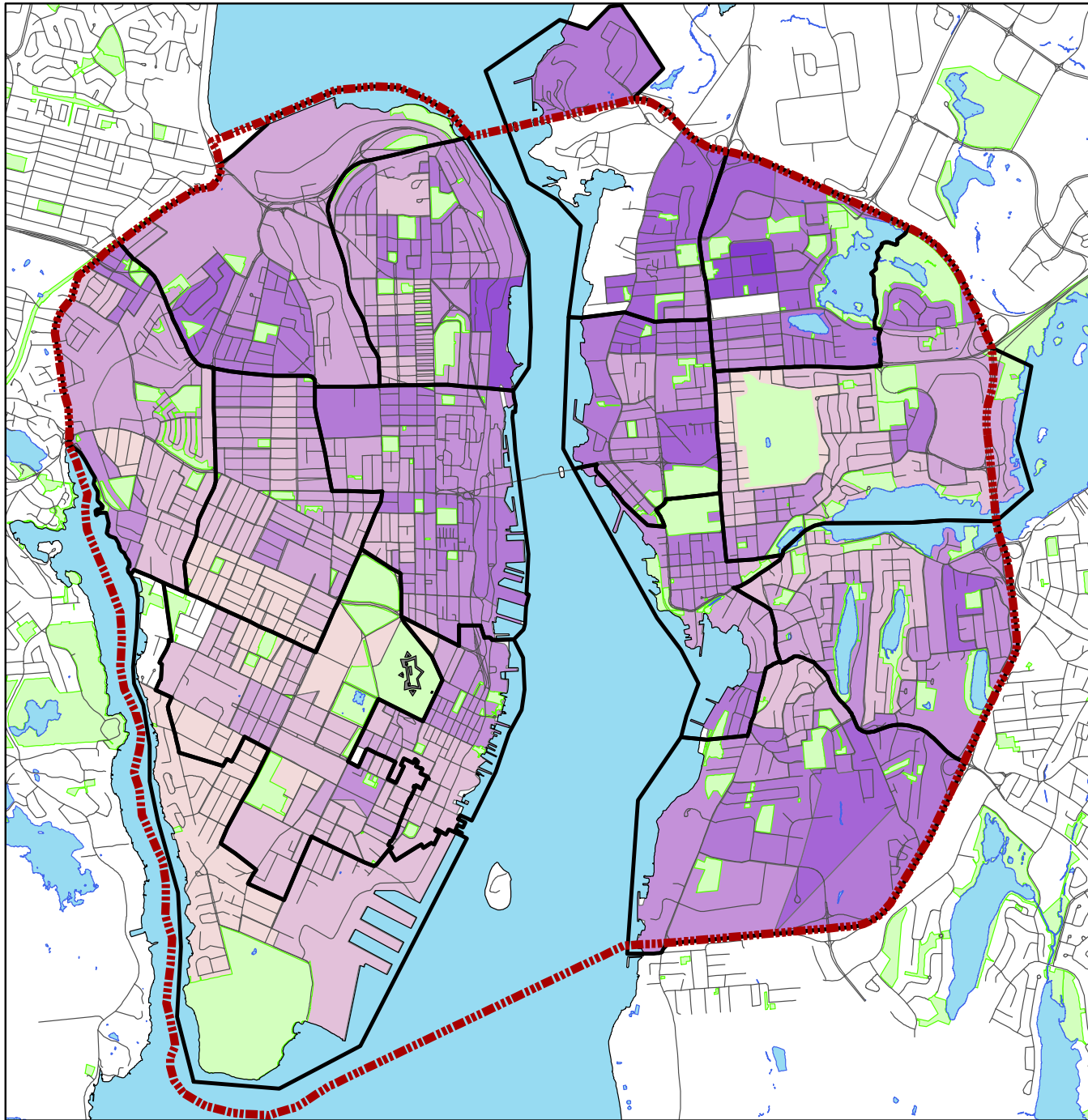
province (NS average = 39.5%).

The higher education rates on the Halifax side are most likely due to the high number of university students. For example, District H7 has close to 37% of its residents in the 20-29 year-old cohort, and at 84.5%, has the 2nd highest rate of post-secondary education in the RC (=15.5% low education rate).



Education

Compared to all of Nova Scotia, residents of the Regional Centre are much more likely to have some post secondary education



Regional Centre Boundary



District Boundaries

High School Graduate or Less (%)



<10



10-20



20-30



30-40



40-50



50-60



60-70



70-80



80-90



90-100



Repressed Data



The Regional Centre (RC), as a whole, receives 11.6% of all income through government transfer, which is lower than the Nova Scotia rate of 13.6%. However, it is much higher than the HRM (8.8%), indicating a concentration of residents dependent on the government.

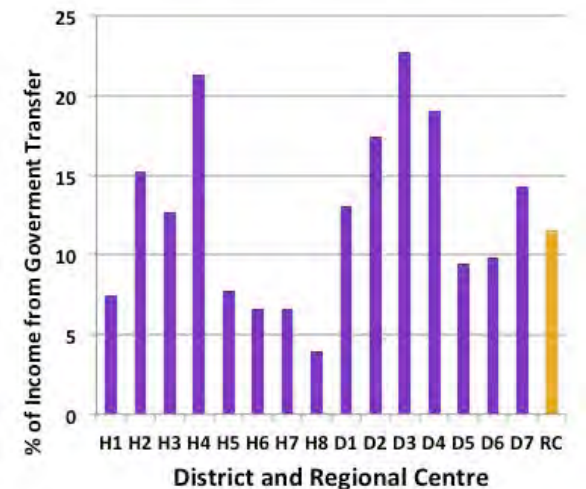
RC residents of Dartmouth are likely to receive higher rates of government transfer than Halifax (14.6%). While the Halifax peninsula rate, 9.9%, is higher than that of the HRM, it is still significantly less than the Dartmouth and Nova Scotia rates.

Of the eight districts in Halifax, five on the south and west districts fall below the HRM average for government transfer payments (H1, and H5-8). A concentration of payments is seen towards the north west portion of the peninsula, which reflects the above average unemployment rates seen in these districts.

In Dartmouth, all seven districts have government transfer rates higher than the HRM average, D5 and D6 falling just slightly above the HRM rate. Spatially, the areas

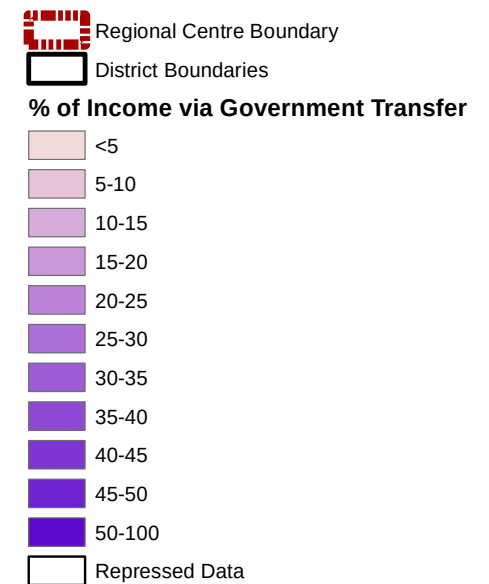
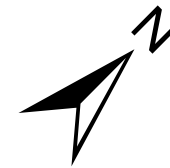
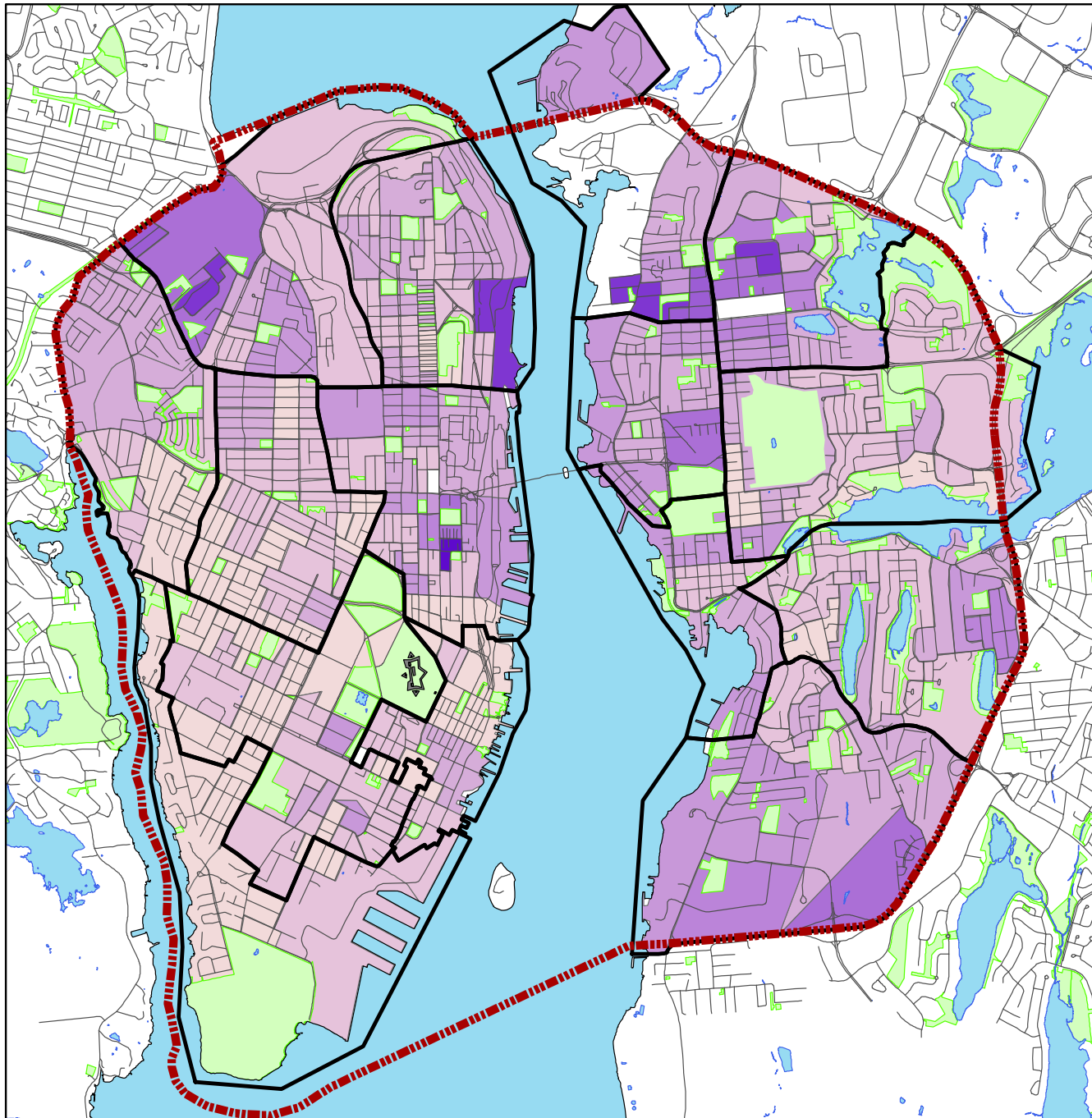
with high levels of government transfer for Dartmouth are focused in the north-west, in Districts D2-D4.

There is a major difference in government transfer between the downtowns of Dartmouth and Halifax. The rate of D1 exceeds its counterpart, H1, by nearly a factor of two. Generally, low median household incomes correspond to elevated rates of government transfer. However, the median household income of H1 and D1 are quite similar (just over \$400 separates the two districts), which suggests that median household income cannot be used as a direct predictor of government transfer.



Government Transfer

Government transfer rates in the districts never exceeds 25%, with a Regional Centre average of 11.6%



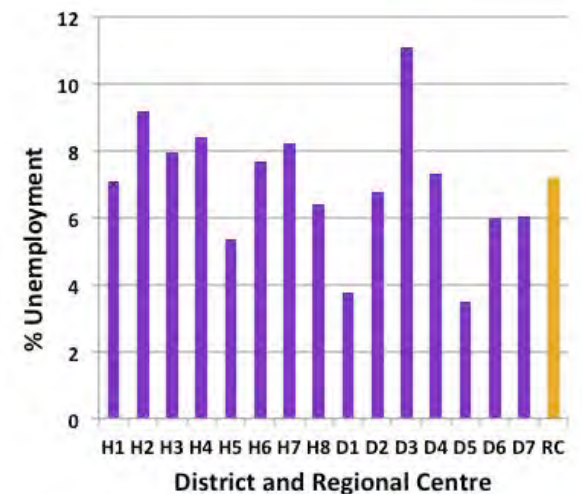
Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006. Map created by T. Davidson.

The unemployment rate in the Regional Centre (RC) is 7.2%, somewhat higher than the rate of the HRM (6.3%). However, it is still considerably lower than the province as a whole (9.1%).

Of all RC districts, District D5 has the lowest rate of unemployment at 3.5%, less than half the RC average (7.2%). This low rate may reflect high levels of home-ownership and post-secondary education, and relatively low rates of government transfer. A higher proportion of older working age groups (30-55 years of age) as opposed to younger university age groups, may also explain this low unemployment rate. On the other end of the spectrum, District D3 has an unemployment rate of 11.1%, nearly 4% higher than that of the RC, and over 3 times the rate of the lowest district. This elevated rate corresponds to D3's low rates of post-secondary education and household incomes, and its high rates of government transfer. It must be noted that D3 has a large portion of its landmass with suppressed data; however, the inclusion of their related employment data would likely reinforce D3's high unemployment rate.

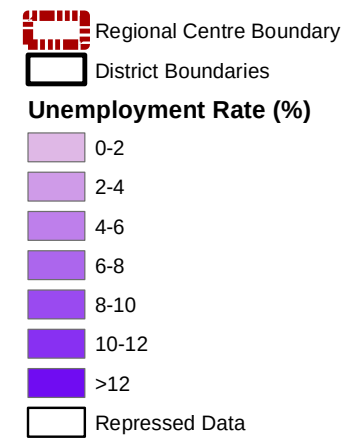
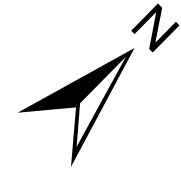
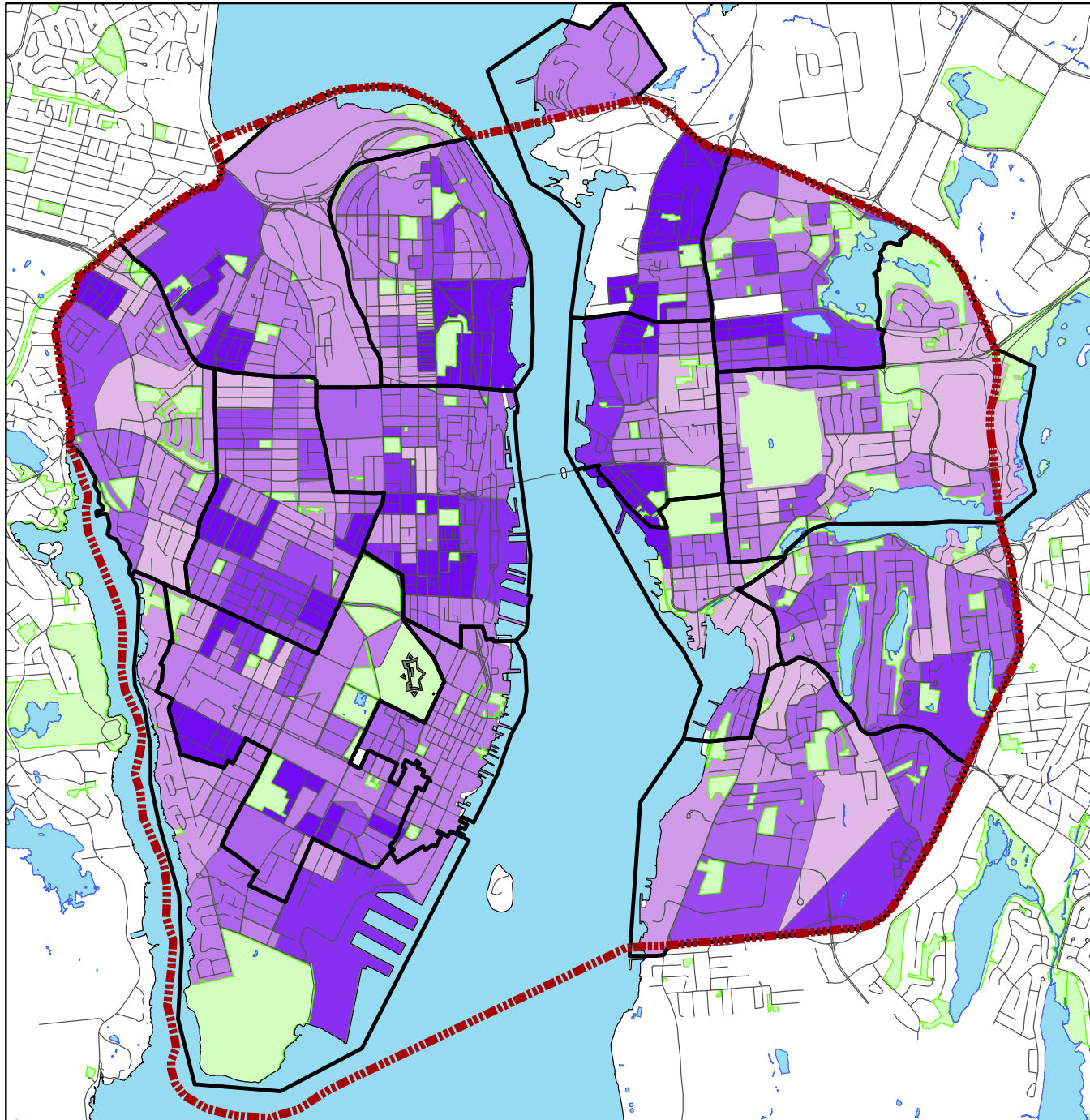
Dartmouth has both the highest and lowest district-level unemployment rates. Only two Districts (D3 and D4) have rates above the RC average, while four are below the HRM average of 6.3% (D1, D5-D7). The unemployment situation in the Halifax side is generally worse than in the Dartmouth side. A half of Halifax's districts have rates above the RC average, and only H5 (5.4%) has a rate smaller than that of the HRM average (6.3%). Overall, the Halifax side of the RC has a 1.7% higher rate of unemployment than that of the Dartmouth side (7.8% and 6.1% respectively).

Important to note is the unemployment rate of Dartmouth's downtown (D1), which is 3.8%. This is almost half of the Halifax side average. D1's other indicators explain little as to why this rate is so low, and more investigation is required regarding this district's unemployment rate. It is possible that some sampling bias occurred with the census data, producing an unstable calculation, and the number should be viewed with a caveat.



Unemployment

The Regional Centre unemployment rate of 7.2%, exceeds that of the HRM's rate of 6.3%



Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006. Map created by T. Davidson.

Median household income varies widely across the Halifax Regional Centre (RC). Halifax exhibits a high concentration of wealth in areas adjacent to the Northwest Arm, and north of Point Pleasant Park. Similarly, the areas surrounding the Brightwood Golf Course and Lake Banook have the highest rates of median household income in Dartmouth.

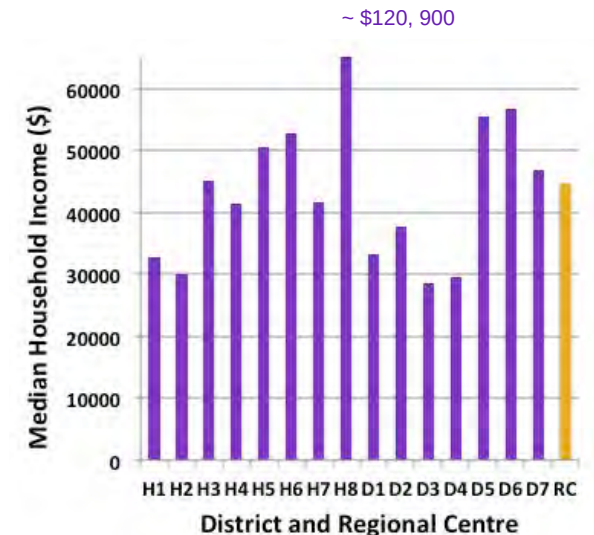
The average median household income of the RC (\$44,692) is similar to the Nova Scotia average at \$46,605, but nearly \$10,000 less (\$54,108) than that of HRM. Median household income in District H8 exceeds the other 14 districts by multifold: at ~\$120,900, it is 2.7 times the RC average, and 4.2 times that of the District D3 (\$28,635), which has the lowest median household income. (note: the value for D3 is somewhat skewed due to suppressed data).

Both Dartmouth and Halifax have lower than expected median household incomes in the downtown Districts (D1 and H1). At \$33,173 and \$32,761 respectively, the RC's downtowns are nearly \$10k below the RC average, and

\$20k less than HRM average.

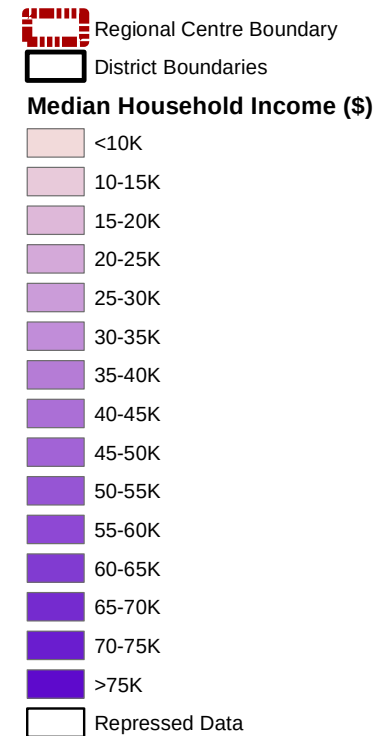
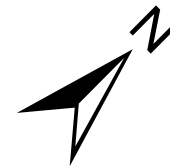
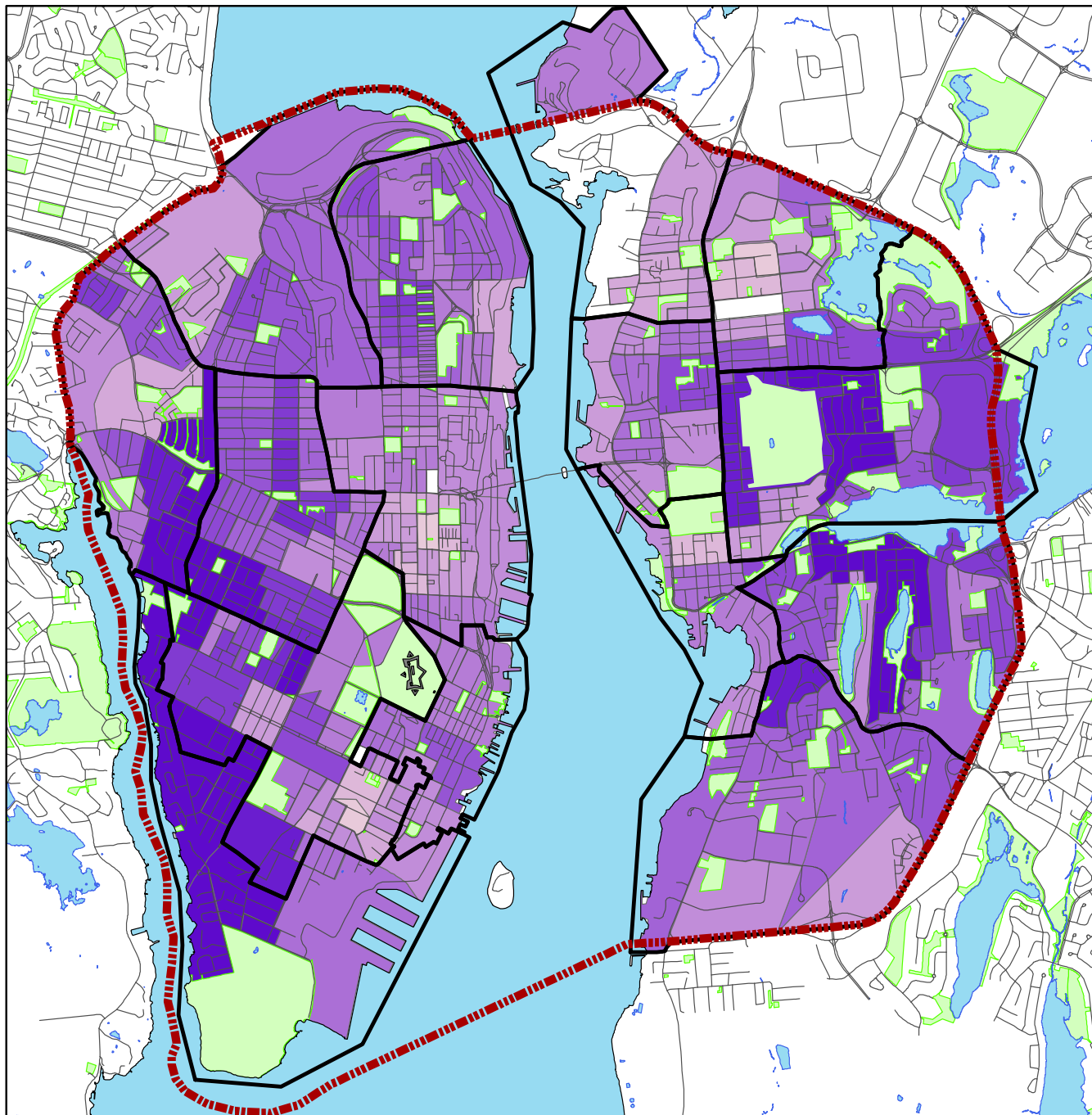
Some districts in Dartmouth have average median incomes \$10k less than the RC. Both D3 (\$28,635) and D4 (\$29,601) fall into this category; their median household incomes are nearly \$25k less than the HRM rates. These lower median household income rates are attributable to availability of low income housing rentals, and low rates of education.

The lowest median household income of the Halifax districts is H2 (\$30,048). It has a relatively high rental rate and an unemployment rate greater than the Nova Scotia average. The large number of university students may also be skewing the income level.



Median Household Income

Median household income is ~\$10,000 less in the Regional Centre than in the HRM



There is a concentration of rental units in downtown districts, and the proportion declines as one moves outwards. For instance, the District H1 has an 81.5% rental rate, H2 has the rate of 79.2%, and the rate is 75.3% in H7.

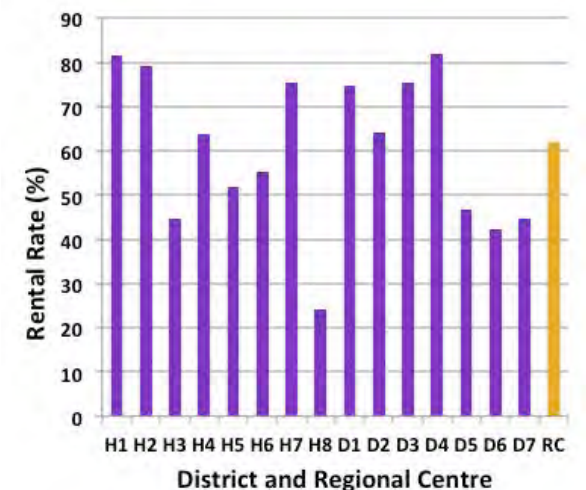
In District H1, renters are concentrated in a small number of large tower apartments, owing to the incentives of developers to maximize the profits of small scale properties. Moreover, developers' desire to retain ownership of high-value land in the downtown core may lead to rental properties, rather than the condominium ownership model.

H2's proximity to the employment centre of downtown makes it an attractive option for both young professionals and students attending universities. The demands of student renters are amplified in District H7, as it contains not only St. Mary's University, but all three campuses for Dalhousie University.

With a rental rate of 24%, District H8 is on the other end of the rental spectrum. H8 is characterized by very high household income

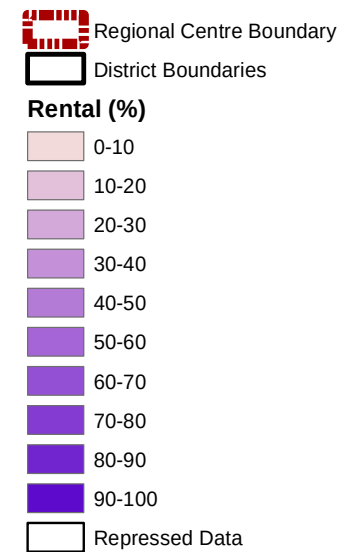
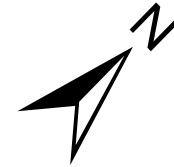
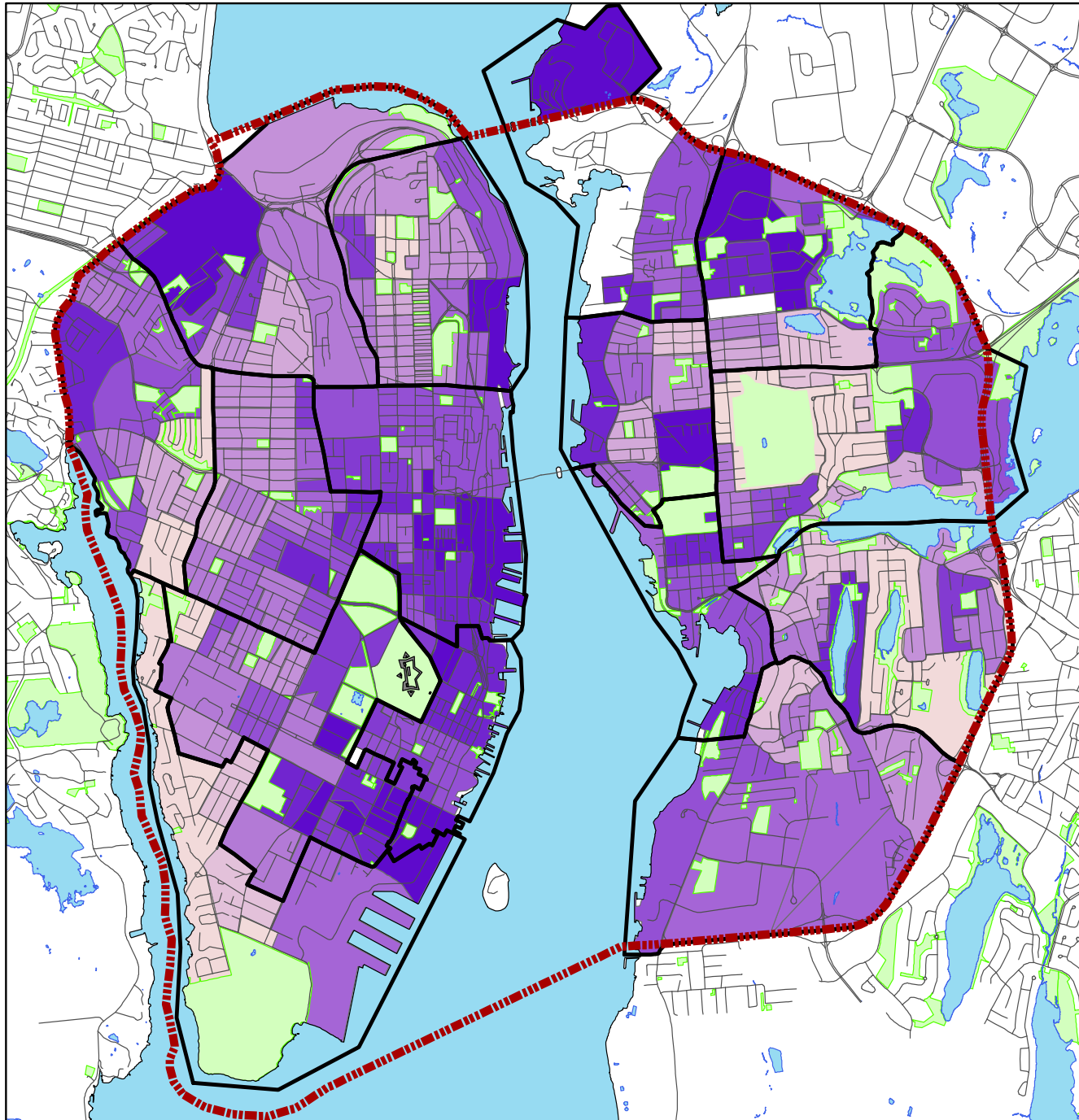
and an established neighbourhood with high tenancy periods, and lower rates of movement in or out of the area (data not shown). The established neighbourhood aspect is mirrored, though to a lesser extent, in District H3 (44.6% rental rate). H3, however, is mixed with rental dwellings and owner occupied dwelling in the Hydrostone area and the surrounding single-family homes.

In Dartmouth, there is a concentration of affordable-rental units in Districts D3 (75.3%), and D4 (81.8%). Similar to Downtown Halifax (H1), Downtown Dartmouth (D1) has a higher rental rate (74.8%) than the rest of Dartmouth, and the rental units are concentrated in a small geographic area. Land owners may be using the rental model to retain ownership of high-value land, possibly with the intent of selling it off in the future.



Rental Rates

Rental rates are above 40% in all districts with the exception of H8, with a Regional Centre average of 62%



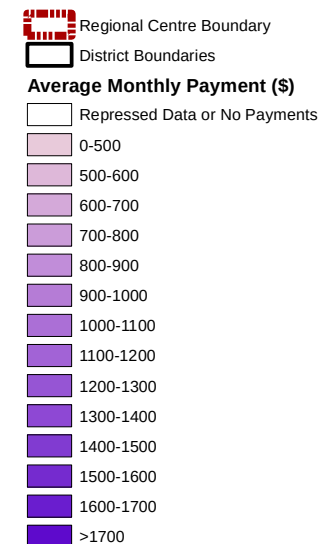
Data sources: Halifax, 2015c; HRM Geodatabase 2012; Canadian Census of Population, 2006. Map created by T. Davidson.

Majority of rental units existing in HRM area located within the Regional Centre (RC). Average monthly rental payments for the RC is equivalent to the HRM average (\$751 vs 754), and it is \$80 higher than the Nova Scotia average. Rental payments are the highest in District H1 (\$1,061), over \$400 a month more than the lowest average in D4 (\$622).

Home ownership in the RC costs \$63 a month more than the HRM average (\$1,051 vs \$988), and \$290 more than the Nova Scotia average. While the monthly cost is high, the homes in the RC are worth \$60,000 more than the homes in the whole of HRM on average, and \$115,000 more than the Nova Scotia average (data not shown).

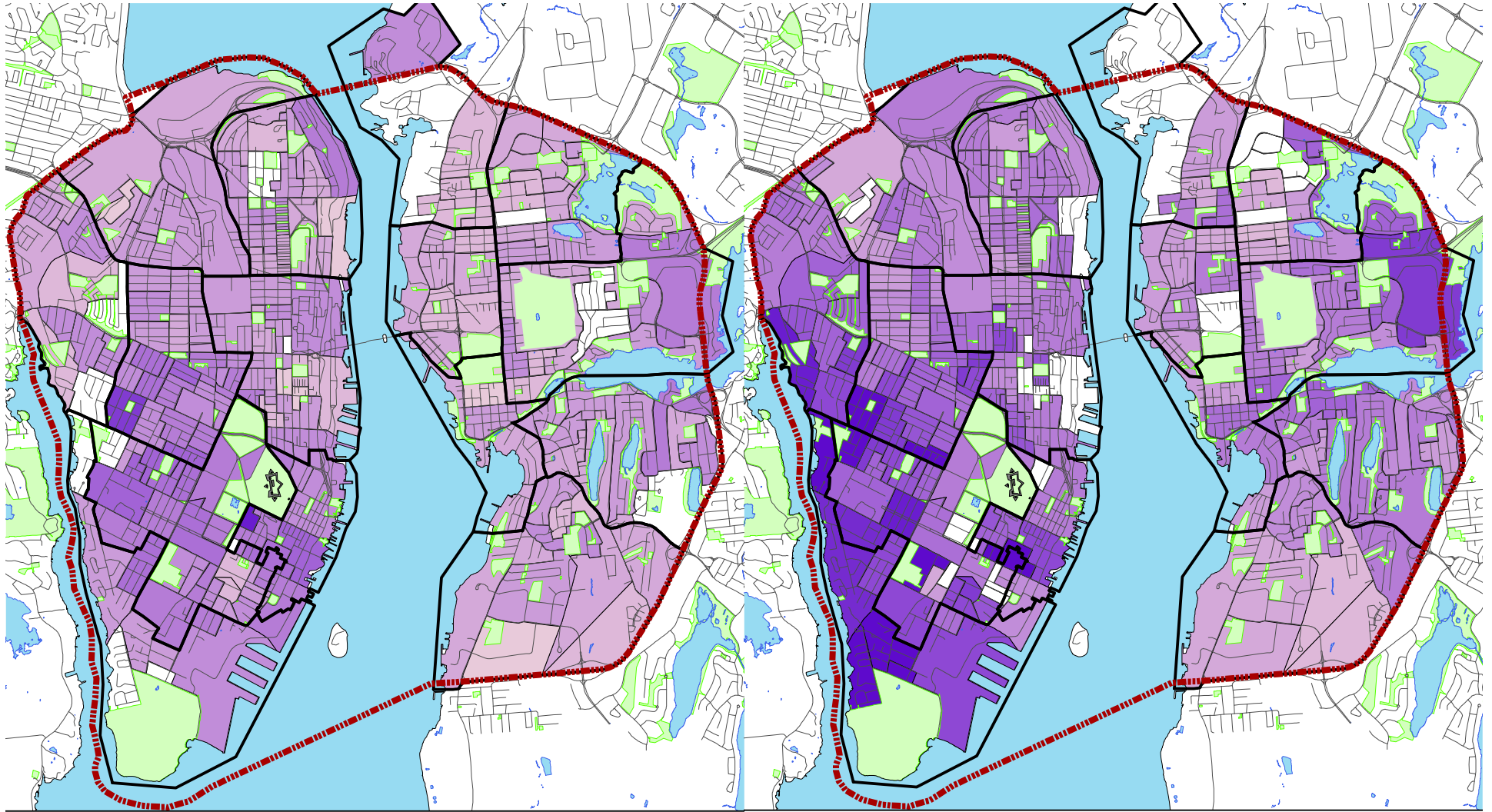
Monthly expenses for homes are highest in District H8 (\$1,609), corresponding with the highest average value of homes (~\$557k) in the all of the districts. In general, Halifax's ownership payment amounts are highest in areas adjacent to the Northwest Arm, and decreases as the distance increases from there. There are also some pockets of areas with higher home payments within the H1 District, and directly adjacent to the university campuses.

In Dartmouth, the highest home expenses are seen in areas adjacent to lakes, particularly in District D5, along the shore of Lake MicMac.



Housing Costs

Gross ownership payments are an average of \$234 higher monthly than rental payments in the HRM



Rental
Payments

Ownership
Payments

Employment industry profiles vary in different geographical areas. For example, urban areas may have higher proportions of people engaged in service, communication, and education industries, while employments in rural areas may largely be in resource based industries such as agriculture, forestry and fisheries. We can see this difference represented in the profiles of the Regional Centre (RC) districts vs the Nova Scotia averages. The adjacent figure shows the breakdown of employment by group of industries at the district level. Employment classifications are consolidated from the original NAICS (North America Industry Classification System) codes—See *Process-Reclassification of Data* pg 30 for a detailed list of NAICS classification codes and the consolidation groupings. It is important to note that this data represents the employment type of people living in the districts, not the types of industries that are located in the districts.

Natural Resource Exaction and Energy, unsurprisingly, does not have much presence inside the RC, accounting for only 1.1% of employment. For NS overall, this industry accounts for 6%. Similarly, Manufacturing and

Construction Industries accounts for about 7% of employment in the RC, while the NS average is about 15%.

Retail and Trade in the RC has a larger presence on the Dartmouth side (21%), compared to Halifax (14%).

Finance and Communication industries are important to both the RC and the HRM (9.7 vs 9.8% respectively), compared with 7% in Nova Scotia overall. The Halifax side of the RC has a greater proportion of employment in this industry than that of the Dartmouth side (11 vs 8%).

This trend extends to the Professional and Management Services sector. Halifax has a higher rate than Dartmouth (9.0 vs 5.7%), and the RC average (7.8%) is higher than the Nova Scotia average (5%). Among districts this sector has quite a large spread: between 14.6% in H1 and 1.7% in D3.

The Education sector is another where the RC average (10.5%) exceeds both the HRM (7.8%) and NS (7.4%) averages. The Halifax side of the RC has nearly twice the rate of

Dartmouth (12.4 vs 6.9% respectively).

The proportion of employment by the Healthcare and Social Assistance sector is relatively similar to the HRM and NS averages, which are both 11.7%.

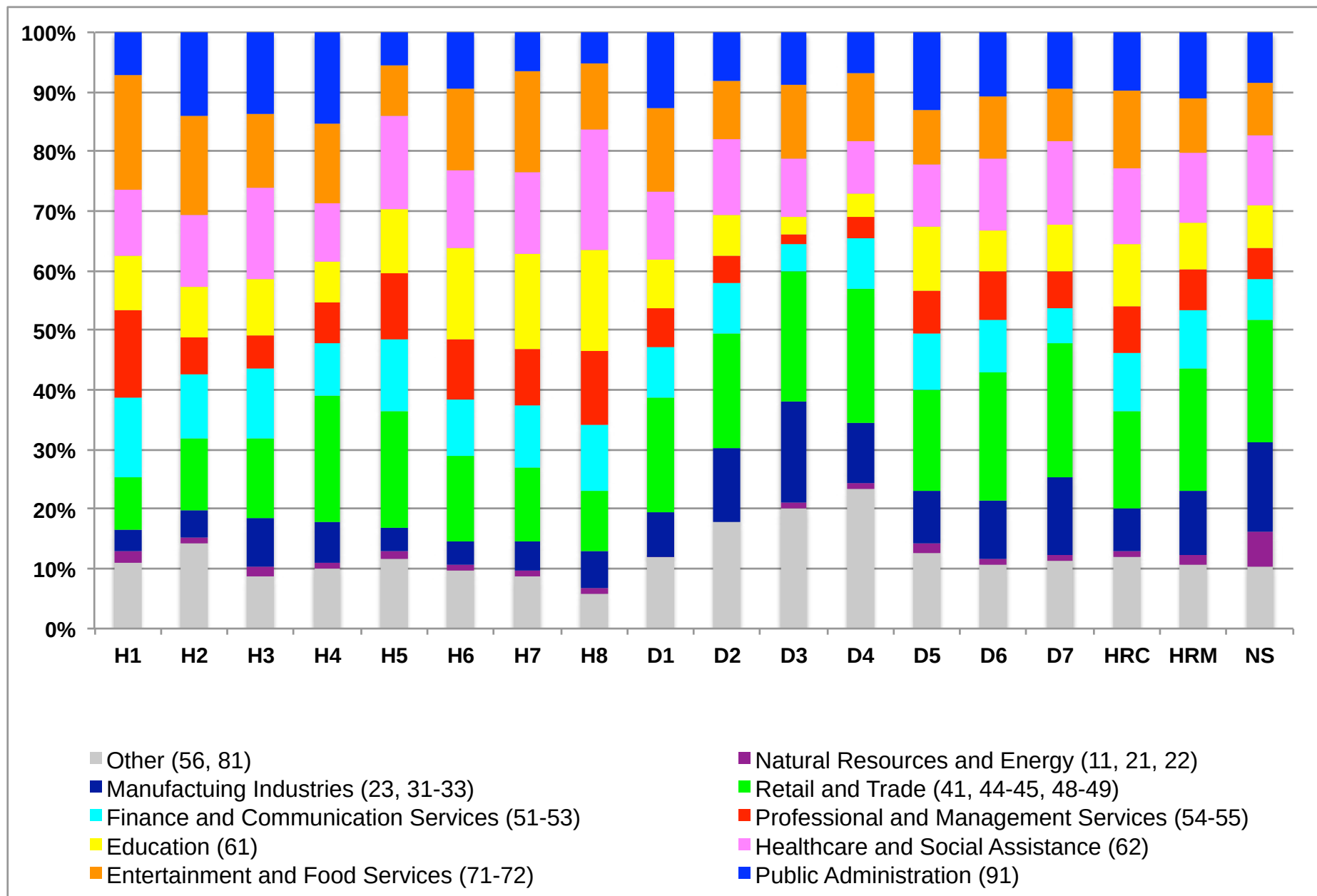
The RC has considerably high proportion of employment in the Entertainment and Food Services (13%), compared with the HRM (9.2%) and NS (8.8%). Within the RC, the Halifax side has a higher rate of employment in this sector (14.4%) compared to Dartmouth (10.5%).

Public Administration employment rate is similar between Halifax and Dartmouth (10%), while slightly lower than the HRM (11.1%), and higher than in NS (8.4%).

The Other category includes Administration and Support, Waste Management and Remediation Services, and Other Services. There is a slightly higher proportion of people employed in this category of jobs within the RC (12.1%), compared to HRM (10.6%) and the province as a whole (10.2%).

Type of Employment

Retail and trade is the largest employment sector in the Regional Centre



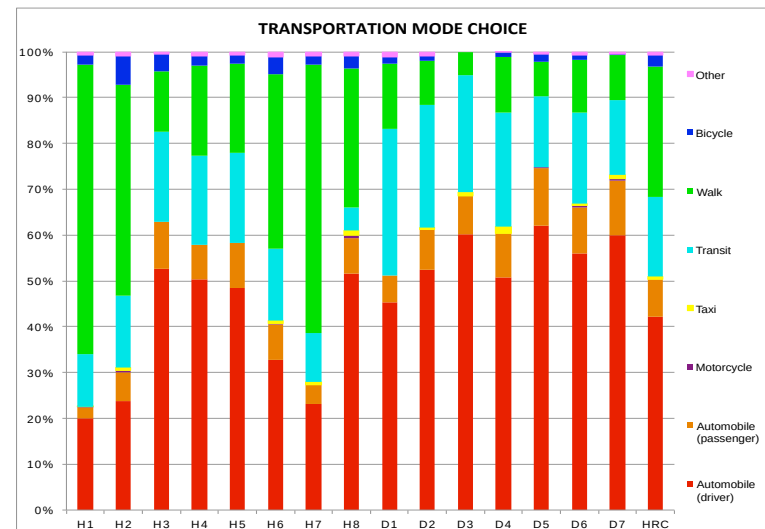
Residents of the Halifax Regional Centre (RC) are nearly three times more likely to use transit as their main form of transportation than average NS residents (17.4% vs 5.9%). Likewise, 30% of all trips occurring in the RC are by active modes of transportation, compared to the NS average of 10%. RC residents are much less likely to use motorized transport (50%) than average HRM (76%) or NS (84%) residents.

Within the RC, Halifax residents are 3.5 times more likely to use active transportation than those living on the Dartmouth side (43% vs 12%). This difference in rates reflects the walkable nature of the Halifax peninsula, especially the downtown core. In fact, even the lowest active transportation rate in Halifax (H3: 17.5%) exceeds the highest rate in Dartmouth (D1: 16.7%). Active transportation is highest in District H1, and there are see similarly high rates in adjacent districts. As distance increases from downtown, there is a distinct drop in the number of residents using active transportation modes in Halifax, as seen in District H3, for example.

District H1 has the lowest motorized transportation use (23%) and the highest use of active transportation modes (66%) of all the districts, this can likely be attributed to the close proximity of many goods and services which make the area very walkable. On the other end of the spectrum is District D3. The share of active transportation mode use in D3 is only 5%, the smallest of all districts, and the share of automobile use is close to 70%, one of the highest of all districts. The mode choice pattern by the D3 residents was surprising, as we expected that areas

with challenging socioeconomic conditions would typically use more cost-friendly modes of transportation than automobiles. District D5 has the highest rate of motorized transportation (75%).

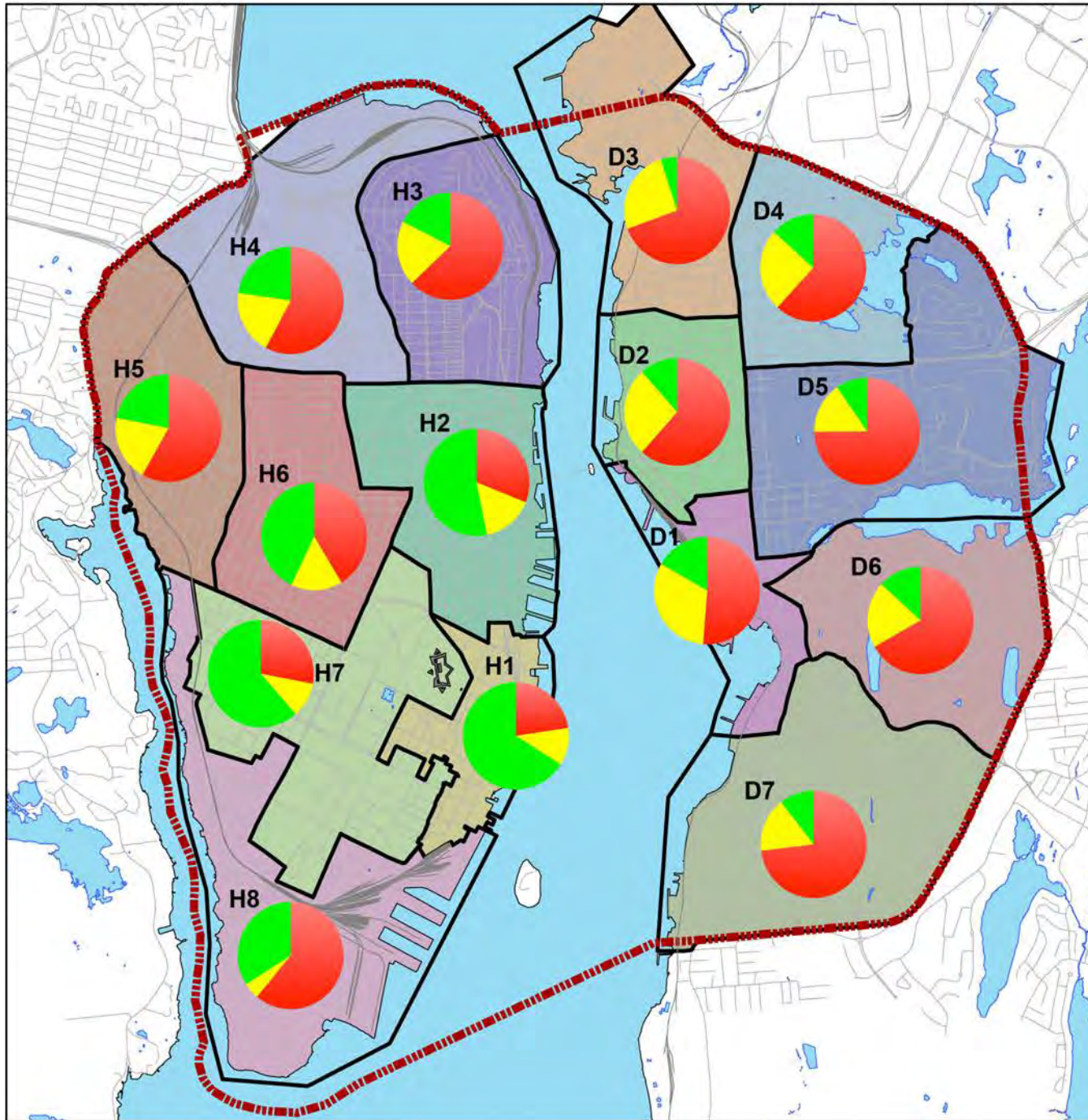
Dartmouth residents are 7% more likely to use transit as their main form of transportation than Halifax residents (22% vs 15%). H8, the district with exceptionally high median household income, exhibits minimal transit use (5%), the lowest of any district. However, the H8 residents' use of active transportation is 34%, the fifth highest of all districts; likely reflecting their proximity to employment centres (H7 and H1). Transit use is the highest in District D1 (32%), reflecting presence of the Alderney Ferry Terminal that allows easy transport to Halifax, and close proximity to the Bridge Terminal.



Transportation Mode

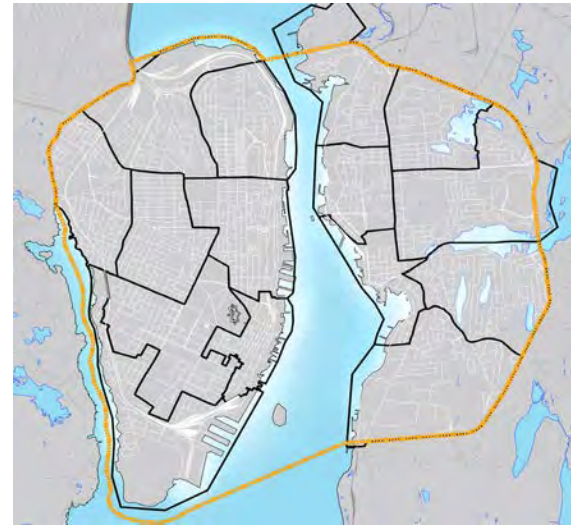
Residents of the Regional Centre are 3x more likely to use transit or active transportation than the NS average

Halifax Regional Centre Districts



District	Motorized Transportation	Transit	Active Transportation
H1	22.6%	11.4%	66.0%
H2	31.0%	15.8%	53.2%
H3	62.9%	19.6%	17.5%
H4	57.8%	19.4%	22.8%
H5	58.2%	19.9%	21.9%
H6	41.4%	15.6%	43.0%
H7	28.0%	10.6%	61.4%
H8	61.0%	5.0%	34.0%
D1	51.2%	32.0%	16.7%
D2	61.6%	26.9%	11.6%
D3	69.4%	25.6%	5.0%
D4	61.8%	24.8%	13.3%
D5	74.9%	15.4%	9.7%
D6	66.8%	20.0%	13.2%
D7	73.1%	16.4%	10.5%
HRC	50.9%	17.4%	31.7%





Indicator Use



Indicators developed herein offer a deeper understanding of the Regional Centre and can help city planners develop more evidence-based, and focussed planning/policy strategies.

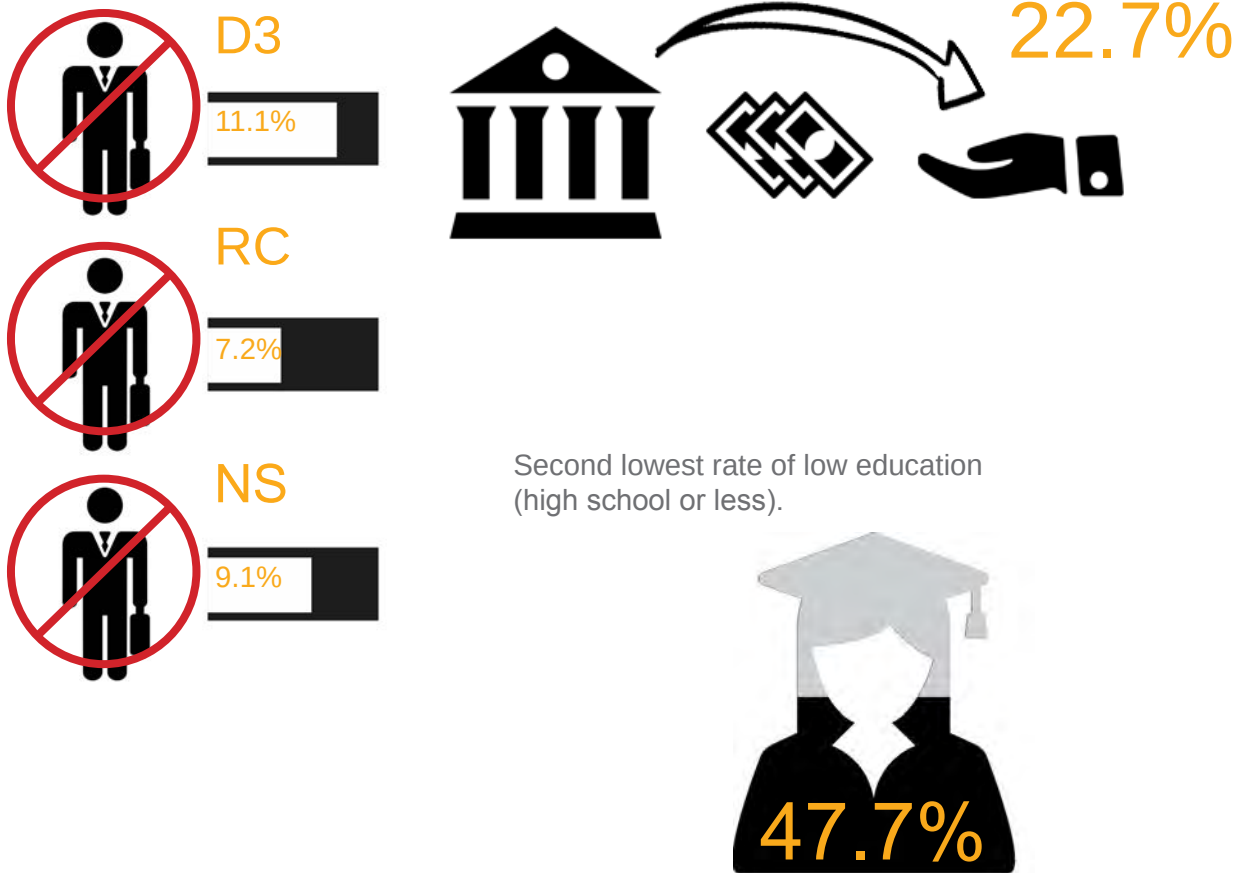
Three examples in this section explore how the indicators can be used for different types of planning, such as: developing action plans and prioritizing some services for districts with concentrations of vulnerable people, evaluating spatial equity of amenities and related health implications, and formulating a development strategy for population densification goals.

Indicator Application Overview

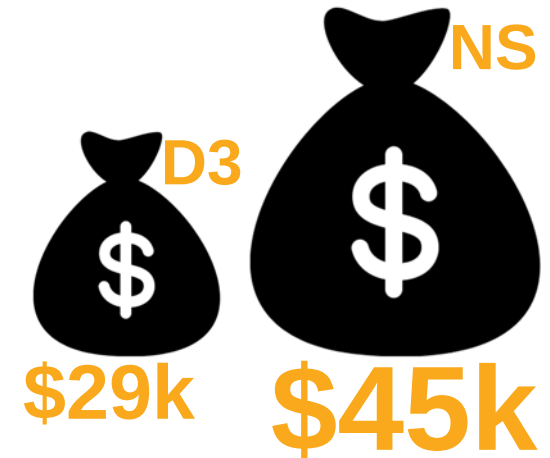
Strategic Planning For Vulnerable Populations

District D3 in Dartmouth has a number of indicators that point to it as an area of intense socio-economic depression.

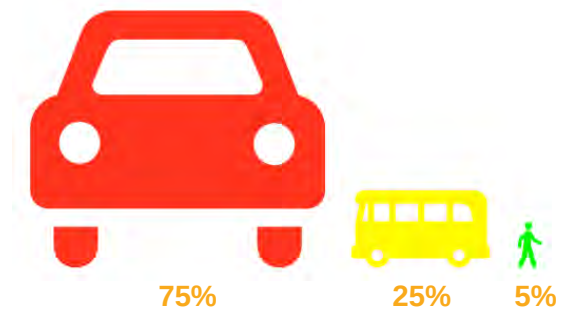
Highest rates of unemployment and government transfer in the Regional Centre.



Lowest median household income of any district, and ~15k less than NS.



Third highest motorized vehicle and transit use and lowest active transportation rate of the 15 districts.



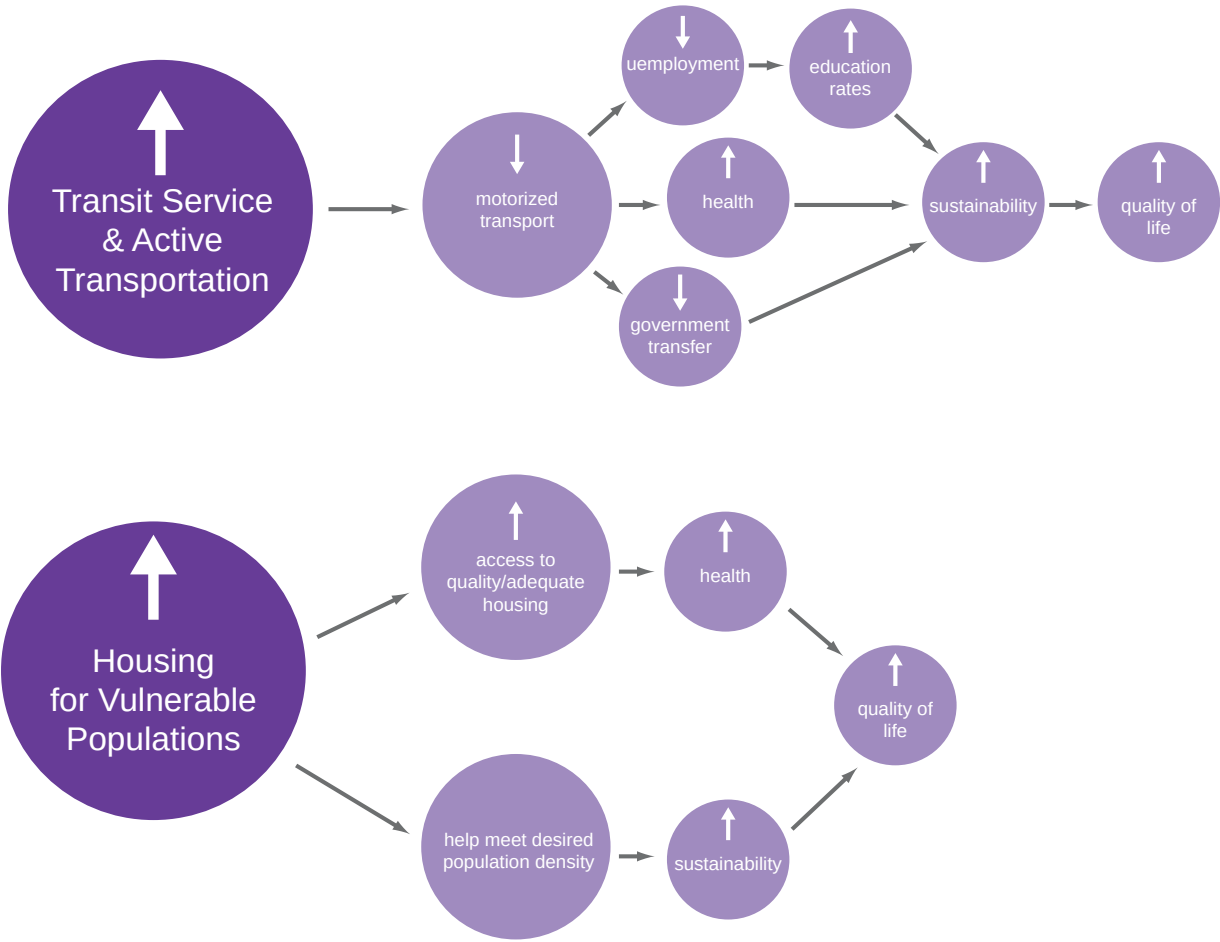
Example #1



Possible planning principles for District D3 and hypothesized long-term outcomes.

Possible Planning Action

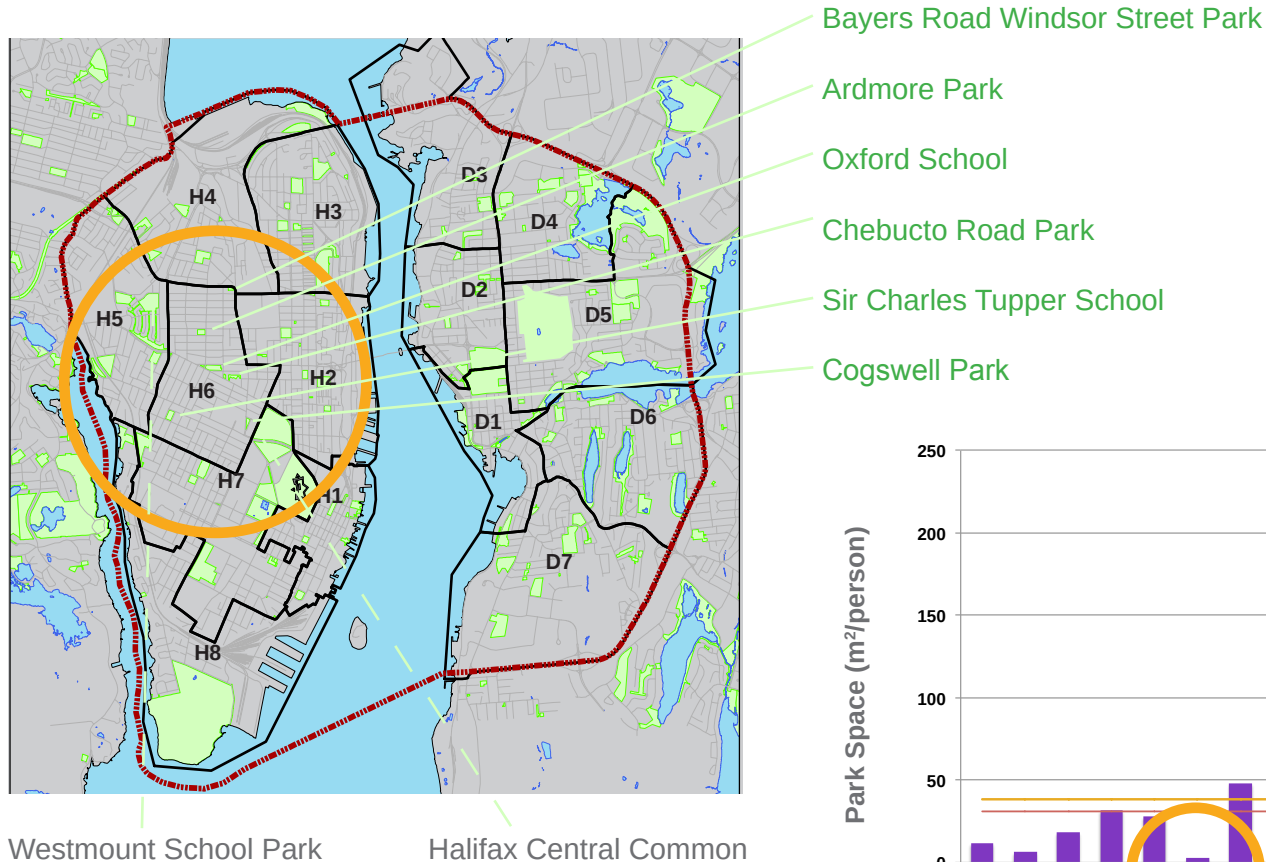
Possible Long-Term Impacts



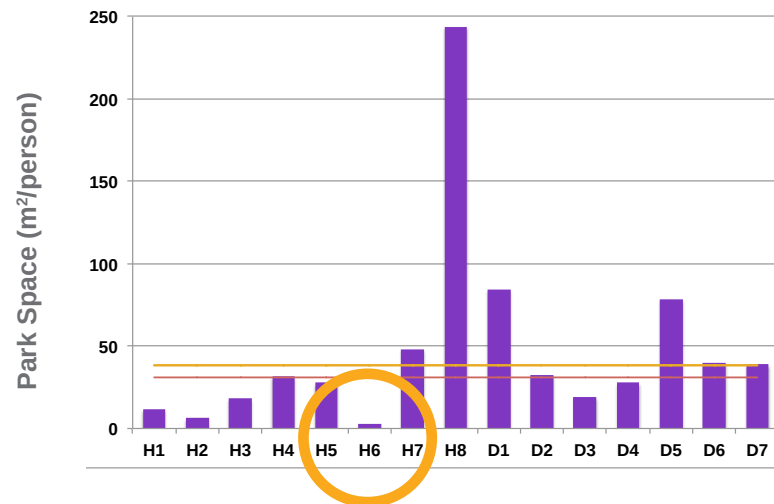
Planning Services For Spatial Equity

District H6 in Halifax has the lowest amount of park space per person, $\sim 3 \text{ m}^2$.

H6

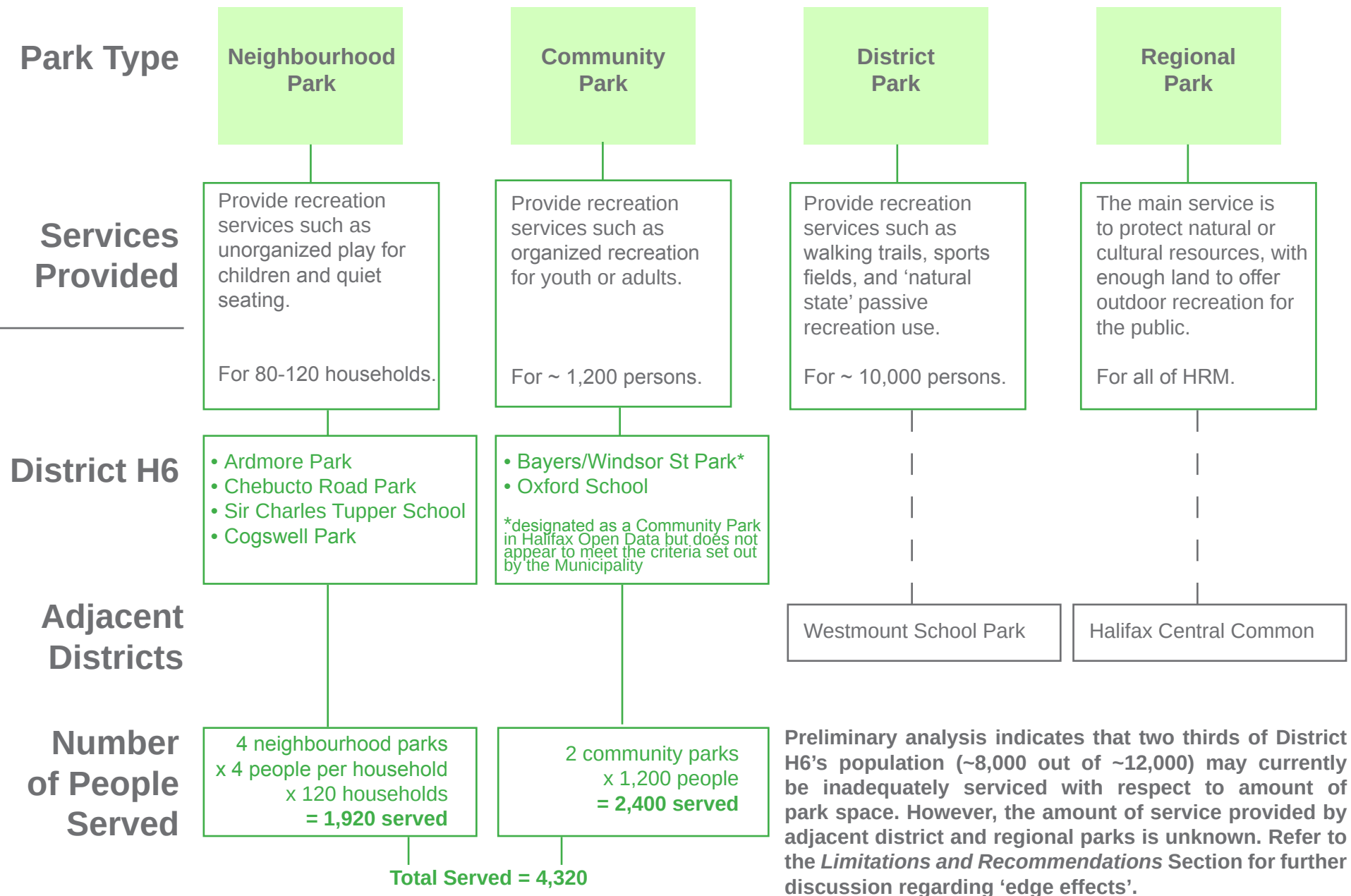


Population of H6 = 12,318



Example #2

Park space categorization of District H6 according to the Halifax Municipal Planning Strategy (Halifax, 2014).



Residential Growth Scenarios

Target at least **75%**
of new housing units to be
located in the Regional Centre
and urban communities with
at least **25%** of new
housing units within the
Regional Centre over the life of
this Plan

- Halifax. 2014. Regional Municipal Planning
Strategy

Impractical to have equal
growth accross all districts.

Difficult to introduce more residential
density

H8: established low-height precinct, large lots
D5: low rental rate, single-family dwellings

Easier to introduce more residential
density

H1: high rental rate, zoning to encourage mixed
developments
H4: number of multi-unit buildings, high rental
rate, large commercially-zoned areas that allow
for residential
D1: high rental rate, small commercial centre
surrounded by mid-rise housing
D3: high rental rate, large area to be redeveloped

Example District for Growth Projections

Low population: 4,576 (10th)*

Low density: 2,763 people/km² (11th)

Urban form: predominantly mid-height

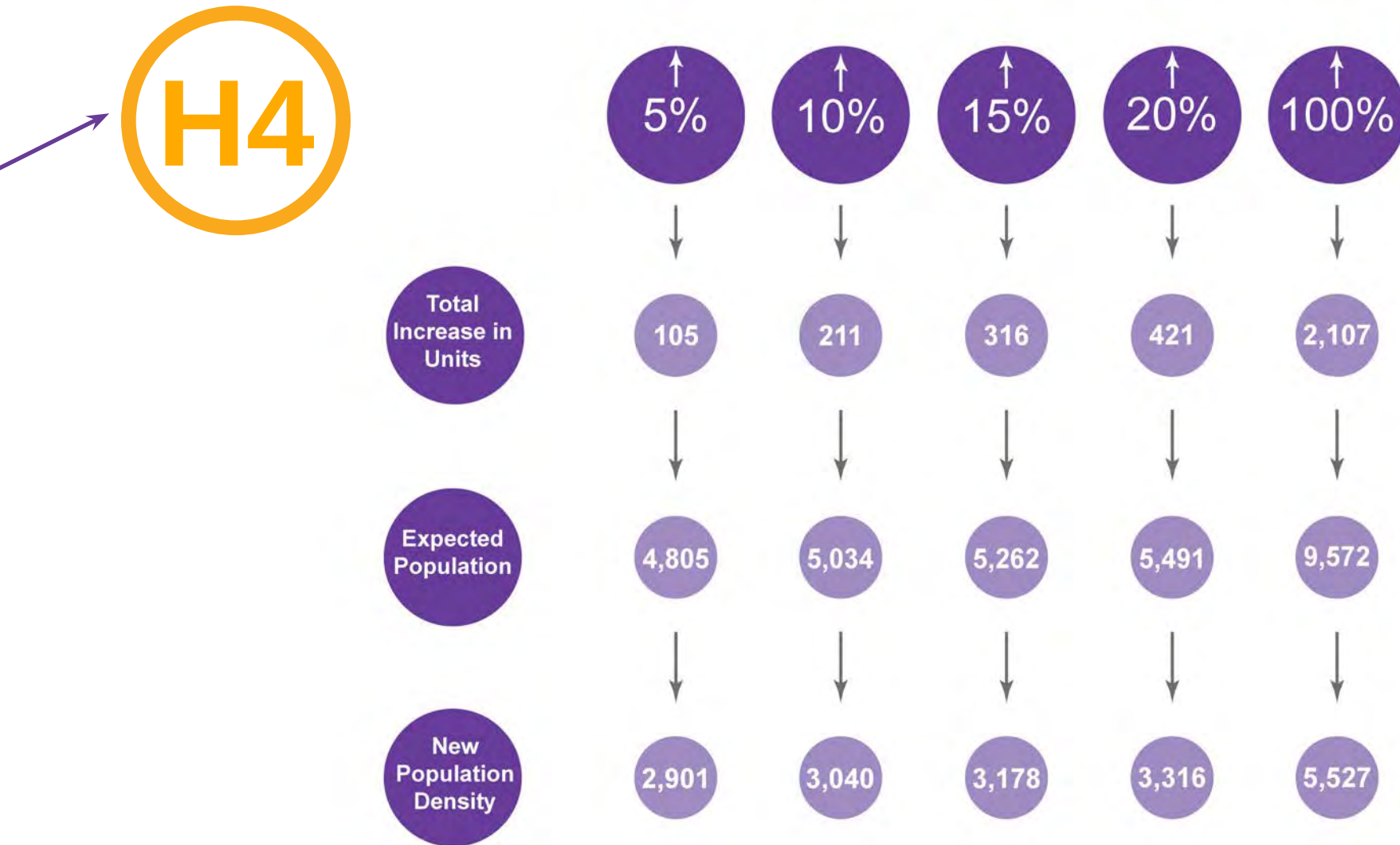
Zoning: mixed-commercial area with little
housing, military housing component

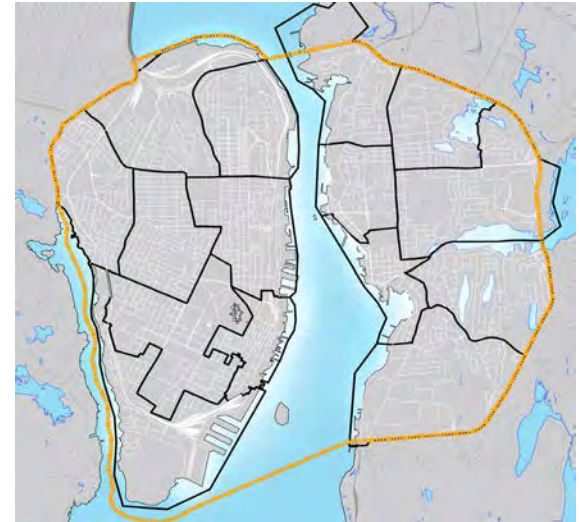
Rental Rate: 63.7% (8th)

*Parenthesis indicates rank among all districts

Example #3

Completing a number of growth scenarios can help planners find the ideal situation for each district.





Limitations, Recommendations & Future Data Needs

Due to poor quality of the 2011 Canadian Population Census data, a time series analysis (e.g., comparison of income inequality patterns between 2006 and 2011) was not possible. Monitoring the social and demographic characteristics of districts over time is crucial in order to assess the possible impacts various decisions and actions will have, and to anticipate future needs across the Regional Centre districts. A surveillance system of basic social and demographic indicators will further strengthen the evidence-based planning decision-making process.

A spatial accessibility analysis for different services could not be conducted due to lack of accurate residential location data. In order to develop indicators related to accessibility of services within the Regional Centre it is necessary to have property data that enable distinction between residences and non-residences. The property data HRM holds can be modified and added to the property type information, for example, by linking them to tax-related data.

Methodology should be developed to take into account the 'edge effects' of cross-district use of services when assessing spatial accessibility. As seen in the district park density values, the sizes of parks vary. Many residents of different districts access larger size parks such as Point Pleasant Park and Citadel. Although adjacent districts may not have a high park density, it does not always mean that the residents do not have adequate access to green space. The park density indicator created in this project is preliminary, and does not take these factors into account.

While district-level indicators show robust patterns of resident and area characteristics, it is helpful to use the district-level indicators in conjunction with the Dissemination Area-level indicators to examine the within-district differences. Often, the average of characteristics can mask important gaps that exist within an area. Finer-level indicators can further assist the analysis at hand and help explain the justification of some decisions.

Limitations & Recommendations

Tax returns and property assessment data is needed to distinguish land use at a finer-level—e.g., within a street block, multi-purpose building, and zones that allow mixed land use.

Canadian Business Survey data is needed to assess which industries the residents engage in within each district (similar information is available via Census), and whether their district of employment and district of residence are the same.

Updated point location data needs to be made available—e.g., grocery stores, healthcare services, daycare, bus stops, etc.—for spatial accessibility analysis.

Finer zoning type distinctions within Downtown Halifax and Downtown Dartmouth are needed in order to better estimate indicators related to land use such as residential population density.

A single spatial dataset which indicates the jurisdictional differences in land ownership within the Regional Centre is needed to develop future indicators.

Future Data Needs

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Appendices

H1			
FID	DAUID	ADJ_TOTAL_POP	MODIFIER
635	12090357	127	0.21
720	12090572	621	0.54
1001	12090853	722	1
1002	12090854	254	0.49
1003	12090855	375	0.78
1004	12090856	297	1
1005	12090857	0	0
1008	12090860	620	1
601	12090296	36	0.04
602	12090297	312	0.18
		3364	

H2			
FID	DAUID	ADJ_TOTAL_POP	MODIFIER
620	12090337	456	0.71
621	12090340	446	1
622	12090341	552	1
623	12090342	509	1
624	12090343	872	1
625	12090344	336	1
626	12090345	463	1
627	12090346	487	1
628	12090347	470	1
629	12090348	640	1
630	12090349	387	1
631	12090350	490	1
632	12090351	324	1
633	12090355	831	1
634	12090356	564	1
635	12090357	473	0.79
636	12090358	600	1
		8900	

H3			
FID	DAUID	ADJ_TOTAL_POP	MODIFIER
553	12090223	710	1
554	12090224	332	1
555	12090225	543	1
556	12090226	439	1
557	12090227	453	1
558	12090228	540	1
559	12090229	420	1
560	12090230	578	1
561	12090231	645	0.98
562	12090232	628	0.77
995	12090847	669	1
996	12090848	559	1
997	12090849	438	1
998	12090850	460	1
999	12090851	505	1
1000	12090852	459	1
		8378	

H4			
FID	DAUID	ADJ_TO-TAL_POP	MODIFIER
561	12090231	10	0.02
562	12090232	191	0.23
563	12090239	488	1
1027	12090879	647	1
1028	12090880	559	1
1029	12090881	590	1
1030	12090882	539	1
1031	12090883	442	1
1032	12090884	880	1
1033	12090885	230	0.4
		4576	

H5			
FID	DAUID	ADJ_TO-TAL_POP	MODIFIER
566	12090244	625	1
567	12090245	523	1
568	12090246	700	1
569	12090247	489	1
570	12090248	584	1
607	12090324	376	1
608	12090325	464	1
715	12090565	1154	1
564	12090240	373	0.85
565	12090241	413	1
		5701	

H6			
FID	DAUID	ADJ_TO-TAL_POP	MODIFIER
604	12090311	401	1
605	12090312	430	1
606	12090313	601	1
609	12090326	579	1
610	12090327	583	1
617	12090334	575	1
618	12090335	424	1
619	12090336	548	1
620	12090337	190	0.29
655	12090476	553	1
656	12090477	529	1
657	12090478	467	1
658	12090479	670	1
1017	12090869	693	1
1018	12090870	1006	1
1019	12090871	541	1
1020	12090872	503	1
1021	12090873	481	1
1022	12090874	525	1
1023	12090875	483	1
1024	12090876	554	1
1025	12090877	496	1
1026	12090878	486	1
		12318	

Appendix A - District Weights

H7			
FID	DAUID	ADJ_TO-TAL_POP	MODIFIER
593	12090280	551	1
595	12090282	482	1
596	12090291	425	0.9
597	12090292	506	1
601	12090296	872	0.96
602	12090297	532	0.82
603	12090298	562	1
611	12090328	447	1
612	12090329	426	1
613	12090330	390	1
615	12090332	531	1
616	12090333	472	1
1005	12090857	608	1
1006	12090858	534	1
1007	12090859	638	1
1009	12090861	427	1
1010	12090862	550	1
1011	12090863	498	1
1012	12090864	588	1
1013	12090865	445	1
1014	12090866	548	1
1015	12090867	471	1
1016	12090868	694	1

720	12090572	519	0.46
614	12090331	312	0.59
1003	12090855	108	0.22
1002	12090854	265	0.51
		13401	

H8			
FID	DAUID	ADJ_TO-TAL_POP	MODIFIER
592	12090279	637	1
594	12090281	608	1
596	12090291	48	0.1
598	12090293	530	1
599	12090294	438	1
600	12090295	690	1
614	12090331	291	0.41
		3242	

D1			
FID	DAUID	ADJ_TO-TAL_POP	MODIFIER
511	12090171	43	0.09
540	12090204	0	0
640	12090366	535	1
718	12090570	735	1
721	12090573	948	1
513	12090175	499	1
		2760	

D2			
FID	DAUID	ADJ_TO-TAL_POP	MODIFIER
537	12090201	464	1
538	12090202	669	1
539	12090203	354	1
540	12090204	516	1
541	12090205	1111	1
542	12090206	395	1
546	12090212	397	1
712	12090562	610	1
		4516	

D3			
FID	DAUID	ADJ_TO-TAL_POP	MODIFIER
543	12090209	462	1
544	12090210	452	1
545	12090211	345	1
552	12090220	457	1
724	12090576	261	1
994	12090846	688	0.96
		2404	

D4			
FID	DAUID	ADJ_TO-TAL_POP	MODIFIER
529	12090193	488	0.42
530	12090194	484	1
531	12090195	444	1
532	12090196	552	1
533	12090197	519	1
534	12090198	406	1
535	12090199	365	0.88
547	12090213	559	1
548	12090214	576	1
549	12090215	455	1
550	12090216	1120	1
551	12090217	560	1
725	12090577	590	1
		7118	

D5			
FID	DAUID	ADJ_TO-TAL_POP	MODIFIER
512	12090172	601	1
514	12090176	502	1
515	12090177	314	1
516	12090178	453	1
517	12090179	489	1
518	12090182	404	1
519	12090183	539	1
520	12090184	816	1
521	12090185	870	1
529	12090193	622	0.53
535	12090199	52	0.12
536	12090200	673	1
719	12090571	503	1
		6838	

D6			
FID	DAUID	ADJ_TO-TAL_POP	MODIFIER
502	12090162	488	1
503	12090163	475	1
504	12090164	725	1
505	12090165	459	1
506	12090166	1208	1
507	12090167	463	1
508	12090168	1109	1
509	12090169	427	1
510	12090170	444	1
511	12090171	435	0.91
648	12090406	69	0.07
		6302	

Appendix A - District Weights

D7			
FID	DAUID	ADJ_TOTAL_POP	MODIFIER
638	12090362	610	1
639	12090365	484	1
641	12090367	393	1
642	12090368	395	1
643	12090369	516	1
644	12090370	730	1
645	12090371	189	0.36
648	12090406	977	0.93
649	12090407	697	1
		4991	

ADJ_TOTAL_POP refers to the population number associated with the District for this Dissemination Area (DA). If MODIFIER is 1, then this number is just an unaltered DA population data. If MODIFIER is less than one, then one of two things happen. If the break for the DA happens on Dissemination Block (DB) lines, then this population number is a sum of the DB population found within the District. If the break happens between DB boundaries, then this population is a simple ratio based on m² found within the District.

MODIFIER is used to adjust Dissemination Area data based on district boundaries. If MODIFIER = 1, then the entire DA is within district boundary.

Appendix A - District Weights

	LF_ADJ	UNEMPL_ADJ	LOW_ED_ADJ	ED_POP_ADJ	GOVT_TRANSF_PC_ADJ	COM_FAM_IN-COME_ADJ	RENT_ADJ	TOTAL_HOMES_ADJ	TOTAL_HH	ADJ_HH	TOTAL_HH_IN-COME_ADJ	TRANSPORT_ADJ	AUTO_DRIVER_ADJ	AUTO_PASSENGER_ADJ
H1	2162	154	370	1899	38	506	1540	1889	3840	2204	\$72,205,849	1903	378	46
H2	5459	503	1633	5120	251	1650	3407	4302	4500	4331	\$130,128,534	4581	1084	283
H3	4748	379	1623	5130	200	1575	1873	4197	4320	4202	\$189,333,456	4154	2158	420
H4	2262	190	909	2392	163	765	1339	2101	3040	2111	\$87,468,711	1986	986	149
H5	3175	170	639	3162	77	985	1431	2761	2805	2771	\$139,843,221	2741	1315	262
H6	8170	627	1405	6819	148	2229	3061	5539	5820	5575	\$294,225,212	6980	2269	540
H7	8002	660	1059	6820	163	2446	5526	7340	8120	7164	\$298,416,591	6708	1541	280
H8	1795	115	115	1576	22	551	305	1268	1580	1274	\$154,157,797	1467	757	112
D1	1466	55	554	1557	53	409	1252	1673	2110	1678	\$55,664,159	1313	587	77
D2	2575	175	1075	2640	139	800	1430	2225	2230	2230	\$84,224,325	2325	1200	200
D3	1254	139	668	1400	113	496	854	1134	1155	1144	\$32,758,041	1090	661	93
D4	4139	304	2171	4247	215	1130	3052	3732	4400	4072	\$120,521,685	3693	1855	360
D5	3591	125	854	3657	110	1165	1544	3297	3735	3312	\$183,431,375	3234	1973	399
D6	3571	214	1017	3498	98	998	1164	2749	3210	2755	\$156,259,730	3088	1717	308
D7	2756	166	1156	2941	119	829	1002	2238	2375	2243	\$104,794,963	2455	1484	294
HRC	55124	3976	15248	52857	1910	16534	28781	46446	53240	47065	\$2,103,433,648	47717	19963	3821
Halifax*	35773	2797	7753	32917	1062	10707	18482	29397	34025	29631	\$1,365,779,371	30520	10486	2091
Dartmouth*	19351	1179	7494	19940	848	5827	10299	17049	19215	17434	\$737,654,277	17197	9477	1730

TRANSIT_ADJ	WALK_ADJ	BICYCLE_ADJ	MOTORCYCLE_ADJ	TAXI_ADJ	OTHER_ADJ	TOTAL_LF_ADJ	NOT_APPLICABLE_ADJ	ALL_INDUSTRIES_ADJ	AGRI_FRST_FISH_HUNT_ADJ	MINING_OIL_GAS_ADJ	UTILITIES_ADJ	CONSTRUCTION_ADJ	MANUFACTURING_ADJ	WHOLESALE_TRADE_ADJ	RETAIL_TRADE_ADJ	TRANSPORT_WH_ADJ	INFO_CULTURAL_ADJ	FINANCE_INSURE_ADJ	REAL_ESTATE_ADJ
215	1197	40	2	3	13	1764	9	1750	2	20	10	39	28	11	90	53	107	84	44
716	2091	280	15	28	42	5454	98	5356	10	40	10	91	157	20	479	144	317	138	107
805	547	151	0	0	20	4738	53	4682	20	10	35	255	120	88	326	204	265	200	75
381	388	38	0	0	20	2254	47	2223	20	0	0	65	88	62	234	170	35	80	74
538	522	53	0	0	20	3170	10	3155	15	0	30	70	50	139	393	65	153	168	45
1085	2636	271	13	50	73	8190	85	8095	20	20	30	99	198	165	757	209	440	207	105
705	3915	114	0	50	68	7997	83	7909	64	5	20	175	196	69	702	189	292	296	200
73	444	40	10	15	14	1790	60	1740	4	0	10	61	46	15	123	36	64	115	14
415	182	20	0	0	15	1466	30	1446	0	0	1	31	75	45	153	76	30	75	15
615	220	25	0	10	20	2565	20	2545	0	0	0	125	180	75	270	135	75	85	50
281	55	0	0	10	0	1254	65	1194	10	0	0	103	94	30	152	69	10	10	35
909	450	33	0	50	4	4146	84	4059	4	30	14	167	233	149	565	191	98	170	71
491	237	56	10	0	15	3594	36	3546	15	20	15	179	140	134	342	122	96	133	108
612	351	35	11	10	20	3571	45	3511	0	0	34	164	163	76	499	156	116	86	101
405	240	10	9	20	10	2744	34	2719	20	10	0	190	154	114	347	137	74	53	29
8249	13475	1166	70	245	355	54696	759	53930	204	155	210	1815	1922	1191	5430	1955	2171	1899	1072
4519	11740	987	40	145	270	35357	445	34910	155	95	145	855	883	569	3102	1069	1673	1288	664
3729	1736	179	30	100	85	19339	314	19020	49	60	65	960	1039	623	2328	886	499	611	408

Appendix B - District Data

PRO_SCI_TECH_ ADJ	MANAGEMENT_ ADJ	ADMIN_WASTE_ MANAGE_ADJ	EDUCATION_ADJ	HEALTH_SOCIAL- ASSIST_ADJ	ARTS_ENT_REC_ ADJ	ACCOMODATION_ FOOD_ADJ	OTHER_INDUS- TRY_ADJ	PUBLIC_ADMIN_ ADJ	RATEOFGOV- TRANSFER	UNEMPLOYMEN- TRATE	NOPOSTSECOND- ARYRATE	MEDIAN HOUSEHOLD INCOME	PERCENTAGEOF RENTERS	Motorized Transportation	Transit	Active Transportation
255	0	128	163	192	81	254	64	127	7%	7%	19%	\$32,761	82%	428	215	1250
327	10	498	441	653	208	673	256	749	15%	9%	32%	\$30,048	79%	1409	716	2413
260	0	218	425	708	127	441	185	625	13%	8%	32%	\$45,057	45%	2579	805	717
149	0	126	156	212	29	265	96	335	21%	8%	38%	\$41,437	64%	1134	381	447
335	0	191	339	476	69	189	165	169	8%	5%	20%	\$50,476	52%	1577	538	595
737	35	415	1207	1017	332	760	358	735	7%	8%	21%	\$52,775	55%	2872	1085	2979
734	0	348	1219	1040	340	972	316	500	7%	8%	16%	\$41,657	75%	1870	705	4097
216	0	56	290	354	64	127	46	89	4%	6%	7%	\$120,979	24%	893	73	498
93	0	86	115	164	43	155	85	183	13%	4%	36%	\$33,173	75%	664	415	217
115	0	295	170	315	45	195	150	205	17%	7%	41%	\$37,769	64%	1410	615	265
19	0	158	34	110	10	133	75	103	23%	11%	48%	\$28,635	75%	763	281	55
151	0	743	154	348	49	417	195	272	19%	7%	51%	\$29,601	82%	2264	909	487
238	10	253	384	369	140	190	200	460	9%	3%	23%	\$55,380	47%	2382	491	308
280	0	209	233	407	159	192	156	371	10%	6%	29%	\$56,721	42%	2046	612	406
167	0	209	207	374	99	140	94	250	14%	6%	39%	\$46,723	45%	1807	405	260
4078	55	3932	5538	6737	1794	5101	2441	5171	12%	7%	29%	\$44,692	62%	24100	8249	14996
3014	45	1980	4240	4651	1250	3680	1486	3329	10%	8%	24%	\$46,093	63%	12762	4519	12997
1064	10	1953	1298	2086	545	1422	955	1843	15%	6%	38%	\$42,312	60%	11337	3729	1999

Motorized Transportation	Transit	Active Transportation	
23%	11%	66%	H1
31%	16%	53%	H2
63%	20%	17%	H3
58%	19%	23%	H4
58%	20%	22%	H5
41%	16%	43%	H6
28%	11%	61%	H7
61%	5%	34%	H8
51%	32%	17%	D1
62%	27%	12%	D2
69%	26%	5%	D3
62%	25%	13%	D4
75%	15%	10%	D5
67%	20%	13%	D6
73%	16%	11%	D7
51%	17%	32%	HRC
42%	15%	43%	Halifax*
66%	22%	12%	Dartmouth*

* Halifax and Dartmouth ***WITHIN*** the Regional Centre

Appendix B - District Data

BOUNDARY4_WORKBOOK1.xlsx																										
Search in Sheet																										
Home Layout Tables Charts SmartArt Formulas Data Review																										
Edit Font Alignment Number										Format										Cells Themes						
Paste Fill Calibri (Body) 12 A A Wrap Text General										Normal Bad Good Neutral Calculation Check Cell Explanatory... Input										Insert Delete Format Themes Aa						
Bk1										Linked Cell Note Output Warning Text Heading 1 Heading 2 Heading 3 Heading 4																
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	
1	FID	DAUID	TOTAL_LABOUR_F	AUTO_DRIVER	AUTO_PASSENGER	TRANSIT	WALK	BICYCLE	MOTORCYCLE	TAXI	OTHER	PRIVATE_DWELLINGS	OWNED	RENT	BAND_HOUSING	TOTAL_LF	NOT_APPLICABLE	ALL_INDUSTRIES	AGRI_FRST_FISH_HUNT	MINING_OIL_GAS	UTILITIES	CONSTRUCTION	MANUFACTURING	WHOLESALE_TRADE	RETAIL_TRADE	
2																										
3																										
4	H1	DAUID	TOTAL_LABOUR_F	AUTO_DRIVER	AUTO_PASSENGER	TRANSIT	WALK	BICYCLE	MOTORCYCLE	TAXI	OTHER	PRIVATE_DWELLINGS	OWNED	RENT	BAND_HOUSING	TOTAL_LF	NOT_APPLICABLE	ALL_INDUSTRIES	AGRI_FRST_FISH_HUNT	MINING_OIL_GAS	UTILITIES	CONSTRUCTION	MANUFACTURING	WHOLESALE_TRADE	RETAIL_TRADE	
5	FID	DAUID	TOTAL_LABOUR_F	AUTO_DRIVER	AUTO_PASSENGER	TRANSIT	WALK	BICYCLE	MOTORCYCLE	TAXI	OTHER	PRIVATE_DWELLINGS	OWNED	RENT	BAND_HOUSING	TOTAL_LF	NOT_APPLICABLE	ALL_INDUSTRIES	AGRI_FRST_FISH_HUNT	MINING_OIL_GAS	UTILITIES	CONSTRUCTION	MANUFACTURING	WHOLESALE_TRADE	RETAIL_TRADE	
6	635	12090357	375	85	30	40	205	20	10	10	0	330	60	270	0	455	10	450	0	0	0	0	0	0	45	
7	720	12090572	780	145	30	90	495	10	0	0	10	700	50	650	0	860	10	850	0	10	0	10	25	20	35	
8	1001	12090853	440	60	15	45	310	10	0	0	0	450	145	300	0	510	0	505	0	15	0	0	0	0	45	
9	1002	12090854	390	70	10	55	235	10	0	0	15	300	55	240	0	415	0	415	0	0	0	10	25	0	20	
10	1003	12090855	285	125	10	25	95	20	0	0	0	305	100	205	0	315	0	315	0	0	0	10	0	0	0	
11	1004	12090856	110	15	0	10	85	0	0	0	0	155	45	110	0	135	0	135	0	0	10	15	0	0	0	
12	1005	12090857	215	35	0	0	135	0	0	10	30	305	75	225	0	250	0	250	0	0	0	0	15	10	30	
13	1008	12090860	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	
14	601	12090296	495	120	0	45	310	0	0	10	10	545	55	490	0	580	0	570	0	0	0	10	10	0	55	
15	602	12090297	420	70	0	55	290	0	0	0	0	430	0	425	0	480	10	470	10	0	0	30	10	0	25	
16	SUM H1	120906657	3510	725	75	365	2160	70	10	30	65	3520	585	2915	0	4000	30	3960	10	25	10	85	85	30	255	
17																										
18																										
19																										
20	FID	DAUID	TOTAL_LABOUR_F	AUTO_DRIVER	AUTO_PASSENGER	TRANSIT	WALK	BICYCLE	MOTORCYCLE	TAXI	OTHER	PRIVATE_DWELLINGS	OWNED	RENT	BAND_HOUSING	TOTAL_LF	NOT_APPLICABLE	ALL_INDUSTRIES	AGRI_FRST_FISH_HUNT	MINING_OIL_GAS	UTILITIES	CONSTRUCTION	MANUFACTURING	WHOLESALE_TRADE	RETAIL_TRADE	
21	620	12090337	465	150	35	70	175	20	10	0	10	340	95	245	0	500	0	500	0	0	0	15	10	0	40	
22	621	12090340	285	110	0	15	135	20	0	0	0	240	100	140	0	315	0	315	0	0	0	0	10	0	40	
23	622	12090341	320	75	15	30	155	30	0	0	10	325	45	285	0	375	0	375	10	20	10	10	10	0	30	
24	623	12090342	195	15	0	15	130	30	0	0	0	360	55	305	0	275	0	275	0	0	0	0	20	0	30	
25	624	12090343	535	70	15	115	310	25	0	0	0	475	75	400	0	645	30	615	0	0	0	10	10	10	65	
26	625	12090344	110	15	0	40	50	0	0	0	0	160	0	160	0	125	0	115	0	0	0	0	0	0	10	
27	626	12090345	195	30	20	35	85	0	0	0	15	175	30	145	0	245	10	235	0	0	0	0	20	0	10	
28	627	12090346	140	25	0	20	85	0	0	0	0	290	20	270	0	155	0	155	0	0	0	0	0	0	10	
29	628	12090347	255	45	15	45	135	15	0	0	0	250	30	220	0	330	0	325	0	0	0	15	0	0	10	
30	629	12090348	0	0	0	0	0	0	0	0	0	25	0	25	0	10	0	10	0	0	0	0	0	0	0	
31	630	12090349	240	80	20	35	100	10	0	0	0	195	85	110	0	280	0	280	0	0	0	15	0	0	15	
32	631	12090350	355	80	45	60	120	50	0	10	0	270	75	195	0	395	0	395	0	0	0	20	15	0	65	
33	632	12090351	160	45	20	45	45	10	0	0	0	180	65	115	0	150	10	165	0	0	0	10	10	10	10	
34	633	12090355	480	165	35	85	135	30	0	0	10	285	100	190	0	595	10	580	0	10	0	0	10	0	35	
35	634	12090356	280	55	25	65	125	0	0	10	0	250	0	245	0	325	20	300	0	10	0	0	0	0	55	
36	635	12090357	375	85	30	40	205	20	10	10	0	330	60	270	0	455	10	450	0	0	0	0	0	0	45	
37	636	12090358	405	100	40	30	195	30	0	0	0	320	100	215	0	480	0	475	0	0	0	0	25	0	0	
38	SUM H2	205535909	4795	1145	295	745	2185	290	20	30	45	4470	935	3535	0	5695	100	5595	10	40	10	95	160	20	500	
39																										
40																										
41																										
42	FID	DAUID	TOTAL_LABOUR_F	AUTO_DRIVER	AUTO_PASSENGER	TRANSIT	WALK	BICYCLE	MOTORCYCLE	TAXI	OTHER	PRIVATE_DWELLINGS	OWNED	RENT	BAND_HOUSING	TOTAL_LF	NOT_APPLICABLE	ALL_INDUSTRIES	AGRI_FRST_FISH_HUNT	MINING_OIL_GAS	UTILITIES	CONSTRUCTION	MANUFACTURING	WHOLESALE_TRADE	RETAIL_TRADE	
43	553	12090223	350	185	40	90	20	10	0	0	0	325	120	205	0	395	0	395	10	0	0	10	10	10	25	20
44	554	12090224	195	90	20	60	15	0	0	0	10	155	95	60	0	215	0	215	0	0	0	15	10	0	20	
45	555	12090225	330	165	75	50	35	10	0	0	0	280	170	105	0	360	0	360	0	10	0	25	0	0	10	
46	556	12090226	175	100	10	45	10	10	0	0	10	180	125	55	0	200	0	200	0	0	0	35	10	0	10	
47	557	12090227	210	130	0	35	35	10	0	0	0	205	185	15	0	220	0	225	0	0	15	10	0	0	25	
48	558	12090228	365	135	40	60	85	40	0	0	0	255	75	180	0	385	10	380	0	0	10	25	15	0	25	
49	559	12090229	215	130	30	45	15	0	0	0	0	195	125	65	0	255	15	240	0	0	0	10	25	0	20	
50	560	12090230	150	120	10	10	0	0	0	0	0	380	230	150	0	180	0	180	0	0	10	0	10	0	20	
51	561	12090231	385	200	40	110	20	0	0	0	0	375	245	125	0	420	0	415	0	0	0	10	0	0	35	
52	562	12090232	600	295	60	100	100	40	0	0	0	480	240	235	0	645	10	630	0	0	0	20	0	0	10	
53	563	12090247	130	50	0	60	15	0	0	0	0	80	270	0	265	0	175	10	175	10	0	0	0	0	10	
54	564	12090248	210	105	20	50	35	0	0	0	0	295	130	165	0	285	0	285	0	0	0	30	15	0	35	
55	565	12090249	220	135	10	10	80	0	0	0	0	215	145	70	0	295	10	285	0	0	0	30	0	0	0	
56	566	12090250	240	120	30	40	35	10	0	0	0	225	145	80	0	280	0	280	0	0	0	10	0	10	15	
WORKBOOK4 Workbook for Data Section DISTRICTAG2 NAICS Chart NAICS Consolidated Naics by district THIS ONE!!! Naics by district h1 h2 h3 h4 h5 h6 h7 h8 d1 d2 d3 d4 d5 d6 d7 HRC TRANSPORT DistrictAg4table																										

FID
 DAUID
 TOTAL_LABOUR_F
 AUTO_DRIVER
 AUTO_PASSENGER
 TRANSIT
 WALK
 BICYCLE
 MOTORCYCLE
 TAXI
 OTHER
 PRIVATE_DWELLINGS
 OWNED
 RENT
 BAND_HOUSING
 TOTAL_LF
 NOT_APPLICABLE
 ALL_INDUSTRIES
 AGRI_FRST_FISH_HUNT
 MINING_OIL_GAS
 UTILITIES
 CONSTRUCTION
 MANUFACTURING
 WHOLESALE_TRADE
 RETAIL_TRADE
 TRANSPORT_WH
 INFO_CULTURAL
 FINANCE_INSURE

REAL_ESTATE
 PRO_SCI_TECH
 MANAGEMENT
 ADMIN_WASTE_MANAGE
 EDUCATION
 HEALTH_SOCIALASSIST
 ARTS_ENT_REC
 ACCOMODATION_FOOD
 OTHER_INDUSTRY
 PUBLIC_ADMIN
 MED_HH_INCOME
 TOTAL_POP
 POP_LABOUR_FORCE
 IN_LABOUR_FORCE
 EMPLOYED
 UNEMPLOYED
 NOT_IN_LF
 PARTICIPATION_RATE
 EMPLOY_RATE
 UNEMPLOY_RATE
 EDUCATION_POP
 NONE
 HIGH_SCHOOL
 LOW_ED_POP
 PERCENT_LOW_ED
 COMP_FAM_INCOME
 EMPLOY_INCOME_PC
 GOVT_TRANSFER_PC

OTHER_PC
 CENSUS_FAM
 SINGLE_PARENT_FAM
 SP_FAM_PC
 AVE_FAM_SIZE

*Dissemination Area data for the Regional Centre is included as an excel table within the electronic copy of this report.

Appendix C - Raw DA-level Data