THE GROWTH OUTLOOK FOR THE GREATER GOLDEN HORSESHOE
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January 2005

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The Greater Golden Horseshoe Forecast Committee is pleased to present the attached report entitled *The Growth Outlook for the Greater Golden Horseshoe*. The Committee is composed of staff from the Ministries of Public Infrastructure Renewal, Transportation and Municipal Affairs and Housing, as well as staff of upper tier and single tier municipalities.

The preparation of common forecasts is a cornerstone of coordinated planning across the Greater Golden Horseshoe. These forecasts at a regional/county level provide a sense of the magnitude of growth pressures and challenges that municipalities in the Greater Golden Horseshoe area may face.

This report shows a significant increase in forecasted population, employment and housing units to 2031. For the Greater Golden Horseshoe overall, the pace of growth is more rapid than previously anticipated and may result in almost a doubling in population for some municipalities.

The Forecast Committee believes that these forecasts can serve as valuable input to the Ministry of Public Infrastructure Renewal in finalizing their *Places to Grow* growth plan for the Greater Golden Horseshoe. The three scenarios presented in this report – “Current Trends”, “Compact” and “More Compact” – represent a continuum of moving towards a more sustainable urban form with a shift in housing choices from the traditional, low density to a more compact urban form. This shift gives priority to intensification and compact development.

The new forecasts call for a large quantum increase by 2031: 3,710,000 new residents, 1,690,000 new housing units and 1,750,000 new jobs over the 30 year period to 2031. There are, however, a number of significant challenges that we will need to manage if these new forecasts are to be realized and for us to continue to enjoy the benefits of economic prosperity balanced with social and environmental interests. These challenges are:

- A shift required in housing choices and preferences towards more compact units (row houses and apartments).
- Better live-work proximity is essential which requires a matching of job creation and population in our communities.
- Coordinated provincial and municipal land use, infrastructure and investment decisions are required to accommodate this growth in an efficient and cost effective manner.
- Protection of our environment including natural heritage areas, agriculture lands, the cultural environment and the quality of our air, water and land.

There is general agreement that we need more compact, mixed use communities organized around a system of centres and corridors accessible by effective transit systems. This system will help us protect our countryside, our health and our quality of life.

Each of the municipalities in the Greater Golden Horseshoe will have to evaluate the implications of these new forecasts. How and if the growth can be accommodated will have to be assessed by municipalities from their unique circumstances. Ultimately, each municipality will need to make long term policy decisions about future growth having given consideration to provincial policies and directions, infrastructure capacities, financial considerations and dialogue with local stakeholders/community members.
If the Greater Golden Horseshoe as a whole is to accommodate these growth forecasts we need a much more innovative, coordinated and progressive approach to growth management. Simply put, the framework that has guided growth and development decisions in Central Ontario for the last 50 years needs to change – extraordinary growth requires extraordinary change in the way we do business.

A number of elements in our approach to growth management need to change.

1. **Long-term Infrastructure Investment**: An extraordinary long term sustained infrastructure investment plan and implementation program by all levels of government is required. The program should focus on transit, housing, sewer and water system renewal and goods movement in Ontario. It is also critical for provincial human services funding to keep pace with this growth. This will require significant financial investment and innovative financial partnerships to implement.

2. **Fiscal Policies**: Our federal, provincial and municipal fiscal policies and taxation framework need to be brought more into sync with the objective of compact, dynamic communities. Fiscal policies need to better support compact mixed use development, including rental housing, mixed use developments and transit use. Realigning our fiscal policies is required to achieve our common planning vision.

3. **Integrated Planning Approach**: The Province has begun a new approach to planning with its *Places to Grow* and Greenbelt initiatives. A similar new approach to the planning process and approvals is required. Municipal growth management plans that implement the vision and provide an overall local strategy to address growth pressures should be supported. This new approach to planning must rationalize and expedite planning, approvals and implementation.

There is no silver bullet to effectively manage the level of growth associated with these new forecasts. Simple changes to our planning policies alone are not enough. Our communities will not be able to manage the projected levels of growth and retain our economic vitality and quality of life without progressive changes to our planning, investment and financial systems. The Provincial growth plan must set the stage with supportive strategies, investment and policy. A concentrated effort by all levels of government and stakeholders is required – a new way of doing business is critical to our success.

The Greater Golden Horseshoe Committee
January, 2005
EXECUTIVE SUMMARY

This report presents a set of growth forecasts for the Greater Golden Horseshoe (GGH), the area made up of the Greater Toronto Area–Hamilton (GTAH) and the remaining Regions and Counties in the GGH (the Outer Ring). The forecasts and report were prepared with the assistance of the GTAH Forecast Committee, composed of representatives of the Cities of Toronto and Hamilton, the four Regions and the Province as well as the Outer Ring Advisory Committee composed of representatives of the upper-tier municipalities and separated cities in the Outer Ring and the Province.

A principal set of assumptions are made about the economic future of Ontario, followed by more specific assumptions related to population, household and employment growth. The principal assumptions are:

1. The long term economic outlook is very positive. Continued economic growth in Canada, Ontario and the GGH is anticipated, and is the foundation of the forecast.

2. Economic and population growth will continue to be concentrated in large urban regions. Canada’s population growth continues to be concentrated in a few major areas, especially in the GGH.

3. The orientation of the local economy will still be predominately industrial. On balance, the GGH is one of the most heavily industrialised large metropolitan economies in Canada and the United States.

4. Migration will increasingly be the primary generator of population growth.

5. The population will continue to age and will be a critical demographic force affecting growth. Age-specific housing choices and labour force participation have enormous implications for growth and planning in the GGH.

6. The appropriate long-term planning and funding arrangements are in place to accommodate anticipated growth pressures. Specifically it is assumed that there will be ongoing investment in infrastructure.

A low, reference and high forecast has been prepared. The Reference forecast incorporates, in our view, the most reasonable set of assumptions about the future economy. The Reference forecast anticipates that the population and employment of the GGH will increase respectively by more than 3.7 million people, and almost 1.8 million jobs to 2031. A significant amount of this growth will be accommodated within the GTAH. This is illustrated in the following two tables.

<table>
<thead>
<tr>
<th>Greater Golden Horseshoe Population</th>
<th>GTAH</th>
<th>Outer Ring</th>
<th>Total GGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>4,840</td>
<td>1,670</td>
<td>6,510</td>
</tr>
<tr>
<td>2001</td>
<td>5,810</td>
<td>1,980</td>
<td>7,790</td>
</tr>
<tr>
<td>2011</td>
<td>6,860</td>
<td>2,230</td>
<td>9,090</td>
</tr>
<tr>
<td>2021</td>
<td>7,780</td>
<td>2,560</td>
<td>10,340</td>
</tr>
<tr>
<td>2031</td>
<td>8,620</td>
<td>2,880</td>
<td>11,500</td>
</tr>
<tr>
<td>Growth, 2001–2031</td>
<td>2,810</td>
<td>900</td>
<td>3,710</td>
</tr>
</tbody>
</table>

Note: Total population including Census under coverage
Source: Statistics Canada and Hemson Consulting Ltd.
### Greater Golden Horseshoe Employment by Place of Work

#### Reference Forecast (in 000s)

<table>
<thead>
<tr>
<th>Year</th>
<th>GTAH</th>
<th>Outer Ring</th>
<th>Total GGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>2,500</td>
<td>720</td>
<td>3,220</td>
</tr>
<tr>
<td>2001</td>
<td>2,940</td>
<td>870</td>
<td>3,810</td>
</tr>
<tr>
<td>2011</td>
<td>3,630</td>
<td>1,010</td>
<td>4,640</td>
</tr>
<tr>
<td>2021</td>
<td>4,030</td>
<td>1,130</td>
<td>5,160</td>
</tr>
<tr>
<td>2031</td>
<td>4,320</td>
<td>1,240</td>
<td>5,560</td>
</tr>
</tbody>
</table>

**Growth, 2001–31**: 1,380 370 1,750

*Source: Statistics Canada and Hemson Consulting Ltd.*

One of the major characteristics of the forecast is that households will increase at a much faster rate than population in the GGH. This is due primarily to the aging of the population, a decline in household sizes and a corresponding increase in the number of households. As shown below, the GGH will add almost 1.7 million new households to 2031.

### Greater Golden Horseshoe Households

#### Reference Forecast (in 000s)

<table>
<thead>
<tr>
<th>Year</th>
<th>GTAH</th>
<th>Outer Ring</th>
<th>Total GGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>1,660</td>
<td>610</td>
<td>2,270</td>
</tr>
<tr>
<td>2001</td>
<td>1,970</td>
<td>710</td>
<td>2,680</td>
</tr>
<tr>
<td>2011</td>
<td>2,430</td>
<td>850</td>
<td>3,280</td>
</tr>
<tr>
<td>2021</td>
<td>2,860</td>
<td>1,020</td>
<td>3,880</td>
</tr>
<tr>
<td>2031</td>
<td>3,230</td>
<td>1,160</td>
<td>4,390</td>
</tr>
</tbody>
</table>

**Growth, 2001–31**: 1,260 430 1,710

*Source: Statistics Canada and Hemson Consulting Ltd.*

With respect to the distribution of growth within the GTA and Outer Ring, three growth scenarios have been prepared — the Current Trends Scenario, Compact Scenario and the More Compact Scenario.

- The Current Trends Scenario is our best judgement of the most likely distribution of growth based upon the current level of policy intervention, current and future settlement patterns, and the provision of necessary infrastructure to support growth.

- The Compact and More Compact scenarios are policy-based forecasts. They have been run with specific input from the Province and Committees, in order to reflect greater levels of policy intervention required to achieve the objectives of the *Places to Grow* discussion paper released by the Province in the summer of 2004.

The distribution of growth within the Outer Ring is primarily related to the ability to provide infrastructure. Because most of the growth will be driven by out-migration from the GTA, communities that are most attractive are anticipated to be the ones subject to the strongest growth pressure.

The distribution of growth within the GTA is based upon physical constraints to growth. Growth is distributed based upon built form and the share of new building activity, in an effort to reflect the “on the ground” choices that households and firms make regarding built form, price and location. As a result, the scenarios for the GTA vary primarily by housing mix and the geographic distribution of growth. The more change that is suggested from the established patterns, the more interventionist the policy environment required.
### Population Scenario Comparison (2031)

<table>
<thead>
<tr>
<th>Distribution Scenario</th>
<th>2001 Population</th>
<th>Forecast 2031 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current Trends</td>
<td>Compact</td>
</tr>
<tr>
<td>Northumberland</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Peterborough</td>
<td>130</td>
<td>145</td>
</tr>
<tr>
<td>Kawartha Lakes</td>
<td>70</td>
<td>105</td>
</tr>
<tr>
<td>Halimand</td>
<td>45</td>
<td>55</td>
</tr>
<tr>
<td>Niagara</td>
<td>425</td>
<td>485</td>
</tr>
<tr>
<td>Brant</td>
<td>130</td>
<td>170</td>
</tr>
<tr>
<td>Waterloo</td>
<td>455</td>
<td>720</td>
</tr>
<tr>
<td>Wellington</td>
<td>195</td>
<td>320</td>
</tr>
<tr>
<td>Dufferin</td>
<td>55</td>
<td>90</td>
</tr>
<tr>
<td>Simcoe</td>
<td>390</td>
<td>690</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,980</strong></td>
<td><strong>2,875</strong></td>
</tr>
</tbody>
</table>

### Employment Scenario Comparison (2031)

<table>
<thead>
<tr>
<th>Distribution Scenario</th>
<th>2001 Employment</th>
<th>Forecast 2031 Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current Trends</td>
<td>Compact</td>
</tr>
<tr>
<td>Northumberland</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>Peterborough</td>
<td>55</td>
<td>60</td>
</tr>
<tr>
<td>Kawartha Lakes</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Halimand</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Niagara</td>
<td>185</td>
<td>205</td>
</tr>
<tr>
<td>Brant</td>
<td>55</td>
<td>70</td>
</tr>
<tr>
<td>Waterloo</td>
<td>235</td>
<td>365</td>
</tr>
<tr>
<td>Wellington</td>
<td>100</td>
<td>160</td>
</tr>
<tr>
<td>Dufferin</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Simcoe</td>
<td>155</td>
<td>265</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>865</strong></td>
<td><strong>1,235</strong></td>
</tr>
</tbody>
</table>

Source: Statistics Canada and Hemson Consulting Ltd.
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I BACKGROUND AND INTRODUCTION

This report presents the forecasts of long term growth in population, housing and employment for the Greater Golden Horseshoe (GGH) and its constituent geographic Counties, Regions and the Cities of Toronto and Hamilton, both shown at right. These forecasts are the result of a process which began in early 2003 as two separate activities: preparation of forecasts for the Greater Toronto Area and Hamilton (GTAH) and the preparation of forecasts for the rest of the GGH or “Outer Ring.”

A. FORECASTS WERE PREPARED IN CONSULTATION WITH A WIDE RANGE OF PUBLIC SECTOR STAKEHOLDERS

The preparation of these forecasts involved provincial ministries, regional and county governments and separated cities. Two separate committees were established — one for the GTAH and one for the Outer Ring — both of which had extensive opportunity for review and comment.

♦ The GTAH Committee was composed of: representatives of the Cities of Toronto and Hamilton, the Regions of Peel, York, Durham and Halton, the Ministry of Municipal Affairs and Housing, the Ministry of Transportation and the Ministry of Public Infrastructure Renewal.

♦ The Outer Ring Advisory Committee was composed of: planning representatives from the Regions of Waterloo and Niagara; the Counties of Peterborough, Northumberland, Simcoe, Wellington, Brant and Haldimand; the Cities of Kawartha Lakes, Peterborough, Orillia, Barrie, Guelph and Brantford; the Town of Orangeville and the Town of Mono (from Dufferin County), as well as representatives from the Ministry of Municipal Affairs and Housing, the Ministry of Transportation and the Ministry of Public Infrastructure Renewal.
As described in the box at right, during the process of preparing the forecasts, the Province began a number of planning and infrastructure initiatives. The most important of these for the forecast purposes is the *Places to Grow — A Discussion Paper for a Growth Plan for the Greater Golden Horseshoe*. As a result of *Places to Grow*, which addresses long-term growth issues in the entire GGH, the two processes (GTAH and Outer Ring) in this report and forecast have been combined.

### B. STUDY AREA INCLUDES THE GTA, CITY OF HAMILTON, AND THE REMAINING MUNICIPALITIES IN THE GGH

This forecast is the most recent in a series of exercises undertaken to examine and update the long term growth outlook for the GTA. Long-range forecasts for the GTA had previously been undertaken in 1989 and 1993 for the former Office for the Greater Toronto Areas (OGTA) and most recently in 2000 for the GTA Committee. In this report, the City of Hamilton has been included as part of a larger, GTA-focused region. In addition, the municipalities in the remainder (Outer Ring) of the GGH have been added. An expanded study area is appropriate for several reasons:

- The most recent period of sustained high levels of growth, especially in housing, has created enormous pressures on all levels of government to meet infrastructure needs. The pattern in which these high levels of growth have been occurring raises questions about the long-term distribution of growth within the GGH and if new policies are required to direct that growth.

- A number of decisions are about to be made regarding how and where to accommodate growth in the GGH. A broad regional perspective on the long-range growth outlook is required to make these decisions.

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**Where did this forecast process start and how did it become part of the Province’s *Places to Grow* initiative?**

The forecasts presented in this report are the latest in a series of forecasts of long-term growth undertaken for the GTA. In 1989, long-term population and employment forecasts were undertaken for the Greater Toronto Coordinating Committees and the Province’s Office for the Greater Toronto Area. In 1993 these forecasts were updated and expanded to include the GTA “hinterland,” an area which roughly included Hamilton and the Outer Ring. The GTA forecast results were used as the basis for the four Regional plans and the Metro Toronto plan in the GTA.

By 1999 the GTCC no longer existed. However a committee of representatives of the planning commissioners of the four Regions and the City of Toronto and the Ministry of Municipal Affairs and Housing proceeded with forecast updates, completed in 2000.

For a variety of reasons, notably the release of 2001 Census data and a sustained housing “boom” (which brought into question some aspects of the forecast) led the GTAH representatives in partnership with the Smart Growth Secretariat to undertake another more comprehensive forecast exercise in 2003. This revised forecast extended the growth forecast to 2031 and included the City of Hamilton.

At the same time the Smart Growth Secretariat of Ministry of Municipal Affairs and Housing undertook a parallel process for the Outer Ring, that is the rest of the Central Ontario Smart Growth Zone outside of the GTA. This process was to be undertaken in conjunction with a Technical Advisory Committee made up of upper tier municipalities and separated cities.

In late 2003, both forecast processes were put “on hold” pending a clarification on the new growth and planning initiatives of the Provincial government. This came in mid-2004 with the greenbelt, planning reform and, most importantly, *Places to Grow*.

The forecast work was restarted with the intention of providing a single growth outlook report for the GGH, prepared in conjunction with the Ministry of Public Infrastructure Renewal’s Ontario Growth Secretariat, the GTA committee and the Outer Ring Technical Advisory Committee.
Across the GGH there are current and upcoming official plan review processes that will need to consider, among other things, the adequacy of current urban designations to accommodate expected growth and the infrastructure required to support that growth. The forecasts will be important resources to assist municipalities in these matters.

The Province is currently undertaking a number of initiatives related to growth and development in Ontario and specifically for the GGH. These include Planning Act and Ontario Municipal Board reform, a new Provincial Policy Statement, the GGH greenbelt initiative and the Province’s recently released discussion paper, Places to Grow. These forecasts will help with the implementation of the Provincial initiatives and associated infrastructure plans.

C. HOW THE FORECASTS ARE INTENDED TO BE USED

Forecasts are by their nature speculative. Because forecasting involves looking into the future there is inherent uncertainty in the results. This uncertainty increases as the time period increases, as statistics become more detailed and as the geographic area under study becomes smaller. Generally, population growth is more predictable than employment growth because population is less dependant on short-term economic cycles and external economic events. For example, despite the economic difficulties of 1990s, population in the GGH continued to grow rapidly.

Forecasts are an indication of the level of growth that might be anticipated, but due to uncertainties the forecasts are provided in ranges on the totals as well as distribution scenarios. Various aspects of the growth outlook, such as population, housing, age structure, and employment by major type are linked by a consistent set of assumptions. Particular results, or assumptions, cannot be taken out of this context. Forecast results add

How did the GTA become the GTAH?

Hamilton’s urban structure, historically built around the steel industry and specific local uses, is becoming more integrated into the larger urban economic structure of south-central Ontario, centred on the rapidly growing economic region that is the GTA.

There are many signs of this transformation. Residential development is occurring at a rapid pace in areas in Hamilton located closest to the GTA and daily commuting patterns between Hamilton and the GTA indicate increasing integration. Also, in planning for infrastructure, particularly the transportation system, the western GTA increasingly needs to consider transportation within and to Hamilton.

Because of this increasing integration of the economy and transportation system between the GTA and the City of Hamilton, Hamilton is now considered part of larger GTA-focussed region for the purposes of the forecasts.
to available information for decision-makers — but should not substitute for sound judgement. Decisions made on the basis of the forecast should be made with the most current information available.

With this in mind, these forecasts are intended to be used by the Province and by municipal governments included in the forecast area, as possible outlooks for employment, population and households. The range of the forecast and the scenarios for the distribution of population and employment are projected under a broad set of economic and policy outlooks.

The purpose, especially of the distribution scenarios, is to test different possible outcomes as a means to understanding the nature of future growth. These forecasts and scenarios should be viewed clearly as inputs to planning decisions, not the planning decisions themselves. Planning decisions, such as growth allocations and official plan targets, will be determined through subsequent decision-making processes such as Places to Grow and standard municipal official plan processes.

D. VARIOUS METHODS OF FORECASTING HAVE BEEN REVIEWED

An initial part of the forecast exercise involved an examination of the various methods of forecasting. The adopted method is shown in the forecast method chart on the next page. The chart indicates the method used for the forecast totals and distribution within the GTAH area. A simpler approach to distribution is able to be employed in the Outer Ring. This is described in Chapter 4.

Forecasts are prepared using a structured model to which various assumptions are applied to provide the forecast results. As shown in the

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Be careful! There are two definitions of population in common use

Statistics Canada undertakes the national Census every five years. The data from the Census form the basis of most elements of the forecasts contained in this report.

The Census is a survey intended to capture all of the population, that is a 100% survey. In fact, some people are missed and some people are counted twice (or otherwise should not have been counted). Based on studies conducted after the Census, in Canada about 4% of persons were missed (under coverage) and 1% over covered, yielding a net under coverage of about 3%.

The population counted by the Census is the “Census Population” and the population count including the net under coverage is “Total Population.” Both definitions of population are in common usage. All population figures quoted in this report are Total Population (including net under coverage).

There are three areas where one must be cautious:

- Comparison to population figures that may not be in total population. For example in the GTAH, the Halton and Peel regional plans use the Census Population and the other four plans use Total Population.
- Technically, all of the modelling for forecasts is done according to the Census population. The under coverage is added to the results for publication. Some of the detailed technical tables supporting this report will show the Census definition of population.
- Employment and household figures in this report are all based on the Census. There is no under coverage estimate related to employment or households. Figures such as average household size, therefore, are shown in terms of the population within households by the Census definition of population.

It is unfortunate that this complexity exists, since there are often misunderstandings about results. However, it is an unavoidable consequence of how the data are collected and reported. The reader always needs to be aware of these matters when comparing sources.
chart, at the core of the forecast is a set of principal assumptions about the economic future and its social context. More specific technical assumptions regarding aspects of population, household and employment growth are set to be consistent with the core economic and social parameters. These assumptions are the prime determinants of the forecast results and so are the focus of the bulk of this report.

The approach to the structure of the model is based on the following.

- For forecasting overall population growth in GTAHH and the Outer Ring, the forecast uses a standard cohort-survival model with inputs for births, mortality and migration. This is the accepted method for population forecasting. The total for the GGH is an aggregate of the two areas, based on independent (but consistent and coordinated) assumptions.

- In the forecast approach adopted in this report, the employment forecast in each of the GTAHH and the Outer Ring is tied to the population forecast, accounting for labour force participation rates, as well as net in-commuting and unemployment. This is distinct from an approach that begins with a specific economic and employment outlook and works back to the population forecast (as was done in 2000).

- For the purposes of distribution of population and employment, each of the Regions and geographic Counties in the Outer Ring is treated as a separate market area. The distribution of population within the Outer Ring is, therefore, based on a cohort-survival model for each of the 10 areas. These are prepared within the context of control totals determined for the entire Outer Ring. The distribution of employment and households is similarly determined.
The distribution within the GTA is quite different since, for the purposes of this forecast, it is considered a single urban area with a common housing and labour market. The distribution of future growth is, therefore, more a matter of where growth is directed through planning and the ability of sub-markets within the urban area to accommodate different types of housing and employment. The assumptions applied through this approach take account of the specific variations of housing and employment sub-markets within the GTA.

The Hemson forecasting method illustrated in the chart is an iterative approach, structured as a “top down” model so that local forecasts reflect broader economic development trends occurring at the regional, provincial and national level. As the forecasts are prepared, however, a number of “bottom up” factors are incorporated, notably planning policy and the physical ability to accommodate growth. These factors have their greatest effect when considering distribution within urban areas (GTA), rather than between areas (as in the Outer Ring).

The forecasting method allows for the analysis of a range of scenarios. Many assumptions can be varied to test the sensitivity of the results. This report focuses on a Reference forecast, which is our best judgement of the most likely future growth outlook. However, it also provides summary descriptions of the High and Low forecasts.

E. A RANGE OF FORECASTS AND POLICY-BASED DISTRIBUTION SCENARIOS WERE PREPARED

Following this introductory chapter, the report begins with a chapter discussing the key factors influencing the forecast growth pattern. The subsequent chapters then present the forecast results as follows:

Housing types use standard definitions

The outlook for housing type is a key element of the distribution scenarios for the GTA and will be a key part of the planning implications of the growth outlook for province and municipalities, as growth plans are implemented.

Physical housing form in these forecasts is based on four standard categories, which aggregate Statistics Canada’s categories.

Single, semi and row units generally follow the common usage definition of these units, though none of these definitions allow for stacking of units. Stacked rowhouses or singles/semis with accessory units become apartments (e.g. a house with a basement suite is counted as two duplex apartment units). Also included in singles are a small number of movable (mobile) homes and a very small number of single units attached to non-residential buildings (e.g. a house attached to place of worship). These three categories are collectively referred to as ground-related housing in this report.

The apartment category includes all other units and combines three Statistics Canada categories of “apartments of five or more storeys” meaning any typical medium and high-rise building. Duplex units are strictly 2 units in what would otherwise be single detached form (a semi with a basement suite does not become a duplex, but apartment under five storeys). “Apartments under 5 storeys” is the miscellaneous category including walk-up apartment buildings, stacked rowhouses, semi or row forms that have been divided into two or more units, singles divided into three or more units and any units in commercial buildings (e.g. over stores or in loft buildings).

The definition and usage of apartment as a very broad category is very important when considering the planning implications of the forecasts. There is a great deal of planning interest in providing innovative housing forms related to, for example, stacked rowhouses, low-scale main streets development and the encouragement of accessory units. All of these types are included within the apartment category.

The high rise form is still likely to remain predominant (today, it represents over 70% of the apartment units), but it is important to remember throughout the housing discussions that the apartment category does include much more, both within the historical base and through the forecast.
• Chapter III: Three forecast scenarios were prepared for the GGH and its two major component areas: GTAH and Outer Ring, as well as for each Census Divisions (CDs) within them. The three scenarios are: The Reference Forecast, the Low Forecast and the High Forecast.

• Chapter IV: Presents three distribution scenarios of the Outer Ring Reference Forecast: Current Trends, Compact and More Compact. The scenarios vary according to the degree of policy intervention directing growth. A detailed discussion of the 10 CDs of the Outer Ring is included here.

• Chapter V: Presents a detailed discussion of the distribution scenarios for the six CDs within the GTA-H.

In most cases, forecast results are provided in summary form for the decades from 1981 to 2031. More detailed forecast tables are available in a series of appendices to this summary report.

The chart above provides the structure of the forecasts presented in this report, as discussed in the text. As this is a complex series of forecasts and scenarios, to assist the reader we provided the following clarifications:

• the report focuses on the Reference forecast, except where it is specifically stated that discussion includes the high or low forecast;

• the term forecast is used to refer generally to totals for the GGH, GTAH and Outer Ring (the left and middle sections of the chart);

• the term scenario is used to refer to the distribution of population, employment or households within the GTA-H or within the Outer Ring (the right section of the chart).
II POWERFUL ECONOMIC, SOCIAL AND DEMOGRAPHIC FORCES DIRECT GROWTH PATTERNS

In preparing these forecasts a set of principal assumptions have been made about the economic future of Ontario. Added to this are more specific assumptions about population, household and employment growth. There are six major forces that will drive employment and population growth in the Greater Golden Horseshoe over the next 30 years:

1. The Economic Outlook
2. Growth in Major Urban Areas
3. The Composition of the GGH Economy
4. Migration
5. Aging of the Population
6. Infrastructure Investment

A. LONG TERM ECONOMIC OUTLOOK IS VERY POSITIVE

The GTAH and the Outer Ring are anticipated to continue to experience rates of long term economic growth sufficient to absorb the expanding labour force created through migration.

- Economic output is anticipated to continue to grow over the long term, with associated growth in employment and income.
- The GTAH is anticipated to remain the primary economic region in Ontario and continue to stimulate economic growth in its surrounding areas.

Population growth in Canada is increasingly concentrated in only a few major urban areas

Canada has, for many decades, been an increasingly urban nation. This has been the result of a rural–urban migration for most of the 20th century combined with urban immigration in the latter half of the century. More recently, however, Canada has become not just urban, but increasingly metropolitan. That is, more and more Canadians are living not just in towns and cities but in large urban-centred economic regions.

The chart below shows population growth between 1996 and 2001 for five urban-centred economic regions established through an “urban field” analysis. The Toronto-Hamilton-Waterloo area approximates the GGH — the other cities apply a similar broad definition to the urban-centred economic regions.

Outside of these five urban-centred economic regions, Canada’s population actually declined in the five year period shown. While some communities in the “rest of Canada” are still growing, declining levels of natural increase and migrant settlement patterns mean that the pattern shown in the chart below is likely to accelerate through the forecast period.
While there will be cyclical variations in the future, just as there has been in the past, the long-term outlook (used as the basis for these forecasts) is for the central Ontario economy to maintain a level of relative prosperity consistent with recent decades.

**B. ECONOMIC AND POPULATION GROWTH CONTINUES TO BE CONCENTRATED IN LARGE URBAN REGIONS LIKE THE GGH**

Population growth in Canada continues to be concentrated in only a handful of large urban regions. In the most recent Census period of 1996 to 2001, five urban regions accounted for more than all of the nation’s growth — the rest of county actually declined in population.

Ontario was one of the three provinces to grow faster than the national average during this period. However, this growth has not been evenly distributed. It has been heavily concentrated in south-central Ontario, particularly the GTA. This contrasts with a significant population decline in the north, and stable levels elsewhere in Ontario.

In 2006 and beyond, we anticipate this trend to continue, as more parts of Canada, especially more rural areas, experience population declines.

Jobs and people continue to concentrate in large urban areas around the world. Even countries with little or no population growth overall find that their major urban areas continue to grow at the expense of the rest of the country. For instance, the United Kingdom and France have experienced significant growth in their major urban areas, while national population growth has remained stable. As a large and highly integrated urban-centric economic region, it is likely that significant growth will continue to be concentrated in the GGH.

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**Manufacturing still matters**

A shift of employment to the service sector, together with highly publicized plant closures in the 1990s, has led to the view that our economy is less industrially based. However, manufacturing output is growing much faster than overall economic output — the economy is becoming more manufacturing oriented rather than less. Ontario’s manufacturing economy is concentrated in the GGH and southwestern Ontario.

Manufacturing employment is growing much more slowly than output. The difference is explained by productivity gains, a primary source of gains in overall wealth. It is also notable that some of the employment shift from manufacturing to the service sector has been statistical. Support activities in firms are increasingly contracted out — moving employees that do the same activity from goods-producing to service-production employment.

Planning for employment is really focused on land and building needs to accommodate economic activity and the transportation system. Economic output is at least as good an indicator of these needs as employment.
C. THE GGH IS A TRUE MIXED ECONOMY, WITH A SIGNIFICANT FOCUS ON COMPLEX, HIGH END MANUFACTURING

Much of what has been written about the new economy has focused on the rapid growth in the service sector and the relative declines in manufacturing employment. Some shifts are occurring in manufacturing, but can be explained largely by the globalization of manufacturing processes. High-value work is being increasingly done in developed countries by a skilled labour force while less specialized work is undertaken elsewhere in the global supply chain where less expensive labour is a competitive advantage.

1. GGH is one of the continent’s industrial and distribution powerhouses

At the Provincial level, the basic industrial composition of Ontario remains the traditional manufacturing and trade sectors. This is shown in the graph on the previous page, which demonstrates that manufacturing output has continued to grow. This has occurred with a proportionately smaller amount of growth in manufacturing employment, due mainly to labour-saving technological advancements.

The basic industrial orientation of the GGH economic region, centred on the GTA, also does not appear to be significantly changing. The largest category of employment in the GTA remains manufacturing, followed by trade. The GTA is in fact one of the most heavily industrialized metropolitan economies in North America.

The GGH has successfully retained a strong manufacturing base despite the pressures of globalization and free-trade. It has done this by attracting complex and high-end manufacturing centred on digital automation and robotics. Automobile manufacturing is one such example. During this shift many more traditional industries have declined. The overall success has occurred despite some manufacturing plant closures.

Employment in GGH is mixed, but continues to be dominated by manufacturing and distribution sectors

Despite the decline in the proportion of total employment in the traditional industrial sectors, manufacturing remains the largest employment category in the GGH, as shown in the chart below.

The chart also demonstrates a diverse employment base in the GGH, with substantial employment in the non-industrial sectors.

Relative to the national average, a greater proportion of the employment in the GGH is in manufacturing, business and related services and finance, insurance and real estate (FIRE). The GGH has the same or lesser proportion than the national average in all other categories.
2. Needs of an industrial economy require planning for appropriate land and access

Increasingly, planning policy has sought to promote a mixing of employment land uses with commercial, and sometimes even residential, uses. While some employment uses, such as major office, can co-exist with other uses, these are a very small component of the employment market.

Nearly half of the non-residential building market is on employment land, the vast majority of which consists of land-extensive box-buildings on large sites. These sites generate a lot of truck traffic. Although not noxious in the traditional sense of a rendering plant, for example, there is still potential for conflict. Noise from trucks idling, late hours of operation, intrusive lighting, the maintenance of outside storage, waste disposal and other externalities are just as incompatible with mixed-use development.

Large contiguous areas and the corridors which connect them to major markets still need to be planned for. This is possible as they are easily buffered, maximize opportunities to provide a wide range of sites and offer municipalities the most flexibility when competing for new investment. However, planning policy alone cannot address urban economic development.

One thing that planning policy would have a great challenge achieving is to increase employment densities. They are already at a historic high and are higher than most US cities. The density of economic activity has also increased. Lot coverages are high compared to many US cities, and new warehouses are being built to accommodate significantly increased amounts of inventory than found in past facilities of the same size. To increase employment and built densities further, planning policy would have to change the structure of the economy to make it more oriented towards offices, or councils would actually have to refuse types of economic development if they were not dense enough.

Components of migration

There are three major components of migration: international, inter-provincial and intra-provincial.

International migration is made up of three components:

- **Permanent immigration** describes those people migrating from other countries with the intention of settling permanently in Canada.
- **Emigration** describes those people that are leaving Canada with the intention of permanently settling in another country or are temporarily living abroad (these statistics deduct Canadians who previously emigrated and then have moved back to Canada).
- **Non-permanent residents** describes those people who have come to Canada with a status other than as landed immigrants: those on student, work or other special visas and refugee claimants awaiting a hearing on their status (once a refugee is accepted, the person is counted as a regular immigrant)

The forecast of international migration is based on assigning Ontario a share of Canada’s total for each of these components and then a share of Ontario’s to the GGH and finally distributing the GGH share between the GTAH and the Outer Ring.

Inter-provincial migration has two components: those leaving the province to live in another province and those entering from another province to live in Ontario. The forecast of inter-provincial migration is based on assigning a share of Ontario’s total for each of the two components to the GGH and distributing it between the GTAH and the Outer Ring.

Intra-provincial migration has two components: for each Census Division there is an in-migration and out-migration movement for those moving between two Census Divisions within Ontario. For the purposes of the forecast these are treated collectively for the six Census Divisions within the GTAH and for the 10 within the Outer Ring.
D. POPULATION GROWTH IN THE GGH INCREASINGLY GENERATED BY MIGRATION

1. No longer enough births to contribute to population growth in most of Canada

Much of Canada is experiencing a situation where the rate of natural increase is slowing significantly. This slowdown is making metropolitan growth increasingly dependent upon migration.

Migration to Canada, Ontario, and the GGH continues to be the main source of growth. It is driven by the attractiveness of its major urban areas and perceived as having excellent quality of life and some of Canada’s best economic opportunities.


For the GTAH, the largest component of migration is international immigration. Immigration is determined at the national level by Federal Government Policy. The relationship between the level of national immigration and the number of immigrants settling in the GTAH is well established.

- Ontario’s share of Canada’s total immigration has been historically stable at about fifty percent of the total, and has risen slightly in recent years.

- The GTAH’s share of Ontario’s immigration has also been steadily increasing, today accounting for roughly 80% of the province’s total.

Historic immigration patterns tied to economic and demographic factors

As shown in the graph below, Canada’s immigration policy has reflected the economic and demographic circumstances of the country for more than a century. Up to the mid 20th century, immigration levels can be clearly linked to the settlement of the prairies and the impact of depressions and wars.

Since the Second World War, immigration has been more directly tied to domestic economics and demographics. The reduced levels in the early 1960s were a result of the recession. The lower immigration from the mid-1970s to mid-1980s was the period when the large baby boom population was entering the labour force, reducing the need for additional entrants.

From the late-1980s to date, Canada has maintained relatively high immigration levels. Among other things, immigration serves to offset the demographics of an aging population. In the short-term high immigration levels will provide new working-age taxpayers to help fund the pensions and health care of the large baby boom population when they retire. In the long-term, its serves to moderate the effects of an aging population on rates of natural increase. Continued high levels of immigration through the forecast period is expected.

Source: Statistics Canada
Because the GTA accounts for such a high share of national immigration, Canada’s immigration policy has a direct influence on levels of immigration to the GTA and therefore the level of population growth.

Population growth in the GTA, in turn, has a strong influence on growth in surrounding regions.

3. Out-migration from the GTA to surrounding regions is the major force driving growth in the Outer Ring

For the past decade or more, intra-provincial migration within Ontario has been dominated by significant out-migration to areas surrounding the GTA. This is one of the primary reasons for the rapid rates of population growth in locations such as Barrie and Orangeville. As destinations for GTA-originating migrants, areas abutting the GTA such as Simcoe, Dufferin, Wellington and Northumberland Counties have also experienced significant growth.

There are exceptions to this intra-provincial migration trend – Waterloo and Niagara Regions – which are larger more-established urban areas, attract international migration as a significant component of growth, and are less reliant on the relationship with the GTA as a source of migrants.

This pattern of out-migration from the GTA is anticipated to continue. The economic region centred on Toronto is increasingly extending beyond the GTA, and this influence is likely to accelerate through the forecast period. This pattern of rapid urban growth beyond the traditional metropolitan area is well established in the outer regions of many other major cities in both Canada and the United States.

Looking at the GGH as a whole, migration is dominated by immigration. However, within the GGH there are two important migration movements. Immigration to the GGH is predominantly to the GTA, with a relatively small amount of immigration settling in the Outer Ring. At the same time, there is a significant movement of people from the GTA to the Outer Ring. It is this intra-provincial movement which is the primary source of migration and population growth in the Outer Ring.

The chart below indicates how closely tied the intra-provincial migration is between the GTA and the Outer Ring. It is this movement that is the primary demographic relationship between the GTA and the Outer Ring.

The pattern and volume of migrants is very similar in nearly every year, since it is largely the same people counted as out-migration from the GTA and as in-migrants to the Outer Ring. The one exception is the 1989 to 1992 period where the out-migration was significantly larger from the GTA. This was the result of significant migration from the GTA to other parts of Ontario — believed to be primarily people moving “back home” in the face of what was then a rapidly shrinking GTA economy.
E. AGING OF THE POPULATION IS A CRITICAL DEMOGRAPHIC FORCE AFFECTING GGH GROWTH

1. Aging of the population is not just about the baby boom — process advanced by increased longevity and low levels of births

The concept of the aging of the population is usually perceived as being primarily a product of the baby boom — the significant increase in births experienced during the twenty years following World War II. The combination of stable fertility rates and declining mortality, however, further contributes to the aging trend in the population.

- Fertility rates are anticipated to remain constant at the levels observed through the 1990s and the very early years of this century. The fertility rate has varied little since the steep fertility declines of the 1960s and 1970s, and shows no signs of significant change.

- Mortality rates will continue to decline, as the general health of the population improves and continued medical advances are made. This continues a long standing trend which shows no signs of abating.

2. Age-related housing choices have enormous implications for growth and planning in the GGH

From the late 1960s to the mid–1980s average household sizes declined significantly. This was the result of a reduction in family size, a reduction in the number of people living with extended families, and rapid increases in single-person households (because of changing social choices and the rise in the frequency of divorce).

As the population ages, the average household size will continue to decline — there will be a greater proportion of “empty-nester” households and of single person households (comprised primarily of widows, as women typically live longer than men).

Fertility rates have been stable in Canada for the past two decades

In modern times, Canada’s total fertility rate (TFR) peaked with the height of the baby boom in the 1950s and 1960s. The TFR then indicated that each woman would be expected to have nearly four children during her lifetime.

The TFR began plummeting in the mid-1960s and by the late 1970s stabilised near today’s historically low fertility rates. The expectation is that the fertility rate will remain near current levels for the forecast period.

While the historic pattern in the USA is similar to that of Canada, the trends have diverged significantly over the past decade. The USA is now back to a “replacement” level of fertility — the only major developed country to be at the 2.1 TFR level which allows a population to replace itself over the long term. Interestingly, much of the difference between the USA and Canada arises from much higher fertility rates in the USA for younger women under 25 and, more particularly, for women under 20.

Other international comparisons are shown elsewhere.
The age of those living within a household is a primary determinant of housing choices. Apartments are preferred by younger age groups, but this preference declines rapidly during years when most family households are formed. A preference for apartment living only returns among the elderly and typically occurs once people can no longer maintain their homes — usually this is a response to declining health or the death of a spouse. Currently, the longer we live and the healthier we remain in old age, the longer we remain in ground-related housing.

From an overall market perspective, it is the age of the population that drives the demand for housing by type. The peak baby boom population was in the apartment-occupying age groups during the heyday of apartment construction in the 1970s, but today is near the peak preference for ground-related housing, where it will remain for most of the forecast period.

The forecast method takes account of the close relationship between age and household formation and unit type preferences by forecasting the number of households and housing units for each five-year age group in the adult population and aggregating the results.

As a result of the age structure of the population, the long-term outlook is for a continued focus on ground-related housing units as the preferred lifestyle of the vast majority of the population. It should also be noted that while described primarily in terms of age, housing preferences have deep social, cultural and economic ties.

3. Labour force growth is also age-related but how people respond to future labour shortages is uncertain

Labour force growth will slow over the course of the forecast period, due to slower growth in the working age population. That is, the rate of growth in the working age population will be slower than the growth in the non-working age population, primarily in the elderly.

Age is a major indicator of housing choices

The graph below shows housing occupancy patterns by age of household head. It demonstrates how housing preferences follow life cycle patterns. Households in their 20s predominantly occupy apartments. Typically one’s first household is a rental apartment. Through their late 20s and 30s most people are forming family households and having children. It is at this time when people increasingly desire both ground-related housing and home ownership.

Occupancy of ground-related housing peaks amongst people in their 50s. The trend begins to move back in favour of apartment forms as people age (housing and the elderly are discussed in more detail in Chapter V).

Much of the future population distribution within the GTA and certainly the planning implications of the forecast anywhere in the GGH are tied to housing choices. It is notable below that the largest age cohort in the GTA population is not yet at the age when maximum occupancy of ground-related housing is expected. Even by the end of the forecast period the peak baby boom age group will only just be at the age when apartment occupancy is beginning to increase rapidly.

![GTA Housing Occupancy Patterns](image-url)
Much of the rapid labour force growth of recent years has been generated by the post-recession recovery in labour force participation rates. However, there is a limit to labour force growth from this source, since labour force participation is unlikely to fully recover to historic rates. Relative to the past, the period of working has become shorter as younger generations choose longer periods of post-secondary education, entering the labour market later.

How the economy and society will respond to the relative shortage of labour remains uncertain. There are two scenarios that are likely to occur. First, people may work longer, following a movement toward removing mandatory retirement. Second, the market may compensate for the shortage through wage rate restructuring and capital substitution.

Capital substitution is the investment in machinery to release labour. It includes not only manufacturing automation, but also virtually every application of technology, such as vending machines, electronic file management and voice mail.

The forecast takes a moderate position between these two scenarios of people working longer and the economy just substituting capital for labour. The forecast assumes only moderate increases in labour force participation in older age groups. By implication, the forecast then projects that continued labour demand will be satisfied by capital substitution.

F. FORECAST GROWTH CAN ONLY BE ACCOMMODATED WITH CONTINUED INFRASTRUCTURE INVESTMENT

1. Growth in the GGH today has been directed by infrastructure decisions up to 50 years old

Much of the urban structure we have today in Ontario is the result of past provincial infrastructure strategies. The Province played an active role in facilitating long-term infrastructure needs, by implementing:

As people live longer and remain healthier in older age, they remain in their houses longer

Contrary to the popular belief that empty-nesters and retirees flock to new lifestyles in Florida, Muskoka or downtown condos, the overwhelming statistical evidence is that people “age in place.” Most of the elderly remain in the family home as long they can and few permanently migrate elsewhere.

People tend to move out of their family home when one of two things occur: they can no longer physically maintain the property or a spouse dies. These factors often coincide, the latter greatly affecting the ability to maintain a house.

Today the age at which people are choosing to move is shifting. As a result of increased health, wealth and life expectancy, the propensity of those over 65 to move out of their family home has decreased quite dramatically. As illustrated below, in the GTA/H there has been a significant increase in households aged 65+ and occupying single detached units. If occupancy patterns for those over 65 had remained at 1986 rates through 2001, there would have been a need for 27,000 fewer single detached units, all other things being equal — this is equivalent to 10% of the single detached construction in this period.

There are a range of views as to the direction that this trend is now heading. Depending on the Scenario, the forecast for the GTA/H is based either on: the occupancy patterns for those over 65 remain close to the 2001 levels; or declining to earlier levels in response to new trends or policy initiatives.

![Single Detached Unit Occupancy Patterns of GTA/H Population Aged 65+](chart.png)
Major water and wastewater servicing schemes such as Toronto, Peel, York-Durham, Barrie, Waterloo Region, Collingwood and Alliston.

The 400-series highway system, which dates from an initial long-term highway plan drawn up in the 1950s and revised in the 1960s as part of the Toronto Centred Region Plan and other similar initiatives.

The highway plan and other needs identified in the Toronto Centred Region Plan resulted in the Parkway Belt West Plan, which has provided for major linear infrastructure including hydro corridors, the CNR’s Toronto by-pass (York Subdivision) and Highway 407.

The GO transit system, which began in 1967 along the Lakeshore line and today remains a major success story in commuter rail.

The Ministry of Public Infrastructure Renewal was created to build on and continue Ontario’s historic involvement in infrastructure planning.

Forecast population and employment growth patterns requires infrastructure to be in place

The urbanised area of the GGH is connected by major transportation links, supported by hard and soft infrastructure, and is increasingly defined by major open space features. The forecasts are based on the assumption that the Province and municipalities within the GTA will successfully plan and implement the necessary infrastructure improvements in the future as they have done in the past.

The Province is starting to address the “infrastructure deficit,” the result of lack of investment in the 1980s and 1990s. Within the time frame of the forecasts a number of infrastructure investments must be made in order to direct and manage the forecast growth. These include:

- Investment in all parts of the transportation system. This will be needed as congestion remains a problem for both people and goods movement nearly everywhere in the GGH.

Fertility declines elsewhere will reduce demographic pressures for increased migration

Canada’s Total Fertility Rate is a little higher than the lowest international levels, but remains at the lower end of the range along with a number of western countries.

What is, perhaps, more interesting internationally, are the large declines in TFR that have occurred in recent years in the developing world. As shown in the chart below, countries such as Mexico and India are not nearly as different from the USA or even Canada than is commonly supposed. The United Nations is now forecasting that the world fertility rate will decline from 2.7 today to below replacement at 2.0 by 2050.

The result of these worldwide declines in fertility rates is that the “population bomb” now appears far less explosive than it previously was. The world population is expected to peak around the middle of this century at less than 9 billion (up from 6.3 billion today).

This may mean that pressures for international migration (from the developing world to Canada) will remain economically based but may not arise from the population explosion that was once predicted.
• An expansion of water and wastewater systems. In some areas these will be the incremental expansions that most areas have relied on in recent decades. Other areas may need major new systems involving multiple municipal jurisdictions.

• An increase in soft-services and infrastructure. The need for more schools, hospitals and other human services must be met to accommodate significant population and employment growth.

• Major open space systems, while not precisely infrastructure, have some of the same characteristics in terms of the scale and long-term planning required.

Transportation rights of way and major open space systems need to be identified early in the planning process, before development pressures make them too costly or impossible to secure. Major water and wastewater systems also take many years to plan and implement.

3. Infrastructure needs differ significantly between GTA and the Outer Ring

In the GTA the major infrastructure issue is the transportation of both people and goods. Other major infrastructure, such as water and sewer expansions, is easier to address through standard planning processes and existing funding opportunities and development charge arrangements.

In the Outer Ring, however, long-range infrastructure needs include transportation infrastructure, but also other unique challenges. During the forecast period, the water and wastewater systems in many areas (including Wellington, Waterloo, Brant and Simcoe) may reach the capacity to expand using existing receiving streams and existing technology. Southern Dufferin County is nearly at that stage today. In order to accommodate the forecast growth in many of these areas these infrastructure problems must be resolved.

Much of the forecast is based on age-specific characteristics ... But, will the baby boomers behave like their parents?

Many of the attributes of the population in this forecast are based on age-specific characteristics, including labour force participation, household formation and housing type preferences. Of course, fertility and mortality are also age related.

Because of the size of the baby boom, the attributes and behaviours of this age group have driven many of the characteristics of population, housing and employment since the 1950s. In preparing the forecasts, it was often asked if we are just assuming that people (especially the baby boomers) will behave just like their parents as they age. The answer is both yes and no.

The baby boomers and those following are doing many of the same things as their parents. Most people form family households, have children and have the anticipated household and housing patterns associated with these characteristics. However, they are forming these family households in fewer numbers than their parents, having far fewer children, getting divorced more often and women are participating in the labour force in far greater numbers. All of these changes are accounted for in the forecast assumptions.

The real question is what changes might occur over the next 30 years. Will the baby boomers still retire at 60 or 65 or commonly work until 70 or 75? Will they still want stay in ground-related housing once they become empty nesters? While we can engage in interesting discussions around these topics, as yet there is no evidence that any dramatic changes are occurring in these kind of age-related behaviours. Where moderate change is observed, such as women’s labour force participation, these trends are continued through the forecast. The GTA housing Scenarios examine a range of policy-induced behavioural shifts that lie within a reasonable range of expected age-related behaviour. However, in the absence of strong evidence, we take the position that the forecast should not suggest dramatic behavioural changes.

Will we behave like our parents or our children like us? No, not precisely. Will behavioural changes occur through the forecast period? Yes, probably. Within a reasonable range of behavioural change, are we still faced the need to make long-term decisions on planning, development and infrastructure in the GGH? Yes, of course, we need to continue to plan for growth.
III GGH WILL ADD NEARLY 3.7 MILLION PEOPLE AND 1.8 MILLION JOBS OVER 30 YEARS

The growth forecast for the GGH is driven by the powerful economic, social and demographic forces described in Chapter II. In this chapter we present the population forecast for the GGH and for the two major divisions within this area — the GTA and the Outer Ring. The total forecast for employment and households are similarly presented.

A. POPULATION GROWTH LARGELY A RESULT OF MIGRATION

The urban region centred on Toronto has grown significantly over recent decades. This rapid growth is not only occurring in the GTA, but also in a wider area that includes, Barrie, Orangeville, Guelph and Kitchener. International migration is the key driver of growth in the GGH; most of this migration is destined for the GTA. The main demographic link within the GGH is intra-provincial migration from the GTA to the Outer Ring. This is the major source of growth in the Outer Ring.

The future migration level of the GGH will largely be determined by its attractiveness to immigrants. The most important component of a region’s attractiveness is its economic prospects. Since the GGH is anticipated to maintain its economic position within Canada, so too is it predicted to maintain high levels of migrant settlement.

Within the GGH, the pattern of migration is from the GTA to the Outer Ring. This pattern also reflects economic attractiveness on a more local scale. Factors such as housing affordability and jobs, as well as non-economic factors, such as transportation and access to open space, are decisive influences on migration patterns within the GGH.

Canada maintains among the highest rates of immigration among western countries

As shown in the chart below, Canada has long been one of the world’s major destinations for immigrants and has among the highest rates of permanent immigration. These relatively high rates of immigration have been the result of long term policies in Canada, the USA and Australia. The high rates in Canada are in contrast to Europe, where much lower rates of immigration prevail. Europe also differs from Canada in that many migrants are non-permanent residents and “guest workers” rather than permanent immigrants and future citizens.

Currently available data show that many other countries in the world have much higher rates of migration than Canada. Israel had a very high rate during the 1995-2000 period as it absorbed a large number of migrants from the former Soviet Union. This is primarily permanent immigration of the type usually seen in Canada.

<table>
<thead>
<tr>
<th>Country</th>
<th>Migration Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Israel</td>
<td>8.5</td>
</tr>
<tr>
<td>Australia</td>
<td>4.8</td>
</tr>
<tr>
<td>Canada</td>
<td>4.0</td>
</tr>
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</tr>
<tr>
<td>Germany</td>
<td>2.0</td>
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</tr>
<tr>
<td>Japan</td>
<td>0.5</td>
</tr>
<tr>
<td>India</td>
<td>-1.0</td>
</tr>
</tbody>
</table>

Source: US Census Bureau
1. Natural increase based on stable fertility rates and declining mortality rates

Natural increase of a population is the addition to the population of births and the deduction of deaths. In the forecast, births and deaths are determined by assumptions about fertility and mortality rates:

- Fertility rates are to hold at constant 2001 levels for the forecast period. They have changed little in recent years and there is no expectation of major change in the future.

- Mortality rates are to decline gradually, consistent with long-term trends.

2. Future Migration is the Key Growth Assumption

The historic and forecast total net migration to the GGH, including the international and domestic components, is summarised below. The absolute net number of migrants to the GGH is forecast to remain higher than observed in the past two decades up to 2011, but is to slow down toward the longer-term average between 2011 to 2031.

Future international migration is the key component of total migration. It is premised on the following:

- National immigration is anticipated to decline from about 218,000 immigrants annually in the 2001–2006 period to just under 210,000 for the remainder of the forecast period. This rate is slightly lower than has been seen in recent years, but reflects longer-term patterns.

- Ontario’s share of national immigration is anticipated to decline slightly from about 56% today to just over 54%, which is consistent with long-term averages.

Mortality rates are declining — people are living longer and staying healthier for longer

The life expectancy of Canadians has increased continuously for most of our history. The steady increase of the last half century shown in the chart has occurred in most of the rest of the developed world as well.

The expectation is for life expectancy to continue to increase slowly over the forecast period. The effect of the recent, more rapid rise in life expectancy has resulted in the forecasts to 2031 being about 150,000 higher than would be at earlier levels.

While we have maintained a view of gradual improvements of life expectancy, there are observers of the view that rapid improvement will continue and that those born today will commonly live to 100. Should this rapid change occur, the resultant population would be higher and would, of course, be older.
• The GGH is expected to remain the predominant destination for Ontario immigrants through the forecast period.

Net inter-provincial migration and intra-provincial migration are minor components of the total level of migration and are anticipated to remain relatively stable through the forecast period. The resulting total net migration to the GGH is summarized below.

<table>
<thead>
<tr>
<th>Greater Golden Horseshoe Reference Forecast</th>
<th>Average Annual Migration (in 000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
<td>Net International Migration</td>
</tr>
<tr>
<td>1981-1991</td>
<td>57</td>
</tr>
<tr>
<td>1991-2001</td>
<td>80</td>
</tr>
<tr>
<td>2001-2011</td>
<td>94</td>
</tr>
<tr>
<td>2011-2021</td>
<td>84</td>
</tr>
<tr>
<td>2021-2031</td>
<td>82</td>
</tr>
</tbody>
</table>

Note: Totals may not add due to rounding.

Source: Statistics Canada and Hemson Consulting Ltd.

The following are the key aspects of migration in the GGH over the course of the forecast period.

• Overall GGH growth will be generated primarily by international migration to the GTAHAH.

• The GTAHAH will also be the destination for people moving from other provinces to the GGH.

Migration forecast shows pattern of concentrated immigration to GTAHAH and the migration movement from the GTAHAH to the Outer Ring

The tables below segregate the migration forecast for the GGH into the forecast for the GTAHAH and the Outer Ring.

GTAHAH’s migration is largely international — the net international actually exceeds the total migration, international migration being balanced by intra-provincial out-migration.

It is the intra-provincial out-migration from the GTAHAH that makes up most of the in-migration to the Outer Ring.

In neither case is inter-provincial migration a significant component.

<table>
<thead>
<tr>
<th>GTAHAH Migration Reference Forecast (in 000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
</tr>
<tr>
<td>1981-1991</td>
</tr>
<tr>
<td>1991-2001</td>
</tr>
<tr>
<td>2001-2011</td>
</tr>
<tr>
<td>2011-2021</td>
</tr>
<tr>
<td>2021-2031</td>
</tr>
</tbody>
</table>

Note: Totals may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.

<table>
<thead>
<tr>
<th>Outer Ring Migration Reference Forecast (in 000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
</tr>
<tr>
<td>1981-1991</td>
</tr>
<tr>
<td>1991-2001</td>
</tr>
<tr>
<td>2001-2011</td>
</tr>
<tr>
<td>2011-2021</td>
</tr>
<tr>
<td>2021-2031</td>
</tr>
</tbody>
</table>

Note: Totals may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
• On the other hand, intra-provincial migration will be focussed primarily on the Outer Ring and will largely be the result of out-migration from the GTA. This out-migration from the GTA will drive growth in the Outer Ring in the coming decades.

3. Population growth is nearly the same over next 30 years as the past 30 years

The population growth forecast for the GGH is the result of both the assumptions about natural increase (fertility and mortality) and the assumptions about migration. Resulting primarily from migration, the population in the GGH is anticipated to grow from about 7.8 million in 2001 to about 11.5 million in 2031. This growth of 3.7 million over the 30 years period to 2031 exceeds the 3.1 million growth experienced during the 30 year period from 1971 to 2001. Because of the larger base, this growth represents a much slower rate of growth in the future than in the past. The reference population forecast for the GGH is shown below.

| Greater Golden Horseshoe Population Reference Forecast (in 000s) |
|---------------------|---------------------|---------------------|
|                     | GTAH                | Outer Ring          | Total GGH            |
| 1971                | 3,420               | 1,230               | 4,650                |
| 1981                | 3,950               | 1,410               | 5,360                |
| 1991                | 4,840               | 1,670               | 6,510                |
| 2001                | 5,810               | 1,980               | 7,790                |
| 2011                | 6,860               | 2,230               | 9,090                |
| 2021                | 7,780               | 2,560               | 10,340               |
| 2031                | 8,620               | 2,880               | 11,500               |

Note: Total population including Census under coverage

Source: Statistics Canada and Hemson Consulting Ltd.

Concentration of Ontario’s population growth in GGH is a long standing trend

The forecasts indicate that Ontario’s population growth will continue to be concentrated in the GGH and, particularly the GTA. This is consistent with the long-term trends over the past century as shown in the table below.

In the latter half of the 20th century the GGH held between a 70% to 80% share of Ontario’s growth. Throughout most of this period immigration made a significant contribution to growth and this immigration was highly concentrated in the major urban areas. This is distinct from the 1930s and 1940s when there was very little immigration due to the depression and World War II. Relying solely on natural increase, growth was less concentrated in major urban areas.

In the first three decades of last century, growth was relatively concentrated in the GTA owing in part to immigration and rural–urban migration within Ontario. High rates of natural increase in the rural areas kept the share in the rest of Ontario relatively high.

The forecast for the next three decades generally indicates a continuation of the pattern seen over the past half century, where the GGH may continue to account for 80% or more of Ontario’s growth.

<table>
<thead>
<tr>
<th>Share of Total Population Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
</tr>
<tr>
<td>Early Industrialisation: 1901-31</td>
</tr>
<tr>
<td>Depression &amp; War: 1931-51</td>
</tr>
<tr>
<td>Post War Boom: 1951-76</td>
</tr>
<tr>
<td>Globalization: 1976-2001</td>
</tr>
</tbody>
</table>

Source: Statistics Canada and Hemson Consulting Ltd.

Note: All time periods are in Census years, that is mid-year to mid-year periods.
B. EMPLOYMENT GROWTH TIED TO ECONOMIC OUTLOOK AND LABOUR FORCE PARTICIPATION

The base assumption of the forecast is that there will be sufficient economic activity to maintain relatively constant levels of labour force participation over the course of the forecast period.

Employment in market economies balances supply of labour (propensity to participate in labour force) with demand (economic activity) at a market price (wage rates). The economy, at its most efficient, enables most people who want to participate in the labour force to be working most of the time.

If these conditions cannot be met, i.e. should economic growth be insufficient to accommodate the labour supply, population growth will likely be lower than the Reference forecast level.

Preparing the employment forecast involves three steps. First, age-specific labour force participation rates are applied to the population in each age group, by sex, to determine the size of the labour force in each group. This is summed to provide the total GGH labour force. Second, an unemployment rate is applied to the labour force to determine the total resident employed labour force. Finally, net in-commuting is added to determine the total employment.

Labour force participation rates have been and will continue to rise during this decade as the labour market continues to recover from the dramatic declines experienced during the 1990s recession. The expectation is that for most age groups, labour force participation will return close to the levels of the 1980s through the forecast period, with the following exceptions:

Despite aging of the Canada’s population, age structure of the GGH remains relatively younger due to high levels of migration

As is widely discussed in the media, Canada’s population is aging, as the baby boom ages through the population and fertility rates remain relatively low. This is an accurate description of the Canadian age profile, but it is not the same everywhere.

Within the GGH, the population profile is currently and will remain younger than the national profile because of the continued migration to the area. Migrants (of all types) are predominantly in their 20s and 30s, so the addition of migrants serves to balance the aging baby boom in the GGH. This is also true of Vancouver and Calgary which also have high levels of migration. As a result, the rest of the country outside of these major centres will be older than the national average.

The age profile for the GGH is shown in the chart below. The largest age group in Canada’s population in 2001 was 40–44 reflecting the peak baby boom birth year of 1959. In the GGH the largest age group was slightly younger at 35–39. Looking forward 30 years, the baby boom will still be identifiable in Canada’s age profile. In the GGH, as shown below, the population age structure remains dominated by those in their 30s and 40s, the result of the recent and forecast migration to the GGH.

![GGH Age Structure Chart]

Source: Hemson Consulting Ltd. based on Statistics Canada Census Data
• those under 25 will maintain a lower than historic participation rate due to higher enrolment in secondary and post-secondary education;

• women over 40 will continue to have rising participation rates, nearing those of men, as women under 40 (who have high participation rates) grow into these older age groups;

• those over 65 will exhibit a small increase in the participation rate, on the assumption that some will stay in the labour force beyond today's typical retirement age.

These labour force assumptions are applied independently to the GTAH and the Outer Ring to take account of the differing labour market conditions in each area. The GTAH and the Outer Ring have different age structures and different levels of labour force activity.

The unemployment rate will remain at a long-term rate of about 6% (this is the rate used by the definition in the Census and would equate to about 7% based on the method used in the widely-reported Monthly Labour Force Survey).

Another aspect of employment within an integrated economic region such as the GGH is the commuting of people between their place of residence and place of work.

There are significant commuting movements between the GTAH and Outer Ring. It is expected that the absolute amount of such commuting will increase over the forecast period. However, while more people will commute from the Outer Ring to the GTAH, the rate of out-commuting from the Outer Ring will decline as more jobs are “captured” within Outer Ring communities.

Substantial number of jobs not based on standard home-work relationship

As the graph below illustrates, the number of people in the GGH who do not have a fixed place of work or who work from home, has increased dramatically over the past ten years: both the GTAH and Outer Ring have seen a similar increase of roughly 8% since 1991.

There are many reasons for this increase: technological improvements have allowed more people to work at home; and changes in the economy have led to more work being contracted. Traditional work-at-home continues as it has in the past for farmers, professionals and service people who have long had home-based businesses. The higher rates of at-home employment in the Outer Ring is primarily related to the more rural employment base in the area.

People with no fixed place of work are those who work in numerous locations such as those in truck driving, construction or freelance services. Not included are persons who have a primary place of employment but work elsewhere or at home from time to time. The large rise between 1991 and 1996 was the result of adding “no fixed” as a check box answer on the Census form — how these people answered the question in 1991 or before is unknown.

This fact is important for the forecast because it means that there is no clear pattern of large increases in at-home employment. This is maintained through the forecast. There is no indication from these data that there will be a large change in the need for non-residential built space because of working at home.
It should be noted that net in-commuting to the GGH and out-commuting from the GGH are only very small components of the total GGH employment, therefore having very little effect on the forecast.

The employment assumptions and corresponding forecasts anticipate a pattern of employment growth that will add a total of roughly 1.8 million jobs in the GGH, with most of this growth occurring early in the forecast period. The employment forecast is shown below.

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>2,040</td>
<td>610</td>
<td>2,650</td>
<td>2,500</td>
<td>720</td>
<td>3,220</td>
<td>2,940</td>
<td>870</td>
<td>3,810</td>
<td>3,630</td>
<td>1,010</td>
<td>4,640</td>
<td>4,030</td>
<td>1,130</td>
<td>5,160</td>
<td>4,320</td>
<td>1,240</td>
<td>5,560</td>
</tr>
<tr>
<td>1991</td>
<td>2,650</td>
<td>1,010</td>
<td>3,660</td>
<td>2,320</td>
<td>720</td>
<td>3,040</td>
<td>2,940</td>
<td>1,240</td>
<td>4,180</td>
<td>3,630</td>
<td>1,010</td>
<td>4,640</td>
<td>4,030</td>
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<td>5,160</td>
<td>4,320</td>
<td>1,240</td>
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<tr>
<td>2001</td>
<td>3,220</td>
<td>1,240</td>
<td>4,460</td>
<td>3,810</td>
<td>3,810</td>
<td>7,620</td>
<td>3,810</td>
<td>3,810</td>
<td>7,620</td>
<td>3,630</td>
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<td>5,160</td>
<td>4,320</td>
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<td>5,560</td>
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<tr>
<td>2011</td>
<td>4,640</td>
<td>1,010</td>
<td>5,650</td>
<td>4,180</td>
<td>1,010</td>
<td>5,190</td>
<td>4,030</td>
<td>1,130</td>
<td>5,160</td>
<td>3,630</td>
<td>1,010</td>
<td>4,640</td>
<td>4,030</td>
<td>1,130</td>
<td>5,160</td>
<td>4,320</td>
<td>1,240</td>
<td>5,560</td>
</tr>
<tr>
<td>2021</td>
<td>5,160</td>
<td>1,130</td>
<td>6,290</td>
<td>5,160</td>
<td>1,130</td>
<td>6,290</td>
<td>4,320</td>
<td>1,240</td>
<td>5,560</td>
<td>4,030</td>
<td>1,130</td>
<td>5,160</td>
<td>4,320</td>
<td>1,240</td>
<td>5,560</td>
<td>4,320</td>
<td>1,240</td>
<td>5,560</td>
</tr>
<tr>
<td>2031</td>
<td>5,560</td>
<td>1,240</td>
<td>6,800</td>
<td>5,560</td>
<td>1,240</td>
<td>6,800</td>
<td>4,320</td>
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<td>5,560</td>
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<td>1,240</td>
<td>5,560</td>
<td>4,320</td>
<td>1,240</td>
<td>5,560</td>
</tr>
</tbody>
</table>

Source: Statistics Canada and Hemson Consulting Ltd.

C. HOUSEHOLD GROWTH WILL BE MUCH FASTER THAN POPULATION GROWTH

Age-specific household formation rates are applied to a population forecast to give an estimate of the number of households produced by that population.

For the Outer Ring, the household forecast is independently determined for each Census Division based on their own age structure and household

Young adults finally recovering from the effects of the 1990s on their housing and employment choices

Young adults went through a very difficult period over the past 15 years, significantly affecting housing and labour markets. From 1986 to 2001 household formation rates for those plummeted for those aged 15–24 and declined significantly for those aged 25–34. In the late 1980s this was largely the result of housing affordability. In the 1990s, it was the result of the recession — young adults exhibited high unemployment and lower income. Household formation was thus delayed amongst young adults as more stayed “at home” for longer. The link between household formation and employment in these age groups is clear in the chart below.

Since these young adults were disproportionately affected by the recession (in both labour and housing behaviour) they are expected to benefit from the renewed economic growth in recent years. The graph below shows our expectations for the recovery to 2006 in labour and housing. The data is based on monthly labour force statistics and an analysis of current housing activity (this is the primary driver of the current condo boom). The forecast itself continues this recovery for a further ten years, until the 25–34 age group returns to earlier levels. The 15–24 age group is still expected to stay below earlier levels due to higher post-secondary education attendance.
Formation rates are held constant at estimated 2006 levels — small adjustments to the 2001 household formation rates have been made to account for good estimates that can now be made of 2001 to 2006 household growth. Because of the aging of the population stable age-specific household formation rates result in household growth being faster than overall population growth.

Conversely, household formation rates are applied to the total GTA population since the GTA is being treated as a single housing market area for the purposes of the forecast. Here, however, household formation rates have not been held constant. There is a specific adjustment for age groups under 35 where a significant increase in household formation rates is anticipated. Currently, the rate of household formation for this age group is at a 15 year low. Continued economic growth is anticipated to result in this rate increasing. This is because:

- Until recently, the under 35 age group has experienced great difficulty finding permanent employment.

- Young adults have been forced, due to housing affordability and lack of employment opportunities, to stay “at home” longer or to share accommodation. The result has been depressed levels of total new household formation and increased household sizes.

- As the economy has improved the under 35 age group has experienced a reversal in this pattern. Better economic opportunities have resulted in increased household formation rates, declining household sizes and a corresponding increase in the number of households.

Household size forecast to decline, consistent with historical trends

There is a long history of declining average household size. The declines occurred through the 1960s and 1970s as the fertility rate declined, the baby boom population grew up and formed households and the divorce rate increased. Further changes in fertility and divorce rates are not expected but household sizes will continue to decline as the population ages. An older population means fewer households with children (more empty nesters) and more single person households among the elderly (primarily widows). This is the long term outlook shown below.

The pause in the decline that occurred in the 1980s and 1990s was largely the result of high housing prices in the 1980s and the recession in the 1990s. Those most affected by this were the young adult age groups, as described in the box on the previous page. This pause in decline really only occurred in the GTA. Much of the current housing boom can be ascribed to “catching up.” The box on the following page indicates the relatively high current household size in the GTA. These trends were not as pronounced in the Outer Ring.

This is very important for planning because a declining household size means more housing units are required just to house the same population. The other important planning issue is that most GTA plans and forecasts are based on the “pause” period and so tend to under-estimate future housing needs associated with their population targets.

![GTA Historic & Forecast Household Size Graph](image-url)
<table>
<thead>
<tr>
<th>Year</th>
<th>GTAH</th>
<th>Outer Ring</th>
<th>Total GGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>1,330</td>
<td>490</td>
<td>1,820</td>
</tr>
<tr>
<td>1991</td>
<td>1,660</td>
<td>610</td>
<td>2,270</td>
</tr>
<tr>
<td>2001</td>
<td>1,970</td>
<td>710</td>
<td>2,680</td>
</tr>
<tr>
<td>2011</td>
<td>2,430</td>
<td>850</td>
<td>3,280</td>
</tr>
<tr>
<td>2021</td>
<td>2,860</td>
<td>1,020</td>
<td>3,880</td>
</tr>
<tr>
<td>2031</td>
<td>3,230</td>
<td>1,160</td>
<td>4,390</td>
</tr>
</tbody>
</table>

Source: Hemson Consulting Ltd.

Note: In the Outer Ring, household totals will vary slightly by forecast scenario because the household forecast is independently prepared for each area. For the purposes of this table, the Current Trends Scenario is shown.

D. FORECASTS HIGHER THAN THOSE PREPARED IN 1989, 1993 OR 2000

The population forecasts presented in this report are somewhat higher than the 1989 forecasts prepared for the Greater Toronto Coordinating Committee (GTCC), the 1993 forecasts prepared for the former Office of the Greater Toronto Area (OGTA) and the 2000 updates prepared for the GTA Committee.

The major differences between this report and the others are: higher migration and population growth already occurring in the post-2001 period, more rapid declines in mortality rates and a forecast suggesting continuation of migration levels through the forecast (rather than declining significantly late in the period as was assumed in 2000).

The employment forecast is somewhat conservative as compared to the 2000 forecast, due mainly to the labour force participation assumptions.

GT AH has a high household size compared to other large cities

Because of the planning implications of declining household size — more rapid housing than population growth — it has been considered from many different angles. While we are satisfied change will occur due to economic growth and aging, it is interesting to look at the GTA H compared to other cities.

The chart below compares adults per household (age 20 and over) — measured this way to reduce the effect of fertility rates and numbers of children in the comparison cities. The GTA H is highest in Canada and significantly higher than other Canadian cities. Compared to the USA, there are only a few cities with very different demographics that reach or exceed the level of the GTA H — these are cities with a very large Hispanic population. The Hispanic population in the USA has notably different demographic characteristics than the rest of the population, concerning household make-up and young adults living at home.

What does this tell us about the future of the GTA H? We are currently at something of a statistical “edge” when considering household size. The forces of economic growth and aging of the population would indicate that the GTA H is most likely to move toward the centre of this list over time.

Source: Hemson Consulting based upon data from the US Census Bureau and Statistics Canada

Note: Data for all Canadian CMAs and all US Metro areas are a weighted average.
and the age structure of the population. The current result is about 3% less than the 2000 forecasts, which is not a significant difference. However, the ratio of employment to population is somewhat lower in the current forecast than in any of the earlier forecasts.

E. HIGH AND LOW FORECASTS ALSO PREPARED TO PROVIDE A FORECAST RANGE

Low and High range forecasts are presented so as to provide a broad picture of the future growth outlook. The purpose of the low and high range scenarios is to illustrate growth prospects possible under a set of deliberately aggressive and conservative assumptions about the future economic outlook. The high and low forecasts for migration and the corresponding population and employment forecasts are shown in the tables on the following page.

### Comparing current forecasts to previous forecast results

The following tables provide comparisons to previous forecasts prepared though similar processes. For comparison, the current forecasts are shown as the GTA only (excluding Hamilton).

#### Comparison of 2001 and 2031 GTA Population Forecasts (in 000s)

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>2001</td>
<td>5,040</td>
<td>5,430</td>
<td>5,290 (est.)</td>
<td>5,290</td>
</tr>
<tr>
<td>2011</td>
<td>5,660</td>
<td>5,850</td>
<td>6,260</td>
<td>6,310</td>
</tr>
<tr>
<td>2021</td>
<td>6,270</td>
<td>6,950</td>
<td>6,980</td>
<td>7,170</td>
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<tr>
<td>2031</td>
<td>6,740</td>
<td>7,590</td>
<td>7,450</td>
<td>7,950</td>
</tr>
<tr>
<td>Growth, 2001–31</td>
<td>1,700</td>
<td>2,160</td>
<td>2,160</td>
<td>2,660</td>
</tr>
</tbody>
</table>

#### Comparison of 2001 and 2031 GTA Employment Forecasts (in 000s)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>2,890</td>
<td>2,860</td>
<td>2,730 (est.)</td>
<td>2,730</td>
</tr>
<tr>
<td>2011</td>
<td>3,260</td>
<td>3,370</td>
<td>3,320</td>
<td>3,390</td>
</tr>
<tr>
<td>2021</td>
<td>3,440</td>
<td>3,760</td>
<td>3,770</td>
<td>3,770</td>
</tr>
<tr>
<td>2031</td>
<td>3,530</td>
<td>3,970</td>
<td>4,140</td>
<td>4,030</td>
</tr>
<tr>
<td>Growth, 2001–31</td>
<td>640</td>
<td>1,110</td>
<td>1,410</td>
<td>1,300</td>
</tr>
</tbody>
</table>

Notes: The acronyms refer to previous incarnations of the client and committee: GTCC — Greater Toronto Coordinating Committee; OGTA — Office for the Greater Toronto Area; GTAC — Greater Toronto Area Committee; and GGHFC — Greater Golden Horseshoe Forecast Committee.

The 2000 GTAC forecasts did not publish 2001 forecasts. For the purposes of this chart the 2001 figures are interpolated from 1996 actuals and the 2006 forecasts.

The 1989 and 1993 forecasts were originally published as the Census population. For the purpose of comparison, these have been expressed as total population including net under coverage.
# Greater Golden Horseshoe Average Annual Migration Range

### Annual Averages Totals in (000s)

<table>
<thead>
<tr>
<th>Forecast Level</th>
<th>Period</th>
<th>GTAH</th>
<th>Outer Ring</th>
<th>Total GGH</th>
</tr>
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<tbody>
<tr>
<td>Historic</td>
<td>1981–91</td>
<td>46</td>
<td>17</td>
<td>63</td>
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<tr>
<td></td>
<td>1991–01</td>
<td>62</td>
<td>20</td>
<td>83</td>
</tr>
<tr>
<td>Low</td>
<td>2001–11</td>
<td>68</td>
<td>20</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>2011–21</td>
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<td></td>
<td>2021–31</td>
<td>26</td>
<td>24</td>
<td>50</td>
</tr>
<tr>
<td>Reference</td>
<td>2001–11</td>
<td>74</td>
<td>22</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>2011–21</td>
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<td></td>
<td>2021–31</td>
<td>78</td>
<td>43</td>
<td>120</td>
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### Greater Golden Horseshoe Population Range

<table>
<thead>
<tr>
<th>Forecast</th>
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<th>Outer Ring</th>
<th>Total GGH</th>
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<tbody>
<tr>
<td>2001</td>
<td>5,810</td>
<td>1,980</td>
<td>7,790</td>
</tr>
<tr>
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<tr>
<td>Low</td>
<td>8,030</td>
<td>2,720</td>
<td>10,750</td>
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<tr>
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<td>8,620</td>
<td>2,880</td>
<td>11,500</td>
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<tr>
<td>High</td>
<td>9,300</td>
<td>3,110</td>
<td>12,410</td>
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### Greater Golden Horseshoe Household Range

<table>
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<tr>
<th>Forecast</th>
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<th>Outer Ring</th>
<th>Total GGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>1,970</td>
<td>710</td>
<td>2,680</td>
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<tr>
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<td>Low</td>
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<td>1,250</td>
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### Greater Golden Horseshoe Employment Range

<table>
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<th>GTAH</th>
<th>Outer Ring</th>
<th>Total GGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>2,940</td>
<td>870</td>
<td>3,810</td>
</tr>
<tr>
<td>2031</td>
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<tr>
<td>Low</td>
<td>3,980</td>
<td>1,160</td>
<td>5,140</td>
</tr>
<tr>
<td>Reference</td>
<td>4,320</td>
<td>1,240</td>
<td>5,560</td>
</tr>
<tr>
<td>High</td>
<td>4,730</td>
<td>1,360</td>
<td>6,090</td>
</tr>
</tbody>
</table>

Source: Statistics Canada and Hemson Forecast.

Note: Totals may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
This chapter addresses the distribution of growth within the Outer Ring. It presents the population, household and employment forecasts for each of the ten Census Divisions under three growth scenarios.

A. ABILITY TO PROVIDE INFRASTRUCTURE WILL BE A MAJOR FACTOR AFFECTING THE LOCATION OF GROWTH

While a significant amount of growth in the Outer Ring is anticipated to result from natural increase, the majority will be driven by continued out-migration from the GTAH. Communities that are most attractive to migrants are expected to experience the strongest growth pressure. Three major factors contribute to a community’s attractiveness:

- Employment opportunities, both in terms of the availability of jobs in the community, and access to employment centres in the GTAH or elsewhere in the Outer Ring;
- The relative cost and availability of housing; and
- Lifestyle, including access to recreation and open space.

The first two factors are directly influenced by planning policy and infrastructure — particularly transportation networks and servicing capacity. The growth forecast for the Outer Ring assumes that a sustainable level of infrastructure, especially those associated with the servicing of residential and employment growth, is maintained over the course of the forecast period.

The infrastructure required to support anticipated growth is not currently in place, nor are all of the infrastructure needs currently planned or even
identified. For efficiency purposes, municipalities generally do not build infrastructure 25 years in advance and few have undertaken significant infrastructure planning as far out as 2031. The forecasts are only one piece of information contributing to long-term infrastructure planning in the Outer Ring. The forecasts will not be met if appropriate infrastructure is not or cannot be provided over the forecast period.

It is recognized that in many areas of the Outer Ring, supplying water and wastewater services will become increasingly challenging. This is particularly true towards the north of the GTA where there are limits to the assimilative capacity of Lake Simcoe, in the Orangeville area and in Wellington, Waterloo and Brant, where there are both water and wastewater limitations associated with groundwater and the Grand River. Addressing these limitations could, potentially, be very expensive. These limitations are not as pressing to the east of the GTA in Northumberland, Peterborough or Kawartha Lakes or in Niagara and Haldimand where there is access to the Great Lakes.

In the longer term, planning will increasingly direct growth to those locations where the necessary infrastructure is made available. At the same time, it must be understood that the Outer Ring is a very large area and market forces are strong — the scale and diversity within the Outer Ring and the historical growth patterns place some limit on the degree to which growth can be directed within it.

The very purpose of preparing distribution scenarios in the context of Places to Grow is to consider where growth may occur and how it may be altered by planning policy and infrastructure investment. The scenarios also help to understand how much growth might be directed through available means.

Outer Ring age structure will have increased numbers of elderly, but a generally more uniform structure.

The graph below represents the age structure of the Outer Ring in 2001 and 2031. The baby boom (35–55) and the baby boom echo (5–20) are clearly visible in 2001. By 2031, the age structure of the Outer Ring is much more uniform below the age of 75, than it is today. There are four principle reasons for this:

- The aging baby boom along with increased life expectancy, will result in more people in the age categories above 55 and especially above 70.
- The baby boom echo, by 2031, will be in the same age groups as their baby boomer parents are today.
- While less pronounced, the echo of the baby boom echo will be identifiable in the youngest age groups.
- Uniformity in the age structure is also generated by the high level of in-migration, dominated by those in their 30s and their children. This serves to moderate the effect of the baby bust on the pattern of age structure.
As time passes, planning policies will be implemented and infrastructure decisions will be made that will continue to shape the pattern of growth. The growth outlook here is not static through the forecast period but will evolve as the factors influencing it evolve.

B. NATURE OF OUTER RING ALLOWS FOR A STRAIGHTFORWARD APPROACH TO POPULATION DISTRIBUTION

Though clearly part of the larger economic area, each of the Census Divisions in the Outer Ring can be treated as its own housing market. None of the areas are physically limited in their ability to accommodate all types of housing and employment. With this in mind, the forecast population in the Outer Ring is distributed according to the following method:

- An independent cohort-survival model is applied to each CD. This assures that the forecast accounts for variations in the age structure of the existing population as well as variations in fertility rates and the age structure of migrants.

- The population forecast for each CD is made up of natural increase and migration. Natural increase is determined for each area by applying fertility and mortality rates in the model. The migration proportion of population growth is based on a forecast share of the total Outer Ring migration to each CD in each of the 5 year census periods. Varying the share of migration attributed to each CD is the method applied in the distribution scenarios described in the next section.

This approach to the population forecast assures that both the local characteristics of the populations are used, but that the overall growth in the Outer Ring remains within the overall “control totals.”
• Household growth is forecast based upon constant 2001 age-specific household formation rates by CD.

• The results of the employment forecast are based upon the maintenance of current activity rates for each CD. It is adjusted to take into account labour force participation rates, unemployment rates plus net in-commuting for the total Outer Ring.

• In tying the employment forecast to the population forecast, the driving forces behind employment growth are seen to be the same as the driving forces behind migration. This is consistent with the discussion at the beginning of this chapter, describing the relative attractiveness of communities.

C. THREE DISTRIBUTION SCENARIOS HAVE BEEN PREPARED

For both the Outer Ring and GTA, three growth scenarios are provided: Current Trends, Compact and More Compact. The total amount of growth for each of population, households and employment is the same for each scenario. The assumptions for the Current Trends Scenario are the same for both areas – the distribution of growth is based on recent policy trends, continues current growth and settlement patterns and assumes that the necessary infrastructure can be provided to support the growth.

The Compact and More Compact Scenarios are based on proposed growth plan policy directions from the Province’s Places to Grow discussion paper. The underlying growth planning objective is to make more efficient use of land by accommodating a significant amount of growth within existing urban areas. This would be accomplished by directing growth away from greenfields to priority and emerging urban centres and to better intensify brownfield, greyfields and urban corridors.

<table>
<thead>
<tr>
<th>The basis for the Outer Ring distribution scenarios</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defining the Scenarios in the Outer Ring</td>
</tr>
<tr>
<td><strong>Assumption</strong></td>
</tr>
<tr>
<td>Policies for Directing Growth</td>
</tr>
<tr>
<td>Settlement and Growth Pattern</td>
</tr>
<tr>
<td>Infrastructure Support</td>
</tr>
</tbody>
</table>

Notes: PUC is a Priority Urban Centre in the proposed Places to Grow discussion paper.

EUC is an Emerging Urban Centre in the proposed Places to Grow discussion paper.

“Other intensification opportunities” includes brownfield, greyfields and urban corridors.
The Compact Scenario anticipates more growth shifting to priority and emerging urban centres in Waterloo Region, Niagara Region, Wellington County and Brant County. Growth is also accommodated through other intensification opportunities in existing urban areas. The focus of growth follows proposed major economic corridors to the west and south.

The More Compact Scenario takes the Compact Scenario distribution and then shifts more growth to priority urban centres (which are in the Kitchener-Waterloo area).

Both the Compact and More Compact Scenarios only refer to how the growth is concentrated in different areas in the Outer Ring. Unlike the scenarios in the GTAH, these scenarios do not reference a potential housing mix but do imply that the housing types mix would need more apartments and row houses to support more compact development and intensification goals.

The shares of migration within the Outer Ring attributed to each of the CDs is shown on the tables at the end of this chapter. As well, the Reference Forecast results for the ten Census Divisions within the Outer Ring are presented.

D. IMPLICATIONS FOR COMMUNITIES WITHIN THE OUTER RING

The growth forecast has a number of key implications for the Counties, Separated Cities and Regions of the Outer Ring:

- Peterborough, Northumberland and Kawartha Lakes, at the eastern end of the Outer Ring, are all forecast to experience significant growth over the forecast period, particularly when compared to expectations for rural and smaller urban areas elsewhere in Ontario or Canada.

<table>
<thead>
<tr>
<th>Period</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Kawartha Lakes</th>
<th>Halton</th>
<th>Brant</th>
<th>Niagara</th>
<th>Waterloo</th>
<th>Wellington</th>
<th>Durham</th>
<th>Simcoe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Industrialisation:</td>
<td>-2%</td>
<td>6%</td>
<td>-5%</td>
<td>2%</td>
<td>12%</td>
<td>59%</td>
<td>30%</td>
<td>2%</td>
<td>-5%</td>
<td>1%</td>
</tr>
<tr>
<td>Depression &amp; War:</td>
<td>1%</td>
<td>9%</td>
<td>1%</td>
<td>7%</td>
<td>10%</td>
<td>39%</td>
<td>18%</td>
<td>5%</td>
<td>0%</td>
<td>12%</td>
</tr>
<tr>
<td>Post War Boom:</td>
<td>5%</td>
<td>6%</td>
<td>3%</td>
<td>4%</td>
<td>4%</td>
<td>24%</td>
<td>26%</td>
<td>9%</td>
<td>2%</td>
<td>17%</td>
</tr>
<tr>
<td>Globalization:</td>
<td>2%</td>
<td>5%</td>
<td>5%</td>
<td>3%</td>
<td>4%</td>
<td>8%</td>
<td>27%</td>
<td>12%</td>
<td>4%</td>
<td>31%</td>
</tr>
<tr>
<td>The Future:</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
<td>1%</td>
<td>3%</td>
<td>6%</td>
<td>30%</td>
<td>15%</td>
<td>3%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Source: Statistics Canada data and Hemson Reference Forecast
None of these areas have significant servicing constraints of the type that may be experienced elsewhere in the Outer Ring.

The levels of growth are less than local expectations, particularly in Peterborough. The future growth of these areas is dependent on their ability to attract growth, largely from the eastern GTA. The opportunity for these eastern areas to accommodate more growth than currently forecast, lies in their ability to attract local economic development and supporting economic activities, increasing economic integration with the rest of the GGH.

- In the northern part of the Outer Ring, Simcoe and Dufferin Counties will continue to be subject to enormous development pressure, due to their proximity to the GTA. The ability to accommodate growth in these areas, particularly southern Simcoe and Dufferin where the greatest pressures are, may be limited by the ability to provide appropriate water and sewer servicing. The issue is particularly acute in the Orangeville area, but also applies to the Lake Simcoe and Nottawasaga watersheds in Simcoe. The amount of growth in Simcoe under any scenario is large, meaning the servicing issues will need to be addressed during the forecast period.

- To the west, Wellington County, Waterloo Region and Brant County are forecast to experience significant growth under all scenarios. However, there are potentially very significant servicing issues for the larger urban communities as well as the smaller communities within these areas. Waterloo Region and Guelph rely on groundwater, while Brantford’s water supply is from the Grand River. All three of these communities rely on wastewater disposal through the Grand River system (via the Speed River in Guelph). The forecast growth will challenge the limits of both the groundwater sources and the Grand River effluent capacity. Alternative approaches to servicing, including systems from the Great Lakes may need to be considered during the forecast period.
The forecasts show Brant with much slower rates of growth than its neighbours to the north, based primarily on historic patterns of growth. There are signs, however, that these patterns are shifting. Brant is extremely well-located relative to major transportation routes and seems to have finally fully recovered from the enormous impacts of the early 1980s recession.

- To the south, Niagara Region and Haldimand County do not have the same long-term servicing issues as the Grand River watershed. Haldimand is still expected to remain a primarily rural community, though growth is expected due largely to its proximity to Hamilton. Niagara Region’s most challenging problem is its transportation links, relying almost solely on the congested QEW. Its future growth depends in many respects on the Province’s final approach to the economic corridor and the future growth areas, shown in Places to Grow.
### Outer Ring Average Share of Migration

#### Annual Averages Totals (%)

<table>
<thead>
<tr>
<th></th>
<th>Brant</th>
<th>Dufferin</th>
<th>Haldimand</th>
<th>Kawartha Lakes</th>
<th>Niagara</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Simcoe</th>
<th>Waterloo</th>
<th>Wellington</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1981–1991</strong></td>
<td>2.8</td>
<td>3.4</td>
<td>1.9</td>
<td>8.0</td>
<td>10.0</td>
<td>5.3</td>
<td>6.9</td>
<td>28.6</td>
<td>22.1</td>
<td>9.6</td>
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<tr>
<td><strong>1991–2001</strong></td>
<td>2.2</td>
<td>3.5</td>
<td>1.6</td>
<td>5.2</td>
<td>8.9</td>
<td>3.2</td>
<td>3.1</td>
<td>38.7</td>
<td>21.7</td>
<td>11.0</td>
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<tr>
<td><strong>Current Trends</strong></td>
<td>01–11</td>
<td>3.9</td>
<td>2.8</td>
<td>1.1</td>
<td>4.8</td>
<td>8.5</td>
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<td>11–21</td>
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<td>3.2</td>
<td>1.1</td>
<td>4.8</td>
<td>10.0</td>
<td>3.7</td>
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<td></td>
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<td>3.7</td>
<td>3.5</td>
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<td>25.1</td>
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<td><strong>Compact</strong></td>
<td>01–11</td>
<td>3.9</td>
<td>2.6</td>
<td>1.1</td>
<td>4.7</td>
<td>9.6</td>
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<td></td>
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<td>2.0</td>
<td>1.1</td>
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<td>3.2</td>
<td>3.9</td>
<td>24.2</td>
<td>26.0</td>
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<tr>
<td><strong>More Compact</strong></td>
<td>01–11</td>
<td>3.9</td>
<td>2.6</td>
<td>1.1</td>
<td>4.7</td>
<td>9.7</td>
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<td>13.5</td>
<td>3.4</td>
<td>3.4</td>
<td>25.2</td>
<td>28.1</td>
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<td></td>
<td>21–31</td>
<td>4.5</td>
<td>2.0</td>
<td>1.1</td>
<td>4.6</td>
<td>15.1</td>
<td>3.4</td>
<td>3.4</td>
<td>19.6</td>
<td>29.9</td>
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### Population Scenario Comparison (in 000s)

#### Distribution Scenario 2001 Population Forecast 2031 Population

<table>
<thead>
<tr>
<th>Distribution Scenario</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Kawartha Lakes</th>
<th>Haldimand</th>
<th>Niagara</th>
<th>Simcoe</th>
<th>Brant</th>
<th>Wellington</th>
<th>Waterloo</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Trends</td>
<td>80</td>
<td>130</td>
<td>70</td>
<td>45</td>
<td>425</td>
<td>410</td>
<td>130</td>
<td>455</td>
<td>455</td>
<td>1,980</td>
</tr>
<tr>
<td>Compact</td>
<td>100</td>
<td>145</td>
<td>100</td>
<td>55</td>
<td>485</td>
<td>390</td>
<td>170</td>
<td>720</td>
<td>755</td>
<td>2,875</td>
</tr>
<tr>
<td>More Compact</td>
<td>95</td>
<td>145</td>
<td>100</td>
<td>55</td>
<td>510</td>
<td>665</td>
<td>175</td>
<td>730</td>
<td>335</td>
<td>2,875</td>
</tr>
</tbody>
</table>

### Household Scenario Comparison (in 000s)

#### Distribution Scenario 2001 Households Forecast 2031 Households

<table>
<thead>
<tr>
<th>Distribution Scenario</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Kawartha Lakes</th>
<th>Haldimand</th>
<th>Niagara</th>
<th>Simcoe</th>
<th>Brant</th>
<th>Wellington</th>
<th>Waterloo</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
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<td>25</td>
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<td>45</td>
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<td>160</td>
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<td>25</td>
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<td>270</td>
<td>65</td>
<td>285</td>
<td>290</td>
<td>1,160</td>
</tr>
<tr>
<td>More Compact</td>
<td>40</td>
<td>65</td>
<td>45</td>
<td>25</td>
<td>220</td>
<td>260</td>
<td>65</td>
<td>290</td>
<td>300</td>
<td>1,160</td>
</tr>
</tbody>
</table>

### Employment Scenario Comparison (in 000s)

#### Distribution Scenario 2001 Employment Forecast 2031 Employment

<table>
<thead>
<tr>
<th>Distribution Scenario</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Kawartha Lakes</th>
<th>Haldimand</th>
<th>Niagara</th>
<th>Simcoe</th>
<th>Brant</th>
<th>Wellington</th>
<th>Waterloo</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Trends</td>
<td>30</td>
<td>55</td>
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<td>185</td>
<td>55</td>
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<td>100</td>
<td>235</td>
<td>865</td>
</tr>
<tr>
<td>Compact</td>
<td>35</td>
<td>60</td>
<td>30</td>
<td>20</td>
<td>205</td>
<td>70</td>
<td>25</td>
<td>160</td>
<td>365</td>
<td>1,235</td>
</tr>
<tr>
<td>More Compact</td>
<td>35</td>
<td>60</td>
<td>25</td>
<td>20</td>
<td>220</td>
<td>70</td>
<td>25</td>
<td>160</td>
<td>365</td>
<td>1,235</td>
</tr>
</tbody>
</table>

Source: Statistics Canada data and Hemson Forecasts

Notes: Totals may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.

Appropriate to the available data and the length of the forecast period, results are rounded to the nearest 5,000. In some of the smaller communities, the variation between the Scenarios is less than the rounding factor.
V DISTRIBUTION OF GROWTH IN GTA-HAMILTON

The GTA-H is anticipated to grow from a 2001 population of about 5.8 million, to a 2031 population of about 8.6 million. This represents growth of about 2.8 million people. Household growth will occur at a much faster rate than population growth, from almost 2 million households in 2001 to about 3.2 million households in 2031. Employment is anticipated to grow from about 2.9 million jobs in 2001 to about 4.3 million jobs in 2031, or growth of about 1.4 million jobs.

This chapter discusses the distribution of the growth within the GTA-H. Unlike the Outer Ring, where the distribution of growth is determined by market position and the availability of infrastructure, the distribution of growth within the GTA-H is affected more by its physical constraints on growth. These constraints affect each of the GTA-H community’s ability to accommodate various types of housing and employment. The chapter begins with a discussion of the method used to distribute growth, followed by a description of the three distribution scenarios — Current Trends, Compact, and More Compact — and their results.

A. GROWTH IS DISTRIBUTED BASED UPON BUILT FORM AND SHARE OF NEW BUILDING ACTIVITY

The distribution of population and employment in the GTA-H is determined by the ability of each area to accommodate certain types of growth. This growth distribution model takes into account the decisions made by households and firms about where to live and work. These decisions are complex, being influenced in varying degrees by built form, price, location and amenities. As described in the box at right, while social, cultural, environmental and economic factors are all very influen-

Residential and employment location decisions are very complex but are driven largely by a balance between cost and built form

Residential location is subject to a very complex decision-making process balancing housing type, unit and neighbourhood attributes, location relative to places of employment and, of course, price and affordability. While recognising that these decisions are very complex, a premise of the housing forecast is that the built form is a key starting point in the decision tree and one of the major determinants of residential location.

As an example, a young new household in Scarborough may be seeking their first ownership residence. Ideally, they might choose a single detached unit in Scarborough. However, what they can afford may be an apartment in Scarborough, a rowhouse in Ajax or a single detached house in Clarington. The household may choose any of these options, balancing price, location and unit type. What this household is unlikely to do, however, would be to choose an apartment in Ajax or a rowhouse in Clarington.

A large part of the growth in 905 remains out-migration of young households from Toronto. What all this means for the forecast is that more of the medium and higher density units are most likely to be demanded nearer the central parts of the urban area and the least dense units at the edges. These factors create a market-based challenge achieving denser more compact development through higher density housing types on the peripheries of the urban area.

Location decisions of employers are also complex, though there is typically far less flexibility in built form possibilities. With rare exceptions, firms dealing with goods manufacture, distribution or sale are limited to single storey industrial type buildings. Other economic activities may be slightly more flexible but rarely would have a full range of building types open to them.

The location decisions for employers involve availability of the right building form, accessibility for goods and employees and, of course, cost. Balancing various costs is complex for employers, involving both capital (building and land cost either for purchase or through lease) and operations. A key part of operating costs which appears to affect some employer’s location decisions is property tax, non-residential rates being much higher in Toronto than surrounding areas.
tial, built form preference is the primary factor which influences these decisions. It is for this reason, that a key basis of the population distribution is a distribution of housing by type and a key basis of the employment forecast is a land-use based categorisation of employment activities.

The method used to distribute population growth in the GTAH is a three step process:

- the total GTAH population and household growth is disaggregated into a forecast of housing by unit type;
- the forecast by housing unit type is applied to the communities within the GTAH based on a consideration of historic patterns of demand, market potential and ability to physically accommodate units; and
- once the total housing stock for each community is determined through this process, the population of each area is determined by applying a person per unit factor to the units.

Employment growth is determined in a similar manner:

- total employment growth in the GTAH is based upon the application of age-specific participation rates to the population forecast, adjusted for unemployment and net in-commuting;
- employment growth is divided into the three major land-use-based types — major office, population-related and employment land; and
- the forecast employment growth is then distributed to communities within the GTAH based upon historic patterns of demand and future market potential.

The remainder of this section discusses in greater detail the resulting housing, population and employment factors.
1. Major factor influencing population growth is unit type

The ability of a community to accommodate population growth is a function of its ability to accommodate different types of housing units relative to the demand for those unit types across the regional housing market. Ground-related housing types require the most land for development—single detached, semi-detached, and rowhouse units. For the most part, new single and semi-detached units can only be built on new greenfield development land. Most apartment development does not occur on new greenfield land, but rather as redevelopment, intensification or in planned nodes. Rowhouse development is typically more evenly split between the two types of locations.

In the City of Toronto, for example, there is no significant potential for single and semi-detached housing development. As much of the background work prepared for the new official plan demonstrates, however, there is a very significant number of potential sites where apartments could be built through redevelopment and intensification. The amount of apartment construction that actually occurs, however, is not driven by the potential supply. It is driven by the number of people across the GTA H that choose to live an apartment lifestyle; in other words, the regional demand for apartment units.

Current expectations for housing demand by housing type in the GTA H, based upon demographic analysis and unit type preferences by age group, indicate a housing mix dominated by ground-related units. As a result, communities that can accommodate the public’s desire for ground-related housing types can accommodate the largest shares of population growth. In the GTA H, these are primarily the five areas located outside of the City of Toronto.

Immigration to the GTA H not just to the City of Toronto

While the City of Toronto is unquestionably the number one destination in Ontario for immigrants, it is not the only destination within the GTA H area. Immigration reception is no longer just a central city role, though immigration settlement in Toronto remains at 2.5% of the total population, annually.

The Region of Peel is also a considerable draw for immigrants, at 1.8% of population annually. The reasons for this are their physical location within the GTA H (abutting the central city), the quality of life and strong employment potential as well as the established immigrant communities attracting others who share language and culture.

The other four areas in the GTA H, attract immigrants at rates below the GTA H average of 1.1% of population annually. York and Hamilton are just below this level at 0.9% and 0.7%, respectively. Halton and Durham have the lowest rates of new immigrant settlement at 0.4% and 0.2% respectively.

<table>
<thead>
<tr>
<th>IMMIGRATION BY TOP 15 DESTINATIONS</th>
<th>1996-2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toronto</td>
<td>400</td>
</tr>
<tr>
<td>Peel</td>
<td>300</td>
</tr>
<tr>
<td>York</td>
<td>200</td>
</tr>
<tr>
<td>Ottawa</td>
<td>100</td>
</tr>
<tr>
<td>Essex</td>
<td>50</td>
</tr>
<tr>
<td>Hamilton</td>
<td>25</td>
</tr>
<tr>
<td>Waterloo</td>
<td>25</td>
</tr>
<tr>
<td>Middlesex</td>
<td>25</td>
</tr>
<tr>
<td>Halton</td>
<td>15</td>
</tr>
<tr>
<td>Durham</td>
<td>10</td>
</tr>
<tr>
<td>Niagara</td>
<td>5</td>
</tr>
<tr>
<td>Wellington</td>
<td>5</td>
</tr>
<tr>
<td>Simcoe</td>
<td>5</td>
</tr>
<tr>
<td>Frontenac</td>
<td>5</td>
</tr>
<tr>
<td>Chatham-Kent</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, Annual Demographic Statistics
2. **Average household size declines have significant influence on final population counts**

The overall housing unit mix at the GTA-H level is allocated to individual communities based upon their potential to accommodate various unit types and the market demand in these locations. The forecast housing unit growth is determined primarily by the potential supply of greenfield development land to accommodate ground-related units. For apartment development, no area is supply limited in the near-term. Rather, the location of apartments is determined by market preferences within each community, for example, downtown Toronto, Mississauga City Centre, arterial road corridors or greenfield sites.

The final population forecast is determined by applying various household sizes, by unit type, to the forecast housing mix. The calculation of household size applied to the total stock of housing units is critically important to the final population forecast.

Even a fairly minor shift of 0.1 persons per unit across the entire housing stock can have a significant impact. Such a shift would affect Toronto’s population by about 100,000 people, and the Region of Peel’s by nearly 40,000. As discussed in Chapters I and II, continued declines in average household size means that the GTA-H will experience a growth rate in new units that is higher than its population growth rate. This is especially important in considering growth in the City of Toronto where a great deal of additional housing is required to maintain the current level of population as well as add to total population.

This report forecasts a continued gradual decline in household size across the GTA-H. This decline is expected to occur at approximately the same rate for each housing type. This approach maintains current household size relationships between both unit type and region. For example, single detached household sizes remain slightly larger than rowhouses across the GTA-H and the larger households sizes in Peel and York Regions relative to the other areas would be maintained.
3. Major factor in accommodating employment growth is the built form

Similar to housing unit types, a community’s ability to accommodate employment growth depends in large part on land use and built form and the structure of the regional economy. This is the basis for our analysis of the distribution of employment growth within urban areas. This report uses the method of classification of employment based on land use that was created for the first GTA-wide forecasting exercise undertaken in 1989. The method divides employment land use into 3 categories — major office, population related and employment land employment. Each category is defined below.

The land and building form associated with employment is more relevant to the geography of employment growth than the sectoral composition of economic activity. Most economic sectors accommodate a full range of building types. Core parts of the service sector, for instance, can occupy space ranging from general industrial-type buildings, to Class A office space to retail forms. Informed by an outlook for growth by economic sector — primarily the expectation of continued strength in goods production and distribution — and how various economic sectors are accommodated on the land base is the foundation of the employment distribution.

The major land based categories, and their key characteristics are:

- Major office employment is defined as employment in free-standing office buildings of 20,000 sq.ft. or greater.

Major office occurs at much higher densities than other employment types, therefore the supply of land is considered to be unlimited. Development can occur in virtually any location, whether it be in downtowns, centres or business parks. As a result, the location of major office development is driven by market desires and is generally not greatly influenced by land-use planning. However, transportation infrastructure is a key characteristic of successful office areas.

GGH is a major North American manufacturing and distribution centre

The GGH is one of the most concentrated manufacturing and distribution centres within North America. The chart below shows that GTA has proportionately more industrial space than any other major centre in Canada or the USA. In order to provide a consistent basis for comparison to other communities, only the GTA is shown in the chart. However, Hamilton and the Outer Ring economies are also focussed on these sectors.

Much of the GTA’s recent economic growth is tied to growth in the goods trade with the United States, which has increased dramatically since the implementation of various free trade agreements. The GTA is connected to this economic activity through high volume trade corridors which provide the major links to the highly integrated North American automobile industry. In total, there are six major trade corridors which provide the GTA with access to markets and other centres of production in the USA.

There is no evidence that the current structure of the regional economy is shifting away from manufacturing and distribution activities. As a result, continued growth in the southern Ontario economic base is anticipated to continue to drive demand for industrial-type space, and for corresponding employment land needed to accommodate it.

<table>
<thead>
<tr>
<th>Industrial Floor Space Per Capita</th>
<th>GTA</th>
<th>Atlanta</th>
<th>Dallas-Fort Worth</th>
<th>Chicago</th>
<th>Winnipeg</th>
<th>Calgary</th>
<th>Montreal</th>
<th>Detroit</th>
<th>Vancouver</th>
<th>LA-Riverside-Orange County</th>
<th>Philadelphia</th>
<th>San Francisco-Oakland-San Jose</th>
<th>Boston</th>
<th>Washington-Baltimore</th>
<th>Ottawa-Hull</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per Capita Square Feet</td>
<td>0</td>
<td>20</td>
<td>40</td>
<td>60</td>
<td>80</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>0</td>
<td>20</td>
<td>40</td>
<td>60</td>
<td>80</td>
<td>100</td>
<td>120</td>
</tr>
</tbody>
</table>

Source: North American Office and Industrial Real Estate Survey
In the GTA, the most competitive areas for major office development are relatively well established: Toronto's financial core, a small number of centres and the edges of employment areas with superior highway access.

Most of the transit-oriented nodes that have traditionally been planned for office development have been relatively poor performers in the past decade. Most new office space has been developed in business park areas. The major exception is downtown Toronto, which has added considerable amounts of new space through renovated "brick and beam" space in the central area, though few new buildings have been built.

- Population-related employment is defined as employment which provides services to a resident population in retail and institutional establishments. It also includes those who work from home. Most population-related employment occurs locally in response to resident population growth. In the case of the GTA it is scattered throughout the region. Planning for this growth already occurs in the normal secondary planning process for retail and institutional uses. A portion of this category takes the form of higher order uses which tend to concentrate in central cities, such as downtown shopping and specialty retail, universities, specialised medical services, and other high order services.

- Employment land employment is the range of employment uses in industrial-type buildings, typically concentrated in business parks and other designated employment areas.

Nearly all of the employment growth in this category occurs in new suburban employment areas and business parks. The location of employment land employment growth is driven primarily by the availability of well-located greenfield employment land. Buildings in older, developed employment areas are almost always recycled and reused by the market, but these areas rarely accommodate significant additional net employment growth in the process.

Single storey buildings dominating employment lands are becoming much more efficient

Employment land continues to be characterized by single storey industrial type buildings surrounded by areas used to manoeuvre trucks and for uses such as parking and outside storage. This pattern of development may appear wasteful to many observers, but is actually quite efficient. The building density of employment areas has, in fact, increased significantly over the past 20 years.

In most areas in the GTA, lot coverages have increased for typical buildings from about 30% to around 40% and even to 50% in some cases. Ceiling heights have increased from as low as 12 to 20 feet or more. The productive interior volume of these buildings is much higher today than in the past.

The increased efficiency of the built form is the result of economic incentives to minimize the amount of space used coupled with increased automation. Added to this is the fact that competitive employment land in the GTA is expensive. Many companies have sought to become more efficient by consolidating their operations and their space. One way to achieve this is to build one large building instead of several smaller ones. In the pursuit of profit, it is rare for firms to pay for land they do not need.

From a planning perspective, employment and employment density are not the only factor that should be considered when considering employment land need. There are large distribution uses with little employment as well as higher density uses that result from the combination of industrial and office activities within the same structure. The latter is the primary reason for increased employment densities in GTA employment areas. The former are necessary economic functions which require a significant land base.
It is important to understand this category of employment. Within a given business park, there will be substantial amount of employment land employment, but there may also be major office employment and retail or service employment, which may be considered population related.

<table>
<thead>
<tr>
<th>Employment Category in the GTA, 2001</th>
<th>Employment Land</th>
<th>Major Office</th>
<th>Population Related</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toronto</td>
<td>25%</td>
<td>38%</td>
<td>37%</td>
</tr>
<tr>
<td>Peel</td>
<td>57%</td>
<td>14%</td>
<td>29%</td>
</tr>
<tr>
<td>York</td>
<td>58%</td>
<td>12%</td>
<td>29%</td>
</tr>
<tr>
<td>Durham</td>
<td>55%</td>
<td>3%</td>
<td>42%</td>
</tr>
<tr>
<td>Halton</td>
<td>61%</td>
<td>8%</td>
<td>34%</td>
</tr>
<tr>
<td>Hamilton</td>
<td>49%</td>
<td>6%</td>
<td>45%</td>
</tr>
<tr>
<td>GTAH Total</td>
<td>41%</td>
<td>24%</td>
<td>35%</td>
</tr>
<tr>
<td>Regional GTA (Excluding Greater Toronto and Hamilton)</td>
<td>55%</td>
<td>10%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Source: Hemson Consulting Ltd. based on Statistics Canada data.

The primary forces acting on the distribution of employment growth in the GTA are the building types required and locations desired for each of the employment types. The nature of economic activities concentrated in central cities — primarily Toronto, but also Hamilton — means that growth and change in employment have a more complex relationship with built form and are inherently more difficult to forecast.

B. SCENARIOS VARY BY HOUSING MIX, AND GEOGRAPHIC DISTRIBUTION OF GROWTH

Three distribution scenarios have been prepared: Current Trends, Compact and More Compact. The total amount of population and employment is the same for each scenario. The variation between the GTA has an average share of major offices compared to other Canadian and US centres

The office market plays an important role in the GTA economy because it accommodates significant amounts of employment. The high density employment provided by major offices allows for the development of mixed use areas, including retail, commercial, and in some cases residential. Proportionally, however, the size of the office market in the GTA is not nearly as large as in some other major cities in Canada and the United States, as shown in the chart below. For comparability to other centres the figures in the chart are for the GTA only (excluding Hamilton).

Because of the size of the GTA, in absolute terms, it remains Canada’s largest office market, but is much smaller compared to the enormous Washington-Baltimore market.

The reason the GTA has a proportionately small office market is the structure of the GTA economy, which is dominated by the industrial sector rather than by business activities that typically occupy office space, such as financial, government and other professional and technical services. This situation limits the GTA’s ability to achieve the large scale, mixed use, developments observed in some US Cities, such as the Reston Town Centre or Crystal City in the Washington-Baltimore area. The office market in the GTA is just not big enough to support a large number of large-scale centres of mixed-use development.

OFFICE FLOOR SPACE PER CAPITA

Source: North American Office and Industrial Real Estate Survey
The Growth Outlook for the Greater Golden Horseshoe

Hemson Consulting Ltd.

scenarios depends on achieving different levels of compact development. Given the method of distributing population growth within the GTA through the housing distribution, the levels of compact development are expressed in terms of a future possible mix of housing units.

The Current Trends scenario is based on continuing current policy trends, current growth and settlement patterns and assumes that the necessary infrastructure can be provided to support the growth. It continues the recent pattern of smaller lots and higher densities for all housing forms. It is based on maintaining the high market share of semis and row houses within the housing market, a feature that only emerged in the past 10 years.

- The Compact and More Compact scenarios are based on proposed growth plan strategies from the Province's Places to Grow discussion paper. The underlying growth planning objective is to make more efficient use of land by accommodating a significant amount of growth within existing urban areas. This is accomplished by directing more growth away from greenfields to priority and emerging urban centres, and to better intensify brownfield, greyfields and urban corridors.

- The Compact scenario anticipates directing growth to priority and emerging urban centres and other intensification opportunities. Compared to the Current Trends scenario, growth is redistributed from some GTA regions to Toronto. It would require building more medium and high density housing types (rows, stacked townhouses, walk-up apartments, medium and high-rise apartments). This represents significant shifts in the housing market and preferences of GTA households.

- The More Compact scenario is based on population and employment targets for each region or city that were developed by the GTA Steering Committee. These targets were developed by shifting the

<table>
<thead>
<tr>
<th>Defining the Scenarios in the GTAH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assumption</strong></td>
</tr>
<tr>
<td>Policies for Directing Growth</td>
</tr>
<tr>
<td>Potential Housing Mix by 2031</td>
</tr>
<tr>
<td>Potential Mix of New Housing, 2001–2031</td>
</tr>
<tr>
<td>Settlement and Growth Pattern</td>
</tr>
<tr>
<td>Infrastructure Support</td>
</tr>
</tbody>
</table>

Notes: PUC is a Priority Urban Centre in the proposed Places to Grow discussion paper.

EUC is a Emerging Urban Centre in the proposed Places to Grow discussion paper.

“Other intensification opportunities” includes brownfield, greyfields and urban corridors.
distribution of growth from some GTA regions to allow for even higher levels of growth in Toronto and somewhat more growth for Hamilton and Durham Region than the Compact scenario. The More Compact scenario would require a higher level of compact development and more medium and high density housing types than the Compact scenario.

Because the structure of the metropolitan economy dictates the land use and built form of development for employment as well as the density of employment in the GTA, the attribution of employment growth to the three major categories does not vary significantly between the three growth scenarios. Modest shifts in the patterns of growth are anticipated, notably a more balanced distribution of growth between the eastern and western GTA, but major shifts in the established pattern of employment growth are not projected.

1. Achieving more compact growth scenarios begins with a change in housing mix

In order to achieve more compact development in built-up areas, the character of the housing mix must change to include more medium and higher density units. The mix is explained below and illustrated on the following page.

- The Current Trends scenario is based upon a continuation of both the current policy regime and the level of intervention in the market place to shift housing demand from single detached units to medium and higher density forms. It continues the recent pattern of smaller lots, higher densities, and an increasingly compact urban form. In particular, it is based on maintaining the high market share of semis and rows within the housing market, a feature which only emerged in the past 10 years.

Effect of immigration on housing demand

The GTA has a large proportion of immigrants in its population and will continue to do so through the forecast period. It is often supposed that continued immigration will affect the housing demand in the GTA because of differing housing attributes of the immigrant population. In general the effect of this is already accounted for in the forecast, since the base information from 2001 includes the existing immigrant and non-immigrant population at that time.

In considering household formation amongst immigrants, it is important to distinguish between recent immigrants (10 years or less) and those who have been in Canada for more than 10 years. Recent work underway for the Region of Peel by John Miron at the University of Toronto (“The impacts of immigration in long-term household formation for the Region of Peel”) indicates that recent immigrants have larger households than the norm for their age group. This is for a variety of economic, social and cultural reasons. The additional people are other adults and extended family rather than additional children.

Miron goes on to suggest that after 10 years, immigrants appear to take on similar household formation attributes of the population at large. This is not surprising, given that it will often take a number of years for new immigrants who are sharing accommodation to become economically self-sufficient and able to form their own households. Miron’s preliminary analysis indicates that over the forecast period there may be little difference in a household forecast for Peel if immigrant and non-immigrant population were forecast separately versus a single forecast for the population as whole (as has been done in the GTA forecasts in this report). Further work will be done on this subject to either confirm or vary the preliminary findings.
The Compact and More Compact scenarios are based upon increased levels of policy intervention directed at shifting housing demand to higher density forms, and redirecting growth to emerging and priority areas identified in the Province’s discussion paper.

<table>
<thead>
<tr>
<th>GTAH Housing Mix</th>
<th>Singles</th>
<th>Semis</th>
<th>Rows</th>
<th>Apartments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-1991</td>
<td>60%</td>
<td>-1%</td>
<td>7%</td>
<td>35%</td>
</tr>
<tr>
<td>1991-2001</td>
<td>50%</td>
<td>8%</td>
<td>16%</td>
<td>26%</td>
</tr>
<tr>
<td>Current Trends</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001-2011</td>
<td>44%</td>
<td>10%</td>
<td>16%</td>
<td>28%</td>
</tr>
<tr>
<td>2011-2021</td>
<td>43%</td>
<td>10%</td>
<td>17%</td>
<td>31%</td>
</tr>
<tr>
<td>2021-2031</td>
<td>43%</td>
<td>9%</td>
<td>17%</td>
<td>31%</td>
</tr>
<tr>
<td>Compact</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001-2011</td>
<td>43%</td>
<td>10%</td>
<td>15%</td>
<td>31%</td>
</tr>
<tr>
<td>2011-2021</td>
<td>36%</td>
<td>11%</td>
<td>17%</td>
<td>36%</td>
</tr>
<tr>
<td>2021-2031</td>
<td>33%</td>
<td>11%</td>
<td>21%</td>
<td>34%</td>
</tr>
<tr>
<td>More Compact</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001-2011</td>
<td>45%</td>
<td>10%</td>
<td>15%</td>
<td>29%</td>
</tr>
<tr>
<td>2011-2021</td>
<td>34%</td>
<td>11%</td>
<td>17%</td>
<td>38%</td>
</tr>
<tr>
<td>2021-2031</td>
<td>15%</td>
<td>11%</td>
<td>22%</td>
<td>52%</td>
</tr>
</tbody>
</table>

Notes: Totals may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.

The negative share of semi-detached units in 1981–1991 is the result of a decline in the number of occupied semi-detached units as recorded in the 1981 and 1991 Censuses. While few semi were built during the 1980s in the GTA, the overall decline is primarily attributable to a change in the City of Toronto between 1981 and 1986. This is related to demolition and changes in vacancy, but is also likely the result of existing units being counted in other categories in the Census.

Source: Statistics Canada and Hemson Consulting Ltd.

It is important to note that the Compact and More Compact scenarios prepared represent two potential housing mixes that would achieve the goals of the scenarios. Other housing mixes, involving varying combinations of medium and higher density forms, can also achieve a compact

Source: Hemson Consulting Ltd. and Statistics Canada
urban form. In any event it would involve shifting current housing preferences away from single detached units, and towards apartments and row houses.

These represent very significant shifts in the housing market and the preferences of GTAH households. To achieve shifts in housing preferences such as these would require significant increases in the level of policy intervention to counter current housing preferences.

The number of households and persons that would have to be shifted to medium and higher density forms under the various scenarios is illustrated below.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Single Detached Units Added, 2006–2031</th>
<th>Households Shifted to Medium and High Density Housing</th>
<th>Persons in “Shifted” Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant 2006 Occupancy Preferences</td>
<td>490,000</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Current Trends Scenario</td>
<td>440,000</td>
<td>50,000</td>
<td>150,000</td>
</tr>
<tr>
<td>Compact Scenario</td>
<td>365,000</td>
<td>125,000</td>
<td>380,000</td>
</tr>
<tr>
<td>More Compact Scenario</td>
<td>295,000</td>
<td>195,000</td>
<td>590,000</td>
</tr>
</tbody>
</table>

Source: Hemson Consulting Ltd.

Age structure in GTAH is most affected by the age structure of immigrants

The current age structure of the GTAH appears to show the dominance of the baby boom population. It must be understood that this is not the only factor causing the large bulge in the 25-55 population. Another major factor is the effect of immigration. Immigrants are primarily in their 20s and 30s. The post 1990s’ high levels of immigration created a second population bulge, slightly younger than the baby boom; the peak age group here being five years younger than the actual peak of the true baby boom.

By 2031, the GTAH will experience a significant increase in population over the age of 60, primarily due to the aging of the current population bulge between 30 and 50. What is far more striking is that the population bulge in the 30 to 50 age group remains almost as pronounced as it is today. This is a result of the aging baby boom and the continued high levels of migrants moving to the area. The GTAH age structure will differ markedly from most of the rest of Canada, which will be much older overall. The age structure, of course, also has key implications for such matters as labour force participation and housing demand.
2. Distribution involves market shares of new development

Once the housing unit mix has been determined for each scenario, the units are distributed among Toronto, Hamilton and the Regions based upon a consideration of factors related to historic patterns of demand and anticipated market potential:

- The distribution of growth in the Current Trends forecast is market and planning based, applying a share of new housing growth for each housing unit type, in each region during each five year Census period. For example, as the available land supply for singles and semis becomes fully developed in Mississauga, some of the share is taken up elsewhere in Peel Region and some to the west in Halton and Hamilton. At the same time we expect a significant market shift to Durham as we return to a more balanced relationship between the eastern and western housing markets in the GTA, and as the lands supply in York Region becomes constrained.

- The distribution of growth in the Compact scenario is also market and planning based, but within the “non market” constraint of an adjusted housing mix. In essence, the shares of each housing type are similar to the Current Trends scenario, but the different number of units by type shifting the overall results.

- Unlike the other two scenarios, the share distributions in the More Compact scenario are only based, in part, on market and general policy expectations. Primarily, this scenario tests policy intervention to redirect growth within GTA to achieve a specified population and employment target in each area. These targets vary from market expectations by an effort to redirect growth to achieve somewhat higher population and employment levels in Durham and Hamilton than might otherwise be expected either by the market or, in the case of Durham, from the Places to Grow policies.

Recent office market development has been scattered throughout the GTA locations, contrary to the planning desire for nodal development

<table>
<thead>
<tr>
<th>Location</th>
<th>Building Space</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing or Planned Transit-Oriented Nodes</strong></td>
<td>000s of sq.ft.</td>
</tr>
<tr>
<td>Downtown Toronto</td>
<td>720</td>
</tr>
<tr>
<td>Toronto - Yonge Street Corridor</td>
<td>810</td>
</tr>
<tr>
<td>905 Centres and City of Hamilton</td>
<td>360</td>
</tr>
<tr>
<td>Additional New Office Space Created Through Renovation of Former Industrial Buildings in Central Toronto</td>
<td>3,060</td>
</tr>
<tr>
<td>Total Transit-Oriented Nodes</td>
<td>4,950</td>
</tr>
<tr>
<td><strong>Non-Nodal Office Concentrations</strong></td>
<td></td>
</tr>
<tr>
<td>Airport Corporate Centre</td>
<td>2,950</td>
</tr>
<tr>
<td>Highway 404/407/7</td>
<td>2,690</td>
</tr>
<tr>
<td>Appleby/Burloak/QEW</td>
<td>1,000</td>
</tr>
<tr>
<td>Meadowvale</td>
<td>1,270</td>
</tr>
<tr>
<td>Total Non-Nodal Concentrations</td>
<td>7,910</td>
</tr>
<tr>
<td><strong>Suburban and Rural</strong></td>
<td></td>
</tr>
<tr>
<td>Scattered Business Park Locations</td>
<td>4,760</td>
</tr>
<tr>
<td><strong>Total New Space GTA–Hamilton</strong></td>
<td>17,605</td>
</tr>
</tbody>
</table>

Source: Hemson Consulting Ltd. Office Database, 2003
3. Attribution of employment to the three categories not varied between the scenarios

Nearly 25% of employment in the GTA is accommodated in major office buildings, primarily in Downtown Toronto, Toronto's Yonge Street Corridor, the Highway 401 corridor in Mississauga, and the Highway 404–407 corridor in southern York Region. Another one third is population-related employment, while the remaining approximately 40% is employment land employment.

Based on the economic outlook for the GGH and the GTA and the economic base of the area we are not forecasting major changes in this share of employment in each category:

- Historically, major office employment has grown faster than the other categories. In the mid-1980s major office employment was just over 20% of employment. It has risen to about 23% today and is expected to rise to over 24% by 2031. This may seem a minor shift, but the major office category is not prone to large or rapid changes.

- Population-related employment is forecast to remain between 34% and 35% of the total. While the share is stable, there are indications that the ratio between the population and this type of employment will decline. This means population-related activities will become more efficient as the relative labour shortage takes hold. On the ground, this is already occurring — the bank machine has dramatically reduced retail banking employment, and self-scanning is being introduced to the supermarket. These trends are likely to continue.

- Employment land employment is forecast to decline slightly from its current share, balancing the rise in the major office employment. This is consistent with the longer term patterns of much more rapid increases in output than employment in the dominant manufacturing and distribution sectors.

Accommodating employment growth in older urban areas

Toronto is unlike the rest of the GTA. This is because of its sectoral diversity, and its concentrations of producer services, government, health care and education services which serve the population and businesses of the entire region. While these uses serving a metropolitan-wide base will continue to grow somewhat, as the urban area becomes much larger and more multi-centred, some of these metropolitan-wide functions will begin to be provided in other locations. For example, the University Avenue hospitals (and McMaster) will continue to be medical centres of national importance, while at the same time other hospitals in 905 may take on some higher order services serving the GTA.

Because of its large number of older employment areas, the City of Toronto has a unique employment base that is different from other areas (Hamilton, as a large older city, has some similar characteristics, though Hamilton has the potential for new suburban employment development which is not a possibility in Toronto). Because of these differences, employment growth is accommodated under a different dynamic than more suburban areas. Most of the City’s recent employment growth has occurred in its employment districts through the re-use and recycling of industrial-type space. Some employment areas outside the central area have evolved to accommodate a diverse array of office, industrial and retail uses. Other areas have recycled into specialty areas. While these areas continue to be active and important parts of the economic base, rarely if ever do aging employment areas show increased levels of employment over the historic peak (which usually occurs during the period when buildings are new).

Where there is significant capacity for future employment growth in Toronto is in the office sector, primarily in the Central Area and the designated centres, notably the North York, Scarborough and Etobicoke Centres.

Many of these same forces apply to other older urban areas, particularly the Cities of Hamilton and Oshawa. These areas are facing their own unique challenges, associated with the transition from an historic urban structure focussed on traditional industrial uses and other local uses, to an urban structure focussed on the rapidly growing economic region of the GTA. All centres in the GTA continue to face a competitive future.
4. Distribution of Employment is Based on Shares of Growth

Once the forecast employment by major type is prepared for the GTA H, the various jobs are distributed to Toronto, Hamilton, and the Regions based upon shares of growth.

- The distribution of growth in the Current Trends scenario continues a well-established pattern of rapid employment growth in the north and west, as available land supplies permit. For instance, as the build out of greenfield employment land in Mississauga occurs, Peel’s market share is forecast to decline. Durham’s market share, responding to new infrastructure development, will return to a level more in keeping with the size of the community. For major office development, we anticipate a sustained focus on suburban development in existing concentrations, but with the City of Toronto returning to much stronger levels of performance. Population-related employment will continue to develop in step with population growth and distribution, with a small region-wide component remaining concentrated in Toronto and Hamilton.

- The distribution of growth in the Compact scenario is also market and planning based. The market shares of office and employment land employment are similar to the Current Trends scenario. The main variation in the Compact scenario is in the population-related employment, which varies in accordance with the distribution of population growth.

- The More Compact scenario tests the targets set by the Committee, envisioning higher employment in Toronto, Durham and Hamilton. These targets are achieved primarily by redirecting employment land employment growth to Durham and Hamilton, and additional office growth to Toronto. Significant policy intervention would be required to shift market share to Durham. In Hamilton, investment in servicing will likely be required to make the development of employment land in the City of Hamilton economically feasible.
C. RESULTS ARE BASED ON THE SCENARIOS AND THE REGIONAL SHARES OF GROWTH

This section discusses the specific market share assumptions used to distribute growth within the GTA, and presents the forecast results for each scenario. It is organized into two broad sections — population and households and employment.

1. Population and housing growth shares

Under the Current Trends forecast, the overall outlook is for growth to be accommodated in accordance with a housing mix characterised by the current policy environment as well as land constraints facing the various communities. It is assumed in this scenario that new urban lands will be designated to accommodate the growth.

- With virtually no ground-related housing supply, the City of Toronto’s share of GTA housing growth declines from 26% in the 2001–2011 period, to 20% in the 2021–2031 period. This is based on the City maintaining a high share of the apartment market.

- As southern Peel Region becomes a more mature community with a reduced ground-related housing supply, some of Mississauga’s former share of the housing market will move elsewhere in Peel and move to neighbouring areas to west of Peel. As a result, Peel’s share of the GTA housing market declines from approximately 22% in the 2001–2011 period, to 16% in the 2021–2031 period.

- York Region maintains a high and stable share of around 23% of the market.

- Some of the changes in Peel are reflected in Hamilton and Halton. Halton’s market share is forecast to rise from 12% in the 2001–2011 period, to 15% in the 2021–2031. Hamilton will nearly double from 5% to 9% over the forecast period.

Urban Structure of the GGH and the GTA has long favoured the west over the east

Growth and urban expansion in Toronto was well underway by the late 19th century, driven by a strong manufacturing economy and the city’s rising financial and political status. More rapid expansion was made possible by the electrification of the street railways in the 1890s, and even more so by the widespread ownership of the automobile.

The spread of settlement was largely along the Lake Ontario shore and up the Yonge Street corridor. The bulk of the built-up area prior to 1910 was located west of Yonge Street. Between 1911 and 1930, most new suburban communities were formed to the west — Mimico, New Toronto, North York Forest Hill, Swansea and Long Branch. In the east, Leaside and East York were incorporated in 1923 and 1924 respectively.

In the post-War period, the western direction of growth in the GTA was solidified by major highway investments, particularly around the Lester B. Pearson International Airport in Mississauga. This improved the competitiveness of the west for industrial development enormously. Increased trade with the USA led to the development of some of the largest and most prestige business parks in North America. Today, the employment areas that surround the Airport are home to more jobs than Toronto’s financial core.

The long-term urban structure in the GGH will likely continue to favour the west. The direction of the major trade relationships is established to the south and west. To address growing border congestion, the governments of Ontario and Michigan are currently studying options for a new, or expanded, border crossing with connections to the Provincial highway system. This will have a major impact on both the Windsor-Detroit area and Niagara Region, and will strengthen the position of the GTA as Ontario’s major goods producing centre. Eastern GTA locations will benefit from this economic activity but likely not to the same extent as western locations. For industries relying on goods movement, congestion on the major highways through central Toronto increases transport costs to eastern locations and, as a result, makes them less competitive for development, all other things being equal.
The largest shift in market shares is to Durham, which rises from 12% to 18% of the market, exceeding its previous peak market share of 14% in the 1980s.

In the Compact scenario, the market shares are similar, but the housing mix is characterized by a greater number of medium and higher density units. This changes the total number of units, by type, and thus shifts the overall results.

The More Compact scenario envisions an even higher density housing mix, reflected in increased population growth in the Cities of Hamilton and Toronto. The resulting populations in Peel, York and Halton are lower than would be expected by the market. The population in the Region of Durham, however, is maintained, reflecting the redirection of housing market shares to achieve specified population targets.

The forecast regional housing growth range is shown in the graphs at right. The graph for each area provides the historic growth for a thirty year period to 2006 (total housing growth for the entire 2001–2006 period can now be reasonably estimated). Each also provides the forecast in five-year period to 2031, showing the range of the Scenarios.

The GTAHI forecast regional housing shares, housing units, household size and population are shown in the tables at the end of the chapter.

2. Employment Growth Market Shares

Under the Current Trends scenario, the overall outlook is for employment growth to be accommodated in accordance with the economic outlook for the GGH and the GTAHI, the economic base of the area, and the physical constraints on growth in each community. Within this context, the anticipated pattern of employment growth, by major type, is as follows:
Employment land employment will follow recent patterns of re-use and recycling in the City of Toronto and central Hamilton. In the rest of the GTA, employment land employment will follow a pattern of development related to land availability and competitiveness.

As the greenfield land supply in a maturing southern Peel becomes more developed, former market shares will be accommodated elsewhere in Peel and into neighbouring areas to the west. The Region of Peel’s share of employment land employment growth is forecast to decline from 29% in the 2001–2011 period to 17% in the 2021–2031 period.

The changes in the Region of Peel’s market shares will be taken up first by Halton and then by the newer parts of Hamilton. Durham’s market share is anticipated to increase from 13% in the 2001–2011 period, to 20% in the 2021–2031 period, which better reflects the size of the community and planned infrastructure. York Region is forecast to maintain a steady share of about 35% of the GTA market.

Population-related employment will continue to grow in step with population growth. This is reflected generally in declining market share in the City of Toronto and Peel. The Region of York’s share remains stable, with the share rising in Durham and Halton, also in keeping with population growth patterns.

Major office development will continue to be focussed in the areas where it already exists: mainly in Toronto, Peel and York. Toronto’s share of the GTA office market is expected to rise from 21% in the 2001–2011 period to 30% until 2031. This is significantly lower than its share in the 1980s and before but it represents a significant improvement from the situation in the late 1990s.

York and Peel are forecast to have reduced shares of the office market; however, the shares represent steady shares of the 905 market within the context of a renewed Toronto market. Durham and Hamilton are forecast to accommodate only modest amounts of office employment.
In the Compact Scenario, the shares of office and employment land are similar, but the share of population-related employment growth is greater in the City of Toronto and somewhat lower in the Regions. The main feature of the More Compact Scenario is the rapid shift in the share of employment land employment to Durham and increased employment growth in the City of Hamilton.

The market shares and resulting employment are shown in the market share of employment by major type and the resulting employment forecast is provided in the following table.

### 3. Implications For Communities Within the GTAH

The growth forecast has a number of key implications for the Cities of Toronto and Hamilton and the Regions within the GTAH:

- For the City of Toronto, under any of the growth scenarios, the future outlook is for a continued focus on higher density built forms. It is assumed that the City of Toronto will remain an attractive location for continued apartment development and that the City can return to playing a more prominent role in the Region’s major office market. The population growth, however, is forecast to be more rapid than employment growth leading to a slight decline in the City’s activity rate.

The population forecast is assertive, given the large number of units required and the challenges of achieving infill development. The employment forecast, on the other hand, may be somewhat conservative with respect to both the office market and the City’s employment areas. Minor changes in the employment density in the City’s employment areas would make a significant difference to the outlook for total employment. The major office market could well be improved, particularly in downtown Toronto, through investments in transportation infrastructure. Given the diversity and complexity of the City’s economic base, the conservative behaviour of the non-residential market in Toronto is among the least certain aspects of this forecast.

#### Comparison of regional population, household and employment to the 1993 forecasts and why they are different

The chart below, indicates the differences between the OGTA forecasts produced in 1993 from the current forecasts. The total population of the GTA is now expected to be about 400,000 higher in 2031 than the previous forecast, along with only about 60,000 additional jobs. Virtually all of this additional population is expected to be accommodated in Peel and York Regions. The forecast for Durham is less than the previous forecasts by about 120,000. It is notable, however, that Durham was already 80,000 behind the forecast in 2001 — most of the difference has therefore already occurred.

The major change in the employment forecast is in Toronto, which shows about 250,000 fewer jobs. In 2001, the Toronto employment level was already 90,000 below the previous forecast. The 1993 forecast had also anticipated much more rapid office employment growth through the forecast than is now expected.

<table>
<thead>
<tr>
<th></th>
<th>Toronto</th>
<th>Peel</th>
<th>York</th>
<th>Durham</th>
<th>Halton</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>1993 3,000</td>
<td>1,410</td>
<td>1,270</td>
<td>1,110</td>
<td>780</td>
<td>7,570</td>
</tr>
<tr>
<td></td>
<td>2004 3,000</td>
<td>1,640</td>
<td>1,530</td>
<td>990</td>
<td>800</td>
<td>7,960</td>
</tr>
<tr>
<td>Households</td>
<td>1993 1,260</td>
<td>480</td>
<td>430</td>
<td>410</td>
<td>290</td>
<td>2,870</td>
</tr>
<tr>
<td></td>
<td>2004 1,240</td>
<td>550</td>
<td>510</td>
<td>360</td>
<td>300</td>
<td>2,960</td>
</tr>
<tr>
<td>Employment</td>
<td>1993 1,870</td>
<td>720</td>
<td>620</td>
<td>400</td>
<td>360</td>
<td>3,970</td>
</tr>
<tr>
<td></td>
<td>2004 1,620</td>
<td>880</td>
<td>780</td>
<td>360</td>
<td>400</td>
<td>4,030</td>
</tr>
</tbody>
</table>

Note: Hamilton was not included in the study area in the 1993 forecast.

Source: OGTA forecasts, 1993 and GGHFC, 2004
• During the forecast period, the major factor influencing future growth patterns in the Region of Peel is that Mississauga will be built out for lower density housing and employment lands during the 2001–2011 decade. During the forecast southern Peel will begin to take on the more urban characteristics, similar to some parts of Toronto, while northern Peel will remain under more suburban development pressures.

• The Region of York will continue to grow steadily, both occupying its remaining designated land as well as its planned centres and corridors. During the forecast period, York will begin to take on more urban characteristics with more diverse housing and employment forms than were developed during the past 25 years of rapid suburban-type growth.

• In all scenarios, the future shares of GTA growth in the Region of Durham are anticipated to increase significantly. In the next decade, the primary effect will be the tightening of available development land in the historically strongest performing communities in the GTA. In the longer-term, it will be major investment in transportation and other planned infrastructure, notably Pickering Airport, that will continue to attract increased shares of growth.

• Halton’s main competitive advantage within the GTA rests with its potential to develop major new employment concentrations. With the depleting land supply in southern Peel, a continued western preference for employment growth and large land supplies on economic corridors, the opportunities are significant. Halton is forecast to have the fastest rate of employment growth in the GTA in the period to 2031.

• Over the long term, Hamilton will become a much more attractive location for industrial-type development. However, in the short term the major challenge relates to the economic viability of employment land. Significant investments in servicing may be required to stimulate the development of employment lands in the near term, which, if not addressed, will have a number of implications for transportation, economic development and growth management.

Long-term historic and future population growth within the GTA

Very early growth in the GTA was focussed on the former City of Toronto and the City of Hamilton, which at the time were the only major urban centres in what is now the GTA.

Through the depression and post war boom, as transportation improvements made areas outside of the central areas more accessible, the Regions of Peel, York, Durham and Halton began to absorb a greater share of the population growth. Metropolitan Toronto was then created and built out to its boundaries. Most new growth began to occur in suburban locations, in the form of ground related housing.

Recently, however, the City of Toronto has returned to very strong levels of new apartment construction. The Current Trends Forecast of growth anticipates that Toronto will continue to perform strongly and will maintain its recent shares of population growth. The remaining growth will be focused in the Regions of Peel, York and Durham.

<table>
<thead>
<tr>
<th>Shares of Population Growth in the GTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
</tr>
<tr>
<td>Early Industrialisation: 1901-31</td>
</tr>
<tr>
<td>Depression &amp; War: 1931-51</td>
</tr>
<tr>
<td>Post War Boom: 1951-76</td>
</tr>
<tr>
<td>Globalization: 1976-2001</td>
</tr>
<tr>
<td>The Future: 2001-31</td>
</tr>
</tbody>
</table>

Source: Hemson Consulting Ltd. and Statistics Canada
### GTAH HOUSING & POPULATION FORECAST BY REGION

#### A. GTAH Regional Housing Shares

<table>
<thead>
<tr>
<th>Year</th>
<th>Toronto</th>
<th>Peel</th>
<th>York</th>
<th>Durham</th>
<th>Halton</th>
<th>Hamilton</th>
<th>Total/ Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-1991</td>
<td>25%</td>
<td>24%</td>
<td>23%</td>
<td>14%</td>
<td>7%</td>
<td>6%</td>
<td>100%</td>
</tr>
<tr>
<td>1991-2001</td>
<td>25%</td>
<td>25%</td>
<td>23%</td>
<td>11%</td>
<td>9%</td>
<td>6%</td>
<td>100%</td>
</tr>
</tbody>
</table>

#### B. GTAH Housing Unit Growth by Region (000s)

<table>
<thead>
<tr>
<th>Year</th>
<th>Toronto</th>
<th>Peel</th>
<th>York</th>
<th>Durham</th>
<th>Halton</th>
<th>Hamilton</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-1991</td>
<td>80</td>
<td>80</td>
<td>70</td>
<td>50</td>
<td>20</td>
<td>20</td>
<td>330</td>
</tr>
<tr>
<td>1991-2001</td>
<td>80</td>
<td>80</td>
<td>70</td>
<td>40</td>
<td>30</td>
<td>20</td>
<td>310</td>
</tr>
</tbody>
</table>

#### C. GTAH Household Size by Region

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Toronto</td>
<td>2.72</td>
<td>2.59</td>
<td>2.60</td>
</tr>
<tr>
<td>Peel</td>
<td>3.24</td>
<td>3.17</td>
<td>3.19</td>
</tr>
<tr>
<td>York</td>
<td>3.27</td>
<td>3.32</td>
<td>3.25</td>
</tr>
<tr>
<td>Durham</td>
<td>3.12</td>
<td>2.97</td>
<td>2.92</td>
</tr>
<tr>
<td>Halton</td>
<td>3.10</td>
<td>2.90</td>
<td>2.79</td>
</tr>
<tr>
<td>Hamilton</td>
<td>2.76</td>
<td>2.63</td>
<td>2.57</td>
</tr>
<tr>
<td>Total</td>
<td>2.86</td>
<td>2.79</td>
<td>2.80</td>
</tr>
</tbody>
</table>

#### D. GTAH Population by Region (000s)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Toronto</td>
<td>2,190</td>
<td>2,360</td>
<td>2,590</td>
</tr>
<tr>
<td>Peel</td>
<td>1,900</td>
<td>2,100</td>
<td>2,350</td>
</tr>
<tr>
<td>York</td>
<td>2,360</td>
<td>2,470</td>
<td>2,750</td>
</tr>
<tr>
<td>Durham</td>
<td>2,560</td>
<td>2,720</td>
<td>3,060</td>
</tr>
<tr>
<td>Halton</td>
<td>2,720</td>
<td>2,900</td>
<td>3,250</td>
</tr>
<tr>
<td>Hamilton</td>
<td>3,030</td>
<td>3,300</td>
<td>3,650</td>
</tr>
<tr>
<td>Total</td>
<td>12,900</td>
<td>15,200</td>
<td>17,900</td>
</tr>
</tbody>
</table>

**Source:** Statistics Canada Data and Hemson Consulting Ltd.

**Note:** Totals may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
## GTAH EMPLOYMENT FORECAST BY REGION

### A. GTAH Shares of Major Office Growth

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</thead>
<tbody>
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<td>Toronto</td>
<td>58%</td>
<td>65%</td>
<td>21%</td>
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</tr>
<tr>
<td>Peel</td>
<td>22%</td>
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<td>37%</td>
<td>36%</td>
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</tr>
<tr>
<td>York</td>
<td>16%</td>
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<td>27%</td>
<td>26%</td>
<td>26%</td>
</tr>
<tr>
<td>Durham</td>
<td>&lt;1%</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
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</tr>
<tr>
<td>Halton</td>
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<td>11%</td>
<td>9%</td>
</tr>
<tr>
<td>Hamilton</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
<td>5%</td>
<td>7%</td>
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<tr>
<td>Total</td>
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<td>100%</td>
<td>100%</td>
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</table>

### B. GTAH Share of Employment Land Employment Growth(000s)

<table>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Toronto</td>
<td>(44%)</td>
<td>(22%)</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Peel</td>
<td>55%</td>
<td>51%</td>
<td>29%</td>
<td>29%</td>
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</tr>
<tr>
<td>York</td>
<td>56%</td>
<td>44%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
</tr>
<tr>
<td>Durham</td>
<td>20%</td>
<td>10%</td>
<td>13%</td>
<td>17%</td>
<td>13%</td>
</tr>
<tr>
<td>Halton</td>
<td>21%</td>
<td>18%</td>
<td>16%</td>
<td>19%</td>
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</tr>
<tr>
<td>Hamilton</td>
<td>(8%)</td>
<td>(2%)</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
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</tr>
</tbody>
</table>

### C. GTAH Share of Population-Related Employment Growth

<table>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Toronto</td>
<td>27%</td>
<td>15%</td>
<td>26%</td>
<td>28%</td>
<td>27%</td>
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<tr>
<td>Peel</td>
<td>23%</td>
<td>34%</td>
<td>24%</td>
<td>23%</td>
<td>23%</td>
</tr>
<tr>
<td>York</td>
<td>25%</td>
<td>31%</td>
<td>25%</td>
<td>23%</td>
<td>23%</td>
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<tr>
<td>Durham</td>
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<td>11%</td>
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<td>11%</td>
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<tr>
<td>Halton</td>
<td>6%</td>
<td>7%</td>
<td>7%</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Hamilton</td>
<td>7%</td>
<td>1%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
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<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
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</tbody>
</table>

### D. GTAH Employment by Region (000s)

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Toronto</td>
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<td>1,370</td>
<td>1,530</td>
<td>1,540</td>
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<td>York</td>
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<td>250</td>
<td>820</td>
<td>810</td>
<td>810</td>
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<td>Durham</td>
<td>110</td>
<td>160</td>
<td>700</td>
<td>700</td>
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<tr>
<td>Halton</td>
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<td>250</td>
<td>310</td>
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<td>320</td>
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<tr>
<td>Hamilton</td>
<td>200</td>
<td>200</td>
<td>190</td>
<td>200</td>
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<tr>
<td>Total</td>
<td>2,040</td>
<td>2,500</td>
<td>3,630</td>
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</table>

Source: Statistics Canada Data and Hemson Consulting Ltd.  
Note: Totals may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
VI CLOSING REMARKS

This report presents a growth outlook for the Greater Golden Horseshoe, and its constituent communities, under three major scenarios. It concluded that rapid population and employment growth can be expected, both within the GTAH and within many areas of the Outer Ring. While there is widespread agreement over the total amount of growth that can be anticipated, the future distribution of this growth continues to be a matter of significant debate. A key point of contention is over the level of policy intervention needed to manage the growth.

The Current Trends forecast is our best judgement of the future patterns of growth within the current policy environment. It is based upon demographic and economic analysis of: the age structure of the population; the future economic outlook; and current policies to direct and plan for growth. The Compact and More Compact scenarios test the impact of policy directions to promote higher density development and more intensification. Changes in the distribution of population and employment growth among communities are also accounted for. The more change suggested by a scenario, the greater the policy challenge to achieve the desired results.

For example, achieving planning goals by shifting housing preferences in the face of some social, economic, demographic and political forces acting against such policies is a very significant challenge. In a market economy, persuading people to make major decisions that are different from those they would otherwise make is never an easy proposition.
Changing the geographic patterns of employment growth also presents challenges since much of the pattern of employment growth is determined by the composition of the metropolitan economy. Planning policy is effective at regulating land and built form but is far less able to influence the nature of the economy or employer decisions regarding jobs and business operations.

Municipalities in the GGH will need to make a number of challenging decisions as they make plans to accommodate long-term population, household and employment growth. In making plans, it is important to have a clear and complete information base. We trust that the forecasts and commentary provided in this report will assist decision makers with this challenging task.
APPENDICES

APPENDIX A: Reference Population Forecast Scenarios for Outer Ring, GTAH & GGH
Reference Migration Forecasts for Outer Ring, GTAH & GGH

APPENDIX B: High and Low Population, Household & Employment Forecasts for Outer Ring, GTAH & GGH
High and Low Migration Forecasts for Outer Ring, GTAH & GGH

APPENDIX C: Reference Population, Household & Employment Forecast Scenarios for Outer Ring Sub-Areas

APPENDIX D: Reference Population, Household & Employment Forecast Scenarios for GTAH Sub-Areas

APPENDIX E: GTAH Reference Housing Forecasts Scenarios by Unit Type by Sub-Area

APPENDIX F: GTAH Reference Employment Forecasts Scenarios by Major Employment Type by Sub-Area

APPENDIX G: 2001 and 2031 Age Structure for Outer Ring and GTAH Sub-Areas
APPENDIX A
REFERENCE FORECASTS

IN THIS APPENDIX

GGH HIGH
- GTA-H
  - Six Areas, Current Trends
  - Outer Ring
  - Ten Areas, Current Trends

GGH REFERENCE
- GTA-H
  - Six Areas, Current Trends
  - Six Areas, Compact
  - Six Areas, More Compact
  - Outer Ring
  - Ten Areas, Current Trends
  - Ten Areas, Compact
  - Ten Areas, More Compact

GGH LOW
- GTA-H
  - Six Areas, Current Trends
  - Outer Ring
  - Ten Areas, Current Trends
## A. REFERENCE FORECAST - GREATER GOLDEN HORSESHOE, GTAH, AND OUTER RING

### TABLE A.1 | GREATER GOLDEN HORSESHOE POPULATION
---|---
**Year** & **Population (000s)** & **Growth (000s)** & **Growth Rate**
---|---|---|---
1981 & 5,360 & & 
1991 & 6,510 & 1,150 & 2.0%
2001 & 7,790 & 1,280 & 1.8%
2011 & 9,090 & 1,300 & 1.6%
2021 & 10,340 & 1,250 & 1.3%
2031 & 11,500 & 1,160 & 1.1%

### TABLE A.4 | GREATER TORONTO AREA - HAMILTON POPULATION
---|---
**Year** & **Population (000s)** & **Growth (000s)** & **Growth Rate**
---|---|---|---
1981 & 3,950 & & 
1991 & 4,840 & 890 & 2.1%
2001 & 5,810 & 970 & 1.8%
2011 & 6,860 & 1,050 & 1.7%
2021 & 7,780 & 920 & 1.3%
2031 & 8,620 & 840 & 1.0%

### TABLE A.7 | OUTER RING POPULATION
---|---
**Year** & **Population (000s)** & **Growth (000s)** & **Growth Rate**
---|---|---|---
1981 & 1,410 & & 
1991 & 1,670 & 260 & 1.7%
2001 & 1,980 & 310 & 1.7%
2011 & 2,230 & 250 & 1.2%
2021 & 2,560 & 330 & 1.4%
2031 & 2,880 & 320 & 1.2%

### TABLE A.2 | GREATER GOLDEN HORSESHOE EMPLOYMENT
---|---
**Year** & **Employment (000s)** & **Growth (000s)** & **Growth Rate**
---|---|---|---
1981 & 2,650 & & 
1991 & 3,220 & 570 & 2.0%
2001 & 3,810 & 590 & 1.7%
2011 & 4,640 & 830 & 2.0%
2021 & 5,160 & 520 & 1.1%
2031 & 5,560 & 400 & 0.7%

### TABLE A.5 | GREATER TORONTO AREA - HAMILTON EMPLOYMENT
---|---
**Year** & **Employment (000s)** & **Growth (000s)** & **Growth Rate**
---|---|---|---
1981 & 2,040 & & 
1991 & 2,500 & 460 & 2.1%
2001 & 2,940 & 440 & 1.6%
2011 & 3,630 & 690 & 2.1%
2021 & 4,030 & 400 & 1.1%
2031 & 4,320 & 290 & 0.7%

### TABLE A.8 | OUTER RING EMPLOYMENT
---|---
**Year** & **Employment (000s)** & **Growth (000s)** & **Growth Rate**
---|---|---|---
1981 & 610 & & 
1991 & 720 & 110 & 1.7%
2001 & 870 & 150 & 1.9%
2011 & 1,010 & 140 & 1.5%
2021 & 1,130 & 120 & 1.1%
2031 & 1,240 & 110 & 0.9%

### TABLE A.3 | GREATER GOLDEN HORSESHOE HOUSEHOLDS
---|---
**Year** & **Households (000s)** & **Growth (000s)** & **Growth Rate**
---|---|---|---
1981 & 1,820 & & 
1991 & 2,270 & 450 & 2.2%
2001 & 2,680 & 410 & 1.7%
2011 & 3,280 & 600 & 2.0%
2021 & 3,880 & 600 & 1.7%
2031 & 4,390 & 510 & 1.2%

### TABLE A.6 | GREATER TORONTO AREA - HAMILTON HOUSEHOLDS
---|---
**Year** & **Households (000s)** & **Growth (000s)** & **Growth Rate**
---|---|---|---
1981 & 1,330 & & 
1991 & 1,660 & 330 & 2.2%
2001 & 1,970 & 310 & 1.7%
2011 & 2,430 & 460 & 2.1%
2021 & 2,860 & 430 & 1.6%
2031 & 3,230 & 370 & 1.2%

### TABLE A.9 | OUTER RING HOUSEHOLDS
---|---
**Year** & **Households (000s)** & **Growth (000s)** & **Growth Rate**
---|---|---|---
1981 & 490 & & 
1991 & 610 & 120 & 2.2%
2001 & 710 & 100 & 1.5%
2011 & 850 & 140 & 1.8%
2021 & 1,020 & 170 & 1.8%
2031 & 1,160 & 140 & 1.3%

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
### TABLE A.10

<table>
<thead>
<tr>
<th>Year</th>
<th>Net International</th>
<th>Net Inter-Provincial</th>
<th>Net Intra-Provincial</th>
<th>Total Net Migration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-91</td>
<td>56,500</td>
<td>10,400</td>
<td>-3800</td>
<td>63,100</td>
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<tr>
<td>1991-01</td>
<td>80,500</td>
<td>2,400</td>
<td>-200</td>
<td>82,700</td>
</tr>
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<td>2001-11</td>
<td>93,700</td>
<td>2,700</td>
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<td>86,400</td>
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<td>2021-31</td>
<td>82,300</td>
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### TABLE A.11

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<th>Net Inter-Provincial</th>
<th>Net Intra-Provincial</th>
<th>Total Net Migration</th>
</tr>
</thead>
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<td>1981-91</td>
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<td>9,600</td>
<td>-15,600</td>
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<td>1991-01</td>
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<td>2001-11</td>
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<td>-18,800</td>
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<td>2011-21</td>
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<td>-24,600</td>
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### TABLE A.12

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<th>Net Intra-Provincial</th>
<th>Total Net Migration</th>
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<td>1991-01</td>
<td>5,600</td>
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<td>2011-21</td>
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Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
APPENDIX B
HIGH & LOW FORECASTS

IN THIS APPENDIX

GGH HIGH
- GTA-H
  - Six Areas, Current Trends
  - Outer Ring
  - Ten Areas, Current Trends

GGH REFERENCE
- GTA-H
  - Six Areas, Current Trends
  - Six Areas, Compact
  - Six Areas, More Compact
  - Outer Ring
  - Ten Areas, Current Trends
  - Ten Areas, Compact
  - Ten Areas, More Compact

GGH LOW
- GTA-H
  - Six Areas, Current Trends
  - Outer Ring
  - Ten Areas, Current Trends
### B. LOW AND HIGH FORECASTS - GREATER GOLDEN HORSESHOE, GTAH, AND OUTER RING

#### TABLE B.1

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<th>GGH</th>
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<tbody>
<tr>
<td>1981</td>
<td>3,950</td>
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<td>5,360</td>
</tr>
<tr>
<td>1991</td>
<td>4,840</td>
<td>1,670</td>
<td>6,510</td>
</tr>
<tr>
<td>2001</td>
<td>5,810</td>
<td>1,980</td>
<td>7,790</td>
</tr>
<tr>
<td>2011</td>
<td>6,800</td>
<td>2,220</td>
<td>9,020</td>
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<tr>
<td>2021</td>
<td>7,520</td>
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<td>10,000</td>
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<tr>
<td>2031</td>
<td>8,030</td>
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<td>10,750</td>
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#### TABLE B.2

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<th>Outer Ring</th>
<th>GGH</th>
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<tbody>
<tr>
<td>1981</td>
<td>2,040</td>
<td>610</td>
<td>2,650</td>
</tr>
<tr>
<td>1991</td>
<td>2,500</td>
<td>720</td>
<td>3,220</td>
</tr>
<tr>
<td>2001</td>
<td>2,940</td>
<td>870</td>
<td>3,810</td>
</tr>
<tr>
<td>2011</td>
<td>3,590</td>
<td>1,010</td>
<td>4,600</td>
</tr>
<tr>
<td>2021</td>
<td>3,880</td>
<td>1,090</td>
<td>4,970</td>
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<tr>
<td>2031</td>
<td>3,980</td>
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#### TABLE B.3

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<th>GGH</th>
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</thead>
<tbody>
<tr>
<td>1981</td>
<td>1,330</td>
<td>490</td>
<td>1,820</td>
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<td>1991</td>
<td>1,660</td>
<td>610</td>
<td>2,270</td>
</tr>
<tr>
<td>2001</td>
<td>1,970</td>
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<td>3,780</td>
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<tr>
<td>2031</td>
<td>3,050</td>
<td>1,100</td>
<td>4,150</td>
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Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
### MIGRATION FORECAST

#### TABLE B.7  
**GGH AVERAGE ANNUAL MIGRATION - LOW**

<table>
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<th>Year</th>
<th>Net International</th>
<th>Net Inter-Provincial</th>
<th>Net Intra-Provincial</th>
<th>Total Net Migration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-91</td>
<td>56,500</td>
<td>10,400</td>
<td>-3,800</td>
<td>63,100</td>
</tr>
<tr>
<td>1991-01</td>
<td>80,400</td>
<td>2,400</td>
<td>-300</td>
<td>82,500</td>
</tr>
<tr>
<td>2001-11</td>
<td>87,600</td>
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<td>-1,200</td>
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<td>2011-21</td>
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</tr>
<tr>
<td>2021-31</td>
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<td>-1,600</td>
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</tbody>
</table>

#### TABLE B.10  
**GGH AVERAGE ANNUAL MIGRATION - HIGH**

<table>
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<tr>
<th>Year</th>
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<th>Net Inter-Provincial</th>
<th>Net Intra-Provincial</th>
<th>Total Net Migration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-91</td>
<td>56,500</td>
<td>10,400</td>
<td>-3,800</td>
<td>63,100</td>
</tr>
<tr>
<td>1991-01</td>
<td>80,400</td>
<td>2,400</td>
<td>-300</td>
<td>82,500</td>
</tr>
<tr>
<td>2001-11</td>
<td>104,300</td>
<td>2,900</td>
<td>300</td>
<td>107,500</td>
</tr>
<tr>
<td>2011-21</td>
<td>113,200</td>
<td>5,200</td>
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<td>118,100</td>
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<tr>
<td>2021-31</td>
<td>115,700</td>
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<td>-600</td>
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#### TABLE B.8  
**GTAH AVERAGE ANNUAL MIGRATION - LOW**

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<th>Year</th>
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<th>Net Inter-Provincial</th>
<th>Net Intra-Provincial</th>
<th>Total Net Migration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-91</td>
<td>52,300</td>
<td>9,600</td>
<td>-15,600</td>
<td>46,300</td>
</tr>
<tr>
<td>1991-01</td>
<td>74,900</td>
<td>2,500</td>
<td>-15,100</td>
<td>62,300</td>
</tr>
<tr>
<td>2001-11</td>
<td>85,000</td>
<td>1,600</td>
<td>-18,800</td>
<td>67,800</td>
</tr>
<tr>
<td>2011-21</td>
<td>64,800</td>
<td>-900</td>
<td>-24,300</td>
<td>39,600</td>
</tr>
<tr>
<td>2021-31</td>
<td>53,600</td>
<td>-1,100</td>
<td>-26,200</td>
<td>26,300</td>
</tr>
</tbody>
</table>

#### TABLE B.11  
**GTAH AVERAGE ANNUAL MIGRATION - HIGH**

<table>
<thead>
<tr>
<th>Year</th>
<th>Net International</th>
<th>Net Inter-Provincial</th>
<th>Net Intra-Provincial</th>
<th>Total Net Migration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-91</td>
<td>52,300</td>
<td>9,600</td>
<td>-15,600</td>
<td>46,300</td>
</tr>
<tr>
<td>1991-01</td>
<td>74,900</td>
<td>2,500</td>
<td>-15,100</td>
<td>62,300</td>
</tr>
<tr>
<td>2001-11</td>
<td>100,000</td>
<td>2,500</td>
<td>-19,600</td>
<td>82,900</td>
</tr>
<tr>
<td>2011-21</td>
<td>106,300</td>
<td>3,900</td>
<td>-27,500</td>
<td>82,700</td>
</tr>
<tr>
<td>2021-31</td>
<td>107,700</td>
<td>3,900</td>
<td>-34,000</td>
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</table>

#### TABLE B.9  
**OUTER RING AVERAGE ANNUAL MIGRATION - LOW**

<table>
<thead>
<tr>
<th>Year</th>
<th>Net International</th>
<th>Net Inter-Provincial</th>
<th>Net Intra-Provincial</th>
<th>Total Net Migration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-91</td>
<td>4,200</td>
<td>800</td>
<td>11,800</td>
<td>16,800</td>
</tr>
<tr>
<td>1991-01</td>
<td>5,500</td>
<td>-100</td>
<td>14,800</td>
<td>20,200</td>
</tr>
<tr>
<td>2001-11</td>
<td>2,600</td>
<td>-100</td>
<td>17,600</td>
<td>20,100</td>
</tr>
<tr>
<td>2011-21</td>
<td>1,200</td>
<td>-600</td>
<td>21,900</td>
<td>22,500</td>
</tr>
<tr>
<td>2021-31</td>
<td>200</td>
<td>-700</td>
<td>24,600</td>
<td>24,100</td>
</tr>
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</table>

#### TABLE B.12  
**OUTER RING AVERAGE ANNUAL MIGRATION - HIGH**

<table>
<thead>
<tr>
<th>Year</th>
<th>Net International</th>
<th>Net Inter-Provincial</th>
<th>Net Intra-Provincial</th>
<th>Total Net Migration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-91</td>
<td>4,200</td>
<td>800</td>
<td>11,800</td>
<td>16,800</td>
</tr>
<tr>
<td>1991-01</td>
<td>5,500</td>
<td>-100</td>
<td>14,800</td>
<td>20,200</td>
</tr>
<tr>
<td>2001-11</td>
<td>4,300</td>
<td>400</td>
<td>19,900</td>
<td>24,600</td>
</tr>
<tr>
<td>2011-21</td>
<td>6,900</td>
<td>1,300</td>
<td>27,200</td>
<td>35,400</td>
</tr>
<tr>
<td>2021-31</td>
<td>8,000</td>
<td>1,300</td>
<td>33,400</td>
<td>42,700</td>
</tr>
</tbody>
</table>

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
APPENDIX C
OUTER RING REFERENCE FORECAST SCENARIOS

IN THIS APPENDIX

GGH HIGH
- GTA-H
  - Six Areas, Current Trends
  - Outer Ring
  - Ten Areas, Current Trends

GGH REFERENCE
- GTA-H
  - Six Areas, Current Trends
  - Six Areas, Compact
  - Six Areas, More Compact
  - Outer Ring
  - Ten Areas, Current Trends
  - Ten Areas, Compact
  - Ten Areas, More Compact

GGH LOW
- GTA-H
  - Six Areas, Current Trends
  - Outer Ring
  - Ten Areas, Current Trends
### Table C.1: Population (000s)

<table>
<thead>
<tr>
<th>Year</th>
<th>Brant</th>
<th>Dufferin</th>
<th>Haldimand</th>
<th>Kawartha Lakes</th>
<th>Niagara</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Simcoe</th>
<th>Waterloo</th>
<th>Wellington</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>129</td>
<td>53</td>
<td>46</td>
<td>72</td>
<td>427</td>
<td>80</td>
<td>131</td>
<td>392</td>
<td>456</td>
<td>195</td>
<td>1,981</td>
</tr>
<tr>
<td>2011</td>
<td>141</td>
<td>62</td>
<td>49</td>
<td>80</td>
<td>440</td>
<td>87</td>
<td>137</td>
<td>486</td>
<td>525</td>
<td>223</td>
<td>2,230</td>
</tr>
<tr>
<td>2021</td>
<td>156</td>
<td>75</td>
<td>53</td>
<td>91</td>
<td>462</td>
<td>94</td>
<td>143</td>
<td>593</td>
<td>620</td>
<td>269</td>
<td>2,556</td>
</tr>
<tr>
<td>2031</td>
<td>170</td>
<td>89</td>
<td>56</td>
<td>103</td>
<td>484</td>
<td>99</td>
<td>147</td>
<td>691</td>
<td>722</td>
<td>320</td>
<td>2,881</td>
</tr>
</tbody>
</table>

Growth 2001-31: 41 36 10 31 57 19 16 299 266 125 900
Per Cent Change: 32% 68% 22% 13% 24% 12% 76% 58% 64% 45%

### Table C.2: Employment (000s)

<table>
<thead>
<tr>
<th>Year</th>
<th>Brant</th>
<th>Dufferin</th>
<th>Haldimand</th>
<th>Kawartha Lakes</th>
<th>Niagara</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Simcoe</th>
<th>Waterloo</th>
<th>Wellington</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>55</td>
<td>19</td>
<td>17</td>
<td>20</td>
<td>186</td>
<td>29</td>
<td>54</td>
<td>153</td>
<td>236</td>
<td>99</td>
<td>868</td>
</tr>
<tr>
<td>2011</td>
<td>62</td>
<td>23</td>
<td>19</td>
<td>23</td>
<td>200</td>
<td>32</td>
<td>59</td>
<td>198</td>
<td>281</td>
<td>117</td>
<td>1,014</td>
</tr>
<tr>
<td>2021</td>
<td>67</td>
<td>27</td>
<td>19</td>
<td>26</td>
<td>203</td>
<td>34</td>
<td>60</td>
<td>234</td>
<td>322</td>
<td>137</td>
<td>1,129</td>
</tr>
<tr>
<td>2031</td>
<td>71</td>
<td>31</td>
<td>20</td>
<td>28</td>
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<td>34</td>
<td>59</td>
<td>264</td>
<td>364</td>
<td>158</td>
<td>1,236</td>
</tr>
</tbody>
</table>

Growth 2001-31: 16 12 3 8 21 5 5 111 128 59 368
Per Cent Change: 29% 63% 18% 40% 11% 17% 9% 73% 54% 60% 42%

### Table C.3: Households (000s)

<table>
<thead>
<tr>
<th>Year</th>
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<th>Dufferin</th>
<th>Haldimand</th>
<th>Kawartha Lakes</th>
<th>Niagara</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Simcoe</th>
<th>Waterloo</th>
<th>Wellington</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>45</td>
<td>17</td>
<td>16</td>
<td>27</td>
<td>162</td>
<td>30</td>
<td>50</td>
<td>137</td>
<td>161</td>
<td>68</td>
<td>713</td>
</tr>
<tr>
<td>2011</td>
<td>52</td>
<td>21</td>
<td>18</td>
<td>31</td>
<td>178</td>
<td>35</td>
<td>55</td>
<td>178</td>
<td>200</td>
<td>85</td>
<td>853</td>
</tr>
<tr>
<td>2021</td>
<td>60</td>
<td>27</td>
<td>21</td>
<td>38</td>
<td>195</td>
<td>40</td>
<td>61</td>
<td>226</td>
<td>243</td>
<td>105</td>
<td>1,016</td>
</tr>
<tr>
<td>2031</td>
<td>66</td>
<td>32</td>
<td>23</td>
<td>44</td>
<td>208</td>
<td>44</td>
<td>64</td>
<td>269</td>
<td>287</td>
<td>127</td>
<td>1,164</td>
</tr>
</tbody>
</table>

Growth 2001-31: 21 15 7 17 46 14 14 132 126 59 451
Per Cent Change: 47% 88% 44% 63% 28% 47% 28% 96% 78% 87% 61%

### Table C.4: Migration Shares (000s)

<table>
<thead>
<tr>
<th>Year</th>
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<th>Dufferin</th>
<th>Haldimand</th>
<th>Kawartha Lakes</th>
<th>Niagara</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Simcoe</th>
<th>Waterloo</th>
<th>Wellington</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981-91</td>
<td>1.6%</td>
<td>3.7%</td>
<td>1.5%</td>
<td>10.5%</td>
<td>7.2%</td>
<td>6.1%</td>
<td>6.3%</td>
<td>28.7%</td>
<td>23.8%</td>
<td>10.6%</td>
</tr>
<tr>
<td>1991-01</td>
<td>2.2%</td>
<td>3.6%</td>
<td>1.6%</td>
<td>5.3%</td>
<td>8.9%</td>
<td>3.2%</td>
<td>3.1%</td>
<td>39.1%</td>
<td>21.9%</td>
<td>11.0%</td>
</tr>
<tr>
<td>2001-11</td>
<td>3.9%</td>
<td>2.8%</td>
<td>1.1%</td>
<td>4.8%</td>
<td>8.5%</td>
<td>4.4%</td>
<td>4.3%</td>
<td>38.8%</td>
<td>21.7%</td>
<td>9.8%</td>
</tr>
<tr>
<td>2011-21</td>
<td>4.0%</td>
<td>3.2%</td>
<td>1.1%</td>
<td>4.8%</td>
<td>10.0%</td>
<td>3.7%</td>
<td>3.5%</td>
<td>32.1%</td>
<td>24.3%</td>
<td>13.1%</td>
</tr>
<tr>
<td>2021-31</td>
<td>4.0%</td>
<td>3.5%</td>
<td>1.1%</td>
<td>5.1%</td>
<td>11.6%</td>
<td>3.7%</td>
<td>3.5%</td>
<td>28.2%</td>
<td>25.1%</td>
<td>14.1%</td>
</tr>
</tbody>
</table>

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.

---

Appendices

The Growth Outlook for the Greater Golden Horseshoe

Hemson Consulting Ltd.
## C. OUTER RING FORECAST DISTRIBUTION - REFERENCE FORECAST SCENARIOS

### "COMPACT"

### TABLE C.5

<table>
<thead>
<tr>
<th></th>
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<th>Haldimand</th>
<th>Kawartha Lakes</th>
<th>Niagara</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Simcoe</th>
<th>Waterloo</th>
<th>Wellington</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2001</strong></td>
<td>129</td>
<td>53</td>
<td>46</td>
<td>72</td>
<td>427</td>
<td>80</td>
<td>131</td>
<td>392</td>
<td>456</td>
<td>195</td>
<td>1,981</td>
</tr>
<tr>
<td><strong>2011</strong></td>
<td>141</td>
<td>62</td>
<td>49</td>
<td>80</td>
<td>442</td>
<td>87</td>
<td>137</td>
<td>484</td>
<td>526</td>
<td>223</td>
<td>2,231</td>
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<td>53</td>
<td>91</td>
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<td>149</td>
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<td>729</td>
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<td>10</td>
<td>28</td>
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<td>18</td>
<td>275</td>
<td>273</td>
<td>126</td>
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<td>51%</td>
<td>22%</td>
<td>39%</td>
<td>20%</td>
<td>20%</td>
<td>14%</td>
<td>70%</td>
<td>60%</td>
<td>65%</td>
<td>45%</td>
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### TABLE C.6

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<th>Kawartha Lakes</th>
<th>Niagara</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Simcoe</th>
<th>Waterloo</th>
<th>Wellington</th>
<th>Total</th>
</tr>
</thead>
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<td>55</td>
<td>19</td>
<td>17</td>
<td>20</td>
<td>186</td>
<td>29</td>
<td>54</td>
<td>153</td>
<td>236</td>
<td>99</td>
<td>868</td>
</tr>
<tr>
<td><strong>2011</strong></td>
<td>62</td>
<td>22</td>
<td>19</td>
<td>23</td>
<td>201</td>
<td>32</td>
<td>59</td>
<td>197</td>
<td>282</td>
<td>117</td>
<td>1,014</td>
</tr>
<tr>
<td><strong>2021</strong></td>
<td>67</td>
<td>25</td>
<td>19</td>
<td>25</td>
<td>209</td>
<td>33</td>
<td>60</td>
<td>230</td>
<td>324</td>
<td>137</td>
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<td>71</td>
<td>27</td>
<td>20</td>
<td>27</td>
<td>218</td>
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<td>60</td>
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<td>366</td>
<td>158</td>
<td>1,244</td>
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<td>8</td>
<td>3</td>
<td>7</td>
<td>32</td>
<td>4</td>
<td>6</td>
<td>101</td>
<td>130</td>
<td>59</td>
<td>366</td>
</tr>
<tr>
<td><strong>Per Cent Change</strong></td>
<td>29%</td>
<td>42%</td>
<td>18%</td>
<td>35%</td>
<td>17%</td>
<td>14%</td>
<td>11%</td>
<td>66%</td>
<td>55%</td>
<td>60%</td>
<td>42%</td>
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### TABLE C.7

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<th>Haldimand</th>
<th>Kawartha Lakes</th>
<th>Niagara</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Simcoe</th>
<th>Waterloo</th>
<th>Wellington</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2001</strong></td>
<td>45</td>
<td>17</td>
<td>16</td>
<td>27</td>
<td>162</td>
<td>30</td>
<td>50</td>
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<td>161</td>
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<tr>
<td><strong>2011</strong></td>
<td>52</td>
<td>21</td>
<td>18</td>
<td>31</td>
<td>179</td>
<td>34</td>
<td>55</td>
<td>177</td>
<td>200</td>
<td>85</td>
<td>852</td>
</tr>
<tr>
<td><strong>2021</strong></td>
<td>60</td>
<td>26</td>
<td>21</td>
<td>37</td>
<td>200</td>
<td>39</td>
<td>61</td>
<td>223</td>
<td>244</td>
<td>106</td>
<td>1,017</td>
</tr>
<tr>
<td><strong>2031</strong></td>
<td>67</td>
<td>29</td>
<td>23</td>
<td>43</td>
<td>218</td>
<td>42</td>
<td>64</td>
<td>260</td>
<td>289</td>
<td>128</td>
<td>1,163</td>
</tr>
<tr>
<td><strong>Growth 2001-31</strong></td>
<td>22</td>
<td>12</td>
<td>7</td>
<td>16</td>
<td>56</td>
<td>12</td>
<td>14</td>
<td>123</td>
<td>128</td>
<td>60</td>
<td>450</td>
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<td>71%</td>
<td>44%</td>
<td>35%</td>
<td>40%</td>
<td>28%</td>
<td>90%</td>
<td>80%</td>
<td>88%</td>
<td>61%</td>
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</table>

### TABLE C.8

<table>
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<th>Brant</th>
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<th>Haldimand</th>
<th>Kawartha Lakes</th>
<th>Niagara</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Simcoe</th>
<th>Waterloo</th>
<th>Wellington</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1981-91</strong></td>
<td>1.6%</td>
<td>3.7%</td>
<td>1.5%</td>
<td>10.5%</td>
<td>7.2%</td>
<td>6.1%</td>
<td>6.3%</td>
<td>28.7%</td>
<td>23.8%</td>
<td>10.6%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>1991-01</strong></td>
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<td>3.6%</td>
<td>1.6%</td>
<td>5.3%</td>
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<td>4.2%</td>
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<td>26.1%</td>
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</table>

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
### C. OUTER RING FORECAST DISTRIBUTION - REFERENCE FORECAST SCENARIOS

#### "MORE COMPACT"

#### TABLE C.9

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<th>Niagara</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Simcoe</th>
<th>Waterloo</th>
<th>Wellington</th>
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<td>22%</td>
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<td>21%</td>
<td>11%</td>
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<td>71%</td>
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#### TABLE C.10

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<th>Northumberland</th>
<th>Peterborough</th>
<th>Simcoe</th>
<th>Waterloo</th>
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<td>27</td>
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<td>7</td>
<td>30</td>
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<td>89</td>
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<td>18%</td>
<td>35%</td>
<td>16%</td>
<td>14%</td>
<td>9%</td>
<td>58%</td>
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<th>Kawartha Lakes</th>
<th>Niagara</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Simcoe</th>
<th>Waterloo</th>
<th>Wellington</th>
<th>Total</th>
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<td>161</td>
<td>68</td>
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<td><strong>2011</strong></td>
<td>52</td>
<td>21</td>
<td>18</td>
<td>31</td>
<td>179</td>
<td>34</td>
<td>55</td>
<td>176</td>
<td>201</td>
<td>85</td>
<td>852</td>
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<td>39</td>
<td>60</td>
<td>217</td>
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<td>1,016</td>
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<td>29</td>
<td>23</td>
<td>43</td>
<td>217</td>
<td>43</td>
<td>63</td>
<td>248</td>
<td>297</td>
<td>132</td>
<td>1,161</td>
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<td>7</td>
<td>16</td>
<td>55</td>
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<td>13</td>
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<td>136</td>
<td>64</td>
<td>448</td>
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<td>47%</td>
<td>71%</td>
<td>44%</td>
<td>59%</td>
<td>34%</td>
<td>43%</td>
<td>26%</td>
<td>81%</td>
<td>84%</td>
<td>94%</td>
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#### TABLE C.12

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<th>Niagara</th>
<th>Northumberland</th>
<th>Peterborough</th>
<th>Simcoe</th>
<th>Waterloo</th>
<th>Wellington</th>
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<tr>
<td><strong>1981-91</strong></td>
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<td>3.7%</td>
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<td>7.2%</td>
<td>6.1%</td>
<td>6.3%</td>
<td>28.7%</td>
<td>23.8%</td>
<td>10.6%</td>
<td>100%</td>
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<tr>
<td><strong>1991-01</strong></td>
<td>2.2%</td>
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<td>1.6%</td>
<td>5.3%</td>
<td>8.9%</td>
<td>3.2%</td>
<td>3.1%</td>
<td>39.1%</td>
<td>21.9%</td>
<td>11.0%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>2001-11</strong></td>
<td>3.9%</td>
<td>2.6%</td>
<td>1.1%</td>
<td>4.7%</td>
<td>9.7%</td>
<td>4.2%</td>
<td>4.2%</td>
<td>36.3%</td>
<td>23.2%</td>
<td>10.2%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>2011-21</strong></td>
<td>4.0%</td>
<td>2.1%</td>
<td>1.1%</td>
<td>4.6%</td>
<td>13.6%</td>
<td>3.4%</td>
<td>3.4%</td>
<td>25.2%</td>
<td>28.2%</td>
<td>14.6%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>2021-31</strong></td>
<td>4.5%</td>
<td>2.0%</td>
<td>1.1%</td>
<td>4.6%</td>
<td>15.1%</td>
<td>3.4%</td>
<td>3.4%</td>
<td>19.7%</td>
<td>30.0%</td>
<td>16.4%</td>
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</table>

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.

Appendices: The Growth Outlook for the Greater Golden Horseshoe

Hemson Consulting Ltd.
APPENDIX D
GTAH REFERENCE FORECAST SCENARIOS

IN THIS APPENDIX
### D. GTA FORECAST DISTRIBUTION - REFERENCE FORECAST SCENARIOS

"CURRENT TRENDS"

#### TABLE D.1

<table>
<thead>
<tr>
<th>Year</th>
<th>Toronto</th>
<th>York</th>
<th>Peel</th>
<th>Halton</th>
<th>Durham</th>
<th>Hamilton</th>
<th>GTA H</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>2,590</td>
<td>760</td>
<td>1,030</td>
<td>390</td>
<td>530</td>
<td>510</td>
<td>5,810</td>
</tr>
<tr>
<td>2011</td>
<td>2,750</td>
<td>1,060</td>
<td>1,320</td>
<td>530</td>
<td>660</td>
<td>540</td>
<td>6,860</td>
</tr>
<tr>
<td>2021</td>
<td>2,890</td>
<td>1,310</td>
<td>1,490</td>
<td>660</td>
<td>830</td>
<td>590</td>
<td>7,770</td>
</tr>
<tr>
<td>2031</td>
<td>3,000</td>
<td>1,530</td>
<td>1,640</td>
<td>800</td>
<td>990</td>
<td>660</td>
<td>8,620</td>
</tr>
</tbody>
</table>

Growth 2001-31: 410 770 610 410 460 150 2,810

Per Cent Change: 16% 101% 59% 105% 87% 29% 48%

#### TABLE D.2

<table>
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<th>Year</th>
<th>Toronto</th>
<th>York</th>
<th>Peel</th>
<th>Halton</th>
<th>Durham</th>
<th>Hamilton</th>
<th>GTA H</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>1,440</td>
<td>390</td>
<td>530</td>
<td>190</td>
<td>190</td>
<td>210</td>
<td>2,950</td>
</tr>
<tr>
<td>2011</td>
<td>1,540</td>
<td>590</td>
<td>730</td>
<td>280</td>
<td>260</td>
<td>230</td>
<td>3,630</td>
</tr>
<tr>
<td>2021</td>
<td>1,590</td>
<td>700</td>
<td>820</td>
<td>350</td>
<td>310</td>
<td>260</td>
<td>4,030</td>
</tr>
<tr>
<td>2031</td>
<td>1,620</td>
<td>780</td>
<td>880</td>
<td>400</td>
<td>360</td>
<td>290</td>
<td>4,330</td>
</tr>
</tbody>
</table>

Growth 2001-31: 180 390 350 210 170 80 1,380

Per Cent Change: 13% 100% 66% 111% 89% 38% 47%

#### TABLE D.3

<table>
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<tr>
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<th>Peel</th>
<th>Halton</th>
<th>Durham</th>
<th>Hamilton</th>
<th>GTA H</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>940</td>
<td>220</td>
<td>310</td>
<td>130</td>
<td>170</td>
<td>190</td>
<td>1,960</td>
</tr>
<tr>
<td>2011</td>
<td>1,070</td>
<td>330</td>
<td>410</td>
<td>190</td>
<td>230</td>
<td>210</td>
<td>2,440</td>
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<tr>
<td>2021</td>
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<td>430</td>
<td>490</td>
<td>250</td>
<td>290</td>
<td>240</td>
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<td>1,240</td>
<td>510</td>
<td>550</td>
<td>300</td>
<td>360</td>
<td>270</td>
<td>3,230</td>
</tr>
</tbody>
</table>

Growth 2001-31: 300 290 240 170 190 80 1,270

Per Cent Change: 32% 132% 77% 131% 112% 42% 65%

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
### Table D.4: Population (000s)

<table>
<thead>
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<th>York</th>
<th>Peel</th>
<th>Halton</th>
<th>Durham</th>
<th>Hamilton</th>
<th>GTAH</th>
</tr>
</thead>
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<tr>
<td>2001</td>
<td>2,590</td>
<td>760</td>
<td>1,030</td>
<td>390</td>
<td>530</td>
<td>510</td>
<td>5,810</td>
</tr>
<tr>
<td>2011</td>
<td>2,760</td>
<td>1,060</td>
<td>1,320</td>
<td>520</td>
<td>660</td>
<td>540</td>
<td>6,860</td>
</tr>
<tr>
<td>2021</td>
<td>2,930</td>
<td>1,300</td>
<td>1,490</td>
<td>650</td>
<td>810</td>
<td>590</td>
<td>7,770</td>
</tr>
<tr>
<td>2031</td>
<td>3,080</td>
<td>1,500</td>
<td>1,640</td>
<td>780</td>
<td>960</td>
<td>660</td>
<td>8,620</td>
</tr>
<tr>
<td>Growth 2001-31</td>
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<td>740</td>
<td>610</td>
<td>390</td>
<td>430</td>
<td>150</td>
<td>2,810</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>19%</td>
<td>97%</td>
<td>59%</td>
<td>100%</td>
<td>81%</td>
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### Table D.5: Employment (000s)

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<th>Peel</th>
<th>Halton</th>
<th>Durham</th>
<th>Hamilton</th>
<th>GTAH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>1,440</td>
<td>390</td>
<td>530</td>
<td>190</td>
<td>190</td>
<td>210</td>
<td>2,950</td>
</tr>
<tr>
<td>2011</td>
<td>1,540</td>
<td>590</td>
<td>730</td>
<td>280</td>
<td>260</td>
<td>230</td>
<td>3,630</td>
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<tr>
<td>2021</td>
<td>1,600</td>
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<tr>
<td>2031</td>
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<td>390</td>
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<td>300</td>
<td>4,330</td>
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<td>250</td>
<td>190</td>
<td>160</td>
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<td>105%</td>
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<td>47%</td>
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### Table D.6: Households (000s)

<table>
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<th>Peel</th>
<th>Halton</th>
<th>Durham</th>
<th>Hamilton</th>
<th>GTAH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>940</td>
<td>220</td>
<td>310</td>
<td>130</td>
<td>170</td>
<td>190</td>
<td>1,960</td>
</tr>
<tr>
<td>2011</td>
<td>1,070</td>
<td>330</td>
<td>410</td>
<td>190</td>
<td>230</td>
<td>210</td>
<td>2,440</td>
</tr>
<tr>
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<td>290</td>
<td>240</td>
<td>2,850</td>
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<td>540</td>
<td>300</td>
<td>350</td>
<td>270</td>
<td>3,230</td>
</tr>
<tr>
<td>Growth 2001-31</td>
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<td>230</td>
<td>170</td>
<td>180</td>
<td>80</td>
<td>1,270</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>35%</td>
<td>127%</td>
<td>74%</td>
<td>131%</td>
<td>106%</td>
<td>42%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
D. GTAH FORECAST DISTRIBUTION - REFERENCE FORECAST SCENARIOS

"MORE COMPACT"

TABLE D.7

<table>
<thead>
<tr>
<th>Year</th>
<th>Toronto</th>
<th>York</th>
<th>Peel</th>
<th>Halton</th>
<th>Durham</th>
<th>Hamilton</th>
<th>GTAH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>2,590</td>
<td>760</td>
<td>1,030</td>
<td>390</td>
<td>530</td>
<td>510</td>
<td>5,810</td>
</tr>
<tr>
<td>2011</td>
<td>2,760</td>
<td>1,060</td>
<td>1,310</td>
<td>520</td>
<td>660</td>
<td>540</td>
<td>6,850</td>
</tr>
<tr>
<td>2021</td>
<td>2,930</td>
<td>1,290</td>
<td>1,480</td>
<td>640</td>
<td>830</td>
<td>610</td>
<td>7,780</td>
</tr>
<tr>
<td>2031</td>
<td>3,140</td>
<td>1,450</td>
<td>1,610</td>
<td>740</td>
<td>980</td>
<td>700</td>
<td>8,620</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>550</td>
<td>690</td>
<td>580</td>
<td>350</td>
<td>450</td>
<td>190</td>
<td>2,810</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>21%</td>
<td>91%</td>
<td>56%</td>
<td>90%</td>
<td>85%</td>
<td>37%</td>
<td>48%</td>
</tr>
</tbody>
</table>

TABLE D.8

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<th>York</th>
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<th>Halton</th>
<th>Durham</th>
<th>Hamilton</th>
<th>GTAH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>1,440</td>
<td>390</td>
<td>530</td>
<td>190</td>
<td>190</td>
<td>210</td>
<td>2,950</td>
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<tr>
<td>2011</td>
<td>1,540</td>
<td>590</td>
<td>730</td>
<td>280</td>
<td>260</td>
<td>230</td>
<td>3,630</td>
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<tr>
<td>2021</td>
<td>1,610</td>
<td>690</td>
<td>810</td>
<td>330</td>
<td>320</td>
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<td>4,030</td>
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<tr>
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<td>1,670</td>
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<td>860</td>
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<td>370</td>
<td>310</td>
<td>4,330</td>
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<td>1,380</td>
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<tr>
<td>Per Cent Change</td>
<td>16%</td>
<td>92%</td>
<td>62%</td>
<td>95%</td>
<td>95%</td>
<td>48%</td>
<td>47%</td>
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</table>

TABLE D.9

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<th>Peel</th>
<th>Halton</th>
<th>Durham</th>
<th>Hamilton</th>
<th>GTAH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>940</td>
<td>220</td>
<td>310</td>
<td>130</td>
<td>170</td>
<td>190</td>
<td>1,960</td>
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<tr>
<td>2011</td>
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<td>330</td>
<td>410</td>
<td>190</td>
<td>230</td>
<td>210</td>
<td>2,440</td>
</tr>
<tr>
<td>2021</td>
<td>1,180</td>
<td>420</td>
<td>480</td>
<td>240</td>
<td>290</td>
<td>250</td>
<td>2,860</td>
</tr>
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<td>2031</td>
<td>1,280</td>
<td>490</td>
<td>530</td>
<td>360</td>
<td>360</td>
<td>290</td>
<td>3,230</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>340</td>
<td>270</td>
<td>220</td>
<td>150</td>
<td>190</td>
<td>100</td>
<td>1,270</td>
</tr>
<tr>
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<td>36%</td>
<td>123%</td>
<td>71%</td>
<td>115%</td>
<td>112%</td>
<td>53%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
APPENDIX E

GTAH REFERENCE HOUSING FORECASTS
BY REGION
### TABLE E.1

<table>
<thead>
<tr>
<th>Year</th>
<th>Singles</th>
<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>307</td>
<td>92</td>
<td>52</td>
<td>492</td>
<td>943</td>
</tr>
<tr>
<td>2011</td>
<td>320</td>
<td>96</td>
<td>63</td>
<td>586</td>
<td>1,065</td>
</tr>
<tr>
<td>2021</td>
<td>327</td>
<td>100</td>
<td>72</td>
<td>669</td>
<td>1,168</td>
</tr>
<tr>
<td>2031</td>
<td>331</td>
<td>102</td>
<td>80</td>
<td>728</td>
<td>1,241</td>
</tr>
</tbody>
</table>

Growth 2001-31: 24
Per Cent Change: 8%

### TABLE E.2

<table>
<thead>
<tr>
<th>Year</th>
<th>Singles</th>
<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>167</td>
<td>9</td>
<td>19</td>
<td>27</td>
<td>222</td>
</tr>
<tr>
<td>2011</td>
<td>231</td>
<td>22</td>
<td>40</td>
<td>37</td>
<td>330</td>
</tr>
<tr>
<td>2021</td>
<td>286</td>
<td>34</td>
<td>59</td>
<td>50</td>
<td>429</td>
</tr>
<tr>
<td>2031</td>
<td>332</td>
<td>43</td>
<td>73</td>
<td>62</td>
<td>510</td>
</tr>
</tbody>
</table>

Growth 2001-31: 165
Per Cent Change: 99%

### TABLE E.3

<table>
<thead>
<tr>
<th>Year</th>
<th>Singles</th>
<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>154</td>
<td>38</td>
<td>38</td>
<td>78</td>
<td>308</td>
</tr>
<tr>
<td>2011</td>
<td>207</td>
<td>59</td>
<td>54</td>
<td>92</td>
<td>412</td>
</tr>
<tr>
<td>2021</td>
<td>239</td>
<td>69</td>
<td>69</td>
<td>109</td>
<td>486</td>
</tr>
<tr>
<td>2031</td>
<td>265</td>
<td>76</td>
<td>81</td>
<td>124</td>
<td>546</td>
</tr>
</tbody>
</table>

Growth 2001-31: 111
Per Cent Change: 72%

### TABLE E.4

<table>
<thead>
<tr>
<th>Year</th>
<th>Singles</th>
<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>120</td>
<td>11</td>
<td>14</td>
<td>27</td>
<td>172</td>
</tr>
<tr>
<td>2011</td>
<td>159</td>
<td>14</td>
<td>23</td>
<td>30</td>
<td>226</td>
</tr>
<tr>
<td>2021</td>
<td>203</td>
<td>21</td>
<td>32</td>
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</tr>
<tr>
<td>2031</td>
<td>242</td>
<td>28</td>
<td>42</td>
<td>46</td>
<td>358</td>
</tr>
</tbody>
</table>

Growth 2001-31: 122
Per Cent Change: 102%

### TABLE E.5

<table>
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<tr>
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<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
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<td>6</td>
<td>17</td>
<td>26</td>
<td>134</td>
</tr>
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</tr>
<tr>
<td>2021</td>
<td>147</td>
<td>18</td>
<td>45</td>
<td>37</td>
<td>247</td>
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<tr>
<td>2031</td>
<td>177</td>
<td>24</td>
<td>56</td>
<td>45</td>
<td>302</td>
</tr>
</tbody>
</table>

Growth 2001-31: 92
Per Cent Change: 108%

### TABLE E.6

<table>
<thead>
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<th>Singles</th>
<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>113</td>
<td>6</td>
<td>16</td>
<td>54</td>
<td>189</td>
</tr>
<tr>
<td>2011</td>
<td>125</td>
<td>6</td>
<td>20</td>
<td>57</td>
<td>208</td>
</tr>
<tr>
<td>2021</td>
<td>138</td>
<td>9</td>
<td>27</td>
<td>64</td>
<td>238</td>
</tr>
<tr>
<td>2031</td>
<td>153</td>
<td>12</td>
<td>32</td>
<td>72</td>
<td>269</td>
</tr>
</tbody>
</table>

Growth 2001-31: 40
Per Cent Change: 35%

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
E. GTA HOUSING BY TYPE BY REGION - REFERENCE FORECAST SCENARIOS

"COMPACT"

### TABLE E.7
TORONTO HOUSING UNITS (000s)

<table>
<thead>
<tr>
<th>Year</th>
<th>Singles</th>
<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>307</td>
<td>92</td>
<td>52</td>
<td>492</td>
<td>943</td>
</tr>
<tr>
<td>2011</td>
<td>320</td>
<td>96</td>
<td>62</td>
<td>589</td>
<td>1,067</td>
</tr>
<tr>
<td>2021</td>
<td>326</td>
<td>100</td>
<td>72</td>
<td>683</td>
<td>1,181</td>
</tr>
<tr>
<td>2031</td>
<td>329</td>
<td>102</td>
<td>82</td>
<td>752</td>
<td>1,265</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>22</td>
<td>10</td>
<td>30</td>
<td>260</td>
<td>322</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>7%</td>
<td>11%</td>
<td>58%</td>
<td>53%</td>
<td>34%</td>
</tr>
</tbody>
</table>

### TABLE E.10
DURHAM HOUSING UNITS (000s)

<table>
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<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>120</td>
<td>11</td>
<td>14</td>
<td>27</td>
<td>172</td>
</tr>
<tr>
<td>2011</td>
<td>159</td>
<td>14</td>
<td>22</td>
<td>30</td>
<td>225</td>
</tr>
<tr>
<td>2021</td>
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<td>22</td>
<td>32</td>
<td>41</td>
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<tr>
<td>2031</td>
<td>223</td>
<td>30</td>
<td>43</td>
<td>52</td>
<td>348</td>
</tr>
<tr>
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<td>103</td>
<td>19</td>
<td>29</td>
<td>25</td>
<td>176</td>
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<tr>
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<td>86%</td>
<td>173%</td>
<td>207%</td>
<td>93%</td>
<td>102%</td>
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### TABLE E.8
YORK HOUSING UNITS (000s)

<table>
<thead>
<tr>
<th>Year</th>
<th>Singles</th>
<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>167</td>
<td>9</td>
<td>19</td>
<td>27</td>
<td>222</td>
</tr>
<tr>
<td>2011</td>
<td>231</td>
<td>22</td>
<td>39</td>
<td>39</td>
<td>331</td>
</tr>
<tr>
<td>2021</td>
<td>277</td>
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<td>57</td>
<td>55</td>
<td>425</td>
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<td>2031</td>
<td>312</td>
<td>47</td>
<td>76</td>
<td>69</td>
<td>504</td>
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<tr>
<td>Growth 2001-31</td>
<td>145</td>
<td>38</td>
<td>57</td>
<td>42</td>
<td>282</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>87%</td>
<td>422%</td>
<td>300%</td>
<td>156%</td>
<td>127%</td>
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### TABLE E.11
HALTON HOUSING UNITS (000s)

<table>
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<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>113</td>
<td>6</td>
<td>17</td>
<td>26</td>
<td>134</td>
</tr>
<tr>
<td>2011</td>
<td>115</td>
<td>11</td>
<td>30</td>
<td>31</td>
<td>187</td>
</tr>
<tr>
<td>2021</td>
<td>141</td>
<td>18</td>
<td>44</td>
<td>39</td>
<td>242</td>
</tr>
<tr>
<td>2031</td>
<td>163</td>
<td>26</td>
<td>59</td>
<td>48</td>
<td>296</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>33</td>
<td>7</td>
<td>17</td>
<td>22</td>
<td>80</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>92%</td>
<td>333%</td>
<td>247%</td>
<td>85%</td>
<td>121%</td>
</tr>
</tbody>
</table>

### TABLE E.9
PEEL HOUSING UNITS (000s)

<table>
<thead>
<tr>
<th>Year</th>
<th>Singles</th>
<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>154</td>
<td>38</td>
<td>38</td>
<td>78</td>
<td>308</td>
</tr>
<tr>
<td>2011</td>
<td>206</td>
<td>53</td>
<td>53</td>
<td>93</td>
<td>405</td>
</tr>
<tr>
<td>2021</td>
<td>232</td>
<td>69</td>
<td>68</td>
<td>114</td>
<td>483</td>
</tr>
<tr>
<td>2031</td>
<td>251</td>
<td>83</td>
<td>83</td>
<td>132</td>
<td>549</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>97</td>
<td>45</td>
<td>45</td>
<td>54</td>
<td>241</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>63%</td>
<td>118%</td>
<td>118%</td>
<td>69%</td>
<td>78%</td>
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</table>

### TABLE E.12
HAMILTON HOUSING UNITS (000s)

<table>
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<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>113</td>
<td>6</td>
<td>16</td>
<td>54</td>
<td>189</td>
</tr>
<tr>
<td>2011</td>
<td>125</td>
<td>6</td>
<td>20</td>
<td>58</td>
<td>209</td>
</tr>
<tr>
<td>2021</td>
<td>136</td>
<td>10</td>
<td>26</td>
<td>67</td>
<td>239</td>
</tr>
<tr>
<td>2031</td>
<td>146</td>
<td>13</td>
<td>33</td>
<td>77</td>
<td>269</td>
</tr>
<tr>
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<td>33</td>
<td>7</td>
<td>17</td>
<td>23</td>
<td>80</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>29%</td>
<td>117%</td>
<td>106%</td>
<td>43%</td>
<td>42%</td>
</tr>
</tbody>
</table>

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
### E. GTAHOUSING BY TYPE BY REGION - REFERENCE FORECAST SCENARIOS

"MORE COMPACT"

#### TABLE E.13

**TORONTO HOUSING UNITS (000s)**

<table>
<thead>
<tr>
<th></th>
<th>Singles</th>
<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>307</td>
<td>92</td>
<td>52</td>
<td>492</td>
<td>943</td>
</tr>
<tr>
<td>2011</td>
<td>320</td>
<td>96</td>
<td>62</td>
<td>590</td>
<td>1,068</td>
</tr>
<tr>
<td>2021</td>
<td>326</td>
<td>100</td>
<td>71</td>
<td>684</td>
<td>1,181</td>
</tr>
<tr>
<td>2031</td>
<td>328</td>
<td>103</td>
<td>80</td>
<td>774</td>
<td>1,285</td>
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<td>11</td>
<td>28</td>
<td>282</td>
<td>342</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>7%</td>
<td>12%</td>
<td>54%</td>
<td>57%</td>
<td>36%</td>
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</table>

#### TABLE E.14

**YORK HOUSING UNITS (000s)**

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<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>167</td>
<td>9</td>
<td>19</td>
<td>27</td>
<td>222</td>
</tr>
<tr>
<td>2011</td>
<td>230</td>
<td>22</td>
<td>39</td>
<td>38</td>
<td>329</td>
</tr>
<tr>
<td>2021</td>
<td>273</td>
<td>36</td>
<td>58</td>
<td>55</td>
<td>422</td>
</tr>
<tr>
<td>2031</td>
<td>288</td>
<td>46</td>
<td>77</td>
<td>76</td>
<td>487</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>121</td>
<td>37</td>
<td>58</td>
<td>49</td>
<td>265</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>72%</td>
<td>411%</td>
<td>305%</td>
<td>36%</td>
<td>73%</td>
</tr>
</tbody>
</table>

#### TABLE E.15

**PEEL HOUSING UNITS (000s)**

<table>
<thead>
<tr>
<th></th>
<th>Singles</th>
<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>154</td>
<td>38</td>
<td>38</td>
<td>78</td>
<td>308</td>
</tr>
<tr>
<td>2011</td>
<td>206</td>
<td>59</td>
<td>53</td>
<td>93</td>
<td>411</td>
</tr>
<tr>
<td>2021</td>
<td>229</td>
<td>70</td>
<td>68</td>
<td>114</td>
<td>481</td>
</tr>
<tr>
<td>2031</td>
<td>236</td>
<td>76</td>
<td>82</td>
<td>138</td>
<td>532</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>82</td>
<td>38</td>
<td>44</td>
<td>60</td>
<td>224</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>53%</td>
<td>100%</td>
<td>116%</td>
<td>77%</td>
<td>73%</td>
</tr>
</tbody>
</table>

#### TABLE E.16

**DURHAM HOUSING UNITS (000s)**

<table>
<thead>
<tr>
<th></th>
<th>Singles</th>
<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>120</td>
<td>11</td>
<td>14</td>
<td>27</td>
<td>172</td>
</tr>
<tr>
<td>2011</td>
<td>159</td>
<td>14</td>
<td>22</td>
<td>30</td>
<td>225</td>
</tr>
<tr>
<td>2021</td>
<td>196</td>
<td>23</td>
<td>33</td>
<td>42</td>
<td>294</td>
</tr>
<tr>
<td>2031</td>
<td>212</td>
<td>33</td>
<td>47</td>
<td>62</td>
<td>354</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>92</td>
<td>22</td>
<td>33</td>
<td>35</td>
<td>182</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>77%</td>
<td>200%</td>
<td>236%</td>
<td>130%</td>
<td>106%</td>
</tr>
</tbody>
</table>

#### TABLE E.17

**HALTON HOUSING UNITS (000s)**

<table>
<thead>
<tr>
<th></th>
<th>Singles</th>
<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>85</td>
<td>6</td>
<td>17</td>
<td>26</td>
<td>134</td>
</tr>
<tr>
<td>2011</td>
<td>115</td>
<td>11</td>
<td>30</td>
<td>31</td>
<td>187</td>
</tr>
<tr>
<td>2021</td>
<td>140</td>
<td>18</td>
<td>43</td>
<td>39</td>
<td>240</td>
</tr>
<tr>
<td>2031</td>
<td>149</td>
<td>23</td>
<td>58</td>
<td>51</td>
<td>281</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>64</td>
<td>17</td>
<td>41</td>
<td>25</td>
<td>147</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>75%</td>
<td>283%</td>
<td>241%</td>
<td>96%</td>
<td>110%</td>
</tr>
</tbody>
</table>

#### TABLE E.18

**HAMILTON HOUSING UNITS (000s)**

<table>
<thead>
<tr>
<th></th>
<th>Singles</th>
<th>Semis</th>
<th>Rows</th>
<th>Apts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>113</td>
<td>6</td>
<td>16</td>
<td>54</td>
<td>189</td>
</tr>
<tr>
<td>2011</td>
<td>126</td>
<td>6</td>
<td>20</td>
<td>57</td>
<td>209</td>
</tr>
<tr>
<td>2021</td>
<td>138</td>
<td>10</td>
<td>28</td>
<td>69</td>
<td>245</td>
</tr>
<tr>
<td>2031</td>
<td>144</td>
<td>16</td>
<td>39</td>
<td>90</td>
<td>289</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>31</td>
<td>10</td>
<td>23</td>
<td>36</td>
<td>100</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>27%</td>
<td>167%</td>
<td>144%</td>
<td>67%</td>
<td>53%</td>
</tr>
</tbody>
</table>

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
APPENDIX F

GTAH REFERENCE EMPLOYMENT FORECASTS
BY REGION
## F. GTA EMPLOYMENT BY TYPE BY REGION - REFERENCE FORECAST SCENARIOS

### "CURRENT TRENDS"

#### TABLE F.1

<table>
<thead>
<tr>
<th>Year</th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>541</td>
<td>535</td>
<td>359</td>
<td>1,435</td>
</tr>
<tr>
<td>2011</td>
<td>581</td>
<td>590</td>
<td>368</td>
<td>1,539</td>
</tr>
<tr>
<td>2021</td>
<td>609</td>
<td>620</td>
<td>361</td>
<td>1,590</td>
</tr>
<tr>
<td>2031</td>
<td>634</td>
<td>631</td>
<td>356</td>
<td>1,621</td>
</tr>
</tbody>
</table>

Growth 2001-31: 93k
Per Cent Change: 17%

#### TABLE F.4

<table>
<thead>
<tr>
<th>Year</th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>7</td>
<td>79</td>
<td>103</td>
<td>189</td>
</tr>
<tr>
<td>2011</td>
<td>9</td>
<td>102</td>
<td>145</td>
<td>256</td>
</tr>
<tr>
<td>2021</td>
<td>14</td>
<td>128</td>
<td>171</td>
<td>313</td>
</tr>
<tr>
<td>2031</td>
<td>19</td>
<td>148</td>
<td>192</td>
<td>359</td>
</tr>
</tbody>
</table>

Growth 2001-31: 12k
Per Cent Change: 17%

---

#### TABLE F.2

<table>
<thead>
<tr>
<th>Year</th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>48</td>
<td>113</td>
<td>224</td>
<td>385</td>
</tr>
<tr>
<td>2011</td>
<td>85</td>
<td>163</td>
<td>341</td>
<td>589</td>
</tr>
<tr>
<td>2021</td>
<td>109</td>
<td>201</td>
<td>393</td>
<td>703</td>
</tr>
<tr>
<td>2031</td>
<td>125</td>
<td>228</td>
<td>429</td>
<td>782</td>
</tr>
</tbody>
</table>

Growth 2001-31: 77k
Per Cent Change: 160%

#### TABLE F.5

<table>
<thead>
<tr>
<th>Year</th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>16</td>
<td>58</td>
<td>115</td>
<td>189</td>
</tr>
<tr>
<td>2011</td>
<td>32</td>
<td>81</td>
<td>169</td>
<td>282</td>
</tr>
<tr>
<td>2021</td>
<td>47</td>
<td>102</td>
<td>197</td>
<td>346</td>
</tr>
<tr>
<td>2031</td>
<td>58</td>
<td>119</td>
<td>218</td>
<td>395</td>
</tr>
</tbody>
</table>

Growth 2001-31: 42k
Per Cent Change: 263%

---

#### TABLE F.3

<table>
<thead>
<tr>
<th>Year</th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>76</td>
<td>154</td>
<td>304</td>
<td>534</td>
</tr>
<tr>
<td>2011</td>
<td>124</td>
<td>203</td>
<td>401</td>
<td>728</td>
</tr>
<tr>
<td>2021</td>
<td>158</td>
<td>229</td>
<td>432</td>
<td>819</td>
</tr>
<tr>
<td>2031</td>
<td>180</td>
<td>246</td>
<td>450</td>
<td>876</td>
</tr>
</tbody>
</table>

Growth 2001-31: 104k
Per Cent Change: 137%

#### TABLE F.6

<table>
<thead>
<tr>
<th>Year</th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>13</td>
<td>92</td>
<td>100</td>
<td>205</td>
</tr>
<tr>
<td>2011</td>
<td>15</td>
<td>102</td>
<td>116</td>
<td>233</td>
</tr>
<tr>
<td>2021</td>
<td>18</td>
<td>113</td>
<td>132</td>
<td>263</td>
</tr>
<tr>
<td>2031</td>
<td>22</td>
<td>122</td>
<td>148</td>
<td>292</td>
</tr>
</tbody>
</table>

Growth 2001-31: 9k
Per Cent Change: 69%

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
F. GTA Employment by Type by Region - Reference Forecast Scenarios

"COMPACT"

**TABLE F.7**
TORONTO Employment (000s)

<table>
<thead>
<tr>
<th></th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>541</td>
<td>535</td>
<td>359</td>
<td>1,435</td>
</tr>
<tr>
<td>2011</td>
<td>583</td>
<td>590</td>
<td>368</td>
<td>1,541</td>
</tr>
<tr>
<td>2021</td>
<td>616</td>
<td>626</td>
<td>361</td>
<td>1,603</td>
</tr>
<tr>
<td>2031</td>
<td>645</td>
<td>641</td>
<td>356</td>
<td>1,642</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>104</td>
<td>106</td>
<td>3</td>
<td>207</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>19%</td>
<td>20%</td>
<td>-1%</td>
<td>14%</td>
</tr>
</tbody>
</table>

**TABLE F.10**
DURHAM Employment (000s)

<table>
<thead>
<tr>
<th></th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>7</td>
<td>79</td>
<td>103</td>
<td>189</td>
</tr>
<tr>
<td>2011</td>
<td>9</td>
<td>102</td>
<td>145</td>
<td>256</td>
</tr>
<tr>
<td>2021</td>
<td>14</td>
<td>125</td>
<td>170</td>
<td>309</td>
</tr>
<tr>
<td>2031</td>
<td>18</td>
<td>144</td>
<td>191</td>
<td>353</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>11</td>
<td>65</td>
<td>88</td>
<td>164</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>157%</td>
<td>82%</td>
<td>85%</td>
<td>87%</td>
</tr>
</tbody>
</table>

**TABLE F.8**
YORK Employment (000s)

<table>
<thead>
<tr>
<th></th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>48</td>
<td>113</td>
<td>224</td>
<td>385</td>
</tr>
<tr>
<td>2011</td>
<td>86</td>
<td>163</td>
<td>341</td>
<td>590</td>
</tr>
<tr>
<td>2021</td>
<td>109</td>
<td>199</td>
<td>393</td>
<td>701</td>
</tr>
<tr>
<td>2031</td>
<td>126</td>
<td>224</td>
<td>429</td>
<td>779</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>78</td>
<td>111</td>
<td>205</td>
<td>394</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>163%</td>
<td>98%</td>
<td>92%</td>
<td>102%</td>
</tr>
</tbody>
</table>

**TABLE F.11**
HALTON Employment (000s)

<table>
<thead>
<tr>
<th></th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>16</td>
<td>58</td>
<td>115</td>
<td>189</td>
</tr>
<tr>
<td>2011</td>
<td>29</td>
<td>81</td>
<td>169</td>
<td>279</td>
</tr>
<tr>
<td>2021</td>
<td>42</td>
<td>101</td>
<td>197</td>
<td>340</td>
</tr>
<tr>
<td>2031</td>
<td>51</td>
<td>116</td>
<td>218</td>
<td>385</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>35</td>
<td>58</td>
<td>103</td>
<td>196</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>219%</td>
<td>100%</td>
<td>90%</td>
<td>104%</td>
</tr>
</tbody>
</table>

**TABLE F.9**
PEEL Employment (000s)

<table>
<thead>
<tr>
<th></th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>76</td>
<td>154</td>
<td>304</td>
<td>534</td>
</tr>
<tr>
<td>2011</td>
<td>123</td>
<td>202</td>
<td>401</td>
<td>726</td>
</tr>
<tr>
<td>2021</td>
<td>155</td>
<td>229</td>
<td>432</td>
<td>816</td>
</tr>
<tr>
<td>2031</td>
<td>174</td>
<td>245</td>
<td>450</td>
<td>869</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>98</td>
<td>91</td>
<td>146</td>
<td>335</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>129%</td>
<td>59%</td>
<td>48%</td>
<td>63%</td>
</tr>
</tbody>
</table>

**TABLE F.12**
HAMILTON Employment (000s)

<table>
<thead>
<tr>
<th></th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>13</td>
<td>92</td>
<td>100</td>
<td>205</td>
</tr>
<tr>
<td>2011</td>
<td>15</td>
<td>102</td>
<td>116</td>
<td>233</td>
</tr>
<tr>
<td>2021</td>
<td>20</td>
<td>114</td>
<td>133</td>
<td>267</td>
</tr>
<tr>
<td>2031</td>
<td>24</td>
<td>123</td>
<td>149</td>
<td>296</td>
</tr>
<tr>
<td>Growth 2001-31</td>
<td>11</td>
<td>31</td>
<td>49</td>
<td>91</td>
</tr>
<tr>
<td>Per Cent Change</td>
<td>85%</td>
<td>34%</td>
<td>49%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
### TABLE F.13
**TORONTO EMPLOYMENT (000s)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>541</td>
<td>535</td>
<td>359</td>
<td>1,435</td>
</tr>
<tr>
<td>2011</td>
<td>585</td>
<td>591</td>
<td>368</td>
<td>1,544</td>
</tr>
<tr>
<td>2021</td>
<td>621</td>
<td>627</td>
<td>365</td>
<td>1,613</td>
</tr>
<tr>
<td>2031</td>
<td>656</td>
<td>653</td>
<td>360</td>
<td>1,669</td>
</tr>
</tbody>
</table>

**Growth 2001-31**: 115
**Per Cent Change**: 21%

### TABLE F.14
** YORK EMPLOYMENT (000s)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>48</td>
<td>113</td>
<td>224</td>
<td>385</td>
</tr>
<tr>
<td>2011</td>
<td>85</td>
<td>162</td>
<td>340</td>
<td>587</td>
</tr>
<tr>
<td>2021</td>
<td>106</td>
<td>198</td>
<td>386</td>
<td>690</td>
</tr>
<tr>
<td>2031</td>
<td>119</td>
<td>216</td>
<td>416</td>
<td>751</td>
</tr>
</tbody>
</table>

**Growth 2001-31**: 71
**Per Cent Change**: 148%

### TABLE F.15
**PEEL EMPLOYMENT (000s)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Major Office</th>
<th>Population Related</th>
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<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>76</td>
<td>154</td>
<td>304</td>
<td>534</td>
</tr>
<tr>
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<td>122</td>
<td>202</td>
<td>401</td>
<td>725</td>
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<tr>
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<td>152</td>
<td>227</td>
<td>431</td>
<td>810</td>
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<td>170</td>
<td>240</td>
<td>449</td>
<td>859</td>
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</table>

**Growth 2001-31**: 94
**Per Cent Change**: 124%

### TABLE F.16
**DURHAM EMPLOYMENT (000s)**

<table>
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<tr>
<th>Year</th>
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<tbody>
<tr>
<td>2001</td>
<td>7</td>
<td>79</td>
<td>103</td>
<td>189</td>
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<td>9</td>
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<td>259</td>
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<tr>
<td>2021</td>
<td>14</td>
<td>127</td>
<td>176</td>
<td>317</td>
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<tr>
<td>2031</td>
<td>20</td>
<td>146</td>
<td>203</td>
<td>369</td>
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</table>

**Growth 2001-31**: 13
**Per Cent Change**: 186%

### TABLE F.17
**HALTON EMPLOYMENT (000s)**

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<tr>
<th>Year</th>
<th>Major Office</th>
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<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>16</td>
<td>58</td>
<td>115</td>
<td>189</td>
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<td>2011</td>
<td>29</td>
<td>81</td>
<td>169</td>
<td>279</td>
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<tr>
<td>2021</td>
<td>40</td>
<td>99</td>
<td>194</td>
<td>333</td>
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<tr>
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<td>46</td>
<td>110</td>
<td>213</td>
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**Growth 2001-31**: 30
**Per Cent Change**: 188%

### TABLE F.18
**HAMILTON EMPLOYMENT (000s)**

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<thead>
<tr>
<th>Year</th>
<th>Major Office</th>
<th>Population Related</th>
<th>Employment Land</th>
<th>Total</th>
</tr>
</thead>
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<tr>
<td>2001</td>
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<td>92</td>
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<td>103</td>
<td>116</td>
<td>235</td>
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<td>2021</td>
<td>21</td>
<td>116</td>
<td>134</td>
<td>271</td>
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<tr>
<td>2031</td>
<td>27</td>
<td>129</td>
<td>152</td>
<td>308</td>
</tr>
</tbody>
</table>

**Growth 2001-31**: 14
**Per Cent Change**: 108%

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. All time periods are in Census years, that is mid-year to mid-year periods.
APPENDIX G

GTAH, OUTER RING & GGH
REFERENCE POPULATION FORECASTS
BY AGE STRUCTURE
### G. Population by Age & Sex - Reference Forecast Scenarios

#### Outer Ring

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<th>Northumberland</th>
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<th>Peterborough</th>
<th>2001</th>
<th>2031</th>
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<tr>
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<td>Female</td>
<td>Total</td>
<td>Male</td>
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<td>3,800</td>
<td>1,900</td>
<td>1,800</td>
<td>6,000</td>
<td>3,000</td>
</tr>
<tr>
<td>5 - 9</td>
<td>5,100</td>
<td>2,500</td>
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<td>3,800</td>
</tr>
<tr>
<td>10 - 14</td>
<td>5,700</td>
<td>2,900</td>
<td>2,800</td>
<td>8,800</td>
<td>4,600</td>
</tr>
<tr>
<td>15 - 19</td>
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</tr>
<tr>
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<td>3,800</td>
</tr>
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<tr>
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<tr>
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</tr>
<tr>
<td>75 - 79</td>
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<td>80 - 84</td>
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</table>

| Source: Statistics Canada and Hemson Consulting Ltd. |
| Note: Numbers may not add due to rounding. Population is Census based (does not include Census undercoverage). |

### Hemson Consulting Ltd.

#### Kawartha Lakes

<table>
<thead>
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<td>Female</td>
<td>35,100</td>
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</table>

<table>
<thead>
<tr>
<th>Haldimand</th>
<th>2001</th>
<th>2031</th>
</tr>
</thead>
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</tr>
</tbody>
</table>

| Source: Statistics Canada and Hemson Consulting Ltd. |
| Note: Numbers may not add due to rounding. Population is Census based (does not include Census undercoverage). |

### Appendices

The Growth Outlook for the Greater Golden Horseshoe Hemson Consulting Ltd.
## G. Population by Age & Sex - Reference Forecast Scenarios

### Outer Ring

#### Niagara

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<th>2031 Female</th>
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<td>25,800</td>
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</tr>
<tr>
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#### Brant

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<th>2031 Female</th>
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<tr>
<td>80 - 84</td>
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<tr>
<td>90+</td>
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</table>

### Source:
Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. Population is Census based (does not include Census undercoverage).

### Appendices
The Growth Outlook for the Greater Golden Horseshoe
Hemson Consulting Ltd.
## G. POPULATION BY AGE & SEX - REFERENCE FORECAST SCENARIOS

### OUTER RING

<table>
<thead>
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<th></th>
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<td>2001</td>
<td>2031</td>
</tr>
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<td>700</td>
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Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. Population is Census based (does not include Census undercoverage).
## GTAH

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<th>2031 Male</th>
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<th>2001 Female</th>
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<td>22,200</td>
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</table>

Source: Statistics Canada and Hemson Consulting Ltd.
Note: Numbers may not add due to rounding. Population is Total population (including Census undercoverage).
### G. POPULATION BY AGE & SEX - REFERENCE FORECAST SCENARIOS

**GTAH**

#### HALTON

<table>
<thead>
<tr>
<th>Age group</th>
<th>2001 Total</th>
<th>2001 Male</th>
<th>2001 Female</th>
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<th>2031 Male</th>
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#### HAMILTON

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<th>2001 Female</th>
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</table>

Source: Statistics Canada and Hemson Consulting Ltd.

Note: Numbers may not add due to rounding. Population is Total population (including Census undercoverage).