Attachment #2

URBAN STRATEGIES INC.

Watson & Associates ECONOMISTS LTD.

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Executive Summary

By 2051, Durham Region is forecast to accommodate a total population of 1,300,000 people and 460,000 jobs. This represents an increase of approximately 634,000 people and 223,200 jobs over the 35-year period since the last census in 2016 and the forecast horizon year of 2051[1].

This Growth Opportunities and Challenges Report provides an overview of the opportunities and anticipated challenges to achieving forecasted growth over the next three decades in Durham Region. It establishes the foundation for undertaking the Land Needs Assessment by providing essential context, discussing impacts from broader demographic and economic trends, local growth and development trends, and other factors that would affect growth. By assessing these topics and themes, observations and recommendations are provided to help guide and direct Durham's long-term forecasted population and employment growth.

Each section of the Report provides observations and recommendations. These recommendations, based on factors that will affect growth, will carry forward into subsequent studies of the Lands Needs Assessment (LNA) and shape the overall outcome of the Durham Growth Management Study (GMS). Below is a summary of the Report's observations and recommendations organized by Report section:

Summary of Durham Region Population and Employment Growth Trends

- **Recommendation:** Through the Employment Strategy and regional economic development initiatives, consider approaches and marketing efforts to further emphasize growing knowledge-based sectors across the broader Greater Golden Horseshoe (GGH) economy in an effort to raise the economic profile of Durham Region. The Toronto-Waterloo Innovation Corridor is an internationally recognized technology innovation supercluster extending from Waterloo Region to the Toronto Region, including Durham. The international presence of this innovation corridor provides a key opportunity for Durham Region to leverage its growing local economy in the technology sector.

- **Recommendation:** Through the Housing Strategy, prioritize growth in Major Transit Station Areas (MTSAs) and other Strategic Growth Areas (SGA) which leverage public transit investments that provide connectivity and access to growing employment markets.

[1] In accordance with Statistics Canada 2016 Census data and A Place to Grow, Growth Plan for the Greater Golden Horseshoe, Schedule 3. Office Consolidation, 2020.

Planning for the New Economy in Durham Region

- **Recommendation:** Through the Region's Employment Strategy, understand the structural changes taking place in the broader economy and implications to planning for employment growth and associated Employment Area land needs to 2051. Further consider approaches that enable more proactive and adaptable responses to economic change and disruption. Capitalize on opportunities associated with technological and economic disruptors (where possible) through growth strategies and related Regional Official Plan (ROP) policies that act as a framework to guide adaption and resiliency to rapid change.

- **Recommendation:** Building on the results of the Region's Employment Strategy, Economic Development initiatives should leverage Durham's distinct economic and competitive strengths with the context of the broader GGH economy (e.g. cost competitive development environment, established manufacturing and energy sectors, as well as other growing knowledge-based sectors).

- **Recommendation:** Support the Region's growing economy by encouraging population and employment growth to areas that promotes a range of housing types and tenures, enhanced mobility, walkable and vibrant mixed-use environments and amenity rich Employment Areas. In particular, through the Intensification Analysis and Employment Strategy, promote growth in Employment Areas and SGAs which include Urban Growth Centres (UGCs) and MTSAs.

Net Migration as a Key Source of Population Growth

- **Recommendation:** Continue to monitor the impacts of COVID-19 on near-term and long-term population and employment growth across the GGH and Durham Region. Durham's reliance on inter-provincial and intra-provincial net migration suggests the Region may be less impacted by a prolonged softening of international immigration relative to some other Greater Toronto Hamilton Area (GTHA) municipalities. Recent 2020 residential building permit activity further supports this hypothesis.

Long-Term Growth Outlook

- **Recommendation:** The Growth Plan, 2019 population and employment forecast for Durham Region is aspirational and will require a significant increase in the regional growth rate if it is to be achieved. It is recommended that the 2051 forecast contained in the Growth Plan, 2019 be the basis for the Durham GMS and LNA. A higher long-term population and employment growth alternative is not recommended.

Managing Strong Population Growth

- **Recommendation:** Be proactive in anticipating and responding to change, by reporting on and regularly monitoring how evolving real estate market trends, consumer behavior and technological disruption is anticipated to influence development patterns, land use planning and infrastructure investment priorities across the Region. It is recommended that the Region incorporate results and outcomes of the GMS in its annual monitoring of growth trends. Particular focus should be given to the influence of evolving real estate market trends and disruptive forces on housing demand by location, tenure and structure type, as well as employment growth and non-residential building space requirements by sector.

Linking Housing Choice and Economic Development

- **Recommendation:** Through the Housing Strategy and Employment Strategy, reflect that the accommodation of skilled labour and the attraction of new businesses are inextricably linked and positively reinforce one another. As an outcome of the GMS, provide recommendations on how to attract and accommodate new skilled working residents to the Region within a broad range of housing options by type, location, tenure and affordability.

- **Recommendation:** Through the Durham GMS and MCR, prioritize growth and further infrastructure investment within SGAs and other priority intensification areas that align with current and planned servicing and transit/transportation networks.

- **Recommendation**: Through the Durham GMS and MCR, consider appropriate policies that prioritize and promote office and mixed-use development within SGAs, including MTSAs and UGCs, as well in other appropriate areas of the Region. This includes ensuring that planning policies and regulations are supportive of intensification initiatives and the economic objectives of the Region. Where gaps exist between planning policy objectives and market demand regarding mixed-use and office development, the Region should also explore utilizing financial tools/incentives to facilitate development where fiscally sustainable.

Planning for Existing and Future Generations

- **Recommendation:** Through the Housing Strategy, reflect the continued need to accommodate and plan for older generations while also attracting younger adults

  and new generations by increasing the market choice of housing available within Durham Region by housing structure type.

- **Recommendation:** Through the Durham GMS and MCR, consider policies, programs and initiatives that support a broad range of new housing options for all ages and income groups. This should include rental apartments, condominiums and entry-level townhome products (e.g. back-to-back townhomes and stacked-townhomes and apartments) for younger adults as well as a range of housing products, including seniors' housing, to accommodate older adults.

Planning for Employment Areas and Mixed-Use Development

- **Recommendation:** Through the Employment Strategy, assess the current composition of Employment Areas, including size, distribution and servicing status, and determine future employment land need.

- **Recommendation:** Through the Durham GMS and MCR, ensure that Durham continues to offer a competitive array of land within Employment Areas, by designating an appropriate quantum of land and including Regional ROP policies to regularly monitor and maintain a sufficient supply of shovel-ready vacant lands across a diverse range of parcel sizes and locations within Employment Areas (equivalent to a minimum five-years of forecast Regional demand).
- **Recommendation:** Through the Employment Strategy, consider the importance of place-making for Employment Areas, including implementing appropriate policies.

Promoting the Rural Economy

- **Recommendation:** Through the Employment Strategy, reflect the maintenance and growth of a strong rural economy in Durham Region.

- **Recommendation:** Through the MCR, continue to emphasize through ROP policies the importance of growth in the rural economy, including the agriculture, resources, and, agri-tourism sectors. Maintain a policy framework identifying which lands are part of the rural system and may be appropriate for agriculture, agri-tourism, and aggregate extraction, as well as other rural uses.These policy directions should also build on strengthening the already present tourism industry in Durham's rural economy, by promoting opportunities for farmers to operate agri-tourism uses on agricultural lands.

Aligning Growth with Significant Infrastructure Investment

- **Recommendation:** Through the GMS and MCR, incorporate an integrated approach to land-use planning, servicing, and financial management within the broader context of Regional growth management. Prioritize growth in areas that make efficient use of existing and planned regional infrastructure.

- **Recommendation:** Growth strategies and related ROP policies should include a degree of flexibility in order to be more adaptative, and resilient to rapid changes in technology and continued structural shifts in the regional economy.

Broader Growth Management Objectives

- **Recommendation:** Durham Region should continue to plan growth in a manner that builds on the guiding principles of the Growth Plan 2019 and recognizes the importance of enhanced livability, mobility and economic opportunity in the region to successfully achieve sustainable growth.

1.0 Introduction: Setting the Context

In 2019, the Region launched *Envision Durham,* the Municipal Comprehensive Review (MCR) of the Regional Official Plan (ROP). The objectives of the MCR are to assess the following:

- How and where the cities and towns in Durham Region may grow;
- How to use and protect Durham's land and resources;
- What housing types and job opportunities are needed for residents; and,
- How people and goods will move across Durham Region and beyond.

The Durham Growth Management Study (GMS) is a key component of *Envision Durham,* providing the technical analysis and studies to determine where and how forecasted population and employment growth will be accommodated in the region by 2051. Phase 1 of the GMS focuses on preparing a Land Needs Assessment (LNA) which will determine the Region's urban area land need in order to accommodate forecasted growth. It builds on the background research and preliminary observations in the *Envision Durham* Discussion Papers, which addressed the following topics: Agriculture and Rural System; Climate Change and Sustainability; Growth Management, including discussion of the Urban System and LNA; Environment and Greenlands System; Transportation System; and Housing Policy Planning.

The purpose of this report is to provide a high-level summary of growth opportunities and challenges for Durham Region. It sets the planning context by providing an assessment of recent growth in Durham and the broader Greater Toronto Hamilton Area (GTHA), provides an evaluation of broader economic and demographic trends that will affect growth in Durham, and includes an assessment of the population and employment forecasts to 2051 provided by the Province in Amendment 1 to the Growth Plan, 2019. Expanding upon the Discussion Papers, further background analysis has been conducted to inform the opportunities and challenges to accommodating growth. This information provides a foundation point to undertake the LNA and related studies.

2.0 Approach to the Land Needs Assessment

The LNA will assess how Durham's Urban Structure will accommodate the various density and intensification targets contained in the Growth Plan, 2019. A key outcome of the LNA is determining how much, if any, additional, urban land is required, by way of settlement boundary expansion, to accommodate the forecasted growth.

Amendment 1 to the Growth Plan implemented the "reference" population and employment forecasts which was proposed by the Province as one of three potential growth scenarios. The Growth Plan, as amended, forecasts that Durham Region will grow to a 2051 population of 1,300,000 and 460,000 jobs.

The LNA, now underway, includes the following key streams of analysis:

Growth Forecasts to 2051, including population, housing, and employment allocations for the Region and by Area Municipality, using the Growth Plan, 2019 Forecast for Durham. **Results in: Region-wide Growth Analysis and inputs into the Housing Strategy**

Intensification Analysis, identifying a recommend intensification target for Durham by evaluating the growth potential in Strategic Growth Areas (SGA) including: Urban Growth Centres, MTSAs, Regional Centres, Regional Corridors and Waterfront Places as well as general intensification thorough-out the built-up area. **Results in: Housing Strategy**

Employment Strategy including an overall sectoral analysis of employment growth, employment land supply including intensification areas, Employment Area Conversion Analysis and identification of employment land need to accommodate job growth to 2051. **Results in: Employment Strategy**

Designated Greenfield Analysis, including assessment of current greenfield densities, greenfield land supply, and the Community Area Land Needs Analysis. **Results in: Community Area Land Needs Analysis**

Land Needs Assessment overview, providing a distillation of all the inputs to determine if and how much additional land is required, through Settlement Area

Boundary Expansion, to accommodate forecast population and job growth to 2051. **Results in: Final Land Needs Assessment Recommendations Report**

With all streams of work running concurrently, the LNA is expected to be completed in, mid-2021. For each stream, the detailed analysis will be reported through Technical Briefing Papers and a Final LNA Recommendation Report.

3.0 Broad Factors Influencing Long-Term Growth in Durham

A broad range of factors related to macro-economics as well as federal and provincial policy (e.g. global economic growth outlook, foreign exchange rates, federal immigration policy, federal trade policy and provincial planning policy) will continue to have a strong influence on the Region's relative performance with respect to population and employment growth. Travel restrictions and economic disruption due to COVID-19 are also anticipated to have a negative impact on near term labour force growth and keep near-term (i.e. 2020 and 2021) immigration levels across Canada, including in Durham, below recent historical averages.

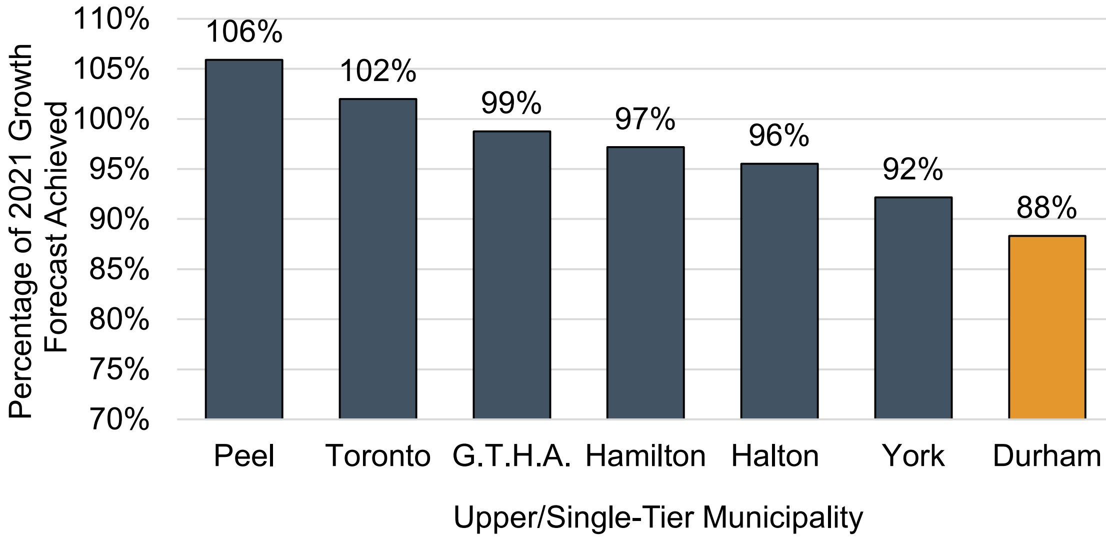
Growth in Durham will also continue to be strongly influenced by the structural changes that are occurring within the macro economy. Similar to broader Provincial trends, Durham Region's economy has transitioned away from goods production and towards service delivery. Ultimately, this will continue to influence Regional planning, economic development, and marketing initiatives which will be increasingly geared towards a knowledge-driven and service-based economy.

Although there is limited ability to influence or control macro-economic trends or policy decisions by senior levels of government, the Region does have the ability to recognize emerging trends and position itself in a positive manner. This requires the Region to continue marketing itself as a hub for innovation, equipped with the human capital that is required to encourage on-going small and medium-sized business development, entrepreneurship, and local investment retention.

3.1 Durham Region's Current Growth Performance Relative to the Greater Toronto Hamilton Area

Since Durham is part of the GTHA, it is helpful to understand how Durham has been growing in relation to its neighbouring regions. Figures 1 and 2 summarize how each of the upper-tier and single-tier municipalities across the GTHA are tracking to their respective 2021 OP population forecasts. Collectively, these municipalities are tracking at 99% of their 2021 respective Official Plan population forecasts. Comparatively, Durham Region is tracking at only 88% of its ROP population forecast, which lags behind every other upper-tier and single-tier in the GTHA.

Figure 1
GTHA Upper/Single-Tier, Population Tracking to Official Plan Forecast, 2021[2]



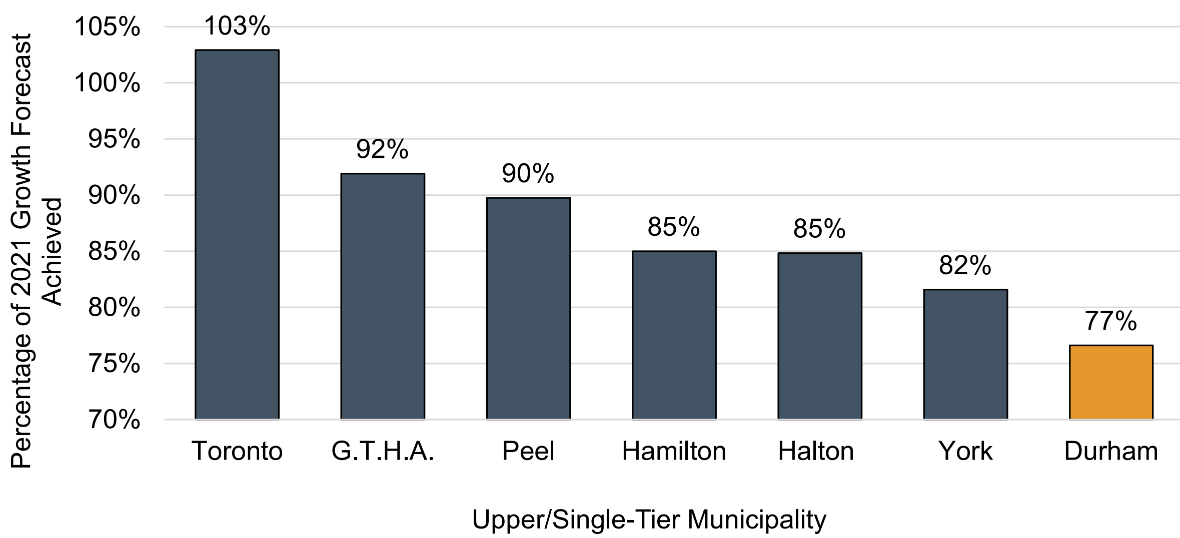
Source: 2021 population from Greater Golden Horseshoe Growth Forecasts to 2051 Technical Report, June 2020, except for Durham Region derived by Watson & Associates Economists Ltd. Population targets for Hamilton and Toronto from the G.G.H. Growth Forecasts to 2041 Technical Report, November 2012. Remaining population targets derived from respective Official Plans.

Recent employment growth levels achieved relative to Official Plan employment forecasts for upper-tier and single-tier GTHA municipalities indicate most municipalities have fallen short with respect to their near-term employment forecasts. Durham Region is tracking well below its 2021 ROP target of 310,000 jobs with an estimated employment base of 237,500 in 2021[3], and similarly lags behind all other upper-tier and single-tier municipalities in the GTHA.

[2] Watson's 2021 population forecast is 715,400 assuming a May reference point. The 2021 number is based largely on building permit activity from 2016 to 2020.

[3] 2019 Employment and Industry Report, Durham Region, February 2020.

Figure 2
GTHA Upper/Single-Tier, Employment Tracking to Official Plan Forecast, 2021



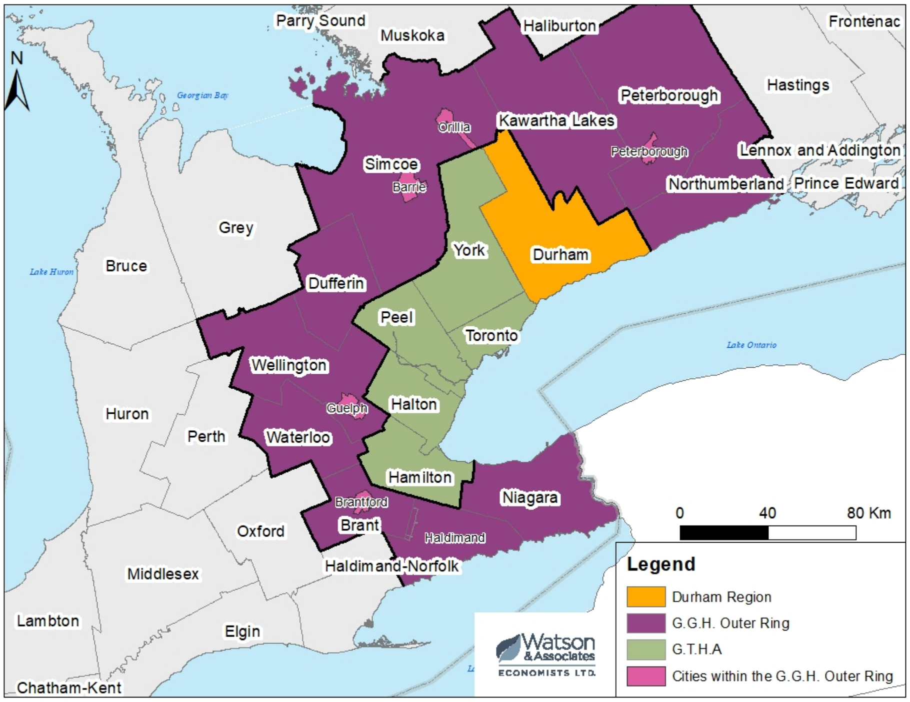
Source: 2021 employment from Greater Golden Horseshoe Growth Forecasts to 2051 Technical Report, June 2020, except for Durham Region derived by Watson & Associates Economists Ltd. Employment targets for Hamilton and Toronto from the G.G.H. Growth Forecasts to 2041 Technical Report, November 2012. Remaining employment targets derived from respective Official Plans.

While recent growth trends have Durham Region showing a slower pace of growth than the remainder of the GTHA, infrastructure investment is expected to enable higher levels of growth in the coming decades. A number of existing and planned infrastructure investments in the region (i.e. Hwy. 407 extension, high-order transit including the extension of GO rail service to Bowmanville, the potential for the Pickering Airport, and continued growth in local post-secondary institutions) are anticipated to drive population and employment growth rates higher in Durham over the next several decades, relative to historical trends. While these infrastructure investments are critical enablers of economic growth and investment, it is important to recognize that they are not the only factors which will influence long-term population and employment growth trends across Durham Region.

3.2 Growth Outlook for Durham Region within the Context of the Greater Golden Horseshoe (GGH)

Future population and employment growth within Durham are strongly correlated with the growth outlook and competitiveness of the GGH regional economy, illustrated in Map 1. Currently, the GGH is the fourth largest and one of the fastest growing larger City/Regions in North America. Employment opportunities are the primary driver of net migration to the GTHA as a whole as well as to Durham. Net migration, particularly international net migration, has been the key contributor to population growth across the GTHA, including Durham Region, over the past two decades.

Map 1
Durham Region within the Context of the Greater Golden Horseshoe (GGH)



The Growth Plan, 2019 long-term outlook for the GGH is positive, characterized by strong population growth fueled by economic expansion that is increasingly concentrated in large urban centres. As summarized in Figure 3, the population of the GGH is forecast to increase from 9.5 million in 2016 to 14.9 million in 2051.[4] This represents a population increase of 5.3 million people (152,000 annually), or 1.3% annually between 2016 and 2051. With respect to the region's economic potential, the GGH employment base is forecast to increase from 4.6 million in 2016 to 7 million in 2051 (refer to Figure 4). This represents an employment increase of 2.4 million jobs (69,000 annually), or 1.2% annually between 2016 and 2051.

[4] As previously mentioned, proposed Amendment 1 to the Growth Plan extends the Schedule 3 forecast to 2051.

Figure 3
Historical and Forecast Population Growth for the Greater Golden Horseshoe (GGH), 2001 to 2051

	Population			2001 to 2016			2016 to 2051		
Area	2001	2016	2051	Total Population Growth	Annual Population Growth	Annual Population Growth Rate	Total Population Growth	Annual Population Growth	Annual Population Growth Rate
G.T.H.A.	5,808,000	7,183,000	11,170,000	1,375,000	92,000	1.4%	3,987,000	114,000	1.3%
G.G.H. Outer Ring	2,046,000	2,355,000	3,700,000	309,000	21,000	0.9%	1,345,000	38,000	1.3%
Total G.G.H	**7,854,000**	**9,538,000**	**14,870,000**	**1,684,000**	**112,000**	**1.3%**	**5,332,000**	**152,000**	**1.3%**

Source: 2001 to 2016 derived from Statistics Canada Census. 2016 to 2051 from A Place to Growth: Growth Plan for the Greater Golden Horseshoe (2020). Figure by Watson & Associates Economists Ltd., 2020.

Note: Population includes the net Census undercount.

Figure 4
Historical and Forecast Employment Growth for the Greater Golden Horseshoe (GGH), 2001 to 2051

	Employment			2001 to 2016			2016 to 2051		
Area	2001	2016	2051	Total Employment Growth	Annual Employment Growth	Annual Employment Growth Rate	Total Employment Growth	Annual Employment Growth	Annual Employment Growth Rate
G.T.H.A.	2,938,000	3,564,000	5,360,000	626,000	42,000	1.3%	1,796,000	51,000	1.2%
G.G.H. Outer Ring	890,000	1,034,000	1,650,000	144,000	10,000	1.0%	616,000	18,000	1.3%
Total G.G.H	**3,828,000**	**4,598,000**	**7,010,000**	**770,000**	**51,000**	**1.2%**	**2,412,000**	**69,000**	**1.2%**

Source: 2001 to 2016 derived from Statistics Canada Census. 2016 to 2051 from A Place to Growth: Growth Plan for the Grteater Golden Horseshoe (2020). Figure by Watson & Associates Economists Ltd., 2020.

The GGH represents the economic powerhouse of Ontario and is the centre of a large portion of the economic activity in Canada. The GGH is economically diverse with most of the top 20 traded industry clusters throughout North America having a strong presence in this region. Within the GGH, the GTHA industrial and office commercial real estate markets are significant, having the third and sixth largest inventories, respectively, in North America.[5]

With a robust economy and diverse mix of export-based employment sectors, the GGH is highly attractive on an international level to new businesses and investors. The GGH also has a strong appeal given the area's regional infrastructure (i.e. Toronto Pearson International Airport, other regional airports, provincial highways, inter-modal facilities), access to labour force, post-secondary institutions, and proximity to the US border. In turn, this continues to support steady population and housing growth within this region, largely driven by international net migration.

[5] Source: Derived from Cushman & Wakefield Toronto Industrial Market Beat and US Industrial Market Beat Snapshot, Q3 2017, and Cushman & Wakefield Toronto Office Market Beat and US Office Market Beat Snapshot, Q3 2017 by Watson & Associates Economists Ltd.

The diverse and highly competitive GGH economy has fueled a steady level of employment growth over the past decade in most major sectors of the economy. Employment growth has been particularly strong related to knowledge-based and creative-class service sectors, including professional, scientific, and technical services, financial services, information and cultural industries, education services, health care and social services, as well as real estate. Within the service sector, economic growth has been notably robust for small to medium-scale knowledge-based businesses that are focused on innovation, entrepreneurship, and technology.

The strength of the broader regional GGH economy presents a tremendous opportunity for the Durham Region economy and its residents within commuting distance to this growing regional employment market. As displayed in Figure 5, 51% of Durham Region residents work within Durham Region, while 49% of Durham Region residents commute to employment markets outside the Region for work.

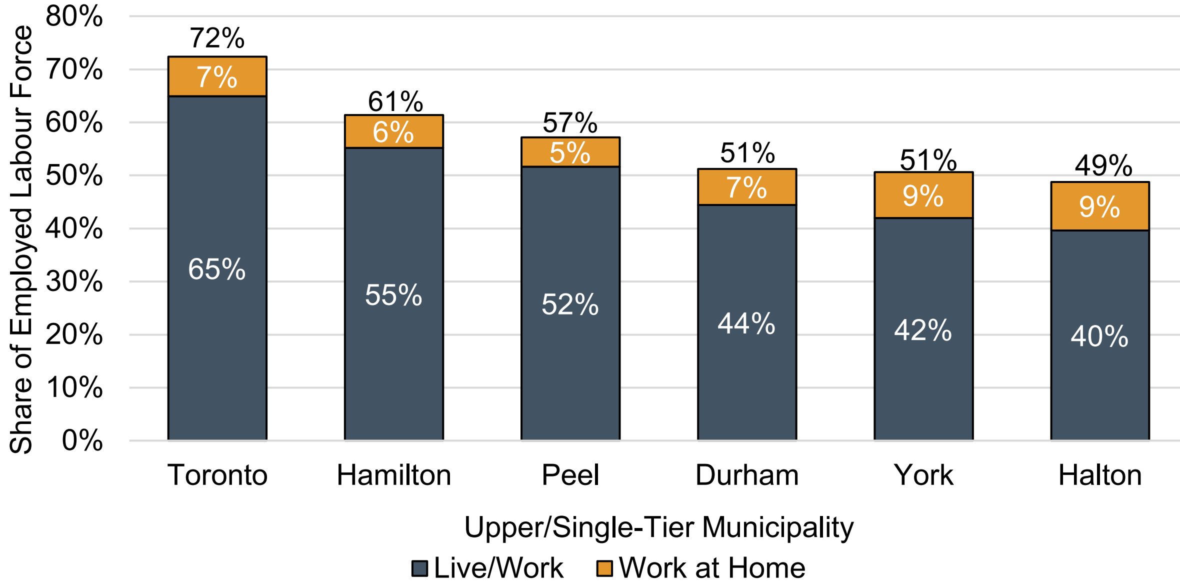
Strength of the GGH growing employment market presents a tremendous opportunity for Durham's economic growth.

Comparatively, Durham Region has a relatively low live/work[6] ratio relative to the other upper-tier and single-tier municipalities in the GTHA, behind the City of Toronto, the City of Hamilton and Peel Region. The live/work employment ratio is a key metric that the Durham Region Official Plan aims to increase over time by providing greater opportunities for its residents to work throughout the Region across a growing and diversifying local economy. Opportunities to both leverage Durham growth within the GGH employment market while at the same time increasing employment opportunities within the Region will be key to enabling growth within Durham Region.

Durham Region has a relatively low live/work ratio compared to other upper-tier and single-tier municipalities within the GTHA.

[6] Within this context, live/work refers to living and working within the same upper-tier or single-tier municipality.

Figure 5
Percentage of Labour Force that Live and Work in the Same Upper-Tier/Single-Tier Municipality (Including Work at Home)



Note: Live/Work is based on usual place of work employment.
Source: Derived from Statistics Canada 2016 Census data, by Watson & Associates Economists Ltd., 2020.

The City of Toronto represents the largest employment market outside Durham, to which Durham Region residents commute. As of 2016, approximately 68% of all out-commuters from Durham Region are employed within the City of Toronto, while a large part of the remainder commute to York Region and Peel Region. According to the Growth Plan, 2019, the primary commuter-shed for Durham Region (which is comprised of the City of Toronto, York Region and Peel Region) is expected to grow by close to 1 million jobs between 2016 to 2051. Regional employment opportunities within commuting distance represent a large part of what makes Durham Region a desirable location to live and drives a significant portion of the Durham housing market.

Durham Region's recent focus on advancing existing and planned MTSAs and the expansion of GO Rail service to Bowmanville capitalizes on growing employment markets within commuter distance by leveraging investments in public transit and expanding access to employment opportunities.

Recommendation: Through the Employment Strategy and regional economic development initiatives, consider approaches and marketing efforts to further emphasize growing knowledge-based sectors across the broader Greater Golden Horseshoe (GGH) economy in effort to raise the economic profile of Durham Region. The Toronto-Waterloo Innovation Corridor is an internationally recognized technology innovation supercluster extending from Waterloo Region to the Toronto Region, including Durham. The international presence of this innovation corridor provides a key opportunity for Durham Region to leverage its growing local economy in the technology sector.

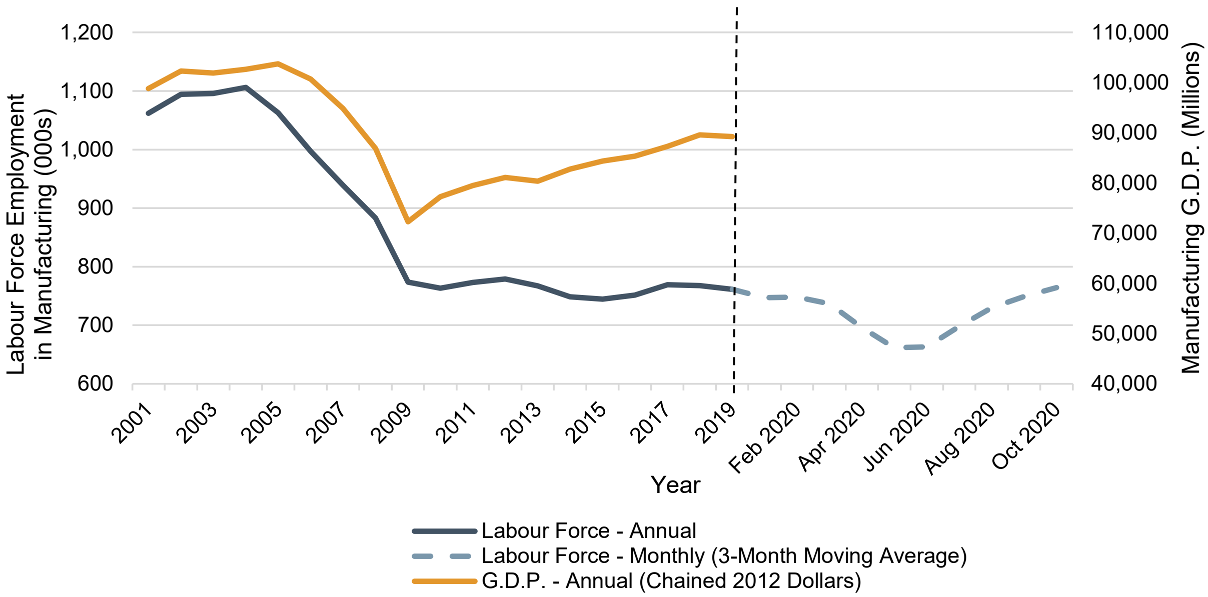
Recommendation: Through the Housing Strategy, prioritize growth in Major Transit Station Areas (MTSAs) and other Strategic Growth Areas (SGA) which leverage public transit investments that provide connectivity and access to growing employment markets.

3.3 Structural Changes in the Macro-Economy Anticipated to Impact Economic Growth and the Future of Work in the Greater Golden Horseshoe

Notwithstanding the long-term economic growth opportunities, recent employment growth in Employment Areas across the GGH (including Durham Region) has not been as robust as forecasted in most upper-tier/single tier OPs. This is largely due to structural changes in the macro-economy in recent decades. These structural changes have been largely driven by increased outsourcing of domestically manufactured goods to emerging global markets combined with increased automation of manufacturing processes.

Between 2003 and 2010, these challenges were further exacerbated in the manufacturing sector across the GGH and more broadly across Ontario and Canada due to a high Canadian dollar relative to the US dollar. Since 2010, the manufacturing sector across Ontario including the GGH has shown signs of a steady recovery in terms of economic output, measured through gross domestic product (GDP); however, this recovery was slow to materialize. Since 2010, Manufacturing job losses have generally stabilized across Ontario (refer to Figure 6). In Durham Region, this stabilization trend in the manufacturing sector has been supported by the reopening of the General Motors (GM) truck plant in Durham announced in 2020. While the manufacturing sector remains vitally important to the provincial and regional economy with respect to jobs and economic output, this sector is not anticipated to be a principal driver of long-term job growth across the GGH, including Durham Region (refer to Figure 6).

Figure 6
Manufacturing Labour Force Employment and GDP in Ontario, 2001 to 2020 YTD.



Source: Annual labour force data from Statistics Canada Labour Force Survey, Table 282-0125, and monthly data from Table 14-10-0091-01. Annual G.D.P. data from Statistics Canada Table 36-10-0402-01, by Watson & Associates Economists Ltd., 2020.

Compounding this trend of slower manufacturing employment across the GGH is the increasing share of land-extensive uses that have been accommodated in Employment Areas at low employment densities, driven by strong regional demand in the transportation and warehousing sector. This trend has been particularly relevant for west/north GTHA municipalities, which offer an ample supply of designated greenfield lands with access to regional transportation infrastructure (e.g. 400-series highways, the Toronto Pearson International Airport, inter-modal facilities), and is also occurring in Durham.

Continued structural changes in the global economy and technological disruption will continue to influence the future nature of work and require municipalities to be responsive and adaptive to changing industry needs. Key highlights related to the evolving structural changes and impacts to the Durham Region economy are provided below, including the recent impacts of COVID-19 on consumer behavior, influence of e-commerce, technology and disruptors and the changing nature of work, as well as the near to medium-term outlook for non-residential space needs.

The Technical Briefs supporting the Durham GMS will further address the impacts of COVID-19 on both population, housing and employment growth in more detail.

Influence of E-Commerce on Retail and Goods Movement Sector

- **Changes in Consumer Behaviour through E-Commerce**

    - Retail e-commerce sales have risen steadily across Canada, with the proportion of online sales rising from 2.4% in 2016 to a high of 11.4% percent in April 2020.[7] Further, the digital impact of retail sales is even greater with mobile purchasing platforms (e.g. UberEats, Skip the Dishes) that support retail sales of local retailers.

    - The rise of e-commerce has reduced the demand for retail square footage, in particular retail space for the sale of goods-based retailers.[8] This trend will continue as consumer behaviours which have shifted over the course of the pandemic become entrenched.

    - While e-commerce has been capturing market share from goods-based retailers, growth in specific service-based retailers continues as they provide social experiences and other services that cannot be purchased remotely.

- **E-Commerce is a Driving Force Behind the Region's Growing Goods Movement Sector**

    - Increased outsourcing of manufacturing production to emerging global markets continues to drive the need for new consolidated, land-extensive warehousing facilities to store and manage the distribution of goods produced locally as well as goods imported from abroad.

    - This continues to drive demand for increasingly larger, more land-extensive warehousing facilities, generally in greenfield Employment Areas. Across North America, the Goods Movement industry is continuously evolving at a rapid pace. As previously mentioned, e-commerce and technological improvements represent the biggest drivers of change in the Goods Movement industry, driven by the rapid growth of mobile technology.

    - Just-in-time manufacturing will continue to be the industry norm, placing increasing emphasis on more frequent and smaller deliveries by truck transport, typically during the last mile.[9] As the e-commerce market continues to expand,

[7] Adapted from Retail Insider article, *Retail E-Commerce Explodes in Canada Amid COVID-19 Pandemic*, prepared by Mario Toneguzzi, July 29, 2020

[8] Goods-based retailer refers to retail facilities that sell goods to be used or consumed at home, including food-oriented retail (supermarkets and convenience stores), beer, wine and liquor stores, pharmacies and personal care stores, home improvement stores and stores selling general merchandise, apparel and furniture.

[9] The last mile is commonly referred to in the logistics sector as the last leg of the transportation process from the distribution centre or fulfillment hub to the final destination (i.e. the retailer or consumer).

this component of the supply chain is becoming increasingly important to businesses as it has a direct influence on the customer experience. In addition to the need to provide timely, accurate service delivery, it is also critical for industry to ensure cost efficiency given that 30% to over 50% of total parcel delivery cost is associated with this leg of the supply chain.[10,11]

Technological Disruption – Economic Disruptor or Generator of Future Labour Force Demand?

- **The Use of Technology in Commercial Services**

    - Digital and mobile technologies are making it easier to access goods and services on-demand which has led to alternative platforms to purchase products and services. Among these platforms are those that support the sharing economy which provide opportunities for individuals to earn an income by leveraging under-utilized assets. These platforms are providing customers with an alternative to traditional buying/selling platforms, including those in hospitality (e.g. hotels and taxis) and in office leasing (office sharing). It is anticipated that further advancements in the sharing economy may have an increasingly negative impact on the need for non-residential building space and continued growth in precarious employment. Other alternative purchasing platforms are providing income-earning opportunities for individuals to perform services that are typically not outsourced by households (e.g. assembling furniture, small household repairs, picking up food at fast-food restaurants, meal preparation, grocery pick-up and delivery).

- **Automation and Rise of Artificial Intelligence**

    - According to the Brookfield Institute for Innovation + Entrepreneurship, over the next 10 to 20 years, 42% of the Canadian labour force is at high risk of being affected by automation, either through significant task restructuring or elimination. Jobs that are anticipated to be most highly impacted by automation are primarily within occupations that are administrative, routine, or oriented towards sales and service.

    - The net impacts to global GDP resulting from artificial intelligence (AI) are anticipated to contribute up to $15.7 trillion to the global economy by 2030, more than the current output of China and India combined. [12]

[10] Breaking Down the "Last-Mile Delivery": Challenges and Solutions. October 12, 2016.

[11] Parcel Delivery. The Future of the Last Mile. McKinsey & Company. September 2016.

[12] Sizing the Prize. What's the real value of AI for your business and how can you capitalize? PWC. 2017.

- Over the next decade, AI will generate massive disruption as both established businesses and new entrants drive innovation and develop new business models. While the long-term net economic impacts of automation and/or AI appear to be positive, global competition from both established and emerging markets looking to capitalize on potential opportunities related to this technology will be increasingly fierce.[13]

What Factors are Influencing the Future of Work in Durham Region?

- **Opportunities Related to Remote Work and Learning are Anticipated to Continue Across Durham Region**

- Over the 2001 to 2016 period, the percentage of the Durham Region's labour force defined as having a usual place of work declined, offset by a gradual increase in the share of work at home employment and a steady increase in the share of off-site employment or employees with no fixed place of work (NFPOW).[14]

- Within the Durham Region, the rising share of labour related to NFPOW has been primarily driven by steady growth in the transportation and construction sectors which are typically characterized as having a higher percentage of off-site employees.

- Looking forward, continued advances in technology and telecommunications (e.g. 5G technology) is anticipated to further enable remote work patterns and ultimately increase the relative share of off-site employees over the long term. As outlined in Connecting our Communities, a Broadband Strategy for Durham Region, the Region and Area Municipalities can play a role in influencing and promoting the expansion and implementation of necessary technologies and infrastructure to enable and capitalize on these trends.

- Over the coming decades, work from home and NFPOW employment in Durham is expected to steadily increase as a result of these trends. Demographics and socio-economics also play a role in the future demand for off-site and work at home employment within an increasingly knowledge- and technology-driven economy.

- Working with public and private sector partners, Durham Region has considerable control to provide sufficient housing supply opportunities across a broad range of residents by age and income. Continued efforts to increase

[13] Ibid.

[14] Statistics Canada defines NFPOW employees as "persons who do not go to the same workplace location at the beginning of each shift." Such persons include landscape contractors, travelling salespersons, independent truck drivers, etc.

market choice of ownership and rental housing can act to improve the Region's competitive position by providing increased live/work opportunities.

- **The Rise of the Gig Economy**
  - It is anticipated that many working residents in Durham Region, particularly younger adults as well as older adults (i.e. Baby Boomers) approaching retirement or semi-retirement will utilize technology to supplement their income in more flexible ways in contrast to traditional work patterns.
  - Technological innovation and improved broadband regional telecommunications have been, and will continue to be, key drivers of economic expansion in knowledge-based sectors as well as the steady rise of the gig economy.[15]
- **How COVID-19 is Accelerating Economic Disruption?**
  - In addition to its broader impacts on the economy, COVID-19 has accelerated changes in work and commerce as a result of technological disruptions that were already in play prior to the pandemic.
  - Enterprises will increasingly need to rethink the way they conduct business and offer services and products with an increased emphasis on remote work enabled by technologies such as virtual private networks (VPNs), virtual meetings, cloud technology and other remote work collaboration tools, and may be at risk of closure if they do not adapt these measures. These trends are anticipated to have a direct influence on commercial and industrial real estate needs over both the near and longer terms.
  - As the percentage of employees working from home and off-site continues to steadily rise, it may reduce the relative need for future non-residential space needs. The trend towards increased remote work and learning, combined with the impacts of e-commerce are anticipated to place downward pressure over the long-term on retail, institutional and office space needs. These trends will be further explored through Region's MCR as part of the Employment Strategy.

[15] The gig economy is characterized by flexible, temporary, or freelance jobs, often involving connecting with clients or customers through an online platform.

3.4 Planning for the New Economy in Durham Region

Durham Region will need to continue to make efforts to distinguish itself as a hub for innovation and technology while encouraging ongoing entrepreneurship, small business development and investment retention.

Based on many of the trends and disruptors discussed in the previous section, there is a general recognition that a "new economy" which is more driven and dependent on technology and innovation has emerged. Looking forward, there will be increased competition for business development and investment in the "new economy". Durham Region is located in proximity to several highly populated and growing upper-tier and single-tier municipalities with which it competes directly for business attraction and investment. Each of these municipalities generally offer unique regional attributes that appeal to prospective international and local firms as well as new residents.

To remain competitive, Durham Region will need to continue to distinguish itself as a hub for innovation and technology while encouraging ongoing entrepreneurship, small business development, and investment retention.

With three highly respected post-secondary institutions, including Ontario Tech University, Durham College, and Trent University, as well as an array of business support organizations, Durham Region is well-positioned and located within an internationally recognized technology innovation supercluster, known as the Toronto-Waterloo Innovation Corridor. The Toronto-Waterloo Innovation Corridor has strong economic and employment growth potential based on its established presence as the largest technology cluster in Canada, critical mass of post-secondary institutions and incubators, access to skilled labour, and a high quality of life. The Toronto-Waterloo Innovation Corridor is the second largest and second fastest growing market in North America related to technology talent, including over 200,000 tech workers and 15,000+ tech companies. The Toronto-Waterloo Innovation Corridor provides a key opportunity for Durham Region to leverage its growing local economy in the technology sector.

Further, Durham has particular strengths in the aerospace automation, automotive, and plastics, rubber and chemicals sectors. Durham Region's greatest competitive advantages in the advanced manufacturing sector are related to the energy and environmental sectors, as these sectors are forecast to be growth drivers in the future.

Durham Region is also home to Ontario's most well-developed energy cluster. Collectively, this cluster comprises a number of diverse industries centred around manufacturing, engineering, research and technology as well as utilities and power generation. It is noted that Ontario Power Generation (OPG) is currently planning a new corporate campus location within the Clarington Energy Park.[16] This project, which is expected to be completed by 2024, will bring over 2,000 direct jobs to Clarington.[17]

Considerable long-term opportunities exist for Durham Region related to utilities and power generation as well as renewable energy. Currently anchored by two nuclear power stations, the Region is home to a rich array of energy players which produce and distribute power, develop new and renewable energy technologies, alternative fuels, manufacturing components and systems, and provide service support to industry.

Durham Region has a unique collection of existing industries, infrastructure, skilled labour, technology research and development, education and training facilities which will allow the Region to lead the Province in future growth within sectors related to energy, manufacturing and technology.

Durham Region has a unique collection of existing industries, infrastructure, skilled labour, technology research and development, education and training facilities which will allow the Region to lead the Province in future growth within sectors related to energy, manufacturing and technology. Added to this, the Region is well equipped to accommodate new development and investment opportunities throughout its established and developing industrial/business parks. Durham Region's research-intensive institutions play a pivotal role in ensuring research and manufacturing-based companies in Durham Region are at the forefront of technological innovation.

Building on its strong institutional, private-sector and community foundations, Durham Region has been active in increasing its readiness towards an ever-evolving knowledge-based economy through on-going leadership and investment. These efforts will continue to be important in driving youth in-migration (both permanent and non-permanent residents), talent attraction and retention, global investment and regional employment opportunities ultimately geared towards an increasingly skilled labour market.

[16] The Clarington Energy Park is located immediately south of Highway 401 and north of the CN rail corridor, between Courtice Road and Solina Road.

[17] OPG Moving Headquarters to Clarington, Ontario. Ontario Power Generation. June 10, 2019.

The northern municipalities of Durham Region and related economic structure are distinct from the southern lakeshore municipalities. Northern Durham is primarily rural in nature, with urban settlement areas that are nestled within a primarily agricultural and natural environment. Key economic sectors in the northern communities have traditionally been agricultural, resource related, and tourism. However, the northern municipalities also include high concentrations of the “creative class” economy. The presence of artists, actors, performers, writers and designers contributes a strong sense of cultural development and creates a “quality of place” that attracts new residents to the communities within northern Durham.[18] The economic base of northern Durham is also highly oriented towards small businesses and home-based occupations. These existing strengths emphasize the need for Durham’s GMS to focus efforts on expanding the economic sector strengths in northern Durham in particular in areas geared towards agri-business, tourism, arts and culture, as well as small businesses and entrepreneurism.

Recommendation: Through the Region’s Employment Strategy, understand the structural changes taking place in the broader economy and implications to planning for employment growth and associated Employment Area land needs to 2051. Further consider approaches that enable more proactive and adaptable responses to economic change and disruption. Capitalize on opportunities associated with technological and economic disruptors (where possible) through growth strategies and related ROP policies that act as a framework to guide adaption and resiliency to rapid change.

Recommendation: Building on the results of the Region’s Employment Strategy, leverage Durham’s distinct economic and competitive strengths with the context of the broader GGH economy (e.g. cost competitive development environment, established manufacturing and energy sectors and growing knowledge-based sectors).

Recommendation: Support the Region’s growing economy by encouraging population and employment growth to areas that promotes a range of housing types and tenures, enhanced mobility, walkable and vibrant mixed-use environments and amenity rich Employment Areas. In particular, through the Intensification Analysis and Employment Strategy, promote growth in Employment Areas and SGAs which include Urban Growth Centres (UGCs) and MTSAs.

3.5 Net Migration as a Key Source of Population Growth

Understanding the Key Components of Population Growth

There are two primary components of population growth: natural increase (i.e. births less deaths) and net migration. As previously mentioned, population growth across the GTHA over the past two decades has been primarily driven by net migration as opposed to natural increase. This trend is consistent with other regions of the Province and Canada as a whole. Over the next several decades, population growth

[18] Northern Durham by the Numbers. Analysis and Commentary. A Competitive Analysis of North Durham for the Rural Economic Development Strategic Plan 2012.

across the GTHA, including Durham Region, is anticipated to be driven almost solely from net migration with a decreasing share of growth by natural increase.

Historical Net Migration Trends Across the GTHA, 2010 to 2019

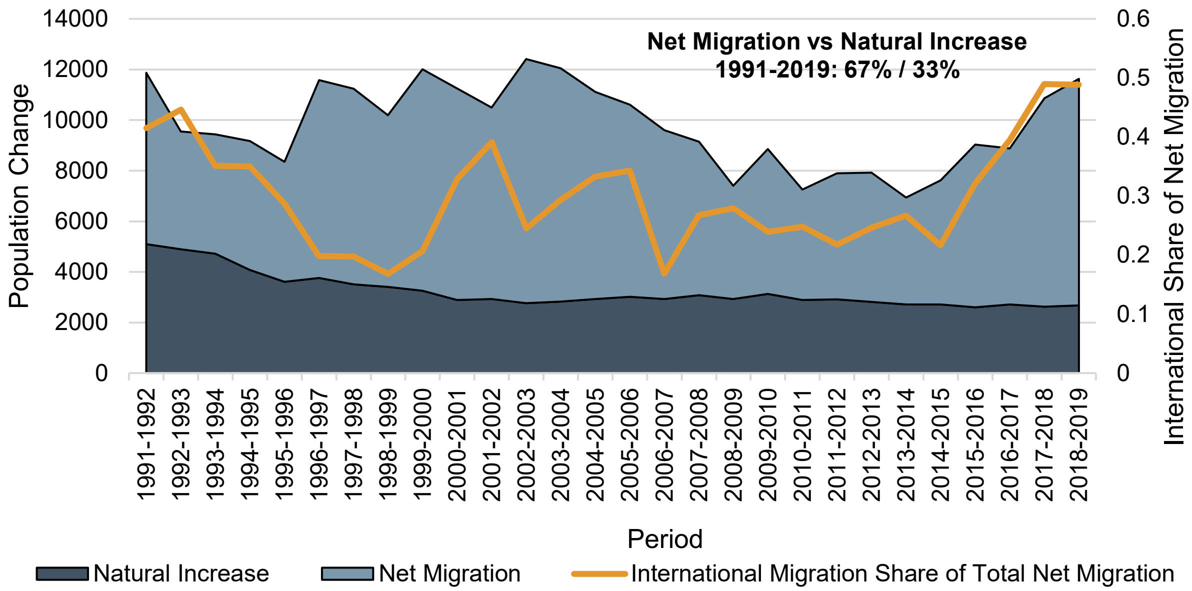
Over the past decade, international net-migration has represented a larger percentage of total net migration across the GTHA, including to Durham Region. This is due to the gradual decline in absolute net-migration levels from other Canadian provinces (inter-provincial net migration) and from other regions within Ontario (intra-provincial net migration). Between 2010 and 2015 all forms of net-migration levels across the GTHA steadily declined in absolute terms; followed by a sharp rebound between 2015 and 2019.

Two key factors which are believed to have strongly contributed to the Region's local rebound in net migration are the supply of ownership housing opportunities offered at competitive prices, as well as the Region's growing local economy.

Historical Net Migration Trends in Durham

The recent rebound in net migration to Durham Region has been driven by recent federal immigration policies combined with the macro-economic recovery experienced across Durham Region following the 2008/2009 financial crisis. However, local factors including housing affordability and a growing local economy have contributed to Durham's recent net-migration rebound.

Figure 7
Durham Region, Historical Population Growth by Component, 1991 to 2019



Source: Derived from Statistics Canada Annual Demographics Statistics/Estimates Components of Population Growth by Watson & Associates Economists Ltd., 2020.

Near-Term Impacts of COVID-19 on Regional Population and Employment Growth

To date, the downward impacts of COVID-19 on global economic output have been severe. Economic sectors such as travel and tourism, accommodation and food, manufacturing, energy, and financial have been hit particularly hard. Canada's GDP declined by approximately 39% in the second quarter of 2020 (April to June), even when economic activities improved in May and June as containment measures gradually loosened beginning in May 2020.[19] Restrictions have increased again into Q1 2021 resulting is prolonged economic impacts on downtown and tourism industries.

The required modifications to social behavior (i.e. physical distancing) and increased work from home requirements resulting from government-induced containment measures have resulted in significant economic disruption. This has had a profound impact on consumer demand and consumption patterns.

Furthermore, escalating tensions and challenges related to international trade have also begun to raise questions regarding the potential vulnerabilities of globalization and the structure of current global supply chains.

Currently, the level of sustained economic impact related to this "exogenous shock" to the world and the Canadian economy is largely unknown. Notwithstanding

[19] Reuters Business News, August 28, 2020.

this uncertainty, it is generally clear that the longer COVID-19 persists on an international scale, the greater the severity of the current global recession.

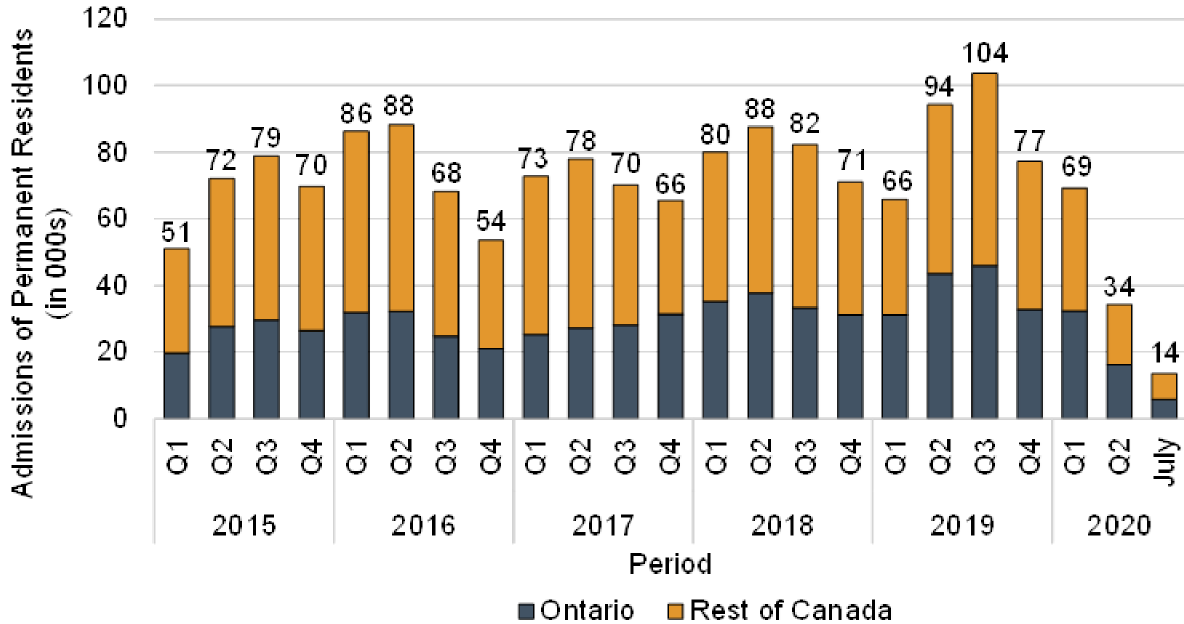
Despite the longer-term consequences of COVID-19 to some industries, firms, and individuals, the long-term economic outlook for the GGH remains positive and the region will continue to be attractive to newcomers. While the housing market across the GTHA got off to a slow start in early 2020 due to COVID-19, pent-up demand and historically low mortgage rates have accelerated housing demand across the Toronto region during the summer months of 2020. According to the Toronto Real Estate Board (TREB), the year-over-year average price growth across the GTA has increased by approximately 17%, while housing sales are also up by close to 30%, compared to July 2019. Active listings also shrank by approximately 16% compared to July 2019.

Notwithstanding the recent positive real estate trends identified for the GGH as a whole, including Durham Region, there are a number of reasons to remain cautious with respect to the broader demand for housing across the GGH over the near-term (i.e. next one to three years) primarily due to reduced levels of immigration. This is because even after the COVID-19 crisis begins to lift, many economists warn that sustained higher unemployment rates during the recovery period may reduce the incentive for immigrants coming into Canada.[20]

Figure 8 summarizes admissions of permanent residents to Canada and Ontario by quarter since 2015. Looking forward over the remainder of 2020 and part of 2021, immigration levels to Canada and Ontario are anticipated to remain low as a result of travel restrictions due to COVID-19. This suggests that near-term immigration levels in Durham Region (i.e. 2020 and 2021) will also remain below recent historical averages.

[20] Stalling immigration may add to Canada's COVID-19 economic woes. Fergal Smith, Steve Scherer. Reuters. May 27, 2020.

Figure 8
Quarterly Admission of Permanent Residents in Ontario Versus the Rest of Canada, 2015 to 2020



Source: IRCC, July 31, 2020

> **COVID-19 has the potential to reduce population growth levels and soften the housing market in areas of Ontario where population growth is most heavily dependent on immigration. For Durham Region, 2020 year-to-date residential building permit activity has been slightly stronger relative to recent annual averages, particularly in eastern and northern Durham Region.**

This near-term scenario has the potential to reduce population growth levels and soften the housing market in areas of Ontario where population growth is most heavily dependent on immigration. For the GGH, the City of Toronto, Peel Region and York Region would potentially be the most heavily impacted by such a trend. The remaining "905" Area of the GTHA, including Durham Region, which is more influenced by inter-provincial and intra-provincial net migration as a source of housing demand may potentially be less impacted. Within Durham Region, year-to-date residential building permit activity has been notably stronger in eastern and northern Durham Region.

Recommendation: Continue to monitor the impacts of COVID-19 on near-term and long-term population and employment growth across the GGH and Durham Region. Durham's reliance on inter-provincial and intra-provincial net migration suggests the Region may be less impacted by a prolonged softening of international immigration relative to other GTHA municipalities.

3.6 Summary of Observations

A broad range of factors related to macro-economics as well as federal and provincial policy (e.g. global economic growth outlook, foreign exchange rates, federal immigration policy, federal trade policy and provincial planning policy) will continue to have a strong influence on the Region's relative performance with respect to recent population and employment growth. Travel restrictions and economic disruption due to COVID-19 are also anticipated to negatively impact near term labour force growth and keep near-term (i.e. 2020 and 2021) immigration levels across Canada, including Durham Region, below recent historical averages. It is important to recognize that the Region of Durham has limited control in its ability to influence these above-mentioned macro-economic and policy factors, but does have the ability to recognize emerging trends.

Durham Region also faces opportunities and challenges resulting from the structural changes that are occurring within the macro economy. Similar to the Province as a whole, Durham Region's economy has transitioned away from goods production and towards service delivery. Ultimately, this will continue to influence regional planning, economic development, and marketing initiatives which will be increasingly geared to the knowledge-driven economy.

When considering the Region's long-term economic outlook and regional competitive position, Durham Region does have considerable control and ability to position itself in a positive manner. This requires the Region to continue marketing itself as a hub for innovation, equipped with the human capital (population growth) that is required to encourage on-going small to medium-sized business development, entrepreneurship, and local investment retention. Planning for Durham's offering in housing choice, transit investment, quality of life and diversity in scale and character of communities (large cities, towns and waterfront and Greenbelt environments) are also important in increased competitiveness.

4.0 Managing Growth in Durham Region: Opportunities and Challenges

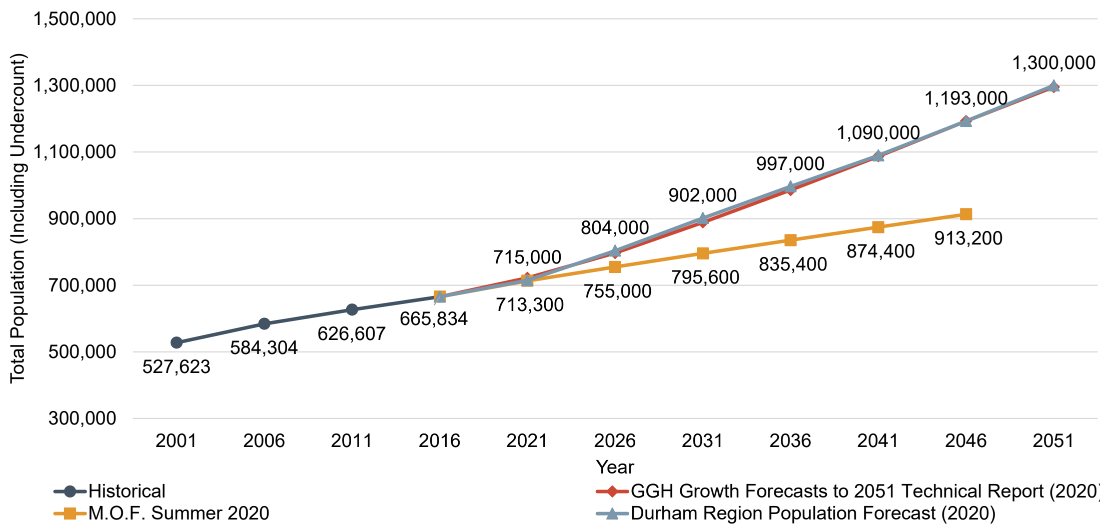
4.1 Long-Term Growth Outlook

Notwithstanding the tremendous economic growth potential that exists within Durham, the Growth Plan, 2019 population and employment forecast for Durham Region is aspirational.

As set out in Schedule 3 of the 2019 Growth Plan, Durham Region's population and employment base is forecast to reach 1,300,000 and 460,000 respectively, by 2051. This represents an increase of approximately 634,000 persons and 223,200 employees, or an annual population and employment growth rate of both 1.9%, over the next 35 years.

As previously discussed, a broad range of factors are anticipated to drive higher population rates over the next several decades in Durham. Notwithstanding the tremendous economic growth potential that exists within Durham, the Growth Plan, 2019 population and employment forecast for Durham Region is aspirational. Forecast annual population and employment growth is anticipated to be approximately double historical growth rates. Comparatively, by 2046 the Growth Plan population growth forecast for Durham Region is approximately 280,000 persons higher than the most recent population forecast (Summer 2020) prepared by the Ontario Ministry of Finance (MOF).

Figure 9
Durham Region Population Forecast Comparison
(Growth Plan vs. Ontario Ministry of Finance)



Source: Historical data (2001 to 2016) from Statistics Canada Census. Forecast by Watson & Associates Economists Ltd., 2020.
Note: Population includes the net Census undercout. Numbers have been rounded.

Recommendation: The Growth Plan, 2019 population and employment forecast for Durham Region is aspirational and will require a significant increase in the regional growth rate if it is to be achieved. It is recommended that the 2051 forecast contained in the Growth Plan, 2019 be the basis for the Durham GMS and LNA. A higher long-term population and employment growth alternative is not recommended.

4.2 Managing Strong Population Growth

Looking forward, the continued rapid urbanization of existing and planned greenfield areas across Durham, combined with targeted intensification within the Region's built-up urban areas, including focused growth within SGAs, is anticipated to present a number of growth management opportunities and challenges for the Region and its area municipalities. As previously mentioned, the increasing pace of technological change and advancement related to e-commerce, transportation technology (i.e. high-order transit, autonomous vehicles/trucking) and robotics/artificial intelligence will continue to influence urban development patterns, infrastructure planning and economic growth trends in established and emerging economic sectors. A key objective for Durham Region will be to plan to accommodate growth and change in a manner that advances the Region's livability in a sustainable manner.

Recommendation: Be proactive in anticipating and responding to change, by reporting on and regularly monitoring how evolving real estate market trends, consumer behavior and technological disruption is anticipated to influence development patterns, land use planning and infrastructure investment priorities across the Region. It is recommended that the Region incorporate results and outcomes of the GMS in its regular monitoring of growth trends. Particular focus should be given to the influence of evolving real estate market trends and disruptive forces on housing demand by location, tenure and structure type, as well as employment growth and non-residential building space requirements by sector.

4.3 Linking Housing Choice and Economic Development

In accordance with the 2016 Census, Durham Region had a total of 227,900 occupied residential dwelling units. Historically, low-density housing has comprised the majority of total dwellings units in the Region. In 2016, 72% of housing was low-density dwellings (single and semi-detached) compared to 14% for medium- (townhouses, rowhouses) and 13% for high-density (condominium and rental apartments) units. The share of low-density dwellings in the Region has been declining over the past 15 years with an increasing percentage of new dwellings comprised of medium- and high-density housing forms.

Durham Region has a strong tradition of home ownership with approximately 81% (approximately 185,000 units) of housing units defined as owner occupied.[21] Durham Region's owner-occupied households are largely comprised of freehold ground-oriented housing units, including detached dwellings and townhouses.

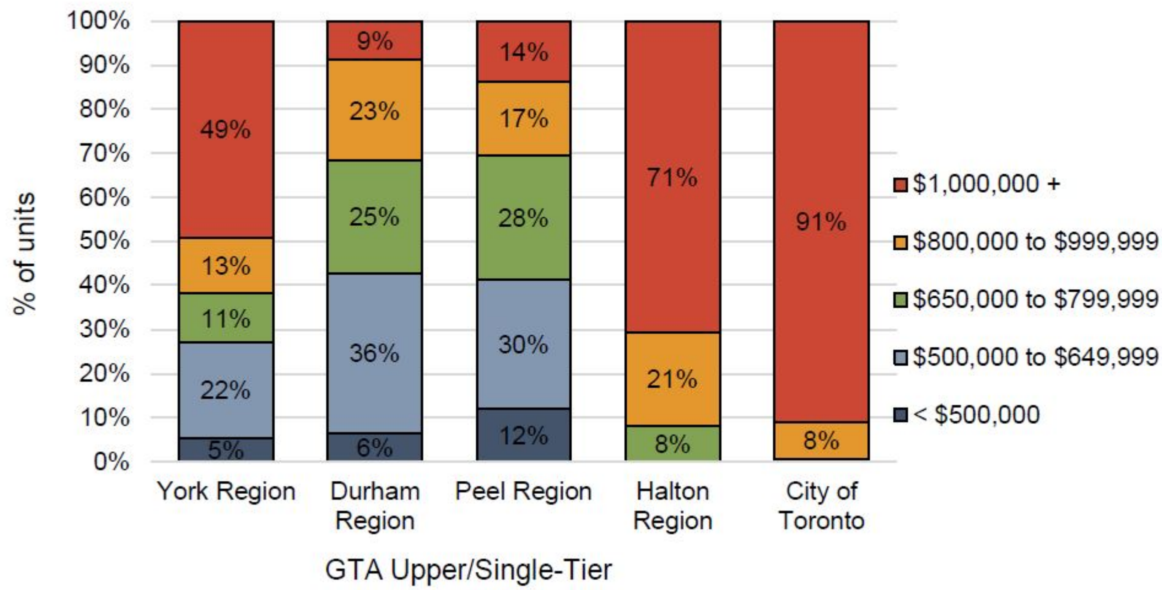
Within the context of the broader regional market area, average housing prices for new detached units in Durham Region (average of $920,000 in 2019) are among the lowest when compared with the other GTHA municipalities. As further described in Figure 10 below, new housing prices are substantially higher in other GTA municipalities, averaging in the City of Toronto $1.9 million, York Region $1.7 million, Halton Region $1.6 million, and Peel Region $1.3 million.

Durham Region offers greater market choice of new detached homes at various price points compared to other upper-tier/single-tier municipalities examined within the broader regional market area.

Durham Region offers greater market choice of new detached homes at various price points compared to most other upper-tier/single-tier municipalities examined within the broader regional market area. However, the surrounding municipalities in the GGH Outer Ring also generate competition for Durham with respect to low-density housing demand, which are not included in Figure 10.

[21] 2016 Statistics Canada Census.

Figure 10
Absorbed Single Detached Units by Price Range, GTA Upper/Single-Tier Municipalities, 2018



Compiled from CMHC Housing NOW Tables by Watson & Associates Economists Ltd., 2020

Over the past two decades, Durham Region has also experienced strong growth related to both medium-density (townhomes, apartments in duplexes) and high-density (apartments) development. Between 2016 and 2021, it is anticipated that approximately 6,200 medium-density and 6,500 high-density housing units will be added to Durham's housing base, representing approximately 60% of total estimated housing growth over this period. During the previous five-year period (2011 to 2016) medium and high-density housing development represented just 40% of total housing growth.

Since 2011, a notable share of residential development activity has been accommodated within the built-up area (BUA) reinforcing that there is a growing market for higher density residential intensification. Since 2011, the Region's share of residential development activity within the BUA has remained steady, from 49% in 2011 to 2013 to 50% in 2017 to 2019. The Durham Region ROP, reflecting the 2006 Growth Plan, currently targets 40% of housing growth within the BUA (i.e. intensification) from 2006 to 2031. This equals a total of approximately 65,000 units to be accommodated within the BUA over this period.

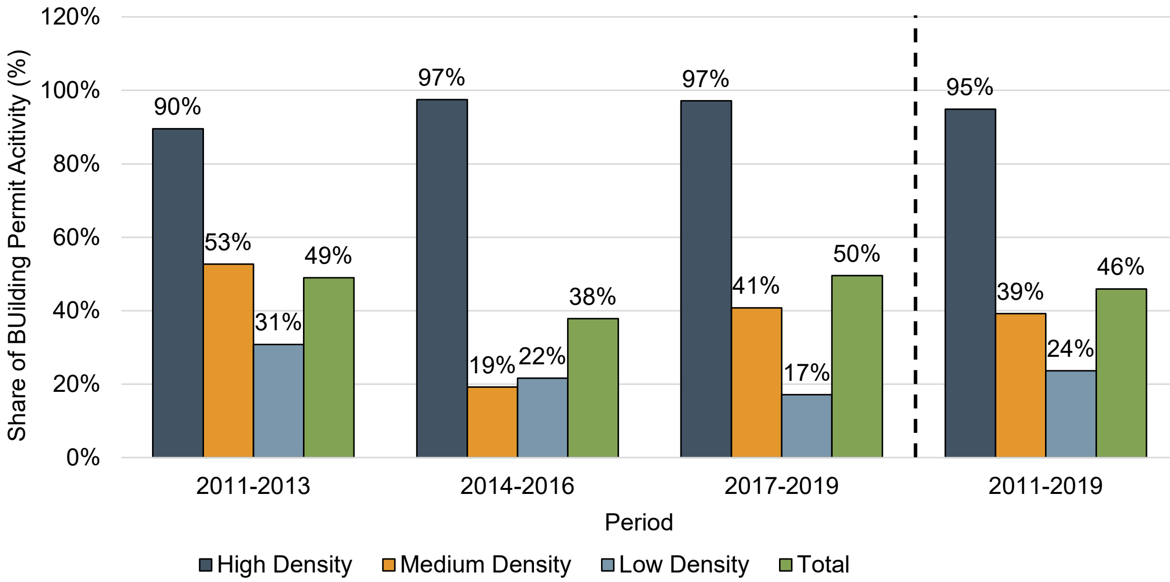
The Region appears to be on track to exceed the overall intensification target of 40% for all housing development accommodated over the 2006 to 2031 period, having achieved 46% intensification over the 2011 to 2019 period. It is important to note, however, that over the 2011 to 2019 period, Durham Region accommodated a notable amount of ground-oriented housing within the BUA through the buildout of plans of subdivision that were captured in the BUA as of 2006. As opportunities to accommodate ground-oriented housing within the BUA continue to diminish, there will be an increasing reliance on redevelopment and infill for high-density development, as well as gentle intensification in stable residential neighbourhoods, in order to achieve the forecasted rate of residential intensification.

From a land supply perspective, significant residential intensification opportunities exist within Durham Region's SGAs including Urban Growth Centres, Regional Centres, MTSAs and Regional Corridors. These areas offer opportunities to accommodate a range of medium and high-density housing that is aligned with transit infrastructure and amenity rich environments. However, not all Strategic Growth Areas have the same potential for accommodating growth. The intensification analysis will provide recommendations on which SGAs can best accommodate growth and complete communities, aligned with infrastructure and servicing.

Durham Region is served by a well-established GO rail commuter system with 4 existing and 4 future stations around which MTSAs will be centred. Provincial policy directs that development and/or redevelopment in MTSAs locations along Priority Transit Corridors is required to meet a minimum density target of 150 jobs and persons per ha. It is recognized that Durham Region's Employment Areas within MTSA are anticipated to undergo transformative change over the long-term. Efforts which encourage transformative change in MTSAs should be supported where appropriate.

Durham's MTSAs represents a significant opportunity to accommodate future employment growth in a more diversified capacity. The Region's MTSAs and other Strategic Growth Areas offer strong market attributes to accommodate a large portion of the Region's office and mixed-use development opportunities over the long-term.

Figure 11
Durham Region
Share of Building Permits within Built Boundary by Housing Density (New Units Only), 2011-2019



Source: Building permit data provided by Durham Region. Derived by Watson & Associates Economists Ltd., 2020.
Note: Secondary suites are captured as high density units.

As the Region's population grows, providing affordable and appropriate housing for residents across all life stages will be an ongoing challenge. Between 2021 and 2051, approximately 219,600 new households are forecast across the Region, largely within existing and future urban areas. As Durham continues to mature, new housing development activity is anticipated to densify, with a greater share of new housing development occurring through more compact medium - and high-density housing forms. To accommodate future residents in Durham, there is also a need to develop new and innovative approaches to housing development that are pedestrian-oriented and transit-supportive. This includes options which provide greater opportunities for mixed-use development planned within intensification nodes and corridors, including secondary units live/work units and a range of affordable housing opportunities.

To maintain well-balanced and healthy communities and ensure long-term sustainability, it is vital that Durham Region continue to offer a wide range of housing options to a broad range of income groups and life stages. This includes provision for rental and affordable housing. The availability of housing is a key factor in attracting and retaining people and businesses to a community. To support an emerging knowledge-based environment, the ability to attract, cultivate, and retain talented workers is increasingly important and dependant on a diverse house stock.

Economic attraction efforts must be linked to housing accommodation (both ownership and rental), infrastructure, municipal services, and amenities, as well as quality of life attributes that appeal to the younger mobile population, while not detracting from the Region's attractiveness to older population segments.

Addressing the interconnection between the Region's competitive economic position and its longer-term housing needs by market segment is critical in realizing the Region's future forecast population and employment growth potential as well as the Region's ultimate goals related to prosperity, opportunity, and livability.[22] This approach recognizes that the accommodation of skilled labour and the attraction of new businesses are inextricably linked and positively reinforce one another. To ensure that economic growth is not constrained by future labour shortages, effort will be required by Durham Region and its area municipalities to continue to explore ways to attract and accommodate new skilled working residents to the Region across a diverse range of employment opportunities, including through a broad choice of housing options. Attraction efforts must also be linked to housing accommodation (both ownership and rental), infrastructure, municipal services, and amenities, as well as quality of life attributes that appeal to the younger mobile population, while not detracting from the Region's attractiveness to older population segments.

Recommendation: Through the Housing Strategy and Employment Strategy, reflect that the accommodation of skilled labour and the attraction of new businesses are inextricably linked and positively reinforce one another. As an outcome of the GMS, provide recommendations on how to attract and accommodate new skilled working residents to the Region within a broad range of housing options by type, location, tenure and affordability.

Recommendation: Through the Durham GMS and MCR, prioritize growth and further infrastructure investment within SGAs and other priority intensification areas that align with current and planned servicing and transit/transportation networks.

Recommendation: Through the Durham GMS and MCR, consider appropriate policies that prioritize and promote office and mixed-use development within SGAs, including MTSAs and UGCs, as well in other appropriate areas of the Region. This includes ensuring that planning policies and regulations are supportive of intensification initiatives and the economic objectives of the Region. Where gaps exist between planning policy objectives and market demand regarding mixed-use and office development, the Region should also explore utilizing financial tools/incentives to facilitate development where fiscally sustainable.

[22] Durham Region Strategic Plan. 2020-2024. Region of Durham.

The average age of the population base in Durham Region is getting older, due to the large concentration of Baby Boomers within the Region. The aging of the Regional population base further reinforces the need to attract younger age groups to the Region, particularly those characterized as Millennials and Generation Z as well as other future generations.

4.4 Planning for Existing and Future Generations

Planning for Millennials and Generation Z

The average age of the population base in Durham Region is getting older, due to the large concentration of Baby Boomers[23] within the Region. The aging of the Regional population base further reinforces the need to attract younger age groups to the Region, particularly those characterized as Millennials and Generation Z as well as any subsequent generations.[24]

Millennials are typically defined as the segment of the population which reached adulthood during the 2000s. While there is no standard age group associated with the Millennial generation, persons born between 1980 and 1992 (currently 27 to 39 years of age) best fit the definition of this age group. Millennials represent a large cohort in Canada, rivaling the Baby Boomer generation in terms of size and impacts on the real estate market and labour force base. As of 2016, Millennials comprise approximately 17% of the Region of Durham population. [25]

Based on recent survey data, 62% of Millennials prefer to live in mixed-use environments that urban centres offer which includes proximity to amenities and employment.[26] Millennials also tend to have a higher preference to live in more compact environments which offer a short distance to work and place a higher preference for walkability and access to public transit.[27]

Generation Z, the cohort which directly follows the Millennial Generation is now entering the real estate and labour market. Demographers and researchers typically use

[23] Baby Boomers are generally defined as those born between 1946 and 1964.
[24] Millennials are generally defined as those born between 1980 and 1992. For the purposes of this study, we have assumed that those born between 1993 and 2005 comprise Generation Z.

[25] Statistics Canada, 2016 Census.
[26] Millennials – Breaking the Myths, Nielsen, 2014
[27] Emerging Trends in Real Estate, Canadian Edition, PwC and ULI, 2014.

the mid-1990s to mid-2000s as starting birth years to describe the Generation Z cohort. As of 2016, the Generation Z population comprises approximately 14% of the Region of Durham population base.[28] Over the next several decades, Generation Z is anticipated to place increased demand on medium and high-density ownership and rental housing.

Millennials and Generation Z will have an impact on the nature of future employment growth, which will be increasingly driven by the knowledge-based economy. From a planning and economic development perspective, both Millennials and Generation Z will continue to serve as a catalyst for both growth and change related to future office, retail, institutional and industrial developments across Durham. The extent to which Durham can capitalize on potential demand from these demographic groups is subject to a number of economic and socio-economic variables (e.g. relative housing costs/affordability, local and regional employment opportunities, fuel costs, lifestyle preferences, local amenities, community services and perceived quality of life).

Continuing to Plan for Older Generations

As of 2016 Baby Boomers comprise 24% of the Region's population base. As of 2020, this age group is between 56 and 74 years of age.[29] As the Region's Baby Boom population continues to age, the percentage of seniors, particularly older seniors (i.e. seniors 75 years of age and older) is anticipated to steadily increase over the 2016 to 2051 forecast period. From 2001 to 2016, the Region's 75+ population grew at an annual rate of 4.1%.[30] Over the 2016 and 2051 period, the annual population growth rate for the 75+ age group is forecasted to remain strong at 3.7%. This demographic trend is anticipated to be largely driven by the aging of the Region's existing population, as opposed to net-migration of older residents into the Region.[31]

Not only is the Baby Boom age group large in terms of its population share in Durham Region, it is also diverse with respect to age, income, health, mobility, and lifestyle/life stage. When planning for the needs of older adults, it is important to consider these diverse physical and socio-economic characteristics relative to younger age groups. On average, seniors, particularly those in the 75+ age group, have less mobility, less disposable income, and typically require increased health care compared to younger seniors (65-74 age group) and other segments of the younger working-age population. Typically, these characteristics associated with the 75+ age group drive the demand for relatively higher density housing forms (e.g. apartments and seniors' homes) that are in proximity to urban amenities (e.g. hospitals/health care facilities, amenities, and other community services geared towards older seniors).

Overwhelmingly, existing literature and commentary regarding the housing needs of older Canadians suggests that a large percentage of seniors will "age in place"; that

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[28] Statistics Canada, 2016 Census.
[29] Statistics Canada, 2016 Census.
[30] Ibid.
[31] Watson & Associates Economists Ltd. 2020.

is, to continue to live in their current home and/or community for as long as possible even if their health changes.[32] While there is strong rationale to support "aging in place" as a general concept, it is important to address the current characteristics of the Regional housing stock occupied by older adults (i.e. house size, built-form, location and amenities) against the socio-economic characteristics of older residents in the Region of Durham (i.e. household income, housing affordability, mobility, health, etc.)

The overarching message around "aging in place" is that seniors require choice as well as access to services and amenities regarding their living arrangements.[33] This could include creating new housing through infill or intensification in established areas which can facilitate "aging in place" by providing housing options which allow seniors to remain in their communities when responding to life changes.[34]

Recommendation: Through the Housing Strategy, reflect the continued need to accommodate and plan for older generations while also attracting younger adults and new generations by increasing the market choice of housing available within Durham Region by housing structure type.

Recommendation: Through the Durham GMS and MCR, consider policies, programs and initiatives that support a broad range of new housing options for all ages and income groups. This should include rental apartments, condominiums and entry-level townhome products (e.g. back-to-back townhomes and stacked-townhomes and apartments) for younger adults as well as a range of housing products, including seniors' housing, to accommodate older adults.

Promoting Investment Readiness and Competitiveness

Notwithstanding the long-term economic growth potential that exist across the GGH, and more specifically Durham Region, domestic and international competition for business development and investment is increasing in today's "new economy." As previously mentioned, Durham Region faces a number of challenges regarding its competitive position on a global and national scale, in which it has limited control. At the more regional level, Durham Region faces stiff regional competition with its neighbouring municipalities for business attraction and investment.

In 2019, the Region of Durham completed a Competitiveness Study, which provided a comprehensive assessment of current industrial and office market conditions and trends, market readiness and competitiveness, and relative competitiveness in key target industry sectors to its key competitors within the broader regional market area. The results of this study indicate that Durham ranks as one of the more competitive upper/single-tier municipalities in the GGH with respect to investment in the five industry sectors profiled – agri-business, health industries, digital media, EN3 and advanced manufacturing. Its competitive advantages are well suited for increased investment in

[32] Canadian Housing Observer 2011. CMCH. 2011.
[33] The Meaning of "Aging in Place" to Older People. The Gerontologist, Vol. 52, No. 3, 2012.
[34] Housing for Older Canadians: The Definitive Guide to the Over-55 Market. CMCH. Canada. 2012. Pg. 18.

the agricultural/agri-food sector (food processing), digital media sector, and the EN3 industry. Its competitive disadvantages do limit its investment opportunities in health industries and advanced manufacturing when compared to other GTHA municipalities that tend to have larger established clusters and supply chains in these sectors.

Durham competes directly for business attraction and investment with other communities within the regional market area and beyond. This is particularly true for "export-based" industrial sectors which are typically accommodated within Employment Areas.[35] A major factor influencing the future competitiveness of the Region's economic base is the structure and quality of its Employment Areas. Employment Areas typically include a broad range of light, medium and heavy industrial lands, business parks and rural industrial lands. Employment Areas accommodate primarily export-based employment sectors, including a wide range of industrial uses (e.g. manufacturing, distribution/logistics, transportation services), as well as specific commercial e.g. office, service, ancillary/accessory retail) which are generally secondary and support the industrial/business function.

In order for the Region of Durham to continue to be competitive and attractive to a broad range of industrial and commercial sectors, the Region will need to ensure that it offers a sufficient supply and market choice of municipally serviced lands in Employment Areas. Most notably, this should include a diverse supply of sites in terms of location and size (e.g. ranging from 1 hectare to up to 25+ hectares) with good transportation access and proximity to major highway interchanges as well as other local/regional transportation infrastructure.

In September 2020, Regional Council approved Durrham's Emloyment Land Servicing Strategy. The Region is working to accelerate employment land development by prioritizing sewer and water planning and capital works projects for employment areas. Annual reports will be prepared to update Council on progress of the recommended work elements, including new recommendations for next steps as detailed design and development proceeds for the projects identified, and report on the outcomes of Regional investment and supporting efforts to encourage economic development in designated employment areas.

4.5 Planning for Employment Areas

Lands designated as Employment Areas in the Durham Region Official Plan are intended to be used for clusters of business and economic activities, including, but not limited to, manufacturing, warehousing, offices and associated retail and ancillary facilities.[36] As previously mentioned, structural changes in the broader economy are altering the nature of economic activities in Employment Areas and impacting the built

[35] Export-based employment sectors represent industries that produce goods and services to markets primarily outside Durham Region's retail trade area.

[36] A Place to Grow. Growth Plan for the Greater Golden Horseshoe Office Consolidation 2020. Pg. 70. Provincial Policy Statement, 2020. Pg. 43.

form and composition of these lands. Recently, market demand and real estate development in Employment Areas has been driven by growth in the knowledge-based or “creative class” economies, including employment sectors such as advanced manufacturing, professional, scientific and technical services, cleantech, biotech, digital entertainment, robotics, information and culture, health care and education. The nature of traditional industrial processes is also rapidly shifting, becoming more capital/technology intensive and automated, often with lower labour requirements.

Driven by an increasing emphasis on innovation and technology these evolving and emerging export-based sectors have siting, space and built-form requirements that are significantly different from traditional industrial sectors which have occupied Employment Areas across Durham Region in the past. This may include requirements related to telecommunications infrastructure, transit access, energy efficiency, building and urban design standards, eco-industrial design principles and labour force access. Site configuration and integration of uses is also evolving particularly in prestige Employment Areas which often integrate operations combining office, research and development, warehousing and logistics, and on-site manufacturing in a “campus-style” setting.

With the recent structural changes in the regional economy, there has been a shift in how Employment Areas are planned and developed. “Place-making” is increasingly recognized as an important planning component in creating diverse and vibrant communities, which in turn can help attract local population and job growth providing that other necessary infrastructure requirements are met.[37] For Employment Areas, this is particularly relevant for light industrial and office commercial environments which integrate ancillary retail uses and other supportive amenities, with public open space and other civic infrastructure.

Recognizing that structural changes in the global economy will continue to be accelerated by technological advancements and innovation, municipalities must be increasingly responsive and adaptive to changing industry needs and disruptive forces. Looking forward over the next several decades, Durham Region’s land-use planning and economic development policies must monitor, anticipate and reflect the evolving needs of businesses across a diverse range industry sectors and sizes. These policies must also offer a degree of flexibility and nimbleness that allows for relatively rapid responses to unforeseen changes, which can be a critical competitive advantage relative to competitive markets.

Recommendation: Through the Employment Strategy, assess the current composition of Employment Areas, including size, distribution and servicing status, and determine future employment land need.

[37] Place-making is a process of creating unique, quality locations, places or spaces that possess a strong sense of place. With respect to places of work, the concept of placemaking is often encompasses the attraction knowledge-based workers and businesses with an emphasis on collaboration, connection, and innovation.

Recommendation: Through the Durham GMS and MCR, ensure that Durham continues to offer a competitive array of land within Employment Areas, by designating an appropriate quantum of land and including ROP policies to regularly monitor and maintain a sufficient supply of shovel-ready vacant lands across a diverse range parcel sizes and locations within Employment Areas (equivalent to a minimum five-years of forecast Regional demand).[38]

Recommendation: Through the Employment Strategy, consider the importance of place-making for Employment Areas, including implementing appropriate policies.

4.6 Promoting the Rural Economy

The majority of Durham's regional land base is rural (84%), which supports a significant and productive agricultural, tourism, resource and growing creative sector. In 2019, the population of the rural area was 54,000 largely located in the northern two thirds of Durham Region. These rural areas are comprised of small communities, protected landscapes, resource assets, and agricultural lands. Some of the traditional key economic sectors in rural areas include: agricultural inputs and services, environmental services, hospitality and tourism, aggregate extraction, and paper and packaging. Emerging sectors which may be concentrated in rural areas include food processing and manufacturing, livestock processing, and transportation and logistics.

Agricultural activities are significant to the Durham Region economy. Further development and investment in the agri-business and food processing industry provides an opportunity to deepen agricultural activity and increase productivity by providing value-added products and services. Rural areas also provide opportunities for strengthening Durham's tourism economy through agri-tourism, which includes on-farm uses which can include such uses as wineries and breweries. Other rural tourism opportunities include recreation and outdoor facilities such as golf courses, parks, conservation areas, and major trail systems. Specialty retail in rural communities like Uxbridge and Port Perry, and accommodations concentrated in rural areas such as inns, B&Bs and campgrounds, also contribute to the tourism economy.

Durham offers a balance between urban and rural communities, with urban development concentrated in the southern portion of the Region along the Lake Ontario shoreline. Given the rural context and built-form of Durham's northern Urban Areas, there is less opportunity for medium and high-density development. However, population and employment growth is anticipated to occur, at a context appropriate scale.

The agri-food sector in Durham varies by geographic area, and economic trends must be considered by local municipality. Innovative solutions are required to prevent urban development from negatively impacting agriculture in the south and to spread prosperity to the north.

[38] "Shovel ready" lands reflect designated and zoned developable vacant employment lands that have necessary municipal servicing (i.e. water/sewer (where applicable) to the property line and would be available for development by an end user immediately or within 6 months.

The key challenges which need to be taken into consideration for the future growth of Durham's rural and tourism economy include:

- Loss of vital land and the increasing price of farmland being driven by the purchase of large holdings for non-farm residential dwellings;
- Trends in locating farm processing plants further away from urban areas as urban development begins to expand to the north;
- Addressing Surplus farm dwellings;
- Challenges in transporting goods to market due to Durham's location on the east side of the GGH, with an increased distance to international airports and the US Border;
- A lack of access to highspeed broadband poses a significant challenge for businesses in rural areas;
- Conflict between urban and agricultural trucks on shared roads; and,
- The relationship between agri-tourism supporting job growth in rural areas.

Providing farmers with the opportunity to open on-farm agri-tourism and/or culinary tourism experiences is a strong potential tourism opportunity for Durham's rural areas. Maintaining a policy framework for which lands may be utilized for agriculture, agri-tourism, and other aspects of the rural economy such as extracting resources and aggregates, will serve to guide long-term population and employment growth to Durham's rural areas.

As previously mentioned, the COVID-19 pandemic has resulted in a growing dependence on digital communication and staying connected via video conferencing and social media. Growth in online activity and reliance on digital communication may be utilized as an opportunity to invest in the expansion of high-speed internet and reliable broadband connectivity to Durham's rural areas in order to assist farmers and local businessowners. An improvement in the speed and reliability of broadband may also provide farmers and residents living in rural areas with a greater sense of connectivity to the urban areas of Durham on a digital platform.

Recommendation: Through the Employment Strategy, reflect the maintenance and growth of a strong rural economy in Durham Region.

Recommendation: Through the MCR, continue to emphasize through ROP policies the importance of growth in the rural economy, including the agriculture, resources, and, agri-tourism sectors. Maintain a policy framework identifying which lands are part of the rural system and may be appropriate for agriculture, agri-tourism, and aggregate extraction, as well as other uses. These policy directions should also build on strengthening the already present tourism industry in Durham's rural economy, by promoting opportunities for farmers to operate agri-tourism uses on agricultural lands.

4.7 Aligning Growth with Significant Infrastructure Investment

Durham Region is responsible for planning and maintaining major infrastructure systems, including water and wastewater, transit, and regional roads. Regional infrastructure provision serves existing residents and businesses and must be expanded and upgraded over time in order to enable new population and employment growth in accordance with the Durham ROP. To accommodate the Region's long-term population and employment forecasts, significant investments in water, wastewater, and transit infrastructure will be required across the Region in both greenfield and intensification areas.

Given the level of infrastructure investment required to accommodate anticipated long-term residential and non-residential development, Durham Region will need to ensure that the prioritization and staging of capital is well aligned with anticipated real estate market trends, the anticipated level of demand, regional structure, and policy goals. It is recognized that if major capital projects are not well-aligned with market demand, the Region will be at increased financial risk. This potential for risk could increase with a prolonged economic downturn and/or slow economic recovery resulting from COVID-19. As experienced through the economic downturn of 2008/2009, this would result in reduced revenue associated with slower growth and lower revenues required to pay for growth-related capital. In turn, delays to major infrastructure investment would potentially reduce the Region's competitive position relative to the broader regional market area by further limiting new opportunities for new business development and housing choice. To minimize these financial risks, there is a need to align near-term development priorities with locations that offer development capacity within existing infrastructure.

Recommendation: Through the GMS and MCR, incorporate an integrated approach to land-use planning, servicing, and financial management within the broader context of Regional growth management. Prioritize growth in areas that make efficient use of existing and planned regional infrastructure.

Recommendation: Growth strategies and related ROP policies should be crafted in a manner that is less prescriptive and more outcome focused in order to be more adaptative, and resilient to rapid changes in technology and continued structural shifts in the regional economy. This is of particular importance when planning for Employment Areas within MTSAs.

4.8 Measuring Performance Against Broader Growth Management Objectives

While achieving a strong long-term population and employment growth rate is an important indicator of overall performance for Durham Region, it is also necessary to weigh this quantitative measure against other broader community building goals related to housing, neighbourhood design, transportation, environment, health, social engagement, financial sustainability, and opportunity. Achieving these goals requires a long-term vision with respect to the management of the Region's urban and rural communities, places of work, rural lands, and protected countryside.

Recommendation: Durham Region should continue to plan growth in a manner that builds on the guiding principles of the Growth Plan 2019 and recognizes the importance of enhanced livability, mobility and economic opportunity in the region to successfully achieve sustainable growth.

5.0 Conclusions

A broad range of factors related to macro-economics as well as federal and provincial policy will continue to have a strong influence on the Region's performance with respect to population and employment growth. Travel restrictions due to COVID-19 are also anticipated to keep near-term (i.e. 2020 and 2021) immigration levels across Canada, including Durham Region, below recent historical averages.

While it is important to understand the implications of these macro-economic factors and policy trends, it is also important to recognize that the Region has limited control to influence many of these inputs when planning for its future growth. In contrast, Durham Region does have considerable control to influence its competitive position by focusing on the interconnection between local job creation, housing choice, and liveability. This is becoming increasingly relevant during the current pandemic and will be particularly pertinent in the post-pandemic period, as continued structural changes in the economy and technological disruption increasingly enable work from home employment opportunities and remote learning.

"Place-making" is increasingly recognized as an important planning component in creating diverse and vibrant communities while increasing the competitiveness and ability of the Region to attract and accommodate growth.

A key objective of both the Provincial Growth Plan and the Durham Region Official Plan is to build healthy and complete communities in a manner that enhances livability and economic prosperity, while protecting what is important to residents and local businesses. These long-term objectives emphasize the importance of measuring performance against quantitative metrics such as population and employment growth, as well as broader city-building objectives related to housing choice, mobility, environment, health, equity and financial sustainability.

With these broad Regional building objectives in mind, "place-making" is increasingly recognized as an important planning component in creating diverse and vibrant communities with emphasis on quality of life, which in turn can help attract local population and job growth.

Looking forward, the key opportunity - but also challenge - for Durham Region will be to plan for accommodating growth in a manner which preserves the Region's livability and is sustainable from a triple-bottom line perspective. To do so, the Region must be proactive in anticipating and responding to change by continually monitoring and measuring how evolving real estate market trends, consumer behavior, and technological disruption is anticipated to influence development patterns and infrastructure investment priorities across the Region.

Given the level of infrastructure investment required to accommodate anticipated long-term residential and non-residential development across Durham Region, the Region will need to ensure that the prioritization and staging of Regional infrastructure investment is well-aligned with identified planning priorities, which are informed by anticipated real estate market trends. It is recognized that if major capital projects are not well-aligned with identified planning priorities, the Region will be at risk from a resiliency and financial perspective. This potential risk could increase with a prolonged economic downturn and/or slow economic recovery resulting from COVID-19, reduced revenue associated with slower growth, and lower revenues required to pay for growth-related capital. In turn, delays to major infrastructure investment would reduce the Region's competitive position relative to the broader Regional market area by limiting new business development and housing choice.

In reviewing and considering the overall regional structure, it will be important to identify the areas which have the greatest potential to accommodate growth along with their potential for place making (in existing and new planned communities) and, enhanced mobility and infrastructure investment. This includes a review of Urban Growth Centres, MTSAs, Regional Centres, and Regional Corridors to identify and plan in an integrated way for development and infrastructure requirements in Strategic Growth Areas.

Finally, through a balanced approach that incorporates economic and real estate market demand factors against broad Provincial and Regional planning interests, the Region will be best equipped to identify where investment priorities are highest. The Region will also need to identify where financial incentives and planning tools are potentially needed to stimulate residential and non-residential development activity, especially where market forces alone are not delivering a desired outcome.

6.0 Next Steps

The Growth Opportunities and Challenges Report should be regarded as a summary of initial analysis to set the stage for the Growth Management Study's Technical Briefing Papers and supporting documentation to the Final Land Needs Assessment Recommendation Report. The content and recommendations provided in this report may also inform the Envision Durham process and emerging policy directions. The next steps for the Durham Growth Management Study are as follows:

Complete the following LNA related analysis:

- Region-wide Growth Analysis and Forecast to 2051
- Intensification Analysis
- Employment Land Analysis, including Employment Conversion Analysis
- Designated Greenfield Density Analysis

- Land Needs Assessment

These concurrent streams of analysis will be summarized and reported in the following Technical Briefs, anticipated to be completed between January and March 2021:

- Region-wide Growth Analysis
- Housing Strategy
- Employment Strategy
- Community Land Needs Assessment

The Durham Growth Management Study outcomes will be synthesized in a Final Land Needs Assessment and Recommendations Report, expected to be completed in mid-2021.