

SECTION 6

WHERE ARE WE GOING TO WORK?

A. REGIONAL EMPLOYMENT PROJECTIONS TO 2031

The GTA Population and Employment Projections Steering Committee (or GTAC, comprised of the Office of the GTA, the City and the GTA Regions) developed regional employment forecasts that anticipate significant growth across the GTA.⁵⁵ These forecasts were developed with the view that Toronto is the central city of a vibrant and growing urban area in which employment is continuing to disperse geographically.

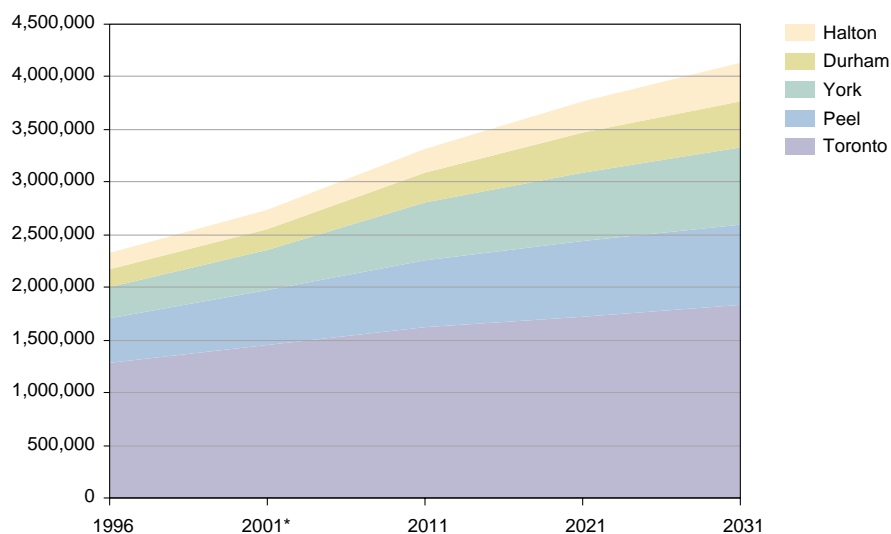
The assumptions underpinning this forecast are:

- The conception of the GTA's future, the GTA "vision" – a compact urban form of interconnected nodes, with a linked and protected rural/agricultural area⁵⁶ – will be implemented through the respective municipal Official Plans.

- The GTA will continue to be economically competitive versus other North American and global urban centres.
- According to a consultant's economic forecast, the GTA will experience very strong growth over the 15 years after 1996, rivaling the level of the late 1980s. This growth will be reflected in job creation. The GTA's rate of real economic growth will gradually decline from 4.9% to under 2% in the long term.
- Net in-migration, rather than natural increase, is the primary source of population growth in the GTA. Strong net in-migration is required over the projection period to reach the forecasted growth; federal immigration policy plays a key role in this assumption.

Employment in the GTA is anticipated to increase by more than three-quarters from 2.3 million jobs to 4.1 million jobs by 2031. This is 1.4 times the total number of jobs in Toronto in 1996.

Figure 26: Forecasted GTA Employment



*Note: Figures for 2001 are unofficial.

Source: GTAC, 2000; Toronto City Planning Division, Policy and Research.

Table 35: Forecasted GTA Employment

	1996	2001*	2011	2021	2031
GTA	2,326,628	2,740,412	3,321,974	3,772,932	4,136,516
Toronto	1,290,612	1,453,545	1,615,617	1,719,471	1,835,088
Durham	164,478	199,790	279,813	374,112	434,107
Halton	158,900	185,425	237,472	307,900	369,652
Peel	420,714	514,502	643,038	724,174	759,687
York	291,924	387,150	546,034	647,274	737,982

Note: Employment = GTAC Population x GTAC activity rates. *Figures for 2001 are unofficial.
Source: GTAC, 2000; Toronto City Planning Division, Policy and Research.

Table 36: Forecasted GTA Employment Change versus 1996

	2001*	2011	2021	2031	2031 %
GTA	413,784	995,346	1,446,304	1,809,888	100.0%
Toronto	162,933	325,005	428,859	544,476	30.1%
Durham	35,312	115,335	209,634	269,629	14.9%
Halton	26,525	78,572	149,000	210,752	11.6%
Peel	93,788	222,324	303,460	338,973	18.7%
York	95,226	254,110	355,350	446,058	24.6%

*Note: Figures for 2001 are unofficial.

Source: GTAC, 2000; Toronto City Planning Division, Policy and Research.

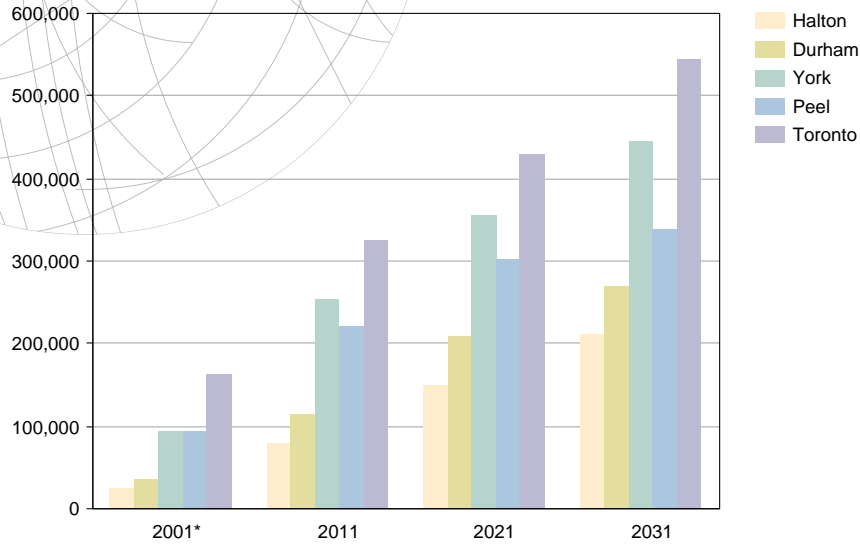
The City's employment will continue to grow, from 1.291 million jobs in 1996 to 1.835 million in 2031, or by over 544,000 jobs. Most of Toronto's growth is anticipated between 1996 and 2011, about 325,000 jobs. Another 220,000 will follow by 2031. Meanwhile, the GTA Regions are expected to add 670,000 jobs between 1996 and 2011, and another 595,000 by 2031. In total, the increase in jobs in the rest of the GTA is almost equal to Toronto's employment in 1996. Durham and York are expected to more than double their employment by 2021.

Almost 70% of the GTA's employment growth will occur in the GTA Regions. Due to their rapid growth, Toronto's share of GTA employment will decline from 55.5% in 1996 to 44.4% by 2031.

Employment in Durham, Halton and York is anticipated to increase at a remarkable pace of between 2.5% and 4.1% annually on average between 2001 and 2011.

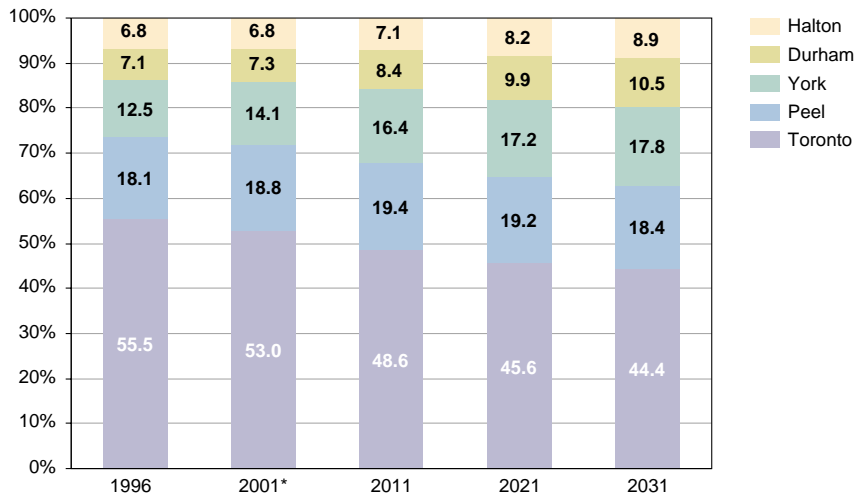
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Figure 27: Forecasted GTA Employment Change versus 1996



* Note: Figures for 2001 are unofficial.
Source: GTAC, 2000; Toronto City Planning Division, Policy and Research.

Figure 28: GTA Employment Shares by Municipality



* Note: Figures for 2001 are unofficial.
Source: GTAC, 2000; Toronto City Planning Division, Policy and Research.

Table 37: GTA Employment Change

	Employment Change versus 1996				Average Annual Change		
	2001*	2011	2021	2031	2001-11	2011-21	2021-31
GTA	17.8%	42.8%	62.2%	77.8%	2.1%	1.4%	1.0%
Toronto	12.6%	25.2%	33.2%	42.2%	1.1%	0.6%	0.7%
Durham	21.5%	70.1%	127.5%	163.9%	2.5%	1.3%	0.5%
Halton	16.7%	49.4%	93.8%	132.6%	4.1%	1.9%	1.4%
Peel	22.3%	52.8%	72.1%	80.6%	4.0%	3.4%	1.6%
York	32.6%	87.0%	121.7%	152.8%	2.8%	3.0%	2.0%

*Note: Figures for 2001 are unofficial.

Source: GTAC, 2000; Toronto City Planning Division, Policy and Research.

The distribution of GTA growth suggested by this scenario is based upon expectations about existing and future patterns of growth and the execution of Official Plan policies:

- the City of Toronto will continue to experience strong economic and population growth;
- Highway 407 will continue to act as a stimulus for the growth of the Regions;
- plans for the Pickering Airport will be implemented; and
- the Seaton community will be developed.

Generally, it is expected that the choice of location of people and businesses will (continue to) be influenced by cost and availability of land, affordable housing, quality of life and availability of infrastructure and services.

The recommended forecast represents a possible future for the GTA, one of many. Economic uncertainty is inherent in a forecasting exercise. Over the long term, the periodic impact of the business cycle is superseded by general economic trends. However, there is always the possibility of unforeseen events such as a severe recession, and such uncertainty grows the longer the forecast period. To the extent that these forecasts are based upon North American economic trends, and cannot fully account for the extent and quality of the cultural connections between the GTA and many countries worldwide, the variability is tempered somewhat. While the results are higher than

those of the 1993 projections, the rates of growth are borne out by recent trends.

To attain this growth and remain competitive with other North American centres, the GTA will need to invest in infrastructure and quality of life, to ensure its long-term success and desirability. The ability of the GTA to attract migrants and create jobs will be directly affected by its transportation infrastructure and transit, and the availability of social services and affordable housing.

B. CONTEXT

The Office of the GTA engaged Hemson Consulting Ltd. and The Coopers & Lybrand Consulting Group to create population and employment forecasts for the GTA based on the 1991 Census. *The Outlook for Population and Employment in the GTA*, released in 1993, developed three sets of population and employment forecasts (Reference, Low and High) by varying migration, unemployment and labour force participation rates. Employment was distributed geographically by dividing it into three different land use categories: major office use (office buildings of (1,858m² or 20,000 sq. ft. or larger), population-related employment and employment lands, and then by examining the distribution of those uses across the GTA. Employment by category was allocated to the regions based on their shares of growth in each category in each forecast period.

Two policy-driven forecasts were also developed. By comparison to the Reference Scenario,

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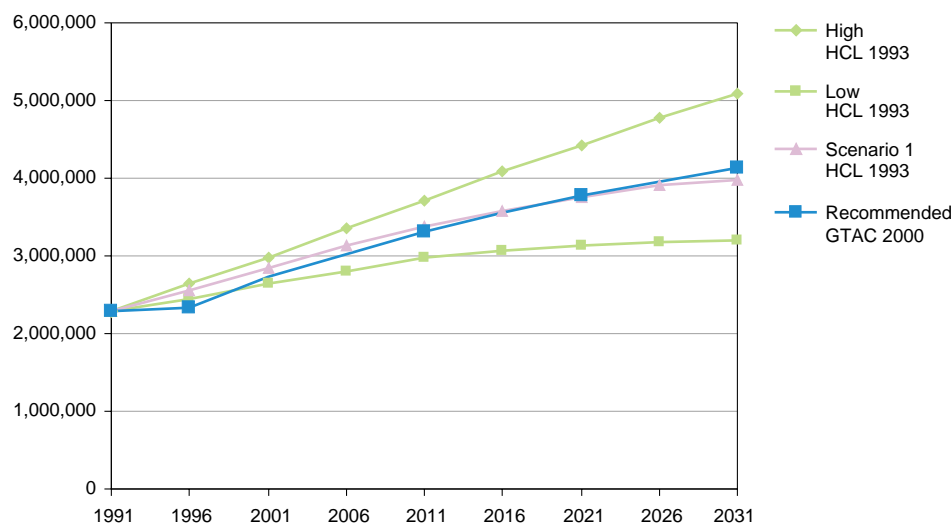
Scenario 1 maintained the GTA population and employment totals but involved a higher level of intensification in (Metro) Toronto, resulting in increased population and jobs and a reduced requirement for land for development in the surrounding Regions. Scenario 2 maintained the existing pattern of development. The Scenario 1 forecast (and the Reference Scenario for Durham) was adopted by the City, the Regions and the Office of the GTA.* Under Scenario 1, GTA employment was forecasted to reach 3.973 million by 2031, an increase of 1.4 million over 1996. Toronto was projected to reach 1.865 million jobs, an increase of 415,000 over the same period.

After the recession of the early 1990's and the release of the 1996 Census, GTAC undertook to

revise the regional allocation of population and employment in 1999. The Committee considered demographic and economic factors and the timing and impacts of planning and transportation initiatives. The Committee reviewed the previous forecasts, the observations of Strategic Projections Inc. on economic trends, and planning policy regarding urban structure in the respective Official Plans. The GTAC Recommended Forecast and the 1993 scenarios are presented in Figure 29 (see also "Employment Forecasts" in the Appendix).

The GTAC Recommended Forecast for the GTA fits neatly within the range of the older forecasts. A point of discussion is that the GTAC employment levels are similar to the Scenario 1 employment even though GTAC population

Figure 29: GTA Employment Forecasts Past and Present



"HCL 1993" - Hemson Consulting Ltd./Coopers and Lybrand Consulting Group, 1993

"GTAC 2000" - GTAC Recommended Forecast

Source: Toronto City Planning Division, Policy and Research.

* At the request of York and Peel Regions, the Office of the GTA considered a modified distribution of Scenario 1 employment, noted in a letter from Elizabeth McLaren, Assistant Deputy Minister responsible for the OGTA, to the Regional Planning Commissioners, dated November 19, 1993.

levels are significantly higher than Scenario 1 population (see Figure 16, GTA Population Forecasts Past and Present). To the extent that GTA population growth is dependent on economic growth and additional jobs filled largely through in-migration, then employment might be expected to be higher to generate the forecasted population. A review of the forecasts will occur once sufficient data becomes available from the 2001 Census. Employment figures from the 2001 Census will be released in 2003, and subsequently reported by place of work.

Development Charge Background Study included three Options for projecting Toronto employment.⁵⁷ Option 1 maintained the 1998 level of 1.18 million based on the Toronto Employment Survey. Option 2 assumed that the 1993 Scenario 1 target of 1.68 million would be attained by 2011. Option 3 added the incremental growth projected by the 1993 Scenario 1 forecast between 1998 and 2011 to the actual employment in 1998. This assumption adds approximately 200,000 jobs and achieves a total of 1.38 million jobs by 2011. The assumption anticipates difficulties in achieving the growth expected by those projections. Nonetheless, there has been a substantial economic recovery to close out the 1990s, and by 2001 Toronto had recovered to the employment levels that preceded the boom of the late 1980s and the bust of the early 1990s.

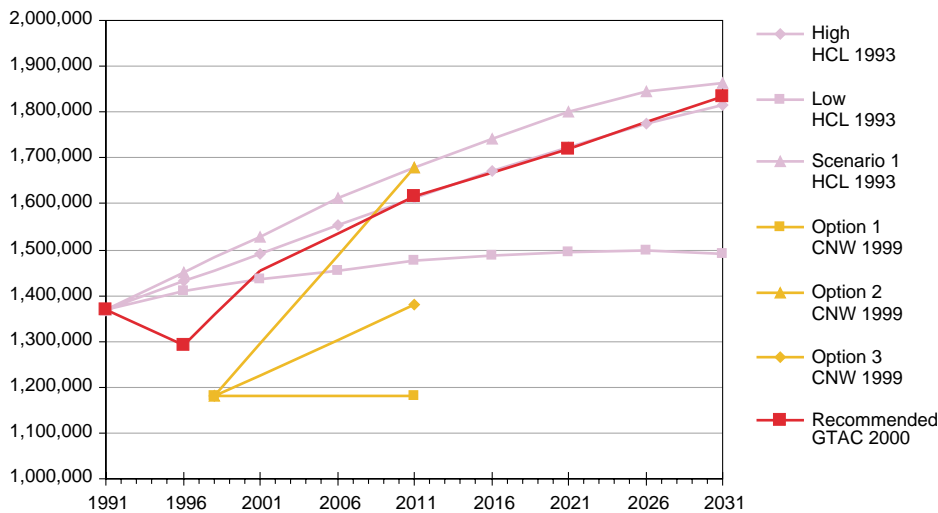
C. TORONTO EMPLOYMENT FORECASTS AND PROJECTIONS

Forecasts Past and Present

Concurrent to the development of the regional forecasts, C.N. Watson and Associates was engaged by the City to prepare projections for the Development Charges Bylaw. The 1999

The various forecasts and projections for Toronto are summarized in Figure 30. The GTAC Recommended Forecast is a close match to the

Figure 30: Toronto Employment Forecasts Past and Present



Note: The scale is truncated.

"HCL 1993" - Hemson Consulting Ltd./Coopers and Lybrand Consulting Group, 1993

"CNW 1999" - C.N. Watson and Associates, Development Charges Bylaw Background Study

"GTAC 2000" - GTAC Recommended Forecast. Figure for 2001 is unofficial.

Source: Toronto City Planning Division, Policy and Research.

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1993 High Scenario. The lower GTAC figure in 1996 represents actual employment at that time versus the levels projected before the recession of the early 1990s.

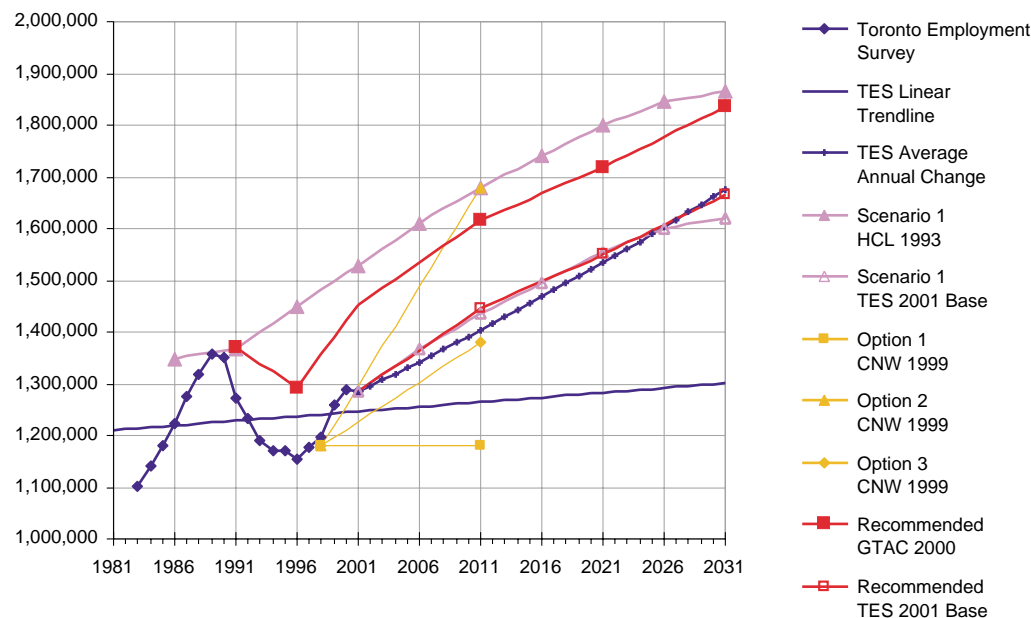
By comparison to the GTAC population forecast (see Figure 17), the GTAC employment forecast for Toronto does not match or exceed Scenario 1, developed in 1993. To the extent that population and employment are strongly related in the GTAC modelling effort and the submissions of their consultants, this indicates a different expectation about the distribution of employment across the GTA, with a greater share of GTA employment in the Regions neighbouring Toronto. Employment is calculated by multiplying the forecasted population by the corresponding activity rate, the ratio of employment to the total resident population. The rates used for Toronto in the GTAC 2000 forecasts are significantly lower than those in the 1993 forecasts in the early part of the projection timeframe. (See the GTAC activity

rates in "Employment Forecasts" in the Appendix.) It is therefore possible that the GTAC forecast may prove to be a conservative outlook on employment in Toronto until 2011. This is prudent in light of Toronto's lengthy albeit steady recovery from the recession of the early 1990s. Again, the employment results from the 2001 Census will assist in reviewing this forecast, once they become available.

The general validity of the long-range forecasts can be considered by comparing them to historical trends in employment.

The Toronto Employment Survey (carried out continuously by Urban Development Services since 1983) collects information on full- and part-time employment from all employers within the City. The track of total employment over time reflects the boom of the 1980s, the subsequent recession, and the economic recovery in the new millennium. The linear trend in total employment (a least squares approximation)

Figure 31: Toronto Employment Past and Present



Note: The scale is truncated.
 "HCL 1993" - Hemson Consulting Ltd./Coopers and Lybrand Consulting Group, 1993
 "CNW 1999" - C.N. Watson and Associates, Development Charge Bylaw Background Study
 "GTAC 2000" - GTAC Recommended Forecast. Figure for 2001 is unofficial.
 "TES" - Toronto Employment Survey

Source: Toronto City Planning Division, Policy and Research.

indicates a very modest average increase in employment over the survey period. This is not so much a representation of the general trend in Toronto employment over the city's history as it is a reflection of the boom and bust cycle of the recent past. It does, however, suggest a worst-case trend and thus a minimum scenario. The average annual change in total employment is 0.89%, the consequence of the boom plus recovery outweighing the recession. This suggests an average trend in employment change once the business cycle has been smoothed out. Given the economic variability of the last two decades, a prudent employment forecast might have a rate of growth that falls within the range of these two trends. The three Options considered by the *Development Charge Bylaw Background Study* bracket this range, and the preferred Option 3 increases a rate similar to the average change in employment of the previous two decades.

In order to compare Scenario 1 (1993) and the GTAC Recommended Scenario to the general trend in historic employment, adjustments need to be made. The 1993 Scenario 1 and GTAC 2000 forecasts were developed from Census data, and thus have a different starting point than do the 1999 projections based on the Toronto Employment Survey (TES). The two surveys have different methodologies. Their differences are demonstrated by the difference in total employment counts between the TES results and the actual employment counts in Scenario 1 for 1986 and 1991 and versus the GTAC Recommended Scenario for 1991 and 1996. To compare the forecasts against the trends, the forecasts needed be adjusted to start at a TES level in a given year. Scenario 1 is generally higher than the GTAC forecast as it predates the recession, forecasting from a growth peak. If Scenario 1 were informed by the recession, it would likely be somewhat lower and perhaps closer to the GTAC forecast, even though it represents a different distribution of GTA employment. The two forecasts return to a similar track by 2001. Thus, if both projections are adjusted downward to start at the TES total employment level of 2001, the resultant trend lines ("Scenario 1 TES 2001 Base" and "Recommended TES 2001 Base") closely follow the average annual rate of employment growth in Toronto.

The 1993 and 2000 forecasts of Toronto employment follow historic trends in the rate of employment growth. In both forecasts, the rate of employment growth is greater than the average between 2001 and 2011 and subsequently declines below the average. In the case of Scenario 1, this pattern portrays the assumed concentration of population and employment within the existing urban boundary, and in particular within (Metro) Toronto. The trend of the GTAC Recommended Scenario reflects the assumption of strong economic growth in the GTA as a whole, early in the forecast timeframe. The GTAC Recommended Scenario also accounts for the economic events of the 1990s and the rapid growth of employment across the GTA.

Projected Employment by Sector and Location

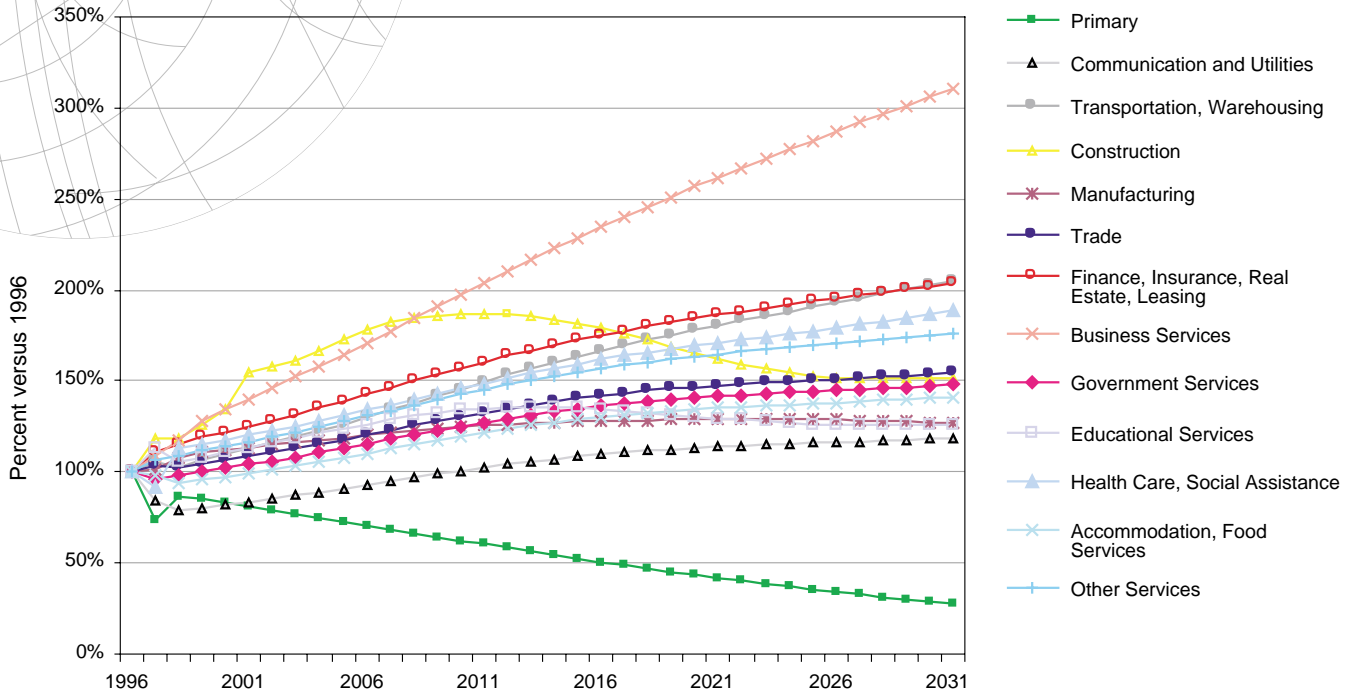
The objective of the Toronto employment projection model is to determine Toronto's share of the GTA economy by sector over time, and then determine the distribution of this sectoral employment within the City.

A forecast of the GTA's employment in 15 sectors was created by Strategic Projections Inc. By comparing the change in each sector versus 1996, the forecast presents the changing structure of the GTA's economy over the forecast timeframe (see Figure 32). These sectoral changes are applied to the 1996 Census labour force by place of work to determine an initial distribution of employment by sector over the projection period, in a manner consistent with the levels of total employment used in GTAC's Recommended Scenario.

In order to apply the GTA sectoral trends to the City, the differences in the industrial activity of the City versus the GTA must be determined. For example, transportation and warehousing employment has increased more rapidly in the GTA Regions versus Toronto over the last 15 years. Thus, while there has been growth in absolute terms in both the City and the rest of the GTA in most sectors, some sectors are growing more quickly in the rest of the GTA as a proportion of total employment. The percentage of a sector of Toronto's total employment compared to the percentage of that

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Figure 32: GTA Economic Change by Sector



Source: Strategic Projections Inc.; Toronto City Planning Division, Policy and Research.

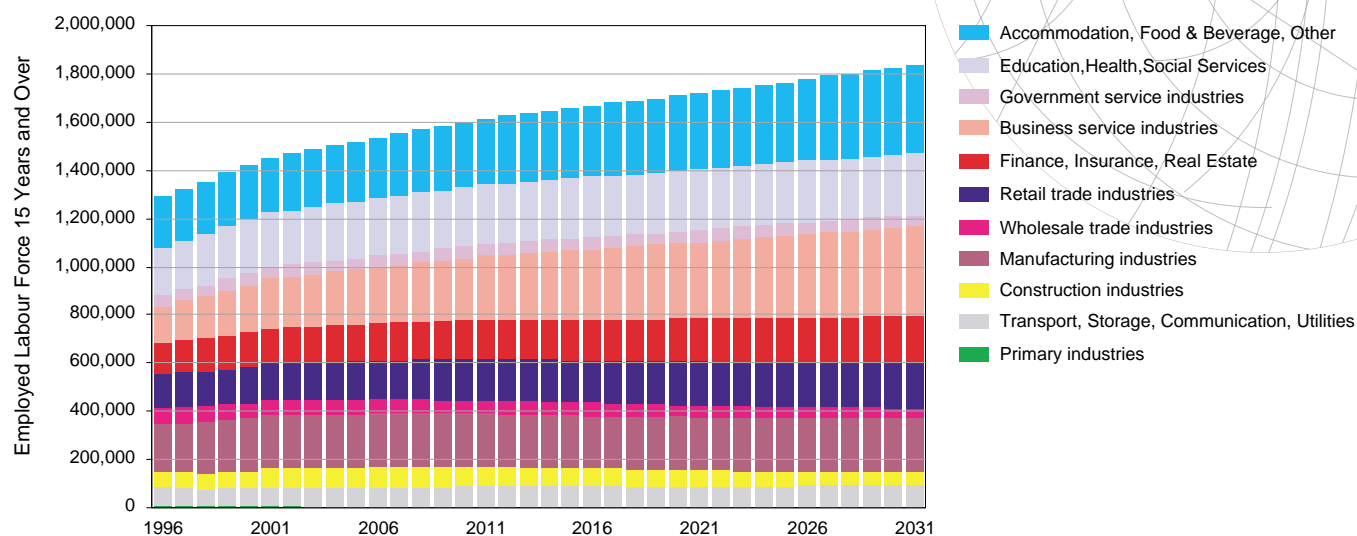
the same sector of GTA employment indicates the relative concentration of that sector in Toronto versus the GTA. The concentration indices therefore reflect the differences between Toronto’s economy and that of the GTA. By applying these indices to the GTA’s employment, the structure of Toronto’s economy can be adjusted such that it reflects its share of the forecasted change in the structure of the GTA’s economy. Note that the GTA trade sector trends were applied to both wholesale trade and retail trade sectors by which the Census labour force employment is reported.

However, over time, the structure of economic activity changes as employment redistributes itself across the GTA. The relative sectoral changes in Toronto as compared to the GTA are represented by the average annualized change in concentration in employed labour force from 1986 to 1996. This time period incorporates

both a boom and a recession and is used here in order to mitigate the impacts of the business cycle on cost-sensitive sectors. The changes are compounded to smooth out their effects over the long term. The result is a trend pattern which better reflects economic structural change and locational choices within the GTA, as it applies to Toronto.

The base of the projections is employment by place of work in 1996 as reported by Statistics Canada. Applying the economic trends for the GTA to the 1996 employment distribution, and then adjusting them for the change in relative sectoral concentration based on labour force, produces numbers which approximate the GTAC regional employment forecast totals for Toronto. The sectoral allocations were then adjusted to add up to the control totals in each projection period. (See Figure 33 and Table 38.)

Figure 33: Projected Toronto Employment by Sector



Source: Toronto City Planning Division, Policy and Research.

Table 38: Projected Toronto Employment by Sector

Sector	1996	2001	2006	2011	2016	2021	2026	2031
Primary industries	5,085	3,985	3,285	2,700	2,190	1,800	1,475	1,195
Transport, Storage, Communication and Utilities	84,225	76,540	79,775	83,865	86,720	89,305	91,660	93,750
Construction industries	56,675	81,475	85,125	82,250	73,135	63,030	56,840	54,745
Manufacturing Industries	200,975	221,330	222,150	222,655	220,320	220,835	221,370	219,010
Wholesale trade Industries	67,015	63,465	59,925	56,895	53,140	49,305	45,540	42,005
Retail trade industries	144,370	152,310	160,205	169,445	176,310	182,225	187,515	192,680
Finance, Insurance and Real Estate	122,660	146,565	155,405	164,855	171,505	178,440	184,935	189,930
Business service Industries	150,495	202,860	231,745	262,455	289,610	318,175	346,730	372,790
Government service Industries	49,940	48,660	49,170	49,970	49,955	49,590	49,005	48,365
Education, Health and Social Services	200,340	226,925	237,595	246,950	249,305	250,365	253,655	260,000
Accommodation, Food and Beverage, Other	208,835	229,240	249,745	273,585	294,990	316,405	338,090	360,620
TOTAL	1,290,615	1,453,355	1,534,125	1,615,625	1,667,180	1,719,475	1,776,815	1,835,090

Note: "Not Applicable" (unemployed, those who have never worked) are factored in to match Census Place of Work methodology.

Source: Toronto City Planning Division, Policy and Research.

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Based on this trend-line analysis, the Business Services sector is projected to increase by 75% of its 1996 level by 2011 and by nearly one-and-a-half times by 2031 (see Table 39). This sector includes professional, technical and scientific sectors and occupations (but specifically excludes professionals in Education, Health, Social Services and Government sectors which are counted separately). The Finance, Insurance and Real Estate sector is projected to slightly outpace overall employment growth, while Accommodation, Food and Beverage and Other services will strongly outperform overall employment trends. Retail Trade and Health,

Education and Social Services will continue to grow, however they will do so more slowly than overall population and employment. Wholesale Trade, Storage and Warehousing will decline significantly, dispersing to other locations outside of the City. It is difficult to estimate the consumption of land for employment purposes based solely on a sectoral projection of employment. However, these figures suggest that employment in large office buildings as well as population-related employment will increase significantly over the projection timeframe.

Table 39: Sectoral Employment Change versus 1996

Sector	Percent of Total	Percent Change versus 1996 (1996 = 0.0%)						
		1996	2001	2006	2011	2016	2021	2026
Primary industries	0.4%	-21.6%	-35.4%	-46.9%	-56.9%	-64.6%	-71.0%	-76.5%
Transport, Storage, Communication & Utilities	6.5%	-9.1%	-5.3%	-0.4%	3.0%	6.0%	8.8%	11.3%
Construction industries	4.4%	43.8%	50.2%	45.1%	29.0%	11.2%	0.3%	-3.4%
Manufacturing industries	15.6%	10.1%	10.5%	10.8%	9.6%	9.9%	10.1%	9.0%
Wholesale trade industries	5.2%	-5.3%	-10.6%	-15.1%	-20.7%	-26.4%	-32.0%	-37.3%
Retail trade industries	11.2%	5.5%	11.0%	17.4%	22.1%	26.2%	29.9%	33.5%
Finance, Insurance and Real Estate	9.5%	19.5%	26.7%	34.4%	39.8%	45.5%	50.8%	54.8%
Business service industries	11.7%	34.8%	54.0%	74.4%	92.4%	111.4%	130.4%	147.7%
Government service industries	3.9%	-2.6%	-1.5%	0.1%	0.0%	-0.7%	-1.9%	-3.2%
Education, Health and Social Services	15.5%	13.3%	18.6%	23.3%	24.4%	25.0%	26.6%	29.8%
Accommodation, Food & Beverage, Other	16.2%	9.8%	19.6%	31.0%	41.3%	51.5%	61.9%	72.7%
TOTAL	100.0%	12.6%	18.9%	25.2%	29.2%	33.2%	37.7%	42.2%

Note: "Not Applicable" (unemployed, those who have never worked) are factored in to match Census Place of Work methodology.
Source: Toronto City Planning Division, Policy and Research.

A spatial allocation was developed to determine where these jobs might be within the City. The employment totals by sector in each year were regrouped to match the Census Place of Work categories, and then compared to the total employment in 1996 by sector from the Census Place of Work data. The sectoral totals for the employed labour force by place of work were slightly different than the GTAC totals. Consequently the sectoral figures for each Traffic Zone were adjusted proportionately such that the citywide totals matched the GTAC totals. For each subsequent projection year, the employment by sector in each Traffic Zone was multiplied by the ratio of that year's projected total to the previous year's projected total. This produced a simplified allocation of the projected employment over time, by sector, in each Traffic Zone.

In effect, the existing 1996 employment distribution by Traffic Zone is simply scaled up to the totals for each projection period. The

distribution of employment is not adjusted to account for major changes in land use over the projection period. The resulting spatial allocation affords one indication of how current general economic trends might manifest themselves over time, based on the prevailing pattern of land use in the city. To the extent that Toronto is a mature urban area with comparatively stable land uses in significant portions of the city, this method provides a useful benchmark for the potential distribution of future employment.

The allocation of forecasted employment could be improved by taking into account the geographic dispersal patterns of employment sectors over time and the increase in population-related employment due to intensification. For example, a more detailed set of employment forecasts, both by region and by sector, might be achieved by combining the economically-driven forecast method of Strategic Projections and the land use categorization method of Hemson/Coopers & Lybrand.