



Social Planning Council of Ottawa

A Profile of the Ottawa Population

**Demographic Report 1996 - 2001
November 2002**



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I. INTRODUCTION

There have been many changes in Ottawa's demography since the Social Planning Council's last socio-demographic report in 1999, A Tale of Two Cities. The former municipalities of the Ottawa-Carleton region have amalgamated to form the current city of Ottawa and important changes in population size and composition have been registered. There has also been a considerable population shift within the City, with some neighbourhoods gaining population, and others experiencing significant losses.

This report delineates the changes that have occurred in Ottawa's demography since 1996 and highlights key socio-demographic trends. It thus aims to provide baseline information to researchers, social planners, and community agencies wanting to have a grasp on the broad socio-demographic trends that characterize Ottawa's population. Further, it is hoped that the findings of the report would prompt the reader to seek further understanding of how these trends would influence the future of Ottawa's labour supply, demand for housing and social services in general.

The report is composed of three sections that are organized as follows. Section One reports on the growth and spatial distribution of the Ottawa population. The data show a substantial population growth in Ottawa compared to other major Canadian cities and a marked sub-urbanization trend. Population grew at a much faster pace in the city's suburbs than in the urban core and rural areas. This finding has implications for the City's current planning process and impinges on its housing and transportation plans, as well as on strategies to limit urban sprawl.

Section Two describes the age and gender structure of Ottawa's population. The absolute and relative sizes, as well as the growth rates of the various age groups are outlined. Important findings include an aging of the population, a shrinking pool of labour market entrants, and a declining number of children aged 0-4.

Section Three ponders upon some of the implications of the identified trends for the city's labour market and economy, demand for social services, housing, and charity giving. Finally the report makes recommendations for further research in Ottawa.

Data and Methodology

The report makes use of Statistics Canada's 1996 and 2001 Census data. In some cases, historic data obtained from Statistics Canada's CANSIM database were used. Also, some population projection data has been used to identify the future direction of key variables such as population and dwelling counts. Population projections are based on a report prepared for the City of Ottawa by the Center for Spatial Economics. Descriptive statistical methods were then used to analyze these data for Ottawa's various geographies. Numeric and geographic data were integrated to produce GIS maps illustrating the magnitude and direction of changes in key demographic variables across the city.

II. SUMMARY OF FINDINGS

1. Ottawa is now the fourth most populated municipality in Canada. Only Toronto, Montreal and Calgary have more residents. The 2001 census counted 774,072 people in the city, 52,936 more people than in 1996, or 7.3 percent growth over the 1996-2001 period.
2. Population growth in Ottawa was higher than both the national and provincial rates of 4.0 and 6.1 percent respectively. Further population growth is projected for the next three decades, although at a decreasing pace after 2011.
3. Net international migration has been the most important source of population growth in Ottawa during the 1990s. Net natural growth has somewhat been declining and net-internal migration has been negative during the 1992-1996 period, a period marked by an economic downturn.
4. The population size of the Ottawa-Gatineau metropolitan area reached 1,063,664 in 2001, 6.5 percent more than the 1996 census count of 998,718, or 64,946 more inhabitants. Ottawa accounted for 81.5 percent of such growth.
5. Nearly three-quarters of the Ottawa-Gatineau population (72%) live in the City of Ottawa, 21 percent in the new city of Gatineau, and the remaining 7 percent are distributed across Russell (1%), Clarence-Rockland (2%), Val-des-Monts (1%), Chelsea (1%), Cantley (1%), and Pontiac (less than 1%).
6. In the Ottawa-Gatineau region, Masson-Anger experienced the most rapid population growth at 23 percent, followed by Cantley at 8 percent, Val-des-Monts at 7.65 percent and Ottawa at 7.3 percent.
7. Ottawa residents are mostly urban dwellers. The 2001 census data show that eighty one (81) percent of the city's population live in the city's urban core, eleven (11) percent in the suburbs, and only eight (8) percent live in rural areas, which account for 85 percent of the city's land.
8. Data show a marked sub-urbanization trend in the city of Ottawa, with the suburbs (urban fringe) gaining proportionally more people than the city's core. The Ottawa suburbs grew at a much faster pace than both the urban core and the rural areas - twenty-one (21) percent versus 6 and 10 percent respectively.
9. Population growth has been uneven across the city wards over the past five years. Kanata experienced the most rapid population growth at 30 percent, followed by Bell-South Nepean, Goulbourn, and Cumberland at 29, 28.7 and 28 percent respectively; while Knoxdale-Merivale and Ktichissippi incurred population losses of 3.5 and 0.04 percent respectively. Somerset and Rideau-Vanier saw population growth rates of less than one percentage point, while Alta Vista, Orleans, Bay, Beacon Hill-Cyrville, and River registered growth rates below 5 percent.
10. Population distribution within city wards has also changed a great deal. The mapping of population changes at the neighborhood level depicts an interesting picture of the City's recent socio-economic developments.
11. Wide variations in terms of both current and forecasted ward population have led the City of Ottawa to review its ward boundaries. The new ward boundaries seek to ensure that the current and forecasted population sizes of individual wards do not vary beyond a range of 33 percent more or less than the average ward size, resulting in a range of 25,000 to 50,000 residents per ward for the year 2001. The guidelines for ward change also include the preservation of the unique characteristics of existing neighbourhoods (Barlett et al: 2002).

12. The structure of Ottawa's population by age and sex has changed significantly since the 1996 census counts. Important trends include an aging population, a shrinking pool of young labour market entrants (24-35), and a declining number of children aged 0-4.
13. Seniors constitute the fastest growing population group in Ottawa. The number of seniors (individuals aged 65 and over) has increased by 16 percent since 1996: up from a 7 percent increase over the 1991-1996 period. Currently, there are 105 centenarians in Ottawa, of which 95 are women.
14. The Aging Index (number of seniors per 100 children) has increased from a measure of 53 in 1991 to 61 in 2001. This increasing trend is expected to continue over the coming years as the number of seniors is growing at a much faster pace than that of children.
15. The total "dependency ratio", i.e. the number of seniors and children per one hundred working-age adults has increased slightly from 43 in 1991 to 44 in 2001.
16. The median age of the Ottawa population has been increasing over the years and now stands at 36.7.
17. The number of children aged 0-4 has declined by 7 percent compared to the 1996 count.
18. The size of young labour market entrants (those aged 25-34) has declined by fifteen (15) percent over the 1996-2001 period.
19. Women are proportionally more numerous in older age groups. This is reflected in the higher median age for women that now stands at 37.6 (compared to the 35.7 for men) and higher female sex ratio for older age groups.
20. The size and age structure of the Ottawa population can be expected to have important implications for the City's labour market and economy, housing requirements, demand for social services, and charity giving.

III. SECTION ONE - POPULATION GROWTH AND DISTRIBUTION

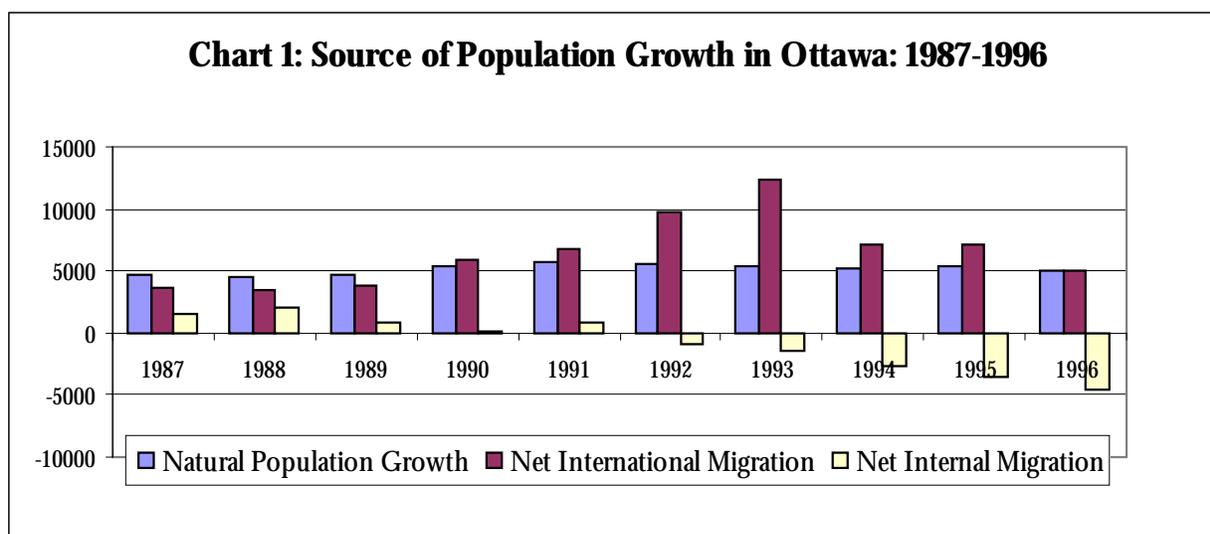
Ottawa's Population Growth Relative to Other Canadian Cities

Ottawa is now the fourth most populated city-municipality in Canada. Only Toronto, Montreal and Calgary have more residents. The 2001 Census has counted 774,072 people in the city, 52,936 more inhabitants than the 1996 population of the former Ottawa-Carleton region, or 7.3 percent growth rate. This contrasts to a 6.3 percent rate of growth in the 1991-1996 period. Compared to other large city-municipalities in Canada, the Ottawa population grew faster than both the Toronto and Montreal population, but slower than that of Calgary (14.0%), Mississauga (12.6%) and Edmonton (8.1%). Moreover, population growth in Ottawa was higher than both the national and provincial rates of 4.0 and 6.1 percent respectively. Table 1 shows the patterns of population change in the ten most populated city-municipalities in Canada.

Table 1: Population Change in Canada's Ten Largest Municipalities: 1996-2001

Rank	City	2001 Population	1996 Population*	5-Year Absolute Change	5-Year Percentage Change
1	Toronto	2,481,494	2,385,421	96,073	4.03
2	Montréal	1,039,534	1,016,376	23,158	2.28
3	Calgary	878,866	768,082	110,784	14.42
4	Ottawa	774,072	721,136	52,936	7.34
5	Edmonton	666,104	616,306	49,798	8.08
6	Winnipeg	619,544	618,477	1,067	0.17
7	Mississauga	612,925	544,382	68,543	12.59
8	Vancouver	545,671	514,008	31,663	6.16
9	Hamilton	490,268	467,799	22,469	4.80
10	Halifax	359,111	342,851	16,260	4.74

Source: 2001 Census of population. * The 1996 Census data has been adjusted to take into consideration changes in geographic boundaries.

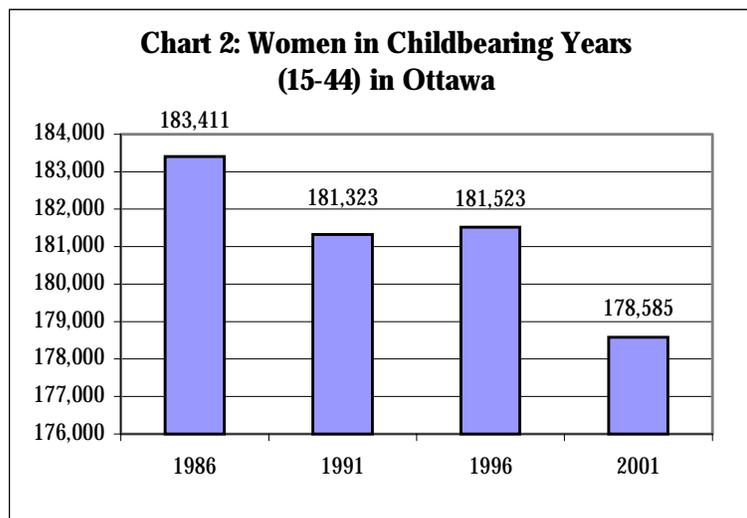


Source: Statistics Canada: CANSIM Matrix 6192 (Series C350797 and C5351106)

Source of Ottawa's Population Growth

Generally, there are three sources of population growth: natural growth (births minus deaths), net international migration (the difference between the number of new immigrants and the number of emigrants), and net internal migration. In Canada, important socio-demographic changes such as increased female labour force participation and the aging of the population have, over the years, lowered the fertility rate (the average number of children a woman will have over her lifetime)¹ and the number of women in their childbearing years. Chart 2 reports the latter trend for Ottawa.

Conversely, population gain from net internal mobility is mainly a function of the city's economic performance and quality of life. People are attracted to Ottawa if they believe that their chances for meaningful and gainful employment, accessible housing - both in terms of price and quality - and safety from crime is higher than that offered by other places and their place of residence.

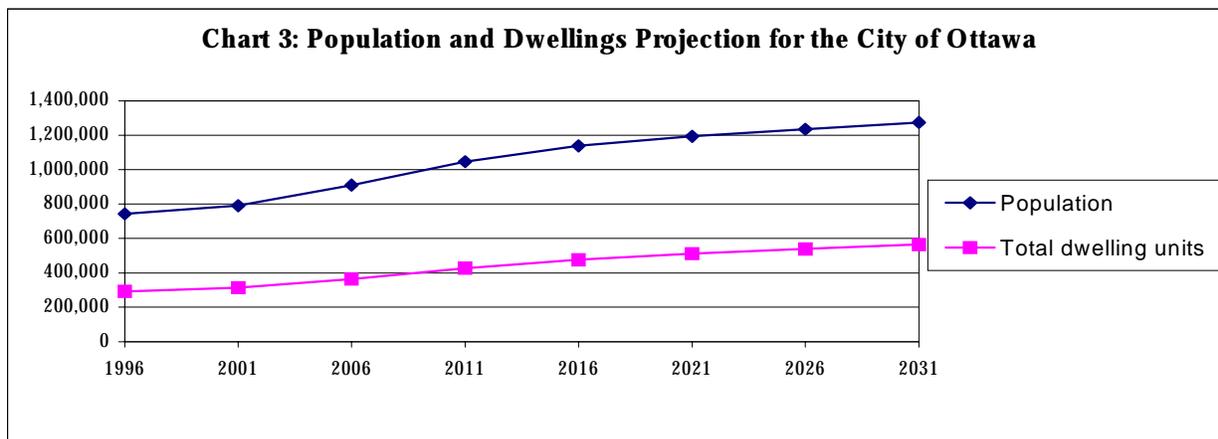


Finally, net international migration as a source of Ottawa's population growth depends on international socio-political and economic events and on Canada's immigration policy. However, the proportion of the annual inflow of new immigrants to Canada, who choose the City of Ottawa as their home, is also partly related to perceptions about the city's quality of life and economic performance.

Although the 2001 data for births and deaths (natural growth), internal mobility and immigration are not yet available, the past trend of these variables, as represented in Chart 1, shows that net international migration has been the most important source of population growth in Ottawa, in the early 1990s. Net natural growth has been declining somewhat and net-internal migration has been negative during the period 1992-1996, a period marked by economic duress. As the economy turned upward in the latter part of the 1990s and since the city's future economic prospects are deemed to be positive despite recent downturns, population projections indicate that population growth in Ottawa will accelerate over the coming decade, reach a peak in 2011, and start to slow down after that². Moreover, the Center for Spatial Economic's report on '*Population, Employment, and Dwelling Projections: 1996-2031*' underlines that the net migration component (a combination of net internal and international migration) will play a major role in the city's future population growth.

¹ A number of socio-demographic changes are listed by demographers as the root cause of the decline in Canada's fertility rate. These include higher female labour force participation, more effective contraception made possible by universal health care and pharmaceutical improvements, declining marriage rates, postponement of family formations, higher cohabitation and union dissolution (Beaujot et al: 2001; Statistics Canada: 2002c).

² The Center for Spatial Economics (CSE): 2001. The CSE's projections are based on assumptions of an unchanging fertility rate, a gradually decreasing mortality rate and a net migration that is a function of the city's economic activity. The projection cited in this report is the second least ambitious among four projections provided by the Center. This is the same projection used by the City of Ottawa for both its Official Plan and ward boundary review.



Source: Prepared by the Social Planning Council, using data from the Center for Spatial Economics' Report: 'Population, Employment, and Dwelling Projections: 1996-2031'

Population growth in Ottawa underlines the need for an expansion of existing infrastructure in terms of roads, transportation systems, housing, water and waste management; and more importantly human services that are tailored to the needs of the various communities.

Population Distribution in the Ottawa-Gatineau Metropolitan Area

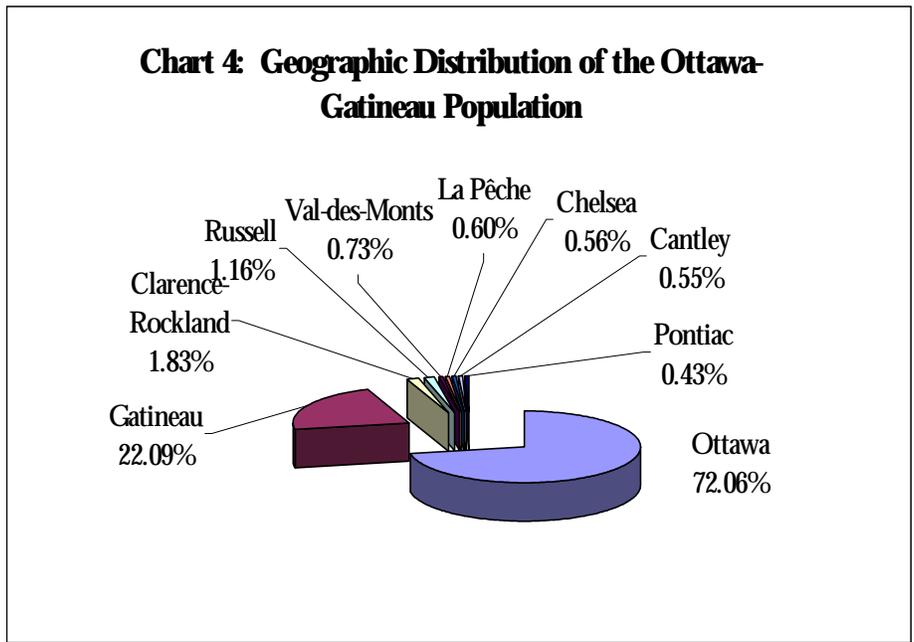
There are 1,063,664 inhabitants in the Ottawa-Gatineau metropolitan area, 6.5 percent more than the 1996 census count of 998,718, or 64,946 more inhabitants. Eighty-two (82) percent of such growth occurred in the city of Ottawa. As shown in Chart 4, nearly three-quarters (72%) of the Ottawa-Gatineau population live in the city of Ottawa, 22 percent in the new city of Gatineau, and the remaining 6 percent are distributed across Russell (1%), Clarence-Rockland (2%), Val-des-Monts (1%), Chelsea (.5%), Cantley (.5%), and Pontiac (less than 1%). Moreover, the region's municipalities, townships and cities have experienced varying rates of population growth over the 1996-2001 period. Masson-Angers saw the most rapid population growth at 23 percent, followed by Cantley at 8 percent, Val-des-Monts at 7.65 percent and Ottawa at 7.3 percent.

Table 2: Population Change in the Ottawa-Gatineau Municipalities: 1996-2001

Municipality	1996 Population	2001 Population	Absolute Change	% Change
Ottawa	721,136	774,072	52,936	7.34
Gatineau	100,684	102,898	2,214	2.20
Hull	62,339	66,246	3,907	6.27
Aylmer	34,901	36,085	1,184	3.39
Clarence-Rockland	18,633	19,612	979	5.25
Russell	11,877	12,412	535	4.50
Buckingham	11,678	11,668	-10	-0.09
Masson-Angers	7,989	9,799	1,810	22.66
Val-des-Monts	7,231	7,842	611	7.65
La Pêche	6,160	6,453	293	4.76
Chelsea	5,925	6,036	111	1.87
Cantley	5,443	5,898	455	8.36
Pontiac	4,722	4,643	-79	-1.67
Total	998,718	1,063,664	64,946	6.50

Source: 2001 Census of population. * The 1996 Census data has been adjusted by Statistics Canada to take into consideration changes in the municipalities' geographies.

The Ottawa share of the region's population has been historically stable. However, there is a considerable population migration between the various localities of the region. Residents of the Ottawa-Gatineau metropolitan area have access to the same economic opportunities across the region. Therefore, notwithstanding factors like geographic self-identification and mobility costs, population flow in the region is partially motivated by differences in the cost of living. For example lower housing cost in the Quebec side of the region may have prompted a higher population outflow from the City over the past five years. The upcoming 2001 data on mobility and migration will provide further understanding of the levels of migration within the region.



Spatial Distribution of the Ottawa Population

Urban/Rural Distribution

Ottawa residents are mostly urban dwellers. The 2001 census data show that 81 percent of the city's population live in the city's urban core, 11 percent in the fringes of urban areas (or suburbs), and only 8 percent live in rural areas³, which account for 85 percent of the city's land. The resulting population density varies from the urban core's 1,728 inhabitants per square kilometer to the rural areas' 26 individuals per square kilometer. Map 2 reports population density in the City's neighborhoods.

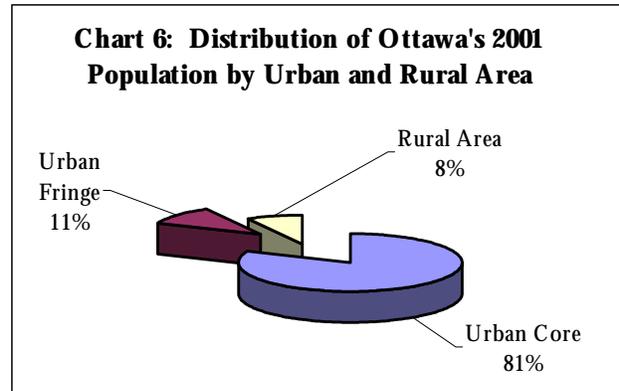
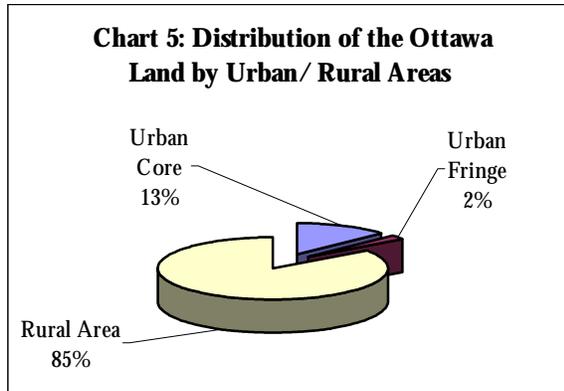


Table 3: Population and Land Distribution in the City of Ottawa: 1996-2001

	Area in km ²	% Share of Total		Population		5-Year Population % Growth Rate	Population per Km ²
		Land	2001 Population	1996	2001		
Urban Core	364.09	13.10	81.29	596,398	629,275	5.51	1,728
Urban Fringe	61.62	2.22	10.73	68,375	83,044	21.45	1,348
Rural Area	2352.93	84.68	7.98	56,363	61,753	9.56	26
Total	2,778.64	100.00	100.00	721,136	774,072	7.3	100.00

Source: 2001 Census population counts. The 1996 data refers to the former Region of Ottawa-Carleton.

The 2001 data show a marked sub-urbanization trend in the city of Ottawa, with the suburbs (urban fringe) gaining proportionally more people than the city's core. Population in the Ottawa suburbs is growing at a rate of 21 percent compared to 6 percent in the city's urban core and 10 percent in the rural areas. An increasing sub-urbanization was also identified for large metropolitan areas in Canada, with few exceptions including Ottawa-Gatineau where the core municipalities gained proportionally more people than the periphery⁴. The sub-urbanization phenomenon was referred to by Statistics Canada as a 'donut effect'. Looking at the **Ottawa-Gatineau** data, the City of Ottawa is considered a core municipality and among those with the highest population growth rates. Hence, the 'donut-effect' did not occur in Ottawa-Gatineau; that is population gain was highest in the region's core municipalities. However, the analysis of the **Ottawa** data shows the 'donut effect' did occur in Ottawa: the suburban areas grew faster than the city's urban core.

³ The Urban / Rural distinctions in this report follow Statistics Canada's geographic classifications, based on population count and density. Urban areas are those places with at least 1000 inhabitants and with a population density of at least 400 individuals per square kilometer. All areas that are not classified as urban are considered rural. Conversely, urban fringe and urban core are sub-categories of an urban area. The term 'suburban' is used in this report as a synonym to an urban fringe.

⁴ Social Planning Council of Ottawa: 2002a.

A number of negative effects are associated with an accelerated sub-urbanization, including higher servicing costs and increased environmental pollution. The City of Ottawa is currently attempting to control this sub-urbanization trend through various strategies designed to limit urban sprawl.

Population Shifts Across City Wards⁵

The comparison between the 1996 Census data and 2001 population forecasts, provided by the City of Ottawa's Development Services Department, shows a considerable variation in population growth rates across the City wards. Kanata experienced the most rapid population growth at 30 percent, followed by Bell-South Nepean, Goulbourn, and Cumberland at 29, 28.7 and 28 percent respectively; while Knoxdale-Merivale and Kitchissippi incurred population losses of 3.5 and 0.04 percent respectively. Somerset and Rideau-Vanier saw population growth rates of less than one percentage point, while Alta Vista, Orleans, Bay, Beacon Hill-Cyrville, and River registered growth rates below 5 percent.

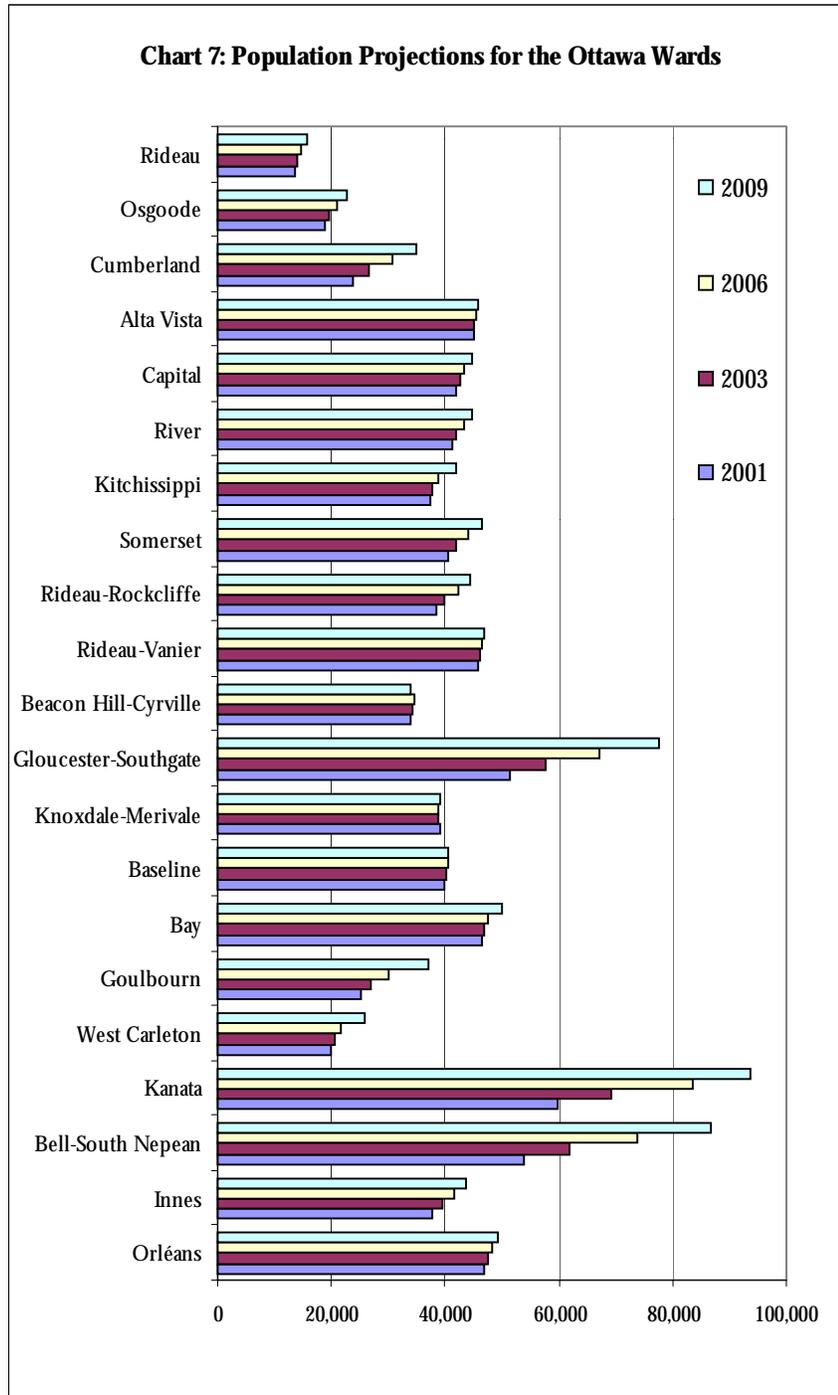
Table 4: Population Distribution Across Wards: 1996-2001

Ward Name	Population*		5-Year % Change	5-Year Absolute Change	% Share of Total Population	
	1996	2001			1996	2001
Orléans	44,971	46,100	2.51	1129.00	6.24	5.84
Innes	34,370	38,000	10.56	3630.00	4.77	4.82
Bell-South Nepean	44,720	57,700	29.03	12980.00	6.20	7.31
Kanata	47,909	62,500	30.46	14591.00	6.64	7.92
West Carleton	16,545	18,300	10.61	1755.00	2.29	2.32
Goulbourn	19,270	24,800	28.70	5530.00	2.67	3.14
Bay	44,239	45,600	3.08	1361.00	6.13	5.78
Baseline	39,356	42,000	6.72	2644.00	5.46	5.32
Knoxdale-Merivale	38,460	37,100	-3.54	-1360.00	5.33	4.70
Gloucester-Southgate	44,900	51,000	13.59	6100.00	6.23	6.47
Beacon Hill-Cyrville	32,723	33,800	3.29	1077.00	4.54	4.28
Rideau-Vanier	40,698	40,900	0.50	202.00	5.64	5.19
Rideau-Rockliffe	37,384	40,300	7.80	2916.00	5.18	5.11
Somerset	35,179	35,300	0.34	121.00	4.88	4.48
Kitchissippi	36,215	36,200	-0.04	-15.00	5.02	4.59
River	41,939	43,700	4.20	1761.00	5.82	5.54
Capital	31,666	35,300	11.48	3634.00	4.39	4.48
Alta Vista	42,729	43,600	2.04	871.00	5.93	5.53
Cumberland	19,521	25,000	28.07	5479.00	2.71	3.17
Osgoode	15,905	18,000	13.17	2095.00	2.21	2.28
Rideau	12,445	13,600	9.28	1155.00	1.73	1.72

Source: *2001 Population figures are based on 2001 projections provided by the City of Ottawa's Development Services Department. Figures have been updated as of January 25, 2002. The 1996 figures are custom data from Statistics Canada's 1996 Census.

⁵ This section's analysis is based on the 1996 census data and estimates for the year 2001 published by the City of Ottawa. We have used the City of Ottawa's forecast data rather than data from the 2001 census because acquiring ward data would entail buying costly custom data since the wards are not standard enumeration geographies.

There is also a considerable variation in ward population sizes. Kanata, Bell-South Nepean and Gloucester-Southgate are the most populated wards in the city, with population sizes of 62,500, 57,700, and 51,000 respectively; followed by Orleans (46,000), Bay (45,600), and River (43,700). On the lower end of the population scale, there are West Carleton, Osgoode and Rideau, with population sizes of 18,300, 18,000, and 13,600, respectively.



Source: City of Ottawa. The 2001 data is from the 2001 Population Count, updated to take into account the typical Census undercount of 3%. The rest of the data is from projections made by the Center for Spatial Economics for the City of Ottawa with adjustments to reduce the forecasted growth rates.

Wide variations in terms of both current and forecasted ward population have led the City of Ottawa to review its ward boundaries. The new ward boundaries seek to ensure that the current and forecasted population sizes of individual wards do not vary beyond a range of 33 percent more or less than the average ward size, resulting in a range of 25,000 to 50,000 residents per ward for the year 2001. The guidelines for ward change also include the preservation of the unique characteristics of existing neighbourhoods⁶. The implementation of changes in ward boundaries will go through the existing political processes.

The GIS mapping of population shifts within the city offers an interesting picture of the recent socio-economic developments in Ottawa and its various neighbourhoods. For instance, the burst of growth in the high tech sector and the related boom in real state development are reflected in a phenomenal population growth of 5,256 percent in one south-eastern Kanata neighborhood, from 27 to 1,446 inhabitants. Similarly a neighborhood in the south-western corner of the River Ward has seen its population grow by 1,722 percent: from 50 to 911 individuals. However, at the ward level, Kanata and River grew by 30 and 4 percent, respectively. Other neighborhoods in Gloucester-Southgate, Bell-South Nepean, Bay, and Innes have, on the other hand, experienced population losses of up to 34 percent.

Map 3 outlines the population change that occurred in the city's neighbourhoods (corresponding to Statistics Canada's Census Tracts⁷). The map shows that population growth occurred mainly outside the greenbelt, while a number of neighbourhoods in the urban core lost population.

⁶ Barlett et al: 2002.

⁷ Census tracts are small and relatively stable geographic units, drawn within large urban centers with a population of 50,000 or more, and containing a population count of 2,500 to 8,000 individuals.

IV. SECTION TWO: DEMOGRAPHIC STRUCTURE OF OTTAWA'S POPULATION

Trends in Age Structure

The structure of Ottawa's population by age and sex has changed significantly since 1996. The Ottawa population is now aging at a faster pace both because there are fewer births and because residents are living longer. Moreover, the pool of labour market entrants, those aged 25-34 is shrinking and the number of children aged 0-14 is not growing. Among Ottawa's children, the size of the youngest cohort (0-4 year-olds) is markedly declining, while the number of older cohorts (5-9 and 10-14 year olds) is increasing slightly.

Table 5 shows the absolute and relative size of Ottawa's population by age group as reported by the last three population censuses (1991, 1996 and 2001), as well as the growth rates registered for each group over the last decade. The following subsections will discuss what these trends mean with respect to children, working age population, and seniors.

Table 5: Age Structure of Ottawa's Population: 1991-2001

Age Group	Population			% Share in Population			% Growth Rate	
	1991	1996	2001	1991	1996	2001	1991-1996	1996-2001
0-14	134,558	146,121	146,155	19.58	19.41	18.88	8.59	0.02
15-24	104,353	97,412	103,130	15.19	12.94	13.32	-6.65	5.87
25-34	139,722	136,609	115,450	20.33	18.14	14.91	-2.23	-15.49
35-44	110,831	132,842	136,215	16.13	17.64	17.60	19.86	2.54
45-54	70,452	102,367	114,920	10.25	13.60	14.85	45.30	12.26
55-64	55,335	60,793	69,230	8.05	8.07	8.94	9.86	13.88
65+	71,956	76,751	88,985	10.47	10.19	11.50	6.14	16.51
Total*	675,705	721,136	774,072	100	100	100.00	6.3	7.3

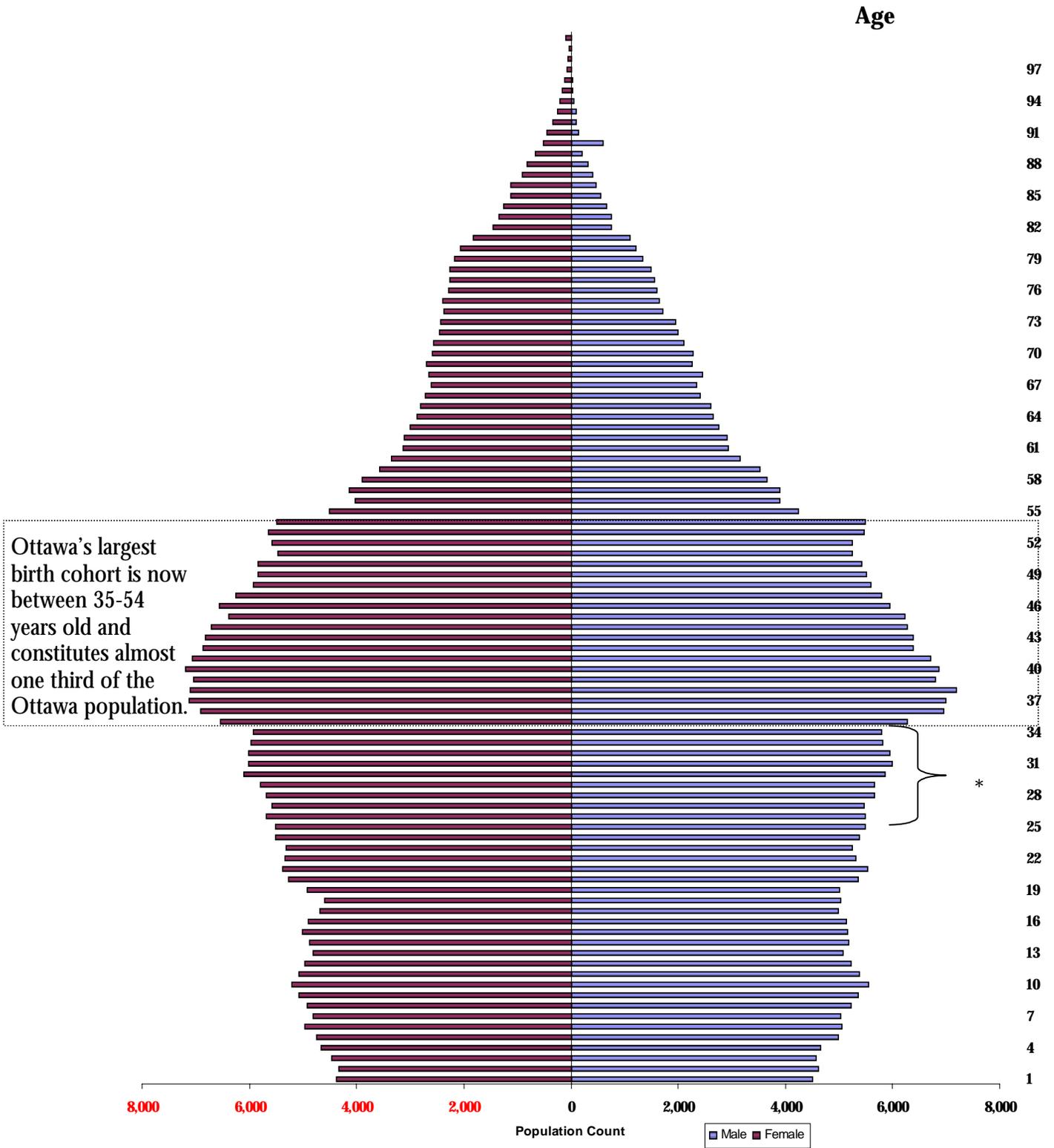
Source: Statistics Canada 2001 Census for the 2001 data and intercensal population estimates for the previous years

* The 'Total' figures may not be equal to the sum of its components due to rounding. The figures for 1991 and 1996 refer to the former Ottawa-Carleton region.

Ottawa's Population Pyramid

Over the years, Ottawa's population pyramid has changed from a triangular shaped form to a column-like structure with a bulking middle, as shown by Chart 8 (next page). This change reflects a changing society that is now characterized by lower births and increasing longevity, and that is carrying the mark of the unusual postwar population boom that occurred in the period between 1947-1966. People born in this period are now aged 35-54 years and represent one third of the Ottawa population. As this large group ages over the coming two decades, and if the current trend of declining births continues, Ottawa's population pyramid may turn upside down. The implications of this direction are far reaching and include a negative natural population growth with deaths outnumbering births.

Chart 8: The Age and Sex Distribution of Ottawa's Population, 2001



Children

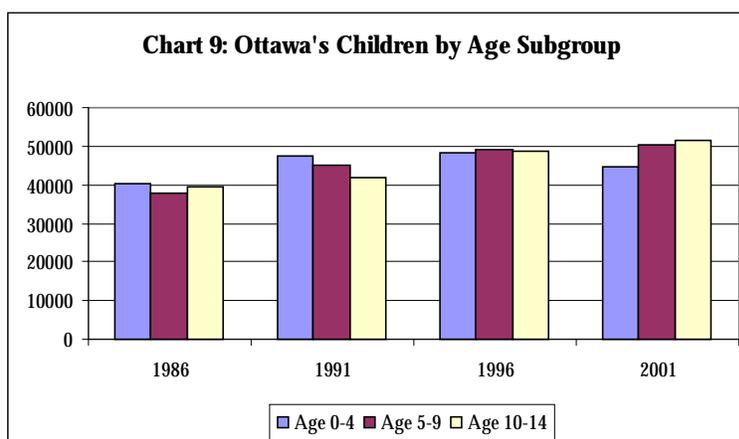
There are 146,155 children aged 0-14 in Ottawa, only 0.02 percent more than were counted in 1996. This compares to a 9 percent increase registered in the previous inter-census period (1991-1996). Data in Table 6 show large variations in the growth rate of children's age sub-groups. The 5-9 and 10-14 age groups increased by 2 and 5 percent respectively, while those aged 0-4 declined by 7 percent. The declining size of the youngest cohort reflects falling birth rates in Ottawa.

Table 6: The Structure of Ottawa's Child Population: 1991-2001

Children's Age Sub-groups	Population			% Share in Total Population		% Growth Rate	
	1991	1996	2001	1996	2001	1991-1996	1996-2001
0-4	47,575	48,164	44,585	6.68	5.76	1.24	-7.43
5-9	45,111	49,148	50,190	6.82	6.48	8.95	2.12
10-14	41,872	48,809	51,380	6.77	6.64	16.57	5.27
0-14	134,558	146,121	146,155	19.41	18.88	8.59	0.02

Although the size of Ottawa's child population has not increased, there continues to be a need for services for children. Factors such as increased numbers of lone parents resulting from an increase in divorce rates and union dissolutions; low minimum wages and increasing number of working poor with children; and lack of stability in the labour market could all increase the number of children in need of services.

At the City level, the proportion of children aged 0-14 declined by less than one percentage point: from 19.41 percent of the population in 1996 to 18.88 percent in 2001. Map 4 shows that Ottawa's children are proportionally more concentrated in West Carleton, Osgoode, and in some pockets of Kanata, Bell-South Nepean, Gloucester-Southgate, Orleans, and Baseline wards.

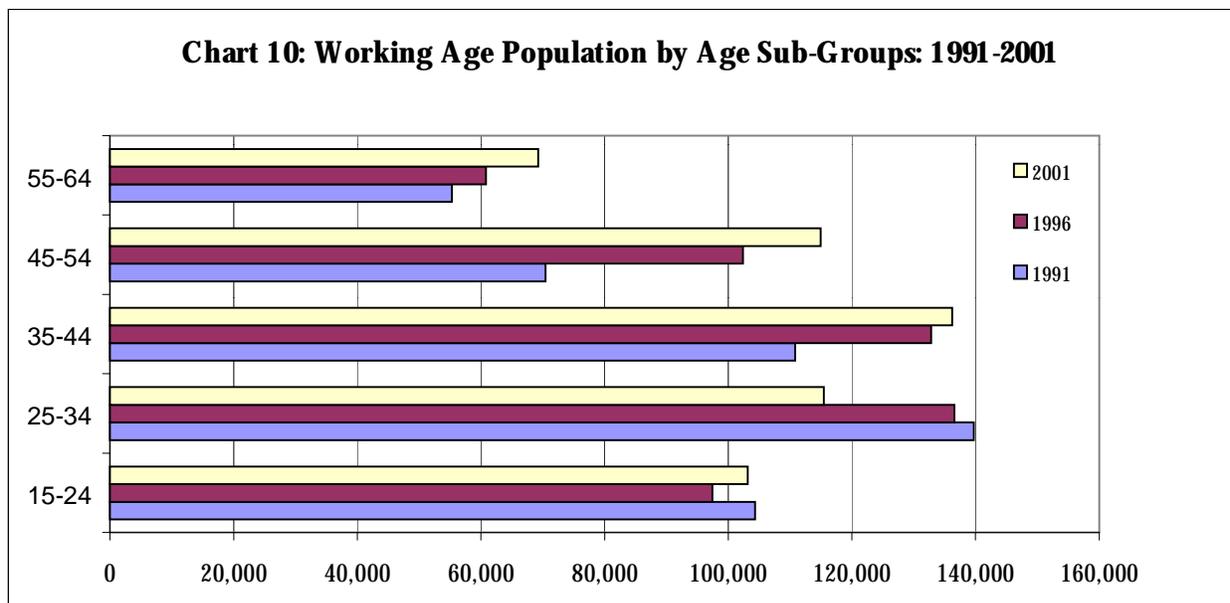


Working Age Population

Three major trends are found from the analysis of the demographics of Ottawa's working-age population (those aged between 15-64) over the last decade (1991-2001). First, the size of the group in working-age is growing at a decreasing pace: from a 10 percent growth rate over the 1991-1996 period to only 2 percent over 1996-2001 period. However, due to increased economic activities in the latter part of the 1990s and early 2001, the proportion of this group that is holding employment or seeking employment (i.e. participation rate) has increased from 69 percent in 1996 to 74 percent in 2001⁸. Consequently, as Table 7 indicates, Ottawa's labour force grew by 8 percent over the 1996-2001 period: from 367,836 to 398,819 individuals. Second, as shown in Table 5 and chart 10, there are fewer young people in the source population (those potentially available to work) than were counted in both the 1996 and 1991 censuses. Third, the sizes of older age groups are growing more rapidly than the younger groups. The following subsections will look into the trends registered for meaningfully regrouped working-age sub-groups.

Table 7: Change in the Ottawa Labour Force and its Source Population: 1996-2001

Census Year	1996	2001	5-Year % Change (unless otherwise indicated)
Working-age Population	530,023	538,945	1.68
Participation Rate (%)	69.4	74.0	4.6 (percentage points)
Labour Force	367,836	398,819	8.42



⁸ Center for Spatial Economics (Op. Cit.).

The 15-24 Year-Olds: High School and University Students

Data represented in Chart 10 and Table 5 show that the size of Ottawa's 15-24 year-old group has increased by 6 percent since 1996: from 97,412 to 103,130 individuals, whereas a 7 percent decline was registered for this age group over the 1991-1996 period. The proportion of the 15-24 year-olds in the Ottawa population has remained stable at 13 percent over the 1996-2001 period, but declined if compared to the 15 percent recorded in 1991.

This group is typically composed of high school and university students and, to a certain extent, of labour force participants. The coming releases of 2001 data on employment and income will help us understand the rate at which this group participates in the labour force, the extent to which their work is of a seasonal, part time, or full time nature, and the sectors that mainly utilize their work.

The 25-34 Year-Olds: Labour Market Entrants

The size of 25-34 year-olds, i.e. those typically at the beginning of their careers, has shrunk by a dramatic 15 percent and their proportion in the population came down from 20 percent in 1991 to 18 percent in 1996, and to 15 percent in 2001. This is the second consecutive inter-census period in which a negative growth has been registered for this age group. This trend is likely to continue in the coming years since the immediately younger cohort, those now aged 15-24, is even less numerous. This trend poses a concern of skills shortage within the Ottawa labour force in the near future when older workers retire (see Section Three of this report).

The 35-54 Year-Olds: Mid- and Late-Career Workers

This group is Ottawa's largest birth cohort and accounts for almost one third of Ottawa's population and almost half (47 percent) of the city's working age population. Born in a period of population boom (1947 to 1966), people who were in this age group in 2001 are often referred to as baby boomers. The size of the younger sub-group, the 35-44 year olds, has increased only by 2.54 percent since 1996, compared to 20 percent over the 1991-1996 period; while the older cohort has increased by 12 percent over the 1996-2001 period compared to 45 percent in the previous inter-census period.

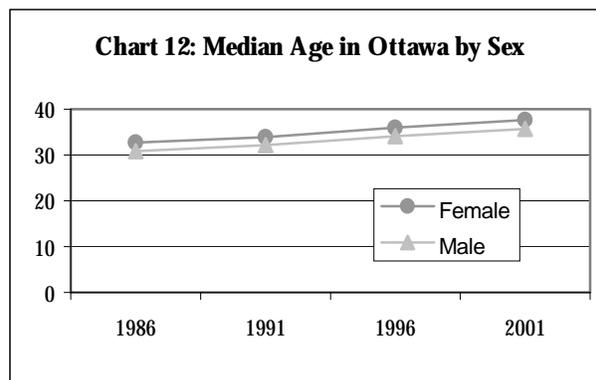
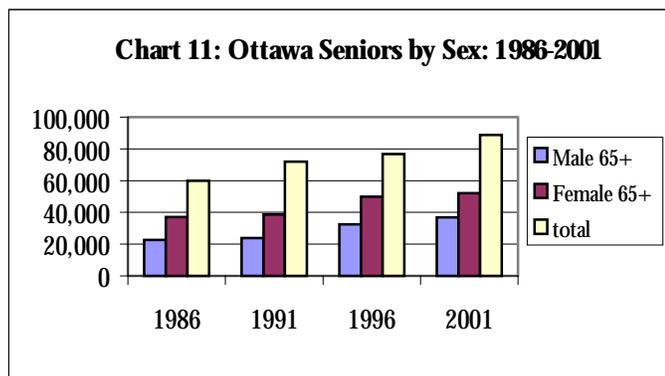
Members of this age-group are typically at the peak of their active years and usually present the highest labour force participation rate. However in ten years, the older members of this group, those now aged 45-54 years, are expected to start retiring. Given the sheer size of the group of baby boomers, reaching up to 251,131 individuals, their aging in the coming years will further accelerate the aging of both Ottawa's population and labour force.

The 55-64 Year-Olds: Pre-Retirement Group

This group represents about 9 percent of the Ottawa population and its size has grown by 14 percent since 1996 compared to the 10 percent growth rate registered for the period between 1991-1996. The 55-64 year-olds constitute the second fastest growing population segment in Ottawa, after those aged 65 and over. The growth rate of this group is expected to accelerate over the coming decade as the baby boomers join their ranks.

Seniors and the Aging of the Population

Seniors constitute the fastest growing population group in Ottawa. The number of seniors (individuals aged 65 and over) has increased by 16 percent since 1996: up from a 7 percent increase over the 1991-1996 period. The proportion of seniors in the population, however, increased only slightly from 10 per cent to 11.5 percent, as the size of the population has also increased. Seniors' longevity has also increased over the past decades.



The increasing size of the senior population, combined with gains in longevity and a declining number of births has all contributed to the aging of the population. The median age of the Ottawa population, one of the indicators of population aging, has been increasing steadily over the years and now stands at 36.7, 1.7 years older than the 1996 median age of 35, and about 1 year below the national median age of 37.6. This means that half of Ottawa's population is older than 36.7. It is believed that, other things being equal, when the median age of a given population reaches 40-45, the number of deaths will outnumber the number of births, thus the natural growth of the population will start to be negative⁹.

Other indicators of an aging population include the aging index, which relates the number of seniors to the number of children. This indicator (the number of seniors per 100 children) has increased from a measure of 53 in 1991 to 61 in 2001. This increasing trend is expected to continue over the coming years as the size of the seniors group is growing at a much faster pace than that of children.

Map 5 reports the proportion of seniors by census tracts within Ottawa's wards. Data show that seniors are proportionally more concentrated in the city's urban core, namely in some pockets of Alta Vista, River, Bay, and Beacon Hill-Cyrville.

⁹ Statistics Canada: 2002e.

Gender Imbalance

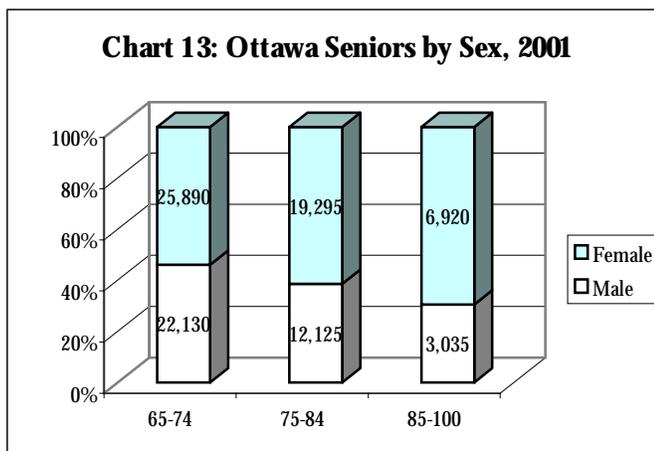
Ottawa's sex ratio has remained stable since 1996, however, women are proportionally more numerous in older age groups. Chart 13 shows that women constitute nearly 60 percent of the 75-84 year olds and 72 percent of those beyond 84 years of age. The older age among women is also reflected by a higher median age (37.6 compared to 35.7 for men) and higher female sex ratios for older age groups. Table 6 reports the female sex ratio (the number of females per hundred males) for the various age groups.

The higher proportion of women among the senior population is due to a considerable gender differential in life expectancy. In Canada, women are expected to live four years longer than men do. However, as Statistics Canada reports, only one out of these four years is expected to be without disability¹⁰.

Table 8: Ottawa's 2001 Population by Age-groups, Sex, and the Female Sex Ratio

Age Groups	Male	Female	Number of Women per 100 Men
0-14	74,700	71,445	96
15-24	52,180	50,945	98
25-34	57,175	58,275	102
35-44	66,845	69,370	104
45-54	55,955	58,960	105
55-64	33,635	35,595	105
65+	36,895	52,100	145
85+	3,035	6,925	228
100+	10	95	950

Ottawa's elderly women tend to live alone or to reside in nursing and retirement homes and they tend to outlive their partners. The Council on Aging reports that more than 75 percent of nursing and retirement home clients are women and that 40 percent of senior women in Ottawa live alone (Council on Aging of Ottawa: 2002). Moreover the economic conditions of senior women are worse than that of senior men. The National Council on Welfare reports that while poverty among seniors is declining in Canada, the poverty rate among senior women is increasing (National Council on Welfare: 2002).



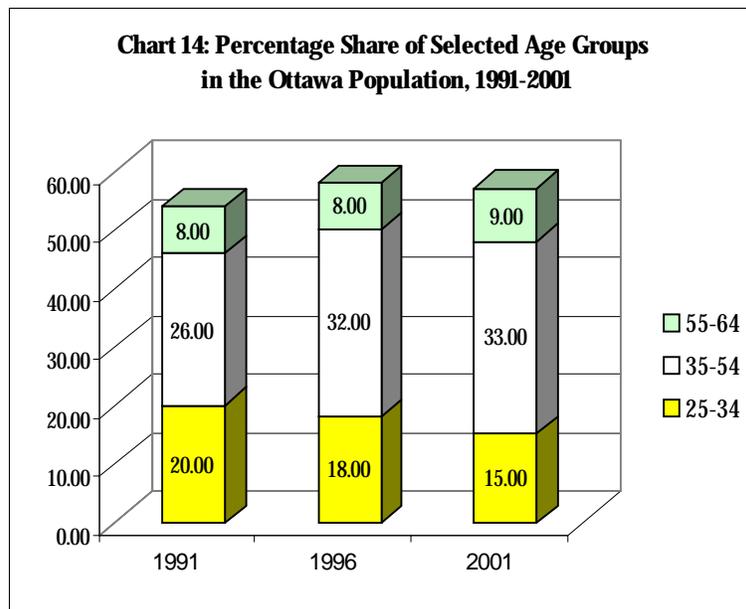
¹⁰ Statistics Canada: 2002f.

V. SECTION THREE: IMPLICATIONS OF OTTAWA'S DEMOGRAPHICS

The age-sex composition of the Ottawa population has important economic and socio-demographic implications. Demographers use the simple fact that people tend to act according to their ages as an analytical framework for gauging the implications of the current and projected age composition of a given population. Typically, a 15-year-old goes to school, a 70-year-old is retired and a 40-year-old is in his/her mid-career. As the absolute and relative size of a given age group increases or declines, the effect of their typical behavior can be expected to either increase or decrease. The following subsections describe some of the implications of the demographic trends identified in the previous sections.

Labour Market and the Economy

Some of the trends identified in the previous sections have important implications for the labour market and the economy: the aging of the population, the declining growth rate of working age population, and the marked decline of the pool of labour market entrants. The combination of these trends, which are also identified at the national level (Pereboom et al 1999; Foot et al 1998), raises the concern that shortage of workers may be imminent. The baby boomers start leaving the workforce in ten years. If the pool of labour market entrants (those aged 25-34) is not sufficient to replace them, then a shortage of workers may ensue. Such shortage may not, however, affect all the sectors of the economy in the same way.



The age composition of the different sectors' workforce varies greatly and some sectors may be better equipped and inherently more prone than others to substitute workers with technology. Moreover, the impact of an eventual shortage of workers may be attenuated or enhanced by the inflow of newcomers to Ottawa (i.e. new immigrants and in-migrants from other parts of Canada). Statistics Canada posits that the youngest cities in Canada are those who attract people from other parts of Canada since people who migrate are usually in their early adulthood.

On the other hand, some demographers suggest that new immigrants have little impact on the age-structure of Canada's population because the average age of new immigrants to Canada, although younger than that of Canadians, is increasing. Therefore, using the presumption that 'people act their age', and with the increasing average age of immigrants, one may be tempted to conclude that an increasing relative importance of immigration as a source of population growth would have little effect on attenuating the imminent shortage of workers. However, due to the unusual difficulties experienced by immigrants in accessing the labour market, the usual demographers' framework of analysis may not be appropriate to measure the impact of new immigrants on labour supply in Ottawa. Further research is needed to develop new tools of analysis that take into consideration the alterations in immigrants' life cycle experiences as well as their concentration in specific sectors of

the economy. Equipped with such tools, this research should monitor how Ottawa's demography affects the economy and how the various sectors of the city's economy are affected.

Another pathway through which the identified trends of an aging population and shrinking pool of labour market entrants may affect the labour market and the economy is through their impact on skill development, per capita income, self employment, and savings. A recent study on the relationship between demographic factors and skills development, commissioned by Industry Canada's Expert Panel on Skills, has identified that an aging workforce would lead to:

1. An increased human capital derived from longer experiences;
2. A higher income per capita as older workers typically earn more than younger workers; and
3. Loss of flexibility due to the lower mobility of older workforce both geographically and sectorally.

Other economic impacts of an aging population include higher savings and an increased self-employment as more and more workers accumulate the necessary resources and experience to pursue their professional interest.

Dependency Ratio and the Demand for Social Services

Ottawa's total dependency ratio has increased from a measure of 42 in 1996 to 44 in 2001. This means that for every hundred working-age people, there are forty-four children and seniors. The dependency ratio will inevitably increase over the coming two decades as the baby boomers join the ranks of the senior population. An increasing dependency ratio will trigger a higher demand for public services, the cost of which will be borne by a proportionally diminishing workforce¹¹. Moreover, families will likely face more pressure to care for children and the elderly at the same time. Social services such as childcare support and home care for the elderly will be necessary to assist families to meet this increasing demand. Family support interventions (financial) will also help avoid a potential increase in the number of casual and part time workers and a consequent rise in the level of poverty in Ottawa.

Seniors in older age groups are more likely to require public health assistance. Statistics Canada reports that 82 percent of those aged 85 and over live with disability compared to only 32 percent of those aged between 65-74¹². In Ottawa, 8,935 residents are now older than 84, but the city's facilities are not keeping up with the needs of this increasing segment of the population. The Champlain District Health Council reports that the provision of Complex Continuing Care beds declined by 46 percent in Ottawa. This current deficit and the expected acceleration of the growth rate of Ottawa's senior population underline an urgent need to put in place more senior assistance programs and services.

Conversely, the size of Ottawa's child population is not growing, while the number of the 0-4 year-olds is declining. This trend, which reflects the declining number of births in Ottawa, only seemingly suggests that there will be less demand for early childhood services in the future. Other socio-economic factors such as the number of lone parents, the size of the working poor population with children, and lack of stability in the labour market may increase the number of children in need of targeted services. Moreover, there already exist shortages in such targeted services.

¹¹ Increasingly more senior people stay gainfully employed after they reach 65 years. Statistics Canada relates this trend to the increasing levels of education, which delays the retirement age.

¹² The Social Planning Council of Ottawa: 2000a

The Social Planning Council of Ottawa's research has identified a significant shortage of childcare facilities and services in Ottawa¹³. In the year 2000, only 6.5% of Ottawa's children had access to subsidized childcare¹⁴.

Demographic Trends and Housing in Ottawa

The number of dwellings¹⁵ in Ottawa has increased by 33,637 units over the 1996-2001 period, representing a growth rate of almost twice as much as the city's population: 12 percent versus 7.3 percent respectively. (See Map 6 for the geographic distribution of Ottawa's dwellings.) Yet, housing pressures persist. This is partially explained by a change in Statistics Canada's dwelling enumeration methodology in such a way that the Agency may now count already existing seasonal dwellings not counted in 1996, resulting in an overestimation of the number of *new* dwellings. Moreover, the size of the existing stock of housing is but one of many elements that must concord in order to bring the housing market to an equilibrium. Other elements such as the affordability and appropriateness of the existing units are also relevant. In other words, if the existing housing units are not of the type required or demanded by residents, imbalances between the supply of and demand for housing would arise, despite a large stock of housing, exacerbating the current housing crises. Moreover, Ottawa's housing requirement is changing due to changes in the city's demography. The following paragraphs will discuss how the demographic trends identified in the previous sections of the report may affect residents' demand for housing.

Obviously as the size of the population increases, the housing demand increases. However, the extent to which a given population growth affects the housing demand is determined by residents' living arrangements and family structures, which in turn translate into a given number and types of households. The rate at which households are formed and what kind of households these are constitute the most important determinants of housing requirements. Prominent among the demographic factors affecting household formation patterns are the age and ethnic composition of the population, notwithstanding the existing social norms and economic conditions.

Housing demographers use cohort analysis indicating changes in housing consumption throughout individuals' life stages in order to measure how a given population's age structure affects housing demand¹⁶. Typically, people in their early 20s start forming independent households, mainly single or non-family households, and mostly consume renter housing. In their 30s, individuals start forming families, and income permitting, start owning their homes. Individuals in age groups beyond 65 exhibit an increasing propensity to live in small-sized households and demand rental units¹⁷. As the Ottawa population ages further over the coming decades, the age distribution of the Ottawa population will shift away from prime family-forming age groups to older age groups, leading to an increase in the number of non-family households.

¹³ The Social Planning Council of Ottawa: 2000c.

¹⁴ The Social Planning Council of Ottawa 2001a

¹⁵ Statistics Canada defines a private dwelling as "[...] a set of living quarters designed for or converted for human habitation in which a person or group of persons reside or could reside. In addition, a private dwelling must have a source of heat or power and must be an enclosed space that provides shelter from the elements, as evidenced by complete and enclosed walls and roof and by doors and windows that provide protection from wind, rain and snow."

¹⁶ Foot et al: 1996; Masnick 2001; Canadian Home Builders' Association: 2000

¹⁷ Baxter et al: 2002

In 1996, almost one third of the households in Ottawa were of the non-family type and mainly single individuals living alone¹⁸. Arguably, this trend continued over the 1996-2001 period, in which the city has experienced a phenomenal economic growth that, on the one hand, may have attracted young professionals from other parts of Canada and, on the other, enabled a number of young individuals to leave home early. Moreover, the social determinants of household formation, i.e. declining and delayed marriages and more frequent marriage and union dissolutions, are of a structural nature and are expected to continue over the coming years.

The increasing relative importance of immigration as a source of population growth and the consequent growth of the size of both the foreign-born and the visible and ethnic minority population in Ottawa may change the number and types of households in Ottawa. Immigrants in Ottawa may have different housing preferences and their social and economic conditions may differ from the mainstream population, resulting in a different rate of household formation and tenure options (ownership and renting tenants). Further research is needed to provide a more formal and rigorous analysis of the impact of Ottawa's demography and ethnic composition as well as citizenship/ immigration status of residents on the City's housing market.

In the short term, a highly unmet demand puts pressure on the housing prices. Higher prices in turn compromise the affordability of the existing housing for the city's low-income population, thereby increasing the demand for social housing. As of December 31, 2001, there were 13,351 households on Ottawa's social housing waiting list¹⁹ with the average waiting period ranging between 5 to 8 years²⁰. Ottawa-Gatineau's New Housing Price Index, which is an index of contractor's selling price and an indicator of the pressure exerted on the housing market, has increased by 8.2 percent during the period between June 2001 - June 2002, representing the highest 12-month increase in Canada. Moreover, Ottawa has also recently experienced the lowest vacancy rates in Canada.

It should be noted that any imbalance between the supply of and demand for housing in Ottawa is due to a combination of demographic, social, and economic factors, as well as to the existing regulatory frameworks. This subsection sought only to sketch how Ottawa's demography may affect the housing needs in the City.

Charitable Giving

The tendency to give to charity and volunteer increases with age²¹. At the national level "Nine percent of individuals under 25 made donations compared to 33 percent of those aged 35-44" and "the average donation of the 15-25 group was \$166 compared to \$800 of the 55 and over group" (Foot et al, 1998). Further research is required to investigate the Ottawa data over time in order to get an understanding of how the city's demographic structure affects charitable giving and volunteering.

¹⁸ Social Planning Council of Ottawa: 1999

¹⁹ Social Housing Strategists, City of Ottawa Local Policies in Social Housing Municipal Standards for Social Housing Local Rent Geared-To-Income Eligibility Rules Co-ordinated Access Review, October 9, 2002. pg. 24.

²⁰ Social Planning Council of Ottawa: 2001a

²¹ Foot et al: 1998

VI. GLOSSARY

Aging of the Population: An increase in the proportion of older persons in the population.

Aging Index: The ratio of the number of persons aged 65 and over to the number of persons under 15, expressed per 100.

Baby Boomers: Persons born between 1947-1966.

Census Tracts: Defined by Statistics Canada as small and relatively stable geographic units, drawn within large urban centres with a population of 50,000 or more, and containing a population count of 2,500 to 8,000 individuals.

Cohort: A group of individuals who go through the same experience during a specified period of time. For example, there are birth cohorts, immigration cohorts, marriage cohorts...etc..

Demography: A branch of social sciences, focusing on the study of human populations, their composition and change (through births, deaths, and migration) and their relationship with social and economic changes.

Dependency Ratio: The ratio of children (under 15) and seniors (those aged 65 and over) to the working age population.

Dwellings: Defined by Statistics Canada as '[...] a set of living quarters designed for or converted for human habitation in which a person or a group of persons reside or could reside. In addition, a private dwelling must have a source of heat, enclosed walls, roof, doors and windows that provide protection from the elements.'

Fertility Rate: Number of births per 1000 women aged 15-49. **Total Fertility Rate** is the average number of children a woman can expect to have over her lifetime.

Gender Imbalance: Imbalance between the proportion of men and women in the population or in a given age group.

Immigrants: People not born in Canada.

International migration: Movement of people between countries of the world involving a permanent change of residence. **Net International Migration for Ottawa** is the difference between the number of persons moving out of Ottawa to the rest of the world and the number of people moving into Ottawa from the rest of the world.

Intra-regional Migration: Movement of people between localities in a given region.

Internal Migration: Movement of people between Canadian municipalities, cities, townships and villages. **Net Internal Migration for Ottawa** is the difference between the number of people who move out of Ottawa to other parts of Canada, and the number of people moving from other parts of Canada into Ottawa.

Labour Force: Persons who are either employed or unemployed but seeking employment.

Life Expectancy: The average number of additional years a person of certain age could expect to live if current mortality levels observed for ages above that person's age were to continue for the rest of that person's life. **Life expectancy at birth** is the average number of years a newborn would live if current age-specific mortality rates were to continue.

Median Age: The central age of the population. Half of the population is older than the median age, and the other half is younger.

Natural Growth: A change in the size of a population over a given period of time that results from the difference between the number of births and the number of deaths that occurred during that period.

Participation Rate: The percentage of the working age population that is in the labour force. It is also usually calculated for specific age groups.

Population Flow: Movement of people between two geographic locations.

Population Growth Rate: A change (either positive or negative) in the number of persons in the population during a certain period of time, expressed as a percentage of the population at the beginning of the time

Population Pyramid: A type of bar chart showing the distribution of a given population by age and sex.

Rural: Defined by Statistics Canada as geographic areas with less than 1,000 population and with a population density below 400 inhabitants per square kilometer.

Sub-urbanization: A geographic redistribution of the population, whereby the proportion living in the suburban area increases.

Sex Ratio: The number of males per one hundred females in a population. The sex ratio may be calculated for the whole population or for a specific age group. **Female Sex Ratio:** is the number of females per one hundred males.

Trend: A defined predictable direction of events. For example the aging of the population is identified to be increasing.

Urban Area: Defined by Statistics Canada as geographic areas with at least 1,000 population and with a population density of at least 400 inhabitants per square kilometer.

Urban Fringe (or suburban area): Defined by Statistics Canada as small urban areas that are not adjacent with the urban core of a census metropolitan area (CMA) or census agglomeration (CA).

Working-age Population: Persons aged between 15-64.

Ward: An administrative subdivision of the City of Ottawa.

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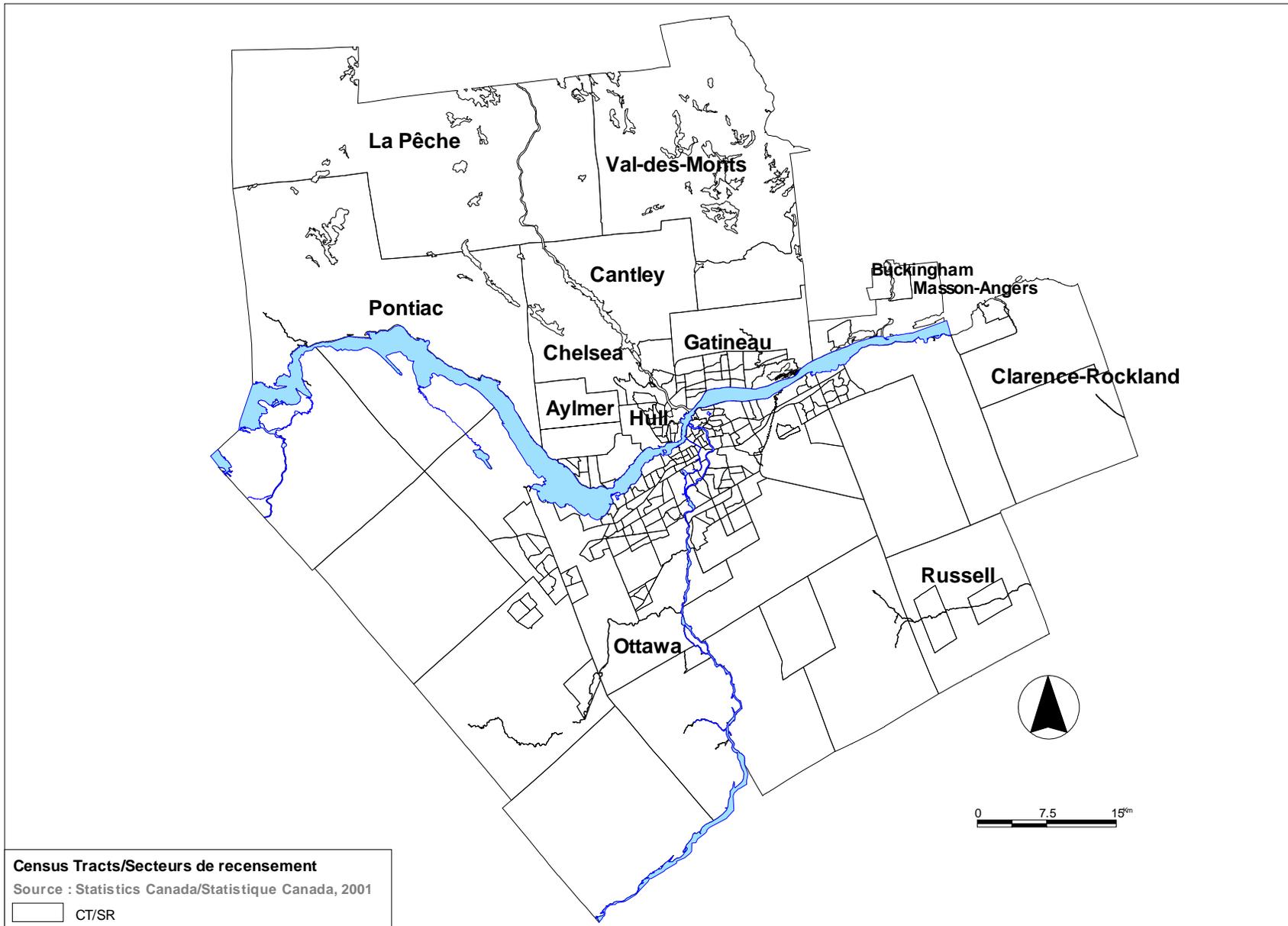
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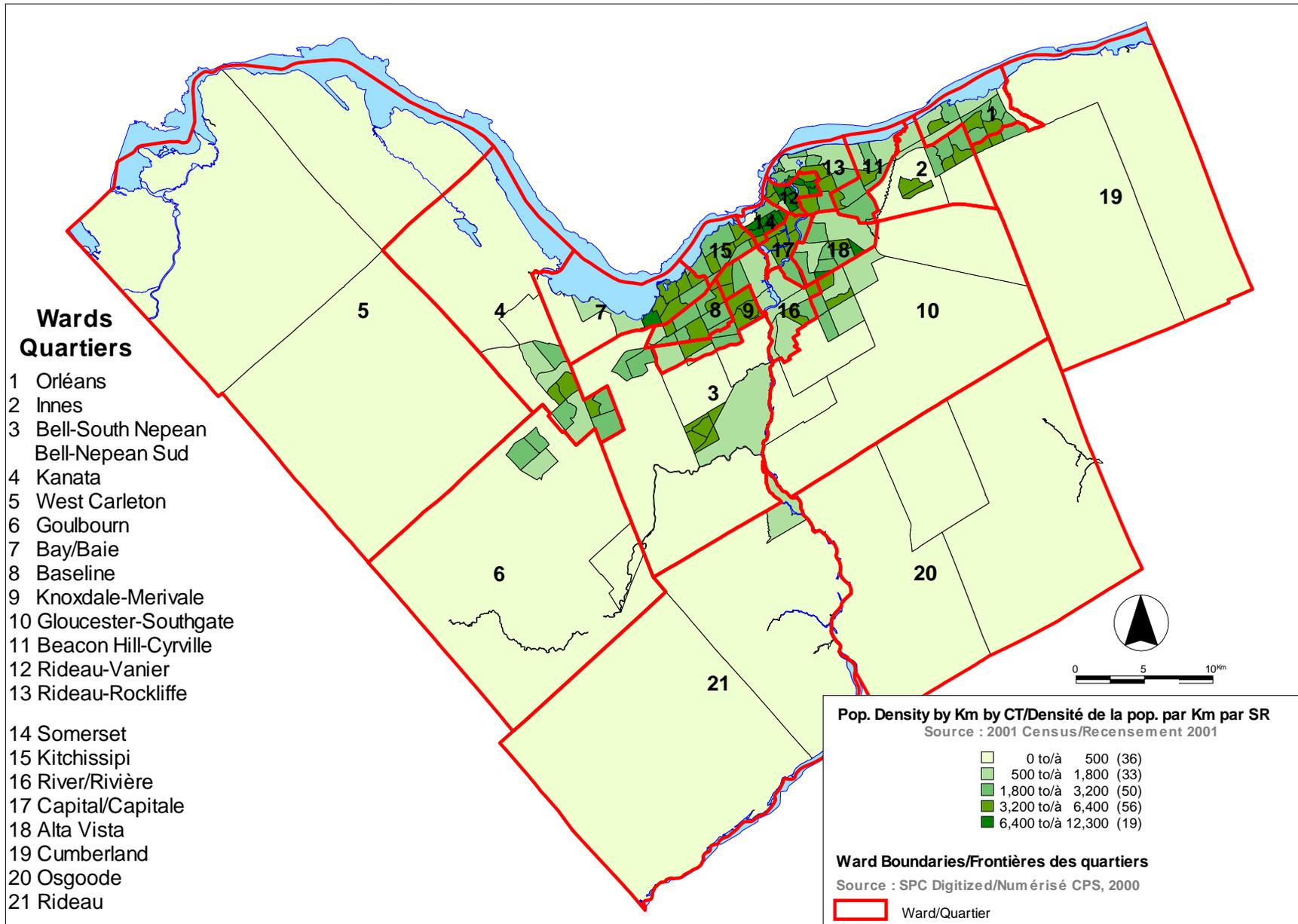
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Ottawa-Hull Census SubDivisions and Census Tracts
Subdivisions de recensement et secteurs de recensement d'Ottawa-Hull



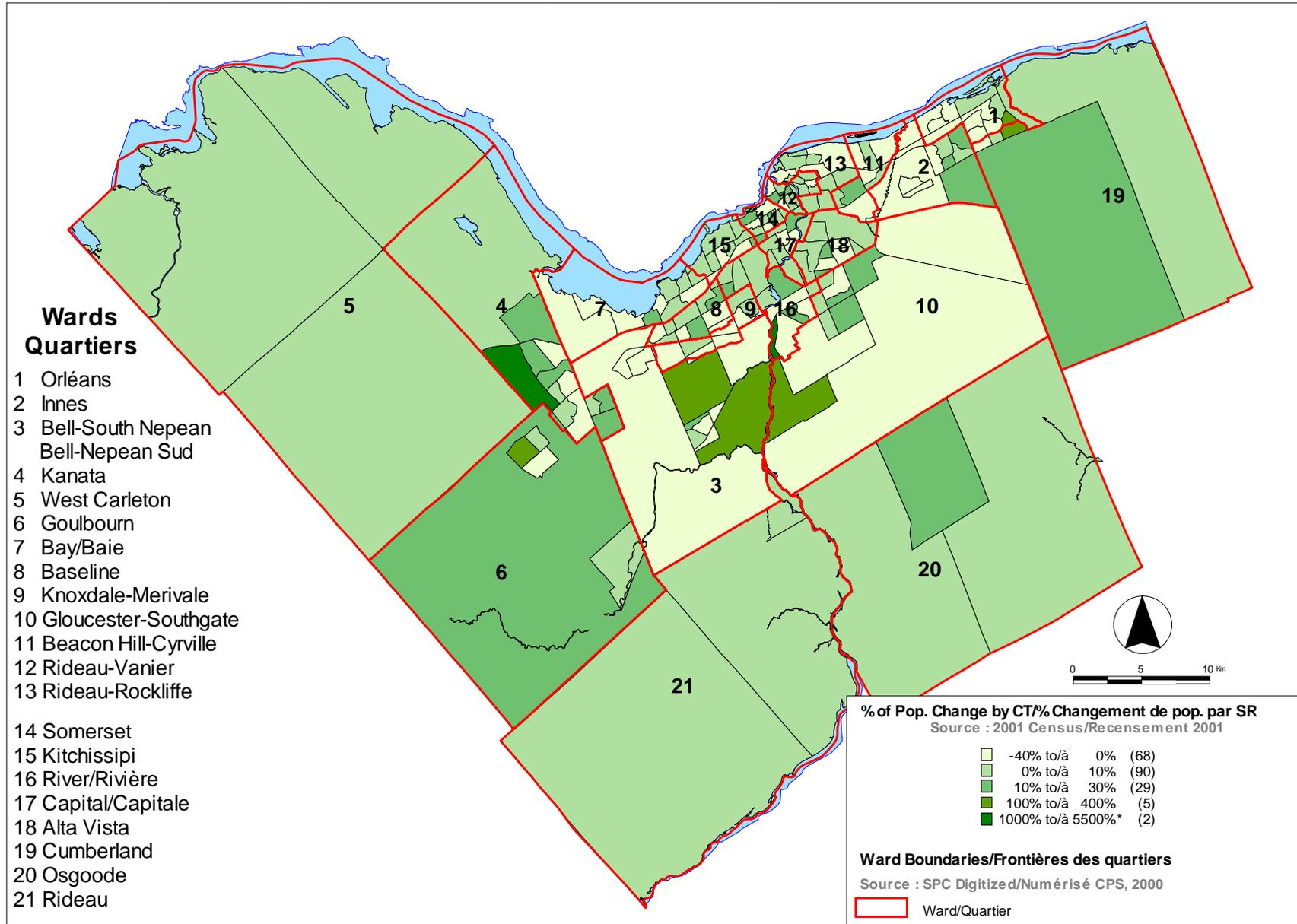
Map produced by the Social Planning Council of Ottawa a/ Carte produite par le Conseil de planification sociale d'Ottawa, 08/2002

2001 Population Density in Km by CT in Ottawa with Wards
Densité de la population en Km en 2001 par SR à Ottawa avec les quartiers



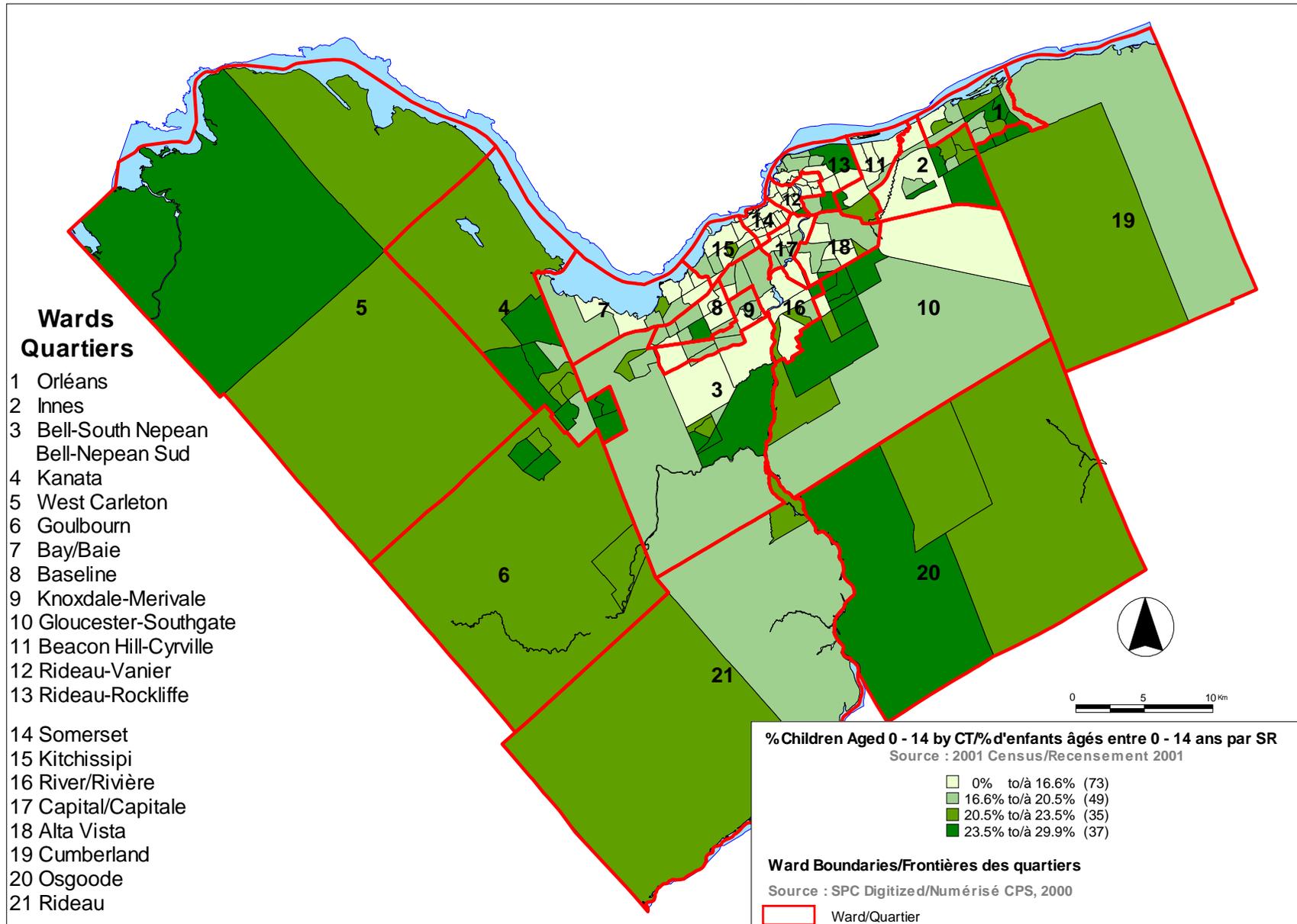
Map produced by the Social Planning Council of Ottawa a/ Carte produite par le Conseil de planification sociale d'Ottawa, 08/2002

Population Change in Ottawa's Wards By Census Tract : 1996 - 2001
Changement de population dans les quartiers d'Ottawa par secteur de recensement : 1996 - 2001

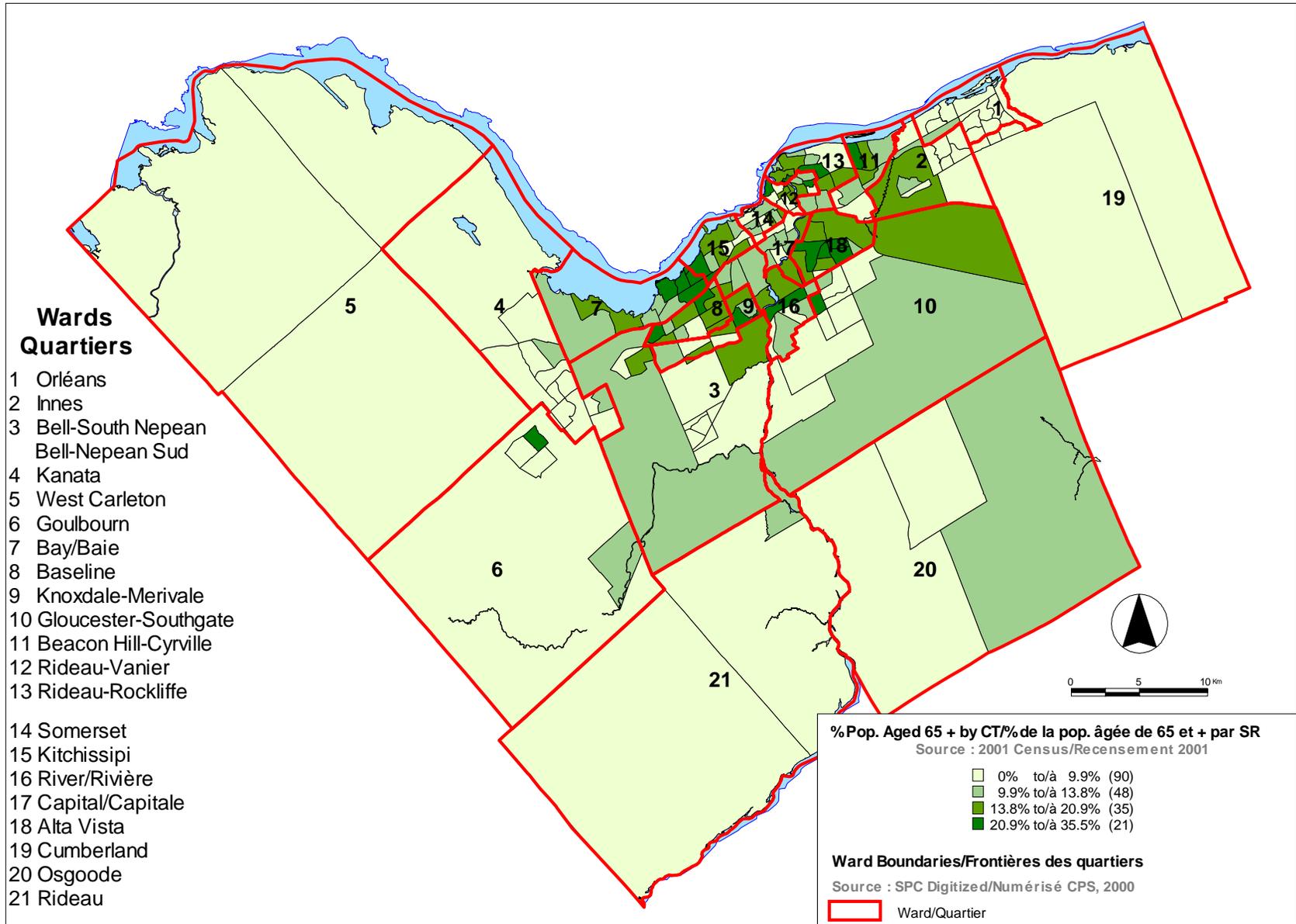


Map produced by the Social Planning Council of Ottawa / Carte produite par le Conseil de planification sociale d'Ottawa, 08/2002

% 2001 Children Aged 0 - 14 in Ottawa by CT with Wards
% des enfants de 0 à 14 ans en 2001 à Ottawa par SR avec les quartiers

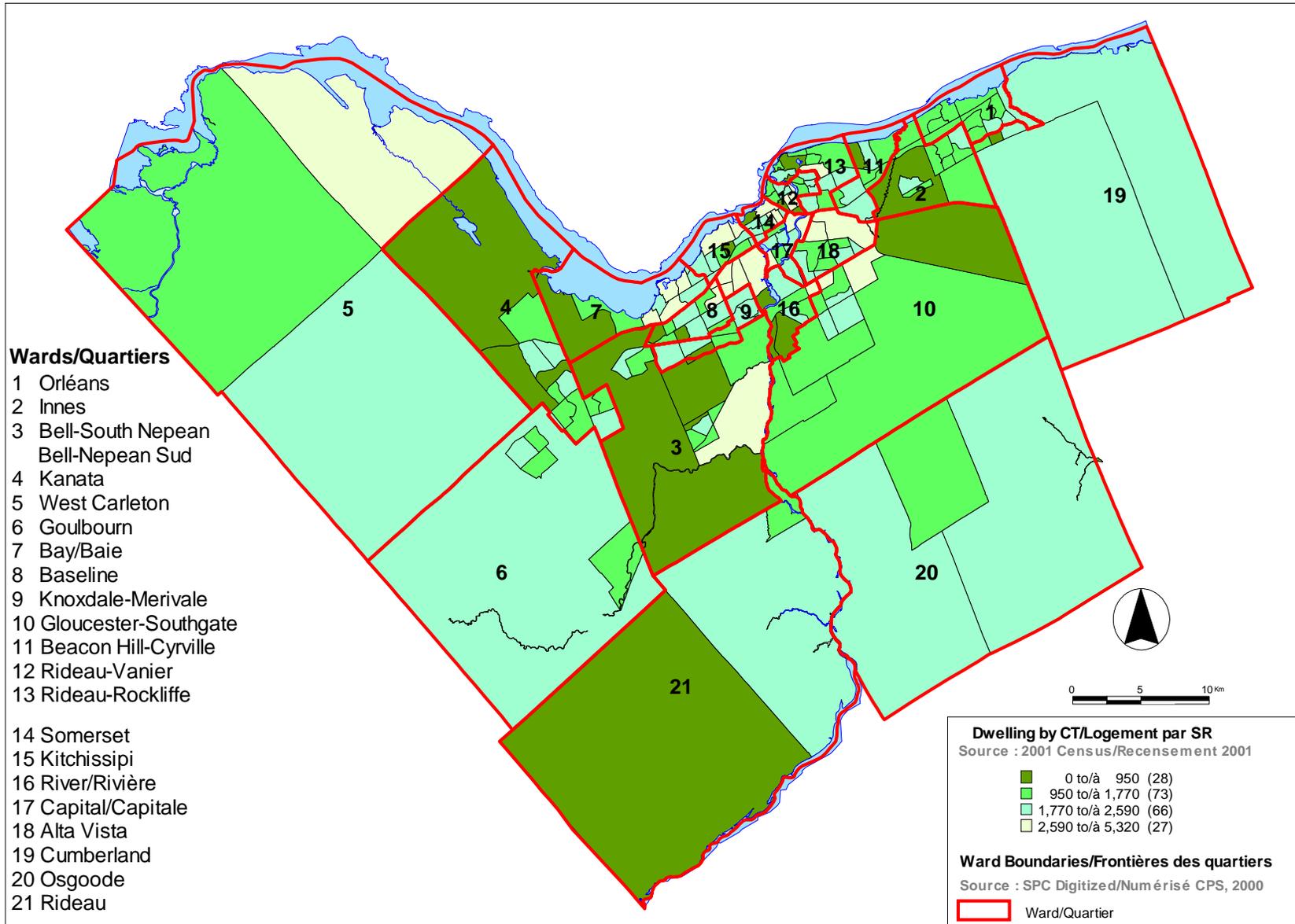


% 2001 Pop. Aged 65+ in Ottawa by CT with Wards
% de la pop. âgée de 65 ans et + en 2001 à Ottawa par SR avec les quartiers



Map produced by the Social Planning Council of Ottawa a/ Carte produite par le Conseil de planification sociale d'Ottawa, 08/2002

2001 Dwellings in Ottawa's Wards By Census Tract
Les logements en 2001 dans les quartiers d'Ottawa par secteur de recensement



Map produced by the Social Planning Council of Ottawa a/Carte produite par le Conseil de planification sociale d'Ottawa, 08/2002