

**Are Ontario Cities at a Competitive Disadvantage
Compared to U.S. Cities?**

A Comparison of Responsibilities and Revenues in Selected Cities

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Are Ontario Cities at a Competitive Disadvantage Compared to U.S. Cities? A Comparison of Responsibilities and Revenues in Selected Cities¹

The crucial role played by cities and city-regions in the economic competitiveness of Ontario and Canada has been emphasized in a number of recent studies (see, for example, FCM, 2001, Courchene, 2001, and the Task Force on Competitiveness, Productivity and Economic Progress, 2002). In its First Annual Report, the Task Force on Competitiveness, Productivity and Economic Progress documents the prosperity gap between Ontario and a peer group of U.S. states. It concludes that improved productivity (the ability of individuals, firms, and governments to create value from knowledge, resources and effort) is key to closing that gap. Large city-regions are increasingly important to achieving economic prosperity because of three factors in urban areas that improve productivity. First, the close proximity of people and firms increases interaction and the resulting exchange of ideas spurs innovation. Second, economies of scale in large city-regions reduce unit costs so that firms can supply other cities and regions in a cost-effective manner. Third, cities have a greater concentration of skilled workers to attract firms who are looking for a diversified labour pool. Cities also provide more opportunities for individuals who are seeking employment in specialized fields.

Gertler et al. (2002) also emphasize the importance of urban centres to prosperity. The authors argue that creativity has replaced locational factors such as proximity to raw materials or geographic advantage as the critical factor in economic growth. To be successful in this new economy, city-regions have to “develop, attract and retain talented and creative people who generate innovations, develop technology-intensive industries and power economic growth” (Gertler et al., 2002, p. 1). Creative people are attracted to cities characterized by diversity, tolerance, a lively arts scene, recreational opportunities, the quality of public schools, and safety from crime (Florida, 2000).

In this context, there is a major role for municipal government in providing the services that attract, support, and retain firms and knowledge workers. These services not only include “hard” services such as roads, water, and sewers but they also include “soft” services that enhance the quality of life in the city. These services include, for example, parks, recreational facilities, and arts and cultural facilities. Municipalities also enact by-laws that affect living and working conditions and help a lively arts scene to flourish.

Are Ontario cities competitive? Can they provide the services needed to attract and retain businesses and the knowledge workers at a reasonable cost? Recent studies of Canadian

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cities suggest that they do not have sufficient resources to provide services and infrastructure needed to be competitive (FCM, 2002, Berridge, 2000, Vander Ploeg, 2002). These studies conclude that while Canadian cities rely very heavily on the property tax to finance local services, U.S. cities have access to more diverse revenue sources, including, for example, sales and income taxes. It has also been suggested that U.S. cities receive more funds from the federal and state governments than do Canadian cities and this money allows them to provide the infrastructure needed to be competitive.

This study addresses one aspect of the competitiveness of Ontario cities relative to their U.S. counterparts by comparing expenditure responsibilities and revenue-raising tools of selected cities in Ontario and the U.S. Expenditures are important to the extent that they reflect the nature and level of services provided by cities to attract the knowledge workers. Tax rates are important to the extent that they have an impact on the location decisions of businesses and workers. Other revenue sources (such as user fees and intergovernmental transfers) have an impact on the ability of cities to provide services and also on the level of taxes. Although some conclusions are drawn in this paper about municipal expenditures and revenues, these findings do not give any indication of the quality of the services or the state of the infrastructure, however.

The study is organized as follows:

- The first section focuses on the methodology for comparing revenues and expenditures across jurisdictions and explains some of the problems inherent in these comparisons.
- The second section compares expenditure responsibilities in selected Ontario and U.S. cities. This section begins with a discussion of the division of responsibilities between cities and counties in the U.S. and the extent to which some services are provided by separate utilities. It then compares expenditures across selected cities in Ontario and the U.S.
- The third section compares revenue-raising tools of selected Ontario and U.S. cities by showing their reliance on various taxes, user fees, and intergovernmental transfers.
- The fourth section focuses on differences in residential and non-residential property taxes among the selected cities.
- The fifth section addresses the implications of the findings on expenditures, revenues, and property taxes for the competitiveness and prosperity of Ontario cities.
- The sixth section provides a summary of the findings of the paper and some conclusions.

I. Comparing Municipal Revenues and Expenditures in Selected Cities in Ontario and the U.S.

Many of the studies that compare municipal finances among jurisdictions do so on an aggregate level. For example, they compare the reliance on property taxes for Canadian local jurisdictions in total with that of U.S. local jurisdictions in total and conclude that Canadian cities rely more heavily on the property tax than U.S. cities and are thus at a competitive disadvantage. Although this type of comparison gives a broad indication of differences, on average, for U.S. cities, it is far too general to be useful in comparing specific Ontario cities with their competitors in the U.S. A more detailed analysis is required to understand differences between specific local jurisdictions in both countries. Toronto, for example, is not competing with all U.S. local jurisdictions regardless of their location. Moreover, there is not much value in comparing a large Canadian city like Toronto with a small U.S. city or even with a small Canadian city since the expenditure requirements and the ability to raise revenues are different for large cities and small cities.

This study compares expenditure responsibilities and revenue-raising tools in selected large and medium-sized cities in Ontario and the U.S. The largest city in Ontario is Toronto and it is compared to the largest city in each of the following five states: California, Georgia, Illinois, Massachusetts, and Michigan. These states were selected to coincide with those that were chosen by the Task Force on Competitiveness, Productivity and Economic Progress (2002) as outlined in their First Annual Report. The largest cities in those states are: Los Angeles, Atlanta, Chicago, Boston, and Detroit.

The medium-sized city selected in Ontario is London. It is compared to cities in each of the five U.S. states noted above. The following medium-sized U.S. cities were selected: Fremont (California), Augusta (Georgia), Rockford (Illinois), Worcester (Massachusetts), and Grand Rapids (Michigan). These cities were chosen because they are comparable in size to London, they are located outside the metropolitan area of the largest cities, and data were available from public sources.

It needs to be emphasized at the outset that, although every effort has been made in this study to ensure that the information on expenditures and revenues is reasonably comparable in the Ontario and U.S. local jurisdictions, some differences do remain.² Some of the problems in comparing expenditure and revenue data include the following:

- The sources of information are different so, not surprisingly, the definitions of specific categories are different. The information on local government revenues and expenditures in this paper is from two sources. For U.S. cities and counties, information is from the U.S. Bureau of the Census. For Ontario cities, information is from the Financial Information Returns (FIRs) of municipalities that are

² Appendix A provides a detailed discussion of the methodology used to compare expenditures and revenues in Ontario and U.S. jurisdictions. Appendix B provides information on the adjustments made to the data for the purpose of this study.

compiled by the Ontario Ministry of Municipal Affairs and Housing. Although the comparisons are generally consistent within Ontario and within the U.S., there are major differences in the data between them. For this reason, adjustments have been made to the data in an effort to make them more comparable.

- Information is recorded in different ways in different cities. One example is utilities (such as water, transit, and power). In some municipalities, revenues and expenditures of utilities are consolidated with local government financial information; in other cases, they are treated separately. For example, public transit is run as a utility in most cities but in some cities the revenues and expenditures are consolidated with city revenues and expenditures (such as in Toronto). In other cities, only the subsidy from the city to the transit utility is included as a city expenditure (such as in Los Angeles). These expenditures are shown separately in the tables in this study because they are not strictly comparable.
- The treatment of employee retirement revenue is different in the Ontario and U.S. local jurisdictions. U.S. jurisdictions record employee retirement revenue and expenditures as part of the local government budget. In Ontario, municipal employees make their retirement contributions to and receive benefits from OMERS and not the local governments that they work for. This means that employee retirement revenue is not included in the financial information for Ontario cities but it is included for U.S. cities. To be comparable, employee retirement revenue and expenditures have been excluded from the U.S. data.
- The municipalities selected in Ontario (Toronto and London) are both single-tier municipalities. This means that these cities provide all local services (except for education). In the U.S. cities selected, local services are provided by the city and, in some cases, the county in which that city is located. To be comparable with Ontario cities, county expenditures have been included on a per capita basis.³ The boundaries of cities and counties overlap but they are not generally coterminous. For this reason, it was necessary to assume that the average per capita expenditure for the county is spent in the selected city within each county. This assumption does not take into account any redistribution that the county might undertake between cities and the outlying areas.
- Elementary and secondary education is funded entirely by the provincial government in Ontario and it is delivered through school boards. In three of the U.S. cities in this study -- Boston, Worcester, and Detroit -- education expenditures are made by the municipal government. Education expenditures have been omitted from the U.S. data for comparability.

³ Since it is difficult to define the boundaries of the metropolitan areas (or city-regions) for U.S. cities and since expenditure and revenue data are not collected by city-region, only the cities and the counties in which they are located are included in the analysis. Similarly for Toronto, only the City of Toronto is included and not the city-region. The large cities in the U.S. tend to be much smaller than the City of Toronto because of fewer amalgamations. This difference may be reflected in some of the findings on expenditures and revenues.

- Although federal and provincial grants to municipalities are included in the data, direct state and provincial expenditures on services are not. This means, for example, that provincial expenditures on health care in Ontario are not included in the municipal data. Since the extent to which provincial and state expenditures differ across jurisdictions, there will be differences in municipal expenditures.

II. Comparing Expenditure Responsibilities

To be comparable to the one-tier cities selected in Ontario, information on expenditures and revenues are consolidated for cities and counties in the U.S.⁴ There are services provided by county governments in the U.S., however, that are not provided by cities in Ontario or by cities in the U.S. A prime example is hospitals. Before reviewing the expenditure responsibilities of the selected Ontario and U.S. cities, Table 1 shows the division of responsibilities between city and county governments for those selected U.S. cities where both levels of government provide services. Consolidated cities (Boston, Worcester, and Augusta-Richmond) are excluded from the Table because all local services are the responsibility of the city.

For the seven cities in Table 1, there is wide variation in the division of responsibilities. Some services are solely the city's responsibility, some are a county responsibility, and some are shared between the city and county. With the exception of hospitals which are always a county function, the responsibility for local functions varies. Public welfare is generally a county or a shared responsibility except in Chicago where it is a city responsibility. Water, sewers, and solid waste are generally provided at the city level and sometimes they are shared.

Some services are provided by city or county departments while others are provided by independent utilities. Table 2 provides more details on transit, water, sewers, and solid waste in each of the U.S. cities. For each of the four services, it shows whether they are provided by the city or by an independent utility. Solid waste collection and disposal services are always delivered by a city department. Public transit is almost always provided by an independent utility except in Detroit and Augusta-Richmond. This information is important when considering local expenditures because, as noted above, city expenditures for transit in the U.S. generally reflect only the subsidy to the transit utility and not the total expenditures made on public transit in that city.

⁴ As noted earlier, only information for the counties in which the cities are located is consolidated with the city data.

**Table 1: Division of Responsibilities between City and County Governments,
Selected Expenditures, 2000**

	Los Angeles/ LA County, California	Fremont/ Alameda County, California	Atlanta/ Fulton County, Georgia	Chicago/ Cook County, Illinois	Rockford/ Winnebago County, Illinois	Detroit/ Wayne County, Michigan	Grand Rapids/ Kent County, Michigan
Libraries	Shared	County	County	City	City	Shared	Shared
Public welfare	County	County	County	City	Shared	County	County
Hospitals	County	County	County	County	N/A	County	County
Health	County	County	County	Shared	County	Shared	County
Highways	Shared	Shared	Shared	City	Shared	Shared	Shared
Air transportation	City	N/A	City	City	N/A	County	County
Public transit	County	City**	County	City	N/A	City	City*
Police protection	Shared	Shared	Shared	City	Shared	City	Shared
Fire protection	Shared	Shared	Shared	City	City	City	City
Corrections	County	County	Shared	County	County	County	County
Sewerage	Shared	N/A	Shared	City	N/A	Shared	City
Water supply	City	N/A	Shared	City	City	City	City
Solid waste management	City	N/A	City	City	City	City	Shared
Parks and recreation	Shared	City	Shared	Shared	County	Shared	Shared
Housing & community dev.	Shared	Shared	Shared	Shared	City	City	City
Independent Commissions	Transit	Transit Waterworks Sewerage	Transit Waterworks*	Transit	Transit		Transit

* United Water and the City of Atlanta dissolved their privatization agreement and the city of Atlanta resumed control of the utility in 2003

** Negligible expenditure

To summarize, the division of expenditure responsibilities among local governments and between municipal departments and independent utilities is different in different cities in the U.S. As will be shown throughout this study, differences across jurisdictions are also evident in the amount of expenditures and revenues. An important theme in this study is that it is not appropriate to draw conclusions about U.S. cities in aggregate because such conclusions hide many of the differences among those cities.

Table 2: Provision of Transit, Water, Sewers, and Solid Waste

	Transit	Water	Sewer	Solid Waste
Los Angeles/ LA County, California	Ind. – LA County Mass Transit Authority	City – LA Water & Power Dept. (LAWPD)	City – Public Works	City – Bureau of Sanitation
Fremont/ Alameda County, California	Ind. – Alameda County Transit	Ind. – Alameda County Water District	Ind. – Union Sanitation District	City – Contracted to BFI
Atlanta/ Fulton County, Georgia	Ind. – MARTA	City – Bureau of Water	City – Public Works	City – Public Works
Augusta- Richmond, Georgia	City – Augusta Public Transit	City – Dept. of Utilities	City – Dept. of Utilities	City – Dept. of Solid Waste
Chicago/ Cook County, Illinois	Ind. – METRA, PACE, CTA	City – Dept. of Water Management	City – Dept. of Water Management	City – Dept. of Recycling and Sanitation
Rockford/ Winnebago County, Illinois	Ind. – Rockford Mass Transit	City – Public Services	Ind. – Rock River Water Reclamation District	City – Public Services
Detroit/Wayne County, Michigan	City – Dept of Transportation	City – Dept of Water and Sewer	City – Dept of Water and Sewer	City – Dept. of Solid Waste
Grand Rapids/ Kent County, Michigan	Ind. – Interurban Transit Partnership (ITP)	City – Dept of Water	City – Dept of Water	City – Dept of Streets and Sanitation
Boston, Massachusetts	Ind. - Mass Bay Trans. Authority	City – Boston Water/Sewer Comm	City – Boston Water/Sewer Comm	City – Public Works
Worcester, Massachusetts	Ind. – Worcester Regional Transit	City – Public Works	City – Public Works	City – Parks Dept.

Tables 3 and 4 show expenditures per capita for large cities and medium-sized cities, respectively. Expenditures include operating and capital expenditures. Expenditures in each of the U.S. cities are combined expenditures per capita for the city and the county in which it is located, where relevant. All estimates are in Canadian dollars.⁵

To ensure comparability, expenditures on hospitals, air transportation, and corrections are shown separately in the tables because these are only local expenditures in the U.S. cities. Transit is also shown separately because, in many of the selected cities, it is a utility and the total expenditures and revenues are not included with the city data (as noted earlier).

One of the most significant findings of Table 3 is the considerable variation in per capita expenditures both in total and by function in each of the U.S. cities. There does not appear to be a clear pattern of expenditures across all cities.

⁵ All values for the U.S. were converted to Canadian dollars at the 2000 OECD purchasing power parity rate (see Appendix A).

Other findings on expenditures for large cities that are evident from Table 3 include the following:

- U.S. cities provide similar services to Toronto except that they are also responsible for hospitals, corrections, and airports.⁶
- Overall, Toronto ranks fifth out of six in per capita expenditures, about 22 percent below the median of the six.
- Toronto spends more per capita on social services (especially public welfare); U.S. cities all spend more per capita on police and fire protection and on borrowing costs (interest on debt). Expenditures on government administration are higher in the U.S. cities. One of the reasons is likely that expenditures of both the city and county administrations are included (the exceptions are Boston, Worcester, and Augusta-Richmond).
- Expenditures on public transit cannot be compared because, for many U.S. cities, the expenditures in Table 3 are not total expenditures (with the exception of Detroit).

Table 4 shows local government operating and capital expenditures per capita for London, Ontario and for five medium-sized cities in the U.S. As with the large cities in Table 3, there is considerable variation in per capita expenditures for medium-sized cities.

The patterns for the medium-sized cities are similar to the large cities, although generally per capita expenditures are higher in large cities. The reasons for higher expenditures in large cities include the size and concentration of their population. These differences are reflected both in the magnitude and complexity of the expenditures that local governments in large cities are required to make on municipal services. For example, local governments in large cities are required to provide a sophisticated transportation and communications network. Large cities also have to provide services that result in a high quality of life (parks, recreational facilities, cultural institutions). The high concentration of special needs within large metropolitan areas also requires higher expenditures on social services, social housing, and public health.⁷ Expenditures on policing tend to be higher

⁶ In some cities, they are also responsible for education expenditures. These expenditures are not shown in Table 3.

⁷ There may be opportunities for lower expenditures per capita for large cities to the extent that the local government can take advantage of economies of scale in service provision. Economies of scale occur where the per unit cost of producing a particular service falls as the quantity of the service provided increases. Empirical evidence on the existence of economies of scale is mixed, depending on the service in question and the units of measurement (e.g. jurisdiction size or size of the facility). There is some evidence that expenditures per capita decline with the quantity provided for “hard” services such as water, sewers, and transportation but not for “soft” services such as police, garbage collection, recreation, or planning (Bird and Slack, 1993, p. 32).

**Table 3: Local Government Operating and Capital Expenditures per Capita,
Large Cities, 2000
(\$CDN)**

	Los Angeles/ LA County, California	Atlanta/ Fulton County, Georgia	Chicago/ Cook County, Illinois	Boston, Mass.	Detroit/ Wayne County, Michigan	Toronto, Ontario	Toronto's Rank
Social Services/Income Maintenance (excl.hospitals)	\$740	\$139	\$124	\$199	\$479	\$702	2 nd
- Public welfare	523	81	57	195	106	651	1 st
- Health	217	57	67	4	373	50	5 th
Transportation (excl. air & transit)	297	148	258	166	285	188	4 th
- Highways	123	147	257	160	261	151	4 th
Public Safety (excl. corrections)	625	655	623	752	566	437	6 th
- Police protection	428	397	479	481	403	236	6 th
- Fire protection	177	229	129	247	133	169	4 th
Environment and Housing	525	1,588	397	850	1,707	654	4 th
- Sewerage	72	475	55	225	546	155	4 th
- Water	181	789	133	126	558	99	6 th
- Solid waste	45	89	72	83	133	76	4 th
- Parks and recreation	112	206	55	46	226	167	3 rd
- Housing and com. dev.	87	23	82	366	184	137	3 rd
Government Admin.	388	442	225	172	445	193	5 th
Interest on Debt	153	275	235	106	202	46	6 th
Libraries	26	41	35	91	37	86	2 nd
Other	216	470	280	581	557	0	6 th
Total	\$2,970	\$3,758	\$2,177	\$2,917	\$4,278	\$2,306	5th
Other expenditures, not included:							
Hospitals	\$203	\$212	\$184	\$135	\$35	\$0	6 th
Air transportation	211	678	234	0	211	0	6 th
Corrections	107	148	73	176	102	0	6 th
Public transit	19	279	16	128	211	531	1 st

Note: Not all sub-categories are included in this table. This means that sub-categories do not necessarily add to totals for each category.

Note: Education expenditures by municipal governments in Boston and Detroit have been omitted.

Expenditures on hospitals, air transportation, and corrections are treated separately because they are not municipal expenditures in the Ontario cities. Public transit expenditures are also shown separately because municipal expenditures in many of the U.S. cities represent only the subsidy to the utility and not total transit expenditures.

Sources: Data on U.S. cities was compiled from the US Census Bureau's Government Finances 1999-2000 report. Data for Ontario cities was taken from the Ontario Ministry of Municipal Affairs and Housing MARS database.

reflecting higher crime rates in large cities. It also reflects the need for more specialization in police services.

Other findings from Table 4 include the following:

- London ranks third out of sixth in overall per capita expenditures.
- London spends a relatively large amount on social service expenditures but not as high as Fremont, California.
- As with the large cities, the U.S. medium-sized cities spend considerably more on public safety than does London.
- London's expenditures on environment and housing are higher than the five medium-sized U.S. cities.
- General government expenditures in London are considerably lower than the five U.S. counterparts as is interest on debt.

To summarize, the findings on expenditures suggest that U.S. cities provide a similar range of services as Toronto and London. Toronto's overall expenditures per capita are fairly low compared to comparable U.S. cities; London's expenditures are roughly in the middle of the range for U.S. cities, about 10 percent ahead of the median. In terms of specific expenditure categories, U.S. cities spend more on public safety than Ontario cities and some of the larger cities in the U.S. have additional responsibilities, such as hospitals, but these are at the county level. U.S. cities (both the large and medium-sized cities) have considerably higher interest payments per capita on debt than do Toronto and London.⁸ Differences in expenditures per capita, however, do not say anything about service levels or the state of the infrastructure.

⁸ In Ontario cities, borrowing is only permitted to make capital expenditures and there are restrictions on how much they can borrow. Debt charges cannot exceed 25 percent of own-source revenues. Most Ontario municipalities do not come close to this limit and, indeed, municipal borrowing has steadily decreased over the last 20 years. It is not clear from the U.S. data the extent to which borrowing is being used for capital or operating expenditures.

**Table 4: Local Government Operating and Capital Expenditures per Capita,
Medium-Sized Cities, 2000
(SCDN)**

	Fremont/ Alameda County, California	Augusta/ Richmond County, Georgia	Rockford/ Winnebago County, Illinois	Worcester, Mass.	Grand Rapids/ Kent County, Michigan	London, Ontario	London's Rank
Social Services/Income							
Maintenance (excl. hospitals)	\$583	\$129	\$159	\$35	\$247	\$580	2 nd
- Public welfare	454	7	117	3	31	541	1 st
- Health	129	122	43	32	216	40	5 th
Transportation (excl. air transport)	272	120	214	76	249	165	4 th
- Highways	271	119	205	76	214	159	4 th
Public Safety (excl. corrections)	459	228	490	428	370	283	5 th
- Police protection	257	132	311	242	253	143	5 th
- Fire protection	164	83	169	186	116	120	4 th
Environment and Housing	312	393	198	347	591	691	1 st
- Sewerage	0	81	0	89	156	224	1 st
- Water	0	174	80	162	262	145	4 th
- Solid waste	7	43	59	27	72	45	3 rd
- Parks and recreation	83	77	13	35	65	137	1 st
- Housing and com. dev.	144	17	46	34	34	56	2 nd
Government Admin.	380	152	145	121	221	57	6 th
Interest on Debt	111	53	39	191	122	21	6 th
Libraries	13	11	45	39	55	61	1 st
Other	133	80	226	278	430	0	6 th
Total	\$2,263	\$1,166	\$1,516	\$1,515	\$2,285	\$1,858	3rd
Other expenditures, not included:							
Hospitals	\$242	\$15	\$0	\$0	\$57	\$13	4 th
Air transportation	0	53	0	14	20	0	6 th
Corrections	139	81	24	0	71	0	6 th
Public Transit	1	15	0	10	11	104	1 st

Notes: See Table 3. Education expenditures for Worcester have been omitted.

Sources: See Table 3.

III. Comparing Revenue-Raising Tools

Tables 5 and 6 compare revenue-raising tools for large and medium-sized cities, respectively. Revenues include operating and capital revenues except for transfers from own funds (into and out of reserves) and borrowing. As a result of combining capital and operating expenditures and revenues and also as a result of adjustments that were made to make the data comparable across jurisdictions,⁹ the revenues (in Tables 5 and 6) do not equal expenditures (in Tables 3 and 4). The difference between revenues and expenditures thus does not mean that municipalities are running a deficit.

Tables 5 and 6 show that the range of revenue tools available to the Ontario and U.S. cities are similar with one notable exception. U.S. cities have access to taxes other than the property tax. These include, for example, income taxes, general sales taxes, and selective sales taxes. Although per capita property taxes are the second highest in Toronto (property taxes are higher in Atlanta), overall taxes per capita are the lowest in Toronto.¹⁰ To the extent that taxes have an impact on economic competitiveness, Toronto is in a relatively good position.¹¹

In addition to the findings on property taxes, Tables 5 shows the following:

- Three cities have access to general sales tax revenues: Los Angeles, Atlanta, and Chicago.
- Selective sales taxes are levied in all of the U.S. cities. For example, alcohol and beverage taxes are levied by Atlanta, Chicago, and Detroit. Motor fuel taxes are levied by Chicago. Public utilities taxes are levied by Los Angeles, Chicago, and Detroit. Tobacco taxes are levied by Chicago. Other selective taxes are levied in all of the large cities.¹²
- Income taxes are only levied in Detroit.
- User fees are relatively low in Toronto, comparable to Chicago. User fees are significantly higher in Atlanta than any other of the U.S. cities. A breakdown of user fees is provided in Tables 7 and 8.

⁹ Two types of adjustments were made that have an impact on the revenue/expenditure balance. First, categories of revenues and expenditures that were deemed to be not comparable or not treated in the same way in each city-region (for example, education, airports, transit, etc.) were removed. Since some of these categories had net profits (or net losses), their removal affects the overall revenue/expenditure balance. Appendix B shows the process used to convert the data from the U.S. Bureau of the Census to the values shown in the tables in this paper. Second, for Ontario the cities, inter-fund transfers (for example, transfers between reserves, capital and revenue funds) were omitted.

¹⁰ Property taxes per capita do not reflect the average property tax on a residential dwelling for two reasons. First, property taxes include residential, commercial, and industrial property taxes. Second, taxes per capita are not the same as taxes per household.

¹¹ The impact of taxes on competitiveness is discussed further below.

¹² The composition of “other taxes” is not specified in the data.

- Intergovernmental transfers per capita in Toronto are relatively low compared to Boston, Detroit, and Los Angeles but they are actually higher than in Chicago and Atlanta. The largest proportion of transfers in the U.S. come from the state government but the federal government does make transfers to cities as well.¹³ In Toronto and London (as in all Ontario cities), federal transfers are negligible. Federal grants in the U.S. are highest in Boston. State grants to Chicago are comparable to provincial grants to Toronto.

The collection of sales and income tax revenues differs across cities. For example, general sales taxes are collected by the state government and given to Los Angeles and Atlanta but they are collected locally in Chicago. Selective sales taxes are collected by the state government and given to Los Angeles and Boston but they are collected by the cities in Atlanta, Chicago, and Detroit. Income taxes are collected locally in Detroit.

Findings for the medium-sized cities on revenue tools (Table 6) indicate the following:

- London's property taxes per capita are considerably higher than the U.S. medium-sized cities.
- London does not levy any other taxes. Each of the U.S. cities levies at least one other tax: Grand Rapids levies an income tax only; Worcester levies only a small selective sales tax (other) and some other taxes; and Fremont levies significant general and selective sales taxes (motor fuel tax) and other taxes. Augusta-Richmond levies an alcohol and beverage tax, public utilities taxes, other selective taxes, and a general sales tax. Rockford levies selective sales taxes and other taxes at the local level.

¹³ Harrigan and Vogel (2003) note that federal transfers showed a steady decline from about 14 percent of city revenues in 1977 to less than 5 percent by 1992. In 1999, federal transfers to local governments in the U.S. were \$31.7 billion or 3.8 percent of local government general revenues. State transfers were \$295.9 billion or 35 percent of local government general revenues. See U.S. Census Bureau, *Governmental Finances, 1998-99*.

**Table 5: Local Government Revenues per Capita, Large Cities, 2000
(\$CDN)**

	Los Angeles/ LA County, California	Atlanta/ Fulton County, Georgia	Chicago/ Cook County, Illinois	Boston, Mass.	Detroit/ Wayne County, Michigan	Toronto, Ontario	Toronto's Rank
Taxes							
- Property	\$461	\$1,038	\$444	\$962	\$383	\$1,005	2 nd
- General Sales	153	558	147	0	0	0	6 th
- Selective Sales	205	332	415	65	142	0	6 th
- Income	0	0	0	0	480	0	6 th
- Other	194	175	85	65	35	0	6 th
- Total	\$1,013	\$2,103	\$1,091	\$1,092	\$1,040	\$1,005	6th
User Fees	566	945	264	508	687	281	5th
Miscellaneous Revenues	307	640	264	236	534	198	6th
Total Own-Source Revenues	1,886	3,688	1,619	1,836	2,261	1,484	6th
Transfers							
- Federal	98	60	111	430	204	52	6 th
- State/Provincial	935	30	360	902	1,101	422	4 th
- Local	16	262	0	0	8	96	2 nd
- Total	1,049	352	471	1,332	1,314	570	4th
Total Revenues	\$2,935	\$4,040	\$2,090	\$3,168	\$3,575	\$2,054	6th

Note: Revenues for education at the municipal level in Boston and Detroit have been omitted.

Note: Intergovernmental transfers include payments in lieu of taxes made by governments at all three levels. Although these more logically fit into the property tax category because they are payments in lieu of property taxes, the U.S. data includes them as transfers and they cannot be separated out.

Sources: See Table 3.

- In those medium-sized cities that have access to general sales tax revenues, they are levied by the State and turned over to the cities. For those that have access to selective sales taxes, only Augusta-Richmond levies the tax locally. Only Grand Rapids has access to income tax revenues and they are levied locally.
- Federal and provincial transfers are lower in London than in the U.S. medium-sized cities (with the exception of Augusta-Richmond). The majority of transfers

are state or provincial, although federal grants per capita are somewhat higher in the U.S. cities (not including Grand Rapids).

Tables 7 and 8 provide a breakdown of user fees per capita for large and medium-sized cities, respectively.¹⁴ Toronto's user fees are relatively low compared to the large U.S. cities. User fees in London are roughly in the middle of the medium-sized cities. One of the problems with Tables 7 and 8 is that transit fees are shown for the Ontario cities but they are not generally shown for the U.S. cities because transit utility financial information has not been consolidated with local government data. This means that user fees in U.S. cities are under-stated.

Overall, the tables on revenue-raising tools show that all of the U.S. cities levy property taxes but the dependence on property taxes tends to be lower in U.S. cities. It is lower partly because many states have imposed tax limits. Proposition 13 in California, for example, requires that property tax rates not exceed 1 percent of the property's market value and valuations cannot grow by more than 2 percent per year unless the property is sold. It is also lower in part because U.S. cities have access to more revenue-raising tools than Ontario cities. Even the medium-sized cities in the U.S. have access to other revenue sources (income and sales taxes). There is considerable diversity in the reliance on revenue tools among the U.S. cities, however. Only one levies an income tax and not all levy general sales taxes, for example.

Federal transfers to local governments in the U.S. are significantly larger for the large cities than they are for the medium-sized cities. In Grand Rapids, there are no federal transfers. State transfers are generally higher per capita in the large cities as well (with the exception of Atlanta). In Ontario, federal transfers are negligible in both Toronto and London; provincial transfers per capita are fairly comparable between the two cities.

¹⁴ The user fee estimates in Tables 5 and 6 are based on Tables 7 and 8 respectively.

**Table 6: Local Government Revenues per Capita, Medium-Sized Cities, 2000
(\$CDN)**

	Fremont/ Alameda County, California	Augusta/ Richmond County, Georgia	Rockford/ Winnebago County, Illinois	Worcester, Mass.	Grand Rapids/ Kent County, Michigan	London, Ontario	London's Rank
Taxes							
- Property	\$485	\$193	\$401	\$400	\$362	\$801	1 st
- General Sales	291	329	0	0	0	0	6 th
- Selective Sales	63	168	46	5	0	0	6 th
- Income	0	0	0	0	330	0	6 th
- Other	130	22	41	9	29	0	6 th
- Total	\$969	\$712	\$488	\$414	\$721	\$801	2nd
User Fees	143	255	319	316	644	283	4th
Miscellaneous Revenues	300	206	152	40	285	88	5th
Total Own- Source Revenues	1,412	1,173	959	770	1,650	1,172	4th
Transfers							
- Federal	17	13	70	45	0	11	5 th
- State/Provincial	909	59	461	365	532	368	4 th
- Local	2	0	27	0	1	13	2 nd
- Total	\$928	\$72	\$558	\$410	\$533	\$392	5th
Total Revenues	\$2,340	\$1,245	\$1,517	\$1,180	\$2,183	\$1,564	3rd

Note: Revenues for education at the municipal level for Worcester have been omitted.

Note: Intergovernmental transfers include payments in lieu of taxes made by governments at all three levels. Although these more logically fit into the property tax category because they are payments in lieu of property taxes, the U.S. data includes them as transfers and they cannot be separated out.

Sources: See Table 3.

**Table 7: User Fees per Capita, Large Cities, 2000
(\$CDN)**

	Los Angeles/ LA County, California	Atlanta/ Fulton County, Georgia	Chicago/ Cook County, Illinois	Boston, Mass.	Detroit/ Wayne County, Michigan	Toronto, Ontario
Roads/Highways	\$4	\$0	\$17	\$0	\$3	\$5
Housing/Community Dev.	23	0	0	24	8	22
Parking	10	0	7	29	32	0*
Parks and Recreation	33	65	9	0	16	37
Sewer	141	298	53	212	312	97
Solid Waste Management	19	93	0	0	1	16
Water Supply Utility	171	447	124	192	245	73
Other**	165	42	54	51	70	31
Total	\$566	\$945	\$264	\$508	\$687	\$281
Other user fees, not included:						
Airport	177	1,127	261	n.a.	119	n.a.
Hospital	64	n.a.	42	46	n.a.	n.a.
Water terminal	82	n.a.	n.a.	n.a.	n.a.	n.a.
Transit Systems Utility	n.a.	n.a.	n.a.	n.a.	36	245

* Excluding Toronto Parking Authority.

** Other includes user fees for protection, health, and social services.

Sources: See Table 3.

**Table 8: User Fees per Capita, Medium-Sized Cities, 2000
(\$CDN)**

	Fremont/ Alameda County, California	Augusta/ Richmond County, Georgia	Rockford/ Winnebago County, Illinois	Worcester, Mass.	Grand Rapids/ Kent County, Michigan	London, Ontario
Roads/Highways	\$1	\$0	\$16	\$0	\$9	\$0
Housing/Community Dev.	0	0	0	0	0	13
Parking	1	1	7	0	54	6
Parks and Recreation	15	3	10	8	3	20
Sewer	0	81	0	92	177	88
Solid Waste Management	13	31	49	13	40	1
Water Supply Utility	0	121	137	135	202	124
Other*	113	18	100	68	159	31
Total	\$143	\$255	\$319	\$316	\$644	\$283
Other user fees, not included:						
Airport	n.a.	49	n.a.	8	34	n.a.
Hospital	54	n.a.	n.a.	n.a.	62	n.a.
Transit Systems Utility	n.a.	4	n.a.	n.a.	n.a.	55

* Other includes user fees for protection, health, and social services.
Sources: See Table 3.

IV. Comparing Property Taxes

The First Annual Report of the Task Force on Competitiveness, Productivity and Economic Progress compared marginal effective tax rates on labour and capital in Ontario and five U.S. states but it did not include property taxes. Other studies have suggested that higher property taxes in Ontario cities have a negative impact on business location and reduces their economic competitiveness (see for example, Berridge 2000) but little evidence is provided to support this claim. This part of the study compares property taxes in cities in the same five U.S. states: Michigan, Georgia, Illinois, California, and Massachusetts.

The property tax is levied on residential, commercial, and industrial properties. In its simplest form, the property tax is calculated as a property tax rate multiplied by the property tax base where the base of the tax is the assessed value of real property. For example, if a property is assessed at \$500,000 and the tax rate is 1 percent, then the tax payable is \$5,000. In most North American jurisdictions, the assessed value is an approximation of the market value of the property (generally defined as the price that would be struck by a willing buyer and a willing seller in an arm's length transaction).

The most common way to compare property taxes across jurisdictions is to look at effective property tax rates (property taxes relative to market values) because the property tax is levied on the market value of properties. Since market values vary significantly across jurisdictions, however, a similar tax level would result in lower effective tax rates where market values are high and higher effective tax rates where market values are low. For this reason, other measures of tax burden are also used as the basis for comparison. These include, for example, property taxes on a standard house and property taxes per square foot.

Comparing property taxes across jurisdictions is extremely difficult, however, because of the different ways in which the tax is levied. Although there are provincial/state statutes and regulations for the levying of property taxes, the application of the property tax by local governments is different in each jurisdiction. For this reason, it is necessary to understand the different elements of the property tax to be able to make valid comparisons across jurisdictions. Table 9 summarizes the characteristics of property taxes in several U.S. cities and compares them with Toronto and London.¹⁵

The following highlights some of the differences in how property is taxed in different jurisdictions in the U.S. and Ontario:

- Properties are generally divided into different classes. The reason for having different classes of property is to afford them different tax treatment. The classification of properties is different in the different jurisdictions. For example, most jurisdictions divide properties into only three classes – residential, commercial, and industrial –but others divide properties into more classes by adding classes such as multi-residential, utilities, agricultural properties, etc. Even those jurisdictions that use the same property classes include different properties within them. For example, properties that are included in the industrial class in one jurisdiction may be included in the commercial class in another jurisdiction.
- In most jurisdictions, the tax base comprises land and improvements. In some U.S. jurisdictions, however, personal property may also be included in the tax base (for example, boats, machinery, equipment, fixtures, etc.). Personal property is not taxed in Ontario cities.
- Each jurisdiction exempts some properties from the property tax base for tax purposes. Common exemptions are churches, cemeteries, and some public buildings. In some jurisdictions, part of the residential tax base (single-family homes) is exempt from municipal taxation.

¹⁵ Information in Table 9 is derived from state, county, and city websites and from contacting the cities directly.

Table 9: Characteristics of Property Taxes in Twelve Jurisdictions

	Atlanta, Georgia	Augusta, Georgia	Chicago, Illinois	Rockford, Illinois	Detroit, Michigan	Grand Rapids, Michigan
Property Classes taxed	Residential, commercial, industrial, personal property	Residential, commercial, industrial, personal property	12 classes in: vacant, residential, commercial, industrial, not for profit	Residential, commercial, industrial, agricultural	Residential, commercial, industrial, utility, agricultural, timber, personal property	Residential, commercial, industrial, utility, agricultural, timber, personal property
What is taxed	Land, improvements, personal property (boats, jet skis, aircraft, machinery & equip, fixtures)	Land, improvements, personal property (boats, jet skis, aircraft, machinery & equip, fixtures)	Land and improvements	Real property, land & buildings	Land, building, personal property (business assets, not inventory)	Land, building, personal property (business assets, not inventory)
Value basis for assessment	Full market value	Market value	Market value, using recent sales data	Market value, market rent value for income properties	Land and buildings valued by sales trends, person prop - acquisition cost	Land and buildings valued by sales trends, person property - acquisition cost
Taxable portion of assessed value	40% of assessed value less exemptions	40% of assessed value less exemptions	Vacant, 22% Homestead, 16% Income Res., 30% Commercial, 38% Industrial, 36%	33 1/3%, no classification	50% of market value	50% of market value
Last reassessment		2001; every 2-3 years	2003; every three years	1999; values trended annually reassessment every four years	Only reassessed at change	Only reassessed at change
Property tax relief measures	\$15,000 of Assessed value for general owners and \$43,000 for veterans, home owners tax relief grant Income tax deductible	Homestead exempt \$5,000 from taxable value of prop, home owners tax relief grant Income tax deductible	Homestead exempt \$4,500 from EAV, businesses can lower assessment to 16% of market value	Homestead exempt, \$3,500 off EAV; Home improvement exempt	Homestead exempt from school operating tax ~18 mills	Classified mill rate

Table 9 (continued): Characteristics of Property Taxes in Twelve Jurisdictions

	Atlanta, Georgia	Augusta, Georgia	Chicago, Illinois	Rockford, Illinois	Detroit, Michigan	Grand Rapids, Michigan
Nominal tax rates	2000 Tax rate (per \$1000 of taxable value) Uniform rate: 48.99	2000 Tax rate (per \$1000 of taxable value) Uniform rate: 66.10	2000 Tax rate (per \$100 of taxable value) Uniform rate: 7.69%	2000 Tax rate (per \$100 of taxable value) Uniform rate: 7.42%	2000 Tax rate (per \$1000 of taxable value) Uniform rate: 34.51	2000 Tax rate (per \$1000 of taxable value) Homestead 26.825 Non-Home 44.774
Tax rate or assessment cap	No caps for most taxes and levies, except school rate capped at 25 mills and hospital rate capped at 7 mills.	No caps for most taxes and levies, except school rate capped at 25 mills and hospital rate capped at 7 mills.	Tax Cap – Taxes raised cannot grow by more than CPI or 5% excluding new development. Tax Rate Cap – special district tax rates limited to fixed levels. Bond Limit – Value of bonds issued cannot exceed 1995 level. Referenda can overturn caps and limit.	Home Rule county, not subject to state tax cap or bond limit as Chicago has opted for.	(PTELL) Taxable value can increase by a max of 5% or CPI in a given year. Upon transfer of ownership taxable value returns to assessed value and is capped again.	(PTELL) Taxable value can increase by a max of 5% or CPI in a given year. Upon transfer of ownership taxable value returns to assessed value and is capped again.

Sources: City of Atlanta, GA; Fulton County, GA; City of Augusta, GA; Richmond County, GA; City of Chicago, IL; Cook County, IL; City of Rockford, IL; State of Illinois, Department of Revenue; City of Detroit, MI; Wayne County, MI; City of Grand Rapids, MI; Kent County, MI; Citizens Research Council, MI.

Table 9 (continued): Characteristics of Property Taxes in Twelve Jurisdictions

	Boston, Massachusetts	Worcester, Massachusetts	Los Angeles, California	Fremont, California	Toronto, Ontario	London, Ontario
Property classes taxed	Residential, commercial, industrial, personal property	Residential, commercial, industrial, personal property	Residential, commercial, industrial, personal property	Residential, commercial, industrial, personal property	7 classes: residential, multi-res'l, farm, forest, commercial, industrial, pipeline; plus optional classes	7 classes: res'l, multi-res'l, farm, forest, comm'l, ind'l, pipeline; plus optional classes
What is taxed	Land, building, improvements, fixtures (business equipment & machinery)	Land, building, improvements, fixtures (business equipment & machinery)	Land and improvements, business personal property, including boats, airplanes, equipment	Land and improvements, business personal property, including boats, airplanes, equipment	Land and building	Land and building
Value basis for assessment	Market value	Sales trending since reassessment, C&I income and cost valuations	Full market value	Full market value	Market value	Market value
Taxable portion of assessed value	76% of assessed value is taxable	78.3% of assessed value is taxable	100%	100%	100%	100%
Last reassessment	January, 2000; every three years	January, 2002; annual sales trending	Real property reappraised upon a change of ownership or new construction. Business personal property, including boats and airplanes, and certain restricted properties are subject to annual appraisal	Real property reappraised upon a change of ownership or new construction. Business personal property, including boats and airplanes, and certain restricted properties are subject to annual appraisal	June 2001; annual trending, rolling average of last two years (starting in 2005) and rolling average of last three years (starting in 2006)	June 2001; annual trending, rolling average of last two years (starting in 2005) and rolling average of last three years (starting in 2006)
Property tax relief measures	Homestead exempt, \$87,524 from market value, tax deferrals for aged, veterans and disabled.	Elderly and disability exemptions	General homeowner exemption \$7,000 from home value Disabled veterans exemption \$150,000 from home value	General homeowner exemption \$7,000 from home value Disabled veterans exemption \$150,000 from home value	Income tax credits Tax deferrals for seniors Home expansion for seniors and disabled care assessment exempt	Income tax credits Tax deferrals for seniors Home expansion for seniors and disabled care exempt

Table 9 (continued): Characteristics of Property Taxes in Twelve Jurisdictions

	Boston, Massachusetts	Worcester, Massachusetts	Los Angeles, California	Fremont, California	Toronto, Ontario	London, Ontario
Nominal tax rates	2000 Tax rate (per \$1000 of taxable value) Residential 11.29 Commercial, 31.49 Industrial, Per. prop.	2000 Tax rate (per \$1000 of taxable value) Residential, 16.16 Commercial, 31.44 Industrial, Per. prop.	2000 Tax rate (per \$100 of taxable value) Uniform rate: 1.25%	2000 Tax rate (per \$100 of taxable value) Uniform rate: 1.04%	2000 tax rate (per \$100 of taxable value) Residential: 1.214% Commercial: 3.419% Office: 7.379% Industrial: 9.924%	2000 tax rate (per \$100 of taxable value) Residential: 1.547% Commercial: 5.258% Office: 6.267% Industrial: 7.087% Large Industrial: 8.197%
Tax rate or assessment cap	(Prop 2 ½) Property taxes cannot exceed 2.5% of assessed value. Total tax levy cannot rise more than 2.5% excluding new development.	(Prop 2 ½) Property taxes cannot exceed 2.5% of assessed value. Total tax levy cannot rise more than 2.5% excluding new development.	(Prop 13) Property taxes are limited to 1% of assessed value, plus any bonds or fees approved by the voters. Assessed value is limited 2% growth per year. With voter approval special taxes can be levied.	(Prop 13) Property taxes are limited to 1% of assessed value, plus any bonds or fees approved by the voters. Assessed value is limited 2% growth per year. With voter approval special taxes can be levied.	Municipalities cannot increase taxes on non-residential property when its non-res/res. tax ratio is above the provincial threshold ratio.	Municipalities cannot increase taxes on non-residential property when its non-res/res. tax ratio is above the provincial threshold ratio.

Sources: City of Boston, MA; City of Worcester, MA; City of Los Angeles, CA; Los Angeles County, CA; City of Fremont, CA; Alameda County, CA; City of Toronto, ON; City of London, ON; Municipal Property Assessment Corporation, ON

- Most jurisdictions assess properties on the basis of market value but the assessment techniques may be different in different jurisdictions. Reassessments may be done annually, on a two, three or four-year cycle, or only assessed when there is a change in ownership. In some cases, reassessments are infrequent causing the estimate of market value to be seriously out of date.
- In many states, tax assessment ratios or rates are applied to market value assessment to determine the taxable assessment. In other words, only a portion of the assessed value is taxed. In the Ontario cities, 100 percent of the assessed value is taxable.
- Most jurisdictions provide property tax relief to residential taxpayers. In some cases, relief is only provided to homeowners; in other cases, it is also applied to tenants. Relief in the form of homestead exemptions means that the taxes are not paid on a portion of the assessed value; relief in the form of an income tax credit (usually for low-income taxpayers) means that property taxes are paid but income taxes are reduced. This form of tax relief would not appear in municipal tax information.
- Tax caps are common among U.S. jurisdictions. For example, Proposition 2 1/2 in Massachusetts and Proposition 13 in California limit property tax increases to a percentage of assessed value. In Ontario cities, capping legislation prevents cities from increasing taxes on non-residential properties when the non-residential to residential tax ratio exceeds a provincial threshold level.
- In both Canada and the U.S., businesses can deduct property taxes from income for income tax purposes. To the extent that income tax rates are higher in Canada, this feature is worth more in Canada. The ability of homeowners to deduct residential property taxes from income for income tax purposes is only available in the U.S., however. This means that a similar property tax on a house in a U.S. city represents a smaller burden on taxpayers than in the Ontario cities. In Ontario, refundable property tax credits are available for low-income owners and renters. Municipal financial data do not reflect any of these income tax measures.

IV.1 A Comparison of Residential Property Taxes

Figure 1 compares effective property tax rates for residential properties in Toronto and the five large U.S. cities selected plus New York.¹⁶ Figure 1 shows effective tax rates for the median standard townhouse (valued at \$234,000) in Toronto with the median-valued house in the selected U.S. cities. Figure 1 shows that residential property taxes in Toronto

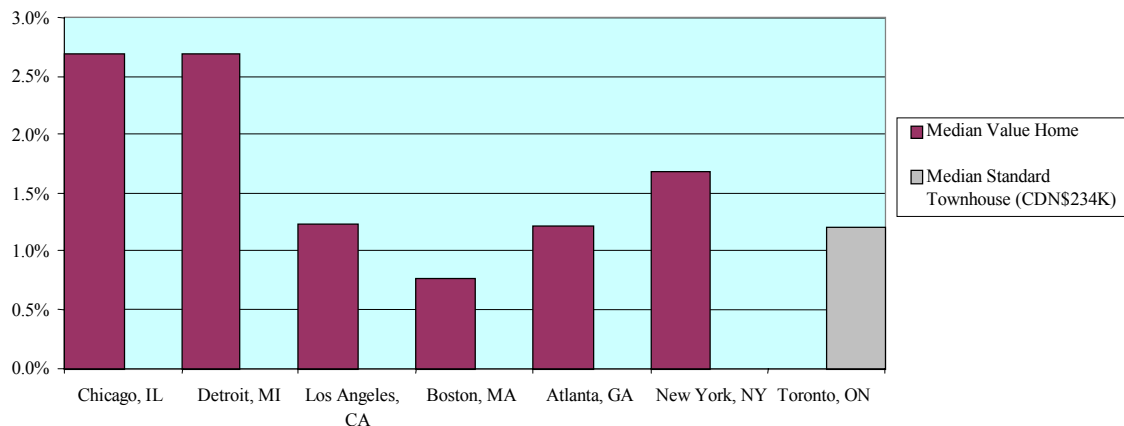
¹⁶ New York City was included because it is often used in comparisons of property taxes in large U.S. cities.

are comparable to residential property taxes in most of the U.S. cities except for Chicago and Detroit where residential property taxes are considerably higher than in Toronto.¹⁷ As noted above, however, residential property owners in the U.S. can deduct property taxes from income for income tax purposes. Therefore, the actual tax burden in U.S. cities is less.

Residential property tax burdens vary across jurisdictions for two reasons:

- Overall property tax levels vary. In other words, jurisdictions that levy higher property taxes overall will likely have higher residential property taxes. The overall level of property taxes will depend on the expenditure responsibilities and other revenue sources in each municipality. For example, as also noted earlier, many cities in the U.S. have access to income and sales taxes but Ontario cities do not. There are also differences in the reliance on user fees and intergovernmental grants.
- Given overall property tax levels, differences in the relative importance of residential and non-residential assessment will determine how high residential property taxes will be. In a municipality with a large non-residential tax base, residential property taxes will be lower, other things being equal. Moreover, a policy to tax commercial and industrial properties more heavily than residential properties will result in lower residential property tax burdens.

Figure 1: Effective Tax Rates for Residential Properties, 2002



Source: Royal LePage (2002) and Minnesota Taxpayers' Association (2001).

¹⁷ This refers to single-family homes and not to multi-residential units. Ontario cities generally levy higher tax rates on multi-residential units than on single-family homes. This is especially true in Toronto.

IV.2 A Comparison of Commercial and Industrial Property Taxes

Figure 2 compares effective property tax rates for commercial and industrial properties. It shows that effective tax rates on commercial properties are higher in Toronto than in each of the U.S. large cities except for Chicago.¹⁸ Effective property tax rates on industrial properties are much higher in Toronto than in any of the other U.S. cities.

One justification for the somewhat higher taxes on commercial and industrial properties is that these taxes can be deducted from income for income tax purposes and property taxes on residential owner-occupied properties cannot (in Canada). One could argue on the basis of the benefits-received principle of taxation, however, that non-residential properties should pay lower taxes because they use fewer services than residential properties. Although they do benefit from general municipal services, many non-residential property owners provide some of their own garbage collection, fire protection, and security services.

Results from a Vancouver study (KPMG, Study of Consumption of Tax-Supported City Services, 1995) of relative consumption patterns between residential and non-residential properties indicate that residential properties pay 40 percent of the property taxes and consume 71 percent of the services; non-residential properties pay 60 percent of the property taxes and consume only 29 percent of the services. Kitchen and Slack (1993) reviewed property taxes and municipal expenditures in eight Ontario municipalities in 1990 and concluded that non-residential property taxes ranged from 28 to 51 percent of total local property taxes but accounted for only 31 to 40 percent of municipal expenditures. A U.S. study (Oakland and Testa, 1995) estimated that the business-related share of state/local expenditures in the U.S. is less than the business-related share of state/local tax revenues. The ratio differed from state to state, however.

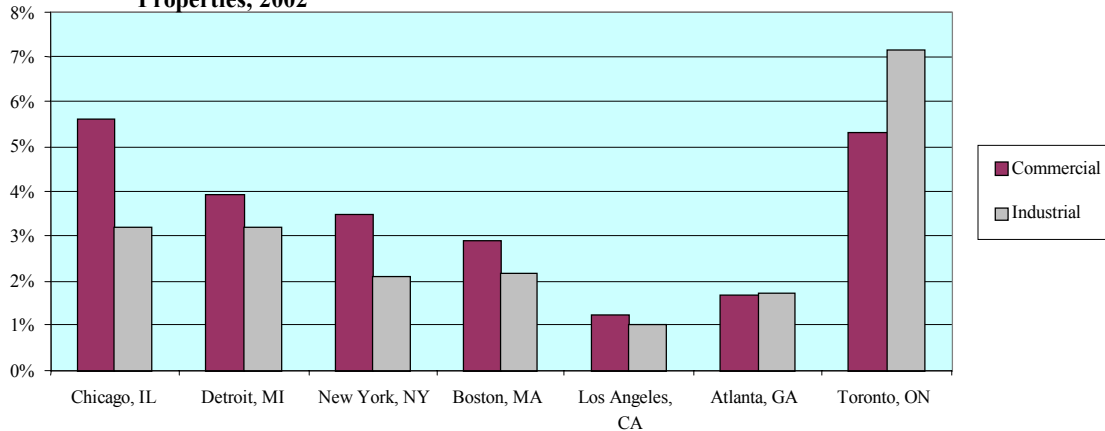
Moreover, industrial properties in Ontario are generally taxed at a higher rate than commercial properties. There is no justification for the higher taxation of industrial properties since they do not use more services than commercial properties and, in some cases, the activities they are engaged in are very similar.¹⁹ There are also problems with how to differentiate between the commercial and industrial class and what to include in each. Businesses such as denturists, artisans, print shops, and software developers are now included in the industrial class in Ontario (Beaubien, 2002, p. 36). Business activities such as research and development, retail sales, and grain storage facilities are also taxed as industrial properties at the higher tax rate. Not only is it an artificial differentiation for tax purposes but, from a competitiveness perspective, the over-taxation of industrial property can have a negative economic impact. This is particularly true for large industrial properties, such as auto assembly plants, that generate spinoffs.

¹⁸ One of the reasons for the higher taxation of commercial properties in Toronto is the result of a policy choice to keep taxes low on residential properties. It should be noted that this policy, and the resulting higher taxes on commercial properties, applies only to Toronto and not to the rest of the Greater Toronto Area.

¹⁹ In British Columbia, property classes are divided into small industrial and large industrial (the latter including large manufacturing complexes).

Table 10 compares property taxes per square foot for office towers in Toronto with selected U.S. cities and shows that property taxes per square foot are higher in downtown Toronto than in the U.S. cities, although taxes per square foot are almost as high in Chicago, Boston, and New York. Property taxes per square foot in the suburban municipalities in Toronto are comparable to property taxes in the suburban municipalities of Boston but lower than in Chicago.

Figure 2: Effective Tax Rates for Commercial and Industrial Properties, 2002



Source: Minnesota Taxpayers Association (US cities), BOMA (Toronto, analysis by Derbyshire-Viceroy Consultants)

Table 10 also compares overall space costs per square foot for Toronto and the selected U.S. cities. Overall space costs in downtown Toronto are relatively high compared to the U.S. cities with the exception of New York which is roughly comparable. With respect to suburban properties, Toronto taxes are the second highest.

**Table 10: Property Taxes and Operating Costs per Sq. Ft. for Office Towers, 2002
(CSPSF)**

	Los Angeles, California	Atlanta, Georgia	Chicago, Illinois	Boston, Mass.	Detroit, Michigan	New York, New York	Toronto, Ontario
CBD* Taxes	3.44	2.90	9.97	9.67	3.32	8.46	10.97
CBD Operating Costs (incl. taxes)	16.74	10.63	17.52	15.11	14.20	19.34	19.65
Suburban Taxes	3.14	2.42	6.53	4.23	2.84	n.a.	4.79
Suburban Operating Costs (incl. taxes)	14.62	9.85	14.20	8.88	10.70	n.a.	10.36

* Central Business District
Source: Colliers International

V. Implications for Competitiveness and Prosperity of Ontario Cities

This part of the paper discusses the implications of the findings on expenditure, revenue, and property tax differences between the selected U.S. and Ontario cities on the competitiveness and prosperity of Ontario cities.

V.1 Implications of Expenditure Differences

From the perspective of economic competitiveness, little can be said in terms of how much cities spend on services. The evidence shows that U.S. cities spend somewhat more per capita than Ontario cities. Cities provide similar services in the U.S. and in Ontario, though the emphasis is different. U.S. cities borrow more and this may allow them to meet infrastructure requirements more effectively. Ontario cities are well below provincial borrowing guidelines and have considerable room to borrow.

Although expenditures are higher in U.S. cities, there is no evidence that services are better. Higher expenditures could mean service levels are higher but they could also mean that needs or costs are higher, or that there are inefficiencies in the delivery of services. In short, expenditures are not a very good measure of the quality of services or the state of the infrastructure. They also do not give any indication of the ability of cities to attract individuals and firms. More information is needed on the quality of services.

V.2 Implications of Revenue Differences

Although the evidence in this study confirms that the U.S. federal and state governments give more money to cities than the Canadian federal and provincial governments give to cities in this province, it is less clear if this is the best model to follow. According to the “subsidiarity” principle, the efficient provision of services requires that decision-making (what services to provide, how much to provide, and how to pay for them) be carried out by the level of government that is closest to the individual citizen. This means that cities are in the best position to determine local priorities. Although there is a role for the federal government to help cities to be competitive, grants to cities may not necessarily be the best way to help them for the following reasons:

- Federal grants are often very prescriptive and override local decision-making. For example, federal funding is often provided for large high-profile infrastructure projects and not necessarily for improving the quality of life in neighbourhoods. As noted in Gertler et al. (2002), quality of life is an important factor in attracting knowledge workers and should be a local priority.
- There is a problem of accountability when the level of government making the expenditure decisions (in this case, cities) is not the same as the level of government raising the funds (the federal or provincial governments). There is no incentive to be efficient when someone else is responsible for funding.
- Funding from senior governments can also lead to inefficient local revenue decisions. In particular, there is no incentive to use proper pricing when grants cover a large proportion of operating and capital costs. Large grants in the past for water treatment plants in some municipalities, for example, meant that they had no incentive to use volumetric pricing to reduce the demand for water.

U.S. cities have more tax sources at the local level. There are advantages of allowing municipalities, especially large cities and city-regions, to raise different types of taxes:

- Revenues that are more income elastic than the property tax (such as sales and income taxes) allow municipalities to benefit from economic growth in their jurisdiction. Of course, when there is a downturn in the economy, sales and income tax revenues also turn down but property tax revenues remain relatively stable.
- The property tax creates local distortions in terms of investment in property and location decisions. Some of these distortions could be offset by other local taxes.
- The property tax is not particularly effective at relating the benefits received from municipal services to the taxes paid for commuters and visitors. Other taxes (sales taxes, hotel and motel occupancy taxes, for example) might result in a better distribution of some benefits and taxes.

User fees are somewhat more significant in the U.S. User fees play an important role in municipal finance by ensuring that governments do what people want and are willing to pay for.²⁰ Charges lead to efficiency in two ways: first, they provide information to the public sector about how much users are willing to pay for a particular service. Second, they ensure that citizens value what the public sector supplies at least at its marginal cost. Under-pricing a service (by not charging for it) can result in over-consumption. The resulting crowding may be taken as a signal that government should provide even more of the under-priced service. Under-pricing may also result in subsidies that are regressive. For example, subsidizing water may benefit high-income households more than low-income households because high-income households use more water (they tend to have more bathrooms, larger lawns to water, more cars to wash, etc.).

V.3 Implications of Property Tax Differences

For any business, property taxes represent a component of its costs. If these taxes are related directly to the cost of municipal services, they are simply a cost of doing business in the same way as other input costs such as wages and salaries. On the other hand, if the property taxes are unrelated to the cost of municipal services, they represent a fixed charge that must be paid - fixed in the sense that they are unrelated to the consumption of public services or income earned. The current property tax treatment of the non-residential sector in Ontario municipalities suggests that this sector is over-taxed when compared to the services it receives (Kitchen and Slack, 1993).

Since businesses generally locate where they can maximize profits, the provision of fiscal inducements such as lower property taxes can influence their location decision in the same way as the reduction in other production costs may play a role. The impact of property tax differentials depends on a number of factors including the size of the differential between competing municipalities and whether this differential is sufficient to offset differentials in other costs or market factors. Several U.S. cities use property tax incentives to attract businesses; whether this is a good idea or not is discussed in the Box.

While it is uniformly accepted that the cost of doing business is an important factor in location decisions, there is less consensus on the role played by property taxes in this decision. The evidence, most of which is drawn from the U.S., suggests that property tax differentials are relatively unimportant in inter-municipal or inter-regional location decisions but do play an important role in intra-municipal or intra-regional location decisions (Kitchen and Slack, 1993). In other words, property tax differentials are unlikely to play a significant role in a firm's decision as to whether to locate in Chicago, Boston, Detroit, or Toronto. On the other hand, once a firm or business decides to locate in the Toronto area, property tax differentials do play a role.²¹ To this extent, the higher effective tax rates on commercial and industrial properties in Toronto when compared

²⁰ See Bird, Richard, M. and Thomas Tsiopoulos (1997) for a comprehensive discussion of user charges.

²¹ There may be a case for the Province to set minimum tax rates to avoid tax base stealing and maximum rates to avoid tax exporting.

with the other municipalities in the Greater Toronto Area (GTA) and neighbouring cities, for example, creates an incentive for firms and businesses to locate outside Toronto.

Whether businesses respond to this incentive, however, depends on a number of other factors that may override the tax differential. These include, for example, the importance of being in the city core for business reasons; the opportunity to shift the tax differential on to consumers (of the final service or product), employees and owners; and the enhanced amenities that may be offered by a 'downtown location.' In a U.S. study of individual office buildings in downtown Chicago, it was found that 45 percent of property tax differentials were shifted forward onto tenants as higher gross rents per square foot and 55 percent were borne by owners (McDonald, 1993). The reality that some firms are willing to pay a premium to be located in the downtown core suggests that those firms benefit from "economic rents" created by that location. For example, large financial institutions may benefit from a downtown location. Taxing these rents is efficient from an economics standpoint because it will not affect the location decision. It is difficult to know, however, the extent of the economic rent. In other words, it is difficult to know at what rent (or property tax) level a firm will choose to move out of the downtown location.

In terms of residential property taxes, there is no evidence that property taxes affect location. Florida (2000), for example, describes the characteristics of those cities that have been successful at attracting knowledge workers and property taxes do not feature in that list. Knowledge workers are looking for good services rather than low property taxes.²²

Perhaps the most serious problem with property taxes in Ontario cities is not so much the level of taxes but the way in which tax reform has been implemented. The system is inequitable, lacks transparency, and is overly complicated (Slack, 2002b). As noted earlier, property taxes are calculated as the tax rate multiplied times the tax base. One would assume that, if an assessment were lowered (because of an appeal, for example) that taxes would fall. In the current Ontario system of caps on tax increases and clawbacks on tax decreases, a fall in assessment can actually lead to an increase in taxes for some commercial and industrial properties. There is an opportunity for innovation if Ontario could come up with a simple, transparent property tax system that could be used here and in other parts of the world.

²² Competitiveness may be affected by the extent to which a city has an adequate supply of affordable housing. Since residential property taxes are an element of housing cost, they may be a factor in attracting workers.

Are Property Tax Incentives a Good Idea?

Several Canadian studies indicate that the ability of cities in the U.S. to attract businesses through the use of property tax incentives has given them a competitive advantage over Canadian cities (FCM, 2001 and Berridge, 2000). Currently, Ontario cities are not permitted to give tax abatements to specific firms but, under recently proposed tax incentive zones, municipalities would be able to forgive property taxes to firms under certain circumstances.

Although property tax incentives are more prevalent in U.S. cities than in Ontario cities, it is worth noting that the academic literature does not provide strong support for the use of tax incentives (see, for example, McGuire, 1992 and Wasylenko, 1997). There is consensus that property taxes have a small but significant influence on business location. Wasylenko (1997) concludes, for example, that taxes matter but that the effect is relatively small (the elasticity is -0.2). There is no consensus, however, that property tax incentives are an effective strategy to achieve economic growth. Some of the problems that have been identified include the following:

- Tax incentives lead to a deterioration of the tax base and are often accompanied by low levels of public services. Moreover, given the empirical evidence that taxes have a fairly small effect, a large tax incentive is needed to have an impact on firm decisions. Lower taxes for specific firms mean higher taxes for all other taxpayers.
- Tax incentives only affect economic growth if they truly change business location decisions. Tax incentives are often wasted on firms that would have located there anyway.
- The expansion of existing firms is more likely to create jobs in a municipality than is the relocation of businesses from outside. Efforts to attract industry should not discriminate against existing firms.

Other options to attract firms are more promising. It has been suggested, for example, that the provision of services that, at the same time, provide direct benefits to existing residents and firms is preferable to tax incentives. In particular, the provision of new roads or a new school, for example, would influence firms' location decisions but it would also provide a tangible resource to the community. Moreover, lowering property taxes on all businesses in a municipality rather than providing tax concessions to any specific business is more worthwhile. Policymakers need to concern themselves more with issues of general tax policy (such as horizontal equity and tax neutrality) than with tax incentives (Anderson and Wassmer, 2000).

VI. Summary and Conclusion

The findings of this paper suggest that there are significant differences among cities in the U.S. in terms of municipal expenditures and revenues. No one model stands out above the rest. This means that looking at U.S. cities in the aggregate is not a particularly useful exercise because it hides many of these differences.

Each of the ten U.S. cities in this paper provides a similar range of services but there are significant differences in the magnitude of expenditures and there are wide variations in the relative importance of each type of expenditure. One explanation for variations may be the greater local autonomy in U.S. cities that allows them to do different things. Another explanation is that the distribution of responsibilities and revenues between each city and its state government is different across the country. In terms of economic competitiveness, however, very little can be said about the expenditure differences between the selected Ontario and U.S. cities. It is necessary to have information on both the quality of the services provided and the state of the infrastructure in each city to determine their ability to attract businesses and workers.

Greater local autonomy is also reflected in the ability of U.S. cities to levy different kinds of taxes. While Ontario cities are restricted to property taxes, U.S. cities use a variety of income, general sales, and selective sales taxes. Greater access to other revenue sources (such as income and sales taxes) allows U.S. cities to have revenues that increase with the growth in the economy. The downside of reliance on these taxes, however, is that revenues can fall significantly when there is a downturn in the economy. Property taxes provide a more stable revenue source for cities. From the perspective of competitiveness, it is important to note that, although the property tax burden per capita is higher in the two Ontario cities, the overall tax burden at the local level is lower in the Ontario cities than in the U.S. cities.

The data show that some (but not all) of the U.S. cities selected rely more heavily on intergovernmental transfers than the two Ontario cities. Greater dependence on grants, however, does not necessarily give U.S. cities a competitive advantage because it is not clear how these funds are being spent. Moreover, grants distort local decision-making and reduce the incentive for cities to be efficient in terms of pricing or the use of services. In short, not only do some U.S. cities rely less heavily on intergovernmental grants than the Ontario cities, greater reliance on grants in other cities does not necessarily provide them with a competitive advantage.

Although the data on user fees are not strictly comparable, the ten U.S. cities do collect more user fee revenues than the two Ontario cities. Proper pricing results in the efficient use of services and ensures that local governments provide the services that people want and are willing to pay for. From the perspective of economic competitiveness, user fees not only result in an efficient level of services, their increased use can mean lower distortionary taxes.

The findings on the property tax show that residential property taxes in Toronto are comparable to U.S. cities but non-residential property taxes are relatively high. To the extent that residential property taxes affect where the knowledge workers will live, low residential taxes in Toronto may provide a competitive advantage. The higher taxation of non-residential property in Toronto, however, may put the city at a competitive disadvantage. Although studies show that differential property taxes are unlikely to have much impact on the location of decisions of firms between metropolitan areas, they do have an impact on location decisions within metropolitan areas. Moreover, the differential between non-residential and residential property taxes is not justified on the basis of the benefits received from municipal expenditures.

To conclude, this paper has focussed on one aspect of economic competitiveness --- the ability of cities to provide services at reasonable tax rates. In terms of overall tax levels per capita, Ontario cities seem to have a competitive advantage. In terms of the over-taxation of non-residential property, they appear to be at a competitive disadvantage. In terms of expenditures, transfers, and access to other revenue sources, the impact on competitiveness is less clear. What is clear, however, is that definitive conclusions that the expenditures and revenues of Ontario cities make them uncompetitive with their U.S. counterparts are not substantiated when comparisons are made on a city-by-city basis.

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Appendix A: Methodology for Government Finances and Property Tax Comparisons

This Appendix summarizes the methodology used to compare expenditures, revenues, and property taxes for the twelve cities in this paper. Appendix B shows how the data were adjusted from the original data sources to the data used in the tables in this paper.

1. Expenditures and Revenues

- US city and county data was taken from the US Census Bureau's Government Finances 1999-2000 report. Data for Ontario cities was taken from the annual Financial Information Returns filed by each municipality with the Ontario Ministry of Municipal Affairs and Housing. Supplementary data used to determine the values for adjustments in each city was supplied by special request from the US Census Bureau's, Department of Government.
- The format and set of accounts used were based on those used in the US Government Finances Report. Several accounts were added and removed to account for dissimilarities between Canadian and US cities and improve comparability (see Appendix B for details).
- Both operating and capital revenues and expenditures are included but they are net of same government inter-fund transfers.
- Some US cities and counties are responsible for providing power and gas utility services, running liquor stores and managing lower and some higher education systems. These were removed to be comparable with the two Ontario cities.
- Utility and Liquor Store revenue and expenditure accounts were removed. User fees related to transit and water were moved from the Utilities account and placed into Current Charges. A transit account was added to Transportation expenditures and a water supply account was added to Environment and Housing expenditures. The portions of Utility and Liquor Stores expenditures associated with transit and water supply were transferred to these accounts respectively. Further the transit subsidy that was in other transportation was moved to the new transit account. Intergovernmental revenues related to the above items were also removed from the respective government accounts.
- Employee Retirement Revenue and Expenditure accounts were removed as Ontario municipal employees make their retirement contributions to and receive their benefits from OMERS and not the local governments they work for.
- Expenditure categories that do not exist across all of the cities and counties in the sample were separated out in the expenditure and revenue tables. Specifically, revenues and expenditures for airports, hospitals and corrections have been excluded where possible. Intergovernmental transfers for hospitals and corrections could not be identified independently and have therefore not been excluded. However, it is felt that including these revenues does not significantly affect the findings presented.
- Transit has also been separated out because the data are not comparable across cities. In some cities, the transit utility expenditures and revenues are consolidated

with those of the municipality; in other cities, only the municipal subsidy to the utility is included.

- Expenditures within categories are not always comparable between Ontario and U.S. data. Table A-1 shows some of the differences.
- The boundaries of cities and counties overlap, but do not represent equal geographic units. For purposes of comparability the revenues and expenditures of some US cities have been rolled together on a per capita basis with the accompanying county which jointly serves the residents of the city. The final amalgamated city-regions (Los Angeles City/County, Chicago/Cook County, etc.) are directly compared to the single tier cities in the study (Boston, Worcester, Augusta-Richmond, Toronto, London).
- All values for US cities and counties were converted to Canadian dollars at the OECD purchasing power parity (PPP) rate for 2000 (CND\$1.208/US\$1.000).

Table A1: Non-comparable items within comparable expenditure categories

Expenditure Item	US Category	Ontario Category
Homes for the Aged	Needs based care paid for by welfare or Medicaid is included in public welfare. Privately paid for non-essential care is included in hospitals, which have been excluded from some measures.	Old age homes subsidies are part of assistance to the aged and are included in public welfare.
Toll Highways	Included in transportation under highways	N/A
Parking Enforcement	Public safety, police protection	Transportation, parking
Water Transport and Terminals	Transportation, other transportation	N/A

2. Property Taxes

- A detailed survey of related state and local government web sites, the US Census Bureau and numerous private taxpayers associations was conducted, followed by extensive phone interviews with specific cities. A comprehensive survey was mailed electronically to senior employees of each of these organizations.
- A measure of effective property tax rates for residential, commercial, and industrial properties was taken from the Minnesota Taxpayers Association’s “50 – State Property Tax Comparison Study” for payable 2002 released April, 2003. The results of this study were augmented with residential data for Toronto taken from Royal LePage’s (RLP) annual Survey of Canadian House Prices, also for payable 2002. Commercial and industrial property data were taken from an

internal study provided by the Building Owners and Managers Association also for 2002.

- RLP reports effective tax rates by district within Toronto. The median value home for each property type in Toronto was chosen as the median of the districts reported by RLP. The commercial and industrial rates for Toronto were provided by BOMA and were estimated in an internal study conducted by Derbyshire-Viceroy Consultants.
- Colliers International provided measures of property taxes per square foot for urban and suburban commercial buildings for the year 2002.
- US property values were converted to Canadian dollars using the OECD PPP exchange rate for 2001 as the 2002 rate was not yet available.

Appendix B: Revenue and Expenditure Adjustments

This Appendix shows the adjustments made to the data to make them comparable. It starts with the reported data and shows the additions and subtractions used to arrive at the data in the tables in this report. Adjustments are shown for the U.S. cities and counties and the Ontario cities.

Revenue Adjustments for Large Cities						
State	California	Georgia	Illinois	Massachusetts	Michigan	Ontario
City	Los Angeles	Atlanta	Chicago	Boston	Detroit	Toronto
Population (April 1, 2000)	3,694,820	416,474	2,896,016	589,141	951,270	2,481,494
Revenue, total (000)	US\$10,780,812	US\$1,456,776	US\$5,784,077	US\$2,710,692	US\$4,860,066	\$CDN5,709,512
Schools Removed						
Fed Education Aid	-	-	69,613	-	68,720	
State Education Aid	-	-	-	348,451	1,269,325	
Local Education Aid	-	-	-	-	-	
Education, User Fees	-	-	-	3,758	2,847	
Prop Tax Portion of Education Funding	-	-	-	403,797	220,320	
Utility and Liquor Stores Removed						
Federal Transfers for Utilities and Liquor Stores	108,262	52,876	48,595	-	112,808	
State Transfers for Utilities and Liquor Stores	108,865	17,808	71,766	140,052	47,613	
Local Transfers for Utilities and Liquor Stores	36,212	1,730	279	633	42,635	
Utility and Liquor Store Revenue	2,909,751	124,729	296,485	93,619	221,493	
Water and Transit Charges Added Back	510,768	124,729	296,949	93,619	221,493	
Employee Retirement Revenue Removed						
	2,562,656	153,295	1,015,485	245,730	888,660	
Other Items Removed						
Federal Transfers for Airports	12,809	-	-	-	1,065	
Airport User Fees	539,239	388,505	626,868	-	1,952	
Hospital User Fees	-	-	-	22,283	-	
Transit User Fees					28,674	608,234
Water Terminal User Fees	250,045					
Revised Total ex. Schools, Utilities, Liquor Stores, Employee Retirement, Airports, Hospitals, Corrections, Transit, Water Terminals	\$US4,763,741	\$US842,562	\$US3,951,935	\$US1,545,988	\$US2,175,447	-
Revised Total CDNS	5,764,127	1,017,815	4,773,937	1,867,554	2,627,940	5,101,278
Revised Total CDNS Per Capita	\$1,560	2,444	\$1,648	\$3,170	\$2,762	\$2,054

Revenue Adjustments for Counties

State	California	Georgia	Illinois	Michigan
County	LA County	Fulton	Cook	Wayne
Population (April 1, 2000)	9,519,338	816,006	5,376,741	2,061,162
Revenue, total (000)	\$US17,130,811	\$US1,221,956	\$US2,939,197	\$US2,111,090
Schools Removed	542,829			
Fed Education Aid	135,486	-	-	-
State Education Aid	305,226	-	-	-
Local Education Aid	9	-	-	-
Education, User Fees	4,694	-	-	-
Prop Tax Portion of Education Funding	97,414	-	870	-
Utility and Liquor Stores Removed				
Federal Transfers for Utilities and Liquor Stores	47,122	2,095	3,097	78,543
State Transfers for Utilities and Liquor Stores	2,355,648	9,949	107,724	89,665
Local Transfers for Utilities and Liquor Stores	302,202	1,691	1,226	153,401
Utility and Liquor Store Revenue	35,858	57,786	-	-
Water and Transit Charges Added Back	35,858	57,786	-	-
Employee Retirement Revenue Removed	2,528,813	129,188	668,420	197,257
Other Items Removed				
Federal Transfers for Airports	-	-	-	5,814
Airport User Fees	2,622	-	-	199,488
Hospital User Fees	507,136	-	186,702	-
Revised Total ex. Schools, Utilities, Liquor Stores, Employee Retirement, Airports, Hospitals, Corrections, Transit	\$US10,844,439	\$US1,079,033	\$US1,971,158	\$US1,386,922
Revised Total CDNS	13,100,082	1,303,472	2,381,159	1,675,402
Revised Total CDNS Per Capita	\$1,376	\$1,597	\$443	\$813

State	California	Georgia	Illinois	Massachusetts	Michigan	Ontario
City/County	LA City/LA County	Atlanta/Fulton	Chicago/Cook	Boston	Detroit/Wayne	Toronto
Revised Total Revenue CDNS Per Capita	\$2,935	\$4,041	\$2,091	\$3,170	\$3,575	\$2,054

Expenditure Adjustments for Large Cities

State	California	Georgia	Illinois	Massachusetts	Michigan	Ontario
City	Los Angeles	Atlanta	Chicago	Boston	Detroit	Toronto
Population (April 1, 2000)	3,694,820	416,474	2,896,016	589,141	951,270	2,481,494
Expenditure, total (000)	\$US8,682,872	\$US1,345,760	\$US6,021,880	\$US2,629,931	\$US4,852,716	\$CDN7,039,622
Schools Removed						
Total K-12 + Higher Ed Expenditures	-	-	805	756,006	1,561,212	-
Utilities & Liquor Stores Removed						
Utilities & Liquor Stores Expenditures	1,905,593	-	-	-	-	-
Employee Retirement Expenditure						
	994,955	138,929	838,859	237,275	440,877	
Other Items Removed						
Airports	643,420	233,864	560,432	-	5,769	-
Hospitals	-	-	-	65,946	-	-
Corrections	-	27,651	-	85,636	1,605	
Transit	52,093	-	38,624	62,238	166,141	1,316,721
Revised Total Expenditure ex. Schools, Utilities, Liquor Stores, Employee Retirement, Airports, Hospitals, Corrections, and Transit	\$US5,086,811	\$US945,316	\$US4,583,160	\$US1,422,830	\$US2,677,112	\$CDN5,722,901
Revised Total Exp. CDNS	6,144,868	1,141,942	5,536,457	1,718,779	3,233,951	5,722,901
Revised Total Exp. CDNS Per Capita	\$1,663	\$2,742	\$1,912	\$2,917	\$3,400	\$2,306

Expenditure Adjustments for Counties				
State	California	Georgia	Illinois	Michigan
City	LA County	Fulton	Cook	Wayne
Population (April 1, 2000)	9,519,338	816,006	5,376,741	2,061,162
Expenditure, total (000)	\$US4,364,547	\$US1,097,350	\$US2,521,189	\$US2,167,389
Schools Removed				
Total K-12 + Higher Ed Expenditures	542,829	-	870	-
Utilities & Liquor Stores Removed				
Utilities & Liquor Stores Expenditures				
Employee Retirement Expenditure	1,065,307	33,729	199,487	91,660
Other Items Removed				
Airports	4,876	-	-	346,991
Hospitals	1,603,014	143,450	816,994	59,452
Corrections	842,963	45,705	323,684	170,345
Transit	13,395	188,653	-	-
Revised Total Expenditure ex. Schools, Utilities, Liquor Stores, Employee Retirement, Airports, Hospitals, Corrections, and Transit	\$US10,305,558	\$US874,466	\$US1,180,154	\$US1,498,941
Revised Total Exp. CDNS	12,449,114	1,056,355	1,425,626	1,810,721
Revised Total Exp. CDNS Per Capita	\$1,308	\$1,015	\$265	\$878

State	California	Georgia	Illinois	Massachusetts	Michigan	Ontario
City/ County	LA City/LA County	Atlanta/ Fulton	Chicago/ Cook	Boston	Detroit/ Wayne	Toronto
Revised Total Revenue CDNS Per Capita	\$2,969	\$3,757	\$2,177	\$2,917	\$4,278	\$2,306

Revenue Adjustments for Medium-Sized Cities						
State	California	Georgia	Illinois	Massachusetts	Michigan	Ontario
County	Fremont	Augusta-Richmond	Rockford	Worcester	Grand Rapids	London
Population (April 1, 2000)	203,413	199,775	150,115	172,648	197,800	336,539
Revenue, total (000)	\$US173,558	\$US227,360	\$US166,289	\$US487,456	\$US369,043	\$CDN545,572
Schools Removed						
Fed Education Aid	-	-	-	5,284	-	-
State Education Aid	-	-	-	169,012	-	-
Local Education Aid	-	-	-	-	-	-
Education, User Fees	-	-	-	4,005	-	-
Prop Tax Portion of Education Funding	-	-	-	87,042	-	-
Utility and Liquor Stores Removed						
Federal Transfers for Utilities and Liquor Stores	2,281	5,049	507	11,295	10,856	-
State Transfers for Utilities and Liquor Stores	3,371	2,219	1,165	9,132	11,016	-
Local Transfers for Utilities and Liquor Stores	559	-	1,452	-	84	-
Utility and Liquor Store Revenue	35	20,804	17,057	19,223	33,117	-
Water and Transit Charges Added Back	35	20,804	17,057	19,223	33,117	-
Employee Retirement Revenue Removed						
	-	5,187	21,080	31,751	85,795	-
Other Items Removed						
Federal Transfers for Airports	-	-	-	1	-	-
Airport User Fees	-	8,124	-	1,146	-	-
Hospital User Fees	-	-	-	-	-	-
Transit User Fees	-	721	-	-	-	18,658
Revised Total ex. Schools, Utilities, Liquor Stores, Employee Retirement, Airports, Hospitals, Corrections, and Transit	\$US167,347	\$US206,060	\$US142,085	\$US168,788	\$US261,292	-
Revised Total CDNS	202,155	248,920	171,639	203,896	315,641	526,914
Revised Total Revenue CDNS Per Capita	\$993	\$1,245	\$1,142	\$1,180	\$1,596	\$1,564

Revenue Adjustments for Counties			
State	California	Illinois	Michigan
County	Alameda	Winnebago	Kent
Population (April 1, 2000)	1,443,741	278,418	574,335
Revenue, total (000)	\$US2,395,407	\$US90,568	\$US398,284
Schools Removed			
Fed Education Aid	307	-	-
State Education Aid	14,884	-	-
Local Education Aid	10	-	-
Education, User Fees	2,570	-	-
Prop Tax Portion of Education Funding	11,979	382	-
Utility and Liquor Stores Removed			
Federal Transfers for Utilities and Liquor Stores	14,338	-	5,670
State Transfers for Utilities and Liquor Stores	40,120	3,696	12,652
Local Transfers for Utilities and Liquor Stores	65,216	-	14,878
Utility and Liquor Store Revenue	-	-	23,070
Water and Transit Charges Added Back	-	-	-
Employee Retirement Revenue Removed	571,150	-	17,506
Other Items Removed			
Federal Transfers for Airports	-	-	-
Airport User Fees	-	-	15,984
Hospital User Fees	64,753	-	29,455
Revised Total ex. Schools, Utilities, Liquor Stores, Employee Retirement, Airports, Hospitals and Corrections	\$US1,610,080	\$US86,490	\$US279,069
Revised Total CDNS	1,944,977	104,480	337,115
Revised Total Revenue CDNS Per Capita	\$1,347	\$375	\$587

State	California	Georgia	Illinois	Massachusetts	Michigan	Ontario
City/County	Fremont/ Alameda	Augusta/ Richmond	Rockford/ Winnebago	Worcester	Grand Rapids/ Kent	London
Revised Total Revenue CDNS Per Capita	\$2,340	\$1,245	\$1,517	\$1,180	\$2,183	\$1,564

Expenditure Adjustments for Medium-Sized Cities

State	California	Georgia	Illinois	Massachusetts	Michigan	Ontario
County	Fremont	Augusta-Richmond	Rockford	Worcester	Grand Rapids	London
Population (April 1, 2000)	203,413	199,775	150,115	172,648	197,800	336,539
Expenditure, total (000)	\$US180,438	\$US225,206	\$US152,365	\$US523,332	\$US302,787	\$CDN664,890
Schools Removed						
Total K-12 + Higher Ed Expenditures	-	-	-	265,343	-	-
Utilities & Liquor Stores Removed						
Utilities & Liquor Stores Expenditures	-	-	-	-	-	-
Employee Retirement Expenditure						
	-	5,531	11,171	37,908	23,098	-
Other Items Removed						
Airports	-	8,749	-	1,956	-	-
Hospitals	-	2,504	-	-	-	4,286
Corrections	-	13,362	-	-	1,425	-
Transit	201	2,404		1,470	1,833	34,915
Revised Total Expenditure ex. Schools, Utilities, Liquor Stores, Employee Retirement, Airports, Hospitals, Corrections, Transit	\$US180,237	\$US192,656	\$US141,194	\$US216,655	\$US276,431	\$CDN625,690
Revised Total Exp. CDN\$	217,726	232,728	170,562	261,719	333,929	625,690
Revised Total Exp. CDN\$ Per Capita	\$1,070	\$1,165	\$1,136	\$1,516	\$1,688	\$1,859

Expenditure Adjustments for Counties			
State	California	Illinois	Michigan
County	Alameda	Winnebago	Kent
Population (April 1, 2000)	1,443,741	278,418	574,335
Expenditure, total (000)	\$US2,030,880	\$US93,759	\$US376,809
Schools Removed			
Total K-12 + Higher Ed Expenditures	29,750	382	-
Utilities & Liquor Stores Removed			
Utilities & Liquor Stores Expenditures	-	-	17,725
Employee Retirement Expenditure	118,977	-	8,885
Other Items Removed			
Airports	-	-	9,734
Hospitals	289,501	-	27,148
Corrections	166,321	5,435	29,756
Transit	-	-	-
Revised Total Expenditure ex. Schools, Utilities, Liquor Stores, Employee Retirement, Airports, Hospitals, Corrections, Transit	\$US1,426,331	\$US87,942	\$US283,561
Revised Total Exp. CDNS	1,723,008	106,234	342,542
Revised Total Exp. CDNS Per Capita	\$1,193	\$382	\$596

State	California	Georgia	Illinois	Massachusetts	Michigan	Ontario
City	Fremont/ Alameda	Augusta/ Richmond	Rockford/ Winnebago	Worcester	Grand Rapids/ Kent	London
Revised Exp. Total CDNS Per Capita	\$2,265	\$1,165	\$1,518	\$1,516	\$2,285	\$1,859