

Missing opportunities: Ontario's urban prosperity gap

The Institute for Competitiveness & Prosperity
Working Paper 3
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The Institute for Competitiveness & Prosperity is an independent not-for-profit organization established in 2001 to serve as the research arm of Ontario's Task Force on Competitiveness, Productivity & Economic Progress.

Working Papers published by the Institute are primarily intended to inform the work of the Task Force. In addition, they are designed to raise public awareness and stimulate debate on a range of issues related to competitiveness and prosperity.

The mandate of the Task Force, which was announced in the April 2001 Speech from the Throne, is to measure and monitor Ontario's competitiveness, productivity and economic progress compared to other provinces and U.S. states and to report to the public on a regular basis.

It is the aspiration of the Task Force to have a significant influence in increasing Ontario's competitiveness, productivity and capacity for innovation. This, they believe, will help ensure continued success in the creation of good jobs, increased prosperity and a high quality of life for all Ontarians. The Task Force intends to seek breakthrough findings from their research and to propose significant innovations in public policy which stimulate businesses, governments and educational institutions to take action.

The Task Force's First Annual Report to the people of Ontario, *Closing the prosperity gap*, was published in the fall of 2002. The Second Annual Report will be published in the fall of 2003.

Comments on this working paper are welcome and should be directed to the Institute for Competitiveness & Prosperity (see inside back cover for contact information).

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Missing opportunities:
Ontario's urban
prosperity gap

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I am pleased to present the third working paper of the Institute for Competitiveness & Prosperity in support of the Task Force on Competitiveness, Prosperity & Economic Progress.

The Institute's working papers are intended to help the Task Force to stimulate discussion among stakeholders in Ontario's prosperity on key issues affecting our economic progress. Our mandate is to focus on measuring and monitoring Ontario's economic progress against other provinces and US states.

One of the key themes that has emerged through our work is the importance of our cities in fostering an environment of prosperous economic activity. Cities are increasingly becoming hubs of commercialization and competition as well as magnets for the skilled workers so necessary for innovation and productivity. This working paper identifies some of the advantages and challenges in our cities for closing the prosperity gap identified by the Task Force in its First Annual Report, *Closing the prosperity gap*.

Ontario's cities provide many of the foundations for strengthening productivity to close the prosperity gap – an effective primary, secondary and higher education system, a vibrant creative class of workers, a positive mix of clusters of traded industries, and a steady inflow of educated and skilled immigrants, the “brain gain”.

However, our work is also indicating that we are missing opportunities for our future prosperity. The major source of Ontario's prosperity gap against our peer group of US states is located in our cities. In contrast, outside our city-regions we have a prosperity lead over similar parts of the peer group. As we assess attitudes, investments, motivations, and structures, we conclude that the prosperity gap in our cities ought not to be a surprise. Aspirations among our students may not be high enough. Trends in our investments in human and physical capital continue to be worrisome. We are not capitalizing adequately on the tremendous opportunity offered by our cities' immigrants. The fiscal and political structures governing our cities are not contributing enough to prosperity. If we are to close the prosperity gap we need to address these challenges.

We gratefully acknowledge funding support from the Ontario Ministry of Enterprise Opportunity & Innovation and collaborative support from the Institute for Strategy and Competitiveness, Harvard Business School.

As we continue our research into Ontario's competitiveness, productivity, and economic progress, we look forward to sharing and discussing our findings with all Ontarians. We welcome your reactions to this working paper and encourage any comments or suggestions.

Roger L. Martin, *Chairman*
Institute for Competitiveness & Prosperity

Executive Summary



Missing opportunities: Ontario's urban prosperity gap

One of the recurring themes arising out of the research conducted by the Institute for Competitiveness & Prosperity is the importance of urbanization to a region's prosperity. In Working Paper 1, *A View of Ontario: Ontario's Clusters of Innovation*, we synthesized current research by leading urban geographers and economists linking urbanization, innovation, learning, and urban policy and concluded that cities provided an environment for economic progress. In Working Paper 2, *Measuring Ontario's Prosperity: Developing an Economic Indicator System*, we noted the relationship between a region's degree of urbanization and its productivity. We found that Ontario's relatively low degree of urbanization is a significant contributor to our productivity and prosperity gap against our peer group of 15 other jurisdictions in North America. Finally, in work for the Task Force on Competitiveness, Productivity & Economic Progress in its First Annual Report, *Closing the prosperity gap*, we found that Ontario cities have some strengths in its creative class that support prosperity.

Further research conducted in preparation of this Working Paper 3 indicates that our urban areas are the source of our prosperity gap versus our peer group. We estimate GDP per capita in Ontario's urban areas to be 12.8 percent below that in our peer group's urban areas. By contrast, outside our urban areas, we have a slight prosperity lead over non-urban areas in our peer group. If we are to close Ontario's prosperity gap, significant productivity improvements are required in our cities.

We believe that Ontario has opportunities to increase our productivity in our city regions, but that our cities are handicapped

by significant economic, fiscal, and political barriers to closing the prosperity gap.

This belief is based on three conclusions from our work:

- The urban productivity gap is the key challenge to closing Ontario's prosperity gap
- Metro areas have opportunities to improve productivity and handicaps to overcome
- To point the way to capture opportunities, key themes for debate and future work are our investments in physical and social capital and the appropriateness of our governance structures.

Urban productivity and Ontario prosperity

The urban productivity gap is the key challenge to closing Ontario's prosperity gap

Overall, the prosperity gap in our cities in 2000 stood at \$5,779 per capita. As in our previous work, we assessed the prosperity gap in our cities by comparing Ontario's performance on the four elements behind GDP per capita: demographic **profile**, labour force **utilization**, work **intensity**, and **productivity**.

In evaluating the contribution to the prosperity gap, we find in our cities that the first three elements taken together are strengths in Ontario's city regions – accounting for an advantage of \$1,184 per capita. We have a higher percentage of our population of working age than the median of our peer group. Our ability to attract and employ working-age Ontarians is almost at a par with our peer group. Similarly, the intensity of employment, as expressed by hours worked per worker, is estimated to be a slight disadvantage in Ontario's cities.

The primary source of the prosperity gap found in our urban areas is lower productivity. In fact, the productivity gap of \$6,963 in our cities is larger than the total prosperity gap – overwhelming the advantage in the other three elements. This lagging productivity is the result of lower educational attainment among our city dwellers and lower overall effectiveness in converting our natural, physical, and human resources into goods and services. Our mix of clusters is a positive contributor to productivity in our cities.

The clear message from our assessment of the prosperity gap in Ontario is that, with lower productivity and educational attainment than our peer group, we are not capitalizing on the advantages or realizing the potential of our metro areas for productivity improvements. Just as clearly, our cities need to capture some of the opportunities for strengthening urban productivity and prosperity and to address the barriers that are handicapping our progress.

Challenges to cities' productivity capacity Metro areas have opportunities to improve productivity and handicaps to overcome

In its First Annual Report, the Task Force concluded that Ontario's capability to strengthen productivity is driven by its capacity for innovation and upgrading. This capacity is built on an integrated set of four factors.

- **Attitudes.** Work done by Professors Richard Florida and Meric Gertler identified strengths in Ontario cities in the areas of immigration and creativity. However, their work identified some potential human capital disadvantages related to the lower percentage of Ontarians with university degrees. We are concerned that we are not capitalizing on the potential economic advantage represented by our success in attracting immigrants to our cities.
- **Investments.** An important part of the fabric of our cities is our system of elementary and secondary schools. We worry that our investment in this system is not keeping pace with the growth achieved in our peer group of states. However, this relative decline has not shown up in results. Ontario students outperform their US counterparts in standardized tests, and a higher percentage of them successfully graduate from high school. Still, we observe that a smaller proportion of our high school graduates choose to attend a four-year university program and that aspirations among students, parents, and educators may not be high enough. Attainment of university degrees is a key driver of productivity and this is a weakness for Ontario.
- **Motivations.** Research done by economist Enid Slack for the Institute into revenues, expenditures, and tax rates indicates some disadvantages of municipal governments in not having access to a wider array of tax revenues and user fees. It also indicates that our property tax system is causing distortions in investment and location decisions. In summary, the opportunity for innovative thinking in municipal funding is enormous as property tax systems in Ontario and its peer group are complicated and far from transparent.
- **Structures.** Some of the key fiscal and governance structures supporting cities are not contributing to enhanced productivity. The prosperity of Ontario and its cities is negatively affected by Canada's federal fiscal framework. Ontario's metro voters are under-represented in federal and provincial legislatures. In addition, the municipal governance structure is inadequate to support a significant expansion of fiscal responsibility at that government level.

In summary, we conclude that Ontario can and should take initiatives across these four factors to improve productivity and prosperity in our cities. In particular, efforts should focus on upgrading educational attainment, increasing the benefits from our immigrants' skills, and exploring innovations in our economic and fiscal arrangements and political structures and accountabilities.

Going Forward

Key themes for debate and future work are our investments in physical and social capital and the appropriateness of our governance structures

Our work points to three important themes for further research and discussion among Ontario's stakeholders:

Understanding the opportunities from increasing our educational attainment continues to be a priority for the Institute.

Areas for future debate and research include analyzing the impact of investments in post-secondary education, assessing the respective roles of colleges and universities, identifying opportunities for immigration to improve prosperity, and exploring the attitudes towards post-secondary education in Ontario and our peer group.

Strengthening our understanding of our under-investment in physical capital drives will help explain our prosperity gap.

The Institute is currently researching the relationship between capital accumulation and productivity, comparisons of municipal infrastructure investments between Ontario and its peer group, and consumption/investment tradeoffs made by governments in Ontario and the peer group.

Encouraging stakeholders in Ontario's prosperity to identify options for structure change will enhance our prosperity.

In particular, we are encouraging seeking innovative approaches in interprovincial flows of federal funds, finding ways to redress the imbalance of representation given to voters in metro areas, and exploring the benefits of increasing taxing and spending authorities of municipalities, particularly the larger ones.

Ontario's prosperity gap is dominant in cities

One of the recurring themes arising out of the research conducted by the Institute for Competitiveness & Prosperity is the importance of urbanization to a region's prosperity. In our past working papers and annual report, we identified a large prosperity gap in Ontario compared with our peer regions in North America and observed that relatively low urbanization is a major contributor to the difference. We also observed that Ontario's cities have some potential competitive advantages. This Working Paper 3, *Missing opportunities: Ontario's urban prosperity gap*, explores those advantages and some of the disadvantages that must be overcome so that our urban areas can lead the province to greater prosperity.

Low urbanization is a drag on Ontario's prosperity

In Working Paper 1, *A View of Ontario: Ontario's Clusters of Innovation*, the Institute observed that, "Cities are emerging as an increasingly important geographic entity, making national and provincial or state boundaries less significant than regional boundaries in some cases." This increased importance of cities is occurring in spite of the belief by some that information and telecommunications technology advances are making geographic location less important to economic development. Ironically, location is becoming more important and yet political importance of Ontario's cities is standing still.

Working Paper 1 summarized current research by Canadian and other urban geographers and economists that linked urbanization, innovation, learning, and urban policy:

- In addition to encouraging commercialization, urbanization is linked to innovation (Smith K., 2001)

- As those with sought-after skills, innovative people choose to live in areas with the high level of cultural diversity that only cities can offer (Florida, 2001)
- Cities are identified as centres of learning through the sheer volume of people and events, and this is a likely source of innovation (Wolfe, 2001)
- Urban density is linked with immigration (Fulton *et al.* 2001), and Ontario's cities with their high rates of immigration and cultural diversity are ripe for the innovation benefits that come from urbanization (Gertler, 2001)
- Density that comes with cities lowers infrastructure costs (Slack, 2002)
- With the increased importance of cities to the current and future prosperity of the country, then all the great policy questions of the day – education, health, poverty, housing, immigration, and fiscal accountability – are urban policy questions. (Gertler, 2001 and Courchene, 2001).

Working Paper 1 also identified the importance of clusters of traded industries to a region's competitiveness, innovation, and prosperity and identified the leading clusters in Ontario's largest urban areas.

In Working Paper 2, *Measuring Ontario's Prosperity: Developing an Economic Indicator System*, the Institute identified a link between the degree of urbanization and the labour productivity of province or a state. Comparing Ontario and its peer group of 15 other jurisdictions in North America, the Institute observed a positive and statistically significant relationship between the percentage of a state or provincial population living in metro areas¹ and labour productivity in each jurisdiction.²

¹ Census Metropolitan Areas or CMAs in Canada and Metropolitan Statistical areas or MSAs in the United States

² As measured in previous work by Industry Canada (Letourneau, 2000)

Box 1: Measuring prosperity in urban and non-urban areas

To understand the impact of urbanization on closing Ontario's prosperity gap, we analyzed information on how prosperity varies between cities and rural areas – metro and non-metro areas – in each of the 16 peer jurisdictions using personal income as the comparative measure.

In Working Paper 2, *Measuring Ontario's Prosperity: Developing an Economic Indicator System*, we identified Gross Domestic Product (GDP) per capita as our key measure of prosperity. GDP measures the output of an economy in terms of value added – that is, how well people have converted natural, capital, and labour resources into products and services that consumers will buy here and around the world.

On a per capita basis, GDP enables comparisons across jurisdictions and over time.

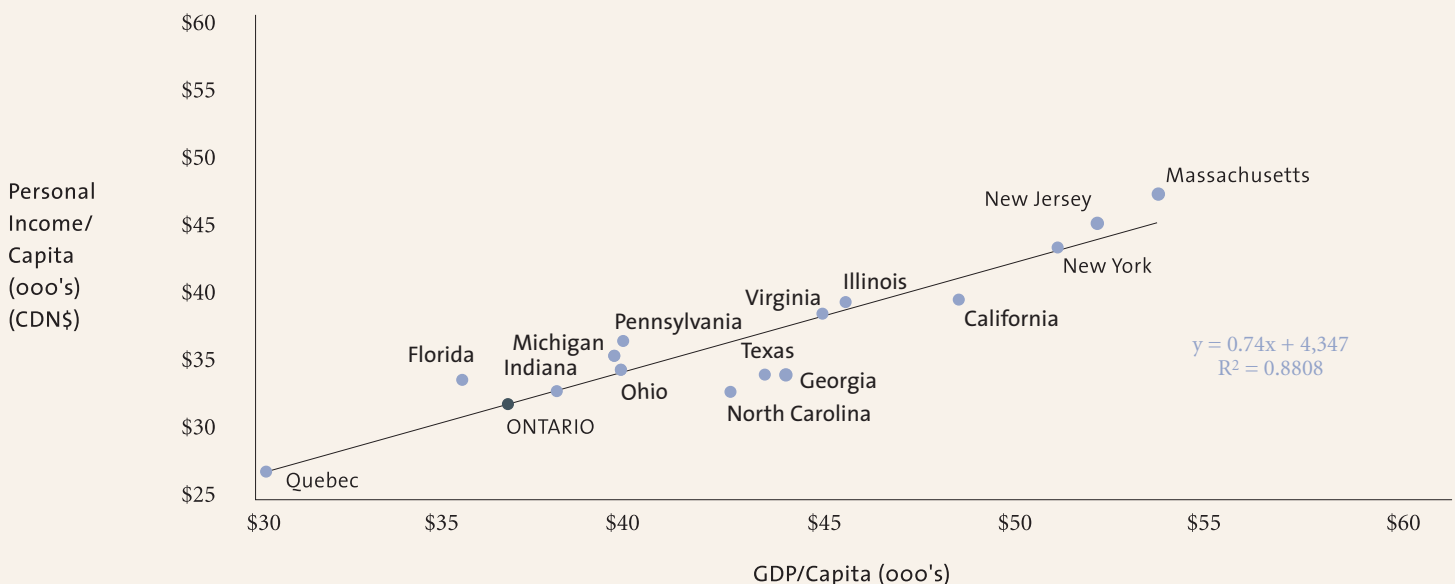
Although government statistical agencies report GDP at the provincial and state levels, they do not measure it at local levels. Many cities estimate their own GDP, yet there is no standardized measure across cities in North America. Some organizations estimate GDP at local levels by applying industry-specific results from nation- or province/state-wide reports to a city's mix of industries. This approach works well when measuring the specific impact of industry mix as the Institute does in measuring the effect of cluster mix (see Working Paper 2, *Measuring Ontario's Prosperity*, pp 24-5). But it is not

effective for measuring prosperity differences arising out of all factors, including higher productivity in metro areas.

For our purposes, we find Personal Income per capita is a useful proxy for GDP per capita. Statistically, this measure removes factors such as capital depreciation, retained corporate profits, and net interest payments by business to result in the payments to individuals.⁹ About 85 percent of GDP is distributed to individuals in the form of pre-tax personal income, and two-thirds of this is in the form of wages; one-third is split evenly between returns on investments and government transfers. Across jurisdictions in the peer group, the relationship between per capita

Per capita GDP and personal income correlate closely

Personal Income and GDP/Capita (CDN\$ PPP), 2000



Source: Institute for Competitiveness & Prosperity based on Statistics Canada, Income Trends in Canada 1980-2000; Bureau of Economic Analysis, Regional Accounts Data; OECD PPP Indices.

Personal Income and GDP is very strong.

Here we estimate local GDP results using the observed relationship between GDP and Personal Income. A jurisdiction's Personal Income per capita equals 74 percent of its GDP per capita plus \$4,347.

Personal Income data are available for Census Metropolitan Areas (CMAs) in Canada and Metropolitan Statistical Areas (MSAs) in the US^a. A CMA (or MSA) is a large urban core and the surrounding area that makes up the local economy. It includes the downtown core, residential areas, and suburbs where the local economy's workers live. The Toronto CMA, for example, includes the municipality of Toronto and stretches to include Pickering on the east, Oakville on the west, and the shores of Lake Simcoe on the north.

We recognize that CMAs are not purely urban areas and for clarity we use the terms "metro" and "non-metro" in this Working Paper as proxies for urban and non-urban.

^a See Table No. 637 in the *Statistical Abstract of the United States: 2002* for more detail on the relationship between GDP and Personal Income.

^b See Working Paper 1, *A View of Ontario: Ontario's Clusters of Innovation*, p. 34 for a discussion of these two concepts

The Institute calculated that Ontario's lower degree of urbanization relative to the peer group median reduces its productivity and prosperity by about 8.7 percent or \$3,210 versus the median in our peer group.

In further work, The Task Force on Competitiveness, Productivity & Economic Progress in its First Annual Report, *Closing the prosperity gap* synthesized these findings along with new research and concluded that Ontario's cities have significant competitive advantages:

- Ontario's cities have the creative class necessary to compete against our North American peer group based on work conducted by Richard Florida and Meric Gertler
- The important relationship between post-secondary education, productivity, and urbanization is increasingly evident in our cities – cities attract more educated workers than rural areas, and the true synergies that occur when education and urbanization increase lead to increased productivity.

Among its recommendations, the Task Force urged the Ontario government to continue to explore ways to strengthen Ontario's cities. It encouraged local governments and stakeholders to develop plans and strategies to revitalize their urban cores and to devise creative solutions for attracting and retaining knowledge workers. The Task Force also directed the Institute to deepen its understanding of urbanization and prosperity in Ontario.

Ontario cities are key to closing the prosperity gap

This Working Paper 3, *Missing opportunities: Ontario's urban prosperity gap* looks closely at the challenge for Ontario in ensuring that our cities are driving initiatives to close the prosperity gap.

Clearly, prosperity in a jurisdiction is driven by the economic activity in its metro areas. When we measured the prosperity differences between metro (Canadian CMAs and US MSAs) and non-metro areas in Ontario and its peer group of jurisdictions, we found a distinct prosperity variance (Exhibit 1). Prosperity, as represented by our estimates of GDP per capita, is fully 46 percent higher in metro areas than in non-metro areas. While the median GDP per capita across the peer group stood at \$42,713 in 2000, we estimate GDP per capita was \$45,033 in metro areas versus \$30,833 GDP per capita in non-metro areas.³ (See *Measuring prosperity in urban and non-urban areas.*)

Investigating Ontario’s standing against its peer group in metro and non-metro areas, we have reached a more stunning conclusion. The prosperity gap we identified is located in our

metro areas. Comparing Ontario’s metro areas against those in the peer group, we see that Ontario ranks near the bottom in estimated metro GDP per capita – or 12.8 percent below that in our peer group’s metro areas (Exhibit 2).⁴ At the same time, estimated GDP per capita in our non-metro areas is near the top, ranking 3.0 percent above the average for our peer group’s non-metro areas (Exhibit 3).

While it is good news that our non-metro areas have greater prosperity than their peer group, the bad news is that our city regions are under-performing in contributing to Ontario’s prosperity. If we are to close the prosperity gap, significant productivity improvements will need to take place in our cities.

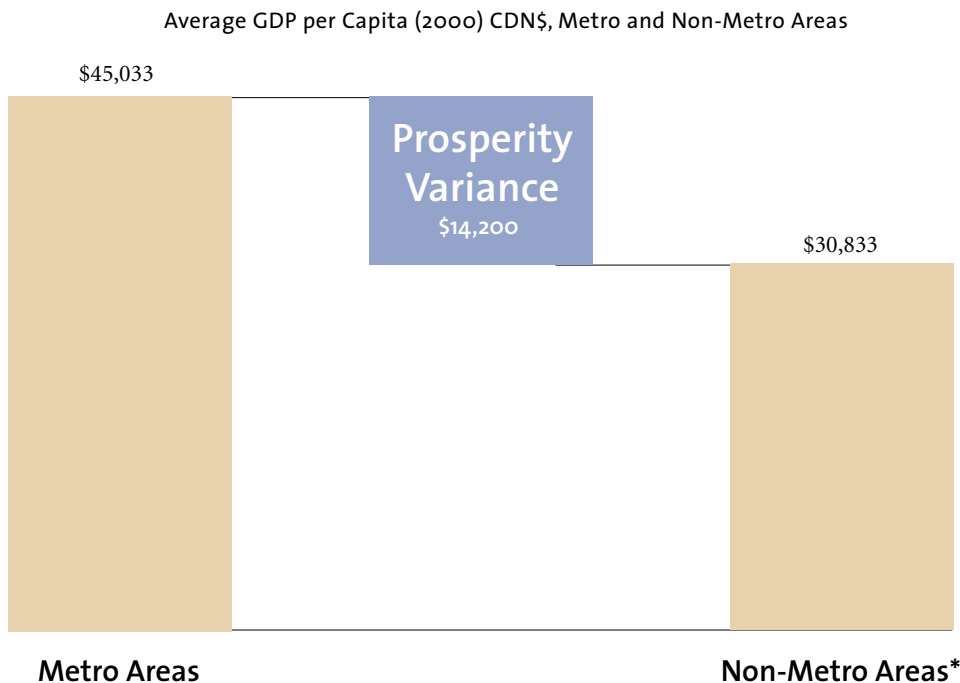
In Working Paper 3, we look more closely at what is behind the prosperity gap in Ontario’s

metro areas to understand the key challenges that Ontarians must address to ensure that our cities work towards closing Ontario’s prosperity gap. To do this, we:

- Document the urban productivity gap as our key challenge in closing Ontario’s prosperity gap
- Identify opportunities and barriers to improving urban productivity
- Set out the three key themes for debate and future work: the impact of educational attainment on Ontario’s prosperity; the under-investment in physical capital; and the opportunity to strengthen structures to contribute to higher prosperity.

Overall, we believe that Ontario has the opportunities to increase productivity in our city regions – the key challenge facing Ontarians – but that we need to take better advantage of these opportunities and address some of the significant economic, fiscal, and political barriers to closing the prosperity gap.

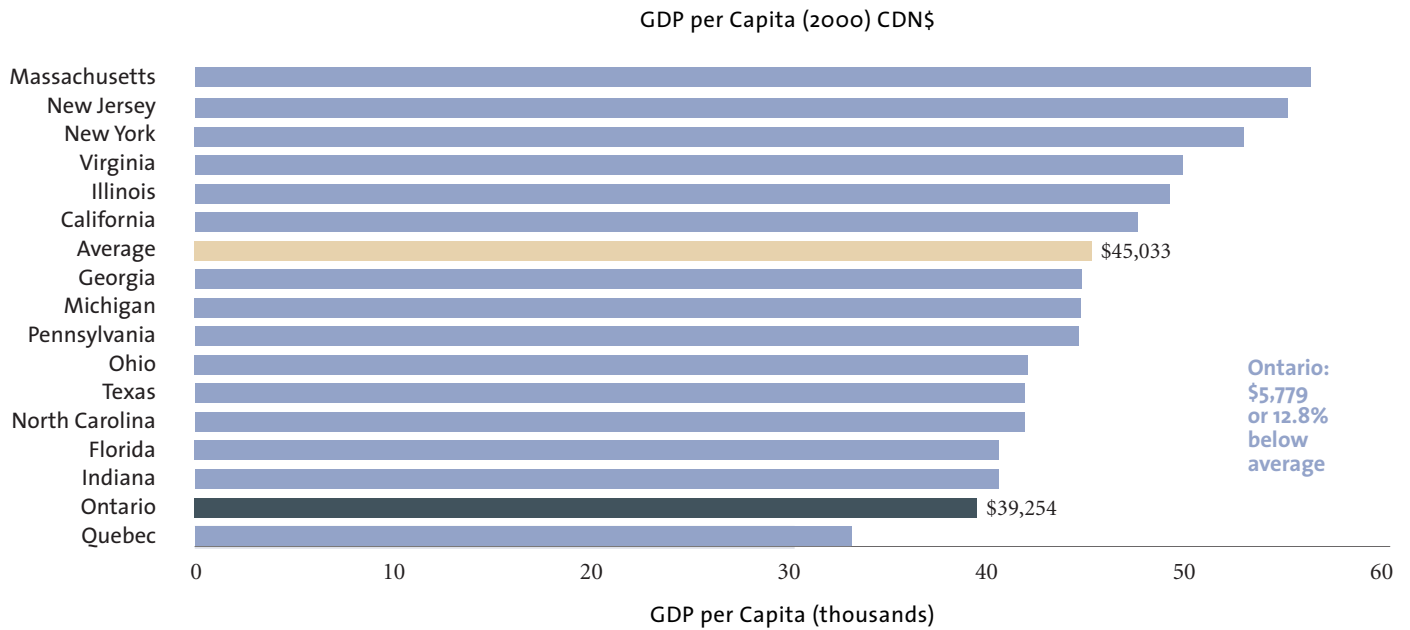
Exhibit 1: Ontario and peer group have significant urban/rural prosperity variance



³ Note that Canadian dollars are used throughout this Working Paper using Purchasing Power Parity Index for conversion. See The Task Force’s First Annual Report, *Closing the prosperity gap*, p. 18 for an explanation of Purchasing Power Parity

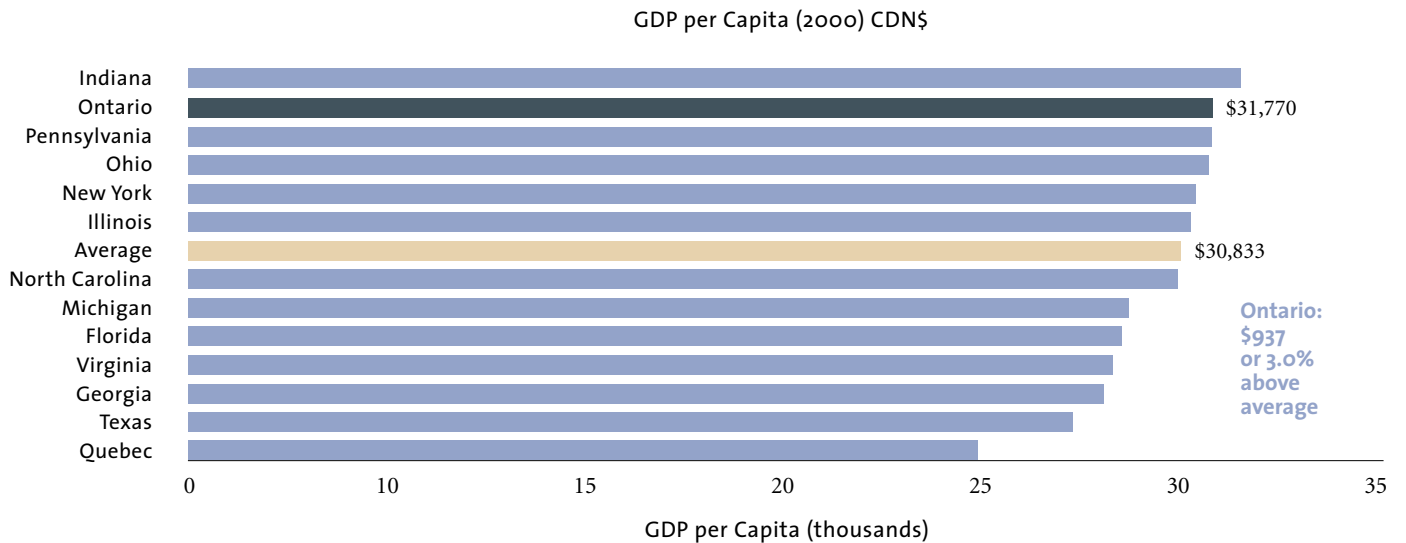
⁴ While our usual measure of central tendency for the peer group is the median, we are using the simple average for metro and non-metro GDP per capita. Converting the urban and rural incomes to GDP using the regression equation results in median values that do not calibrate well with the overall GDP per capita values, largely because of the results of the two middle states in the distribution. Using the simple average does calibrate well and we have used it here.

Exhibit 2: Ontario's urban prosperity is near bottom of peer group



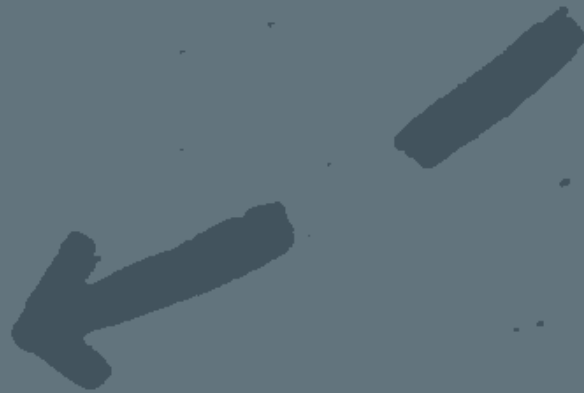
Source: Institute for Competitiveness & Prosperity based on Statistics Canada, Income Trends in Canada 1980–2000; Bureau of Economic Analysis, Regional Accounts Data; OECD PP Indices

Exhibit 3: Ontario's rural prosperity is near the top of peer group



Source: Institute for Competitiveness & Prosperity based on Statistics Canada, Income Trends in Canada 1980–2000; Bureau of Economic Analysis, Regional Accounts Data; OECD PPP Indices.
 Note: Excludes states with less than 5% of population living in non-metro areas (New Jersey 0%, California 3%, and Massachusetts 4%)

Urban productivity and Ontario prosperity

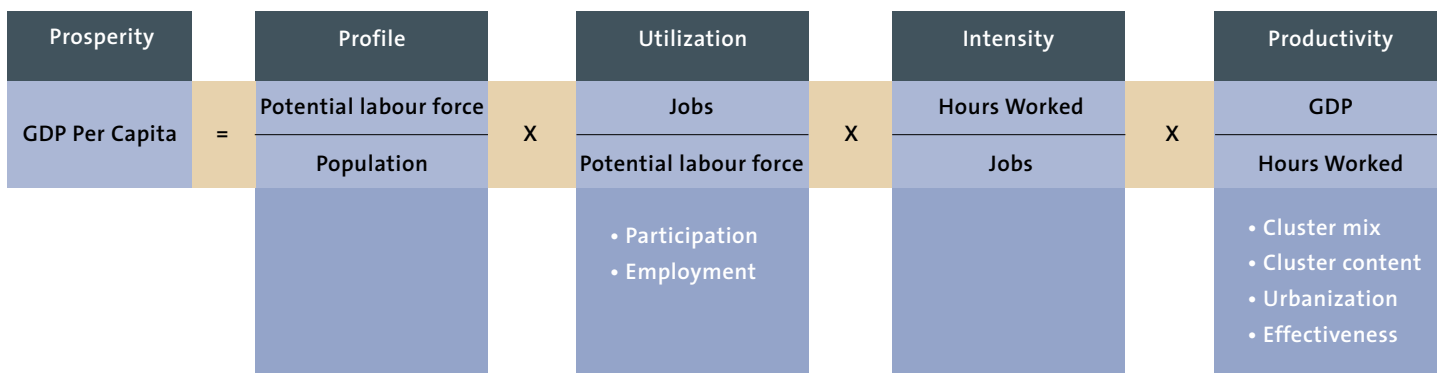


The urban productivity gap is the key challenge to closing Ontario's prosperity gap

In our previous work we set out a framework for analyzing the prosperity gap as represented by GDP per capita (Exhibit 4). Four elements account for GDP per capita:

- The **demographic profile** in a jurisdiction – the percentage of the population that is of working age
- The **utilization** of the working age population – the percentage of those of working age who seek and find work
- The **intensity** of work – the number of hours the workers on average are working
- The **productivity** of the workforce – how much value is added by workers when they are working.

Exhibit 4: Prosperity equation includes 4 elements



Source: Adapted from Baldwin, J., Maynard, J.P., and Wells, S.(2000). "Productivity Growth in Canada and the United States." Isuma. Vol. No.1 (Spring 2000), Ottawa Policy Research Institute.

Our analysis of the four elements behind the metro prosperity gap reveals two key findings (Exhibit 5). First, three elements – profile, utilization, and intensity – account for little of the prosperity gap. In fact, they are slightly positive features of our economy. Second, lower productivity is the key driver of our metro prosperity gap. We discuss each in turn.

Together, Ontario’s demographic profile, utilization, and intensity are strengths in our city regions

Ontario’s demographic profile is a positive feature of our urban economy relative to the peer group of jurisdictions (Exhibit 5). With 68.3 percent of our population between the ages of 16 and 64 versus a median of 65.0 percent in our peer group, this profile adds about 5.1 percent to our GDP per capita or \$1,897. In Ontario’s non-metro areas, demographic profile is a slight disadvantage at 62.5 percent

versus the median of 63.5 percent (Exhibit 6).

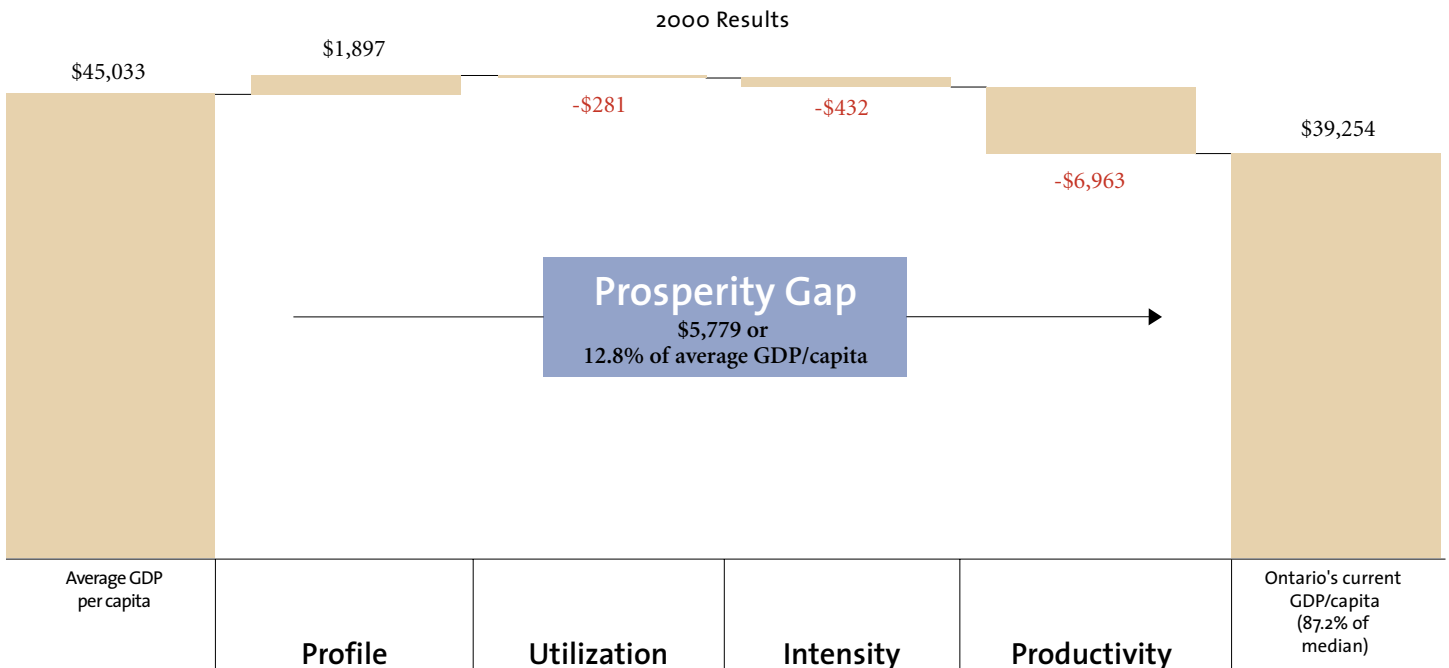
However, Ontario’s urban economies utilize a slightly smaller percentage of their working-age population – about 65.3 percent versus 65.8 percent in the peer group. This utilization is the net effect of a higher participation rate and a lower employment rate.³ For non-metro Ontario, utilization represents a slight advantage to its peer group – the net effect of an advantage in participation and a disadvantage in employment.

Data for intensity (average hours worked per week) are not available at the state level. The \$432 shortfall we show is an estimate based on national-level data. We have measured intensity differences in Ontario and found little difference between metro and non-metro intensity levels and have assumed a similar pattern in US results.

Lagging productivity is the key source of the metro prosperity gap – driven by lower educational attainment rates and lower effectiveness

The primary source of the prosperity gap found in our urban areas is productivity. In fact, the productivity gap of \$6,963 in our cities is larger than the total prosperity gap. While the prosperity gap between Ontario’s metro areas and those in the peer group is \$5,779 per capita, we have an even greater productivity gap – fully \$6,963 per capita – overwhelming the net advantage in the other three areas. In our previous work, we identified four factors within productivity: the mix of industry clusters, the content of our clusters, urbanization, and effectiveness. As this Working Paper is essentially digging deeper into the urbanization factor, we cannot use it as a factor in this analysis. However, we have assessed the impact of our educational

Exhibit 5: Ontario’s urban prosperity gap is driven by productivity



Source: Institute for Competitiveness & Prosperity based on Statistics Canada, Bureau of Economic Analysis
 Note: Average comprises 16 North American jurisdictions with populations that exceed 6 million

attainment levels in Ontario's metro areas against its peer group. Looking more closely at the impact of our clusters and education levels we find the following.

Cluster mix and cluster content in Ontario's metro areas contribute positively to our productivity

In our previous work, we reviewed the importance of clusters of traded industries to an economy's productivity, innovation, and standard of living. Working with Michael Porter and the Harvard-based Institute for Strategy and Competitiveness, the Institute has developed a database of Ontario's (and Canada's) clusters of traded industries.⁵ In comparison to our peer group, Ontario has an attractive mix of traded industries, natural resources, and local industries. This beneficial mix – derived from Ontario's strength in automotive, business services, financial services, metal manufactur-

ing, and other traded clusters – raises our wage levels above what would be expected if our mix were the same as that in our peer group.

Our analysis of Ontario's cluster mix at the metro level compared to that in our peer group indicates a similar positive impact, which we estimate to be \$1,048 per capita. We also estimate that the mix of sub-clusters within our clusters is a positive factor in our metro areas' GDP performance. As these estimates are preliminary, we have not included them in the assessment of our prosperity gap.

Higher education is linked to higher productivity

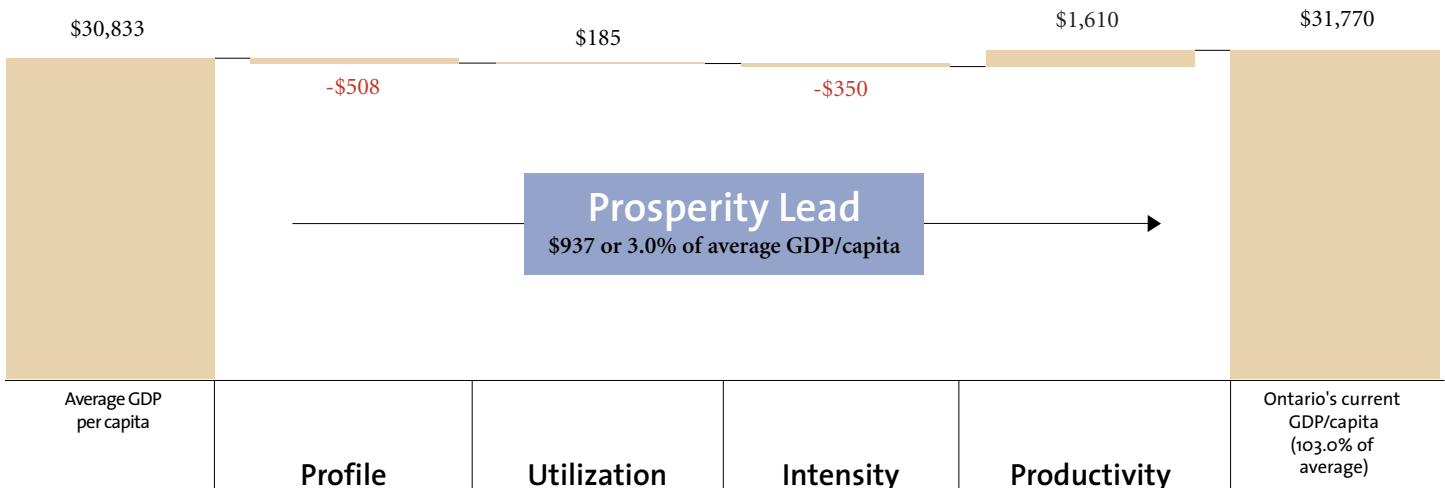
Most economists agree that the level of education attained across the work force is an important determinant of the "quality" of an economy's social capital. Laidler (2002) summarizes the relationship:

"to the extent that a more educated and better trained labor force is able to produce more output because it embodies more human capital, the proportion of the economy's labor force that has received higher education affects the level of the economy's productivity as measured by output per person-hour of work" (p. 8).

⁵ Utilization is the product of the participation rate and the employment rate. The participation rate is the percentage of people aged 16 or higher who are seeking work. Ontario's metro participation rate is 69.1 percent versus the peer group median of 68.5 percent. Ontario's participation rate in general relative to the peer group has risen compared to what was reported in the Task Force's First Annual Report as there has been an actual improvement in the rate and because the Institute has gathered more accurate data from Statistics Canada and the US Census Bureau. Our employment rate, which is the percentage of people participating in the work force who are actually working, continues to be slightly lower than in the peer group – 94.6 percent versus 96.1 percent.
⁶ Institute for Competitiveness & Prosperity, *A View of Ontario: Ontario's Clusters of Innovation*, April 2002, pp 18 -20, 26 - 27

Exhibit 6: Ontario's rural prosperity lead is driven by productivity

2000 Results



Source: Institute for Competitiveness and Prosperity based Statistics Canada, Bureau of Economic Analysis
 Note: Average comprises 16 North American jurisdictions with populations that exceed 6 million

Economists point to the increase in earnings associated with higher levels of education as key evidence for the positive impact of education on productivity. The Task Force’s First Annual Report⁷ confirmed that higher productivity is correlated with higher wages. And economic studies show repeatedly that individuals’ earnings increase with the level of education.⁸ In fact, the best single predictor of personal income is level of education.

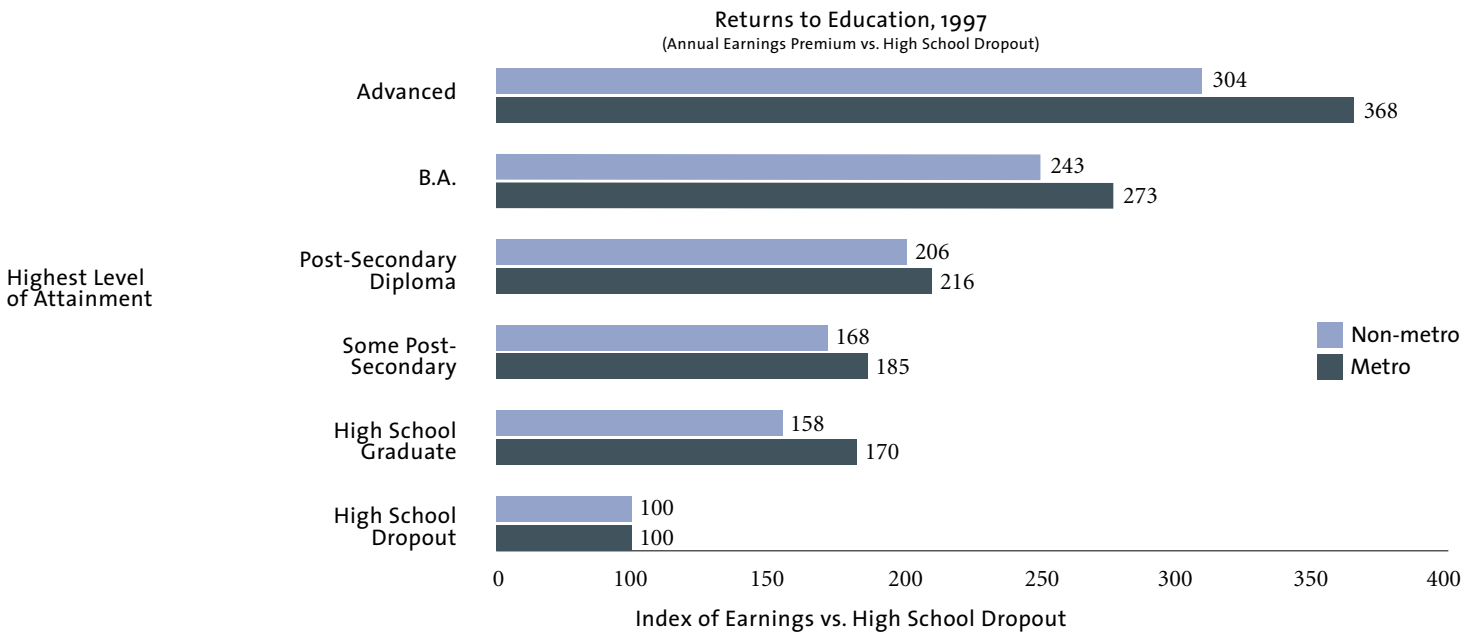
Work done for the Institute by Professors Daniel Treffer and Michael Baker shows that the relationship between education and productivity is even stronger within metro areas than non-metro areas in North America.⁹ They conclude that cities attract more educated workers and that true synergies between the agglomeration impact of urbanization and the productivity impact of higher education occur there.

Tracking income averages by level of education attained shows the returns to education in metro and non-metro areas of Ontario and the peer group (Exhibit 7). These results indicate that, in metro areas, returns to education increase with higher levels of education. A metro resident with only a high school diploma earns 70 percent more on average than a high school dropout. A college diploma generates another annual earnings increase of 27 percent above a high school diploma (or 216 percent of the earnings of a high school dropout as seen in Exhibit 7); earnings increase a further 26 percent with a bachelor’s degree; and an even further 35 percent with a post-graduate degree. In non-metro areas in Ontario, the returns from education are not as pronounced, and they generally do not accelerate through each level. Over a lifetime, these differences are significant.

Davenport¹⁰ observes that the income premium of a university degree over a college diploma increases over the lifetime of individuals. He also observes that unemployment rates are lower among university graduates versus diploma holders and that student loan default rates are lower with the former group, reinforcing the long-term value of university education on lifetime productivity.

When we observe the educational attainment (Exhibit 8) in both metro and non-metro areas, we see that Ontarians are less likely to have university degrees than people in the peer group of states. Given the positive effect of higher education on productivity and our lower attainment in Ontario, we calculate the impact on GDP per capita in urban areas to be a deficit of \$1,480. This represents 21 percent of the overall productivity difference between metro areas in Ontario and its peer group of

Exhibit 7: Returns to education accelerate faster in urban areas



Source: Institute for Competitiveness & Prosperity based on Baker and Treffer, "The Impact of Education and Urbanization on Productivity", www.competeprosp.ca

states. In non-metro Ontario, this educational under-achievement is estimated to have a negative impact on GDP per capita of \$207 versus its peer group.

The differences between Ontario and the more prosperous states in our peer group are even greater. Whereas 23 percent of Ontario metro residents aged 25 or over had a university degree in 2000-01, in Massachusetts – the most prosperous state – the proportion is 33 percent. The difference also holds in the next four most prosperous states: New Jersey (30 percent), New York (28 percent), California (27 percent), and Illinois (27 percent). Also of note is the higher proportion of our population that does not have a high school diploma.

Ontario is only slightly behind its peer group in the percentage of high school students who are destined for university and is more

successful in graduating students from high school. This flow of students is distinct from the current snapshot of all Ontario adults' educational attainment.

The large effectiveness shortfall in Ontario's metro areas versus the peer group remains difficult to explain

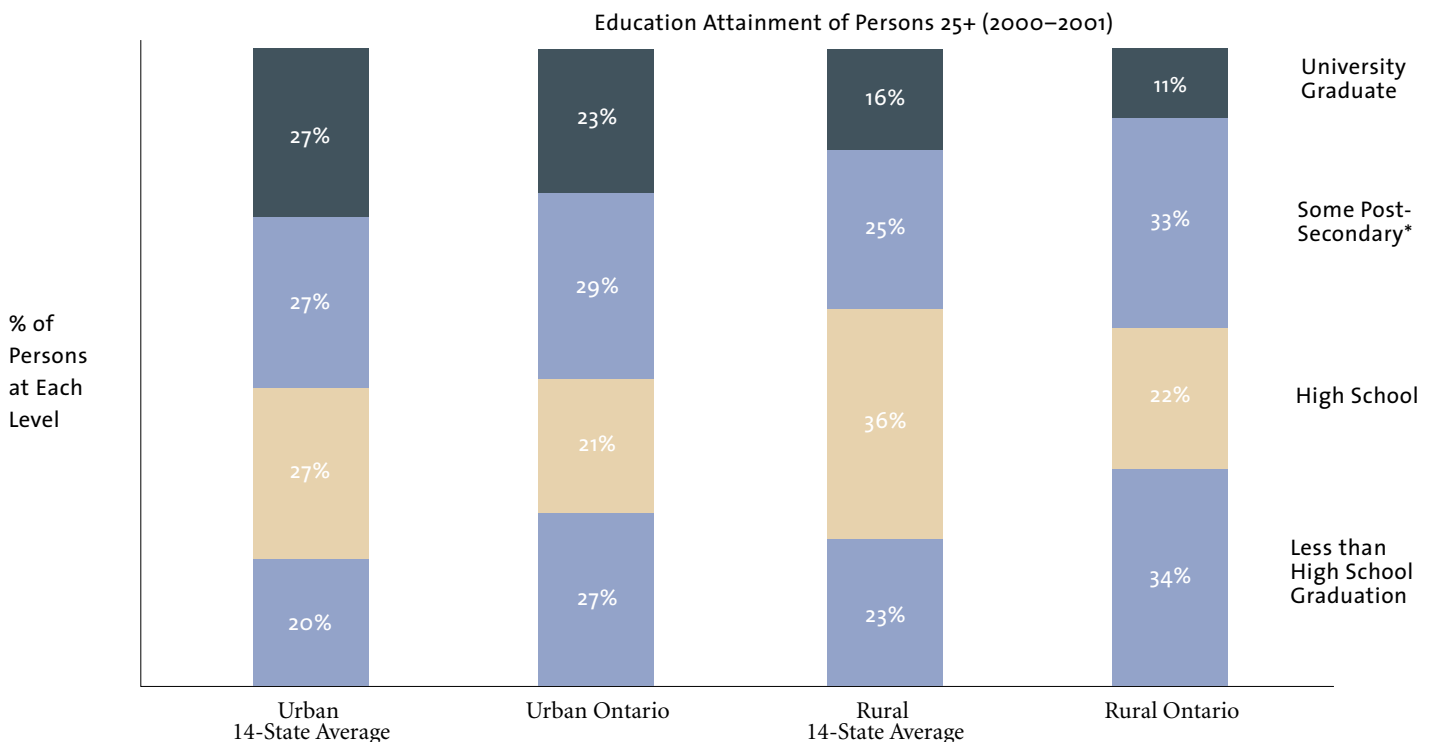
Netted together, the two productivity factors related to cluster mix and education account for only \$432 of the \$6,963 productivity gap. In summary, after equalizing the impact of Ontario's better cluster mix and lower human capital, Ontario's metro areas are less effective than our peer group in converting our natural, physical, and human resources into goods and services than our peer group. In non-metro areas, we cannot measure cluster mix and have estimated the impact of effectiveness to be \$1,817 – the unexplained portion of the productivity advantage after taking account of

the education disadvantage of \$207.

The clear message from our assessment of the prosperity gap in Ontario is that, with lower productivity and educational attainment than our peer group, we are not realizing the potential of our metro areas for productivity improvements. Just as clearly, we need to capture some of the opportunities for strengthening urban productivity and prosperity and address the barriers that are hindering our progress.

⁷ Task Force on Competitiveness, Productivity & Economic Progress, *Closing the prosperity gap*, p. 27
⁸ See Vaillancourt and Bourdeau-Primeau in Laidler (2000) for a literature review of the rates of returns to education and the results of their recent calculations
⁹ *The Impact of Education and Urbanization on Productivity*, Michael Baker and Dan Trefler, University of Toronto (2002). Available on the Institute's web site www.competepropser.ca
¹⁰ in Laidler (2002) see p. 48, Fig. 8 and p. 49

Exhibit 8: Ontarians are less likely to have a university degree than peer states' populations



* Includes persons who have completed college certificate/diploma and associates degrees
 Source: Institute for Competitiveness & Prosperity based on US Census Bureau (Current Population Survey), Statistics Canada

Challenges to cities' productivity capacity



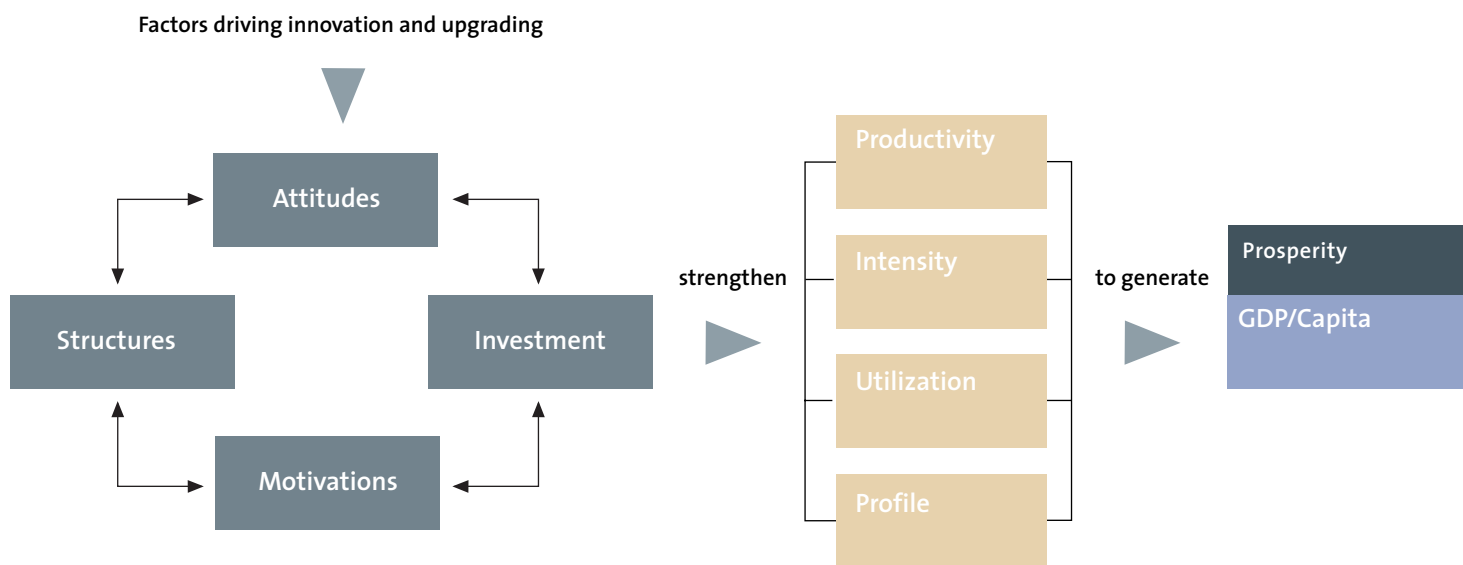
Metro areas have opportunities to improve productivity and handicaps to overcome

In its First Annual Report, the Task Force concluded that Ontario’s capability to strengthen productivity is driven by its capacity for innovation and upgrading and that this capacity is built on an integrated set of four factors (Exhibit 9):

- **Attitudes** towards competitiveness, growth, creativity, and global excellence
- **Investments** in physical and human capital
- **Motivations** for hiring, working, and upgrading as a result of tax policies and government policies and programs
- **Structures** of markets and institutions that encourage and assist upgrading and innovation.

These four factors interact within our urban areas to drive productivity and prosperity. Our research in these areas has identified opportunities and barriers for stakeholders to consider and debate as we explore ways our city regions can close the prosperity gap.

Exhibit 9: AIMS builds capacity for innovation and upgrading



Our attitudes create some real advantages for Ontario's cities – and some need for improvement

Professor Richard Florida of Carnegie Mellon University has discovered that a discernable group of highly creative people – those he calls the creative class – is now the main determinant of a region's economic growth. This group gravitates to cities that are diverse, open to people of different backgrounds and orientations, and have vibrant artistic communities. He has developed measures to rank US cities according to their appeal to the creative class. Not surprisingly, cities such as San Francisco, Austin, and Boston fare well on this index – all are cities with thriving knowledge-based economies and cultural scenes. Professor Florida has found a strong correlation between talent and income and between diversity and income, as well as positive correlations between talent, diversity,

high technology, and income growth. Professor Florida has also found that the presence of technology-intensive activity is positively influenced by a region's openness to immigrants and “Bohemians” – artists, writers, performers, and other creative people.

The Institute for Competitiveness & Prosperity has been working with Professor Florida and University of Toronto Professor Meric Gertler to measure Ontario's and Canada's cities on these creativity indices. Results of this work indicate that the patterns discovered in the United States hold true for Canada and Ontario¹¹.

Ontario benefits from an openness to or tolerance of “different” people. Professors Florida and Gertler find a rich mix of these individuals in Ontario. Our cities' performance on the key indices that Florida has developed or adopted is mostly strong (Exhibit 10).

Exhibit 10: Ontario cities' index rankings are mixed

CITIES' POPULATION	TALENT INDEX	BOHEMIAN INDEX	MOSAIC INDEX	TECH POLE INDEX
1 million + (43 cities)				
Rankings in Size Categories				
Toronto	24	4	1	15
Ottawa	10	14	9	23
500 thousand – 1 million (39 cities)				
Hamilton	35	18	2	37
250 thousand – 500 thousand (68 cities)				
Kitchener	46	15	3	15
London	28	18	6	26
Oshawa	67	36	11	54
St. Catharines-Niagara	66	27	8	58
Windsor	52	49	5	63
Under 250 thousand (159 cities)				
Sudbury	142	128	16	120
Thunder Bay	125	103	6	76

Note: Rankings in blue indicate top quartile within a city's size category

Source: Florida, Richard & Gertler, Meric *et al.* *Competing on Creativity: Placing Ontario's Cities in North American Context*. Available on Institute's website: www.competeprosper.ca

Mosaic/Melting Pot Index is high in Ontario metro regions

This index measures the relative percentage of foreign-born people in a region. For Florida's "mosaic/melting pot index," Ontario's cities are among the top ranked in North America. Within every city-size cohort, Ontario's cities rank in the top quartile across North America – no surprise given that 17.2 per cent of Canadian residents are foreign born compared to 8.0 percent in the United States¹². Toronto, in particular, has a higher percentage of immigrants than any other city in the world, surpassing cities such as Miami, Sydney, Los Angeles, and New York.¹³

Bohemian Index is strong

This is a measure of artistically creative people. It includes authors, designers, musicians, composers, actors, directors, painters, sculptors, artist printmakers, photographers, dancers, artists, and performers. The index is calculated by dividing the fraction of a city region's population in these categories by the fraction for the country as a whole. They found that Ontario's larger cities perform well on the Bohemian Index.

Florida and Gertler have also found a strong relationship between a city-region's artistic activity and its technology-intensive business activity. In fact, this relationship between the Bohemian Index and technology activity as indicated by the Tech-Pole Index is stronger in Canada than in the United States.

Tech-Pole index is middling

Developed by the Milken Institute, an independent economic think tank, this measure ranks cities based on a combination of two factors that reflect the absolute size of a city's high tech work force and the relative importance of that work force within the city's overall population. Ontario cities have middling performance on this index – the

Kitchener-Waterloo region is in the top quartile of city regions in size, and half our cities are in the top half of their size categories.

Talent Index is worryingly low

This is a measure of human capital in a region, based on its share of adults with a bachelor's degree or higher. Only two of our city regions – Ottawa and London – placed in the top half of their size cohorts. While Florida and Gertler suspect that some of this gap is explained by definitional differences, they conclude: "Nonetheless, if the spread between Canadian and U.S. city-regions on the Talent Index is confirmed in future analysis, it is cause for concern – and for action."¹⁴

These results point to elements of a strong foundation in our cities' capabilities for driving Ontario's prosperity – especially from immigration and our creative class. That has led us to examine immigration more closely (see *Capitalizing on immigration for prosperity*). But in combination with the finding that Ontario's lower educational attainment is a drag on our productivity, we see the poor performance on the Talent Index as a further barrier to our future prosperity.

¹² The results of their work in Ontario can be found in report, *Competing on Creativity* which is available on the Institute's Web site – www.competeprosper.ca

¹³ 1996 Canada Census, 1990 United States Census

¹⁴ *Enough Talk, An Action Plan for the Toronto Region*, Toronto City Summit Alliance, April 2003, p. 19

¹⁵ Richard Florida and Meric Gertler, "Cities: talent's critical mass", *Globe and Mail* January 3, 2003, p. A11

Box 2: Capitalizing on immigration for prosperity

The research conducted by Richard Florida and Meric Gertler, *Competing on Creativity*,³ found two key features of Ontario's cities – the relatively high proportion of immigrants and the relatively low proportion of university degree holders. It is ironic we are not capitalizing on the strength of our immigrant population to overcome our talent deficit.

Results from the 2001 census indicate the growing importance of immigration to our population. Statistics Canada observed in 1996 that 55 percent of Canada's immigrants live in Ontario. The other two major destinations are the two next most urban provinces: British Columbia (18 percent) and Quebec (15 percent).

This pattern has remained constant since 1961.⁵ Overall, 26.8 percent of Ontario's population was born outside Canada. This proportion is 33.0 percent in all city regions with 43.4 percent in Toronto.⁶

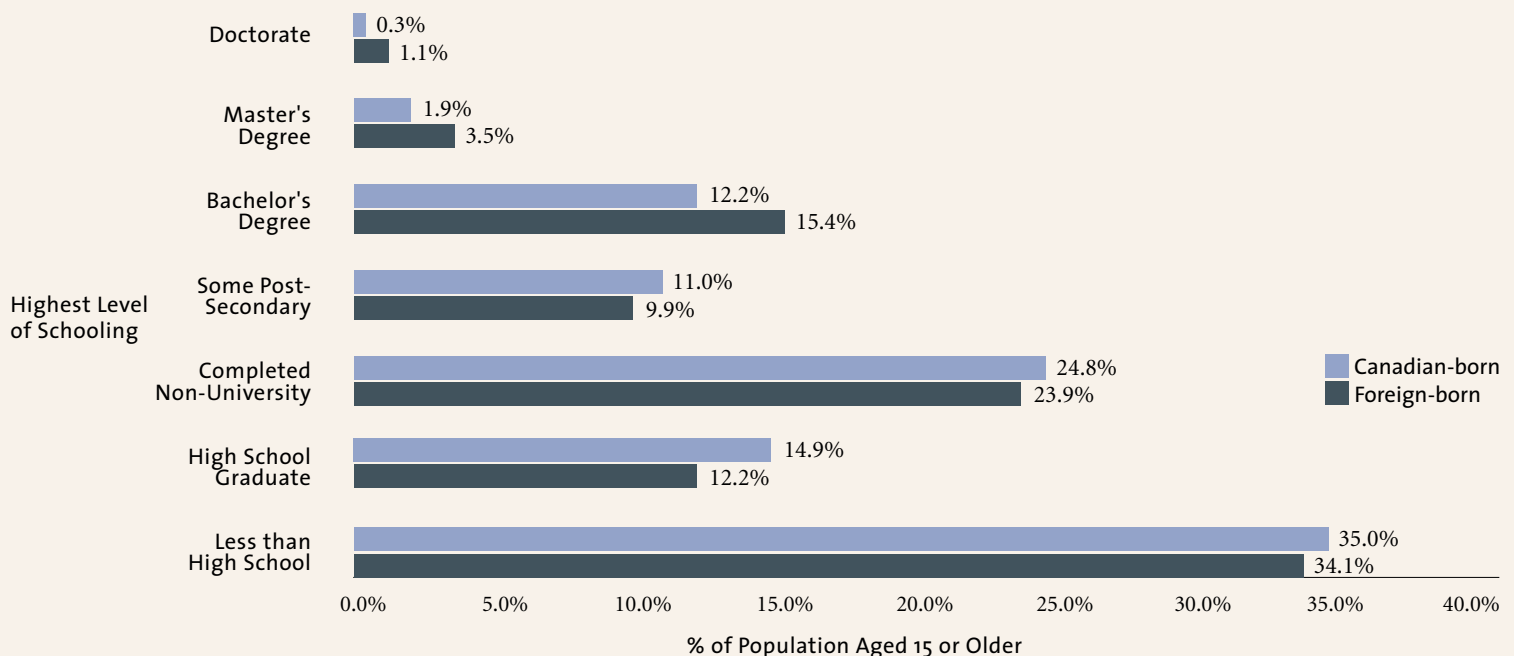
Immigrants bolster labour force growth. Given the slow growth in the population of native-born Canadians and the aging profile of our population, immigrants have been the driving force behind our labour force growth. According to Human Resources Development Canada,⁴ fully 71 percent of our labour force growth in Canada growth was from immigration in the period 1991 to 1996. Ten years earlier this contribution was only 13 percent.

Immigrants raise our educational attainment levels. A higher percentage of immigrants than Canadian-born people have post-secondary education.

Other data from Human Resources Development Canada⁷ indicate – not surprisingly since immigration policies prefer skilled individuals in allowing entrance to Canada – the gap in education levels between immigrants and the Canadian-born population grew between 1995 and 2000. In fact, the Caledon Institute of Social Policy points to immigrants as a counterpoint to the much-debated “brain drain.” And Dr. Ivan Fellegi, Chief Statistician of Canada, confirms that “university educated migrants coming to Canada outnumber those leaving for the US by four to one.”⁸

Immigrants attain more advanced educational levels than native-born Canadians

Highest Level of Schooling 1996 – Persons 15 Years Old and Over



We are missing out on immigrants' potential contribution. According to data from Status of Women Canada, just over half of foreign-trained professionals are working in professions or trades three years after immigrating. A 1996 study concluded that in Toronto "immigrants settle for jobs in the accommodation, food and beverage sector because entry costs are low, skill requirements are minimal, and other job opportunities are not available to them (Waldinger 1996). More recent information indicates this pattern has not improved. Based on 2001 census data, the earnings of recent immigrants relative to those of the Canadian-born have deteriorated sharply. In 2000, the ratio of employment earnings between immigrants one year after landing and the Canadian-born stood at 61.8 percent. For immigrants who had been here ten years the ratio stood at 83.5 percent.⁸ This earnings gap indicates a missed opportunity for economic contribution by immigrants. Other work by Human Resources Development Canada and Statistics Canada indicates this gap exists mainly among university-educated immigrants.⁹ Most of us have met foreign-born taxi drivers with PhDs or heard of immigrant heart surgeons taking blood pressure measurements for insurance companies.

Credentialism is foreclosing opportunity. The Maytree Foundation has pointed out the high investment already made in other countries to train physicians – seven years' post-secondary education and two years' training in hospitals – can save well over \$100,000 for the provincial treasury. They argue that a key barrier to realizing this economic potential is the overly strict credential standards imposed by provincial licensing bodies. And in a 2001 study¹⁰ on the impact of non-recognition on the Canadian economy, The Conference Board of Canada argued that, if the problem were eliminated for immigrants and others, they could earn higher

individual incomes and overall Canadian income would be between \$4.1 and \$5.9 billion higher annually. This improvement would be the result of reduced unemployment and under-employment stemming from an addition of between 33,000 and 83,000 post-secondary credential holders to the ranks of Canada's skilled workers. The Caledon Institute for Social Policy has pointed out that credentialism policies are causing Canadians to forgo an economic windfall.

The Institute will explore these issues in more depth to understand better the impact of immigration to Ontario's prosperity gap.

^a This report can be found on the Institute's Web site www.com-peterprosper.ca

^b Statistics Canada, *Rural and Small town Canada Analysis Bulletin*, Volume 4, No. 2, December 2002

^c Statistics Canada, 2001 Census: analysis series – *Canada's Ethnocultural Portrait: The changing mosaic, 2003*

^d Denton, Feaver, and Spencer, *Immigration Labour Force and the Age Structure*, Human Resources Development Canada, 1999

^e Human Resources Development Canada, *Knowledge Matters: Skills and Learning for Canadians*, p. 51

^f *Immigrants need not apply*, Andrew Brouwer, Caledon Institute of Social Policy

^g 2001 Census: analysis series – *Earnings of Canadians: Making a living in the new economy*

^h *Immigrant Occupational Skill Outcomes and the Role of Region-of-Origin-Specific Human Capital*, Human Resources Development Canada, *Earnings of Canadians: Making a living in the new economy*, Statistics Canada, 2001

ⁱ *Brain Gain, The Economic Benefits of Recognizing Learning and Learning Credentials in Canada*, Michael Bloom & Michael Grant, The Conference Board of Canada, 2001

Investments in social and physical capital appear to be stopping short of the level required to increase productivity

The second element of our framework for improving Ontario's capability for upgrading and innovation is in the area of investments. A critical part of this at the metro level is spending on primary and secondary education, especially as the importance of early childhood development on human capital and prosperity is becoming more clearly understood. We discuss our findings in these two areas before touching on investments by governments in municipal infrastructure.

Primary and secondary education investment impact is mixed

In its First Annual Report, the Task Force identified significant under-investment in post-secondary education by Ontarians relative to its peer group. It also noted that between 1993 and 1997 our investment in primary and secondary schools had been declining as a percentage of the province's GDP. Over this period, our investment had moved from being about a percentage point of GDP higher than that in the US peer group to a position of parity. Since that time, we have been investigating our investment in and results from primary and secondary education investment relative to our peer group. These investigations point to a decline in our investments, but do not indicate a serious decline in competitiveness relative to our peer group.

The results of our investments, based on our reviews of Ontario students' standings on standardized achievement tests and the capability of the primary and secondary system to graduate students from high school in preparation for post-secondary education, are positive.

Ontario students do well on international achievement tests. Beginning in 2000, the Organization for Economic Co-operation and Development (OECD) conducted achievement tests of 265,000 15-year-old students across 32 countries. Results from these tests, known as PISA (Programme for International Student Assessment), are tabulated by the OECD. The OECD plans to conduct these tests every three years. Results for the first round of tests indicate that Ontario students are achieving results close to those in other Canadian provinces¹⁵ and ahead of students in the US and other countries around the world. There were no significant differences between urban and rural results. These results hold true for tests measuring achievements in science, mathematics, and reading (Exhibit 11). The results also indicate a much lower dispersion of results between students in Ontario than in the United States, indicating greater success in Ontario at providing a better quality education for a broader range of students than in the United States.

Student destinations are worrisome. The other measure of results that we assessed is the success of the primary and secondary system in graduating its students. At its most basic measure, Ontario's primary and secondary school systems are moving students through the system and graduating 75 percent of them on time. Through the 1990s, Ontario has been in the upper half of our peer group and has been improving its rank in the percentage of Grade 9 students who graduate four years later (Exhibit 12). In 1992-93, Ontario's public and private secondary schools graduated 73 percent of the students who had enrolled in Grade 9

Exhibit 11: Ontario outperforms US in student achievement

Country/Province	Reading	Math	Science
International	500	500	500
United States	504	493	499
Ontario	533	524	522
Atlantic	514	510	510
Quebec	536	550	541
Prairies	529	529	525
Alberta	550	547	546
British Columbia	538	534	533
Canada	534	533	529

Note: Blue numbers indicate a statistically significant (95% confidence limit) higher score relative to the corresponding Ontario score. Red indicates a statistically significant lower score

Source: Institute for Competitiveness and Prosperity based on Measuring Up: The Performance of Canada's youth in reading, mathematics and science – OECD PISA Study – First Results for Canadians aged 15

four years earlier. By 1998-99, this result had risen to 78 percent. On this measure, Ontario's rank within the peer group of US states rose from eighth in 1992-93 to second in 1998-99. Only New Jersey had a higher success rate (81 percent).

On the measure of student advancement to post-secondary education destinations, we are concerned about whether or not our aspirations are high enough. The most recent data available to us are from 1998 and they indicate that slightly fewer of our high school graduates are university-bound. Compared to the peer group average, the difference is small (28 percent of Ontario Grade 9 students were enrolled in university four years later versus 30 percent across the 14 states.) However, several of the

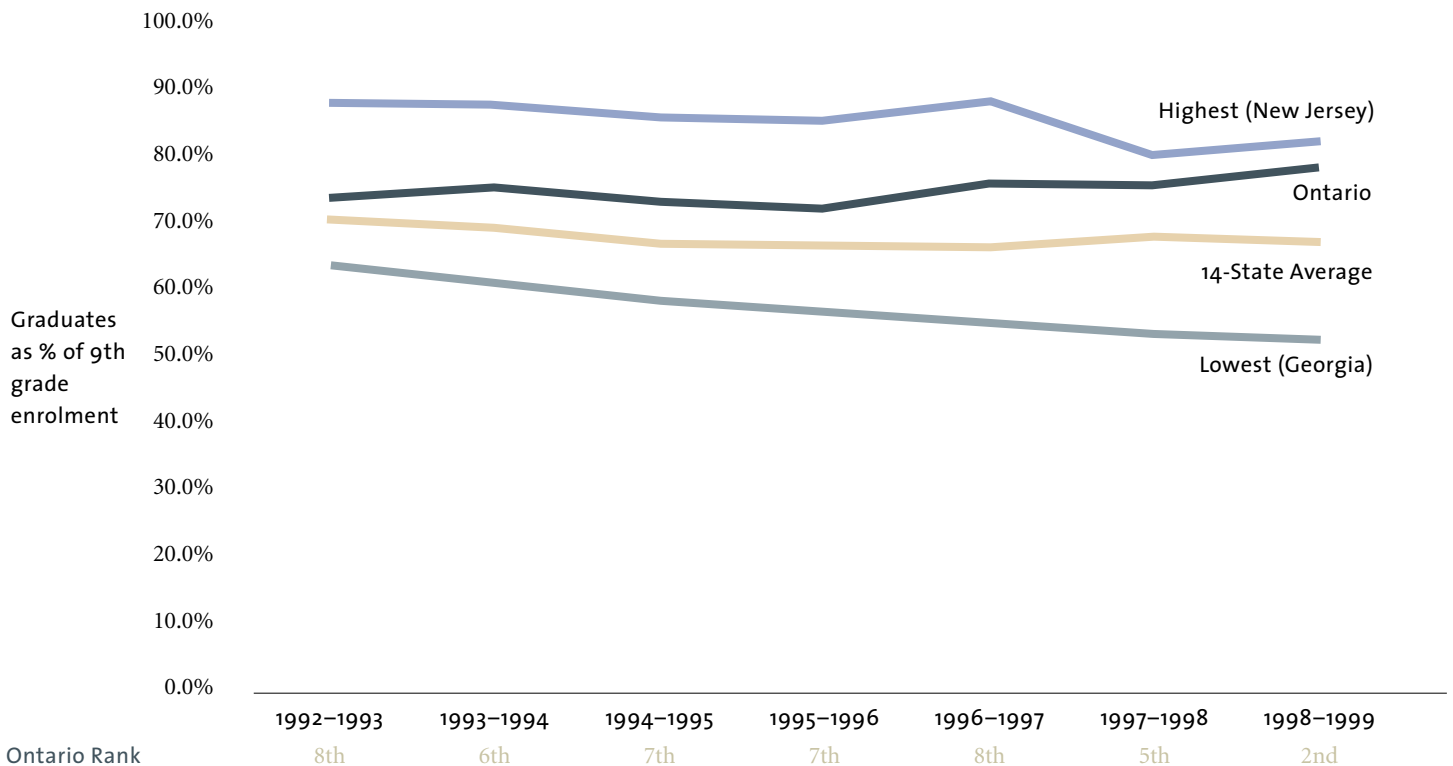
peer group states had results far ahead of Ontario's – Massachusetts 48 percent, New Jersey 47 percent, Pennsylvania 42 percent, and New York 39 percent. When colleges are considered, Ontario outperforms the average and most states in the peer group – 51 percent of Ontario Grade 9 students enroll in colleges four years later compared to 44 percent in the peer group. In summary, we are more successful than our peer group states in graduating our high school students and in encouraging them to attain some post-secondary education. But we are slightly less successful in encouraging these graduates to pursue a university degree and, as we showed earlier, much less successful in getting them to pursue a graduate degree.

Given the increased earnings and productivity from a university education, we think the issue of college versus university education in Ontario needs to be examined in more detail. The difference between Ontario and its peer group of US states is partly the result of provincial government policy and strategy over the past few decades to build a first-rate system of colleges of applied arts and technology. It also very likely reflects the aspirations of students and parents.

* Ontario results were behind those achieved in Alberta and Quebec

Exhibit 12: Ontario high school graduation rates are above average

High school graduation rate – public & private secondary schools (as a % of 9th grade enrolment*)



Source: OECD; Education in Canada 1996&2000, NCES – Projections of Education Statistics to 2011, NCES – Private School Universe Study, US Department of Education, NCES – Common Core of Data * (Grade 9 enrolment 4 years prior)

The college system is seen by many to be more responsive to skills needs in Ontario – a very important element of our competitiveness and prosperity. But an argument can be made that we should be encouraging more of our high school graduates to aspire to a university education as their lifetime earnings will be higher and our economy may benefit from this increased education. As indicated above, we estimate \$1,480 of our prosperity gap in metro areas is the result of Ontarians’ lower educational attainment. Our lower standing on Richard Florida’s Talent Index may be standing in the way of our cities’ economic development.

Investments in primary and secondary education are flat. Turning to Ontario’s investment spending in primary and secondary education, we find that, by standing still in per capita investments in public education, Ontario has fallen from 6th ranking in 1992-93 to 14th in 1998-99

– ahead of only Florida (Exhibit 13). This pattern does not change much when looked at on a per student basis. Data on private school spending in US states are not available, but comparing Ontario public and private spending to US national results does not differ dramatically compared to public-to-public spending.

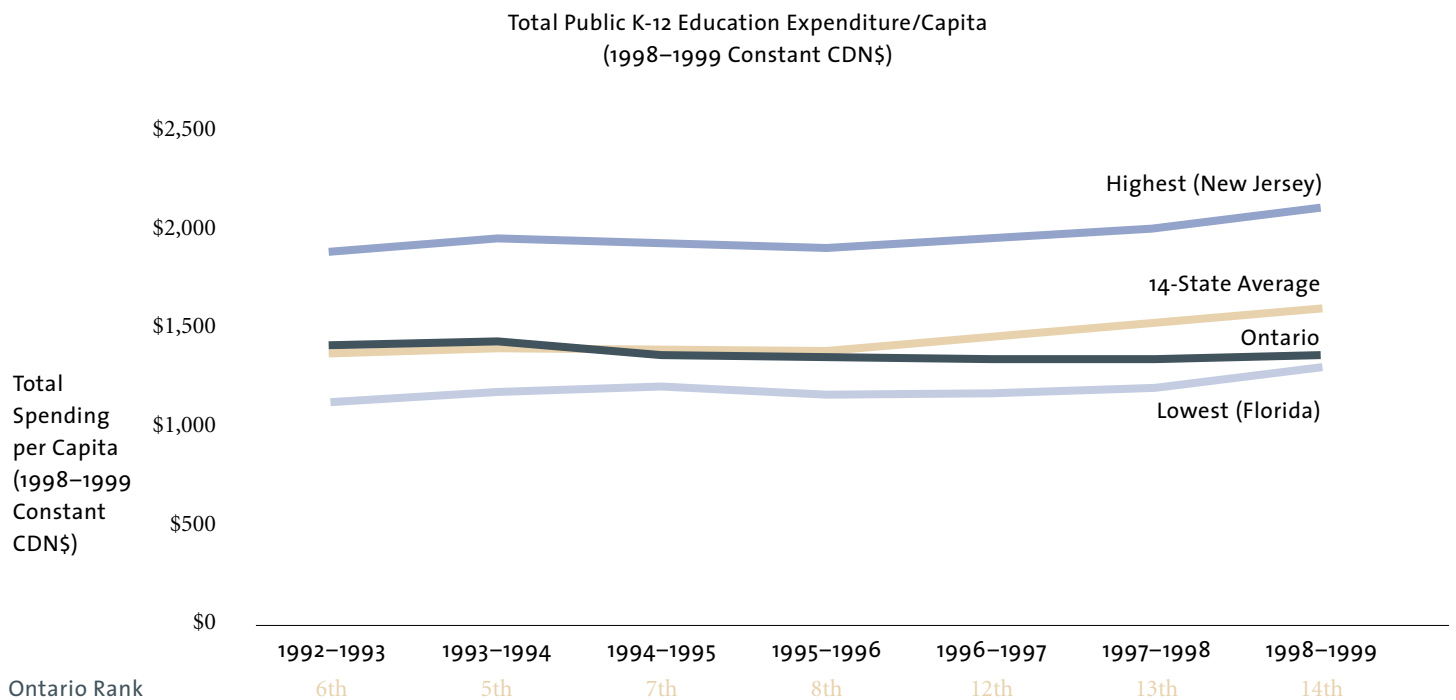
It is difficult to be definitive on whether this investment pattern is worrisome or not. As we have seen, the results achieved by Ontario’s primary and secondary school systems are better than those achieved in our peer group of states. As Ontario’s rank in investment fell through the mid-1990s, there is no evidence that relative achievement results declined. It is also possible to conclude that Ontario’s lower rank is the result of increased investment spending in peer group states as they moved to address an obvious weakness in their society. And the link between spending and results is weak as seen by

Alberta’s outperforming Ontario with less spending. It could also be argued that the increased per capita spending in our peer group states is the result of increased prosperity – a higher standard of living affords the opportunity to make these kinds of investments.

Still, our ranking on investment is in decline and it is part of an overall pattern of lower investment in social and physical capital relative to that in our peer group. As such it may be a worrying signal that an important contributor to our competitiveness and prosperity, especially in our metro areas, is at some risk.

Research increasingly points to the importance of early childhood education in outcomes later in life (see *The value of early childhood education*). We need to understand these interactions better and ensure they are incorporated into Ontario’s economic and educational strategies.

Exhibit 13: Ontario total public K-12 education expenditure remains flat



Source: CANSIM II, US Dept. of Education, NCES, Common Core Data, "National Public Education Financial Survey", Digest of Education Statistics, Education in Canada 1996&2000

Box 3: The value of early childhood education

Some observers have noted the importance of early childhood education, especially in urban areas. According to the Thesaurus of the Educational Resources Information Center Descriptors, early childhood education consists of activities or experiences that are intended to effect developmental changes in children, from birth through the primary units of elementary school. Typically this includes: active hands-on learning, conceptual learning that leads to understanding along with acquisition of basic skills, meaningful and relevant learning experiences, interactive teaching and co-operative learning, and a broad range of content, integrated across traditional subject matter divisions.

Those who have studied early childhood education point to its significant individual and societal benefits. These benefits include: higher IQs; enhanced cognitive, verbal, and social development that is maintained into the first years of school; reduced tendency to later delinquency and anti-social behaviour; higher levels of academic achievement; and lower likelihood of failing grades^a.

The Perry Preschool Project is a well-known longitudinal study of the impact of an early childhood education "intervention" with African-American 3- and 4-year olds in poor, high-risk families in Ypsilanti, Michigan. One group of children was provided an enriched pre-school experience while the other was not. At age 27, the participants in the two groups were interviewed and data were collected from their social services and arrest records. The differences were dramatic. Those who had participated in the two-year program were more likely to have graduated from high school, own a home, earn higher income, not require welfare, and not fall into criminal recidivism. For the \$12,356 program cost over two years, the benefits accruing to the individuals and society were estimated to be \$108,002.

Closer to home, a study of 41 parenting and family literacy centres in Toronto's inner city schools indicates success in improving school readiness among high-risk children^b Some of the scientific evidence explaining the importance of early childhood education includes:

- Events in the pre-natal period and in the early years of life can influence regulatory control of the HPA gland and linkages to other pathways to the brain which in turn set a control in respect of the stress response for life (McEwen, *New England Journal of Medicine*)
- Pre-school programs and parenting practices are important predictors of the mobility of children from all social classes out of disadvantage in the school system (Abecedarian Study & British Cohort Longitudinal Study, 1970)
- Critical periods of brain development for several important physical and cognitive functions, such as binocular vision, emotional control, and understanding of language and symbols, occur in the first three years of life (Doherty 1970); in fact, according to Fraser Mustard in *Reversing the Brain Drain Early Years Study* "the brain development that takes place before age one is more rapid and extensive than we previously realized."

Public programs are bearing results internationally. In several European countries, they aim at integrating education and day care programs. In the United States, the key federal program is Head Start targeted at ameliorating the impact of social and economic disadvantage among pre-school children. State programs typically take the form of vouchers or direct payments to providers for low-income families.

In Canada, first ministers reached an agreement in September 2000 to promote early childhood development so that children will be physically and emotionally healthy, safe, and secure; ready to learn; and socially engaged and responsible. Their communiqué said: "Canada's future social vitality and economic prosperity depend on the opportunities that are provided to children today."

Ontario's Ministry of Community, Family and Social Services has introduced the Early Years Plan which includes: pre- and post-natal health care, pre-school speech and language programs, universal access to kindergarten, an Early Years Challenge Fund to mobilize community-based proposals, establishment of demonstration projects, and 42 early childhood centres as gateways to support parents and caregivers in areas such as literacy and nutrition.

This is an exciting field of study and the impact of early childhood education on a region's competitiveness and prosperity is most likely positive. Some observers argue that returns on investment from early childhood education exceed those in later years and that early investments may make later investments in schooling and skills development more effective. There is, however, little evidence available to determine which, if any, of the specific programs identified above produce positive results related to competitiveness and prosperity. More longitudinal evidence is required and the Institute will keep a "watching brief" on published results.

^a (Measuring Up – the State of Texas Education, www.cppp.org/kidscount/education/eded.html).

^b *The Early Years Study Three Years Later- From Early Development to Human Development: Enabling Communities*, Hon. Margaret McCain and J. Fraser Mustard, August 2002

Municipal infrastructure investment handicaps initiatives to close the prosperity gap

A growing number of Ontarians have expressed concern that public infrastructure investments are not keeping pace in the province. In its recent work, the Toronto City Summit Alliance noted the following problems, for example:

- our major freeway network in the Greater Toronto Area is 70 percent congested at peak periods with gridlock costing \$2 billion annually in lost productivity
- the Toronto Transit Commission (which according to Institute research has the second highest subway ridership density in North America after New York's transit system) has received inadequate maintenance and expansion funding
- IBI and Hemson Consulting in their 1999 study, "Funding Transportation in the GTA and Hamilton-Wentworth," estimated the capital funding shortfall in GTA transportation and transit to be \$800 million annually.

Work is underway by the Institute to explore public infrastructure investment versus our peer group of states to determine the significance of the gap in this important source of productivity and prosperity.

The motivational disadvantage from Ontario municipalities higher property taxes is offset by lower other taxes than in US cities; distortions and lack of transparency in our municipal tax system may be the bigger problem

In the Task Force's First Annual Report, work completed by Jack Mintz and Sergio Traviza showed that marginal effective tax rates in Ontario were higher than those in a cross-section of five of the peer states. The methodology excluded taxes paid at the municipal level. To shed light on fiscal issues at the municipal

level, the Institute commissioned municipal finance expert Enid Slack to analyze revenue and expenditures in the largest and a medium-sized city in Ontario and the same five states – California, Georgia, Illinois, Massachusetts, and Michigan¹⁶. The commissioning of this research also recognized the importance of municipal governments in determining the "quality of place" that Richard Florida and Meric Gertler have found to be so important in attracting knowledge workers and the creative class.

This research concluded that averages of expenditures and tax rates across US and Ontario cities are deceptive, largely because of the significant difference in responsibilities between cities in the United States and in comparison to Ontario. For example, many of the US municipal governments studied operate hospitals, typically at the county level, and several US cities or counties operate airports. While utilities such as public transit, sewerage, water supply are municipal responsibility in both countries, the management of these functions differs dramatically across cities. In some, an independent utility is responsible; in others, the city administers the utility directly. These differences affect the way city revenues and expenditures are reported by agencies such as the US Census Bureau. Slack's research has attempted to eliminate these differences.

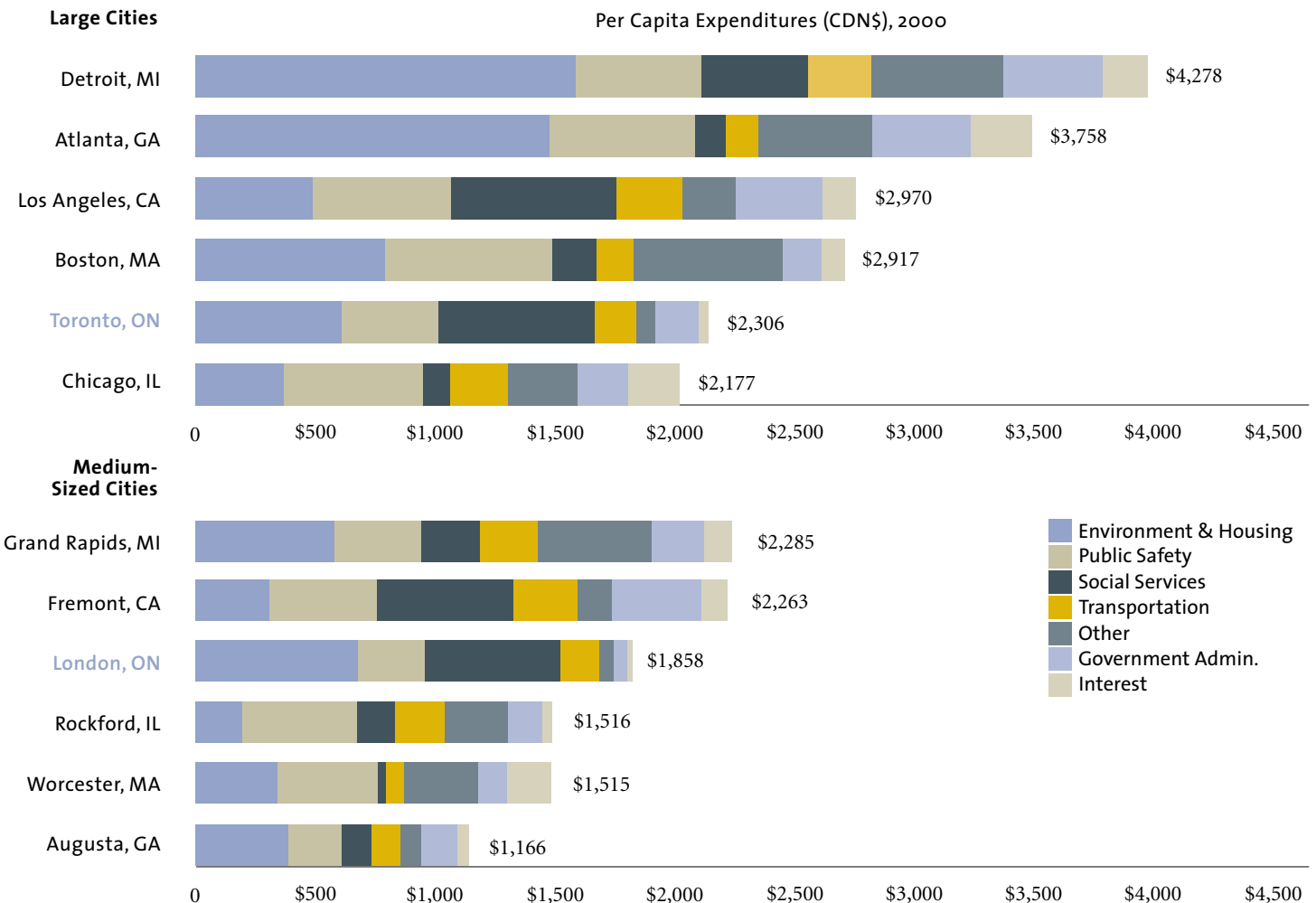
After these adjustments for spending, Slack found that Toronto's per capita expenditures are second lowest out of the six large cities studied (Atlanta, Boston, Chicago, Detroit, Los Angeles, and Toronto) – and about 22 percent below the median. While Toronto spends more per capita on social services, the peer cities all spend more per capita on police and fire protection and on borrowing costs. Government administration costs are lower only in Boston. This disparity may be the result of Toronto's single-tier versus the two-tier structure found in most of the cities studied. London (selected

¹⁶ *Are Ontario Cities at a Competitive Disadvantage Compared to US cities? A Comparison of Responsibilities and Revenues.* Enid Slack, May 2003. Available on Institute's Web site www.competeprosper.ca

by Slack to represent Ontario's medium-sized cities) has expenditures in the middle of the six-city sample of medium-sized cities analyzed, about 10 percent higher than the median. As in larger cities, London spends more on social services and less on fire and police protection than the US comparators. Government administration spending per capita is considerably lower in London than elsewhere (Exhibit 14).

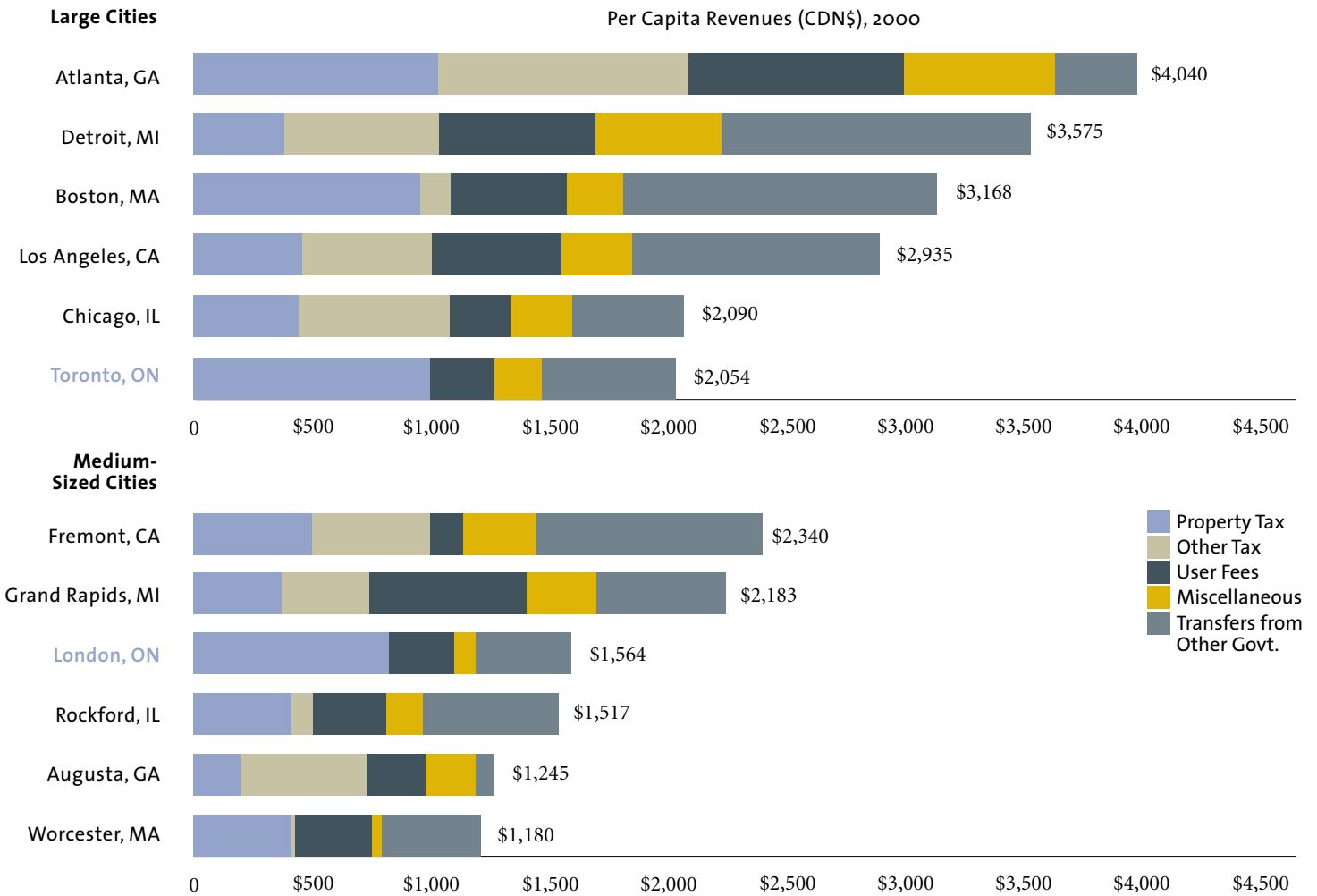
On the revenue side, the major difference – as also noted by many others – is the reliance by Ontario cities on the property tax as compared with peer cities in the US. While Toronto's property taxes are the second highest in its peer group, when taxes from all sources are considered, Toronto has the lowest revenue of the six on a per capita basis. When the higher incidence of user fees and other own-source

Exhibit 14: Ontario cities spend more on social services than cities in peer states; less on protection



Source: Slack, Enid, Are Ontario Cities at a Competitive Disadvantage Compared to US Cities? Available on Institute's website: www.competeprosper.ca

Exhibit 15: Ontario cities have higher property taxes; less revenue from other sources



Source: Slack, Enid, Are Ontario Cities at a Competitive Disadvantage Compared to US Cities? Available on Institute's website: www.competeprosper.ca

revenues in the US are factored in, Toronto ranks lowest, about 33 percent below the median per capita revenue. In London and the other medium-sized cities, a similar pattern emerges in property taxes, but differences with other forms of taxes and user fees are not as big – hence London ranks third among its peer group in per capita own-source revenues or about 2 percent above the median (Exhibit 15).

Slack also analyzed the different application of property taxes in Toronto and the five large US cities. She concludes that Toronto's tax system is unfairly weighted against commercial and industrial property owners versus residential owners. Residential tax rates in Toronto are about average compared to the five peer cities, while commercial and industrial rates are the highest. Slack also shows that in all six cities she studied, property taxes favour suburban development over the central business district. However, the gap is most pronounced in Toronto – on average about \$6 higher per square foot (or 129 percent of suburban rates) versus an average of \$2 (53 percent) in the US cities.

Slack drew six key conclusions:

- First in local taxes, the key advantage US cities have over Ontario cities is that they have access to a wider variety of revenue sources. But the level of revenues raised does not appear to be dramatically different between Ontario and the five peer states. More sources of revenue to municipal governments give them more flexibility.
- Second, greater application of user fees in Ontario's cities would result in more efficient use of resources and fairer tax levels by ensuring governments provide the services that people want and are willing to pay for.
- Third, drawing on research by urban economists, Slack concludes that the relatively high level of Ontario's property taxes is probably not affecting location decisions between Ontario and the peer group studied by firms or by individuals. These decisions are made for a variety of factors beyond property taxes. The real impact of Ontario's property tax system is on intra-region decisions. Relatively high commercial property taxes in Toronto's central business district are encouraging sprawl and working against the region's density, which in turn has a negative impact on important features as identified by Richard Florida and others.
- Fourth, the high rates imposed on commercial and industrial properties are simply unfair because they are not based on the benefits received from local services. They are also distortive and likely to have a corrosive effect on prosperity over the long term.
- Fifth, funding from senior levels of government is not a panacea. These funds can be overly prescriptive in their use and override local decision-making. Accountability problems occur when the level of government raising the funds is not the same one spending it. Local governments have less of an incentive to price services properly. For example, large grants to municipal governments for water treatment facilities in the past meant that many municipalities made no attempt to use volumetric pricing to reduce the demand for water and to generate funds for capital replacement.
- Sixth, the opportunity for innovative thinking in municipal funding is enormous. Property tax systems in Ontario are complicated and far from transparent, but they are likewise in the US. This is an opportunity for Ontario to take the lead.

Some key fiscal and governance *structures* are not contributing to enhanced productivity in Ontario's metro areas

Our review of elements of the final factor in building Ontario's capacity for upgrading and innovation – structure – points to challenges in three areas. First, Ontario's prosperity is negatively affected by the Canadian federal fiscal framework. Second, Ontario's metro voters are under-represented in federal and provincial legislatures. Third, we have a municipal governance structure that is inadequate to support significant expansion of fiscal responsibility at that government level.

Canada's fiscal framework costs Ontario about \$ 1,500 per capita in lost GDP

Work done for the Toronto Board of Trade by the Centre for Spatial Economics¹⁷ indicated that federal government revenues raised in Toronto were about \$2,568 per capita higher than federal expenditures in the city (excluding the impact of the overall federal surplus). The net transfer out of Toronto to the rest of Ontario by the provincial government was estimated to be \$318 per capita (excluding the impact of the overall provincial surplus). The Institute explored this phenomenon at the Ontario level.

Metro versus non-metro data are not available – but given Ontario's high degree of urbanization it is likely that net transfers out of Ontario result in a transfer from Canada's metro areas to its non-metro areas. Using data from Statistics Canada,¹⁸ we conclude that on average, since 1992, the federal government annually raised \$1,500 more revenue than it spent in Ontario in constant 2000 dollars (Exhibit 16).

This transfer can be explained by the progressive nature of Canada's tax system and by conscious policy found in most federations to

shift resources from the have to the have-not regions. To be sure, this transfer is observed in the United States (Exhibit 17). However, on average the peer group states realized an annual transfer out of only \$650 (constant Canadian 2000 dollars). In terms of the prosperity gap between Ontario and its peer group, our federal fiscal framework accounts for \$850 (the difference between Ontario's and the peer states' contribution to other jurisdictions) of the \$5,905 gap identified in the Task Force's First Annual Report. This is very likely an urban phenomenon as the three "have" provinces have above average urbanization and the progressive nature of taxation works against higher income urban dwellers.

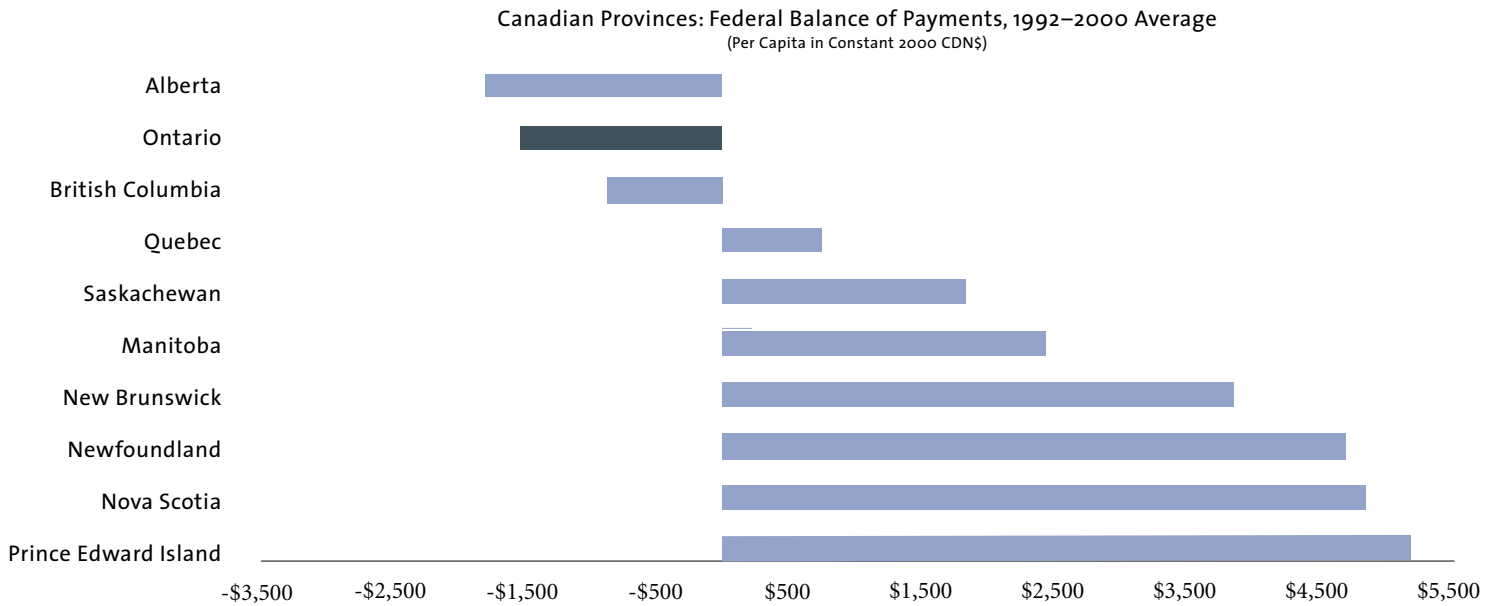
Many would argue that this is part of Ontario's role within Confederation. Others point out that this transfer to other provinces feeds back to Ontario through inter-provincial trade (the argument sometimes made for foreign aid). However, the argument would hold true for the US states and so the net impact remains \$850 per capita. Still others argue that this is an investment in less developed regions of Canada to assist them in increasing their prosperity.

Our concern is that positive economic results are hard to discern. There is a depressing sameness about the provinces receiving transfers-in over time, and there is evidence that regional disparities in employment growth have narrowed more in the United States than in Canada. While it may be unrealistic to assume that change can be effected here, we can at least understand that it has a cost to Ontario's prosperity – and likely Canada's. We should seek opportunities for innovation in Canada's fiscal framework that preserve the concept of sharing inside the federation and strengthen national and regional prosperity.

¹⁷ *Strong City Strong Nation*, The Toronto Board of Trade, June 2002

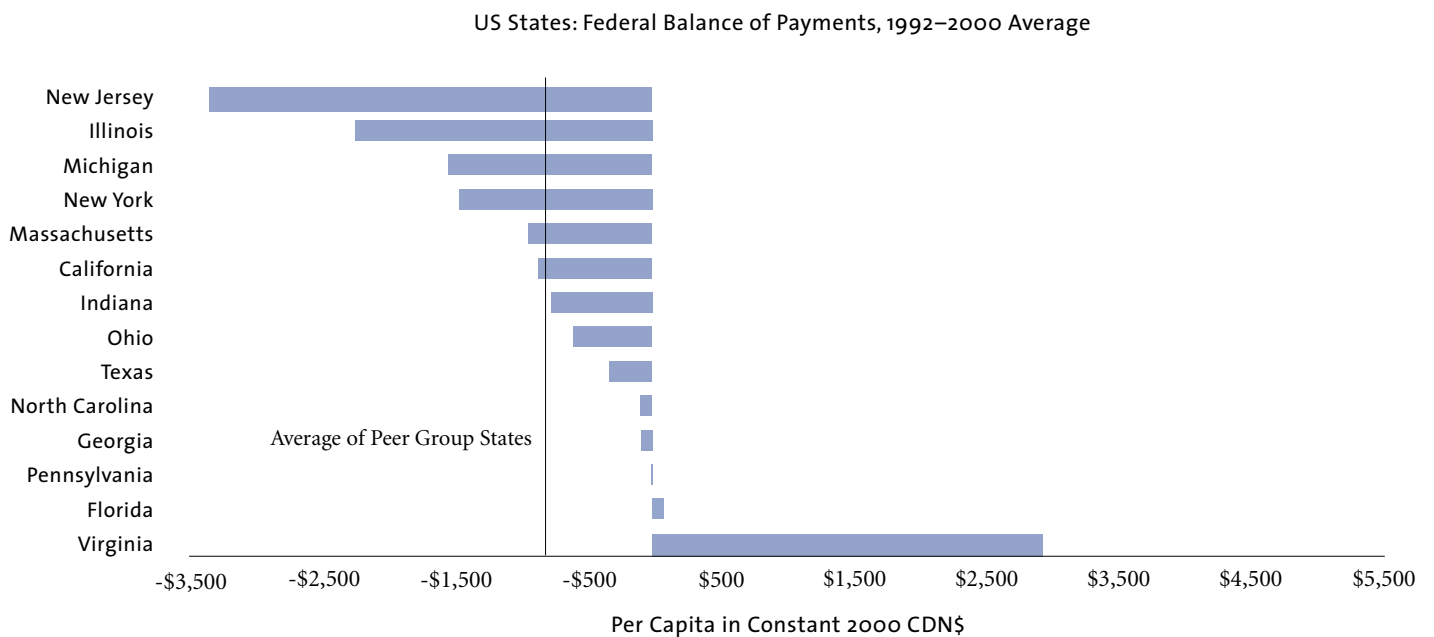
¹⁸ Statistics Canada, *Provincial Economic Accounts*. In our analysis we have eliminated that portion of the transfer that has been funding the Canadian government's surplus between 1992 and 2000 as that part of the transfer out of the province is to pay for previous deficits. We have also excluded interest charges in the expenditure portion since those funds are simply to pay debtors what is owed to them

Exhibit 16: Federal revenue & spending patterns cost Ontarians about \$1,500 annually, 1992-2000



Source: Statistics Canada, Provincial Economic Accounts; Institute for Competitiveness & Prosperity

Exhibit 17: Peer states contributed an average of \$650 to other states



Source: Tax Foundation (Washington, DC), Institute for Competitiveness & Prosperity

Federal and provincial government policy is created and implemented in an environment in which metro voters are under-represented

Our political structure in Canada and Ontario is a key part of our economic structure. We find that Canada's House of Commons and Ontario's Legislature systematically under-represent metro voters ([Exhibits 18, 19](#)).

Of the 301 seats in Canada's House of Commons, we estimate that 173 – or 56 percent – overlap with metro areas (as defined by Statistics Canada's Census Metropolitan Areas). Given that 63 percent of Canada's population lives in CMAs, there ought to be 189 seats in metro areas. This imbalance is not significant across the country, but 14 of the 16 missing metro seats are in Ontario¹⁹. Of the 16 seats that over-represent non-metro Canada, six are in Ontario (all regions but

Quebec have an over-representation of non-metro voters). Overall, Ontario is under-represented by 8 seats in the House of Commons, the net effect of 14 too few metro seats and 6 too many non-metro seats.

Within the Ontario legislature, which is based on federal boundaries, metro voters are under-represented and non-metro voters are over-represented. The average metro riding has an average of 100,506 voters, while the average non-metro riding has 92,155 voters.

We recognize that political structures cannot be purely representative of the population and that regional considerations are part of a balance. We argue, however, that on balance the voice given to regional interests is too strong in Canada. Other important structures – the federal cabinet, federal-provincial conferences, and the Senate – all recognize

Exhibit 18: Urban dwellers are under-represented federally

	Seats Assuming Perfect Representation*	Actual Number of Seats	Over/Under
Atlantic	6	8	2 over
Quebec	45	46	1 over
Ontario	85	71	14 under
Prairies	11	14	3 over
Alberta	19	16	3 under
British Columbia	23	18	5 under
Territories	0	0	–
Totals	189	173	16 under

* Based on 1991 population

Exhibit 19: Rural dwellers are over-represented federally

	Seats Assuming Perfect Representation*	Actual Number of Seats	Over/Under
Atlantic	19	24	5 over
Quebec	31	29	2 under
Ontario	26	32	6 over
Prairies	12	14	2 over
Alberta	10	10	–
British Columbia	13	16	3 over
Territories	1	3	2 over
Totals	112	128	16 over

* Based on 1991 population

¹⁹ Alberta's and British Columbia's metro voters are under-represented by 3 and 5 seats respectively, while metro voters are over-represented in Atlantic Canada (2 seats), the Prairie Provinces (3 seats), and Quebec (1 seat).

²⁰ See for example the recently released report by the Toronto City Summit Alliance, *Enough Talk An Action Plan for the Toronto Region*, April 2003

²¹ Task Force on Competitiveness, Productivity & Economic Progress, *Closing the prosperity gap*, pp 36-7

²² *Opportunities for Improving Municipal Governance in Ontario*, available on Institute's Web site www.competeprosper.ca

regional perspectives. However, the one institution that ought to represent the population – the legislature – is too heavily weighted towards regional interests, federally and provincially. In contrast, the lower houses of the US government and most state legislatures are as nearly perfect in the representation of their populations as can be achieved.

As with Canada's fiscal framework, we acknowledge that change is unlikely. We can only observe that our political structure is not likely contributing to prosperity in our metro areas – or in Ontario or Canada.

Ontario cities need improvements in their governance structures if they are to take on more taxing and spending authority

Many observers argue that municipalities need more fiscal and spending authority to increase prosperity growth.²⁰ Placing taxing and spending authority closest to the local voter is most likely more effective and efficient and also more reflective of voters' wishes than current practices. The presentation and debate of policy options would likely meet more closely with the specific needs of affected voters. We offer two caveats to this view.

First, greater municipal taxing and spending authority should replace existing provincial or federal authority, and not be added on. The review of marginal effective tax rates in Ontario and five states in its peer group presented in the Task Force's First Annual Report²¹ concluded that higher taxes in Ontario are hindering motivations to work, hire, and invest. To the extent that shifting tax and spending authority to municipalities results in lower taxes and less outflow of federal tax dollars to other provinces, this shift would enhance Ontario's prosperity.

Second, taxing and spending authority should be kept together. We disagree with the notion

of transferring federal or provincially raised tax revenues to municipal governments. The concept of giving proceeds from a federal gas tax, for example, to municipalities is appealing on the surface, but we would argue that it is undemocratic for one group of politicians to raise revenues from the taxpayer and for another group to spend it. A fundamental feature of political accountability is that the government spending the money is the one who should be raising it. And effectiveness and efficiency will likely be greater when this feature is in place.

Some, like the Toronto Board of Trade, have expressed a concern about the adequacy of municipal governance structures and processes for them to exercise greater responsibility and authority. The Institute has conducted research into the adequacy of municipal government structures and processes in Ontario²² and identified four criteria for good governance in cities:

- City voters must be able to choose both the people and policies that will govern their cities
- Opportunities to debate ideas and policies should be present at elections and between elections
- Structures and processes need to balance local and city-wide issues in elections and decisions
- There needs to be clear delegation of powers and rendering of account in the governance process.

Against these four criteria, we found two weaknesses in the municipal governance in Ontario cities. We should note that these weaknesses are probably not fatal if cities' powers are to be as limited as they are today. But we think they need to be addressed if cities are to gain significant taxing and spending authority. Both weaknesses stem from the

primacy attached to the individual members of City Council in Ontario's *Municipal Act*. Mayors' powers are quite restricted and in some cities focus on presiding at Council meetings and ceremonial functions.

The first weakness that arises is that governance processes emphasize local ward-based interests at the expense of city corporate-wide interests. There are no corporate political bodies to weigh city-wide interests against local interests. The second weakness is that accountability linkages between elected officials and city staff are weak. Since all councilors are accountable for senior management appointments and day-to-day direction, no councilor is accountable. There is no visible elected official (or group of elected officials) accountable for policy-making, management of senior public servants, or for effective and efficient use of taxpayers' dollars.

We are proposing two options for consideration by Ontario stakeholders. Both aim at creating focal points for corporate perspectives and strengthening accountability.

The first option is to strengthen the powers of the mayor so that this elected official has more responsibility for policy-setting and implementation. Such power could include budget setting, appointment and management of senior management, and the like. To ensure power is not exercised excessively, council could have power to over-ride the mayor with a simple or super-majority. This option would address the concerns raised above but runs the risk of placing too much authority in the hands of one individual. There is a historical unease in Canada and the US in a strong mayor model – in fact, most US mayors are weak relative to their Councils.

The second option is to strengthen the responsibility and authority of Council's executive committee. As with the stronger mayor option, the executive committee could have more responsibility for budget setting and for senior management appointment. Following the Westminster model of cabinet government in place at federal and provincial governments in Canada, the executive committee would be accountable to the Council as a whole and would be in place only as long as it enjoyed the confidence of Council. Individual executive committee members could have individual responsibility for city management portfolios and be accountable to the public through Council for decisions and results. Within this option the mayor could continue to be elected directly and possess only limited responsibility as is the current practice. It would also be possible to have the Mayor be chosen by Council or the executive committee from among their numbers and the position would be the head of government analogous to the Premier or Prime Minister.

The most likely criticism of this option is the likelihood of the emergence of political parties in local government– again, another feature that has been intentionally avoided in Canada and in many US cities. There is a perception that political parties can stand in the way of the relationship between voters and elected officials. To be sure, political parties add a level of complexity to voter choice and councilors' loyalties. However, all other levels of government in Canada and the US benefit from the ability of political parties to present coherent policy platforms, to deliver on election results, and to be held accountable for keeping promises.

We recognize that both options are departures from current practice and in fact are counter to some of the principles of municipal governance. But innovation is necessary if our municipal governments are to have more responsibility and power. And neither option is a total change from current approaches. Some US cities have a strong mayor and, in Canada, Winnipeg has recently expanded the mayor's powers. The strengthened executive committee option is entirely within the tradition of Canadian governance. Both options create opportunities to contribute to added prosperity in our city regions.

In sum, we believe that Ontario can and should take initiatives across the four factors – attitudes, investments, motivations, and structures – that will lead to increased productivity and prosperity. In particular, efforts should focus on upgrading educational attainment, increasing the benefits from our immigrants' skills, exploring the advantages of early childhood education. We also see opportunities for raising productivity through new economic and fiscal arrangements and alternative political structures and accountabilities. We encourage Ontarians to continue the debate on how best to address these issues. We need to start now for delay will only exacerbate the handicaps we face in addressing the urban prosperity gap.



Going Forward

Key themes for debate and future work are our investments in physical and social capital and the appropriateness of our governance structures

In this final section, we identify the key themes emerging from our research into urbanization and prosperity, setting out issues for discussion among Ontario stakeholders and indicating implications for our future research agenda. Our discussion focuses on three key themes:

- the impact of educational attainment on Ontario's prosperity
- the under-investment in physical capital
- the opportunity to strengthen structures to contribute to higher prosperity.

Understanding the opportunities from increasing our educational attainment continues to be a priority for the Institute

This priority stems from the higher returns to education seen in metro areas and from the educational attainment gap we've identified. The topics for future debate and research will include:

Analyzing the impact of investments in post-secondary education

A recurring theme in our work is the impact of post-secondary education on competitiveness and prosperity. We have observed a dramatic under-investment in universities relative to that in our peer group and are currently investigating this further. Among the issues that need to be discussed and investigated are the impact of the major differences in our investment in universities from our peer group from both a revenue and expenditure point of view. On the revenue side, we are particularly interested in tuition and student aid to understand accessibility issues. We are also interested in differentiating between public and private university funding to assess structural differences between Ontario and the peer group. On the expenditure side, we intend to identify relative and absolute differences in key cost categories such as human resources costs and physical plant maintenance. We also intend to analyze capital costs.

Assessing the respective role of colleges and universities

Another key issue we think Ontarians should focus on is the respective roles of colleges and universities in raising the competitiveness and prosperity of Ontarians. We are concerned that Ontarians may be under-investing in the latter relative to the former. We intend to determine what can be learned from state policies and strategies in this area.

Identifying opportunities for immigration to improve prosperity

Three findings are important here. First, Ontarians' under-attainment in post-secondary education is likely costing us in productivity and prosperity terms. Second, immigrants to Canada tend to be more highly educated than native-born Canadians. Third, there is some evidence that there may be opportunities to draw a higher contribution from immigrants with professional training through streamlined accreditation. Taken together, these factors point to the importance of immigration to closing the prosperity gap and the Institute will continue its research efforts here.

In light of these issues, the demonstrated desire by immigrants to settle in Ontario's urban areas, and the importance of these cities to Canada's and Ontario's prosperity, it is mystifying why the federal government would be considering measures to disperse new immigrants across the country, to ease work permits requirements for those newcomers willing to live in the Atlantic, Prairies or rural areas, and to spend \$4 million to attract skilled newcomers to smaller communities across the country.

Exploring the attitudes towards post-secondary education in Ontario and our peer group

As we indicated in the Task Force's First Annual Report, the Institute is conducting research into attitudes towards aspirations and competitiveness among the Ontario public and business community. Included in the research will be questions that attempt to compare and contrast attitudes on the importance of post-secondary education.

Strengthening our understanding of our under-investment in physical capital will help explain our prosperity gap

In the Task Force's First Annual Report, we identified the gap in investment in physical capital by Ontarians and our peer group. Work in this area is still underway and we will be reporting results in the areas of:

- reviewing existing research into the relationship between capital accumulation and productivity
- investigating the types of capital expenditures made in Ontario and its peer group, including municipal infrastructure
- assessing consumption/investment trade-offs made by governments in Ontario and its peer group.

Encouraging stakeholders in Ontario's prosperity to identify options for structure change will enhance our prosperity

This Working Paper has identified specific opportunities for strengthening the role of some specific structures in closing the prosperity gap. Our instinct is that improvements in these areas would help enhance Ontario's (and Canada's) competitiveness and prosperity. The exact results are difficult to quantify and effecting change in any of them would be difficult. Nevertheless, we are encouraging stakeholders to consider new approaches in the following areas.

Rethinking the flow of federal funds from Ontario's metro areas to Canada's non-metro areas.

We think this aspect of Canada's fiscal framework has a negative impact on Ontario's productivity and prosperity and encourage provincial and federal leaders to explore alternatives.

Reddressing the balance of representation given to metro areas.

The impact of the current imbalance is hard to measure, but is not likely contributing to Ontario's productivity and prosperity. It may be difficult to improve this situation federally, but there are no constitutional barriers to addressing the representation problem in the Ontario Legislature.

Exploring options for increasing the taxing and spending authority of municipalities, particularly larger ones.

Putting more responsibility closer to the voter may improve effectiveness, efficiency, and responsiveness of government and we would encourage consideration of innovative approaches here. Our research indicates that such initiatives need the proviso that more fiscal authority for cities has to be the result of reductions in other levels of government and that municipal governance must be strengthened.



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