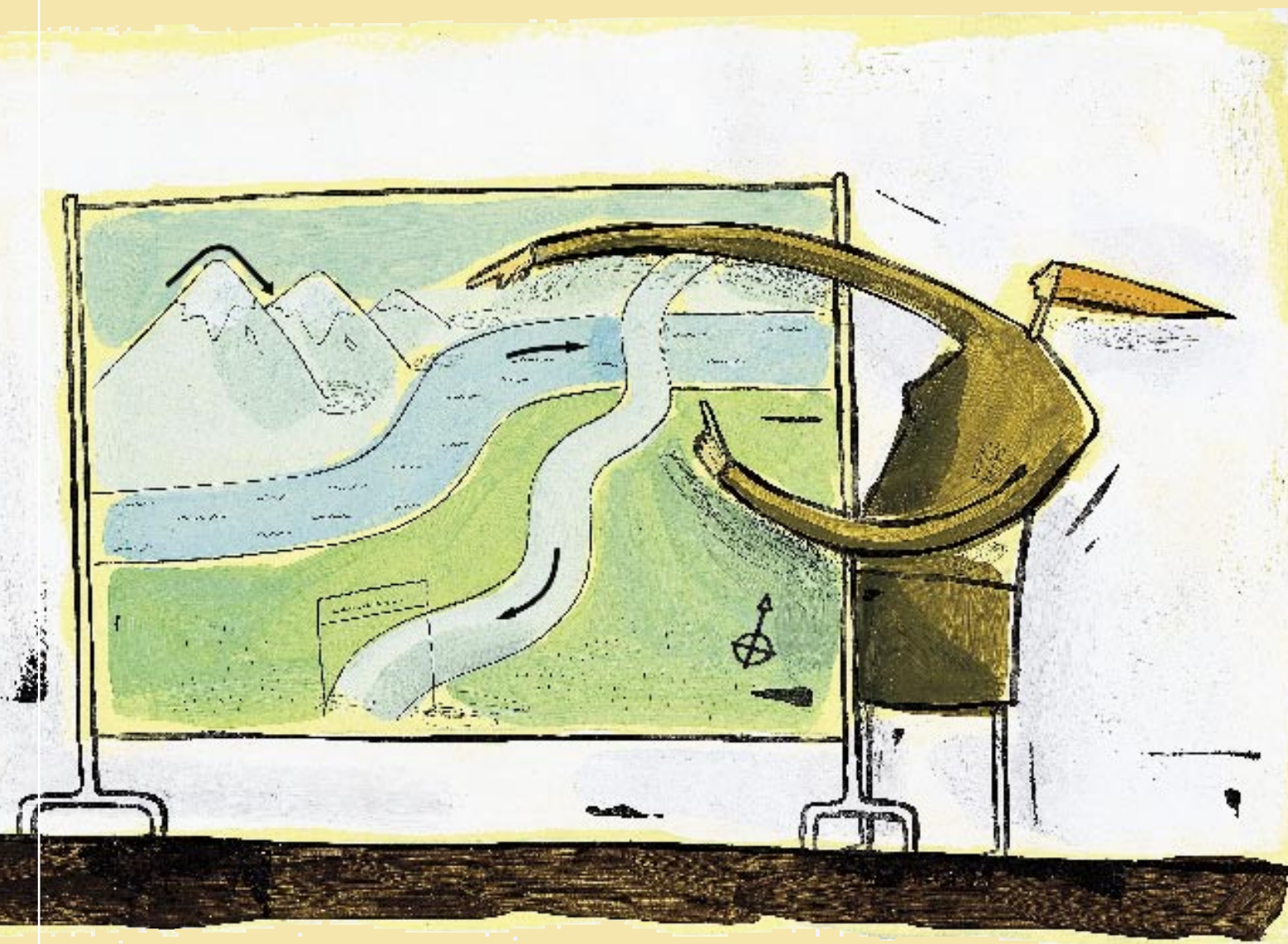


Agenda for our prosperity

Task Force on Competitiveness, Productivity and Economic Progress
FIFTH ANNUAL REPORT, NOVEMBER 2006



Task Force on Competitiveness, Productivity and Economic Progress

Chairman

Roger L. Martin

Joseph L. Rotman School of
Management

The Task Force on Competitiveness, Productivity and Economic Progress was announced in the April 2001 Speech from the Throne. Its mandate is to measure and monitor Ontario's competitiveness, productivity, and economic progress compared to other provinces and US states and to report to the public on a regular basis.

Members

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Research in Motion Ltd.

It is the aspiration of the Task Force to have a significant influence in increasing Ontario's competitiveness, productivity, and capacity for innovation. This, we 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 our research and to propose significant innovations in public policy to stimulate businesses, governments, and educational institutions to take action.

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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 the Task Force. The 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.

David Folk

Jefferson Partners

Comments on this Fifth Annual Report are welcome and should be directed to the Institute for Competitiveness & Prosperity.

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The Task Force and the Institute are funded by the Government of Ontario through the Ministry of Economic Development and Trade.

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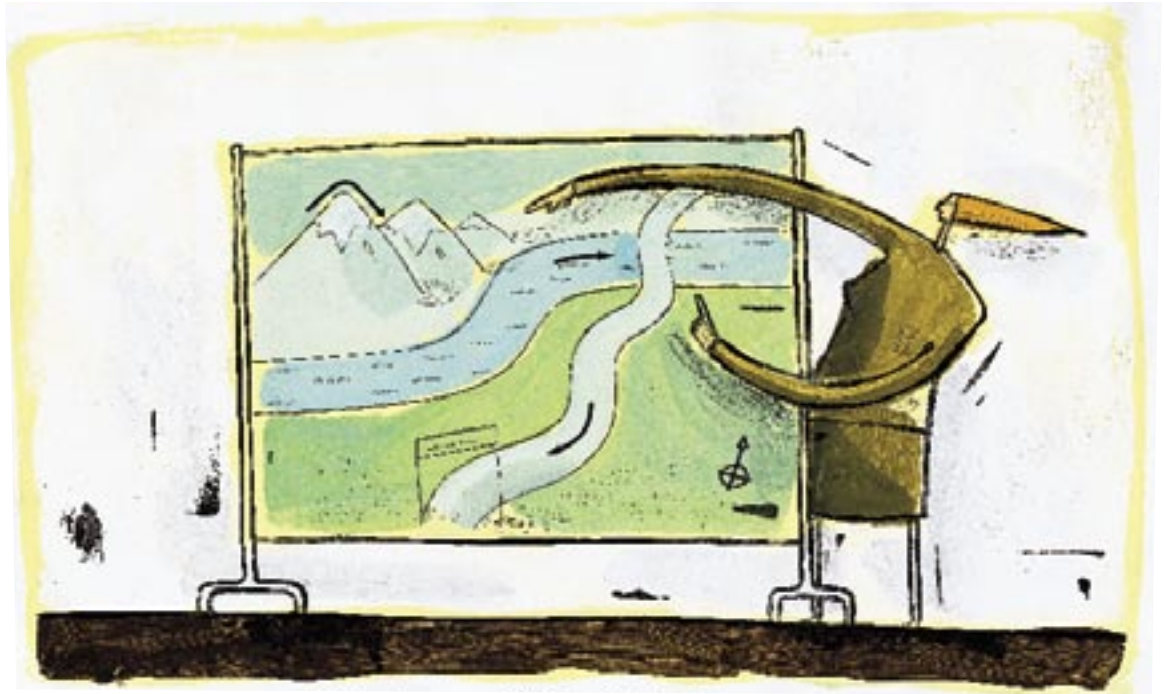
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TASK FORCE ON COMPETITIVENESS, PRODUCTIVITY
AND ECONOMIC PROGRESS

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Foreword and acknowledgements



ON BEHALF OF Ontario's Task Force on Competitiveness, Productivity and Economic Progress, I am pleased to present our Fifth Annual Report to the public of Ontario. In it, we summarize the findings and implications of our work over the past five years and set out an agenda for achieving higher prosperity in Ontario.

In this Annual Report, we urge Ontarians to take up the challenge of narrowing our prosperity gap with North America's most competitive and prosperous jurisdictions. But we recognize the difficulty in building a consensus that an agenda for closing the prosperity gap is even necessary. Ontarians enjoy one of the most prosperous economies on earth. All around us are the signs of a vibrant successful economy. Unemployment is low, the Canadian dollar is strong, and our stock markets are healthy. Public interest in discussing competitiveness and prosperity is hard to detect if party platforms in recent elections across Canada are any guide.

So why does the Task Force think that the prosperity gap is important and that Ontarians should care? For us, the answer is that the prosperity gap represents unmet potential – and we know that Ontario can and must do better.

Two decades ago, Ontario's GDP per capita ranked at the median of the sixteen largest North American jurisdictions; it now stands second to last. Ontarians have all the requisites to improve our standing, and we should not be satisfied with anything less. The prosperity gap matters to ordinary Ontarians. Realizing our prosperity potential would enable families more readily to afford important investments in housing, education, and retirement savings. It would generate significant new revenues for federal and provincial governments to support social spending and investments for long-term prosperity. It would also result in our generation passing on a more prosperous economy to our children, as earlier generations did for us.

It is not simply unmet potential that matters. We are also concerned that the stealthily slow drift of under achievement could erode our economic strength, while most Ontarians remain unaware of the problem.

To invigorate the public debate on Ontario's competitiveness and prosperity, we present our agenda for prosperity in this year's Annual Report. We set out specific recommendations, based on our accumulated research to date. Our hope is that this agenda will animate discussions among stakeholders in Ontario's prosperity, especially in the upcoming provincial and federal elections. Elections are about more than prosperity – but our future prosperity ought to play some role in the development of party platforms and in the scrutiny of voters as they assess their options.

We call for a shifting of our overall attitude from collective complacency to a shared determination to close the gap. We make recommendations that shift Ontario's emphasis from consuming today to investing for tomorrow's prosperity. We outline proposals that move us from an unwise taxation system to a smarter one. And we propose a strengthening of our market and governance structures to enhance specialized support and competitive pressure in our economy.

Parts of the agenda may not be immediately popular – yet we think it is a principled one. Nor will the agenda close the prosperity gap soon. We have lagged our peers for two decades, and catching up will take time. But we are confident that, if Ontarians are committed to pursuing competitiveness and prosperity over the long haul, we will achieve our full economic potential for our own and our children's benefit.

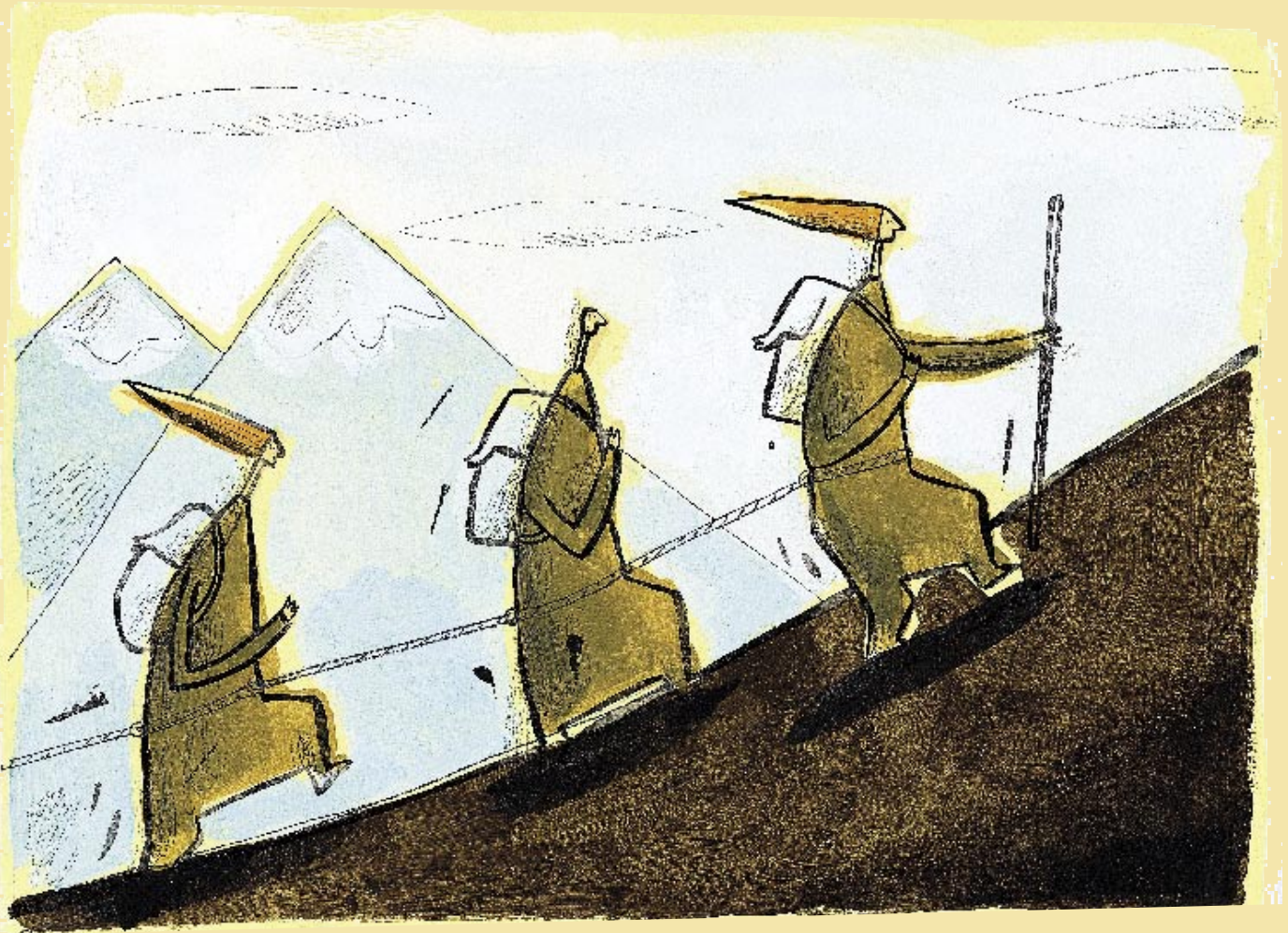
We call for a shifting of our overall attitude from collective complacency to a shared determination to close the gap. And we make recommendations that shift Ontario's emphasis from consuming today to investing for tomorrow's prosperity.

We gratefully acknowledge the research support from the Institute for Competitiveness & Prosperity and the funding support from the Ontario Ministry of Economic Development and Trade.

We look forward to sharing and discussing our work and our findings with all Ontarians. We welcome your comments and suggestions.



Roger L. Martin, Chairman
Task Force on Competitiveness, Productivity and Economic Progress
Dean, Joseph L. Rotman School of Management, University of Toronto



The 2020 prosperity challenge

The challenge for all Ontarians is to commit to move our prosperity ranking from fifteenth among sixteen peer jurisdictions to at least eighth by 2020

ONTARIANS ENJOY ONE of the most prosperous economies on earth. Few comparable countries or regions outside North America have an economy that is as competitive and prosperous as ours (*Exhibit 1*).

This success is built on many advantages. We have a population that is culturally diverse and well educated. Our businesses compete in a rich mix of industries with high potential for productivity and innovation. Our business leaders largely embrace innovation and international competition. We have a growing group of globally competitive firms here in Ontario and Canada. And our governments have established a strong fiscal base as a foundation for generating prosperity. We have an admirable post secondary education system in Ontario that provides opportunities for our young and research and innovation support for our businesses. We have also sustained strong social safety nets for all Ontarians. And our comparably high average incomes and equitable income distribution are enviable.

And yet we are not living up to our full economic potential in Ontario. While our economic performance matches or surpasses that in leading economies around the world, closer to home we have an ongoing prosperity gap with a set of North American peer jurisdictions that most closely resemble our own – the sixteen largest states and provinces in North America with half Ontario's population or greater.

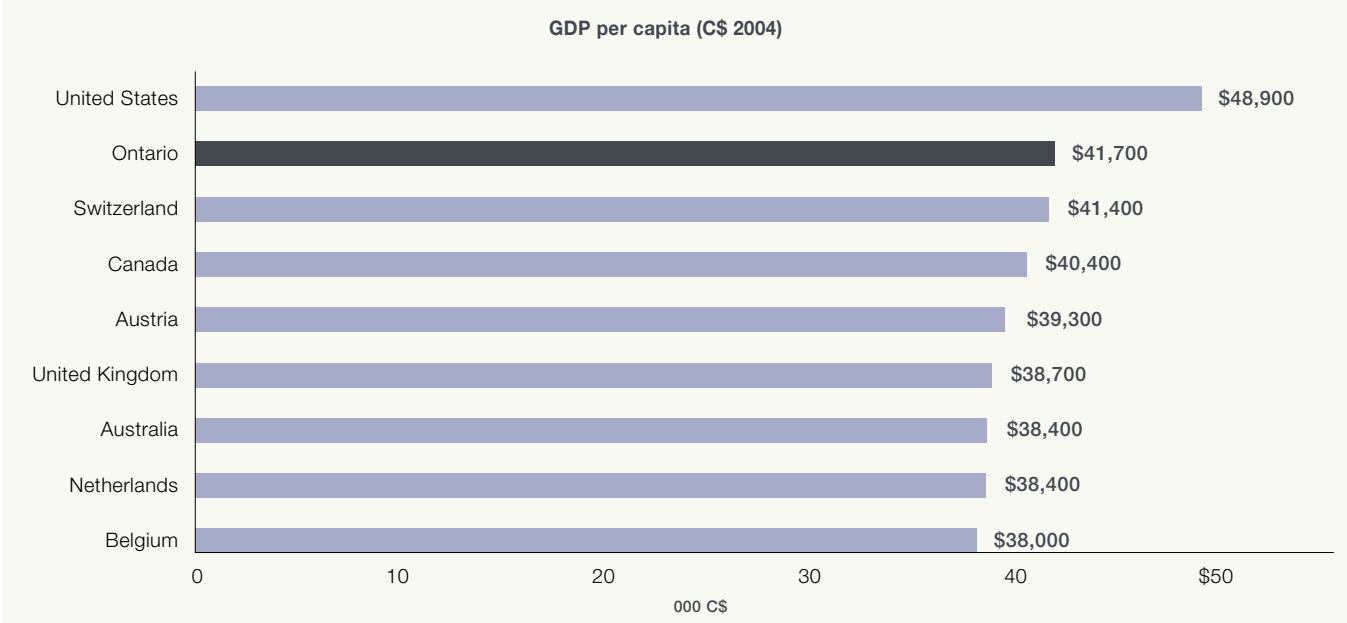


Within this peer group, Ontario trails the median economic performance significantly. In 2005, the most recent year for which we have data, Ontario's Gross Domestic Product (GDP) was \$6,100 per capita behind the median. This placed us fifteenth out of the sixteen jurisdictions. Only Quebec under performed Ontario (*Exhibit 2*).

To make these comparisons, we convert all dollar figures into constant 2005 Canadian dollars at Purchasing Power Parity.¹ Unless stated otherwise, we use this approach throughout this Annual Report.

This standing ought not to be Ontario's destiny. In fact, as recently as 1989, Ontario was within \$600 of the median of this peer group – the most competitive and prosperous economies in the world. But through the 1990s, we witnessed a decline in our relative standing, as the recession in the early part of the decade ravaged the province. In real terms, Ontario's GDP per capita fell between 1989 and 1993. In 1994, that trend reversed, but we still have not closed the gap that opened up during the recession (*Exhibit 3*).

Exhibit 1 Ontario's GDP per capita is among the world's highest



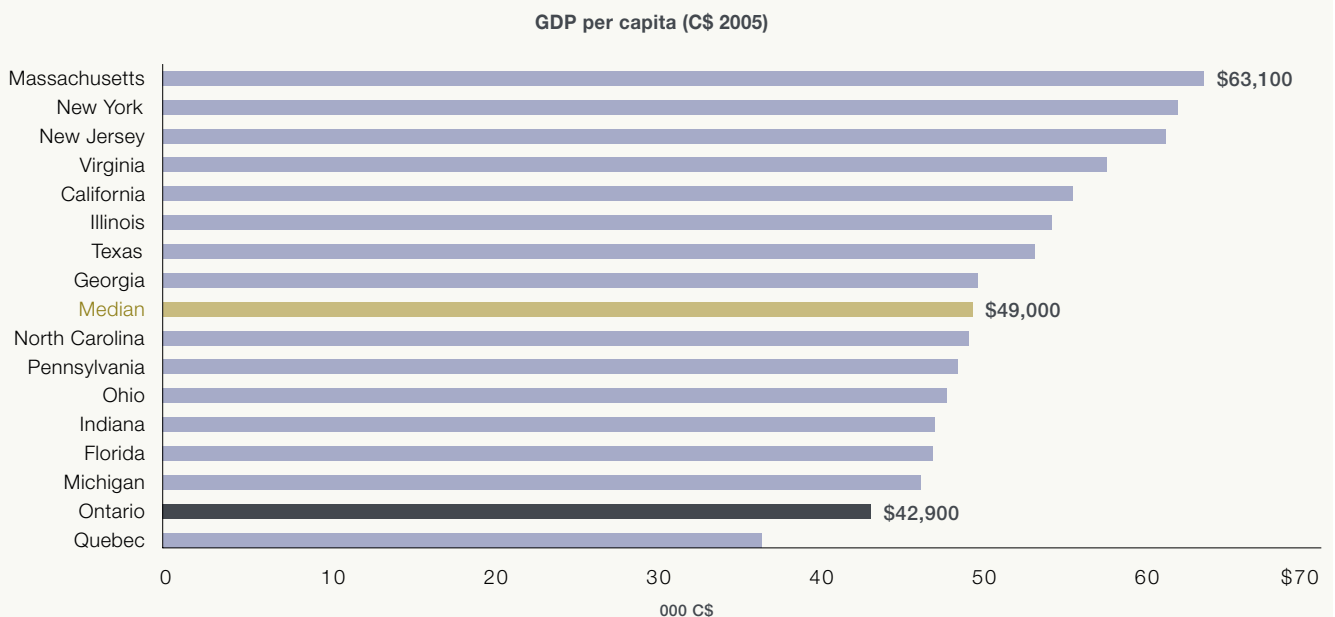
Note: Countries with at least half of Ontario's population.
 Source: Institute for Competitiveness & Prosperity analysis based on Statistics Canada; OECD Main Accounts – National Data.

¹ We convert US dollars to Canadian dollars at the PPP rate of 1.23. See Task Force On Competitiveness, Productivity And Economic Progress, Fourth Annual Report, *Rebalancing priorities for prosperity*, November, 2005, p. 27 for an explanation of our methodology.

In one sense, Ontario's economy has performed well since 1993, growing at a real per capita annual rate of 2.5 percent to 2005, compared to an annual real rate of growth of 2.0 percent for the OECD countries over 1993–2004. In fact, this growth rate exceeds that of the peer median growth rate of 2.2 percent over the same period. And most of the day-to-day signals we see in our economy are positive. Unemployment in Ontario is at a near record low; inflation has been tamed; government deficits are small or non-existent across Canada; we continue to lead most of the world in prosperity; Canadian stock markets are performing well; and the Canadian dollar has been strengthening.

As a proportion of the peer median GDP per capita, Ontario's prosperity gap declined gradually from 13 percent in 1993–1995 to 12 percent in 2002–2005. But before the recession of the early 1990s, over the 1987–1989 period, the prosperity gap represented 1.5 percent of the peer median GDP per capita. Thus we have ceded the ground lost in the recession of the early 1990s. Today's prosperity gap represents missed potential for stronger economic performance.

Exhibit 2 Ontario has a significant prosperity gap with North American peer regions



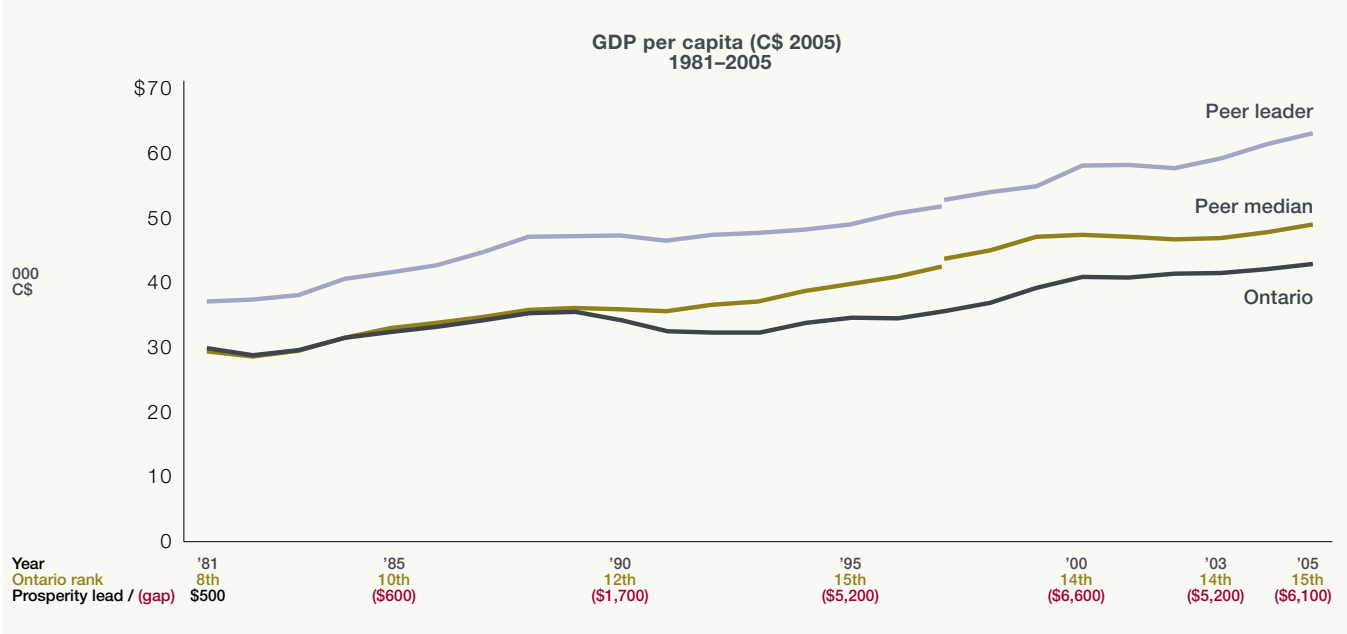
Source: Institute for Competitiveness & Prosperity analysis based Statistics Canada; US Department of Commerce – Bureau of Economic Analysis; OECD.



Why does the prosperity gap matter? On a philosophical level, it matters because we are not living up to our full potential. We Ontarians have been blessed with an abundance of high quality human, physical, and natural resources, and we are not using these to full advantage. There is no fundamental reason why we should accept laggard status against the most competitive economies in the world. Rather, we should strive to create a stronger economy than we have inherited from earlier generations.

On a practical level, not closing the prosperity gap means that we will have to accept a lower standard of living than we would enjoy if the gap were eliminated. Lower GDP per capita translates into lower wages, fewer full-time quality jobs, and less government revenue to support social spending and prosperity investments. More specifically, closing the prosperity gap – or increasing our GDP per capita by \$6,100 to reach median status – would result in an increase of \$8,400 in personal disposable income for the average Ontario household. This additional income for Ontario households would readily pay for many important consumer spending items and investments in their future (*Exhibit 4*).

Exhibit 3 Ontario's prosperity gap is persistent



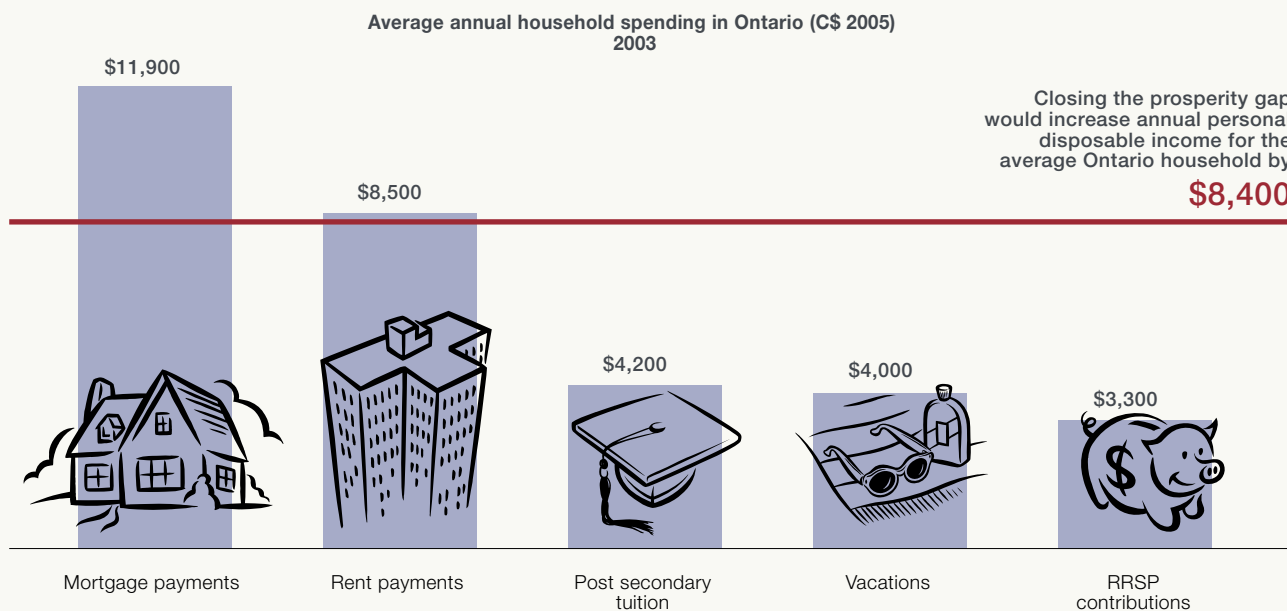
Note: 1997 shows the break in the US method of calculating state-level GDP from SIC-based to NAICS-based.
 Source: Institute for Competitiveness & Prosperity analysis based on Statistics Canada; US Department of Commerce – Bureau of Economic Analysis; OECD.

In addition, closing the prosperity gap would generate an additional \$26 billion in Ontario revenues for the federal, provincial, and local governments. This would provide choices for public policy – for example, increased spending in high priority areas without raising tax rates, or lower tax rates for Ontarians (*Exhibit 5*).

Our prosperity gap presents an interesting challenge for Ontarians. In popular parlance, there is no burning platform that requires immediate and obvious attention. Public interest in the questions of competitiveness and prosperity is hard to detect, especially if one reviews the different party platforms in recent elections across Canada. Yet the stealthily slow drift of under achievement could erode our economic strength before we know it.

In this Fifth Annual Report, we continue to urge stakeholders in Ontario's prosperity to pursue an agenda that builds our prosperity for our own and our children's sakes. This year, we reiterate our earlier themes and make specific recommendations that will contribute significantly to closing the prosperity gap. This is a particularly timely opportunity to set out an agenda for our prosperity, as Ontario voters will soon be asked to choose a provincial government and likely a federal government.

Exhibit 4 Closing the prosperity gap affords higher living standards for Ontario families



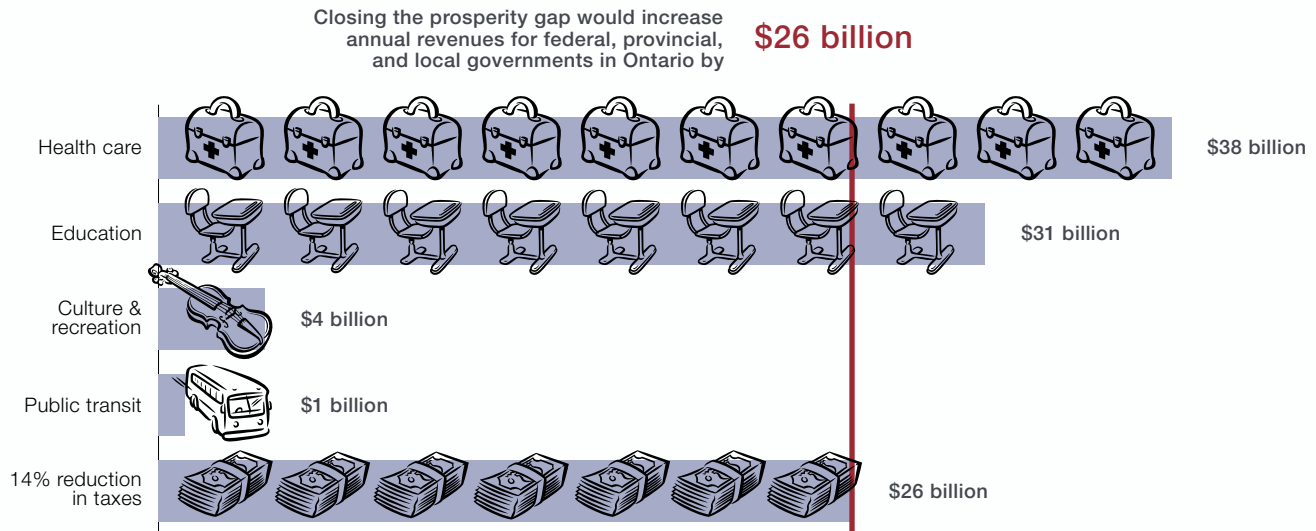
Note: Among Ontarians with some spending in these categories.
Source: Institute for Competitiveness & Prosperity analysis based on Statistics Canada, *Spending Patterns in Canada 2003*.

In our First Annual Report, our proposed goal was for Ontario to reach median status by 2012. Since we have not made progress on that goal since 2002, we face a more difficult challenge in the coming six years. With our peer states continuing to grow at an annual average rate of 2.2 percent, for Ontario to move to median status by 2012 would require increasing our growth rate from 2.5 percent to 4.2 percent.

Today, we recognize that it will be infeasible for Ontario to sustain such a high growth rate.² Nevertheless, we think it remains imperative to pursue an overarching prosperity goal and to set out the solid policies and decisions that will put us on a determined path to narrow the gap. We propose that Ontario embark on a realistic fifteen-year plan to rank at the median – at least eighth among the sixteen peers – by 2020, developing momentum to go higher. Decision makers will constantly need to evaluate initiatives not only for today’s results but also for tomorrow’s prosperity with this goal in mind. Ontario has lagged peers for two decades; catching up will not happen soon, but that must be the aim of our prosperity agenda for the next decade. The challenge is for Ontarians to be committed for the long haul.

Exhibit 5 Closing the prosperity gap generates additional government revenue

Annual federal, provincial, and local government spending in Ontario (C\$ billions 2005)



Source: Institute for Competitiveness & Prosperity analysis based on Statistics Canada, CANSIM II Table 3850001, 0510001, Transport Canada, *Transportation in Canada 2005*.

²The highest growth rate achieved in a 7-year period since 1981 was 3.4 percent between 1982 and 1988.

Our agenda covers the four factors in AIMS, the framework that we have used to inform our past work: attitudes, investments, motivations, and structures.

The 2020 challenge: Agenda for our prosperity		
THE GOAL	Current	Target 2020
Close the prosperity gap	15th in peer group in 2005	At the median – 8th by 2020
Attitudes	Collective complacency	Shared determination to close the gap
Investment	Consume today	Invest for tomorrow's prosperity
Motivations	Unwise taxation	Smart taxation
Structures	General support	Specialized support and competitive pressure

Attitudes: from collective complacency to a shared determination to close the gap

Today in Ontario, we cover most of the basics of our economy well, with sound attitudes toward developing high performing infrastructure, education, and business investment. But, while our counterparts in the peer states continue to invest more in post secondary education, productivity enhancing machinery and equipment, and specialized improvements, we stop short. We often fail to take the extra initiative – to go the extra mile to match or outdo their performance. We tend to be complacent, lacking the shared determination to be the very best we can be to propel us to higher results.

We urge opinion leaders to raise the volume on the importance of the prosperity gap to all Ontarians. Politicians, business leaders, educators, and individuals need to embrace the importance of prosperity and the need for a competitive economy. We need to heighten our level of understanding about concepts like productivity – and why the average working person should see that higher productivity means more jobs, better jobs, and higher wages. For all Ontarians, this means continuously pursuing opportunities to strengthen their skills and invest in their own and their children’s prosperity. We need a strongly shared determination to make our goal a reality.

Investment: from consume today to invest for tomorrow’s prosperity



Our agenda places great emphasis on the need for investment in our future prosperity. In the past, we have urged Ontarians to shift from the path that consumes today’s prosperity to one that values investing more of our current prosperity for future prosperity. The tradeoff between consuming for today versus investing for tomorrow is a delicate balancing act for individuals, families, businesses, and governments. Our concern is that we have been on a “consume today” path that is limiting our opportunities for future consumption and future prosperity.

Our agenda puts investment in human and physical capital at the forefront. We need a dramatic increase in our expenditure in post secondary education. Individuals and governments in the peer states are out investing us significantly in post secondary institutions. We are very encouraged by the current and planned increases in spending by the provincial government and urge that this effort be stepped up even further.

Importantly, all governments need to address the issue of sustainability of current expenditure patterns. Our public sector spending continues to tilt away from investing in future prosperity through education and infrastructure toward health care and social services. Our demographic trends will only accentuate this pressure, as the aging population requires more of both. We need to make some principled choices in our spending patterns now – for if we continue on this current path of public spending, we risk having to make even tougher choices in the future. Then, we will have even less prosperity to trade off between consumption and investment.

On the physical investment side, our business leaders need to invest more in machinery, equipment, and software, and particularly in productivity enhancing information and communications technology. We recognize that some of this will come about from changes in motivations through the tax system and some from changes to structures of competitive pressure and specialized support. But business leaders need to raise their awareness of the importance of these investments for their own international competitiveness and vitality as well as their impact on all Ontarians’ future prosperity.

Motivations: from unwise taxation to smart taxation

People will be more motivated to invest in future prosperity if we shift from a fundamentally unwise to a smarter taxation system than we have today. Smart taxation recognizes that business investment is a driver of prosperity not just for shareholders, but more importantly also for workers, customers, and suppliers of businesses.

The Ontario taxation system is one of the developed world's worst when it comes to taxes on new business investment. The provincial government continues to levy a provincial sales tax on many business investments; it taxes capital assets once the new investment has been made; and it has high corporate rates on investment returns relative to those in other developed economies. The rest of the developed world recognizes that it is important to encourage business investment to expand the prosperity pie and then tax individually for redistribution. That is smarter taxation. We urge the Ontario government to end the capital tax, to reduce corporate income tax rates, and to speed up depreciation allowances on new investments.

The federal government has compounded our shortfall in taxation intelligence by forgoing significant corporate tax reductions in favour of reducing taxation on consumption through its Goods and Services Tax (GST) cut. We are realistic enough to know that the GST will not be taken back to 7 percent – or even higher, as it ought to be. But, at the federal level, we urge continuing corporate tax reductions and faster depreciation on new investment.

The federal desire to reduce the GST, coupled with Ontario's investment-negative retail sales tax, presents an opportunity to shift tax room between the levels of government. Ontario and the other provincial governments should work with the federal government to make the value-added tax a provincial responsibility. In return – if a quid pro quo is necessary – the federal government could take on sole responsibility for corporate income taxes.





Structures: from general support to specialized support and competitive pressure

Currently, Ontario enterprises benefit from a stable environment and vital infrastructure, including education, transportation, and financing, which generally support business initiatives. But we need to ensure that our economic policy is not focused on preserving what we have – rather, we need to establish market and governance structures that provide a balance of pressure and support to help emerging global leaders in Ontario to thrive. Our recommendations are aimed at building the necessary specialized support and the strong competitive pressure that drives the will to win and innovation to beat out rivals.

For **market structures**, we need to find ways to ensure greater specialization of support for our firms. That means finding ways to raise the quality of venture capital and to focus less on the quantity of venture capital. This could occur by scrapping the labour sponsored venture fund tax supports at the federal level – and accelerating their demise in Ontario. We need to find ways to strengthen business research and development. We propose eliminating the federal scientific research and development tax credit in favour of a more broadly based reduction in the taxation of business investment. We also need to ensure that our businesses are being more capably managed through continuing growth in the number of university-trained managers, irrespective of field of study, and through more available spaces for business students. Improved structures also require greater competitive pressure, which can come about by deregulating key sectors and opening our markets up to greater competition from bilateral trade agreements.

Our **governance structures** also need to be strengthened for greater prosperity. Fiscal federalism needs to be restructured more to drive investment and prosperity in the have-not provinces and less to support consumption of current prosperity. A key element of this is a fundamental reform of the Employment Insurance program, which is a major part of the funds that flow from Ontario to regions of high unemployment with little discernible impact on joblessness. We also need to examine our labour regulations more carefully to ensure that they are not having unintended consequences. Our research indicates that Ontario's stringent labour regulations – in areas such as minimum wage and approval requirements for overtime – are driving greater incidence of involuntary part-time work. Our concern is that well-meaning labour regulations are stifling economic development, which in turn reduces the demand for worker hours, especially among the least skilled.

Ontarians live in one of the most prosperous regions in the world. We have a vibrant economy based on highly capable people, competitive businesses, and effective governments. But we can do better.

We have a large prosperity gap with the most prosperous jurisdictions who are our next door neighbours. This lost potential reduces opportunities for all of us. The Task Force on Competitiveness, Productivity and Economic Progress urges all stakeholders in Ontario's prosperity to develop the will and the actions to close the prosperity gap. We are proposing an ambitious prosperity challenge for 2020 and an agenda to achieve our goal. We look forward to discussing it with all Ontarians.





The Prosperity Gap

The prosperity gap limits Ontarians' living standards

IN CARRYING OUT its mandate to measure and monitor Ontario's competitiveness and prosperity, the Task Force has focused on Gross Domestic Product (GDP) per capita as the summary measure of success. GDP represents the value added to our endowed base of human, physical, and natural resources. The value we add is driven by our ability to develop and produce products and services that others want to buy – here in Ontario, across Canada, and around the world. It can be raised by expending more effort to increase the goods and services produced in Ontario; by finding more efficient ways to produce the same amount of goods and services with the same effort; or by creating new and improved goods and services for which consumers will pay higher prices.

GDP is an imperfect measure. It does not measure quality of life or happiness. It focuses strictly on things that can have a dollar value attached to them. And it does not place a value on leisure time.

But it is useful to the extent that a more prosperous economy creates the opportunity for greater quality of life through better health, increased life expectancy, and literacy. And, as long as we maintain the perspective that our focus is on competitiveness and prosperity – which are by nature economic concepts – we conclude that GDP per capita is a sound measure of economic results.

Ontario has an enviable prosperity position. Among countries with a population that is similar to or greater than Ontario's, no other country outside North America outperforms Ontario in GDP per capita.

Among the regional powerhouses of Europe, referred to as the Four Motors, Ontario would be tied for first with Lombardia, Italy's leading economic region, and well ahead of Germany's Baden-Württemberg, France's Rhône-Alpes, and Spain's Cataluña (*Exhibit 6*).

As heartening as these results are, we trail the largest US states significantly. Within our peer group of the sixteen North American jurisdictions that have half Ontario's

12.5 million population or greater, Ontario stands fifteenth, trailing all fourteen US states in the peer group and ahead of only Quebec.

As we have seen, this prosperity gap did not exist twenty years ago when we held a middle position among these highly competitive and prosperous jurisdictions. Starting with 1990-92 recession, Ontario began to fall behind the peer states, and we have not been able to resume our earlier standing. And, as we have also seen, this prosperity gap matters to Ontarians. It represents lost potential for our residents to gain economic security and well being and for our public institutions to provide services and investments for future prosperity.

Our agenda for Ontario's prosperity begins with an assessment of what is driving our current prosperity gap.

Lagging productivity and intensity remain the biggest hurdles

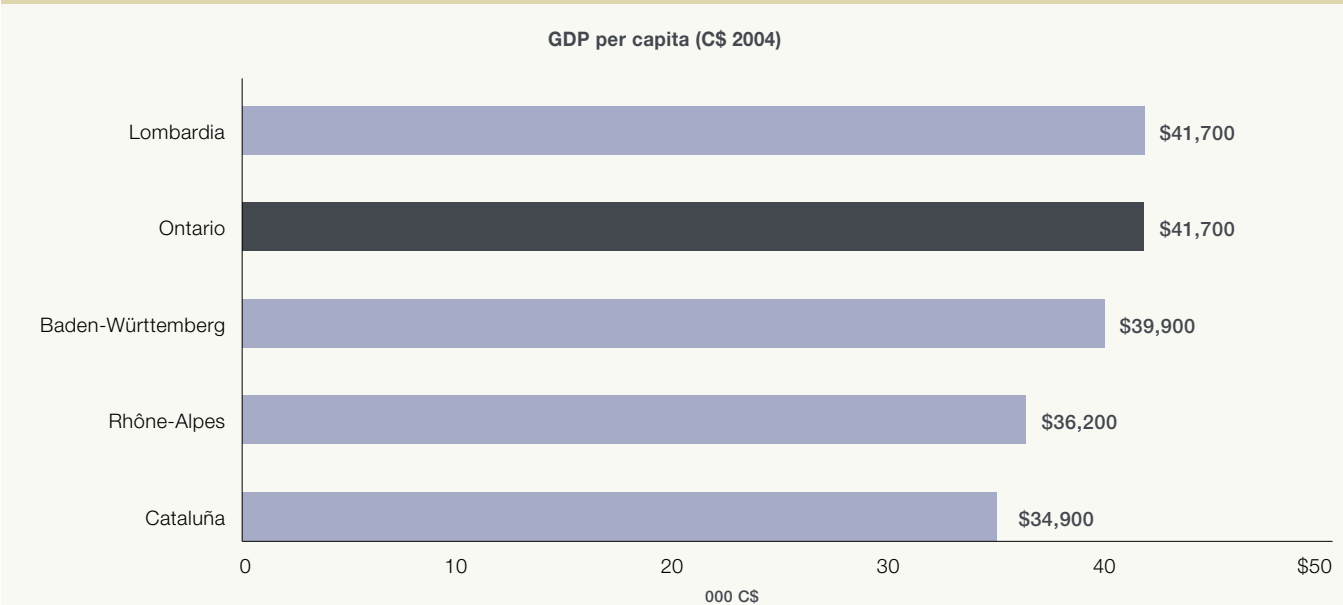
To understand the reasons behind our prosperity gap with the peer jurisdictions, we draw on the same framework we have used in our previous reports. This framework disaggregates GDP per capita into four measurable elements (*Exhibit 7*):

- **Profile.** Out of all the people in a jurisdiction, what percentage are of working age and therefore able to contribute to the creation of products and services that add economic value and prosperity?
- **Utilization.** For all those of working age, what percentage are actually working to add to economic value and prosperity? To gain further insight into this element we examine the two

contributors to utilization. First we assess *participation* – the percentage of those of working age who are searching for work, whether they are successful or not. Second, we assess *employment* – the rate at which those participating in the job market are employed.

- **Intensity.** For all those who are employed, how many hours do they spend on the job in a year? This element measures both workers' desire to work more or fewer hours and the economy's ability to create demand for work hours.
- **Productivity.** For each hour worked in a jurisdiction, how much economic output is created by a jurisdiction's workers? Within productivity we assess six sub-elements:

Exhibit 6 Ontario performs well compared with Europe's Four Motors



Note: 2004 results for Cataluña and Rhône-Alpes estimated by Institute for Competitiveness & Prosperity based on 2003 results. Source: Institute for Competitiveness & Prosperity analysis based on Statistischen Ämter des Bundes und der Länder; Instituto Nacional de Estadística; Institut National de la Statistique et des Études; L'Istituto Nazionale di Statistica; OECD.

Cluster mix – how the mix of industries into traded clusters, local industries, and natural resources affects our productivity potential

Cluster content – productivity potential of the sub-industries that make up our clusters of traded industries

Cluster effectiveness – how well our clusters of traded industries compete

Urbanization – the proportion of our population that lives in urban areas, which typically increases a jurisdiction's productivity

Education – the educational attainment of our population and its impact on productivity

Capital investment – the degree to which physical capital supports our workers' productivity

Productivity residual – a residual value that relates to productivity but remains unexplained.

Note that the first three factors – profile, utilization, and intensity – add up to our labour effort, or the hours worked per capita. That captures the human effort Ontarians are expending to create economic value. The fourth factor – productivity – measures how effectively our labour efforts turn resources into economic value and prosperity. As we have seen, Ontario's divergence from the prosperity performance of our peer states occurred during the recession of the early 1990s. During that time the key factor driving our economic weakness was labour effort, especially

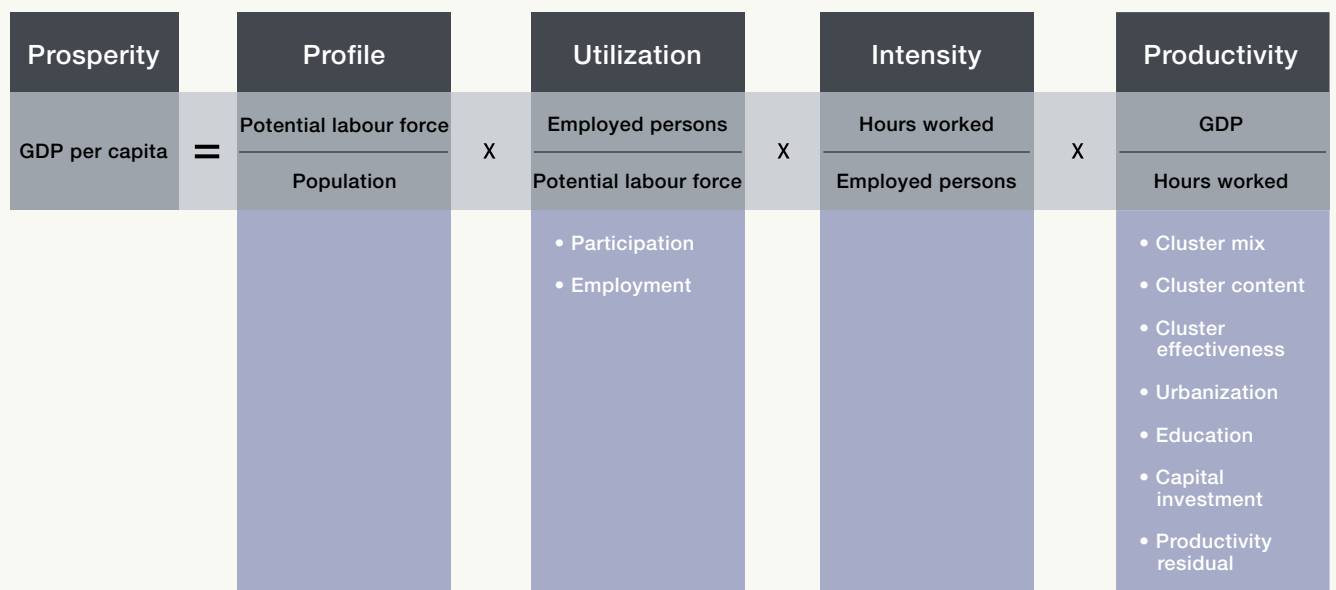
utilization and its two sub-elements participation and employment. Since 1995, we have been successfully recovering to 1990 performance levels. But, at the same time, a growing productivity gap has emerged relative to the peer states. If we are to close the prosperity gap, a productivity agenda has to be a priority for all stakeholders.

Ontario has mixed labour effort performance

Ontario continues to have a demographic profile advantage versus the peer states, an advantage in utilization, but a significant intensity gap.

Profile remains an advantage for Ontario. The first factor in a jurisdiction's prosperity creation potential is its demographics. The percentage of the population that is of working age – aged 15 to 64 – is a base for prosperity. With

Exhibit 7 The Task Force measures four components of prosperity



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

more people in that age range, a higher percentage of the population can work and create economic value. In Ontario, this ratio has been stable over the short run and has had no appreciable impact on changes in our prosperity gap versus our peer states. Nevertheless, it does create an ongoing starting advantage in Ontario's prosperity.

In 2005, 69.0 percent of Ontarians were aged 15 to 64. Among the peer jurisdictions, only Quebec has a higher percentage of working age population. All fourteen peer states have a smaller percentage of working age population. Relative to the median of the sixteen peer jurisdictions, Ontario has a 3.0 percent potential profile advantage.³ Holding all other factors constant, we calculate this advantage to be worth \$1,300 in per capita GDP. In other words, because we have a higher proportion of our population able to add to our prosperity, we have a profile advantage versus our peer jurisdictions worth about \$1,300 to our prosperity (See Exhibit 11).

As we discussed in our Fourth Annual Report, demographic projections indicate that the proportion of Ontarians of working age will decline over the coming decades as baby boomers retire and are not being replaced by equal numbers in subsequent generations. Still, demographic projections indicate that Ontario will maintain its advantage versus its peers. Quebec will be hardest hit by demographic trends, as the percentage of its population aged 15 to 64 is projected to fall from 69.7 percent in 2005 to 63.2 percent in 2025.⁴

Nevertheless, Ontario will have fewer workers to create prosperity in the coming years. We estimate that by

2025 the smaller percentage of working aged Ontarians will reduce GDP per capita potential by \$2,300.⁵ As we discussed in our Working Paper on intensity released this year, we will need creative retirement solutions to address this decline in our prosperity potential.⁶

Ontario utilization out performs peers.

As we discussed in last year's Annual Report, Ontario successfully reversed a decline in its utilization of its working aged population during the latter part of the 1990s.

In 1990, Ontario led all its peers in *participation*. Ontarians were more eager to work than people in any other state or province in its peer group. However, through the 1990-92 recession and continuing until 1995, Ontario's participation rate plunged dramatically. By 1995, Ontario's participation rate ranked eleventh among the sixteen peers. Clearly, the economic weakness of the early 1990s created many discouraged workers – people who simply stopped looking for work and were no longer recorded as participants in the labour force. As economic conditions improved, more adult Ontarians rejoined the labour force, contributing to our economic potential. The province's participation rate increased every year until 2003, when Ontario once again ranked first among the peers. In 2005, 68.0 percent of Ontarians 15 years of age and older⁷ worked or sought work. Among the peer jurisdictions we ranked second to Virginia. The median participation rate was 65.7 percent. This 3.3 percent advantage translates into \$1,400 in GDP per capita.

In the other component of utilization, *employment*, Ontario has traditionally trailed its peers, but the gap versus

the peer median accounts for only a small part of our prosperity gap. As with participation, the 1990-92 recession adversely affected Ontario's unemployment rate, which increased on an absolute basis and relative to that in our peer jurisdictions. In 1990, before the recession, 94.3 percent of Ontarians in the labour force held jobs, just above the 94.2 percent rate for the median peer jurisdiction. By 1993, Ontario's employment rate fell to 89.8 percent – that is, the unemployment rate reached 10.2 percent – while the rate in the median peer state was 92.8 percent. From that point, Ontario's unemployment rate trended down, and by 2000 our employment gap had narrowed considerably. The 2001-02 downturn was milder in Ontario than in the peer states, and the employment gap narrowed further. By 2005, the employment rate of 94.1 percent in Ontario was 0.4 percentage points lower than the median of the peer jurisdictions.

In 2005, the lower employment rate in Ontario relative to our peer jurisdictions cost us \$200 in lower GDP per capita. This is a marked improvement over the results of the mid 1990s.

The combined effect of more discouraged workers and increased unemployment in the first half of the 1990s was a key driver of Ontario's growing prosperity gap during those years. Beginning in 1995, Ontario successfully increased the utilization of its human capital; by 2005, Ontario employed 64.0 percent of its working age population, ranking second among the sixteen peer jurisdictions and well above the peer median of 62.2 percent. This superior performance translates to a \$1,200 utilization advantage (the

³ Calculated as $[1 \text{ minus } (66.9 \text{ (Peers)} / 69.0 \text{ (Ontario)})] = 3.0 \text{ percent}$.

⁴ Fourth Annual Report, *Rebalancing priorities for Ontario's prosperity*, p. 29.

⁵ This comparison is between Ontario's GDP per capita in 2005 and its potential in 2025; not the difference between Ontario and its peer group.

⁶ Institute for Competitiveness & Prosperity, Working Paper 9, *Time on the job*, September 2006, p. 21.

⁷ Labour statistics base participation, unemployment, and hours estimates on all workers including those who are 65+; we follow this convention for utilization and intensity.

net effect of a \$1,400 participation advantage and a \$200 employment disadvantage) in GDP per capita.

Intensity is a significant part of our prosperity gap. This year, the Institute conducted significant research into differences in intensity – hours worked per employed person – between Ontario workers and their counterparts in the peer states. Our findings, published in Working Paper 9, *Time on the job: Intensity and Ontario's prosperity gap*, showed that the difference in hours worked is the most important contributor to Ontario's prosperity gap after productivity.

The subject of intensity has attracted recent attention from economists and those involved with public policy. For some, the key challenge is to ensure that, as our society prospers, the goal of public policy is to reduce the number

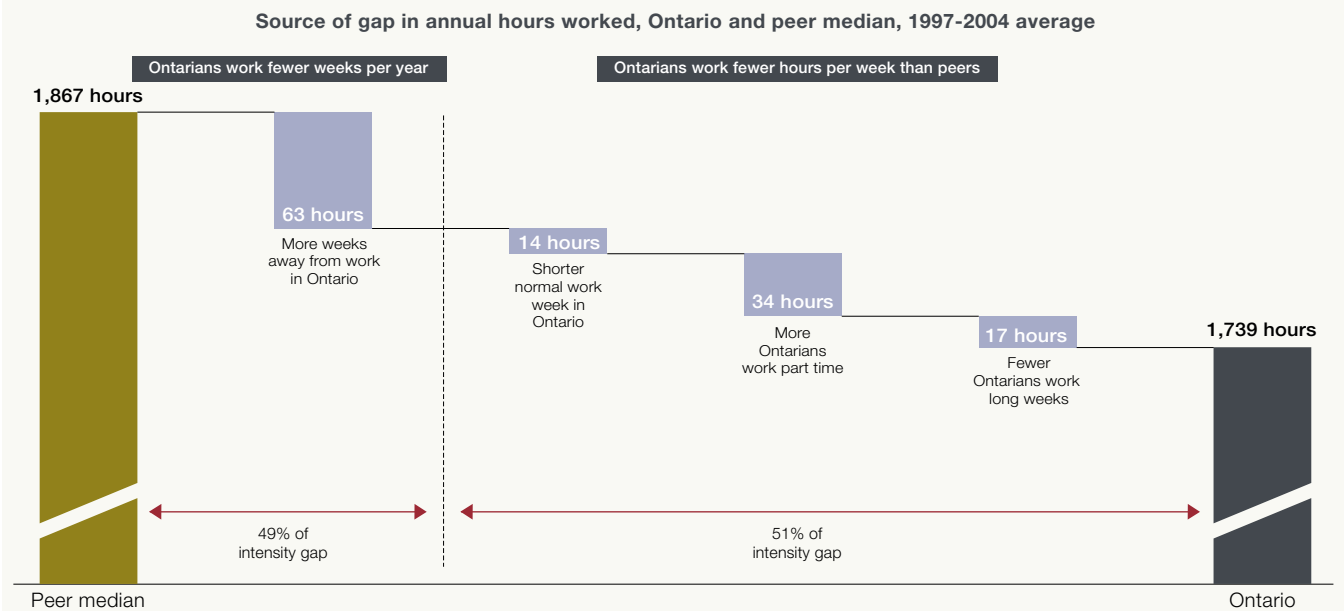
of hours workers are on the job. There is a variety of good reasons for this stance. Leisure is an important contributor to health and well being. Over worked individuals risk being less happy and productive than those who work less. And some workers may not have adequate employment opportunities because others are working too many hours, contributing to significant under employment, especially among less well educated individuals.

But others note that there is a downside to working less. In Ontario, the intensity gap with our US peer states has grown significantly over the past thirty years – from 1.5 weeks in 1976 to 3.7 weeks in 2005. Ontarians now work about 2.5 hours per week less than their counterparts in the largest comparable US jurisdictions. The gap has grown because Ontarians are

taking more weeks away from work and because we are working fewer hours in the weeks when we are at work. At the same time, workers in the peer states have increased the weeks they are at work and the hours per week they work. These two factors are nearly equal sources of Ontario's intensity gap: the percentage of employed persons who work in any given week, and the number of hours they spend on the job during a typical work week (*Exhibit 8*).

Ontarians are away from work for more full weeks than workers in the peer median. In any given week, about 7.4 percent of Ontario workers are off the job for the full week. Multiplying this 7.4 percent by 50 work weeks in a year, we find that the average Ontario worker is away from work for 3.7 weeks. Among the peers, 4.1 percent workers report being away from work for a full week.

Exhibit 8 Ontario's intensity gap is the result of two factors



Source: Institute for Competitiveness & Prosperity analysis based on Statistics Canada – Labour Force Survey; US Bureau of Labor Statistics – Current Population Survey.

This translates to 2.1 weeks in the peer median. This difference of 1.6 weeks per year accounts for 63 hours⁸ annually – or about 49 percent of the total 128-hour gap.

In those weeks when they are on the job, workers in the peer median work an average of 38.9 hours per week. Workers in Ontario achieve 96.4 percent of this, or 37.5 hours weekly. This 1.4 hour difference adds up to 65 hours or 51 percent of the total annual 128-hour gap.

This part of the intensity gap further sub-divides into three factors. The largest of these is the greater incidence of part-time work in Ontario. Over the 2001–05 period, 20.1 percent of Ontario workers were employed part time versus an average of 16.1 percent across the peer states. This had the

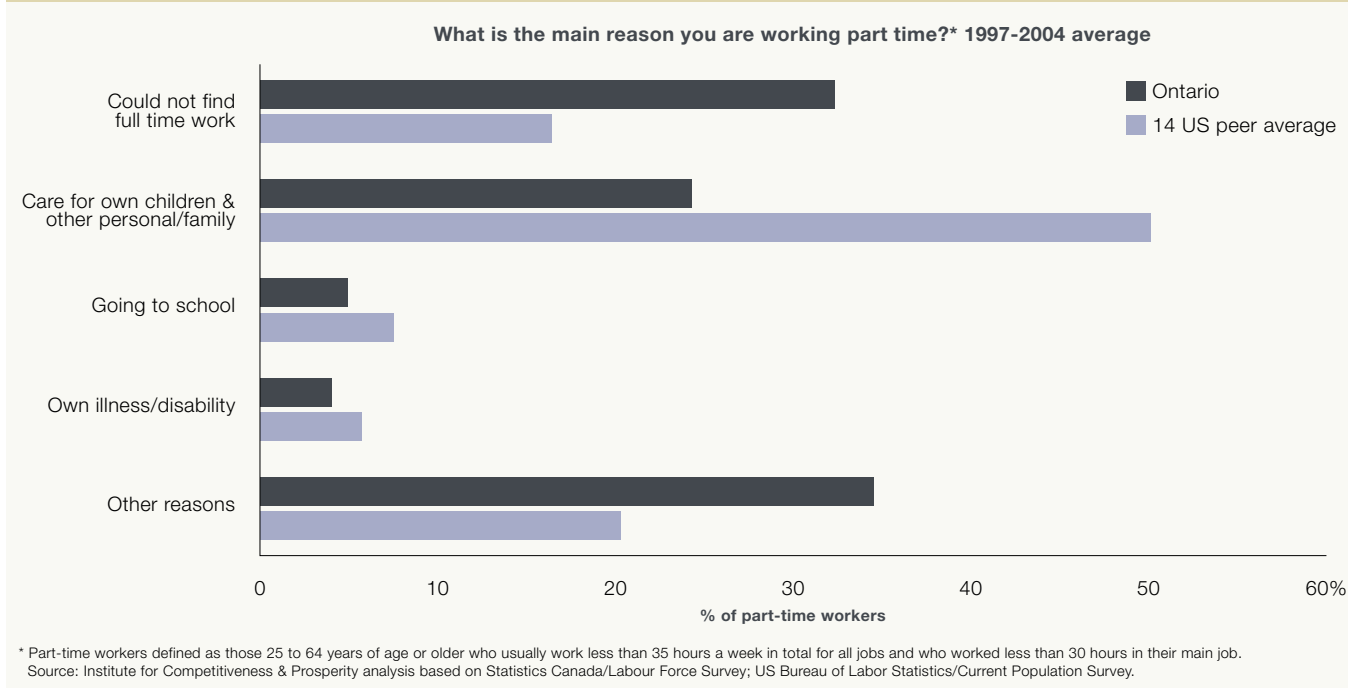
effect of reducing average hours worked in a year by 34 hours versus the peer states. The second largest reason for fewer hours during the work week is that a smaller percentage of Ontarians work long work weeks, defined as work weeks with 50 or more hours. Over the same period, 17.0 percent of workers in the fourteen US peer states worked long hours, compared with only 13.7 percent in Ontario. Finally, the smallest part of the weekly hours worked gap is the length of the standard work week for the bulk of employed Ontarians who work neither part time nor long weeks. The average Ontario worker in the group worked 38.9 hours versus 39.5 hours for the peer state counterpart. This small difference accounted for just 14 hours per worker in an average year.

The gap cumulates to a difference of 128 hours each worker spent on the

job annually on average over the years 1997 to 2004. In 2005, the intensity gap was 137 hours per worker, which accounted for \$3,400 of the \$6,100 per capita prosperity gap with our US peers. Closing some of this intensity gap has the potential to contribute significantly to higher prosperity in the province.

But we agree with the general proposition that closing the prosperity gap exclusively or even primarily through increased work effort is an unwise course. It goes against the idea of working smarter, not harder, to increase prosperity. It is also impractical if it works against individual preferences. Nor do we conclude that public policy should be geared toward reducing work hours to match the experience of Europeans, since there is no evidence that this can or should be transplanted. Whether we need new approaches

Exhibit 9 Many Ontario part-time workers would prefer full-time work



⁸ At the Ontario average hours worked per worker who worked – 37.5 hours. See Working Paper 9 for more details.

to the amount of time workers spend on the job ought to be informed by a deeper understanding of the situation here in Ontario.

While there are many similarities in the Ontario and peer work forces and the time they spend on the job, our research pointed to three differences that stand out clearly:

- **Nearly a quarter of the intensity gap is involuntary.** More Ontarians than their US peers work part time, and the most important reason for this is that they are unable to find full-time work (*Exhibit 9*). The evidence points to economic conditions as the major determinant. Where and when unemployment is higher, involuntary part-time employment increases. Recent research by Toronto's Daily Bread Food Bank indicates that 60

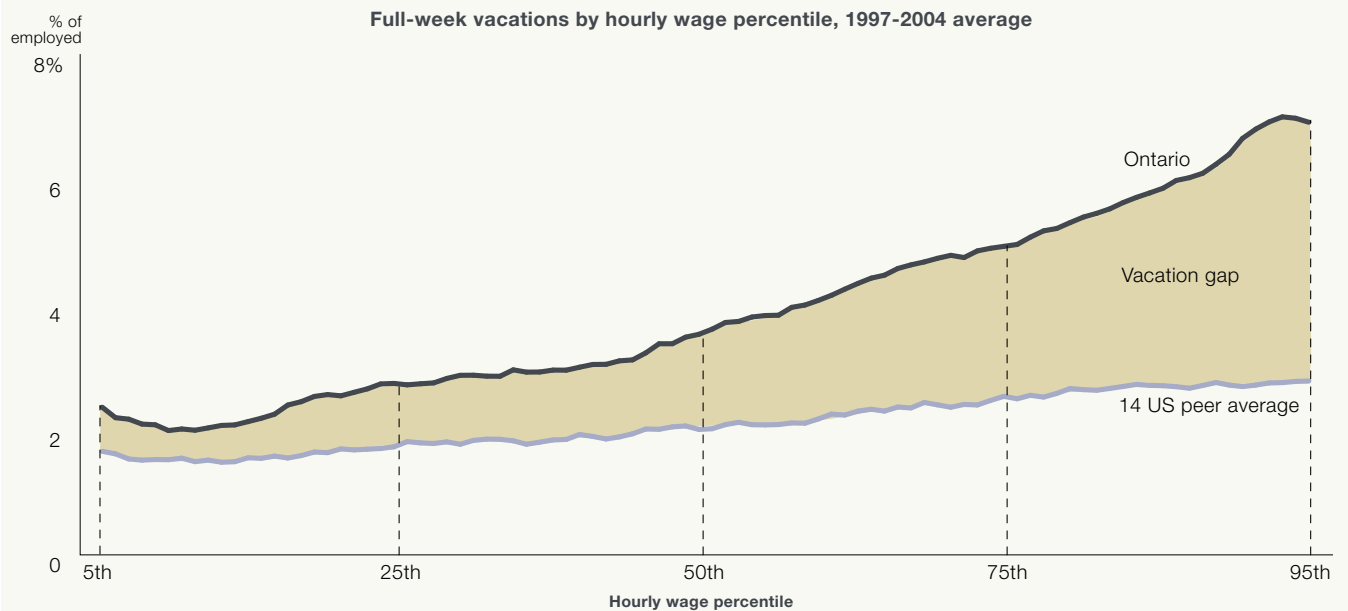
percent of their employed clients "say they want more hours of work but are unable to get them from their employer."⁹

This points to the ongoing imperative for strengthening the skills of Ontarians, since involuntary part-time work is more prevalent among those with lower skills. We need to continue working to ensure that our children are staying in school as long as possible so that they are less vulnerable to the vicissitudes of economic downturns and the employment market.

- **The intensity gap is wider among our more productive workers.** Compared to their peer state counterparts, Ontario workers with higher education and higher incomes take more weeks off work (*Exhibit 10*) and are less likely to work long work weeks (defined as more

than 50 hours/week). In our previous work in exploring Ontarians' attitudes, we did not find significant differences in our overall propensity to work more hours for greater prosperity. However, among the most highly educated and the highest income earners, we found that Ontarians are less interested than peers in working longer hours to augment their prosperity. We also know from our previous work that the premium for higher educational attainment is lower in Ontario than among our peers, since our economy does not reward more education as much as peer states do. We may be in a vicious circle. Because our economy does not value higher skilled workers and managers as much as the peer states' economies, the incentive for highly educated Ontarians to work longer hours is reduced. Consequently, our overall productivity is reduced, because

Exhibit 10 The vacation gap widens significantly as income increases



Note: Excludes self-employed.

Source: Institute for Competitiveness & Prosperity analysis based on Statistics Canada – Labour Force Survey; US Bureau of Labor Statistics – Current Population Survey.

⁹ Daily Bread Food Bank, *Who's Hungry: 2006 Profile of Hunger in the GTA*, 2006. Available online: www.dailybread.ca

highly educated workers perform a lower proportion of work. As a result, our economy draws on a lower skill mix overall, which further reduces productivity, and so on.

- The intensity gap is related to our less robust economy.** Drawing from a multiple regression analysis,¹⁰ we find that our lower work intensity is related to our higher unemployment rate and our lower GDP per capita. The inability of our economy to achieve its full competitive potential means that fewer of our workers, particularly those with lower skills, have the choice to work as many hours as they want. For them, the labour-leisure tradeoff is a false dichotomy. We need to recognize that our prosperity gap has real consequences for real people.

In summary, the intensity gap is a major contributor to our prosperity gap. To the extent that many Ontarians are content to work less and to enjoy the benefits of their current prosperity, that is a positive feature of our economic situation. But, to the extent that those who want to work more to advance their economic situation are being constrained, we need to work at creating the opportunity for them to work and earn more. And to the extent that we are under utilizing the potential contribution from our more productive workers, we need to look for creative solutions that realize all that they can offer to contribute to higher prosperity.

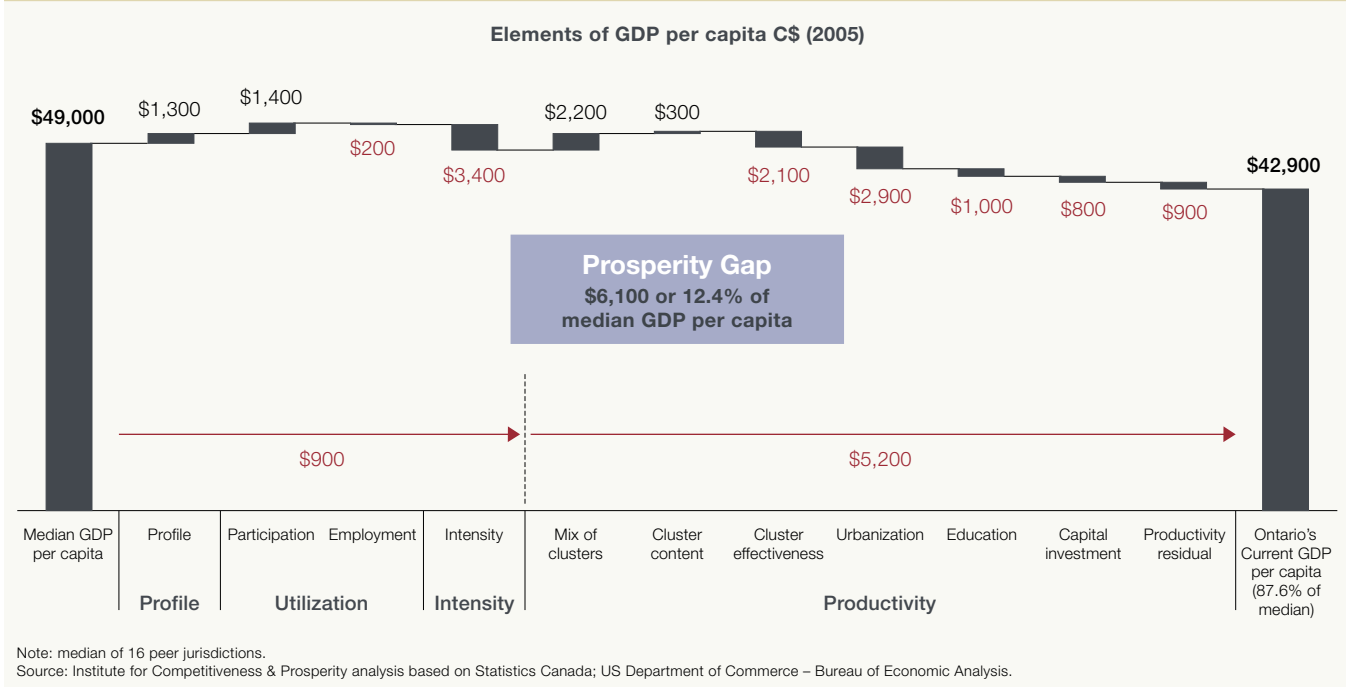
Productivity continues to be the key to closing Ontario's prosperity gap
 As we have seen, in the three labour effort factors, Ontario's advantage in

the percentage of our population of working age has strengthened slightly, and we have made remarkable progress in the percentage of Ontarians who are working. Still, differences in the number of hours worked continue to be a major contributor to our prosperity gap (*Exhibit 11*). Even with the overall gains in labour effort, our prosperity gap persists (*Exhibit 12*). Productivity accounts for the greatest share of the prosperity gap with our peers.

We assess the seven sub-elements of productivity to determine the impact of this key driver of our prosperity gap.

Cluster mix and cluster content contribute positively to our productivity. The Task Force continues to conclude that Ontario benefits from a good *cluster mix* of traded

Exhibit 11 Productivity and intensity are the main sources of Ontario's prosperity gap



¹⁰ Working Paper 9, *Time on the job*, p.34.

industries¹¹ that are typically concentrated in specific geographic areas and sell to markets beyond their local region. Research by Michael Porter of the Harvard-based Institute for Strategy and Competitiveness has shown that clusters of traded industries increase productivity and innovation. In addition, the presence of clusters in a region has a spillover effect, in that they typically generate opportunities for increased success of the local economy.

Drawing on Porter's methodology, the Institute has determined that fully 39.8 percent of employment in Ontario is in traded industries versus 31.4 percent in the peer jurisdictions. Ontario's employment strength in financial services, automotive, metal manufacturing, publishing and printing, and others has created an attractive mix of traded

industries. Our analysis of Ontario's *cluster mix* indicates a \$2,200 per capita advantage over our peers. This benefit is derived from a higher output than would be likely if Ontario's mix were the same as the peers' mix.¹²

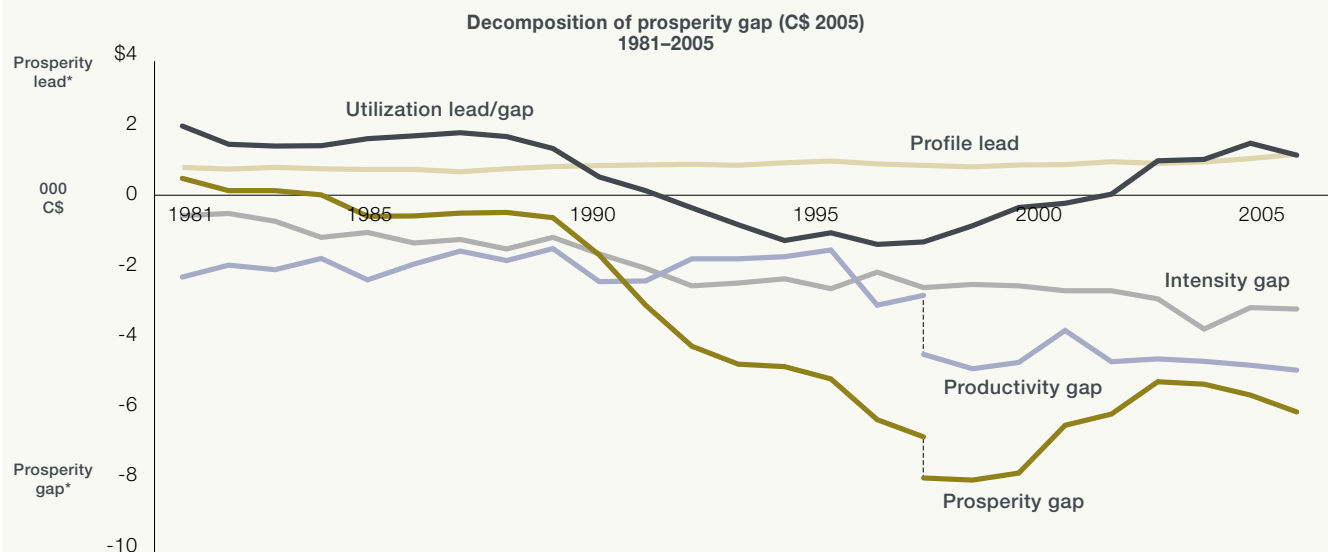
In the sub-clusters that make up each cluster of traded industries,¹³ there are also wage and productivity differences. As we compare these with those in the peer states, we conclude that our *cluster content* creates a \$300 advantage for Ontario.

Cluster under performance is a significant part of Ontario's productivity gap. While Ontario has excellent cluster mix and content, *cluster effectiveness* is much lower than in the peer states. In Ontario and the peer states,

traded clusters are more productive than local industries, as represented by wages. In Ontario, the productivity premium is 47 percent.¹⁴ But across the peer states, the median productivity premium is 63 percent. Taking the prevailing wage in local industries as a given, our clusters are under performing their counterparts in the US peers by 10 percent (the difference in the peer performance index of 1.63 versus Ontario's 1.47).

Porter has observed that greater competitive intensity comes from sophisticated customers and vigorous rivals. In addition, specialized support from excellent factor conditions, capable suppliers, and related industries pushes productivity higher in traded clusters. As we discussed in last

Exhibit 12 Growing productivity gap drives Ontario's prosperity gap



* Versus median of 16 peer jurisdictions
 Note: 1997 shows the break in US method of calculating state-level GDP from SIC-based to NAICS-based.
 Gaps/leads in utilization, profile, intensity and productivity do not necessarily sum to prosperity gap due to differences in the jurisdictions used in the computation of the median of each element.
 Source: Institute for Competitiveness & Prosperity analysis based on Statistics Canada; US Department of Commerce – Bureau of Economic Analysis, US Department of Labor – Bureau of Labor Statistics, US Census Bureau; OECD.

¹¹ Institute for Competitiveness & Prosperity, Working Paper 1, *A View of Ontario: Ontario's clusters of innovation*, April 2002 and Institute for Competitiveness & Prosperity, Working Paper 5, *Strengthening structures: Upgrading specialized support and competitive pressure*, July 2004.
¹² It is important to note that our measure focuses on the mix of industries only. It calculates the productivity performance we could expect in Ontario if each cluster were as productive as its US counterpart. It does not measure the effectiveness of each cluster in Ontario.
¹³ Working Paper 1, *A View of Ontario*, pp. 18-20.
¹⁴ Working Paper 5, *Strengthening structures*, p. 26.

year's Annual Report,¹⁵ our structures of specialized support and competitive pressure are inadequate relative to the experience in clusters of traded industries in the peer states.

If Ontario clusters were as effective as US clusters, wages would be \$5,600 per worker higher. As traded clusters account for 39.8 percent of Ontario employment and given the relationship between wages and productivity, our overall productivity would rise by 6.3 percent.¹⁶ From this, we estimate the productivity loss from our weaker clusters to be \$2,100 per capita.

Adding together the effects of cluster mix, (+\$2,200), content (+\$300), and effectiveness (-\$2,100) Ontario's clusters provide a net benefit of \$400 in GDP per capita versus the peer states.

Relatively low urbanization is a significant contributor to our productivity and prosperity gap. In our work, we have established the higher level of productivity that results from greater rates of urbanization. This is the result of the increased social and economic interaction of people in firms in metropolitan areas, the cost advantages of larger scale markets, and a more diversified pool of skilled labour. The interplay of these factors promotes innovation and growth in an economy. Since fewer people in Ontario live in metropolitan areas than in the peer states, our relative productivity and prosperity potential is reduced. Our analysis this year indicates that we have a \$2,900 per capita disadvantage against the peer median related to our lower level of urbanization.¹⁷

Lower educational attainment weakens our productivity. Economists agree that a better educated workforce will be more productive. Education increases workers' base level of knowledge necessary for improved job performance. It increases workers' flexibility so that they are able to gain new skills throughout their lifetime. Many studies show the increased wages that accrue to more highly educated individuals.¹⁸ And higher wages are the result of higher productivity.¹⁹ Ontario's population has, on average, a lower level of educational attainment compared to those living in the peer states, particularly at the university graduate level. Adjusting the mix of educational attainment in Ontario to match the US mix and holding wages constant at each attainment level, Ontario's productivity would be higher by \$1,000 per capita.

Under investment in capital lowers productivity. Ontario businesses have under invested in machinery, equipment, and software relative to their counterparts in the United States²⁰ so that the capital base that supports workers in Ontario is not as modern as that of their counterparts in the peer states. As a result, Ontario workers are not as productive. We estimate this under investment in capital equipment lowers Ontario's productivity by \$800 per capita. This estimate is based on our simulation of Ontario GDP if we had matched the rate at which the US private sector invested in machinery, equipment, and software. For our estimate, we assumed that higher growth in this investment would translate directly into higher growth in GDP.

Recent research conducted by the Centre for the Study of Living Standards indicates that the primary source of this capital investment gap is in information and communications technology (ICT).²¹ As we discuss later in this report, Canada's businesses invest about 30 percent less per dollar of GDP in ICT and slightly more in non-ICT machinery, equipment, and software.

The residual is related to productivity. We have been able to account for the impact of profile, utilization, and intensity on prosperity. We have also accounted for the effects of several elements of productivity. The \$900 per capita gap that remains is related to productivity on the basis of like-to-like cluster mix and strength, urbanization, education, and capital intensity.

Productivity gap has more than doubled over the last decade

As we have seen, through most of the 1980s Ontario's prosperity was close to the median of the peer states. During that period, we had a productivity and intensity disadvantage versus our peers – but our utilization advantage compensated for this. Our prosperity gap began to develop at the outset of the 1990-92 recession. It was driven mostly by our poor utilization performance – both participation and employment worsened significantly with the recession. Our utilization problem began to dissipate around 1997 and by 2001 it was an advantage again. However, our productivity disadvantage began to grow in 1995 and by 2005 it has more than doubled. At the same time, our intensity gap has continued to widen and contribute to the prosperity gap.

¹⁵Task Force on Competitiveness, Productivity and Economic Progress, Third Annual Report, *Realizing our prosperity potential*, November 2004, pp. 40-48.

¹⁶We have netted out the effects of Ontario's lower urbanization, our under investment in capital, and our lower educational attainment in this calculation.

¹⁷See Task Force on Competitiveness, Productivity and Economic Progress, First Annual Report, *Closing the prosperity gap*, November 2002, p. 26 for a discussion of our methodology in measuring the productivity disadvantage resulting from our lower rate of urbanization.

¹⁸For example, see Ana W. Ferrer and W. Craig Riddell, "The Role of Credentials in the Canadian Labour Market," *Canadian Journal of Economics*, 2002 Vol. 35, No. 4 and Statistics Canada, "Education and earnings," *Perspectives on Labour and Income*, 2006 Vol. 38, No. 03.

¹⁹First Annual Report, *Closing the prosperity gap*, p. 27.

²⁰Capital investment results are not available at the state level. Our analysis uses US results to estimate peer state investments and compares these to Ontario.

²¹Andrew Sharpe, "What Explains the Canada-US ICT Investment Intensity Gap?" Centre for the Study of the Living Standards, December 2005.

Does the strengthening Canadian dollar mean a wider prosperity gap?

WITH THE CANADIAN DOLLAR settling in at the mid to high 80 cents range after spending a long time in the 60 cent range, some are concerned that this will hurt Ontario's competitiveness and prosperity. The reasoning is that a stronger Canadian dollar makes Ontario's manufacturing output more expensive in the important US export market, and that US imports are now a relative bargain.

But a review of the last twenty-five years' relationship between our dollar's strength and Ontario's prosperity gap with its peer group does not show a systematic relationship between the two. Between 1985 and 1989, the dollar was strengthening with little discernible impact on the prosperity gap (*Exhibit A*).

Between 1991 and 2001, our dollar weakened dramatically. At the same time, our prosperity gap experienced its most significant widening. But in the current decade, as our dollar has been strengthening, our prosperity gap has grown moderately.

A casual observer may note that the last time the Canadian dollar was showing this kind of strength, our deep 1990–92 Ontario recession followed – so maybe an even wider prosperity gap is around the corner.

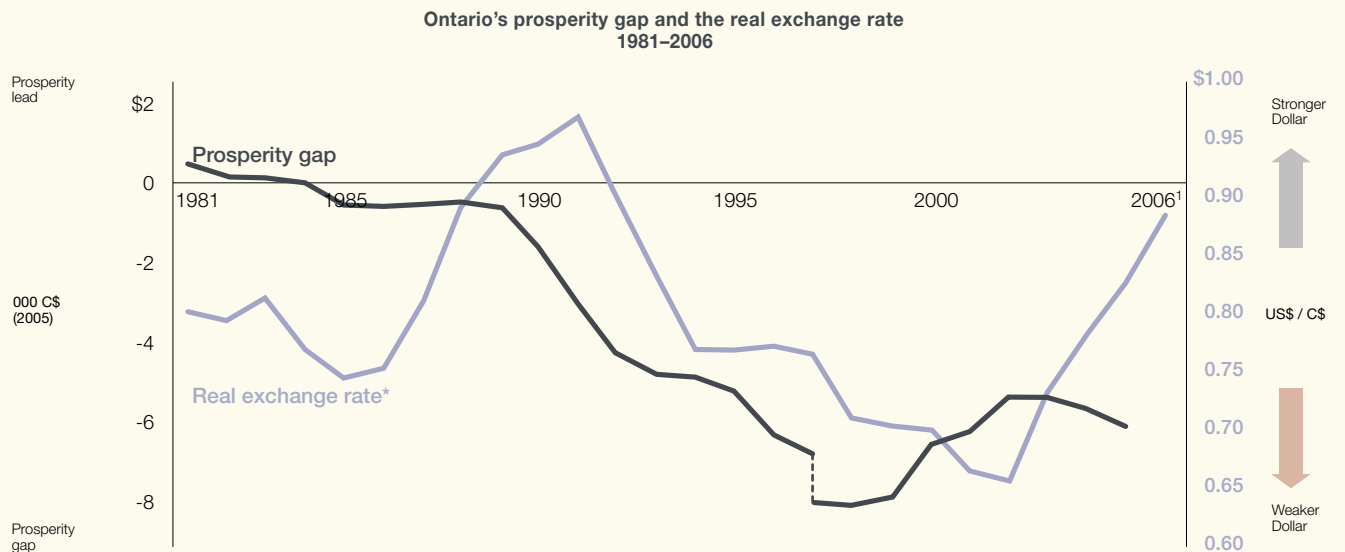
However, there is a fundamental difference between now and the late 1980s. Then the strengthening of the Canadian dollar was mainly the result of high interest rates in Canada relative to the US, as the Bank of Canada tightened its monetary policy to fight inflation. This tight monetary policy not only caused the dollar to strengthen, but also had a direct adverse impact on economic activity in Ontario and the rest of Canada. As we discussed in the 2005 Annual Report, there is evidence that tight monetary policy was a leading cause of the early 1990s recession.^a

This time around, the cause of the dollar's strength is rising commodity and energy prices, not high interest rates, according to the Bank of Canada's analysis.^b High energy prices have led to a comfortable fiscal situation, which makes the macro-economic picture much more favourable than in the late 1980s.

In sum, our prosperity gap is the result of several factors – but it is difficult to include the rise and fall of the Canadian dollar in the list. While the dollar fluctuations may have some impact, it is important to consider the underlying reasons for them to assess their impact on our prosperity.

^a See our review of the research conducted by Dungan, Murphy, and Wilson in last year's Annual Report, *Rebalancing priorities for prosperity*, p. 26.
^b See Issa, Lafrance, and Murray (2006), 'The turning black tide: Energy prices and the Canadian dollar,' mimeo, Bank of Canada.

Exhibit A Performance of dollar and prosperity gap has varied



* computed as EP/P^* , where E is the nominal USD/CAD exchange rate, P is Ontario's GDP price deflator (2005=1), and P* is the US GDP price deflator (2005=1)
¹ Estimate based on first 9 months of 2006.
 Note: 1997 shows the break in the US method of calculating state-level GDP from SIC-based to NAICS-based.
 Source: Institute for Competitiveness & Prosperity analysis based on Statistics Canada; US Department of Commerce - Bureau of Economic Analysis; OECD.



Agenda for Ontario's prosperity

To invigorate the public debate on Ontario's competitiveness and prosperity, we set out specific recommendations to raise our prosperity ranking by 2020

OUR AGENDA FOR PROSPERITY builds from the AIMS framework that continues to guide our work. AIMS is built on an integrated set of four factors.

- **Attitudes** toward competitiveness, growth, and global excellence. Our view is that an economy's capacity for competitiveness is grounded in the attitudes of its stakeholders. To the extent that the public and business leaders believe in the importance of innovation and growth, they are more likely to take the actions to drive competitiveness and prosperity.
- **Investments** in education, machinery, research and development, and commercialization. As businesses, individuals, and governments invest for future prosperity they will enhance productivity and prosperity.
- **Motivations** for hiring, working, and upgrading as a result of tax policies and government policies and programs. Taxes that discourage investment or labour will reduce the motivations for investing and upgrading.
- **Structures** of markets and institutions that encourage and assist upgrading and innovation. Structures, in concert with motivations, form the environment in which attitudes are converted to actions and investments.

These four factors can create an ongoing reinforcing dynamic. That is to say, when AIMS drives prosperity gains, each one of the four factors would be reinforced. In an economy of increasing prosperity, attitudes among business and government leaders and the public would be more optimistic and welcoming of global competitiveness, innovation, and risk taking. Given these positive attitudes and with the greater capacity for investment generated by prosperity, Ontarians would invest more in machinery, equipment, and software and in education. Motivations

from taxation would be more positive, as governments would not see the need for raising tax rates. And greater economic prosperity would improve structures as more opportunities for specialized support were created. Then increased economic activity would drive more competitive intensity. These developments would lead to even higher prosperity, which would further strengthen each AIMS element, and so on in a virtuous circle (*Exhibit 13*).

But this AIMS-prosperity dynamic could also create a vicious circle. Unrealized prosperity potential could create pessimism and concerns about competitiveness and innovation rather than openness to them. These less positive attitudes would be less conducive to investments, and reduced prosperity would also lead to fewer investment opportunities anyway. Unrealized economic potential means tax revenues would not meet fiscal needs, leading governments to raise tax burdens, thereby de-motivating

investments. And reduced economic activity would create fewer nodes of specialized support and less openness to the public policies that would result in more competitive intensity.

We are concerned that if we do not address our current challenges in under investment, de-motivating tax burdens, and inadequate market structures, we may be on the trail to a vicious circle. We must avoid this trend and ensure we maintain our economy on the virtuous circle track.

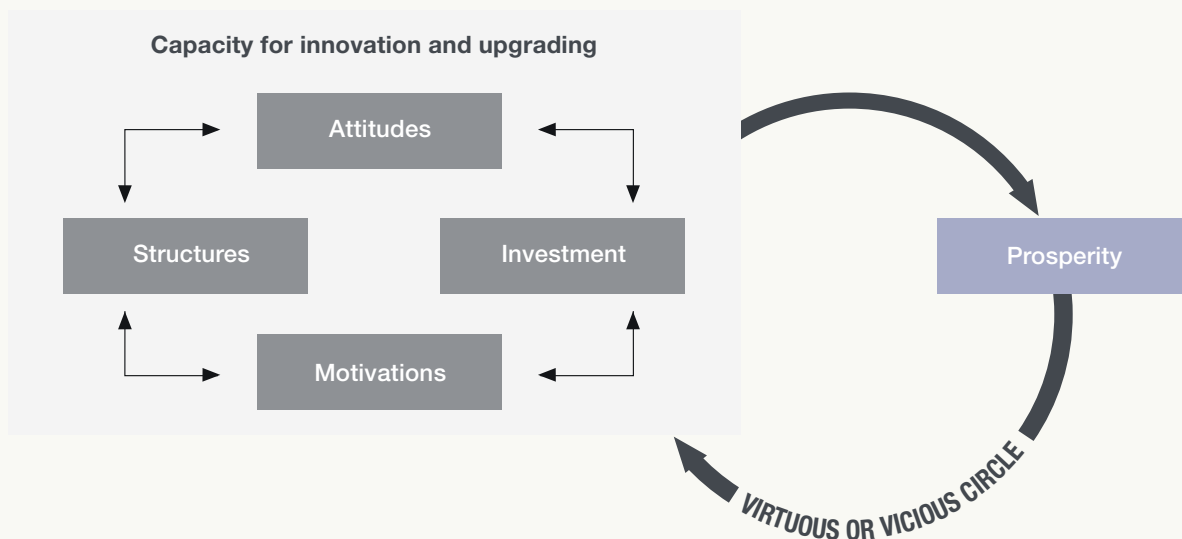
If we are to close the prosperity gap with our peer jurisdictions, Ontarians need to take action. We need the leadership and the collective will to realize our prosperity potential. Our goal is to close the prosperity gap. But we recognize this will take time and will not be easy. We think, however, that we can – and should – raise our prosperity ranking among our peers from fifteenth today to above the median, or at least eighth by 2020. To meet this

challenge, our prosperity agenda covers the full range of our AIMS framework. In summary we need to shift our:

- current **attitudes** from collective complacency to a shared determination to close the prosperity gap
- balance of consuming today's prosperity toward **investment** for tomorrow's prosperity
- **motivations** by eliminating unwise taxation in favour of smart taxation
- market and governance **structures** from emphasizing general support to specialized support and competitive pressure.

We need to embark on this agenda now. We recognize that the payoff in greater prosperity will not be seen next month or even next year. Closing the prosperity gap has to be a slow and steady process in which all stakeholders are committed for the long term.

Exhibit 13 **AIMS drives prosperity; prosperity drives AIMS**



Source: Institute for Competitiveness & Prosperity.

Attitudes: from collective complacency to a shared determination to close the gap

We need to raise the volume on the importance of the prosperity gap

IN OUR SECOND Annual Report, *Investing for prosperity*, we introduced the theme of attenuation. We observed there that “Ontarians are trading off future prosperity for today’s consumption. Although we invest in much the same way as our peer group ... we stop investing and begin to consume the fruits of investment, while our peer jurisdictions keep on investing. We do all the basics, and in fact we do them well. But as investment grows more sophisticated, we opt not to invest any more.” We noted that this attenuation occurs in our investment in education – where our investment gap and attainment gap widens at higher levels of education. We also noted that it occurs in private sector machinery and equipment investment, where our businesses invest heavily; but then they stop, and their counterparts in the peer jurisdictions keep on investing 10 percent more. Our governments also stop short of the peer states’ investment for future prosperity preferring to consume current prosperity.

In subsequent research, we found other examples of this collective complacency. In Working Paper 5, we showed that Ontario is close to or exceeds the peer group average in lower wage traded clusters, but trails the cluster as wage levels get higher.²² In Working Paper 9, in another example, we found that our intensity gap with the peer states is wider among our more productive

workers – those with higher education and higher income. Compared to their peer state counterparts, those Ontarians take more vacation time and are less likely to work long work weeks.²³

At a meta level, we seem to have a collective attitude that what we are doing to advance our competitiveness and prosperity is good enough. To be sure, our research into specific attitudes among the general public and business people identified a high level of convergence between Ontarians and their counterparts in the peer states. In contrast to commonly held perceptions, we differ little from our counterparts in how we view business and business leaders, risk and success, and competition and competitiveness. In the attitudes research we conducted,²⁴ we found no differences in the attitudes toward risk taking and innovation or toward the importance and the causes of personal success.

Our concern is that, if we continue to under achieve our prosperity potential, attitudes may shift so that Ontarians no longer welcome competitiveness and innovation. Instead, they may retreat to an overall attitude of defeatism and preservation of our current level of prosperity – rather than welcoming change and the shared goal of fulfilling our prosperity potential.

We need to build on the currently positive attitudes among individuals and urge opinion leaders to raise the volume on the importance of the prosperity gap to all Ontarians. Politicians, business leaders, educators, and individuals need to embrace issues like the importance of prosperity and the need for a competitive economy. We need to heighten our level of understanding about concepts like productivity – and why the average working person should see that higher productivity means more jobs, better jobs, and higher wages.

In our Third Annual Report, *Realizing our prosperity potential*, we urged the Premier to deliver an annual message to the people of Ontario on how we are progressing in closing the prosperity gap. We continue to recommend this. We also urge business leaders and industry associations to identify opportunities for their firms and industries to make Ontario more competitive and prosperous. For average Ontarians, this means continuously pursuing opportunities to strengthen their skills and invest in their own and their children’s prosperity. We need a shared determination to close the gap.

²²Working Paper 5, *Strengthening structures*, pp. 28-29.

²³Working Paper 9, *Time on the job*, pp.22-29.

²⁴Institute for Competitiveness & Prosperity, Working Paper 4, *Striking similarities: Attitudes and Ontario’s prosperity gap*, September 2003.

Investment: from consume today to invest for tomorrow

Higher investment is an imperative for higher prosperity

ONTARIO IS TRADING OFF spending more today against investing enough for tomorrow's prosperity. This is an issue for all Ontarians. Our under investment is an important contributor to our persistent prosperity gap with our peer jurisdictions. Closing the gap will require businesses, individuals, and governments to invest more in our future.

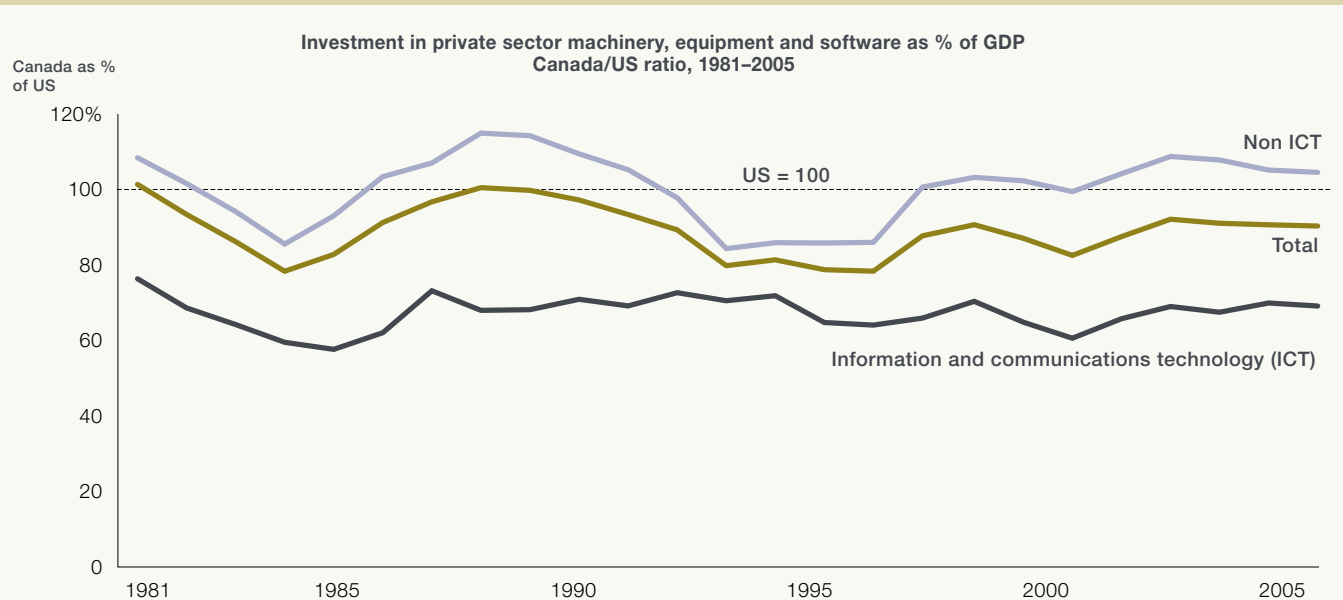
Increase investment in machinery and equipment, particularly information and communications technology

Since our First Annual Report in 2002, *Closing the prosperity gap*, we have been urging business leaders to increase investment in machinery, equipment, and software. In this year's Fifth Annual Report, we continue to make this recommendation. Every year, Ontario businesses stop short of

their US counterparts in making the critical investments in strengthening the productivity enhancing capital that supports their competitiveness.

Research conducted by Andrew Sharpe at the Centre for the Study of Living Standards has shed more light on this chronic under investment problem.²⁵ His research concludes that the real challenge facing Canadian businesses is the under investment in information and communications technology

Exhibit 14 Information and communications technology is the main source of Canada's under investment in capital



Source: Institute for Competitiveness & Prosperity analysis based on Statistics Canada; US Department of Commerce – Bureau of Economic Analysis.

²⁵Andrew Sharpe, "What Explains the Canada-US ICT Investment Gap?"

(ICT), rather than the traditional under investment in non-ICT machinery and equipment (*Exhibit 14*). Our further research indicates that in each year since 1981, our businesses have invested at about 70 percent the rate their US counterparts have in ICT.

We urge business leaders and industry associations to consider opportunities for closing this investment gap. We recognize that business leaders cannot simply decide to increase their investment. Some of this gap is the result of high taxes on business investment and market structures that provide inappropriate support and pressure, while some is simply the result of shortsighted management decisions. However, as business leaders and industry associations lobby governments for changes

in taxation and regulations, they ought to make commitments to closing the investment gap in exchange as part of the resulting benefit for Canadians.

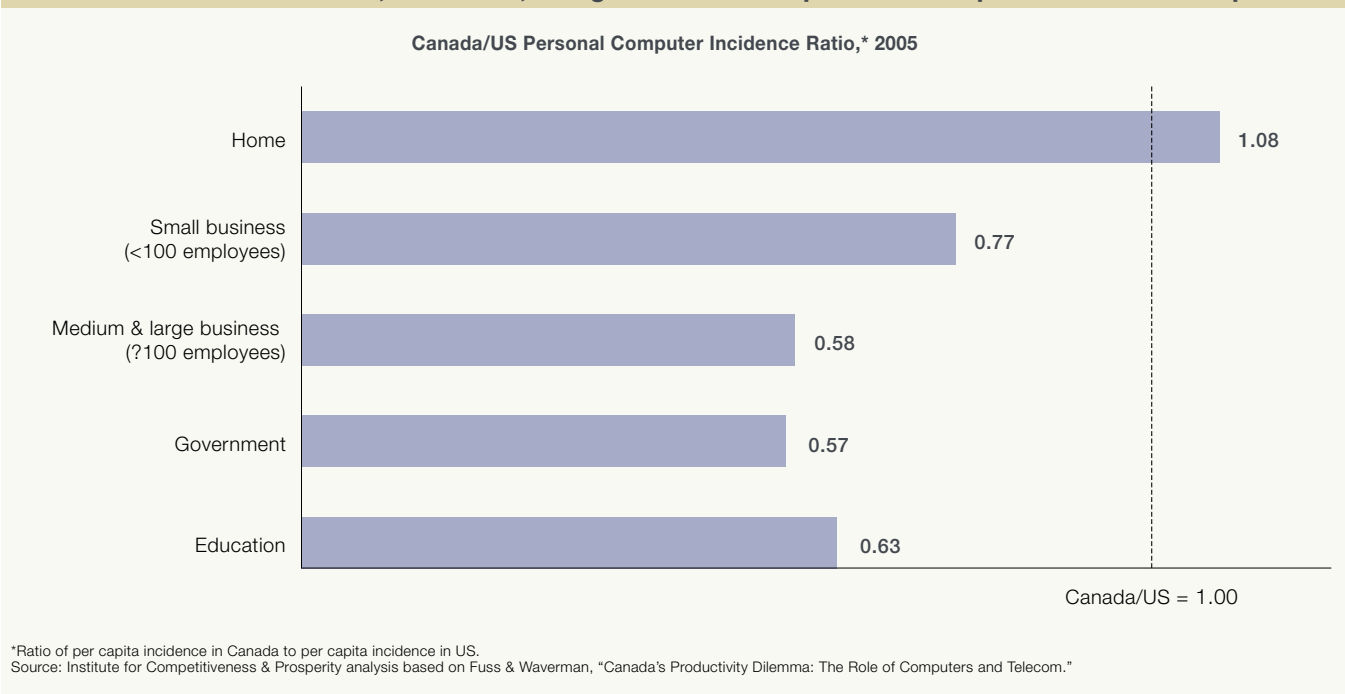
Our lower rates of investment in ICT has a negative impact on the use of technology in our business sector, as well as in education and government. While the incidence of personal computers in households in Canada exceeds that in the United States, our businesses, governments, and educational establishments have not embraced this technology to the same extent as their US counterparts (*Exhibit 15*).²⁶ Clearly, our competitiveness and productivity would increase with greater diffusion of this enabling technology.

Encourage Ontario youth to invest in their education

As we have seen, Ontario’s productivity is reduced by lower educational attainment here than in peer states. We have continued to recommend that young Ontarians get as much education as possible, so they can contribute more to their own and the province’s prosperity. The importance of education cannot be underestimated.

Earlier this year, former New Brunswick Premier Frank McKenna reinforced our recommendation. He was speaking at an event where The Learning Partnership was honouring him. The Partnership is a national not-for-profit organization dedicated to bringing together business, education, government, labour, policy makers, and the community to develop partnerships that

Exhibit 15 Canadian business, education, and government use personal computers less than US peers



²⁶Melvyn Fuss and Leonard Waverman, "Canada's Productivity Dilemma: The Role of Computers and Telecom," Bell Canada's submission to the Telecommunications Policy Review Panel, August 2005, p.6.

strengthen public education in Canada. His remarks set out the important reasons for raising educational attainment of all Ontarians.

So my point very simply is if we get the education element right, the healthcare, highways, municipalities are all going to be better funded and we're going to be better off as a nation....

Now let me get even more specific by referring to a recent article in *The New York Times* that gives some real metrics ... that if true in the United States on a different scale [are] probably true in Canada....

- For each group of 18 year olds that never complete high school, America's going to forgo \$192

billion in income and taxes. Imagine what you could do with that.

- In healthcare, the average 45 year old... high school drop out is in worse health than the average 65 year old high school graduate....
- And here's another one, high school dropouts have a life expectancy of 9.2 years shorter than graduates of high school.

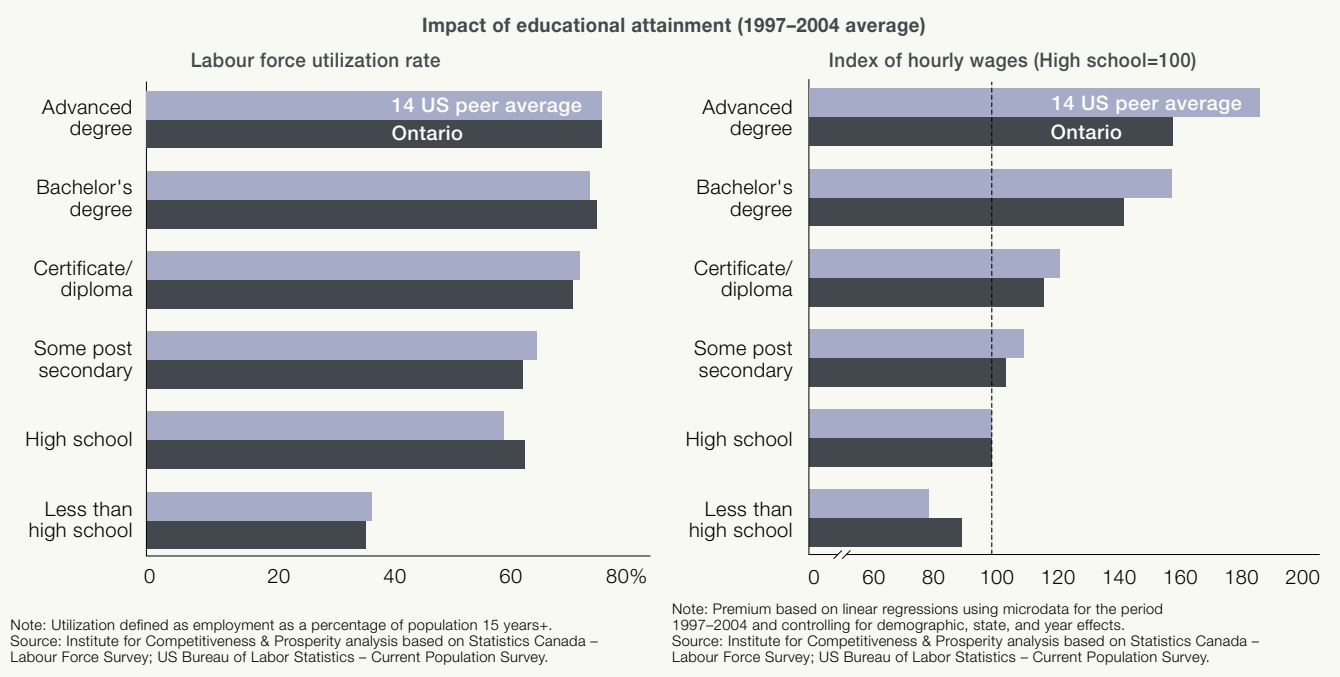
The connection is so intensely visible that there is no excuse in the universe as to why we don't properly fund the badly needed programs in education.... increasing the high school completion rate by just 1% for men age 20-60 would reduce cost in the criminal justice system by \$1.4 billion and one year increase in average

schooling per dropout would reduce murder and assaults by 30%, motor vehicle theft by 20%, arson by 13%, burglaries by 6%.

A Chinese proverb ... cuts to the heart of it: "If you're planning for one year, goes the proverb, grow rice, if you're planning for 20 years, grow trees but if you're planning for centuries you grow men."²⁷

The evidence from a prosperity perspective is pretty striking – higher educational attainment increases attachment to the labour force and raises earnings (*Exhibit 16*). In addition, as we have seen, the Institute's research into differences in hours worked between Ontarians and their peer counterparts also shows the importance of education. A major part

Exhibit 16 Higher educational attainment increases prosperity



²⁷Remarks given by the Honourable Frank McKenna at The Learning Partnership's 2006 Tribute Dinner, Toronto, April 27, 2006. Available online: <http://www.thelearningpartnership.ca/tributedinner2006-McKenna.html>

of our intensity gap is related to involuntary part-time employment, and this affects those with less education more frequently.

The Ontario Government is correct in its efforts to insist that our children complete high school – through initiatives such as requiring young people to keep learning in a classroom, apprenticeship, or workplace training program until at least age 18, instead of being allowed to drop out at age 16.

Increase investment in post secondary education

In a knowledge-based economy, investing in post secondary education is a critical element for increasing competitiveness and prosperity. Our work and the work of others provide evidence of the importance of post secondary education for individuals' employability and earnings.

As we have pointed out in the past,²⁸ Ontarians under invest in university education relative to their counterparts in peer states. One of the challenges in making these comparisons is to ensure that data from Ontario's public sources are matched appropriately with data from US sources. Additionally, it is important to measure spending at peer institutions in the United States. In collaboration with the Council of Ontario Universities, the Institute carried out this analysis in the past year.

As a first step, we identified a group of ten public and ten private peer institutions for each of Ontario's seventeen universities; newly opened UOIT was excluded. This involved identifying the schools that best matched each Ontario university in degrees granted

by discipline and level. We then drew on school-specific financial data from the US Department of Education to determine revenue and expenses per full-time equivalent (FTE) student.

On the revenue per student side, Ontario universities have access to only 72 percent of the funds their public peers do. Across Ontario's universities, annual revenue per FTE student is \$20,800. Across a peer group of 61 public universities in the fourteen peer states, revenue is \$28,800 per FTE. We see the most dramatic differences in public funding and grants, where provincial spending is \$8,100 per student and peer state governments spend \$10,500 in their public universities – Ontario's public universities receive 23 percent less. Federal government funding for public universities in Ontario is about half the level in the peer states (*Exhibit 17*).

Different arrangements exist in the two countries with respect to education – so the most apt comparison is total federal and provincial/state funding, grants, and contracts. On this combined measure, Ontario's schools come up short by \$5,000 per student, or 32 percent behind US public peers. In tuition, Ontarians pay an average of \$6,500 per student, or 25 percent less than their counterparts in the peer states who pay an average of \$8,700.²⁹ In smaller sources of revenue, Ontario universities are closer to their US peers in private gifts, grants, and contracts (\$2,600 versus \$2,800) and on endowment income (\$1,000 versus \$1,600).

The comparisons with similar private universities in the peer states are much more negative. Overall, the forty-seven most comparable private

universities in the peer states have access to \$58,800 per student versus the \$20,800 in Ontario's public universities. Some might argue that comparing private universities to our public universities is invalid. We think it is appropriate to include private universities, because these schools are part of the post secondary education system and account for fully 32 percent of US undergraduates. To benchmark Ontario's investment in human capital for future competitiveness, we need to look at all post secondary students.

The difference has several sources. Ontario universities have access to less public funding than do their US private peers – \$10,700 versus \$12,500 or 14 percent less – because of much higher US federal funding. The highest difference is in tuition – \$29,700 per student in private US universities versus \$6,500 in Ontario's universities. US private universities also benefit from more private benefactors, as represented by more private gifts, grants, and contracts, and higher endowment income.

Combining the revenues for peer state private and public universities results in a 44 percent annual under investment in Ontario's university system compared with the US system.

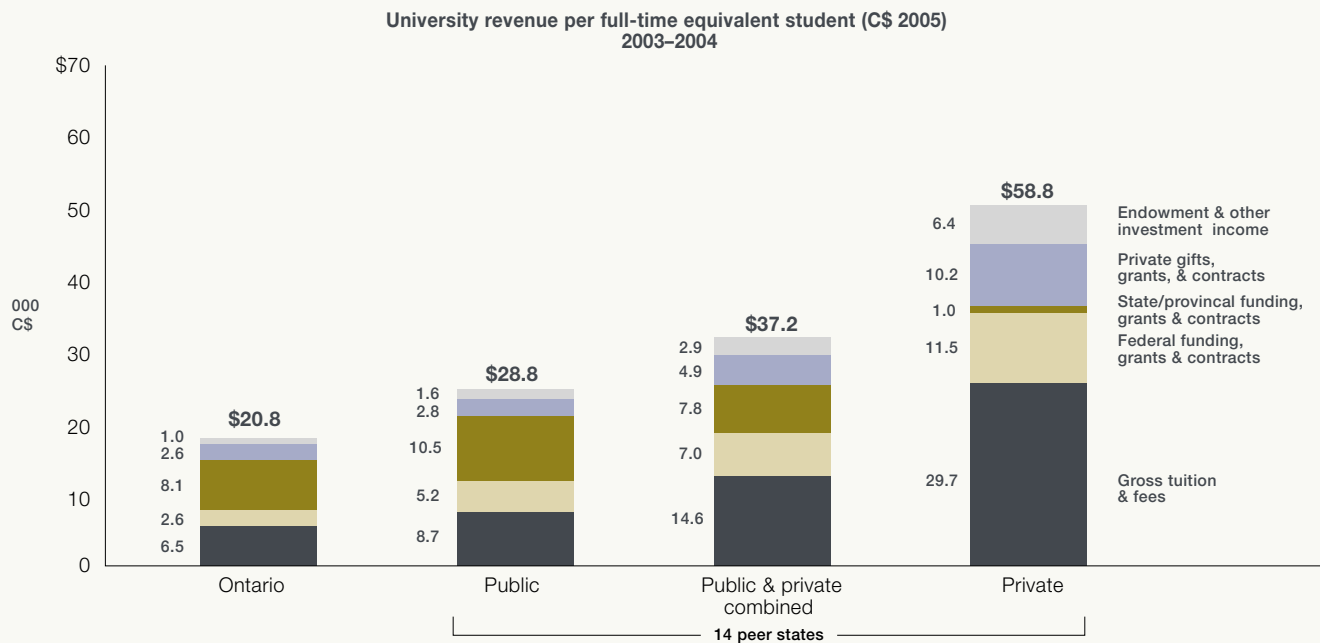
On the expense side, Ontario's public universities under spend their public peer in all categories ranging from instruction and research to academic support (support to instruction and research) and institutional administrative support.

In comparison with private universities, the sharply lower revenue per student in Ontario translates to lower expenditures in all areas. We need to increase the

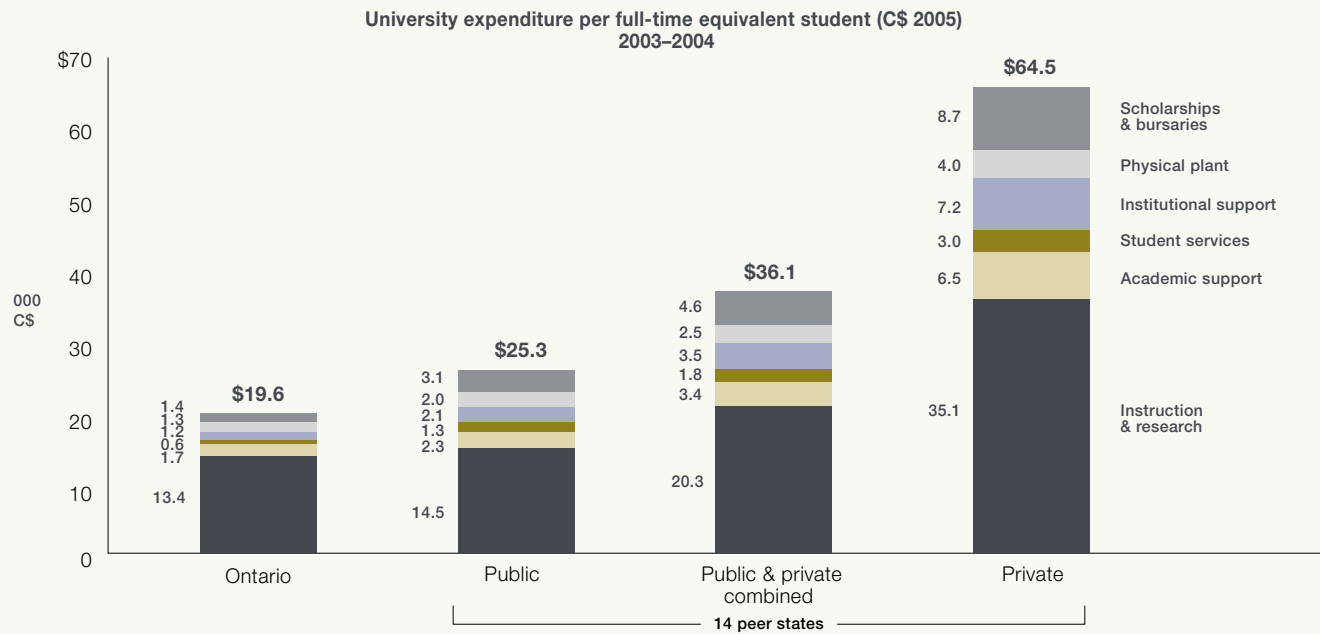
²⁸ See Second Annual Report, *Investing for prosperity*, p.21; Third Annual Report, *Realizing our prosperity potential*, p.24.

²⁹ These values are for gross tuition – before the deduction of scholarships, bursaries, and student loans or grants.

Exhibit 17 Ontario spends much less than peers on university education



Note: Excludes UOIT.
Source: Institute for Competitiveness & Prosperity analysis based on Council of Ontario Universities; US Department of Education, the Institute of Education Sciences – Integrated Postsecondary Education Data System.



Note: Excludes UOIT.
Source: Institute for Competitiveness & Prosperity analysis based on Council of Ontario Universities; US Department of Education, National Center for Education Statistics – Integrated Postsecondary Education Data System.

revenues flowing to Ontario’s universities from public sources and from tuition so that we are investing adequately in this resource that is so critical to our future prosperity.

On a positive note, we are pleased that the Ontario government in its 2005 budget has stepped up its commitment to post secondary education. Over five fiscal years, annual operating grants will increase by \$4.3 billion – rising from an increase of \$447 million in the 2005–06 fiscal year to \$1.2 billion in 2009–10. From an annual base of \$3.7 billion (\$1.1 billion in provincial operating funding for colleges of applied arts and technology and of \$2.6 billion for universities) in 2005–06, this is an increase of 12 percent in 2005–06 growing to a 35 percent increase over the base in 2009–10.

One of the goals of the higher funding will be an increase in graduate education spaces by 12,000 in 2007–08 over 2002–03 and 14,000 by 2009–10. In addition, the 2005 budget committed the provincial government to increase funding for student financial assistance by \$1.5 billion and for training, apprenticeship, and other initiatives by \$366 million over the same period.

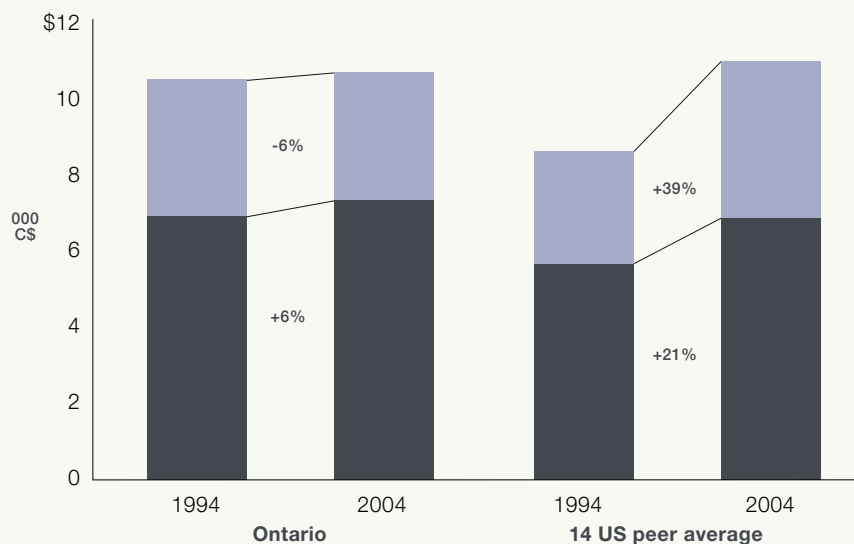
Rebalance government spending away from consumption to investment

Our governments also need to re-orient their spending so that we invest more for future prosperity and consume less current prosperity.

The majority of governments’ expenditures are for consumption of current prosperity or investment in future prosperity. At the base level, governments

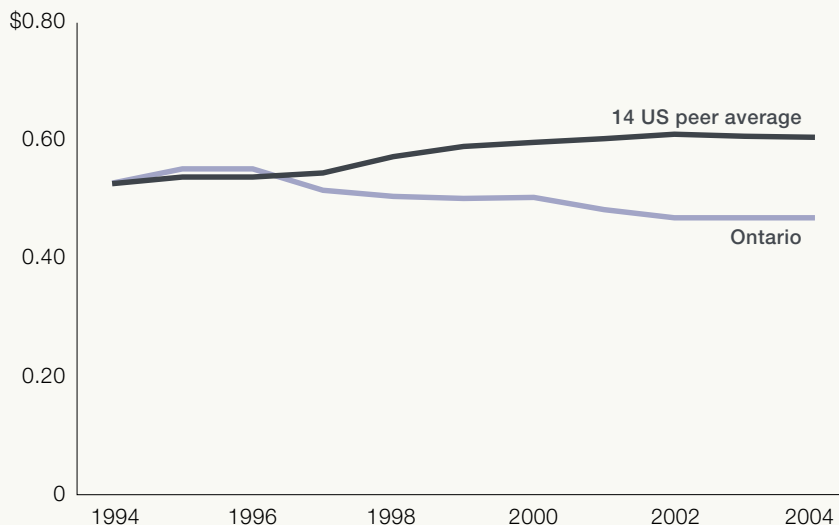
Exhibit 18 Governments in Ontario have been shifting their spending from investment to consumption

Consumption and investment expenditures by all levels of government per capita (C\$ 2005)



Source: Institute for Competitiveness & Prosperity analysis based on Statistics Canada, CANSIM II, Table 385-0001, 384-0004, 051-0001; US Census Bureau (State and Local Government Finances; population), Office of Management and Budget – historical budget tables.

Investment per dollar of consumption (1994–2004)



Note: Data for 2001 and 2003 peer state results are unavailable; results estimated by intrapolation. Source: Institute for Competitiveness & Prosperity analysis based on Statistics Canada, CANSIM II, Table 385-0001, 384-0004, 051-0001; US Census Bureau (State and Local Government Finances; population), Office of Management and Budget – historical budget tables.

must fund their own administration, protect citizens and the environment, and pay interest on the public debt. In both Ontario and the peer states, this accounts for about 30 percent of spending by federal, state/provincial, and local governments. In allocating the remaining 70 percent, a tradeoff between consumption and investment occurs. Consumption expenditures include health care and social services; investment expenditures include transportation, communication, and housing.

Relative to our peer group, governments in Ontario continue to shift away from investment expenditures toward consumption. Between 1994 and 2004, governments in Ontario decreased spending on investment from 53 cents to 47 cents for every dollar of consumption, while our US counterparts raised investment spending from 52 cents to 60 cents for every dollar of consumption (*Exhibit 18*).

During that period, total government expenditure as a percentage of GDP declined in Ontario, as governments worked to rein in breakaway deficits. Governments in Ontario – federal government spending in the province combined with provincial and municipal government spending – were more aggressive in reducing investment expenditure than consumption expenditure, and in recent years, health care expenditure increases have fueled rising consumption spending, increasing from \$2,200 per capita in 2000 to \$2,800 in 2004. In the last five years, governments in Ontario have spent about \$7,000 per capita in consumption annually – about 7 percent higher than in the peer states.

Meanwhile, US governments chose to increase per capita investment spending by 37 percent, from \$3,000 to \$4,100. However, on a per capita basis, governments in Ontario invested about 17 percent less than in the US by 2004, decreasing spending from \$3,600 to \$3,400.

Ontario governments' inability to match the peers' investment spending limits our progress in raising productivity.

Consumption of current prosperity through spending on adequate social safety nets and accessible health care has to be the first priority for government spending; but it is not the only priority. Why? Because choosing consumption today too much at the expense of investment means that we reduce our potential for future consumption of these vital services. Our federal, provincial, and municipal governments must find ways to re-orient spending to reverse a decade-long choice of the consumption path instead of the investment path.

Motivations: from unwise taxation to smart taxation

A smarter taxation system will encourage higher productivity and prosperity

WE DEFINE MOTIVATIONS as the impact of tax policy on decisions of people and businesses to work and to invest. The Institute continued its research in this area through this past year. Our findings indicate that a prosperity agenda has to include a smarter tax system that will encourage investment for prosperity.

As we have reported in the past, smart taxation means efficiently and effectively raising taxes for the public services and infrastructure that Ontarians require. Governments face a balancing act in fiscal matters. They need to make expenditures that provide the public with the services and infrastructure they need to ensure we can sustain our high quality of life and build a positive business environment. They must also ensure that the taxes necessary to fund these expenditures are not unduly hindering motivations to work, invest, and engage in entrepreneurial activity.

In our previous research we have concluded that Ontario's tax system is not as smart as it should be, because it results in high tax burdens on business investment relative to nearly all other countries, including the peer states. On a positive note, in 2006, marginal tax burdens on business investment in Ontario actually fell below the median of

the five states we have analyzed in the past. (See *Updating Ontario's Marginal Effective Tax Burden versus Five of the Peer States*.)

It is tempting for governments to declare victory on this front now that US taxes on business investment have risen past Ontario's in this specific measure. But a prosperity agenda has to address Canada's and Ontario's global weakness in taxing business investment. As international tax expert Jack Mintz has shown, Canada's effective tax rate on business investment is among the highest in the world.³⁰ Worse still, research done by Mintz and Duanjie Chen shows that Ontario has the highest marginal effective tax rates on business investment in Canada. And, as they point out, "Ontario's rate is also the highest among 36 industrialized economies excluding China."³¹ The main culprits are Ontario's high corporate income tax rates (among Canada's provinces), its levy of the provincial sales tax on many business investments, and the continuing reliance on the capital tax. To be sure, by 2010 Ontario's tax rate on business investment will decline with federal corporate tax changes and the province's promised capital tax cuts. But it will still be the highest in Canada – and likely among the highest in the world.³²

We compared levels and smartness of taxation systems across OECD countries. Some countries like Ireland have both low rates of taxation overall and low marginal rates of taxation on business investment (*Exhibit 19*). Others like Sweden and Denmark have high rates of taxation overall, but low marginal rates on business investment. Canada's rates of taxation overall are below the OECD median, but the marginal effective tax rate on business investment is the highest. Ontario's marginal effective tax rates on business investment are higher still. We have the least intelligent tax system for business investment among the 24 OECD countries. Marginal tax rates on business investment are slightly lower in Canada than in the US; Ontario rates are higher.³³ But the US has lower taxation rates overall. Other than its high rates of taxation on business investment, it has an environment that is perhaps the most conducive to investment in the world. Our unwise tax system would be even more of a liability to our economic performance if the US ever did address its own unwise tax system.

Ontario's and Canada's high tax rates on tangible business investment may explain why our generous tax credits on intangible investments in research and development (R&D) are relatively ineffective in spurring on business R&D.

³⁰ Jack Mintz, "The 2006 Tax Competitiveness Report," *C.D. Howe Institute Commentary*, No. 239, September 2006.

³¹ Duanjie Chen and Jack Mintz, "Business Tax Reform: More Progress Needed", *e-brief*, C.D. Howe Institute, June 20, 2006.

³² *Ibid.*

³³ The analysis by Chen and Mintz as discussed in the sidebar, *Updating Ontario's marginal effective tax burden versus five of the peer states* indicates that the Marginal Effective Tax Burden is lower than the median of five states. However, Exhibit 19 refers to differences versus the US as a whole in Marginal Effective Tax Rates – which do not net out subsidies for R&D and infrastructure. See *Taxing smarter for prosperity*, p. 23 for a fuller explanation of the differences.

Updating Ontario's marginal effective tax burden versus five of the peer states

THIS PAST YEAR, the Institute engaged Jack Mintz and Duanjie Chen to update their work on marginal effective tax burdens in Ontario and five peer states: California, Georgia, Illinois, Massachusetts, and Michigan. Our last major analysis of these burdens was in the Institute's Working Paper 7, *Taxing smarter for prosperity*, published in March 2005.

The marginal effective tax burdens on capital influence the willingness of firms to invest in the incremental dollar in capital, such as machinery, equipment, and software. In addition, they influence the decisions by investors – entrepreneurs, venture capitalists, and angel investors – to invest in Ontario or elsewhere. If investors pay high tax rates on capital investment, they will supply less capital or demand a higher rate of return, raising the cost of doing business. Chen and Mintz's analysis incorporates corporate income taxes, capital taxes, and sales taxes paid on business purchases. Government infrastructure expenditures, research and development, and other business subsidies are subtracted from taxes on capital to arrive at the overall marginal burden.

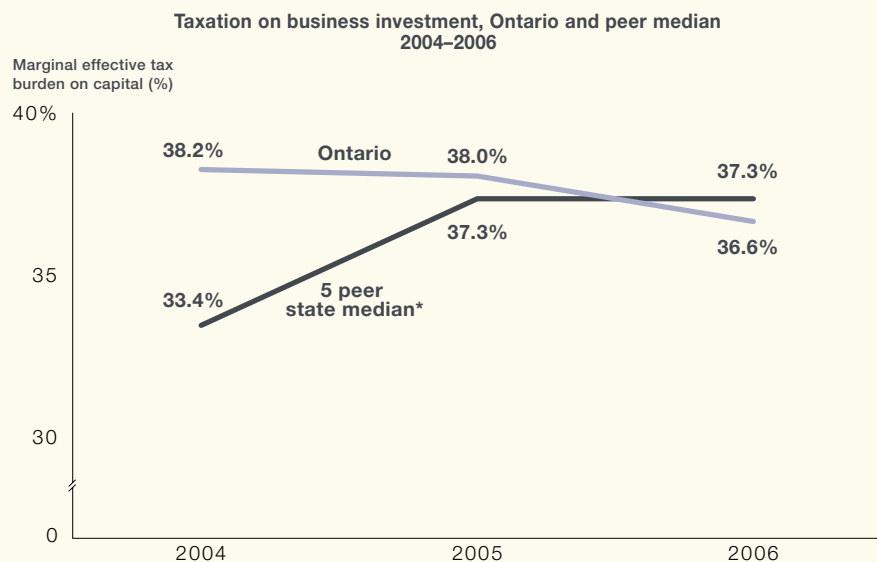
Based on new data from the Department of Finance, Chen and Mintz report that the 2004 differences in marginal effective tax burdens on business investment were overstated. In 2004, they reported a 15-point gap in marginal effective tax burden on business investment between Ontario and the five-state median. They have now re-estimated that gap to about 5 points.^a The most important reason for the re-estimate is the development of new data by the Department of Finance, especially with respect to capital structures and economic depreciation rates used to measure marginal effective tax rates for businesses based in Ontario and the five peer states. First, based on these new data, the weighting of inventory in businesses' capital structure was halved. Since Canadian companies must rely on First-in-First-out (FIFO) inventory methods that are less tax advantageous with rising prices compared to US firms that use Last-in-First-out (LIFO) for inventory valuation, the lower weight on inventories significantly reduced the disparity in effective tax rates between the two countries

in 2004. Second, many US companies prefer FIFO for their accounting, since LIFO reduces reported earnings; these firms must use FIFO for tax purposes. The Department of Finance's new estimate is that almost half of inventory valuation in the US is based on FIFO accounting. These two corrections alone resulted in an 8-point reduction in the gap in effective tax rates between Ontario and the five US peer states for 2004.

Much of the remainder of the revision is due to new data on economic depreciation and on the impact of sales taxes on capital purchases – which is more severe in the five peer states than in Ontario. Further, updated data from 1999 to 2002 to calculate infrastructure subsidies showed that more spending by governments on infrastructure has taken place.

Since 2004, the most significant tax event on both sides of the border is the expiry of the accelerated depreciation in the United States. As a result of this, the median of the five states' marginal effective tax burdens on business investment increased from 33.4 percent in 2004 to 37.3 percent in 2005 and 2006. In Ontario, reductions by the federal government – the elimination of the capital tax and reduced corporate rates – reduced the marginal effective tax burden in Ontario from 38.2 percent to 38.0 percent in 2005 and 36.6 percent in 2006 (*Exhibit B*). As a result, Ontario now has a slightly lower marginal effective tax burden on business investment than California, Illinois, and Massachusetts and a higher rate than Michigan and Georgia.

Exhibit B Tax burdens on capital have fallen slightly in Ontario and risen in the United States



*California, Georgia, Illinois, Massachusetts and Michigan.
Source: Duanjie Chen and Jack Mintz, "Ontario's Fiscal Competitiveness: Still Some Way to Go." Research conducted for the Institute for Competitiveness & Prosperity, 2006.

^a Duanjie Chen and Jack Mintz, "Ontario's Fiscal Competitiveness: Still Some Way to Go." Research conducted for the Institute for Competitiveness & Prosperity, 2006. Available online at www.competeprosper.ca

An important element of business decision making is the ultimate cost of commercializing R&D. In a recent paper Kenneth Mackenzie describes the two types of tax policy as “push” – tax incentives for R&D – and “pull” – tax rates on the business investment to realize the fruits of the R&D. His empirical work across nine developed countries’ manufacturing sectors shows that, while both are important predictors of R&D intensity, “pull” taxes have a greater impact. As Mackenzie concludes:

The obvious implication of this result is that, when considering tax policy in the context of R&D, Canadian governments need to consider the effect not only of direct tax subsidies on R&D but also of the overall tax regime. More precisely, failing to take account of both

effects might result in governments’ giving with one hand and taking away with the other: encouraging R&D by offering direct tax subsidies, which lower the cost of undertaking research, but discouraging R&D by imposing high production taxes on the new products and processes that are the fruits of R&D.³⁴

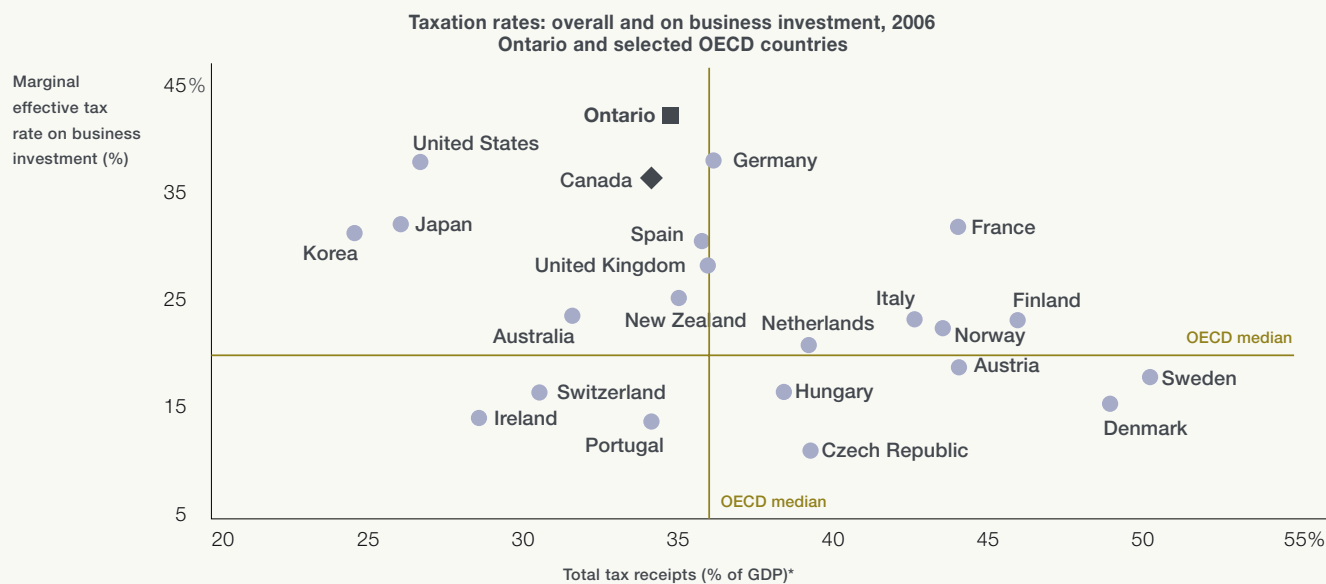
So despite a modest and potentially temporary advantage in effective tax burdens over our US peers on business investment, we urge the provincial and federal governments to aim higher and secure a global advantage for Ontario in business investment.

Our research indicates that the real improvement opportunity in our tax system is not the levels of taxation, but the types of taxation. Our system in

Ontario and Canada is not as smart as it could be, if we are to close the prosperity gap. We need to shift away from taxing business investment and towards taxing consumption. We also need to find ways to reduce perversely high marginal tax burdens on low income Ontarians as they climb the economic ladder.

Work done by the federal Department of Finance indicates that, relative to taxes on consumption, taxes on business and personal investment work against prosperity and economic well being. The Department modeled the impact of several different tax policy changes. To measure the benefit of each change, the Department used a measure referred to as “economic well being.” This measure captures the increased potential for consumption or leisure from replacing a specific tax with

Exhibit 19 Ontario’s tax rates on business investment are among the world’s highest



*Tax receipts as a percent of GDP is for 2002.
 Sources: Institute for Competitiveness and Prosperity analysis based on OECD, OECD in Figures, 2005 edition, statistics on the member countries; CANSIM II, Table 3840002, 3840004; Jack M. Mintz, “The 2006 Tax Competitiveness Report: Proposals for Pro-Growth Tax Reform,” C.D. Howe Institute Commentary, No. 239, September, 2006; Duanjie Chen and Jack M. Mintz, “Business Tax reform: More Progress Needed,” C.D. Howe Institute, ebrief, June 20, 2006.

³⁴Kenneth J. Mackenzie, “Giving with One Hand, Taking Away with the Other,” CD Howe Institute Commentary, No. 240, October 2006, p. 8.

other taxes. The Department's ranking shows the benefit for each dollar of tax reduction. For example, a one dollar reduction in personal income taxes paid would result in a 30 cent increase in economic well-being for the average Canadian (*Exhibit 20*). This is a net benefit, since the analysis accounts for raising the lost revenue in other ways.

The ranking in the Department's analysis shows that the greatest impact on the economic lives of ordinary Canadians comes from reductions in taxes paid by businesses on their investments – through reducing the provincial sales taxes on capital goods or increasing the rate at which businesses can write off their investments in new capital through the capital cost allowance.³⁵ Reducing corporate capital taxes and income taxes would also be beneficial to Canadians' economic well being.

Reductions in taxes on consumption, especially sales taxes, have the least impact on people's well being. This paradoxical result comes about because shifting taxation from business investment to consumption expenditure will increase the rate of return on business investments, such as machinery, equipment, and software. With greater returns, businesses will make more investments. Higher levels of investment help workers be more productive, and this increases wages. Higher levels of investment also create more jobs.

The Institute modeled the impact of these types of taxation shifts on Ontario's prosperity and found results consistent with those of the Department of Finance.³⁶ Unfortunately, our research also shows that Canada and Ontario suffer from unwise taxation. Even though our overall level of taxation is lower than for most

developed economies, Canada has among the highest taxes on business investment – much higher than countries like Sweden and Denmark, which have above-average levels, and Ireland, which has below-average levels of overall taxation. The research done by us and others points to a series of recommendations for making our tax system smarter in encouraging business investment.

Eliminate the Ontario corporate capital tax immediately

Capital taxes are particularly damaging to investment, because they are levied even if the business is unprofitable. The federal government announced the elimination of its capital tax earlier this year; the Ontario government intends to eliminate its capital tax by 2012. It should do this now.

Exhibit 20 Reductions in taxes on investment are more effective than reductions in taxes on consumption



*The revenue losses from reductions in specific taxes are matched through an increase in lump-sum taxation.
 **The economic well-being gain for Capital Cost Allowances represents the gain from increasing the Capital Cost Allowance in line with economic depreciation.
 Source: Canada, Department of Finance, "Taxation and Economic Efficiency: Results from a General Equilibrium Analysis" in *Tax Expenditures and Evaluations*.

³⁵Institute for Competitiveness & Prosperity, Working Paper 7, *Taxing smarter for prosperity*, March 2005, pp. 44–48.
³⁶*ibid.*, pp.43-48.

Replace Ontario's provincial sales tax with a value added tax

While most people regard the provincial sales tax (PST) as a retail tax aimed at personal consumption, it also applies to many items for capital investment – such as steel for construction and office equipment. These taxes raise the overall prices to businesses making capital investments and reduce the returns they earn on those investments. Currently, some exemptions are in place, but the province should move towards a broad-based value-added tax covering goods and services. Modeling done for the Institute in our taxation research shows this to be the most powerful prosperity generator of the tax changes we considered.

This shift could be tied in to the ongoing debate around fiscal federalism. It is clear that increases in the federal GST are not likely in the coming years irrespective of which party forms the government – even though most tax and prosperity researchers agree that it should be increased. It may be opportunity for Ontario and the other provinces to propose that the GST be made a provincial tax and in return the federal government could take over another tax – perhaps the corporate income tax.

Increase capital cost allowances to be consistent with economic depreciation

As we discussed, the Department of Finance modeling indicates that aligning capital cost allowance (CCA) rates to be more consistent with the true economic life of assets would improve the average Canadian's well being. Currently, tax rates on business investment³⁷ are higher than

they would be if CCA rates were aligned. Our tax research indicated that increasing CCA rates on new investments would increase GDP per capita at the lowest cost to the provincial treasury.

Lower perversely high marginal tax rates for individuals

While most of our taxation recommendations are aimed at increasing business investment, we continue to urge governments to address the high marginal tax rates imposed on individuals and families trying to scale the economic ladder or retire comfortably. The marginal effective tax rate is the effective tax rate paid on the next dollar of income. Because of clawbacks of income-tested government transfers, the effective tax paid by individuals and families at relatively low income levels is very high. For example, a single-earner family of four faces a marginal effective tax rate of 60 percent shortly after taxable income passes \$31,000. This is the result of losing access to transfers, such as the child tax credit. In other words, because of clawbacks, these families are keeping only 40 cents of each new dollar they earn. At \$36,000 the marginal rate climbs to an absurd 90 percent.³⁸

We have made recommendations in the past on how to address these perversities in the tax and benefit system. These include federal and provincial collaboration to better integrate benefit and tax design, so that high marginal tax rates can be smoothed out. This would reduce the basic personal allowance, thereby lowering marginal tax rates, and would lower taxation on savings and personal investment income to alleviate high marginal tax rates among seniors.

Assess bold new approaches to taxation

In addition to these recommendations, we urge governments in Canada to explore some fundamental reforms in our tax system. We have presented options for consideration in the past, and we continue to urge governments to explore some breakthrough tax policies.

Convert corporate tax to cash flow basis

Under the current system of corporate income taxation, firms are allowed to depreciate the costs of capital investment over time as well as to deduct the interest cost of financing the investment. With a cash flow tax, a firm's taxes essentially would be based on its cash receipts less its cash expenditures; in years when a large capital expenditure was made relative to sales revenue, taxes paid would be relatively low. We recognize that this approach would require elimination of interest deductibility as well as reforms in the personal income tax system. Nevertheless, it would simplify tax accounting and potentially increase business investment.

Eliminate corporate income taxes

However beneficial our other recommendations on corporate taxes could be, eliminating the corporate income tax could be a much more innovative approach to increasing productivity and prosperity. A corporation's taxes are actually paid by its workers whose wages are lower than they would otherwise be; by its customers who must pay higher prices; and by its shareholders, including pension funds and mutual funds in their RRSPs. Eliminating corporate income taxes has the potential to enhance prosperity by increasing wages,

³⁷ See *ibid.*, p. 19 for a discussion of how capital cost allowances affect the timing of taxes paid, not the level.

³⁸ *ibid.*, pp. 36-37.

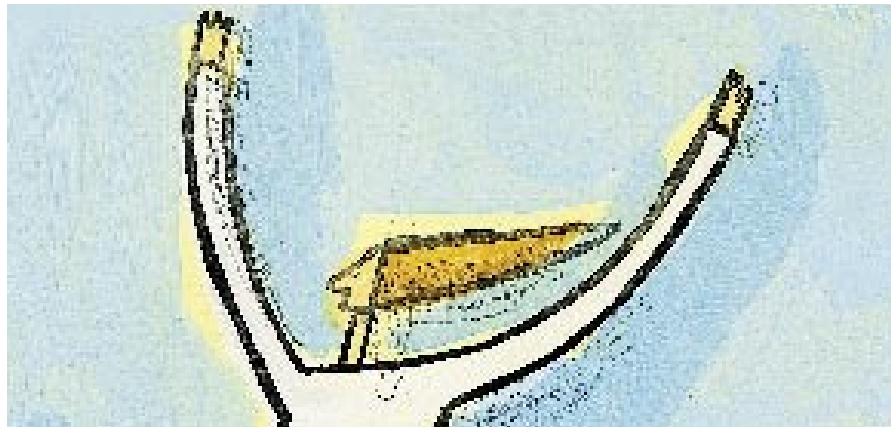
lowering prices, and increasing investment returns. Governments in Canada should explore this fundamental shift to a potentially smarter tax system

Base personal taxation on lifetime earnings

Our system currently taxes individuals on the basis of one-year slices of their life. Assessing income taxes on the basis of lifetime earnings, rather than annual earnings, is potentially far better for Ontario's and Canada's poor and enhances prosperity for all Canadians. Income would be calculated cumulatively rather than annually; instead of giving individuals an annual personal allowance of tax free income, the system would give a lifetime exemption. This exemption would be set at five to ten years of average income – say \$250,000. Any income beyond this would be taxed at a base rate until the individual reached the next cumulative income level, when rates would rise again.

With a system based on lifetime earnings, poor Canadians would be dramatically better off and have even better prospects for advancement. For years, even decades for lower wage earners, they would face a zero marginal tax on work, savings, and investment. A critical element of the lifetime earnings approach is to disentangle social benefits from the tax system, so that we can provide assistance to those in need without complicating the income tax system and creating perversely high marginal tax rates for low-income people.

A shift to a smarter tax structure will promote job creation, higher business investment, more innovation, and adoption of new technologies. An agenda for prosperity needs to include new approaches to taxation in Ontario.



Structures: from general support to specialized support and competitive pressure

Market and governance structures are important components of AIMS that drive our capacity for innovation and upgrading to increase Ontario’s future prosperity

IN OUR MARKET STRUCTURES we have found that, relative to their US counterparts, our businesses benefit from good general support in areas such as infrastructure and a sound primary and secondary education system (*Exhibit 21*). In areas of more specialized support – such as people with advanced degrees and formal business education and close collaboration between researchers and business – our businesses trail their US counterparts. Our businesses also benefit less from the positive effects of competitive pressure from customers and rivals. Consequently, our business strategies are not adequately based in innovative products and processes.

Our governance structures, as represented by Canada’s fiscal federalism framework, are costly to Ontario’s prosperity with benefits to Canada’s overall competitiveness and prosperity being hard to discern. This is especially true with the Employment Insurance system. We recommend important changes to increase prosperity.

Increase specialized support

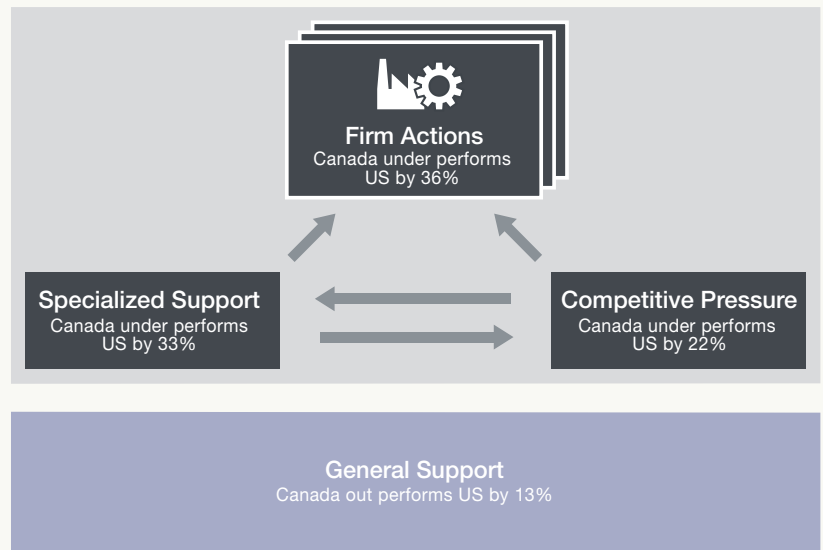
Our agenda for prosperity includes two high leverage improvements to specialized support – improving the quality of venture capital and enhancing the quality of business management through formal business education.

Continue to improve the quality of venture capital

In their attempt to strengthen our innovation capabilities, governments have too often focused on increasing the quantity of resources available to innovative startups, rather than the quality. Specifically, several funding programs provide support for raising venture capital through generous tax credits, help for startups, technology partnerships, and networks of centres of excellence.

Despite the prevailing view to the contrary, we have seen that the availability of venture capital in Ontario is generally in line with median performance across the peer states. To be sure, Massachusetts and California have significantly higher venture capital investments per dollar of GDP and per capita. These two states are the focal point for venture capital in the United States, North America, and the world. From the late 1960s to the late 1990s, on average over 40 percent of all US

Exhibit 21 Canada’s under performance in competitive pressure and specialized support drives firm under performance



Note: Results based on 2003–2006 average. Source: Institute for Competitiveness & Prosperity analysis based on World Economic Forum; Institute for Strategy and Competitiveness – Harvard Business School.

venture capital investment took place in California and Massachusetts – states that account for 16 percent of the US GDP.³⁹ The importance of these two states has historical reasons going back to the 1940s in Massachusetts' case and to the 1980s for California.

While we favour high aspirations, we do not think it is realistic to expect to match these two states in the near or medium term. Taking the full peer group of sixteen jurisdictions as our benchmark, we have found that Ontario matches well with the median in venture capital per dollar of GDP.⁴⁰ Our real challenge is to improve the quality of our venture funds. As we have shown, venture capital investment returns in Canada have usually been dismal relative to US results. Only recently, however, have US returns sunk to Canadian levels, because many of the high technology investments in the 1999–2001 period became worthless and depressed five-year returns in 2004 and 2005.

There are many factors behind the poor returns. We have seen the negative influence on Labour Sponsored Investment Funds (LSIFs). These vehicles attract funds through generous tax credits of 15 percent at the federal level and 15 to 20 percent at the provincial level, provided the investment does not exceed \$5,000. Combined with RRSP credits, this can amount to a significant incentive for investors. LSIFs are designed to attract funds from individual investors, not institutions. In addition, their investments are often restricted by type and geography by the governments providing the tax incentive.⁴¹ Moreover, there are often

requirements that some percentage of funds must be reinvested within one to three years from when they were raised.

Predictably, LSIFs have been successful in raising funds, but there is a downside. In 2005, they accounted for 54 percent of all venture capital raised in Canada, and 31 percent of venture funds invested. But returns on LSIFs have been terrible. Recent data show that the median five-year return on a labour-sponsored fund is minus 3.4 percent, while the median five-year return on Canadian small-cap equity is 19.1 percent.⁴² On various investment horizons – one-year, three-year, five-year, and ten-year – labour-sponsored fund returns trail.

Other research indicates that LSIFs "have so energetically crowded out other funds as to lead to an overall reduction in the pool of venture capital."⁴³ And LSIFs represent a significant burden on provincial and federal treasuries, with an estimated loss in tax revenues of \$3.3 billion between 1992 and 2002.⁴⁴

Ontario's still young venture capital industry lacks the pressure of a long track record of good returns, consistently applied valuation standards, private equity products, and industry information. Breakthroughs in financing need to come from broadening and strengthening the quality of support provided by venture capitalists to innovative startup firms. And creating the environment for pension funds to invest in venture funds and ratcheting up the pressure to upgrade their quality will generate better results.

In September 2005, when the Ontario Government announced its decision to end the special provincial tax benefit for LSIFs, industry insiders expressed concern that this would create a shortage of venture funds for Ontario's innovative startups.⁴⁵ One important source of venture capital funding in Canada is US-based venture firms. In fact, venture funding from the United States accounted for about a quarter of total venture funding in Canada since 1999.⁴⁶ In 2005, the Institute engaged Thomson Macdonald, the authoritative source of information on Canada's venture capital industry, to conduct interviews among some of the key US venture firms investing in Canada. These interviews and the actual investment data indicate that US venture firms that had invested in Canada were originally attracted to opportunities in Ottawa's information and communications industries. Lately, they have begun to expand to other industries and cities.

US venture firms are attracted by Canada's good technology and skilled workforce, the lower cost of doing business, and a good network of Canadian venture capital firms with whom they can partner. The interviewees tended to see Canada's proximity as an advantage and reported having access to adequate information on the markets here.

The Thomson Macdonald study concluded that cross-border tax treatment is an important barrier to investing in Canada. The Canada Revenue Agency does not allow Limited Liability Corporations to qualify for the preferential tax treatment in the Canada-US Tax Treaty. This interpretation reduces the potential financial return from capital

³⁹Paul A. Gompers, *The Venture Capital Cycle*, 1999, p. 14.

⁴⁰Institute for Competitiveness & Prosperity, Working Paper 6, *Reinventing innovation and commercialization policy in Ontario*, October 2004, pp. 32-35.

⁴¹In the March 2006 Ontario Budget, the Government indicated it would give remaining LSIFs more flexibility in the types of investments they can hold.

⁴²Fund Report as at September 30, 2006, Bell Globemedia Publishing. Available online: www.globefund.com.

⁴³Douglas J. Cumming, Jeffrey G. MacIntosh, "Crowding Out Private Equity: Canadian Evidence," University of Alberta Working Paper 2003.

⁴⁴*Ibid.*

⁴⁵See for example, "End of the line," by James Bagnell, Canada.com. Available online: http://www.sandvine.com/news/article_detail.asp?art_id=557

⁴⁶Thomson Macdonald, *The Activity of American Venture Capital Funds in the Ontario Market: Issues, Trends and Prospects*, A report prepared for the Institute for Competitiveness & Prosperity, November 2005, p.8. Available online: www.competeprosper.ca

gains and from interest and dividend payouts to US investors. Canadian companies receiving US venture investments often must restructure themselves for tax efficiency. According to the Thomson Macdonald report, reactions from US-based venture capitalists ranged from the tax issues being irritants to being “a very serious challenge to their continued activity in the Canadian market.”⁴⁷ We encourage the Ontario Government and its venture industry to take the lead in raising these issues with the appropriate tax authorities to determine opportunities for revisiting the interpretations of the existing tax treaty.

This is an important opportunity, because US venture firms can help raise the quality of financing of

innovation in Ontario. These firms can bring experience and expertise gained in their home market to add significant value to our fledgling innovative firms.

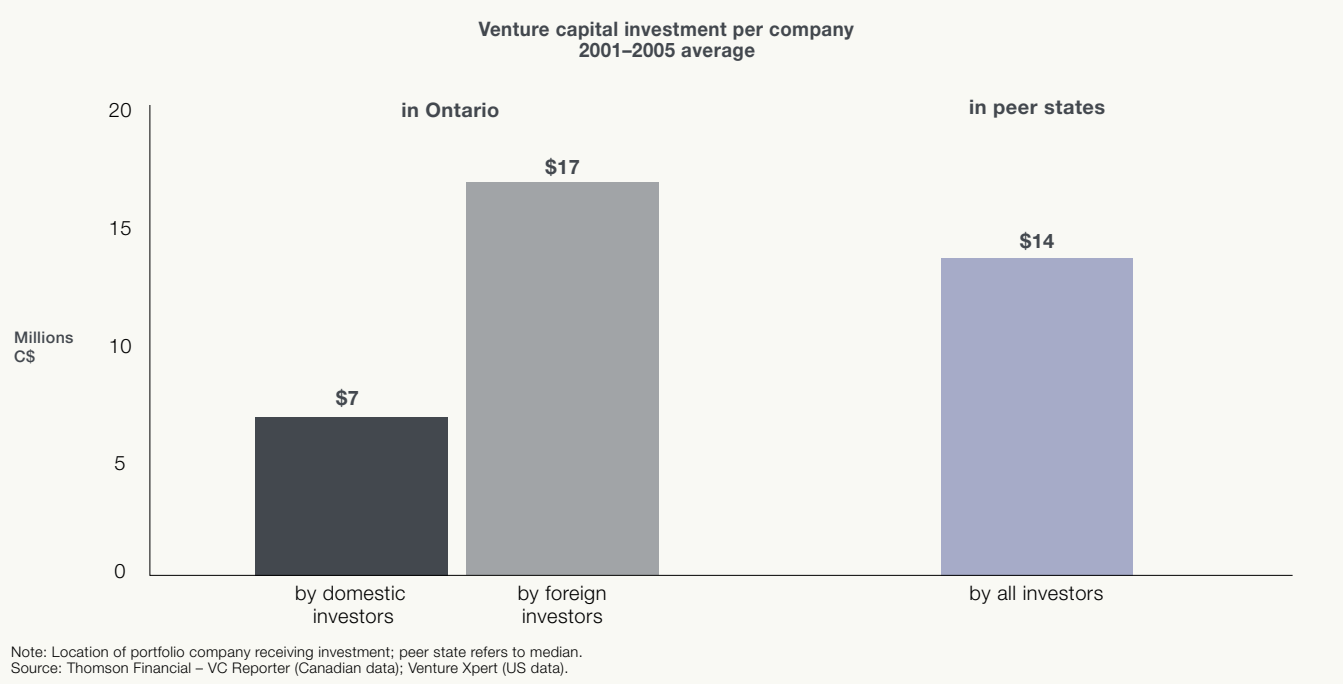
In other research conducted by the Institute, we found that successful Canadian startup firms were critical of the breadth and depth of support they received from their venture capital investors. Survey responses indicated that venture capitalists were not important sources of advice or experience in providing information on the relevant industry or global markets, assistance in building the company or supplying management expertise, or in adding value to product development.⁴⁸ We cannot be certain that successful US startups would be as critical of their venture capital providers. Certainly,

the standard expectation of the value added by a venture capitalist is more than monetary.

Our research with US venture capitalists in Canada suggested that Canada’s innovative firms require greater entrepreneurial management talent. Some respondents indicated they would not invest in companies without adequate management talent; others were prepared to draw on non-resident managers to develop the required range of management talent.⁴⁹ We discuss the challenge of strengthening management in our innovative firms below.

The Thomson Macdonald study cited difficulties by US venture firms in finding appropriate venture firms or individuals as partners. They reported too much

Exhibit 22 Ontario’s venture capitalists make smaller investments than US counterparts



⁴⁷ *Ibid.*, p. 31.

⁴⁸ The Strategic Counsel, *Assessing the Experience of Successful Innovative Firms in Ontario*, September 2004, Research conducted for the Institute for Competitiveness & Prosperity. Available online: www.competeprospers.ca

⁴⁹ Thomson Macdonald, *The Activity of American Venture Capital Firms in the Ontario Market*, pp. 31-32.

personnel turnover in venture fund management; they found instances of a “conservative propensity” among some funds leading to smaller deal sizes, leading to the potential for slower time to market of the innovative firms; and they complained that the lack of common documentation in Canada slowed the turnaround of required investment information.⁵⁰ Finally, some US venture firms in the study perceived that they were not generally aware of investment opportunities in Canada and suggested greater dissemination of the advantages of investing here.

The net effect of Ontario’s support for innovation financing is that we finance many small deals in Ontario – and that these may be too small. The average investment per Ontario company by Ontario venture capitalists was about \$7 million over the 2001–2005 period.

At the same time, foreign (primarily US) venture capitalists invested an average of \$17 million per company when they invested in Ontario. In the median peer state, venture capital investment is about \$14 million per company (*Exhibit 22*).

Sub-scale deals in Ontario may mean that our venture capitalists cannot build sufficient expertise in industries or in companies they are investing in. It may also mean that by making fewer big bets and more small bets they are not forcing themselves to analyze the investments more thoroughly. And it can also mean that our innovative firms with real success potential are being starved for venture funding.

An agenda to enhance the quality of venture capital in Ontario has to include elimination of labour sponsored funds as soon as possible, removal of public

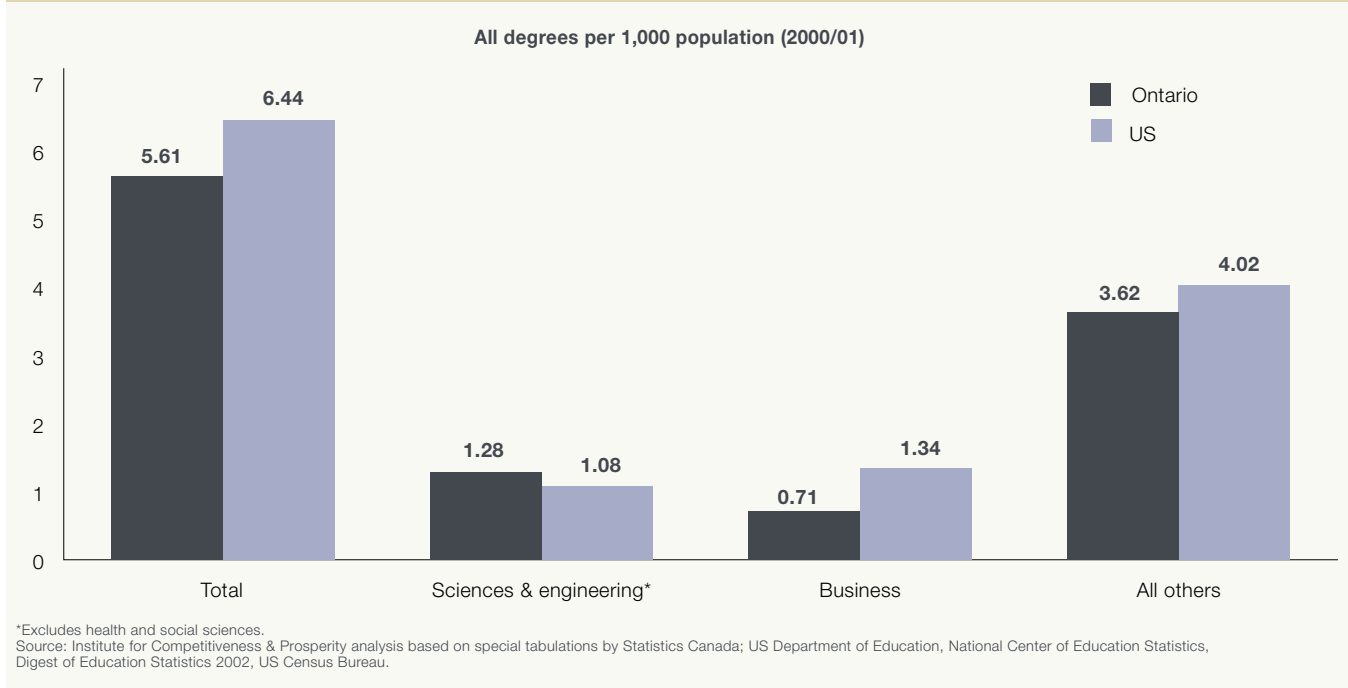
programs or incentives that results in sub-scale investments in Ontario, and attraction of US-based venture capitalists to Ontario.

Increase business education

A recurring theme in our work has been the lack of management sophistication in our businesses in Ontario. Our previous research indicates that:

- Our managers have lower educational attainment overall and in business education specifically.⁵¹
- CEOs of our largest corporations tend less to have formal business education at the graduate level.⁵²
- And a key challenge for growing innovative firms is having access to management talent.⁵³

Exhibit 23 Ontario produces fewer business degrees than the United States



⁵⁰For example, some interviewees pointed to the lack of a common “term sheet” in Canada while the US industry has created a standard form. See Thomson Macdonald Report, p. 33 for more detail.
⁵¹Institute for Competitiveness & Prosperity, Working Paper 6, *Reinventing innovation and commercialization policy in Ontario*, October 2004, p. 40
⁵²*Ibid.*
⁵³*Ibid.*, Report on Canada 2006, *Rebalancing priorities for Canada’s prosperity*, p. 46.

If the link between education and innovation can be drawn, it is quite apparent why we are less innovative in Ontario. The more educated managers are, the more likely they are to think innovatively and strategically and to operate more effectively. Our lower education level of human capital resources means that we are less able to compete in a technology-based knowledge economy, as well as to serve sophisticated and demanding customers in the global marketplace.

A key factor in the shortage of managerial talent for leading innovation and commercialization in Ontario's firms is the lack of investment in business education. Our universities produce only half as many business graduates per capita relative to the United States (*Exhibit 23*). Analysis coordinated by the Institute and performed by the Ministry of Economic Development and Trade shows that it is more difficult to gain entry into an Ontario business program than to engineering or arts and sciences. The challenge is to increase the supply of spaces. We encourage the provincial government and universities to work together to increase opportunities for more Ontarians to pursue university education in business; an education they want, but their access is limited.

Strengthen competitive pressure

In our research, we have identified the relatively low level of competitive pressure versus our US peers as a key factor in Canada's reduced capacity for innovation and upgrading.⁵⁴ We found that Ontario and Canada have many of the structures in place for driving innovation and higher productivity, but these structures lack an adequate

level of competition to ensure the complete success in our industries. We have looked at several hurdles.

First, the World Economic Forum's Business Competitive Index consistently identifies important disadvantages where Canada's industries lack competitive pressure – low buyer sophistication and less local competition. Without the intense pressure to innovate and upgrade and the benefit of specialized support, our firms tend to be rated lower in this competitiveness index in the effectiveness of their strategies and operations. In particular, Canadian firms rank lower than many countries in company spending on research and development. Instead, they compete on the basis of low-cost or natural resources rather than unique products and processes.

Second, our analysis of specific clusters in Ontario identified less specialized support and competitive pressure as a key differentiator between effective clusters (such as automotive and steel) and less effective clusters (e.g., biopharmaceuticals, education and knowledge creation, and tomato processing).

Third, a review of the firms in Canada that are global leaders – Canadian publicly traded companies that are one of the five largest in their market – indicates that the degree of competitive pressure in Canada from sophisticated customers and capable rivals has not been a significant factor in producing the country's global leaders.⁵⁵ In communications, Canada's industry has been highly regulated. Such regulations range from content and ownership regulations in entertainment media to pricing and technical regulations in telecommunications. For Canada's leaders

in the media industry, these regulations did not apply. In telecommunications services and infrastructure, Canada has no global leader, despite our impressive human and technological capabilities

Fourth, in our survey of successful innovative firms in Ontario,⁵⁶ the most significant disadvantage versus their US competition they reported was the relative lack of sophisticated customers to stimulate their performance. Because of Canada's smaller market size, it will always be a challenge to ensure the presence of this competitive pressure. We can help achieve this by removing barriers to competitive intensity in our domestic markets.

In summary, we see a lack of intense competitive pressure to stimulate demand for innovation and commercialization, including the rivalry of firms in the industry and the sophistication of customers in Ontario. A key element of enhancing pressure for innovation is the presence of sophisticated business strategies and operations. Businesses that depend on innovation for survival and success will demand greater innovation in their own firms and from others, such as universities and research institutes. The evidence suggests that Ontario is not benefiting from this pressure.

If we want to solve the commercialization challenge, we must create a higher demand for innovation. To do this, we must look at the competitive pressures that face our leading companies and identify what can be done to encourage businesses to be more competitive in their marketplace.

⁵⁴ See Working Paper 5, *Strengthening structures: Upgrading specialized support and competitive pressure*.

⁵⁵ *Ibid.*, pp. 35-36.

⁵⁶ *Assessing the Experience of Successful Innovative Firms in Ontario*.

One of Ontario's key challenges is to create an environment in which companies can and must innovate and commercialize. Our business leaders do not face the same competitive intensity as their US peers and are not getting the specialized support they require. Both shortfalls require attention. The toughest public policy challenge is how to intensify competitive pressure – how to encourage the rivalry that will lead firms to take innovation actions to outpace their competitors and how to raise consumer expectations for leading products and services. Clear answers and policies can help close this innovation gap – and in turn the prosperity gap, between Ontario and its peer jurisdictions.

Reduce regulation to increase competitive pressure

As we have seen, Ontario trails its peers in investing in machinery, equipment, and software. Using Canada-wide results as a proxy for Ontario, we also see that this under investment is especially apparent in the information and communications technology (ICT) industry. A recent paper published by the OECD suggests that greater regulation in a developed economy results in slower productivity growth. The authors showed that regulations in Canada affect our ICT-producing and our ICT-using industries most significantly. Using statistical techniques, they concluded that “well-functioning product markets are an important condition for rapid productivity catch-up, perhaps because they increase the incentive and lower the cost of incorporating new technologies into the production process.”⁵⁷

The authors then estimated the annual productivity growth forgone by each of the OECD countries by its regulatory regime. Of the eighteen countries studied, Canada had the fourth most negative impact⁵⁸ on its business sector productivity growth over the 1995–2003 period. This forgone productivity was more pronounced in sectors identified as ICT intensive (such as electrical optical equipment and telecommunications) than in non-ICT intensive sectors (such as food products, beverages, and tobacco, textiles, and hotels and restaurants). This lower productivity is related to lower investment in ICT. The authors found that restrictions to competition have a strong negative effect on ICT investment.⁵⁹ They concluded that “an economy-wide regulatory environment that is unfriendly to competition and [places] excessive administrative burdens on firms [is] found to curb investment in ICT.”

To be sure, Canada's regulatory environment is less onerous than that of many of the other OECD countries. However, relative to the United States, our more stringent regulatory environment contributes to the lower investment in ICT. This in turn, as we have seen, accounts for part of our prosperity gap.

The recent report of the federal Telecommunications Policy Review Panel is a step in the right direction. The Panel was appointed to “review Canada's telecommunications policy framework and recommend how to modernize it to ensure that Canada has a strong, internationally competitive telecommunications industry.” One of its specific mandates was to make necessary recommendations on changes to Canada's regulatory framework.

In summary, the Panel concluded that “it is time for significant changes in Canada's current policy and regulatory approaches.... [Its] proposals seek to accelerate the pace of deregulation of competitive telecommunications markets and will rely more on market forces to achieve Canada's economic goals.”

We concur with the Panel that the rapid adoption of Internet Protocol (IP)-based networks, broadband, and wireless technology and the convergence of previously distinct information and communications technologies (ICT) are revolutionizing the telecommunications market. This transformation is making it clear that the current regulatory approach is outdated. This current approach starts with the presumption that telecommunications services should be regulated unless the CRTC forbears regulation. Instead, as the Panel recommends, policy ought to be informed by the principle that services should not be regulated unless there is compelling evidence that market forces will unlikely achieve telecommunications policy objectives within a reasonable time period and that the costs of regulation do not exceed its benefits.

The Panel recommends that the CRTC have the onus to establish the existence of significant market power by a service provider rather than starting with the assumption that such power exists and ought to be curtailed through regulation. While it is possible that, in the past, telephone companies were natural monopolies whose actions needed to be restricted, this is certainly no longer the case. In general, regulatory bodies restrict competition, not enhance it, and we think the Panel has made a persuasive case that Canada's

⁵⁷ Paul Conway, Donato de Rosa, Giuseppe Nicoletti and Faye Steiner, “Regulation, Competition and Productivity Convergence,” OECD working paper No. 509, p. 11.

⁵⁸ *Ibid.*, Ahead of Greece, Portugal, and Norway. See Figure 10, p. 40.

⁵⁹ *Ibid.*, p. 14.

current approach to regulating telecommunications is no exception. As Don McFetridge of Carleton University argued, in a brief to the CRTC: “It is seldom the case, perhaps never the case, that inhibiting competition increases competition.”⁶⁰

The Panel’s recommendations also remove barriers to future innovation in the telecommunications sector by recommending that downstream transmission and discretionary and retail services be free from the presumption of regulation. Instead, these should be unregulated and open to customer or competitor challenges to uncompetitive behaviour for adjudication on their merits.

We think the evidence that Canada needs more intense competition is clear. As we have recommended in our previous work, provincial and federal governments need to identify ways within their jurisdiction to eliminate regulations that are precluding intense competition. The Panel’s work represents a historic opportunity for addressing the competitiveness of one of our critical sectors. We encourage the federal government – and all Canadians – to seize this opportunity.

Reduce counter-productive labour regulations

In our work to understand the differences in hours worked between Ontario and the peer states, we assessed the impact of labour standards regulations. Our research indicates that increasing regulation may have the effect of reducing hours worked, including among those who would prefer more hours. We hypothesize that this occurs because regulations create rigidity in the labour market and reduce job opportunities.

In our research for Working Paper 9, we drew on work by Richard Block, Karen Roberts, and Oliver Clarke,⁶¹ who developed detailed indexes of labour standards regulation across Canadian provinces and US states. They also developed ten sub-indices. Five of these relate to standards requiring employer payments (minimum wage, overtime, paid time off, employment insurance, and workers’ compensation), and five relate to standards constraining employer allocation of labour (collective bargaining, employment equity, unjust discharge, occupational safety and health, and advance notice of plant closings and large scale layoffs). They adjusted each sub-index by the proportion of the labour force covered by the regulation and summed these adjusted sub-indices to calculate an overall labour standard index.

The index for each state or province can be seen as a measure of how much regulation is in place that affects working conditions and labour-management relationships. The indexes indicate that labour standards tend to be more stringent in Canada than in the United States. When we regress the overall indexes against hours worked in each of the ten provinces and fifty states and DC, we find a negative relationship – as the labour standard index increases, hours worked decreases.⁶² The interprovincial and interstate relationships are similar, as is the strength of the relationships.

Our multiple regression analysis confirms the importance of labour regulations in explaining the hours worked gap. We estimate that 39 percent of the Canada-US annual hours worked gap over the 1978–2002 period can be attributed to tighter labour standards in Canada.⁶³

This analysis also indicates that more stringent labour standards account for 15 percent of the difference in involuntary part-time employment. In other words, stringent labour regulations may not be helping the most vulnerable workers – those who work part-time but would prefer to be working full-time. In fact, through increased rigidity in the economy, these standards may be having the opposite effect.

Our research results are suggestive, not conclusive. But we think a prosperity agenda has to include a fact-based review of the impact of labour standards regulations on those they are meant to help.

Continue to pursue bilateral free trade agreements

Free trade provides both specialized support and competitive pressure to enhance Canada’s innovative capacity. Free trade increases the size of markets available to support Canada’s and Ontario’s firms. Our work shows that small market size in Canada is an ongoing challenge to our productivity and innovation. This is a key reason why exporting to the United States has been so important to the success of Ontario firms – the impact of increasing scale by adding US customers to our potential sales is huge.

Free trade also strengthens the competitive pressure for our firms, workers, and managers to become more competitive. By opening our markets to more competitors, we increase rivalry from competing firms. That also exposes our firms to more sophisticated customers who provide pressure for greater upgrading and innovation.

⁶⁰ Donald McFetridge, Comments on Public Notice CRTC 2003-10, Brief to the CRTC, January 30, 2004, p. 9.

⁶¹ Richard N. Block, Karen Roberts, and R. Oliver Clarke, *Labor Standards in the United States and Canada*, Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research, 2003.

⁶² Working Paper 9, *Time on the job*, p. 36.

⁶³ *Ibid.*, p.34.

Ideally, multilateral free trade could be the most effective way to broaden our markets. But the complexity of negotiating such arrangements and the time required to complete the deals mean it is difficult to make them happen. Implementation of effective bilateral arrangements is a stronger possibility.

The Canada-US Free Trade Agreement is the best example of how free trade has affected our competitiveness and prosperity. In his study of the long-term effects of the agreement, Dan Trefler, professor of economics at the Rotman School of Management at the University of Toronto, noted that before the agreement more than one in four manufacturing industries were protected by tariffs of more than 10 percent.⁶⁴ Trefler measured the impact of the agreement in critical areas of economic performance.

Employment effect was neutral. The agreement affected protected industries significantly. In the ones he identified as being most protected by tariffs before the agreement, Trefler found that 12 percent of jobs disappeared between the pre-FTA period of 1980–86 and the post-FTA period of 1988–96;⁶⁵ across all manufacturing, he found a 5 percent reduction in jobs – fully 100,000 jobs. As Trefler observed, there was “a very large transition in costs of moving out of low end heavily protected industries. It reflects the most obvious of the costs associated with trade liberalization.”⁶⁶ However, subsequent growth in manufacturing employment relative to that in other parts of the world suggested to Trefler that the lost employment was made up for by employment gains in other parts of manufacturing.

Labour effects were positive. Trefler found that the FTA resulted in a shift from less-skilled production jobs to higher-skilled non-production jobs. Overall, wages increased with no impact on hours worked as a result of free trade. Finally, he detected no increase in wage inequality, as measured by differences in production and non-production workers’ wages.

Productivity increased. According to Trefler, the FTA increased labour productivity in manufacturing by a remarkable 0.93 percent annually. Much of the productivity gain came from market share shifts favouring high productivity plants – high productivity plants grew while low productivity plants were in decline.

Consumers benefited. One of the concerns with bilateral trade agreements like the Canada-US FTA is that they simply divert trade with many countries to the other partner – with a net effect of no growth in trade. Trefler found that the trade increase between Canada and the US significantly outpaced their trade reduction with the rest of the world. The FTA resulted in trade creation, not diversion. Drawing on the work of others Trefler concluded that this net increase in trade had a positive impact on consumer welfare. Importantly, at the same time, import prices did not rise.

In summary, Trefler points to the positive effects of free trade as well as the short-term costs. The challenge is to continue to expand free trade while finding ways to mitigate against the short-term adjustment costs.

Canada is exploring or negotiating trade and investment enhancement agreements with the Central America Four (El Salvador, Guatemala, Honduras and Nicaragua), the European Free Trade Association (Iceland, Norway, Switzerland and Liechtenstein), the Republic of Korea, Singapore, Andean community countries (Bolivia, Colombia, Ecuador, Peru and Venezuela), and the Caribbean Community and Common Market. It has also launched initiatives with the European Union and Japan. However, Canada has made no progress in concluding bilateral trade agreements since the agreement with Costa Rica which came into effect in 2002.

In a recent paper, Wendy Dobson of the Rotman School of Management highlighted the potential benefits from a bilateral agreement between Canada and India and set out the general argument for increasing trade between countries.⁶⁷ Trade liberalization increases the competitive pressure on previously sheltered firms in both countries, driving productivity gains. Much of this comes about from removing trade barriers in industries with differentiated products that both sides produce. This intra industry trade leads to increased specialization. Why should Canada be interested? Dobson argued that Canada will benefit from deeper integration with one of the world’s increasingly dynamic economies. Why should India be interested? More bilateral agreements would be a natural contribution to their goal liberalizing trade and capital flows. Dobson suggested the two countries start small, perhaps with a services-only free trade agreement.

⁶⁴Daniel Trefler, “The Long and Short of the Canada-U.S. Free Trade Agreement,” *American Economic Review*, Vol. 94, No. 4, 2004.

⁶⁵Trefler controlled for a variety of effects including industry- and period- specific trends, business conditions, and U.S. industry shocks.

⁶⁶*Ibid.*, p. 18.

⁶⁷Wendy Dobson, “The Elephant Sheds its Past,” *C.D. Howe Institute Commentary*, No. 235, 2006.

We agree that more bilateral trade agreements would benefit Canada – for the usual market expansion opportunities espoused. We also see bilateral trade agreements as an important way to increase competitive pressure on our industries.

Whether a Canada-India agreement is the best route – or whether Canada should re-energize existing processes – is not something the Task Force can speak on. However, we can say that Ontario and Canada need a strategy that puts greater energy and focus on increasing bilateral trade agreements.

Canada's Minister of International Trade recently indicated his interest in moving on this front: "I have no reservations about saying that we have not been aggressive enough and focused enough on ensuring that Canada keeps up with the rapid, almost competitive, expansion of bilateral free trade agreements. Canada is the only major trading nation that has not negotiated a single free trade agreement in the past five years... we are falling behind Australia, Mexico, and particularly the United States in terms of bilateral agreements."⁶⁸

The Ontario Government has carried out trade missions, particularly with India and Pakistan, to give Ontario delegates optimal opportunity to build networks and partnerships that have the greatest potential to lead to tangible business contracts. This is an important contributor to Ontario's prosperity. But we also urge the Ontario Government to collaborate as much as possible with the federal government in creating energy behind bilateral trade agreements and in helping build the capability to identify

priority target countries and carry out the necessary supporting analysis to make these agreements a reality.

Rebalance fiscal federalism

Much of the current debate around Ontario's fiscal federalism gap – the difference in the amount that Ontarians contribute to federal revenue versus the amount returned to the province through federal spending – is whether it is fair. In our research, we have focused instead on the question whether fiscal federalism is effective. To what extent is the new transfer of resources out of Ontario effective in narrowing regional economic disparities *and* building the long-term competitiveness and prosperity of the province.

As a prosperous province, Ontario will always be a large fiscal contributor to Confederation and to the well being of have-not provinces. But fiscal federalism is not realizing its full potential to reduce regional disparities in prosperity.

In its Working Paper 8, *Fixing fiscal federalism*, the Institute estimated Ontario's fiscal gap at \$16 billion in 2002;⁶⁹ the gap was still \$16 billion in 2003.

We need to ensure that these transfers are helping strengthen the potential to create prosperity in the have-not provinces. This requires that transferred funds are balanced appropriately between current consumption and investment for the future. As fiscal federalism becomes effective in encouraging investment in the have-not provinces, their prosperity will rise, and

the burden of fiscal federalism will be reduced. Then, Ontario will retain more of its own prosperity to invest in the province's own future.

Today, we see that Ontario is disadvantaged by Canada's fiscal federalism versus its peer US states. Yet, while some regional disparities are narrowing under the current fiscal federalism system, on critical economic indicators, such as investment and unemployment, convergence is much slower. In addition, surprise budget surpluses and the Employment Insurance (EI) program have contributed to the problems of fiscal federalism. Ontario should take several steps to increase the effectiveness of the system.

Make fiscal federalism more effective in reducing interprovincial prosperity gaps

It is important to assess the impact of fiscal federalism on the consumption and investment balance. We measure the consumption side of the equation by personal disposable income – the after tax income that flows to individuals – or the ability of individuals to consume current income. The investment side is captured by GDP per capita – the value created by converting human, physical, and capital resources into goods and services and building future prosperity.

Over the last two decades, the positive story is that disparities in personal disposable income across the provinces have narrowed. Canada has also achieved more equality in personal disposable income across the provinces than the United States has experienced across its states over the twenty-year period.⁷⁰

⁶⁸The Honourable David L. Emerson, Minister of International Trade, in a speech on International Trade Day, Ottawa, June 8 2006.

⁶⁹Institute for Competitiveness & Prosperity, Working Paper 8, *Fixing fiscal federalism*, October 2005, p. 14.

⁷⁰*Ibid.*, pp. 25-26.

It is hard to imagine that federal transfers have not contributed to that success. But we are concerned that a significant portion of the shifted resources has been aimed at consuming current prosperity – through equalization payments, health and social transfers to provinces, transfers to individuals, and Employment Insurance benefits. Much less has been aimed at investing in future prosperity.

Over the same period, regional disparities in GDP per capita have stayed higher in Canada than in the United States. In seventeen of the past twenty years, the United States has had lower levels of inequality in regional GDP per capita than Canada, and the trend indicates that, without a change in course, Canada will never match US convergence performance. We also see that the rankings of have and have-not provinces have changed little, with the same provinces remaining stuck at the bottom of the list. In the United States, there has been more fluidity among the states, with both up and down shifts in the rankings.

We conclude that fiscal federalism is missing opportunities for increasing Canada's prosperity potential. A truly effective fiscal federalism system would lead to greater and faster convergence, a more effective balance between consumption and investment, and greater competitiveness and prosperity. More specifically, we have recommended shifting from transfer spending

to tax relief that stimulates business investment in the have-not provinces and also shifting the focus from greater funds transfer to increased tax authority transfer.

Make Employment Insurance a true insurance program

We also need to address the role of Employment Insurance (EI) in creating the fiscal federal gap for Ontario and its destructive effect on prosperity. Canada's EI program has created excessive surpluses and the wrong kinds of transfers. Every year since 1993, the federal government has collected more EI revenue than it has paid out, accumulating a surplus of \$71.7 billion by 2003. Effectively, EI is a tax on labour, rather than a true insurance program.

On top of that, its design perpetuates regional inequalities. First, it interferes with the labour supply by providing higher benefits after lower qualifying periods for unemployed workers in regions with higher unemployment. In effect, it creates disincentives to work in the regions with the highest and most persistent unemployment rates. Second, it creates perverse incentives for employers, allowing firms to avoid the natural consequences of high rates of layoffs and closures. The system encourages firms with seasonal fluctuations to lay off workers rather than bear the costs of retaining them during the off season.

In a study of the incidence of EI at the firm level, Miles Corak and Wen-Hao Chen found that only 6 percent of firms were "always subsidized."⁷¹ These firms accounted for 6 percent of jobs but 28 percent of benefits and only 4 percent of premiums. At the other extreme, 22 percent of firms were "never subsidized." They accounted for 48 percent of jobs, but only 28 percent of benefits paid out and 60 percent of the premiums. The EI benefits claims for "always subsidized firms" were mostly for temporary layoffs – 71.5 percent of claims versus an all-firm average of 47.8 percent.

A recent study by economists Peter Kuhn and Chris Riddell compared the impact of Canada's EI system in New Brunswick with a more modest program in its neighbouring state, Maine.⁷² The study compared these two areas that are similar in their climate, geography, population and in their growth, incomes, and urban-rural split. However, in Maine's northernmost counties, about 6.1 percent of employed men worked fewer than 26 weeks in 1990 compared to 20.8 percent in New Brunswick – more than triple the Maine result. The authors estimate that the more generous Canadian program accounts for two-thirds of this difference. In Maine, according to the authors, EI payments account for 6 percent of the province's GDP – six times the proportion in Maine.

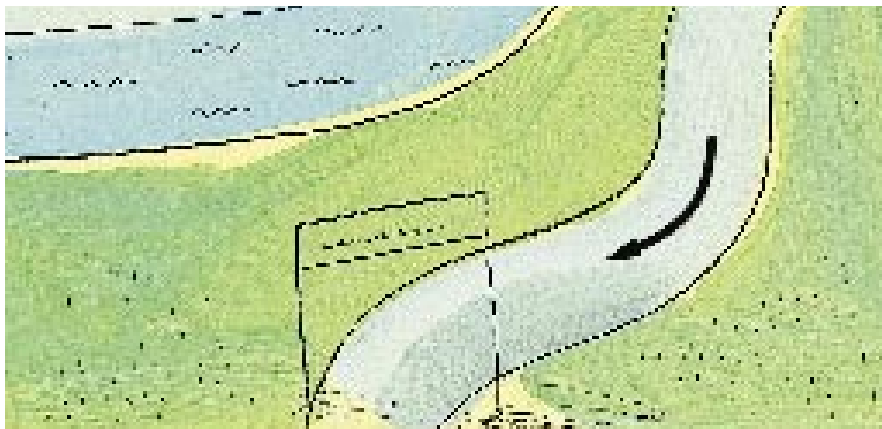
⁷¹Miles Corak and Wen-Hao Chen, *Who Benefits from Unemployment Insurance in Canada: Regions, Industries, or Individual Firms?* SRDC Working Paper Series 03-07, Social Research and Demonstration Corporation, November 2003.

⁷²Peter Kuhn and Chris Riddell, "The Long-Term Effects of a Generous Income Support Program: Unemployment in New Brunswick and Maine, 1940-1991," NBER Working Paper No. 11932.

They conclude that workers and firms adjust to the features of Canada's EI system. Workers' "educational decisions, occupational choices, fertility decisions, migration (workers with high tastes for leisure may be induced to remain [in high unemployment regions])...and the development of informal institutions" depend upon access to EI. For their part, employers are likely re-labeling workers who quit jobs as layoffs to help EI eligibility or permitting sequential job-sharing in a single job so that two employees can take advantage of the system.

Unemployment is an economic and social tragedy. But our EI system is making it worse, not better. And significant amounts of money are transferred from Ontario to other regions of the country. EI accounts for \$3.3 billion of the \$16 billion fiscal federalism gap, in the process diminishing Ontario's competitiveness with its peer states – and Canada's competitiveness with the United States and other trading partners.

A prosperity agenda needs to strengthen our structures. Market structures need to provide greater specialized support and competitive pressure. Governance structures need to be rebalanced so that fiscal federalism is more effective in reducing interprovincial prosperity gaps.





Prosperity challenge 2020: Agenda for Ontario's prosperity

Attitudes: From collective complacency to a shared determination to close the gap

- Recognize imperative for closing prosperity gap and commit to taking the extra steps

Investment: From consume today to invest for tomorrow

- Increase investment in machinery and equipment, particularly information and communications technology
- Encourage Ontario youth to invest in their educational attainment
- Increase investment in post secondary education
- Rebalance government spending away from consumption to investment

Motivations: From unwise taxation to smart taxation

- Increase Capital Cost Allowances to match economic depreciation
- Eliminate the capital tax in Ontario
- Convert the provincial sales tax to a value added tax
- Lower perversely high marginal tax rates for individual Canadians
- Assess radical new approaches to taxation

Structures: From general support to specialized support and competitive pressure

- Continue to improve the quality of venture capital
- Increase business education
- Reduce regulation to increase competitive pressure
- Reduce counter-productive labour regulations
- Continue to pursue bilateral free trade agreements
- Rebalance fiscal federalism to encourage investment in have-not regions
- Introduce employer experience rating to EI

Meeting the 2020 prosperity challenge: A template for Ontario policy makers

WE ARE CONFIDENT that our proposed agenda for Ontario's prosperity addresses many significant points of leverage to close the prosperity gap. But we think it is also important to set out a template that helps policy makers think through the impact of other proposals on long-term prosperity.

We draw on our AIMS model to outline the series of questions that should be addressed by those proposing and opposing various policy options. Although we recognize that prosperity is not the only agenda item facing Ontarians, it is an important consideration. We think all proposals should be reviewed through this lens.

Attitudes: Achieving a shared determination to close the prosperity gap

- How will the policy encourage and reinforce the prosperity agenda?
- How much will the policy encourage Ontario individuals and businesses to "go the extra mile" in strengthening our competitiveness and prosperity?

Investment: Investing for future prosperity

- How does the policy reduce consumption of current prosperity?
- How can it promote investment for future prosperity?
- How can it help Ontarians invest more in upgrading their education and skills?
- To what extent, does it stimulate businesses to invest more in productivity enhancing machinery, equipment, and software, especially in information and communications technology?

Motivation: Making the taxation system smarter

- How could the proposed tax policy motivate greater investment?
- How does the proposed policy affect all taxpayers?
- Where does it place the burden – from a few taxpayers to all taxpayers?
- What does the proposed policy do to make Ontario more internationally attractive as a place to invest in a business?

Structures: Developing more specialized support and competitive pressure

Increase specialized support

- How will the proposed policy improve the quality of investors and investment decisions?
- What will the proposed policy do to drive greater business investment in research and development?
- What will it do to enhance the quality of business management?

Strengthen competitive pressure

- How will the policy increase rivals' pressure on Ontario firms to be more innovative and productive?
- What will the policy do to increase the sophistication of Ontario customers and drive firms to be more innovative and productive?
- What cost adjustments are associated with increased pressure and how will they be addressed?

Rebalance governance structures

- How will a proposed change to fiscal federalism encourage investment for future prosperity and competitiveness in Canada's have-not regions?
- How will a proposed change in policy reduce unemployment? Increase hours of work for those who want them?

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