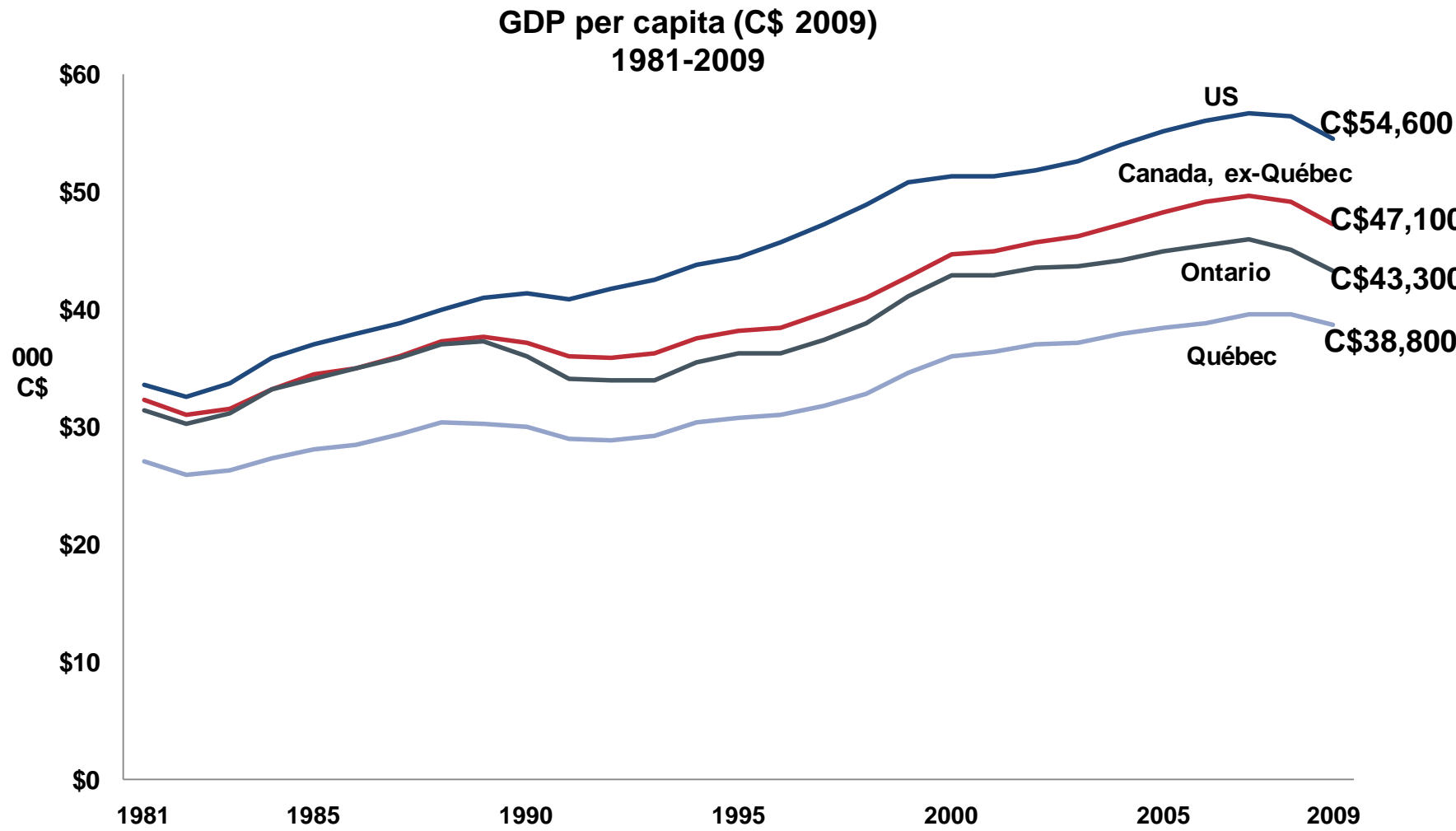


Assessing Québec's Key Prosperity and Competitiveness, Opportunities and Challenges

**Presentation to
Centre sur la productivité et la prospérité
HEC Montréal**

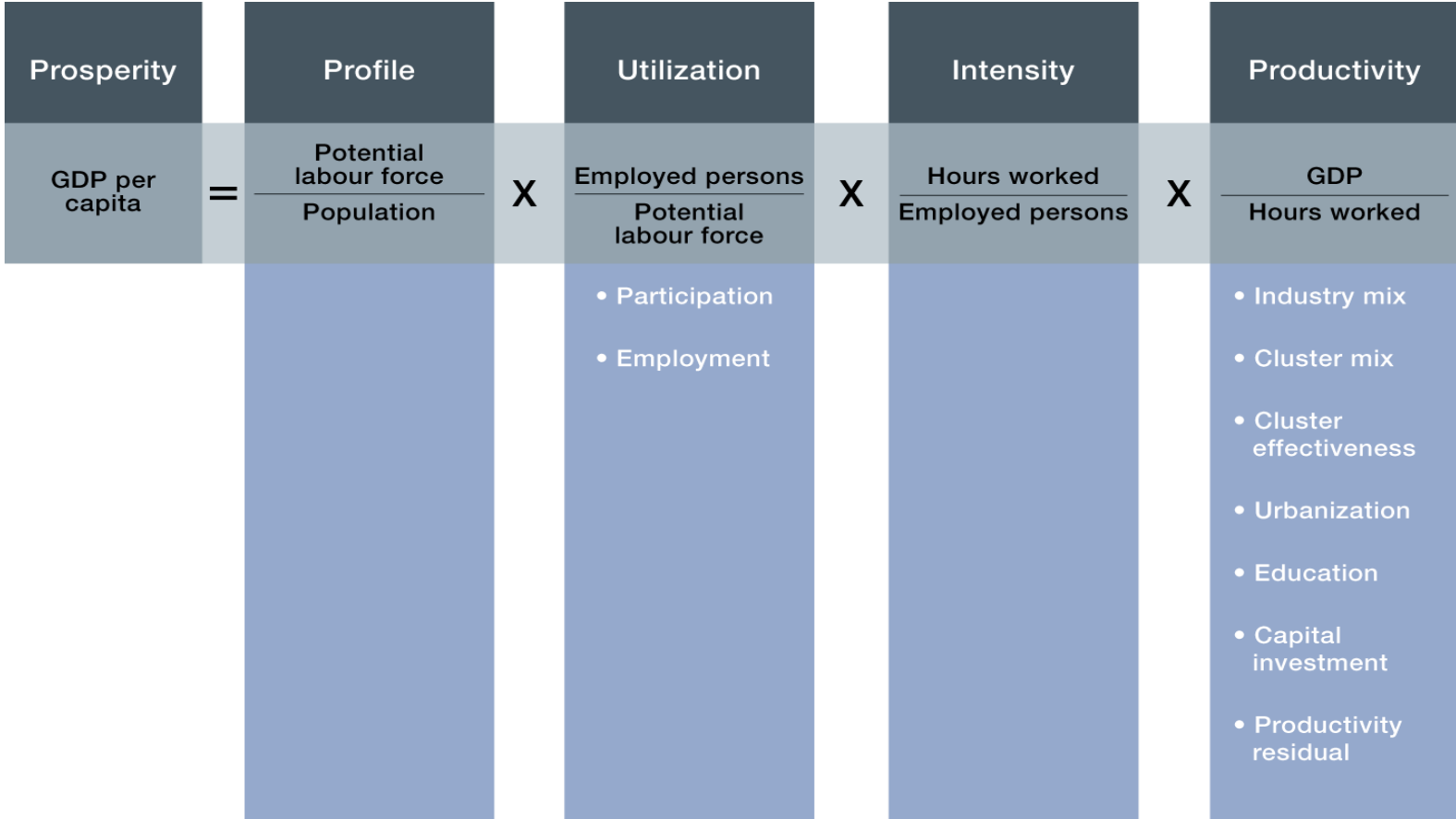
September 30, 2010

Québec's GDP per capita trails other jurisdictions



Note: US currency converted at PPP (PPP = 1.176); Provincial GDP figures for 2008 and 2009 based on most revised estimates from Ontario and Quebec Ministry of Finance.
 Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada (CANSIM Tables 384-0002 and 051-0001); Ontario Ministry of Finance; Institut de la statistique Québec; US Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts.

Québec's prosperity gap caused by several factors



Significant prosperity gap with peers

Demographic advantage becoming a disadvantage

Improvements in participation and unemployment, but gaps with rest of Canada persist

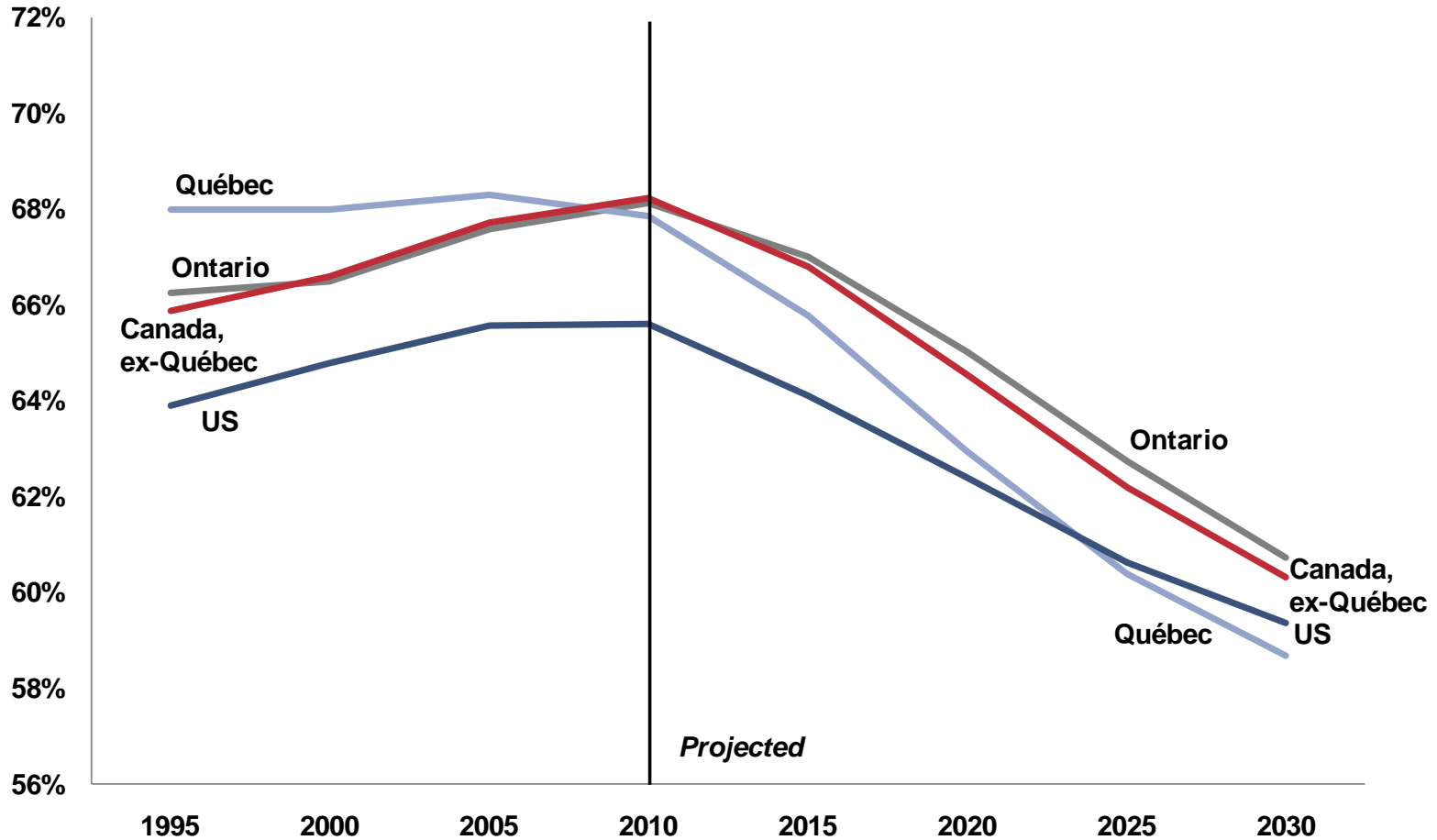
Persistent gap in hours worked

Ongoing productivity challenge

Québec's profile advantage is becoming a disadvantage

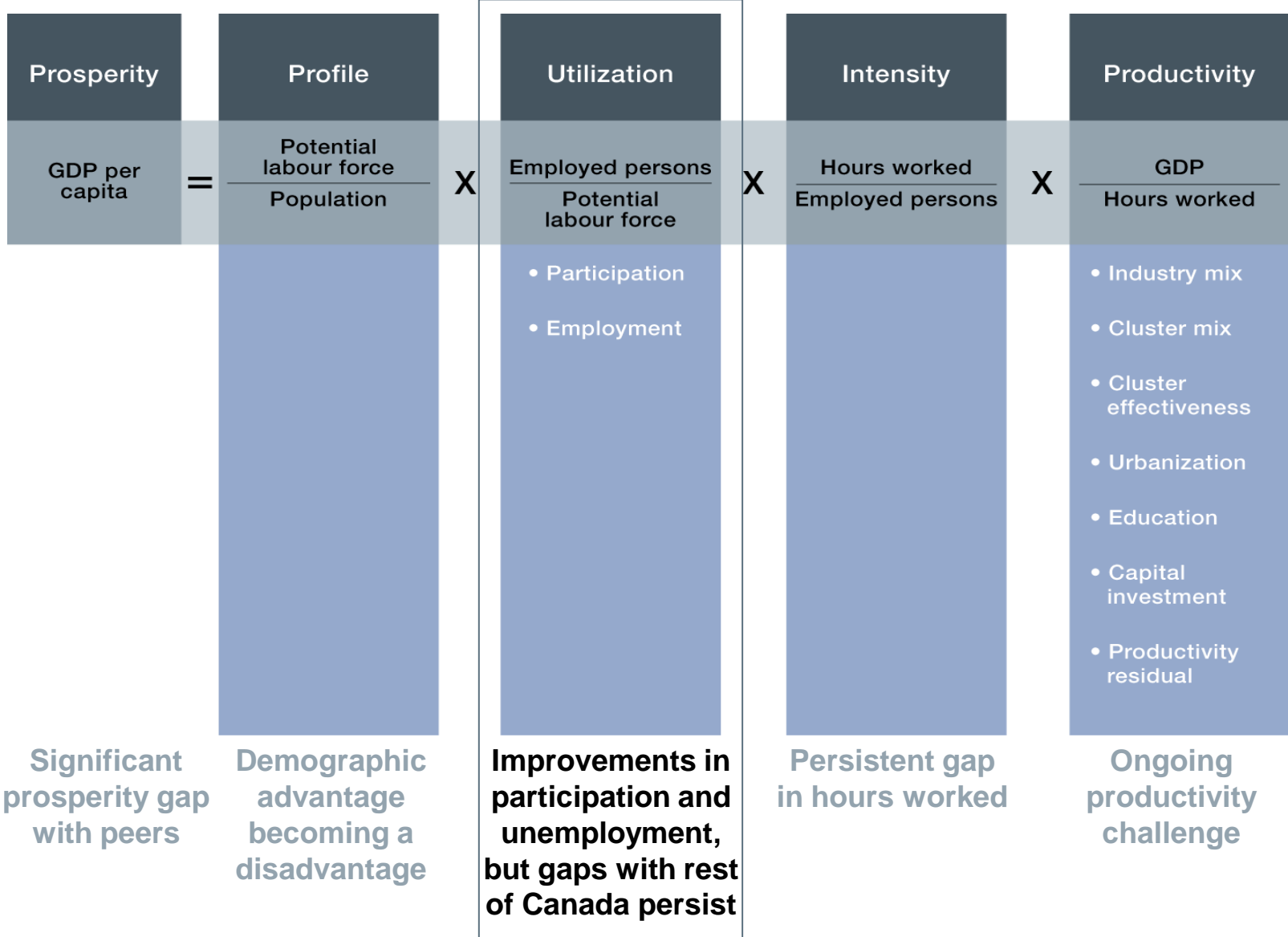
Projection of demographic profile for Québec, Ontario, Canada (ex-Québec) and US
1995-2030

Working age (16-64) population
as % of total population



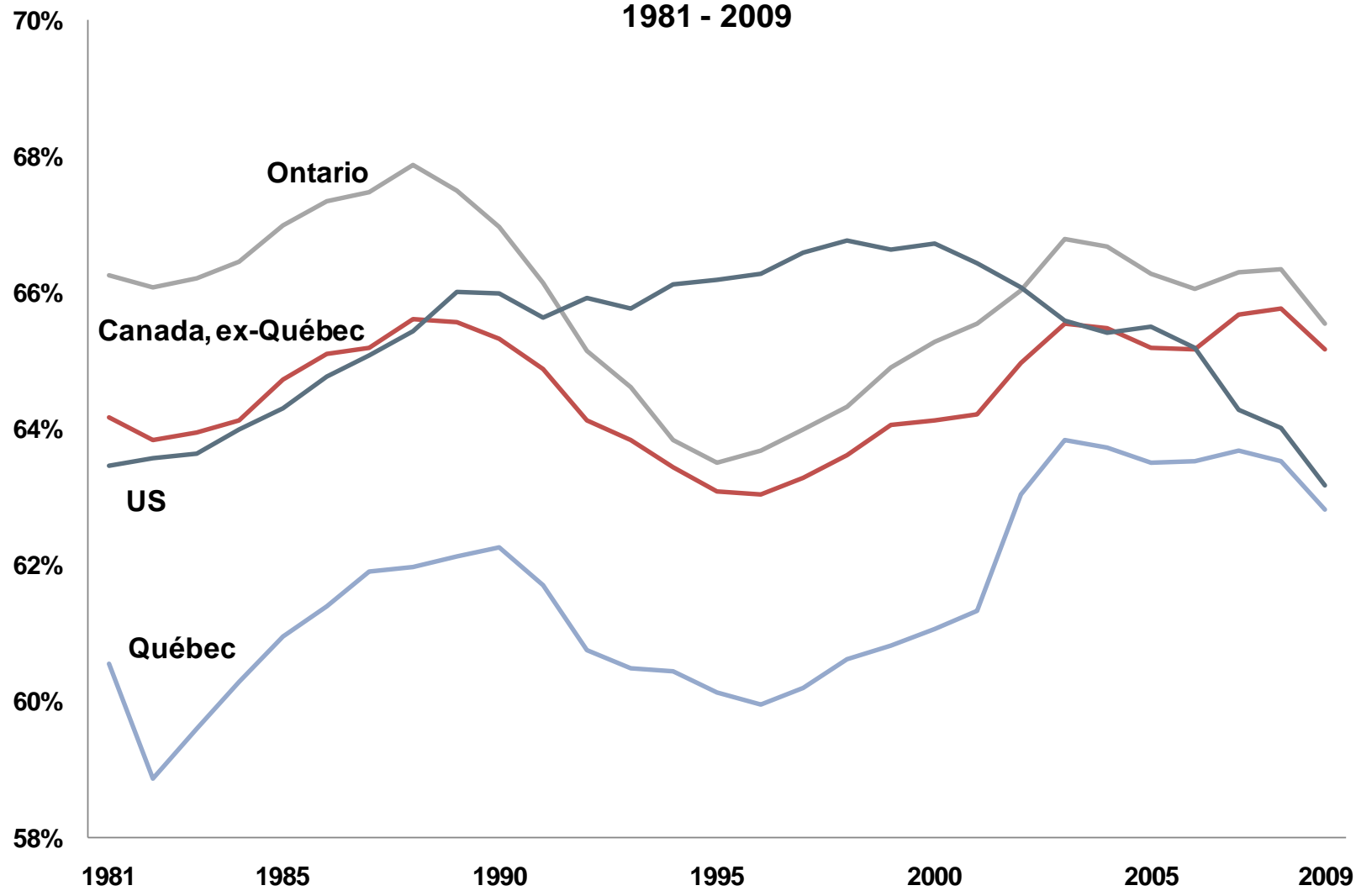
Note: For Québec, Ontario, and Canada (excluding Québec), projection scenario M1 (medium-growth, historical trends (1981-2008)) is used.
Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada population projections; US Census Bureau, Population Estimates, Population Projections.

Utilization of human capital and Québec's prosperity gap



Québec has improved its participation rate but still trails Canada, Ontario and US

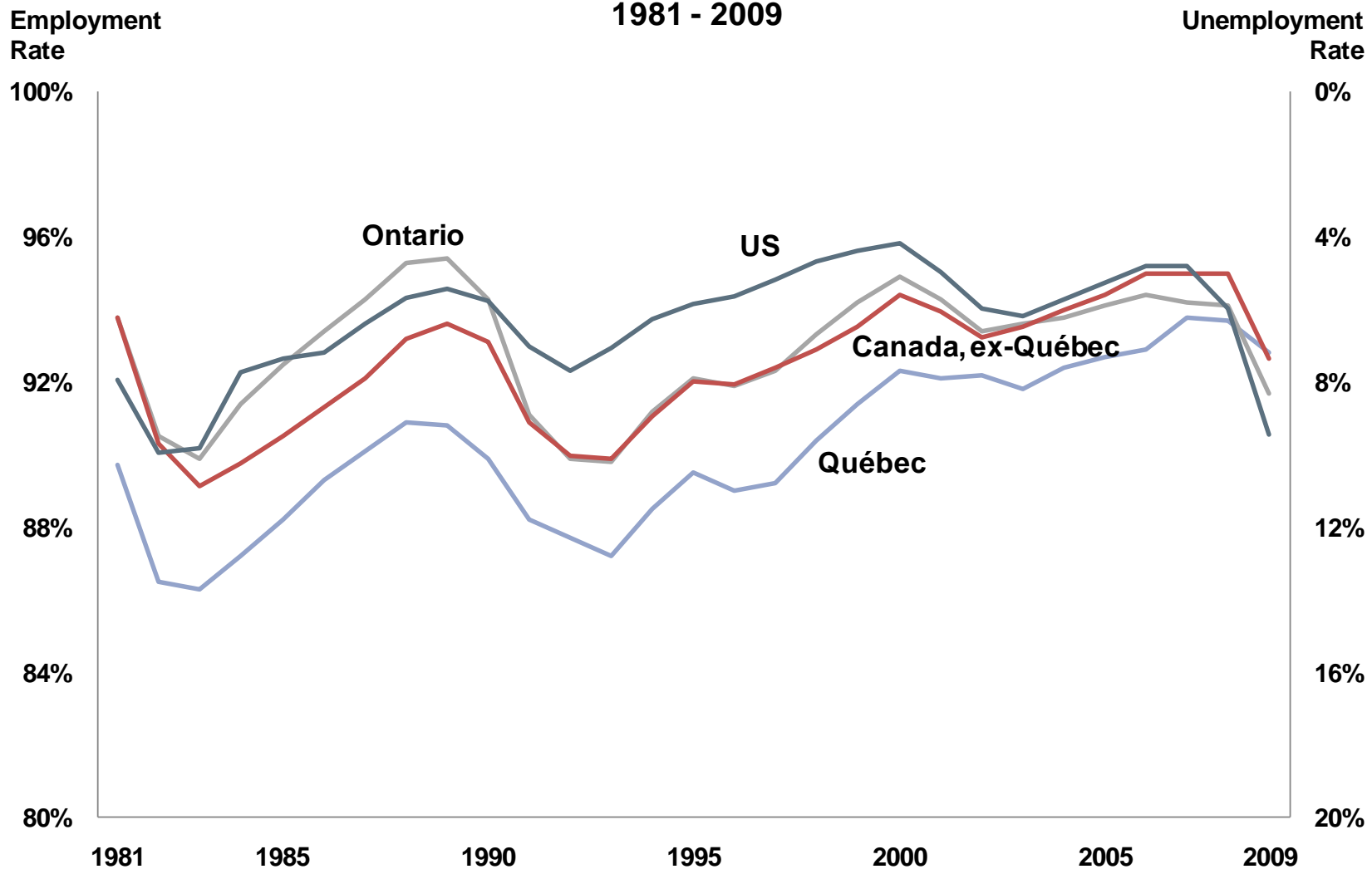
Participation rates for Québec and peers, ages 15+ 1981 - 2009



Source: Institute for Competitiveness & Prosperity analysis based on data from Labour Force Survey and Current Population Survey.

Québec's unemployment experience has improved

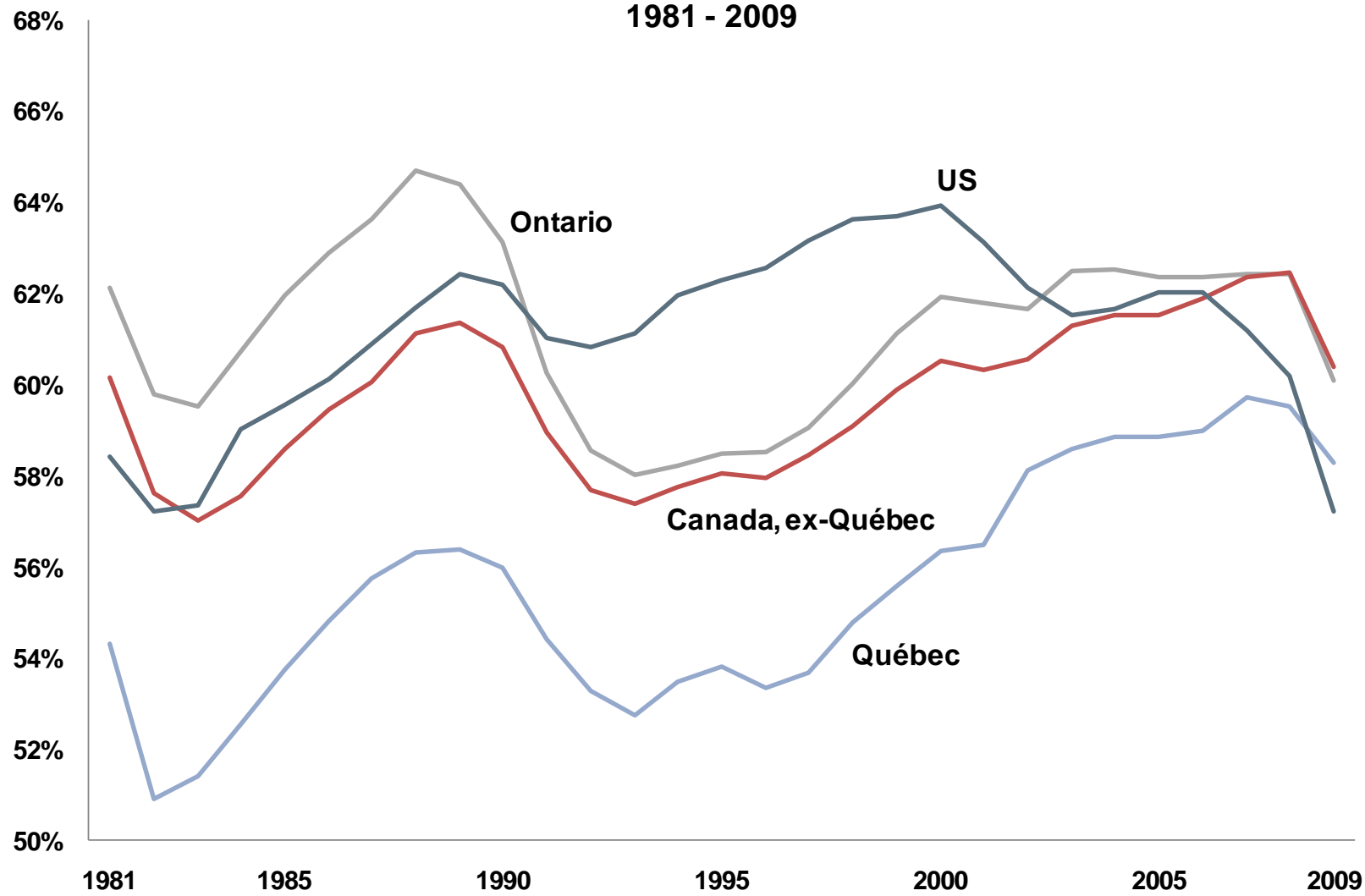
Employment rates* for Québec and peers, ages 15+
1981 - 2009



* Employment rates comparable to US definition.
Source: Institute for Competitiveness & Prosperity analysis based on data from Labour Force Survey and Current Population Survey.

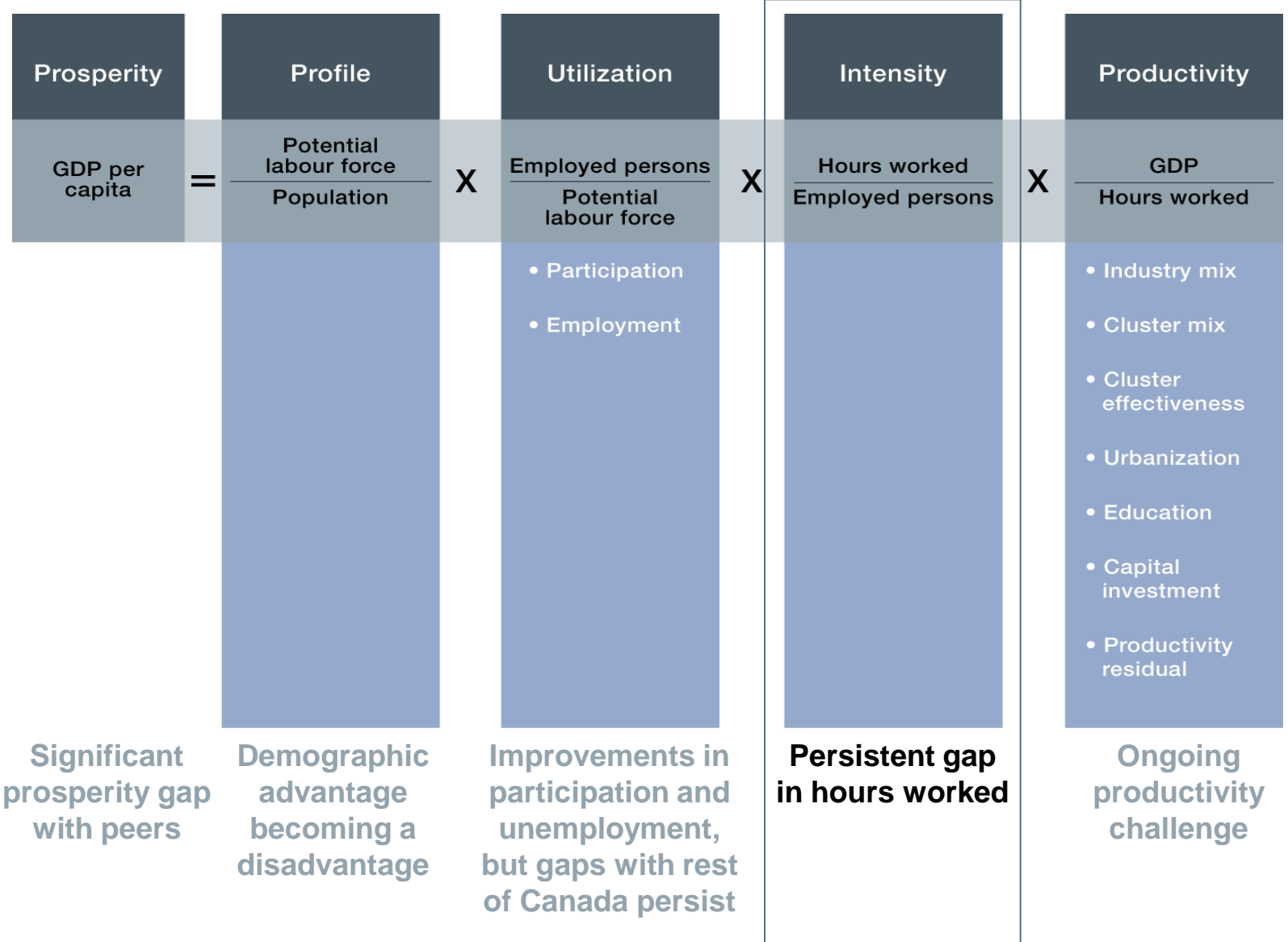
Québec's gap in utilization rates has been decreasing since 1981

Utilization rates for Québec and peers, ages 15+ 1981 - 2009



Source: Institute for Competitiveness & Prosperity analysis based on data from Labour Force Survey and Current Population Survey.

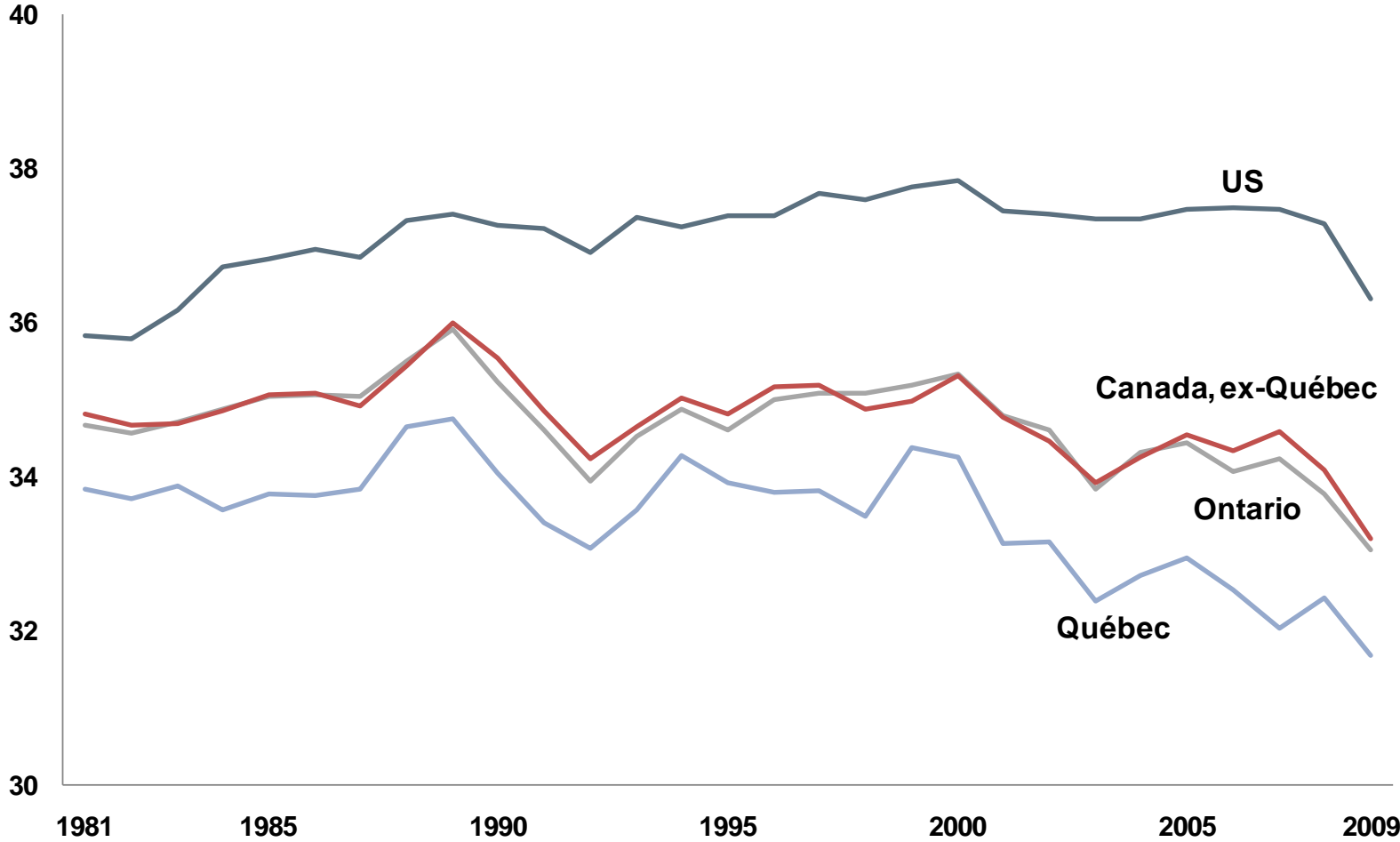
Hours worked and Québec's prosperity gap



Hours worked in Québec continues to trail significantly

Intensity (weekly hours) for Québec and peers, ages 15+ 1981 - 2009

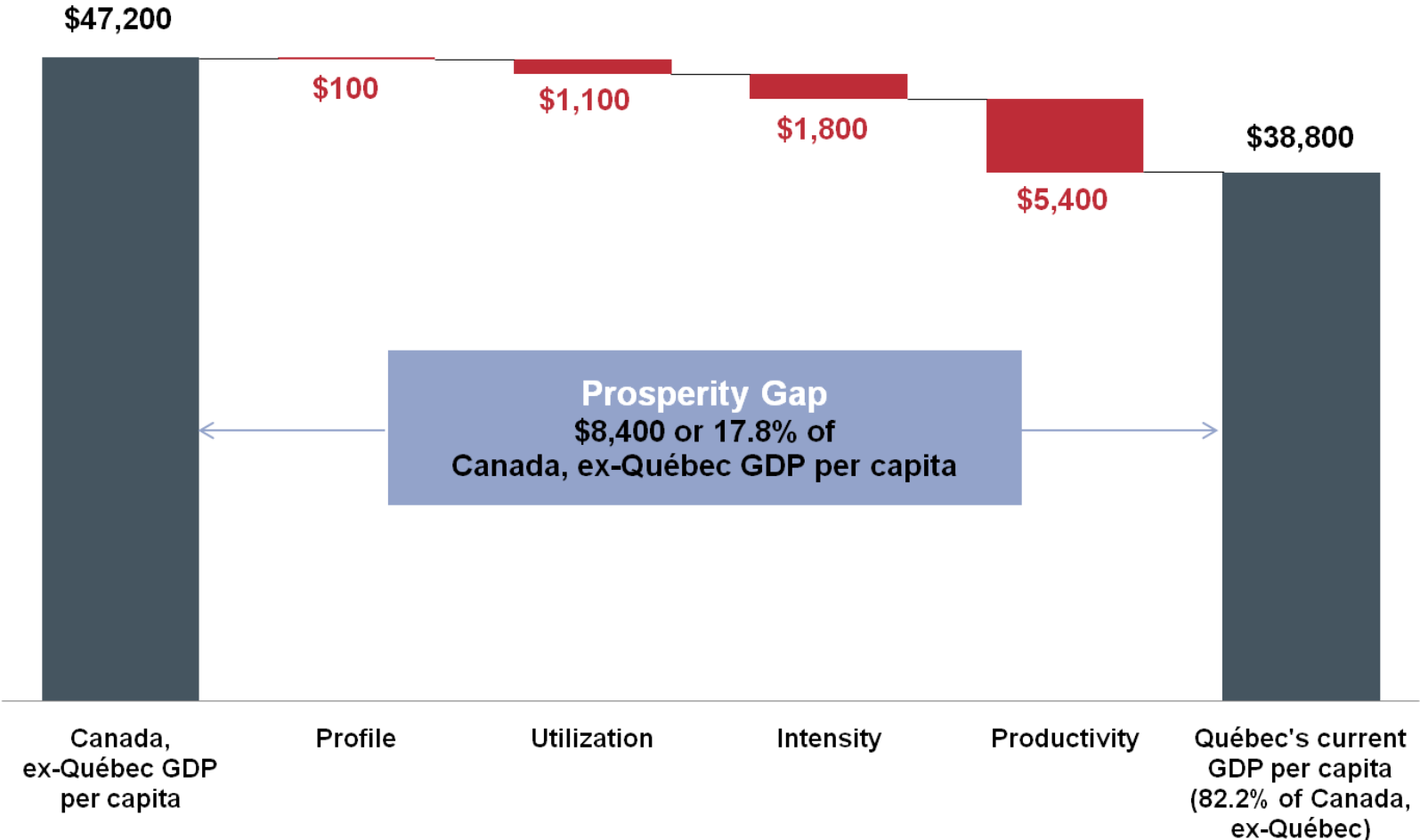
Average weekly hours
worked per worker



Source: Institute for Competitiveness & Prosperity analysis based on data from Labour Force Survey and Current Population Survey.

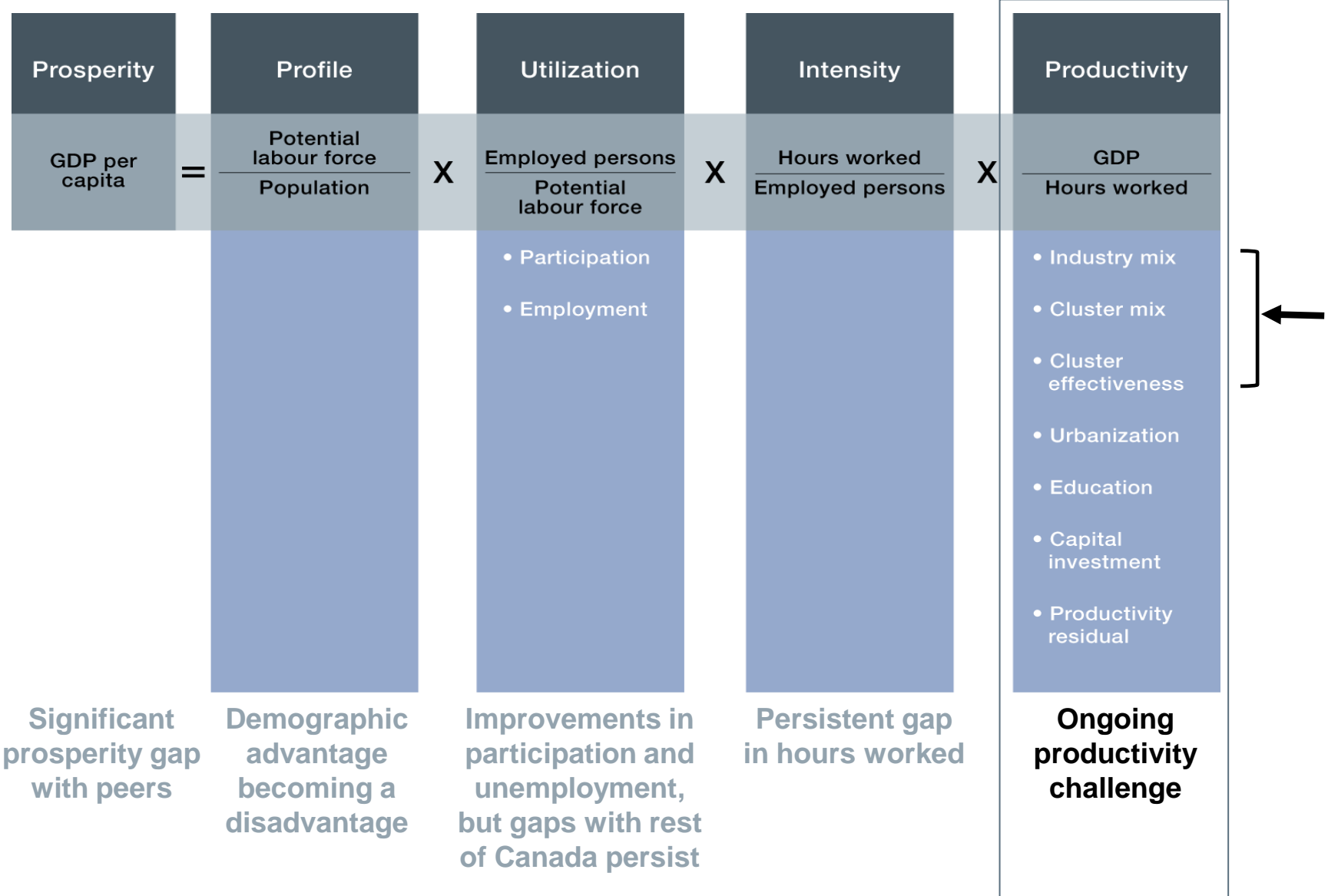
Productivity is largest source of the prosperity gap with rest of Canada

Elements of GDP per capita C\$ (2009)



Note: Provincial GDP figures for 2008 and 2009 based on most revised estimates from Ontario and Quebec Ministry of Finance.
 Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada; Ontario Ministry of Finance and the Institut de la statistique Québec.

Clusters mix, cluster effectiveness, and Québec's prosperity gap



Traded industries grouped into 41 clusters

Upstream Materials and Products

Metals and Materials

- Construction Materials
- Metal Manufacturing

Forest Products

- Forest Products

Petroleum/Chemicals

- Oil and Gas Products and Services
- Chemical Products
- Plastics

Semiconductors/Computer

- Information Technology

Industrial and Supporting Functions

Multiple Business

- Education and Knowledge Creation
- Business Services
- Heavy Machinery
- Financial Services
- Motor Driven Products
- Prefabricated Enclosures
- Production Technology
- Analytical Instruments
- Heavy Construction Services

Transportation and Logistics

- Automotive
- Distribution Services
- Transportation and Logistics

Power

- Power Generation and Transmission

Office

- Publishing and Printing

Telecommunications

- Communications Equipment

Defense

- Aerospace Engines
- Aerospace Vehicle and Defense

Final Consumption Goods and Services

Food/Beverages

- Agricultural Products
- Processed Food
- Fishing and Fishing Products

Housing/Household

- Building Fixtures, Equipment & Services
- Lighting and Electrical Equipment
- Furniture

Textiles/Apparel

- Textiles
- Apparel
- Leather and Related Products
- Footwear
- Sporting, Recreational and Children's Goods

Health Care

- Medical devices
- Biopharmaceuticals

Personal

- Jewelry and Precious Metals
- Tobacco

Entertainment

- Entertainment
- Hospitality and Tourism

Source: Porter, Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School

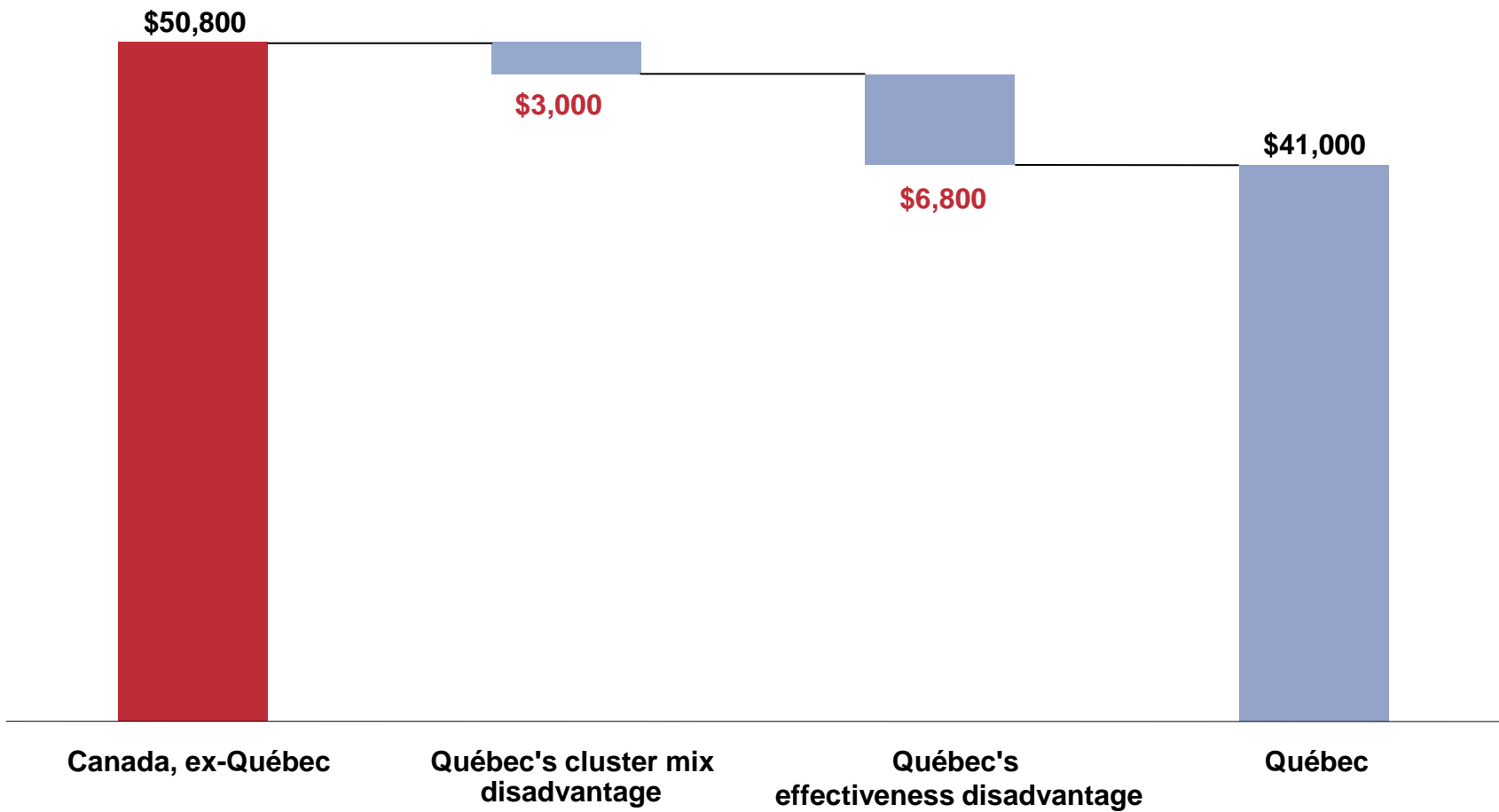
Traded clusters provide higher wages and innovation

Québec results

<u>Industry type</u>	<u>% of employment, 2006</u>	<u>Average wage, 2005</u>	<u>Patents per 10,000 employees ('99-'03 average)</u>
Local industries	62.4%	\$30,100	0.92
Traded clusters	35.8%	\$41,000	4.05
Natural resources	1.8%	\$42,600	2.00

Source: Institute for Competitiveness & Prosperity based on Statistics Canada, *Canadian Business Patterns, 2006 Census*; Institute for Strategy and Competitiveness, Harvard Business School, Cluster Mapping Project.

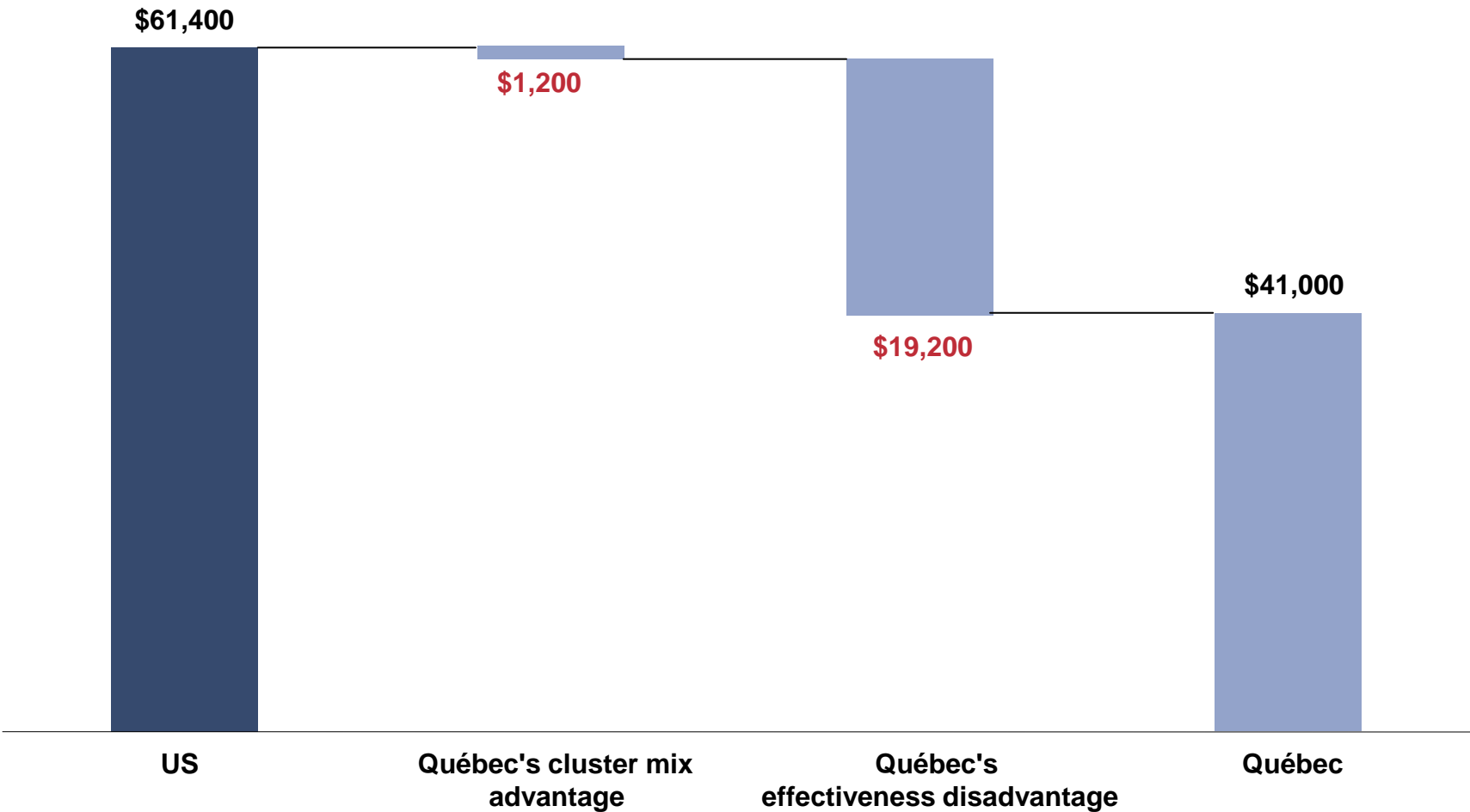
Average wages in traded clusters (C\$ 2005)



Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada (special tabulations); Institute for Strategy and Competitiveness.

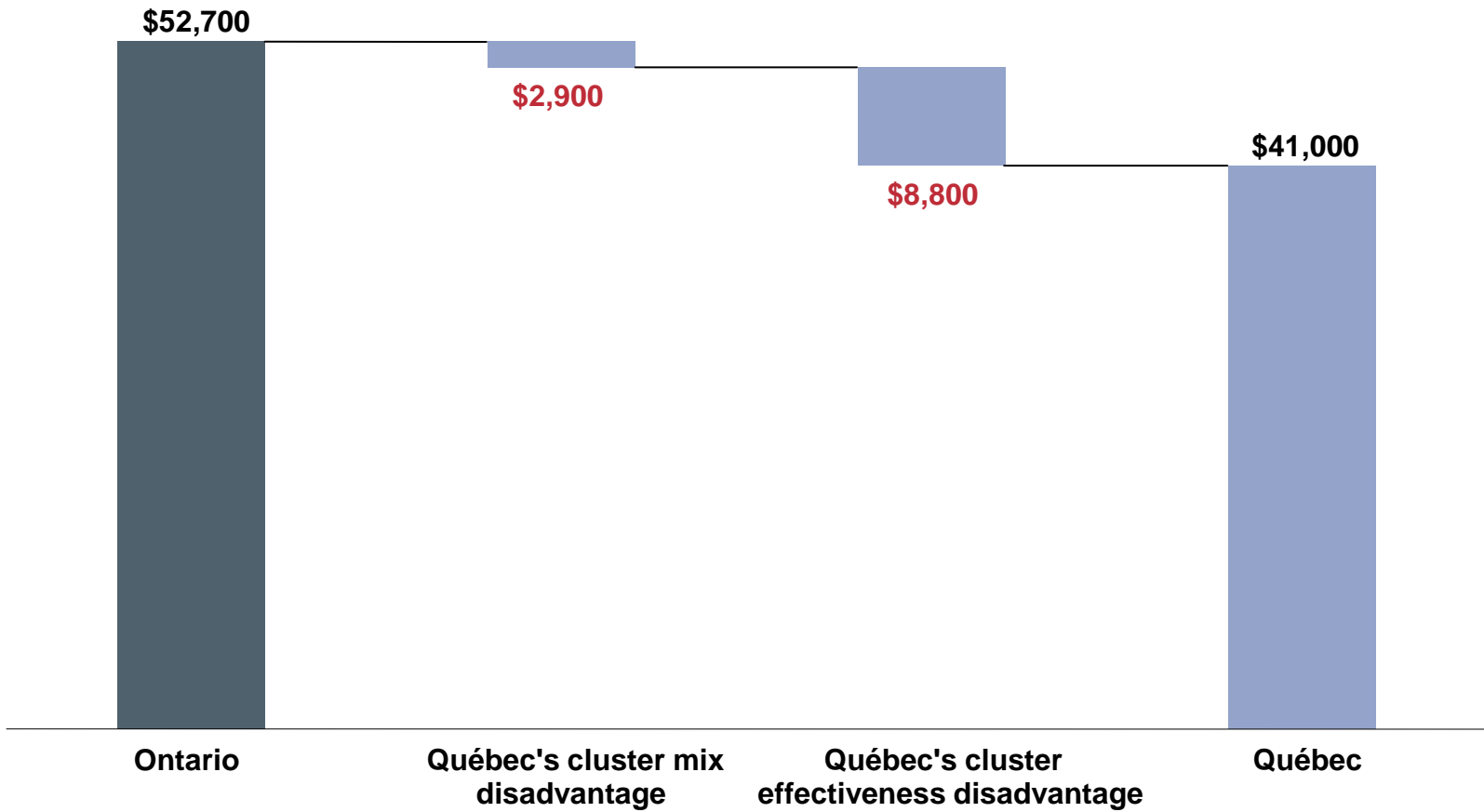
Effectiveness accounts for most of Québec's under performance in traded clusters (II)

Average wages in traded clusters (C\$ 2005)



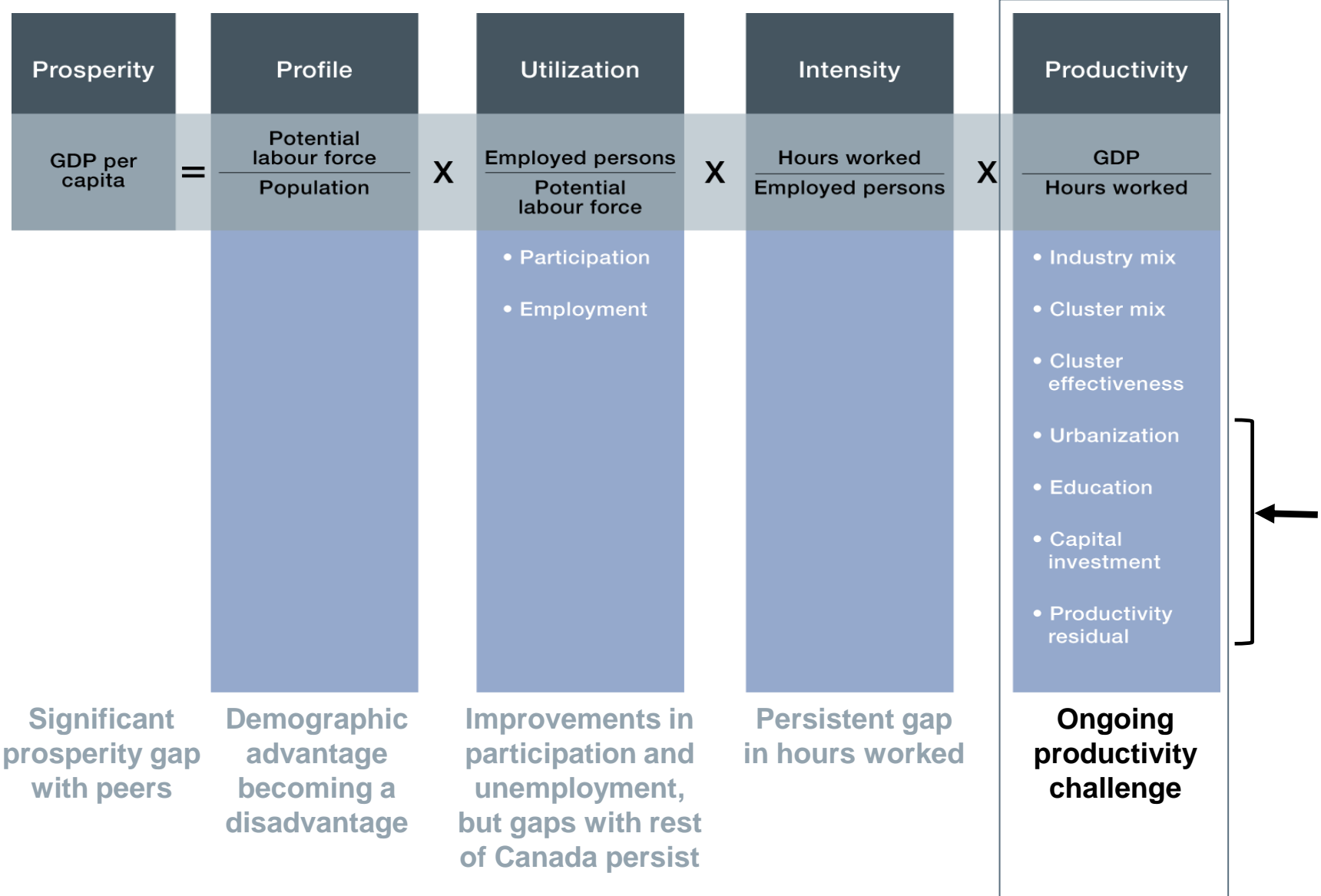
Note: US results are converted to Canadian dollars using 2005 PPP (1999 GDP Inferred).
Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada (special tabulations); Institute for Strategy and Competitiveness.

Average wages in traded clusters (C\$ 2005)



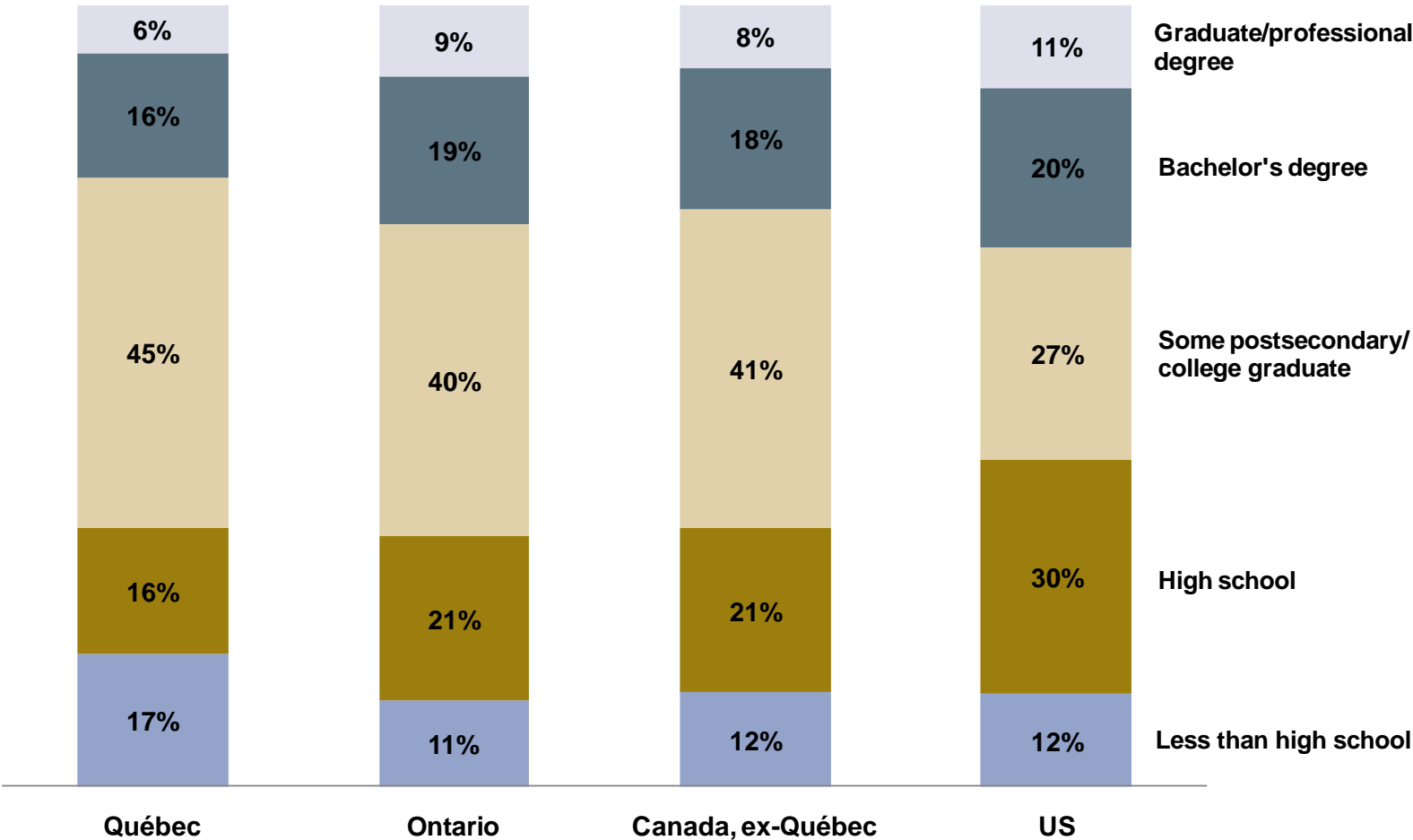
Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada (special tabulations); Institute for Strategy and Competitiveness.

Urbanization, education, capital investment and Québec's prosperity gap



Québec trails peers in educational attainment

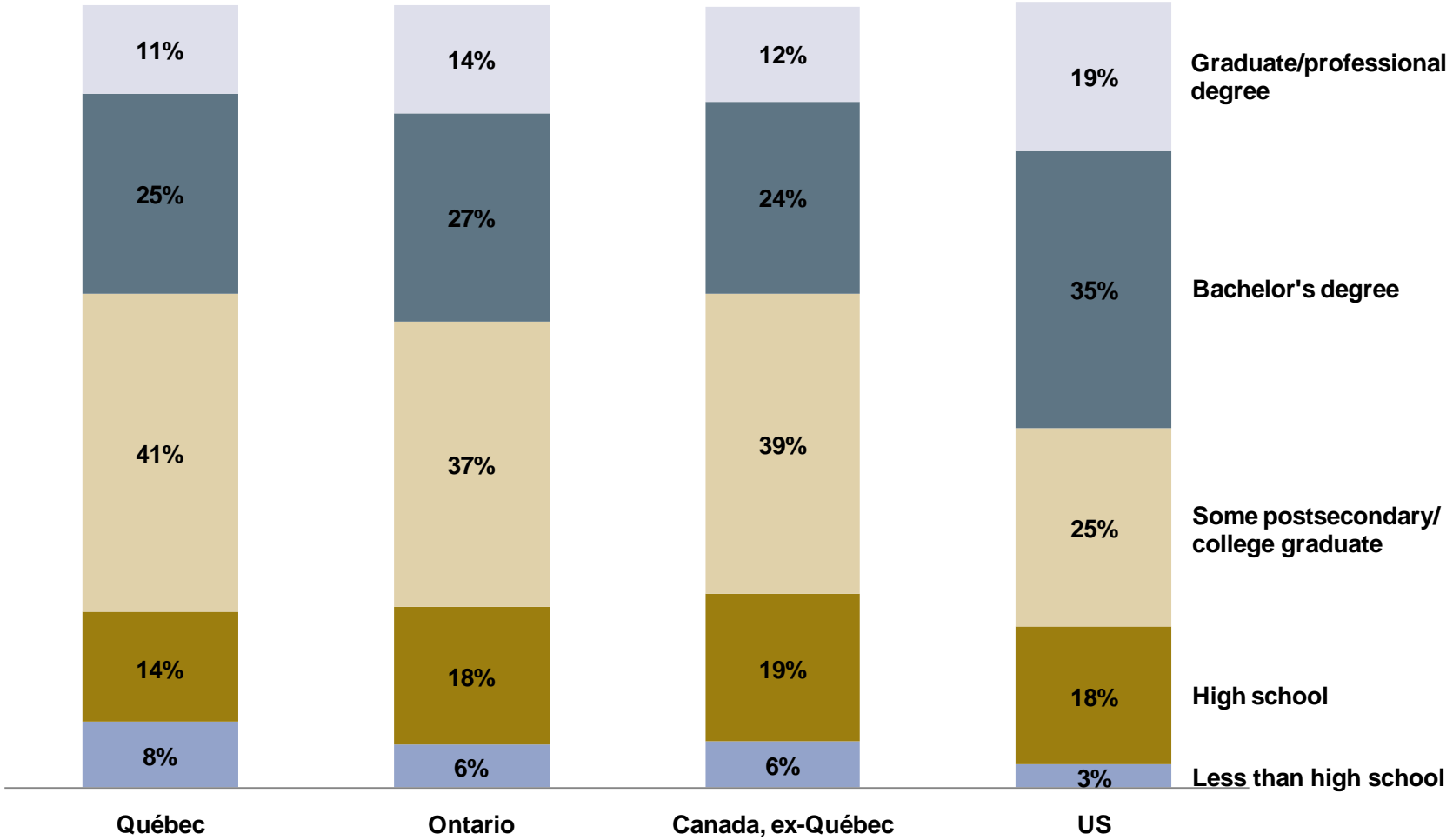
**Educational Attainment of Population (25-64)
2006-2009**



Source: Institute for Competitiveness & Prosperity analysis based on data from Labour Force Survey and Current Population Survey

Québec managers are less well educated

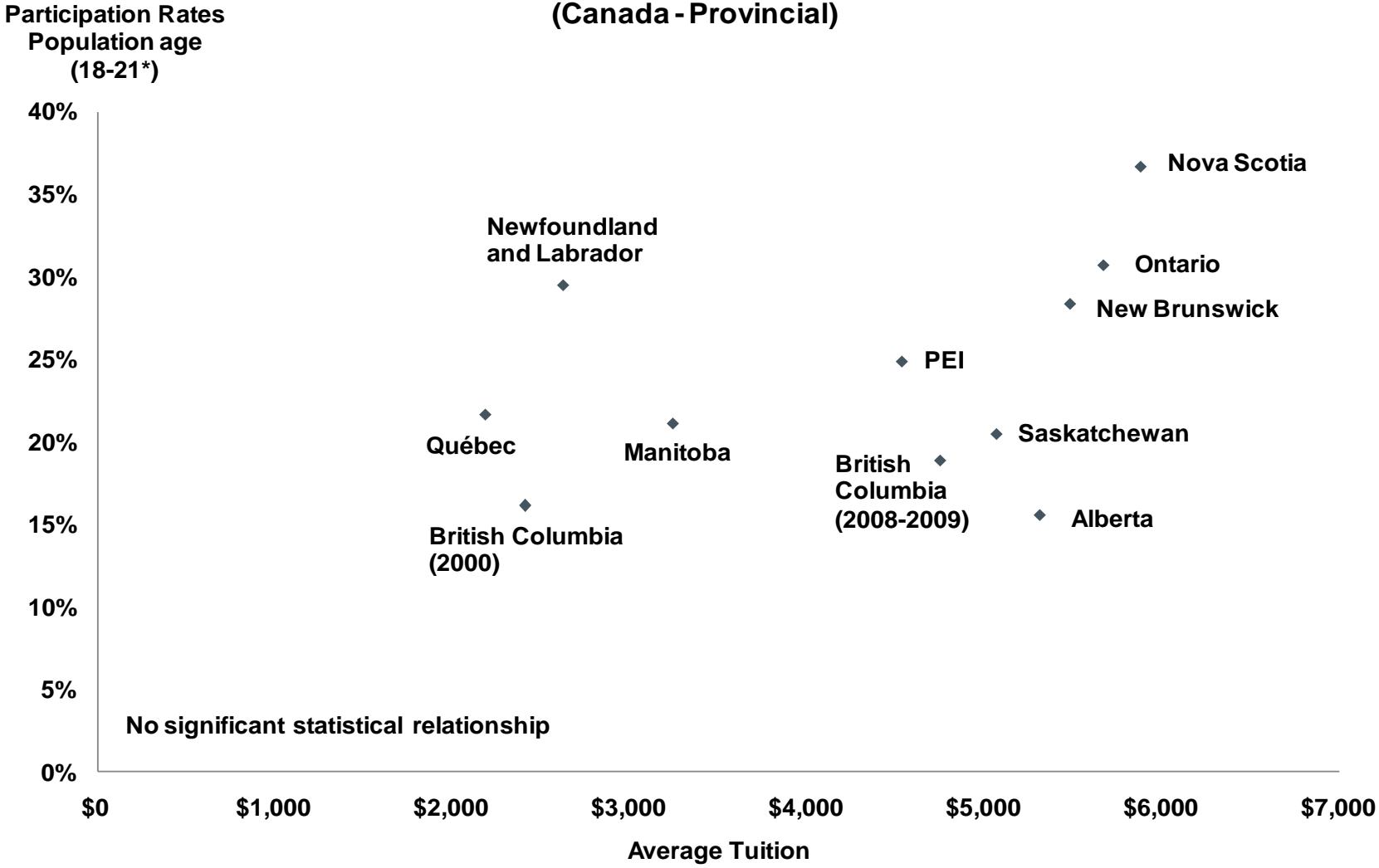
**Educational Attainment of Managers (25-64)
2006-2009**



Source: Institute for Competitiveness & Prosperity analysis based on data from Labour Force Survey and Current Population Survey

No correlation between participation rate and tuition

Average Tuition vs. Participation Rates (2008-2009)
(Canada - Provincial)

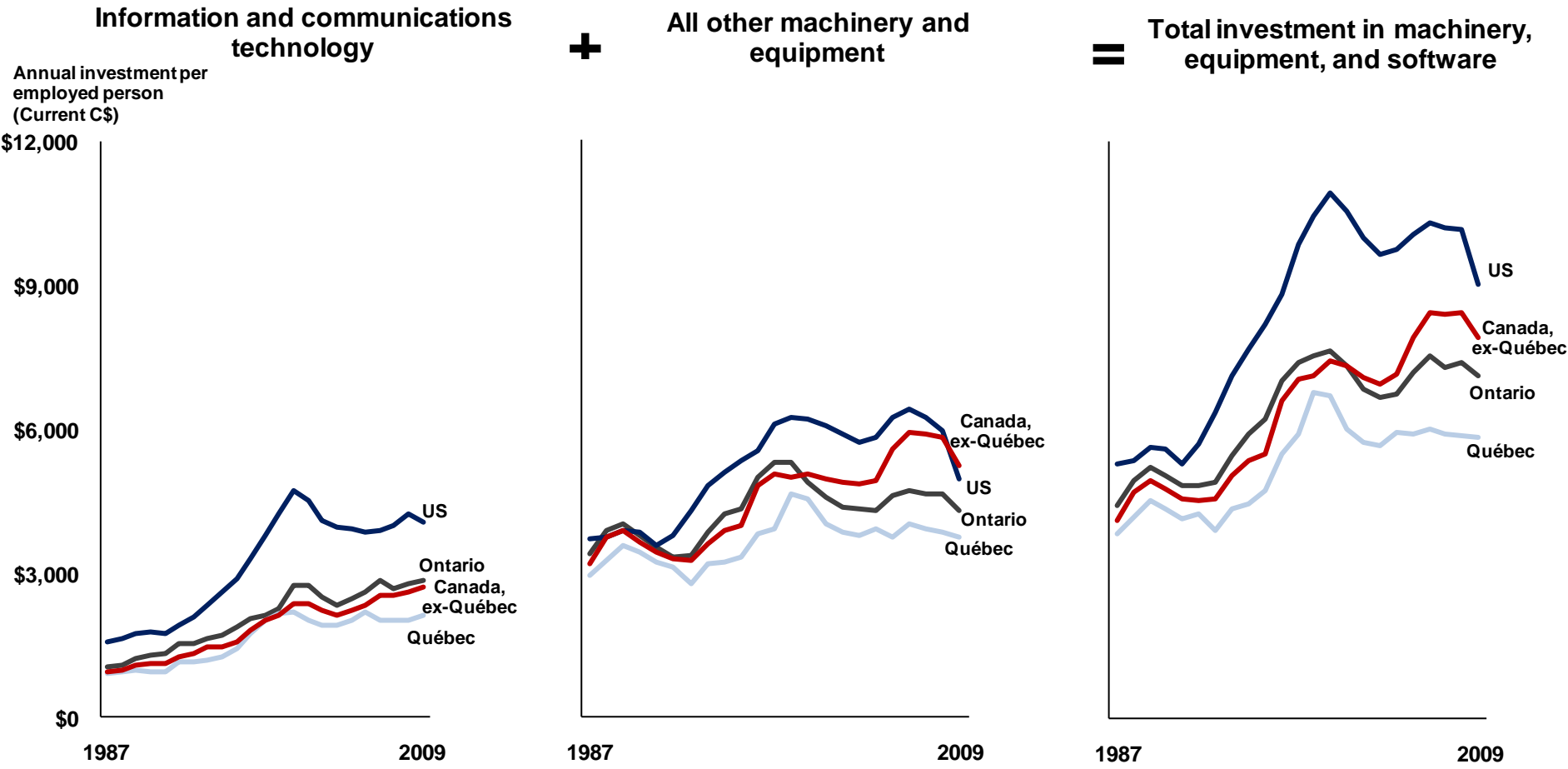


*18-21 for all provinces except Québec where it is 19-22

Source: Statistics Canada (Tuition), Association of Universities and Colleges of Canada (Participation Rates)

Québec trails peers in capital investment

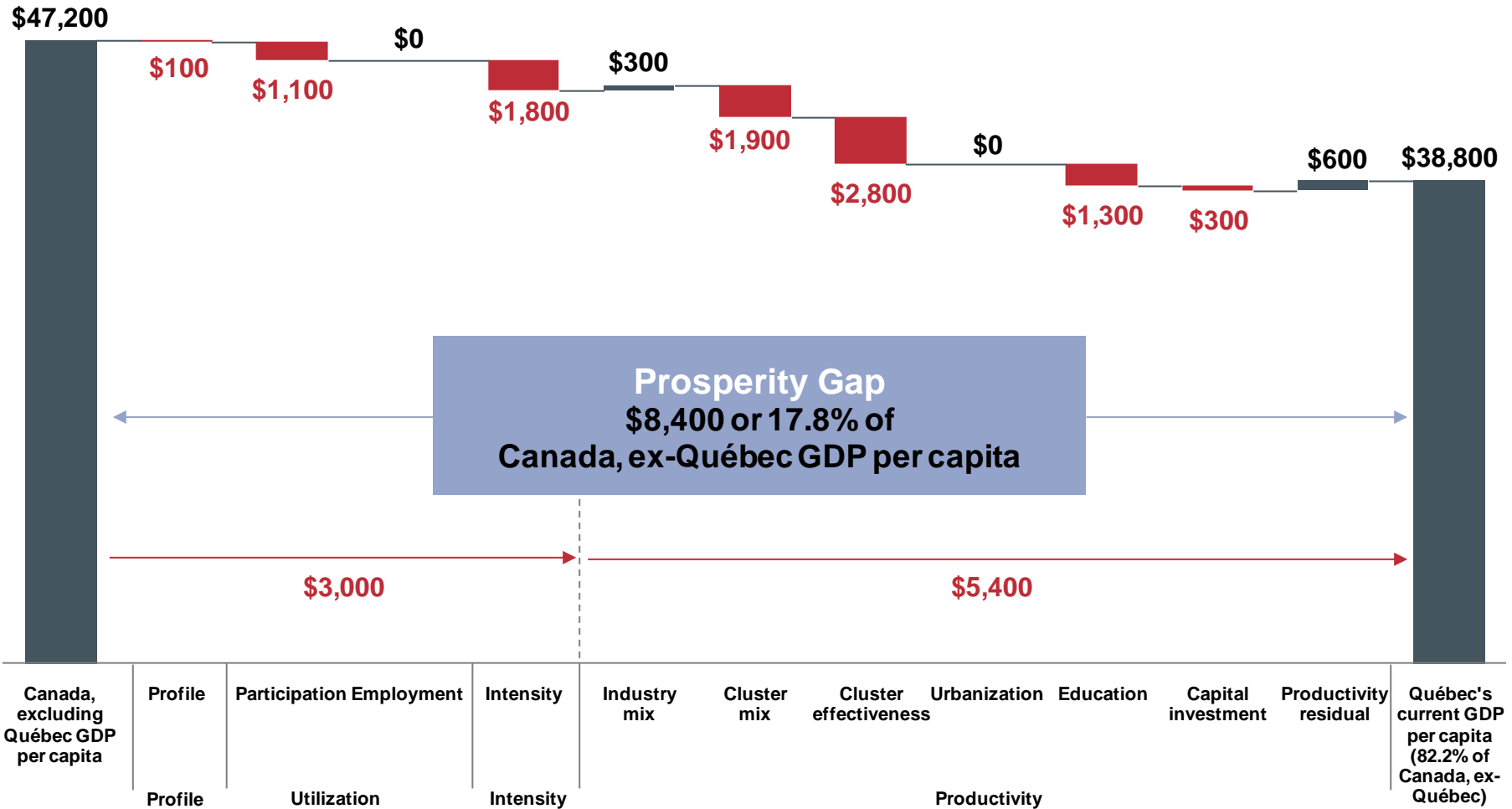
Private sector machinery, equipment, and software investment, 1987-2009



Source: Institute for Competitiveness & Prosperity analysis based on Statistics Canada (special tabulations); US Department of Commerce, Bureau of Economic Accounts.

Intensity and productivity both drive prosperity gap with rest of Canada

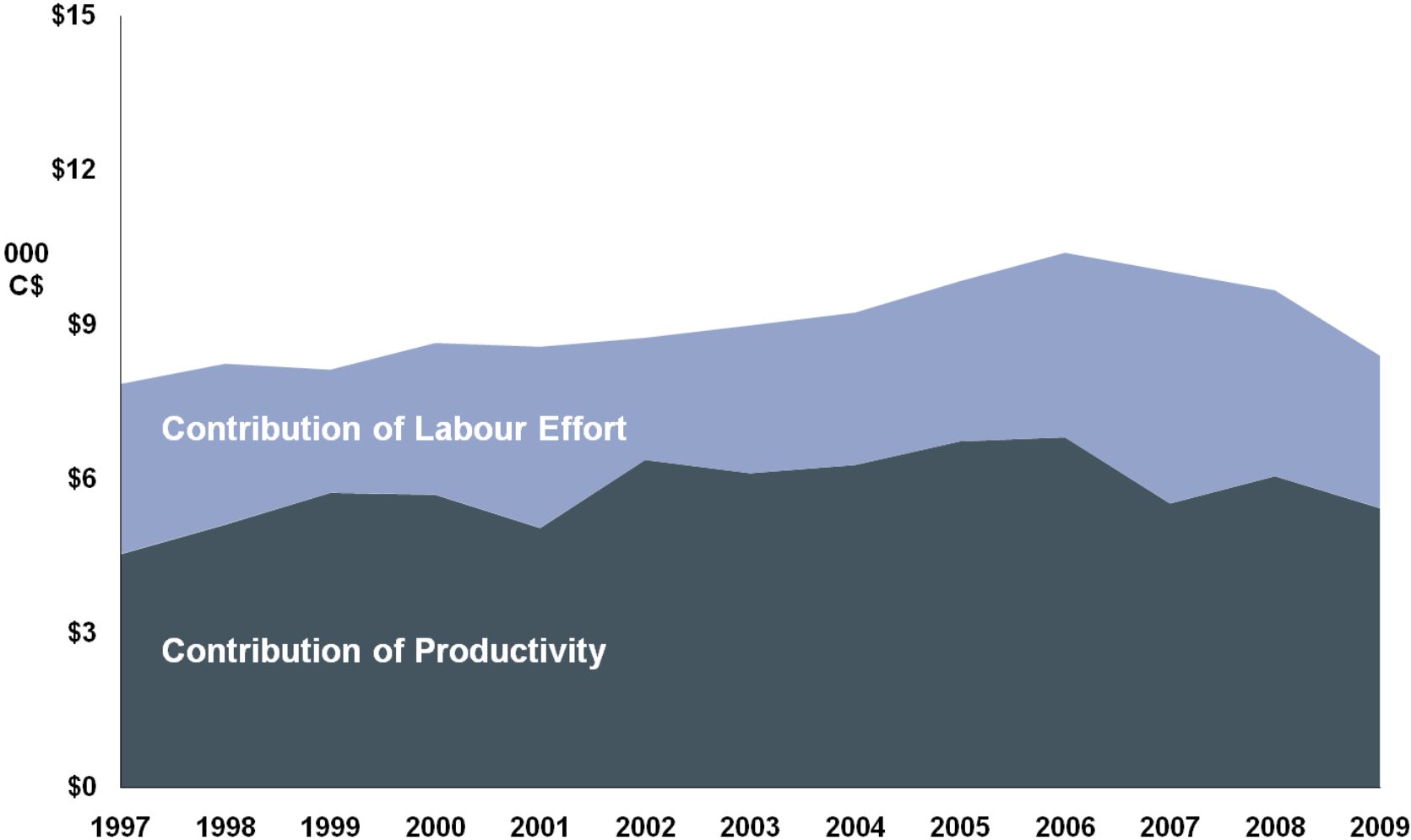
Elements of GDP per capita, 2009
(C\$ 2009)



Note: Provincial GDP figures for 2008 and 2009 based on most revised estimates from Ontario and Quebec Ministry of Finance.
Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada; Ontario Ministry of Finance and the Institut de la statistique Québec. (SA)

Productivity improvement is key opportunity for Québec's prosperity

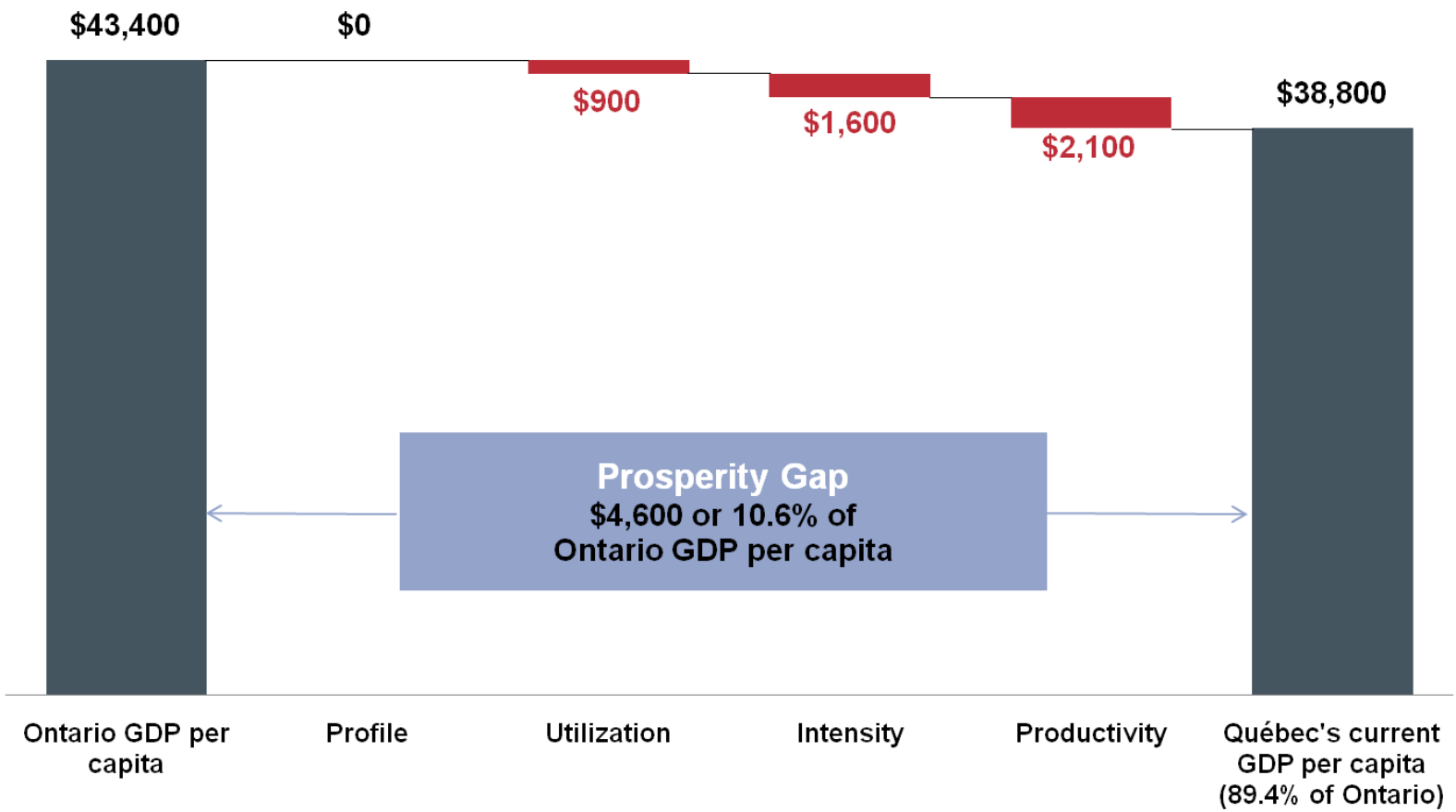
Sources of Québec's prosperity gap against Canada, ex-Québec (C\$ 2009)



Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada; Ontario Ministry of Finance and the Institut de la statistique Québec.

Labour supply and productivity both drive prosperity gap with Ontario

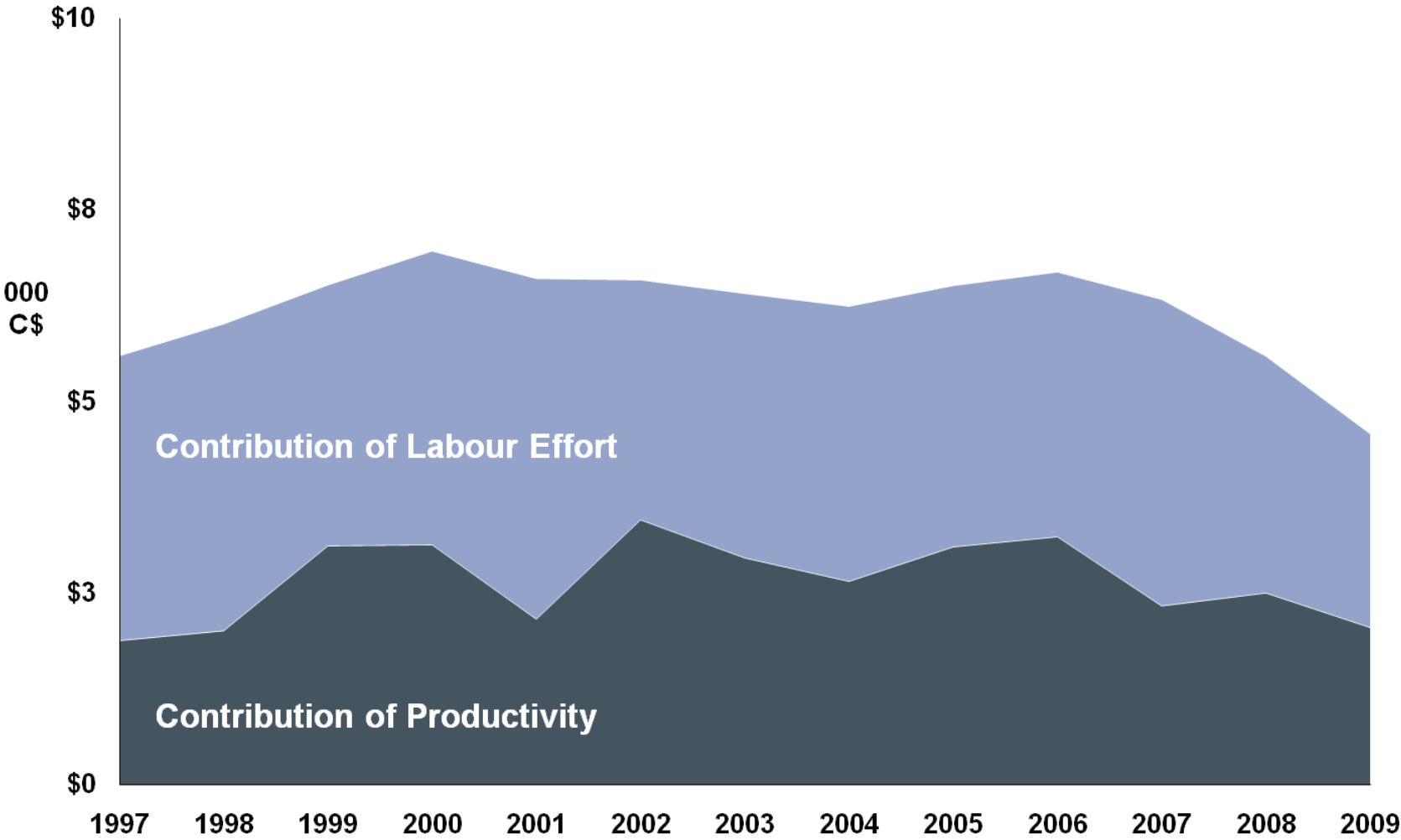
Elements of GDP per capita C\$ (2009)



Note: Provincial GDP figures for 2008 and 2009 based on most revised estimates from Ontario and Quebec Ministry of Finance.
 Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada; Ontario Ministry of Finance and the Institut de la statistique Québec.

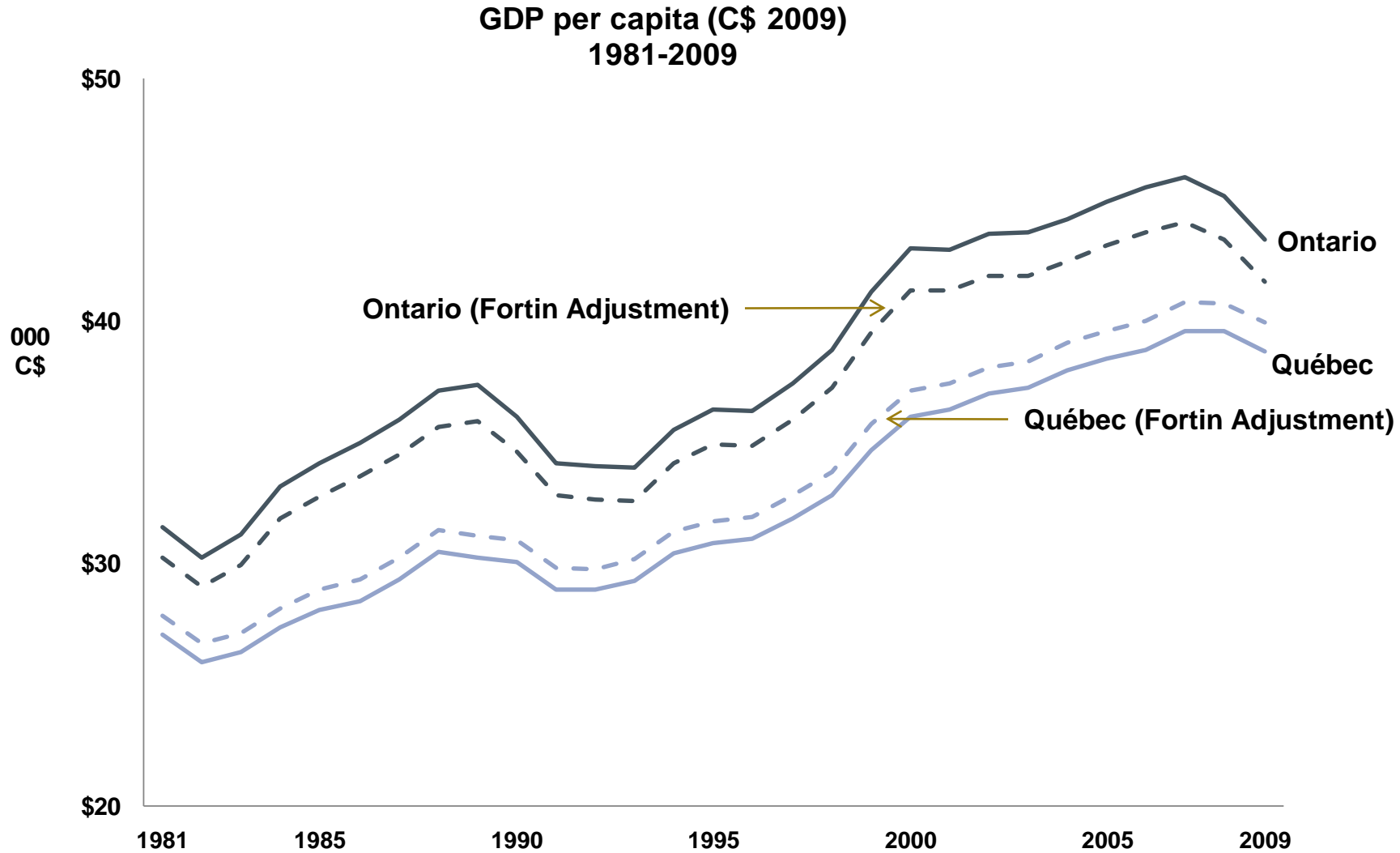
Composition of prosperity with Ontario has been unchanged

Sources of Québec's prosperity gap against Ontario (C\$ 2009)



Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada; Ontario Ministry of Finance and the Institut de la statistique Québec.

But Fortin's analysis indicates a smaller Ontario-Québec gap

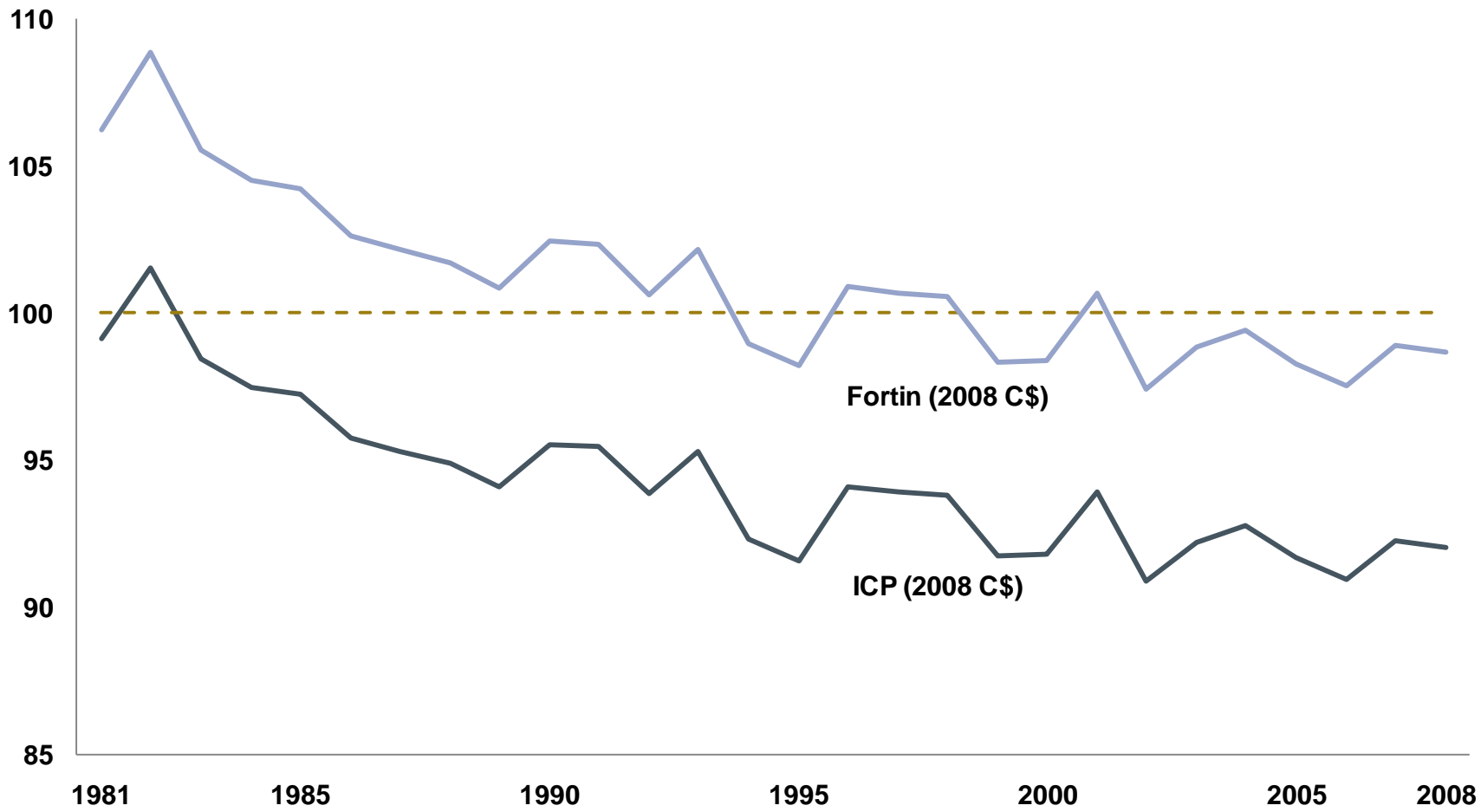


Note: Provincial GDP figures for 2008 and 2009 based on most revised estimates from Ontario and Quebec Ministry of Finance.
Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada (CANSIM Tables 384-0002 and 051-0001); Ontario Ministry of Finance and the Institut de la statistique Québec.

Fortin's analysis indicates a lower labour productivity gap with Ontario

Relative Labour Productivity Ontario and Québec (1981 - 2008)

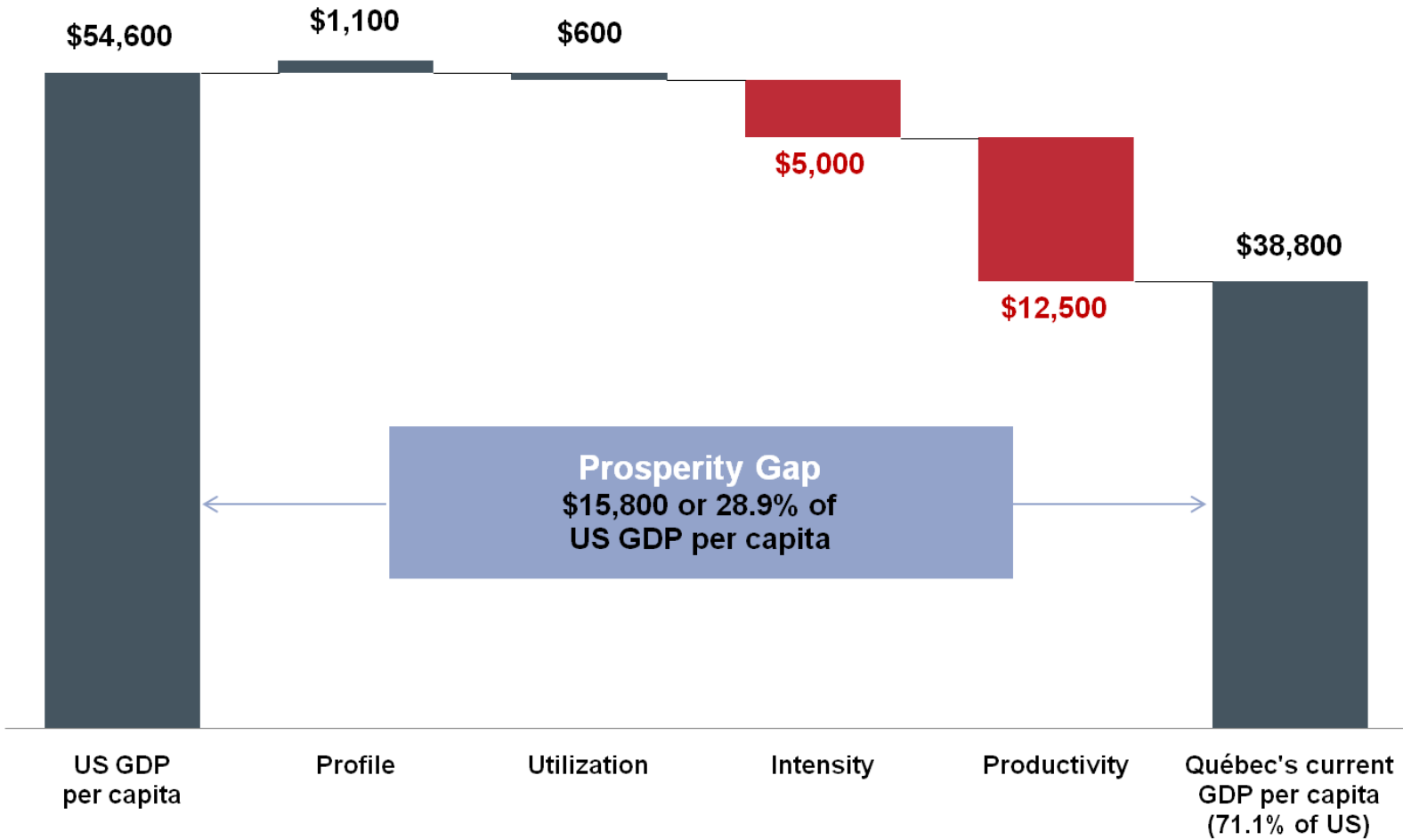
Relative Labour Productivity
ON = 100



Source: Institute for Competitiveness & Prosperity analysis using data from Statistics Canada and Pierre Fortin, "A Canadian Problem, not a Quebec one: A response to Francois Vaillancourt and Mathieu Laberge, *The Canadian Journal of Opinion*, Issue No.27, Summer/Fall 2010

Labour supply and productivity both drive prosperity gap with US

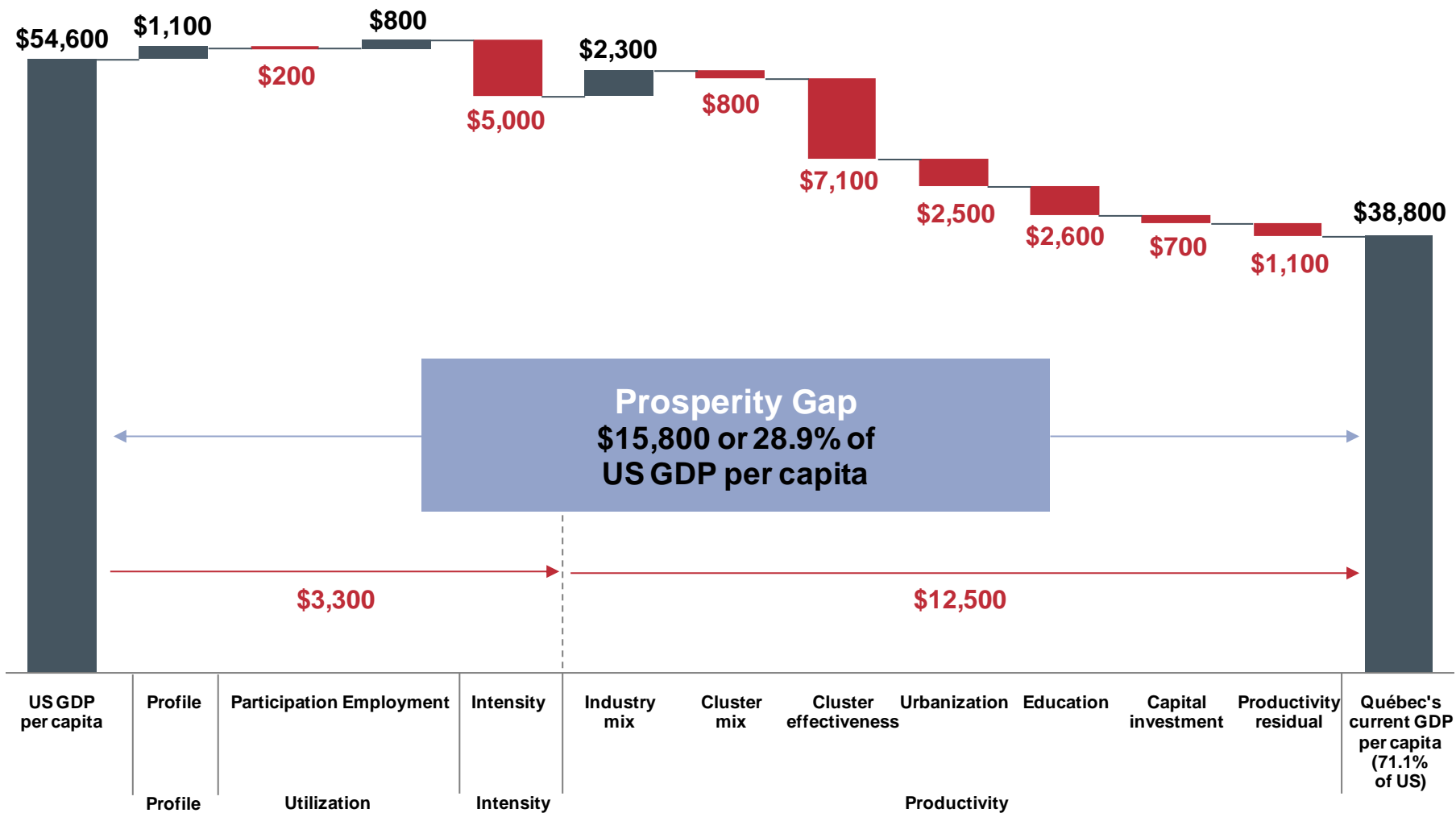
Elements of GDP per capita C\$ (2009)



Note: US Currency converted at PPP (PPP = 1.176); Provincial GDP figures for 2008 and 2009 based on most revised estimates from Ontario and Quebec Ministry of Finance.
 Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada; Ontario Ministry of Finance and the Institut de la statistique Québec.

Labour supply and productivity both drive prosperity gap with US

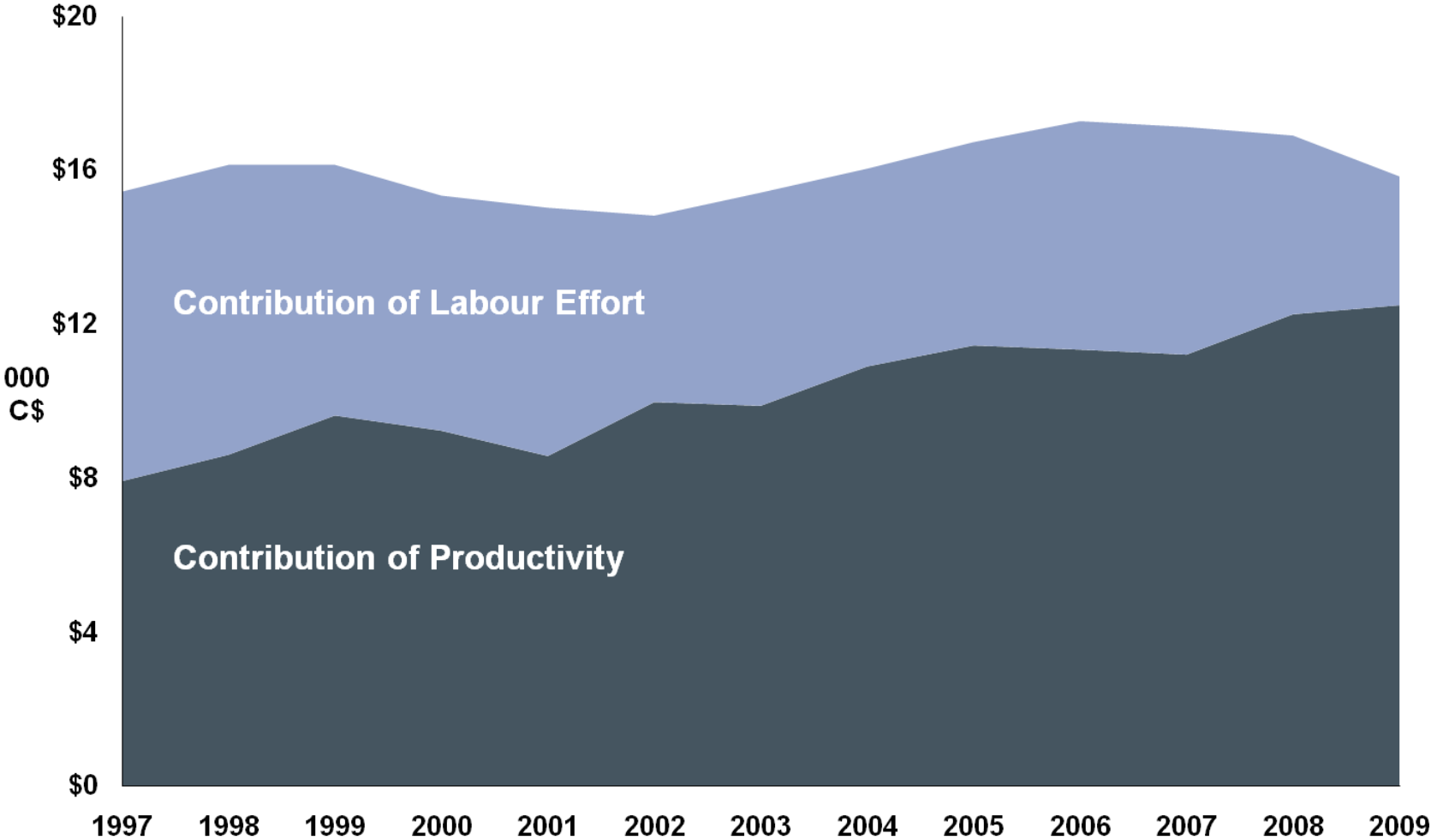
Elements of GDP per capita C\$ (2009)



Note: US currency converted at PPP (PPP = 1.176); Provincial GDP figures for 2008 and 2009 based on most revised estimates from Ontario and Quebec Ministry of Finance. Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada; Bureau of Economic Analysis; Ontario Ministry of Finance and the Institut de la statistique Québec. (SA)

Productivity improvement is key opportunity for Québec's prosperity

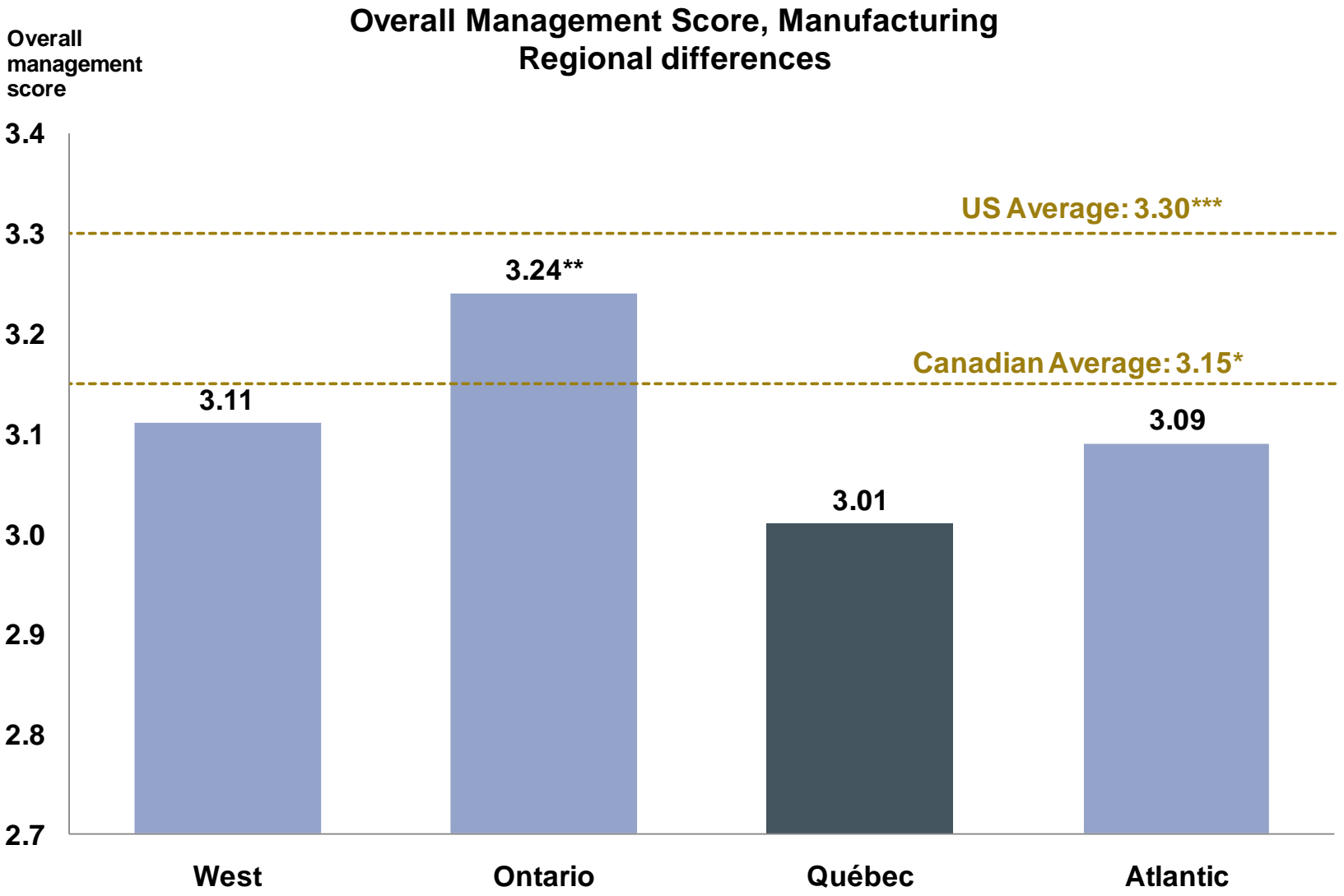
Sources of Québec's prosperity gap against US (C\$ 2009)



Source: Institute for Competitiveness & Prosperity analysis based on data from Statistics Canada; Ontario Ministry of Finance; Institut de la statistique Québec; and US Department of Commerce, Bureau of Economic Analysis.

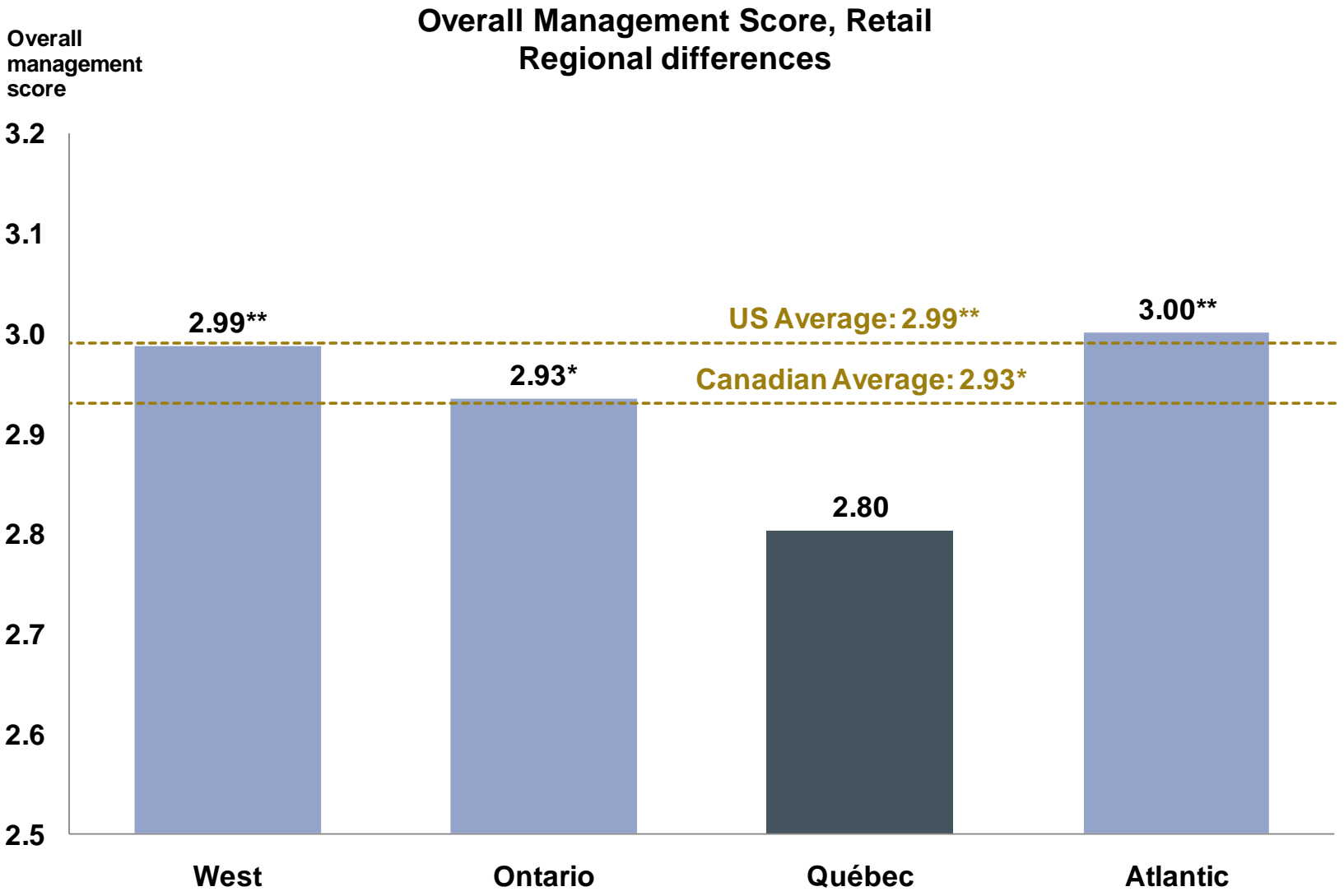
- **Capabilities of Québec's managers may be a productivity improvement opportunity**
- **Québec's basis for competition is based less on creativity than in Ontario and peer US states**

Québec manufacturers trail Ontario, Canada and US in overall management score



Note: *** denotes statistically different from Québec at the 1% level; ** at the 5% level; * at the 10% level.
Source: Management Matters dataset. Institute for Competitiveness and Prosperity analysis.

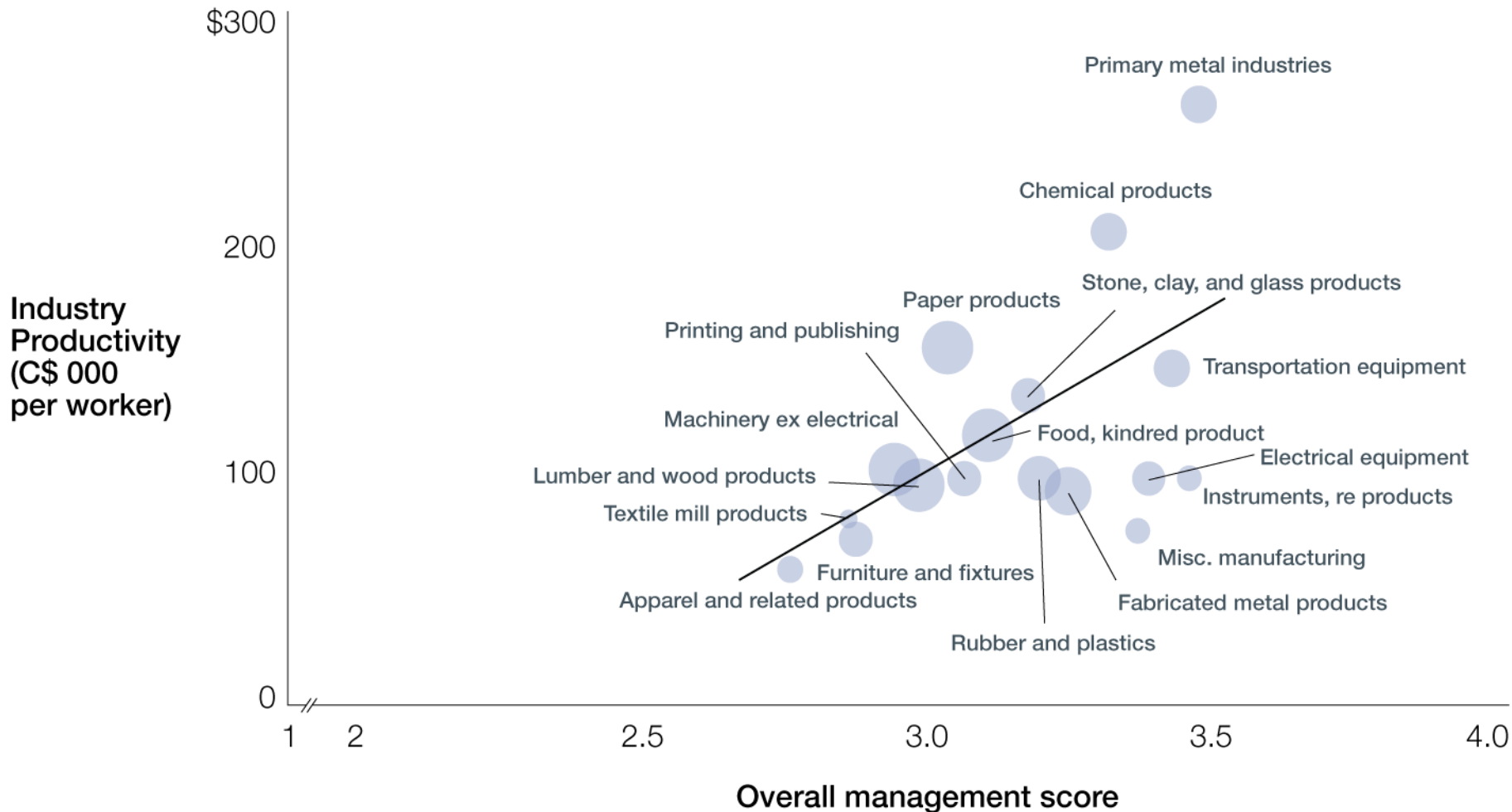
Québec retailers trail counterparts in overall management score



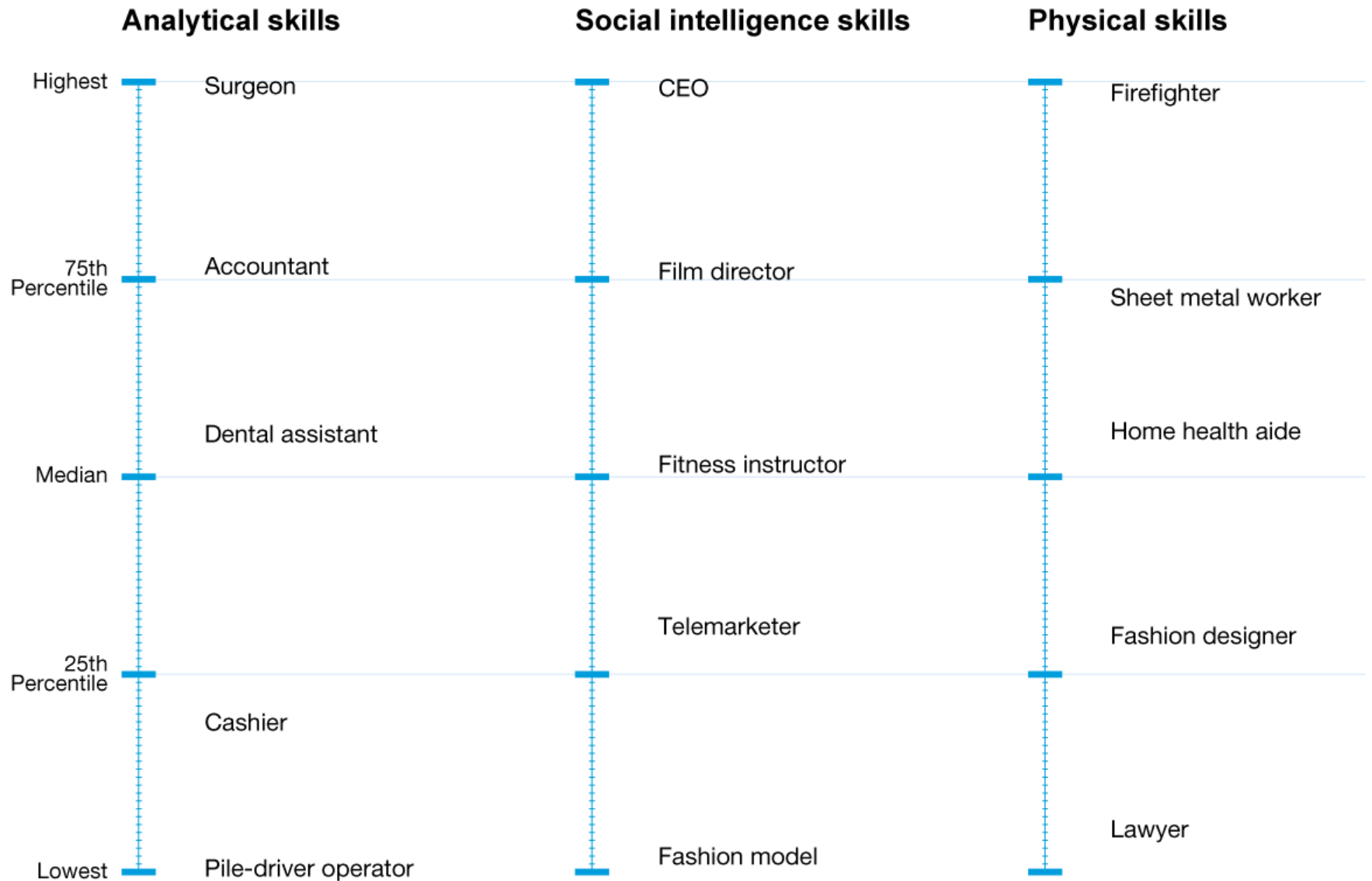
Note: *** denotes statistically different from Québec at the 1% level; ** at the 5% level; * at the 10% level.
Source: Management Matters dataset. Institute for Competitiveness and Prosperity analysis.

Better managed industries have higher productivity

Manufacturing industries
Management score and labour productivity

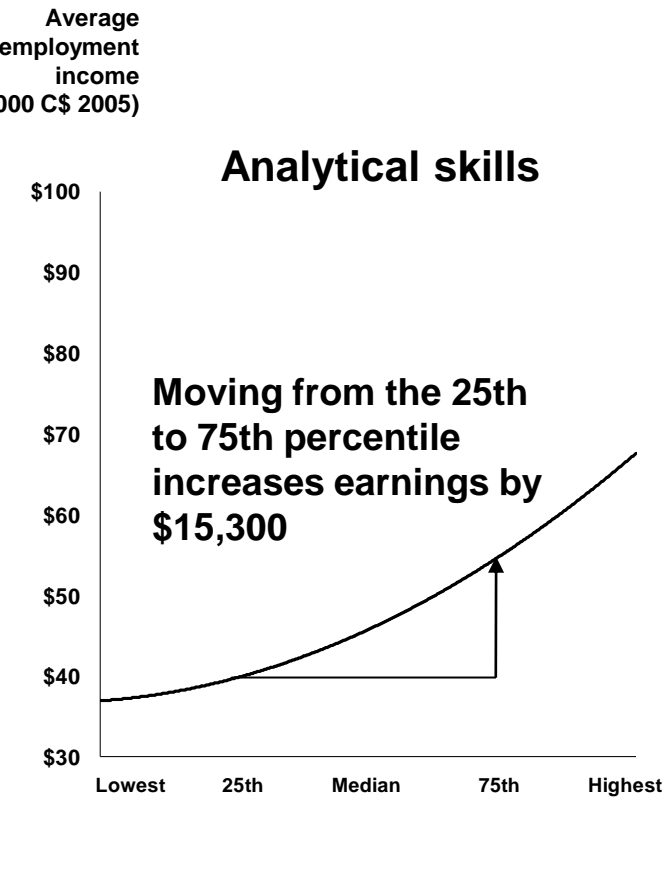


Workers draw on three sets of skills



Earnings rise with increases in occupations' analytical skills

Skills' impact on earnings, Québec

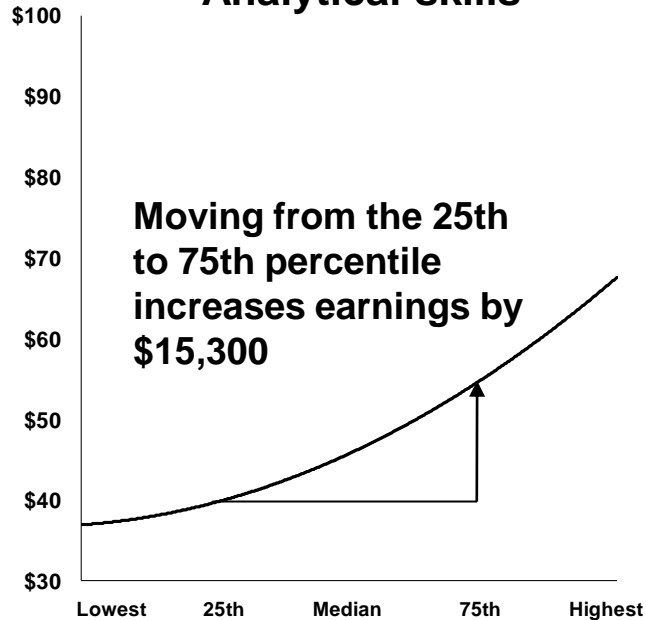


And with social intelligence skills

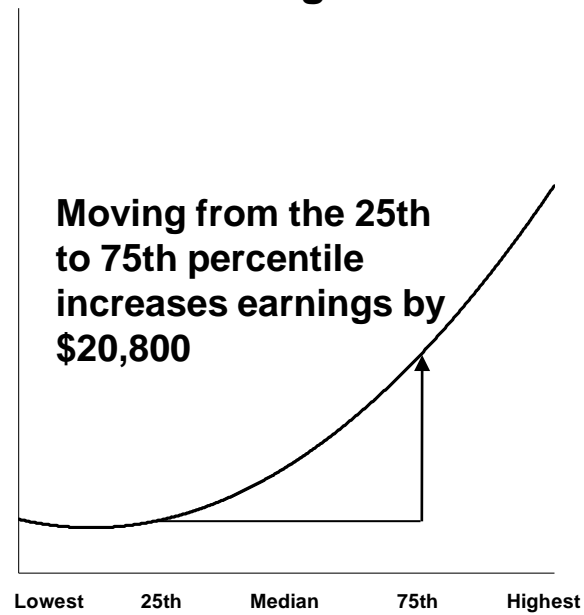
Skills' impact on earnings, Québec

Average
employment
income
(000 C\$ 2005)

Analytical skills



Social intelligence skills



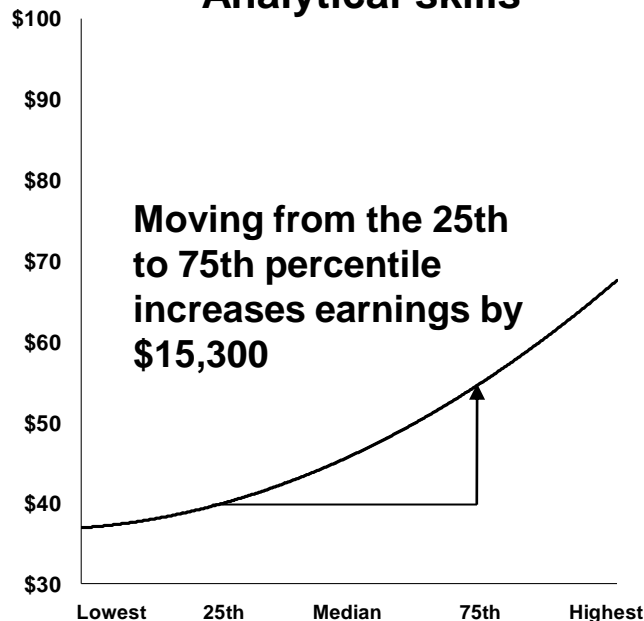
Skill percentile

Earnings decrease with increases in physical skills

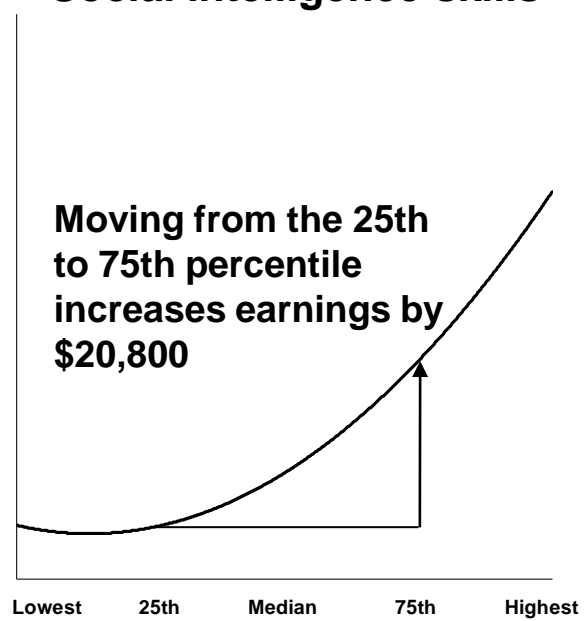
Skills' impact on earnings, Québec

Average employment income (000 C\$ 2005)

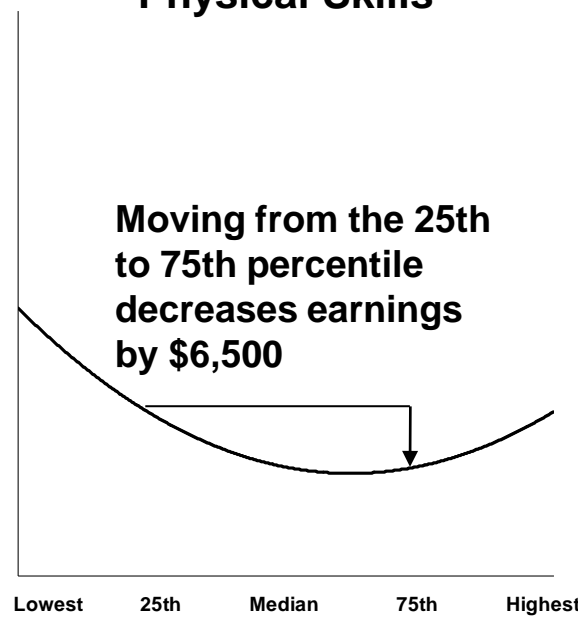
Analytical skills



Social intelligence skills



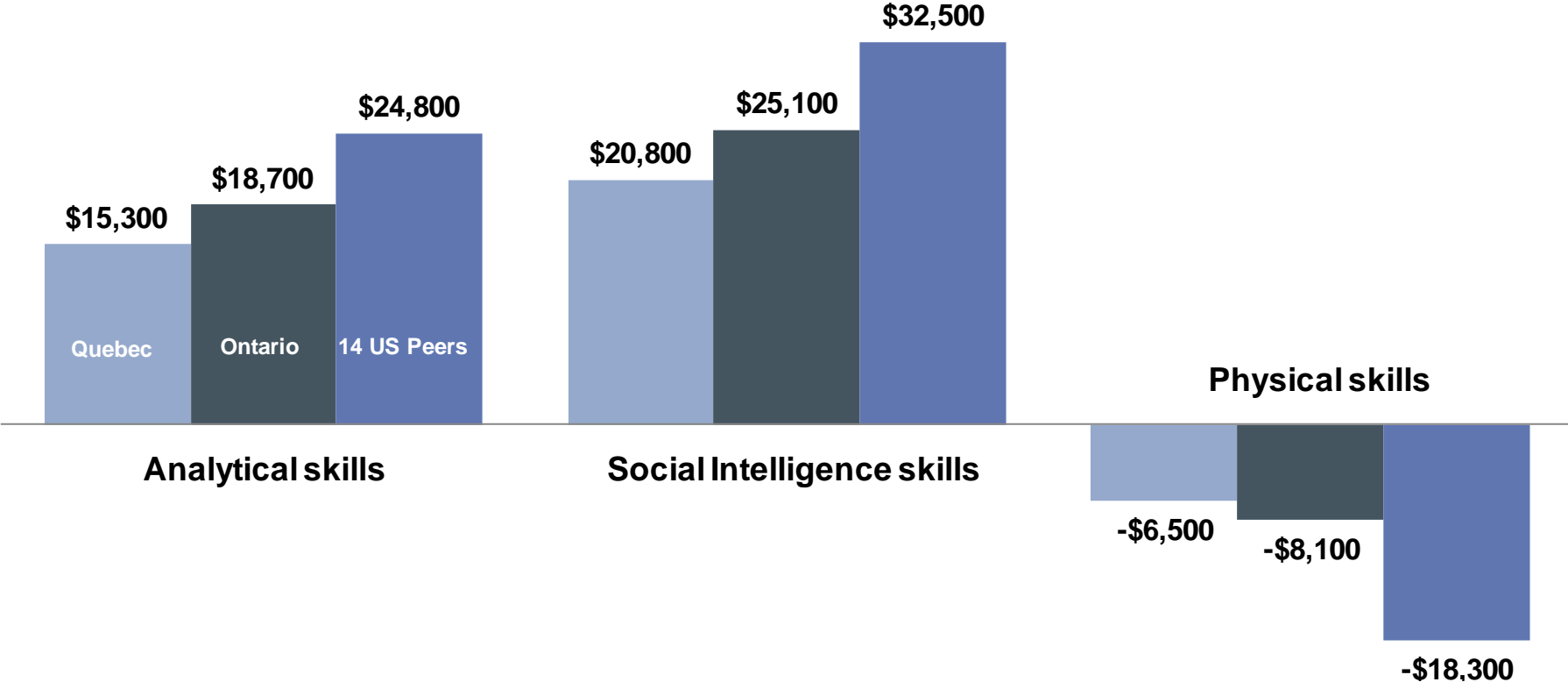
Physical Skills



Skill percentile

Québec under values increases in analytical and social intelligence skills

Impact on earnings as occupations move from 25th to 75th percentile in skill content
Québec, Ontario and the 14 US peer states, 2005



Note: Converted to Canadian dollars at purchasing power parity.
Source: Martin Prosperity Institute and Institute for Competitiveness & Prosperity analysis based on Statistics Canada 2006 Census (full-time workers, excluding self-employed); Bureau of Labor Statistics, Occupations Employment Statistics 2005 data; O*NET 12.0 database, skill and ability variables - developed for the US Department of Labor.

Québec's prosperity gap driven by labour effort (particularly participation and hours worked) and productivity

Keep productivity opportunities for Québec

- **Increased competitive intensity to stimulate cluster effectiveness – deregulation, more international trade**
- **Greater educational attainment across the board and for managers**
- **More capital investment, especially in investment technology, by businesses**
- **Ongoing focus on creativity as a basis for competition**

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September 30, 2010