

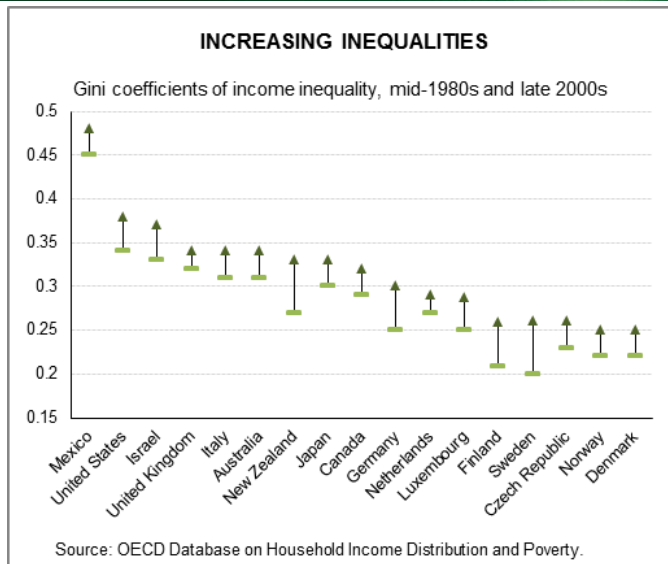


INEQUALITY, EDUCATION & SKILLS

Craig Alexander
Senior Vice President and Chief Economist

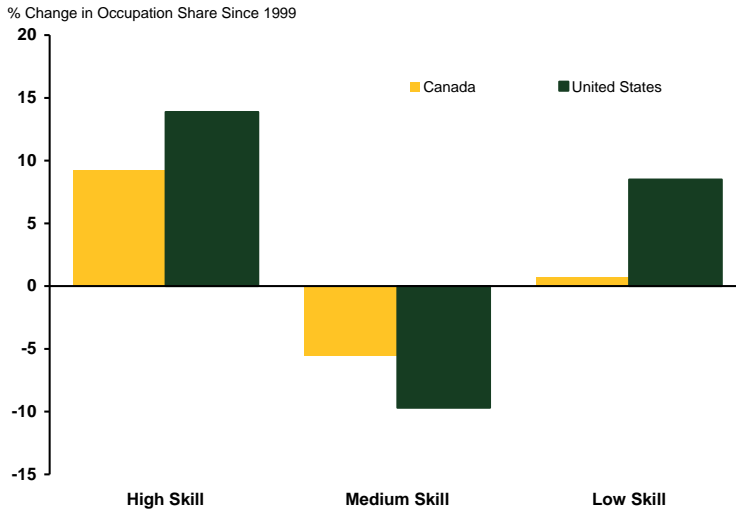
August 2014

INEQUALITY ON THE RISE



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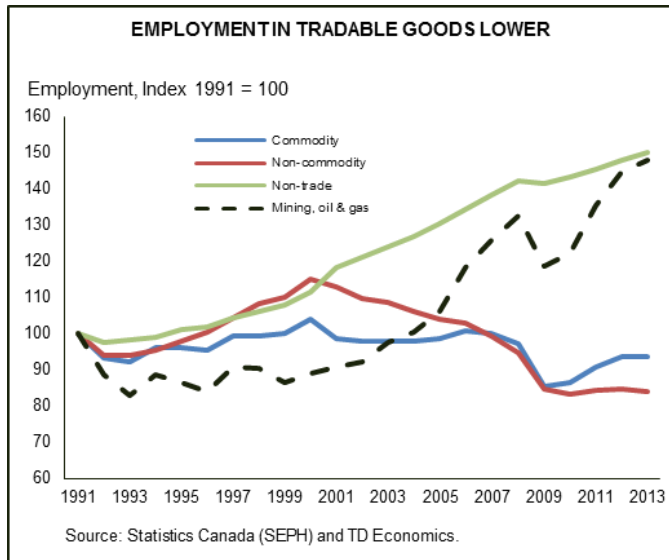
MIDDLE SKILL JOBS HAVE BEEN UNDER PRESSURE



* Canada's data encompasses 1999-2012, whereas U.S. data cover 1999-2009.
Source: TD Economics, Statistics Canada, BLS, David Autor (MIT)

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LESS PRESSURE ON CDN MIDDLE CLASS DUE TO CONSTRUCTION AND RESOURCE BOOM



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THE INFLUENCE OF EDUCATION AND SKILLS

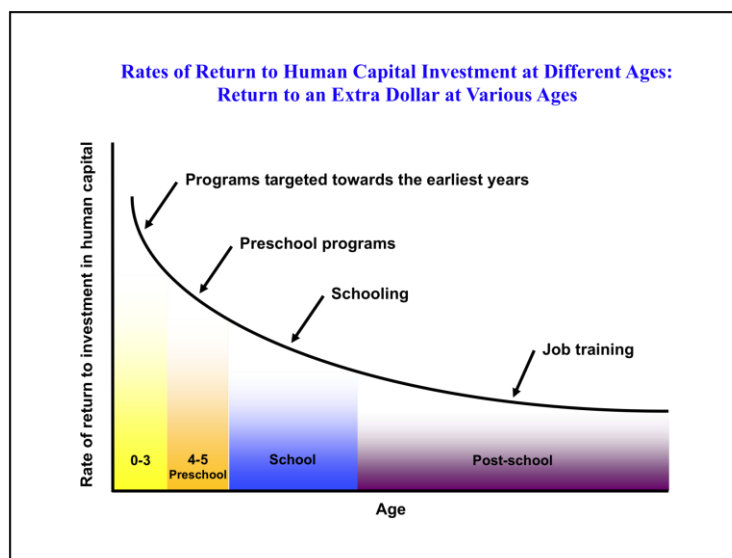
"The main force in favor of greater equality has been the diffusion of knowledge and skills"

"Knowledge and skill diffusion is the key to overall productivity growth as well as the reduction of inequality both within and between countries"

Thomas Piketty

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WHERE TO INVEST? START WITH CHILDREN



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THE FIRST 5 YEARS OF LIFE CAN IMPACT ECONOMIC AND SOCIAL SUCCESS



- Research has challenged prior misconceptions. Human abilities driven more by environment (80%) than genetics (20%)
- Basic abilities can be altered early in life as genes respond to life experiences
- It is more difficult to improve a child's learning abilities later in life
- Pre-primary education leads to cognitive and language development
- Increases labour participation of parents
- Reduces stress on parents

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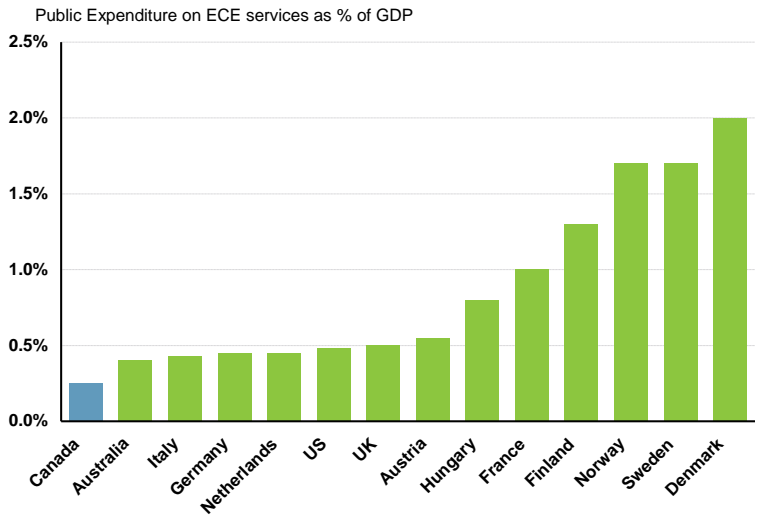
MANY STUDIES SHOW THE BENEFITS OUTWEIGH THE COSTS



STUDIES OF COST-BENEFIT ANALYSIS OF ECE PROGRAMS	
Study	Benefit / Cost (\$)
Economic Consequences of Quebec's Educational Child Care Policy, by Fortin, Godbout & St-Cerny, 2011	1.49
Better Beginnings, Better Futures by Peters et al., 2010	2.00
Workforce Shortages Socio-Economic Effects, by Fairholm, 2009	2.42
Child Care as Economic and Social Development, by Prentice, 2007	2.78
The Benefits and Costs of Good Child Care, by Cleveland & Krashinsky, 1998	2.00
Source: Early Years Study	

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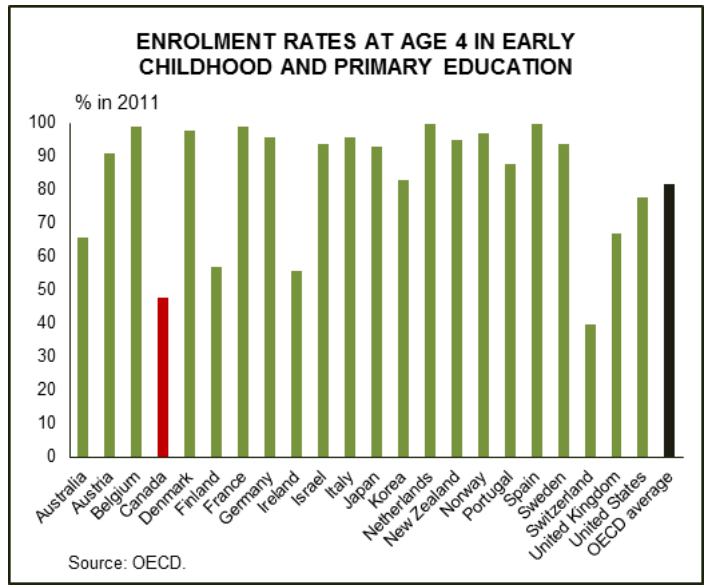
SO HOW IS CANADA DOING? IT DEEPLY UNDERINVESTS IN ECE



Source: OECD

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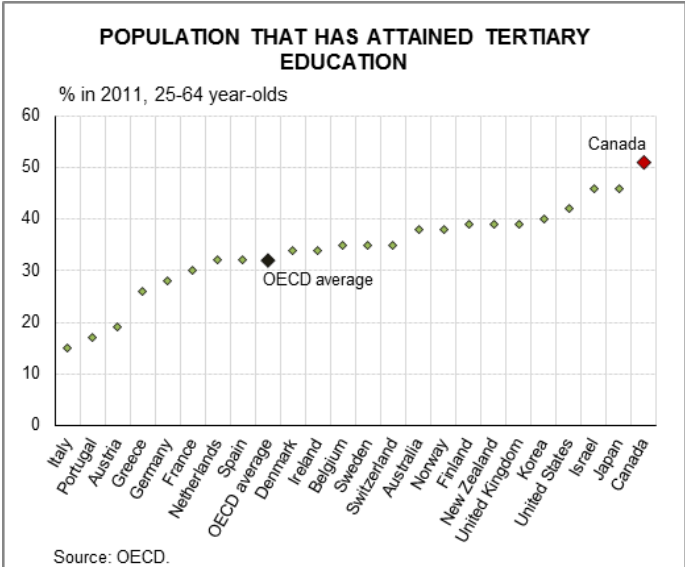
CANADA IS LEAVING IT UP TO PARENTS, AND ENROLLMENT IS LOW



Source: OECD.

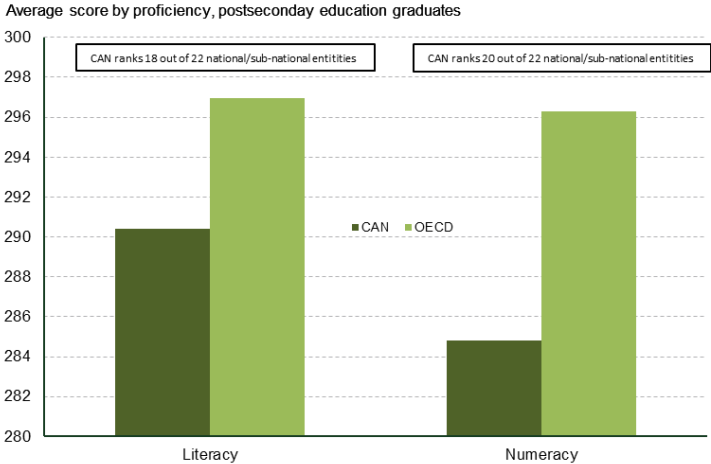
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CANADA HAS HIGHEST PARTICIPATION IN POST-SECONDARY EDUCATION IN OECD



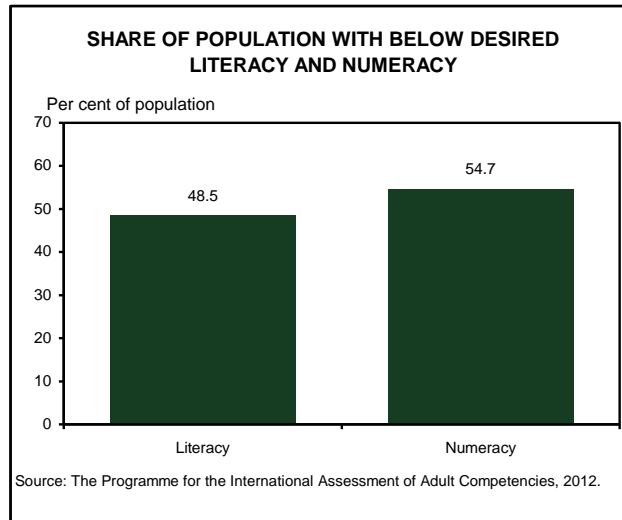
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BUT WE HAVE LOTS OF GRADUATES THAT LACK ESSENTIAL SKILLS



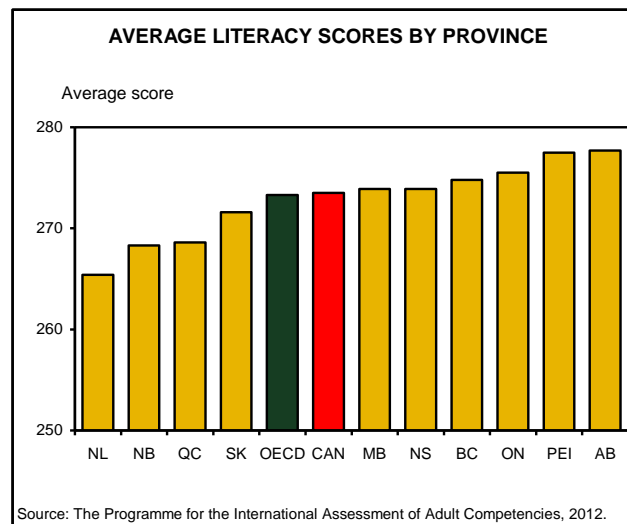
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MANY CANADIANS HAVE INADEQUATE LITERACY



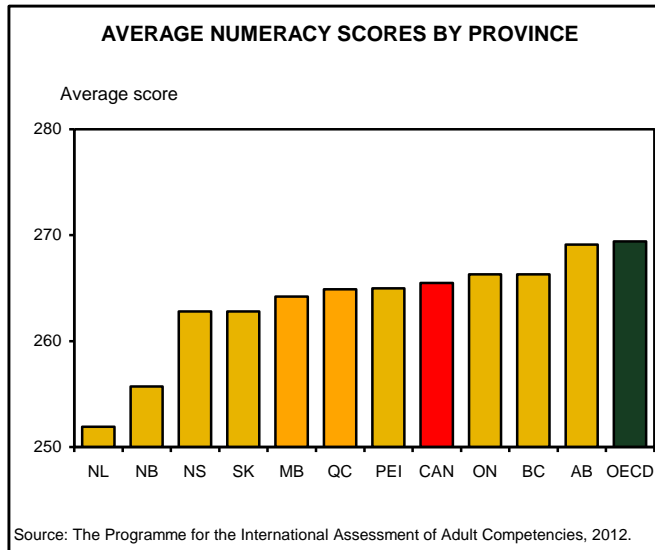
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PROVINCIAL SCORES ON LITERACY



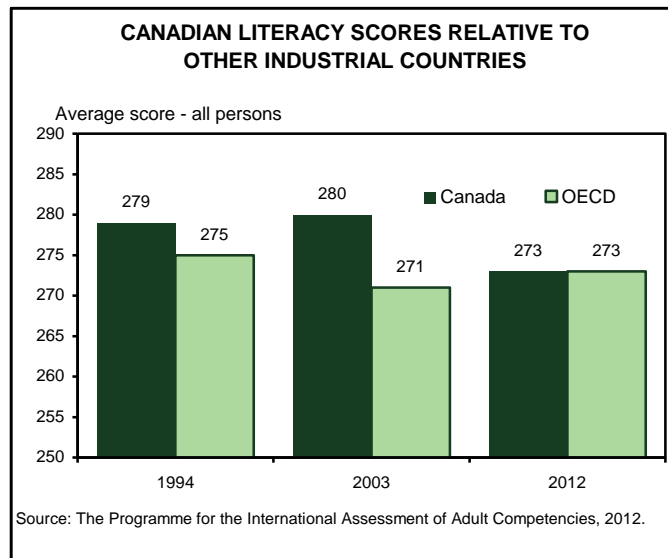
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PROVINCIAL SCORES ON NUMERACY



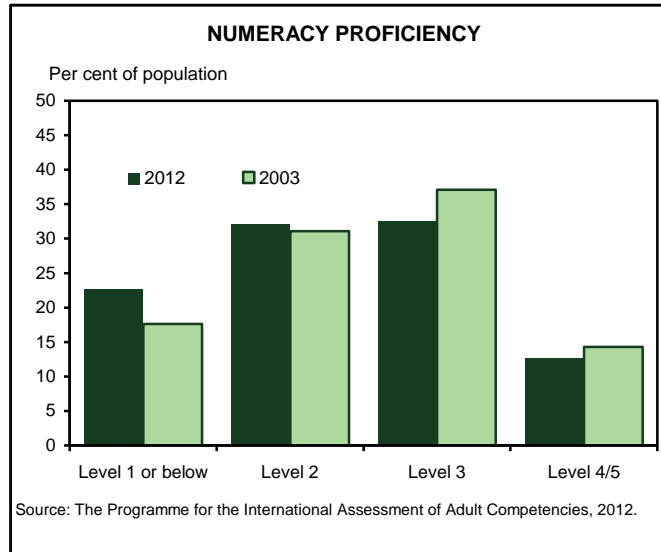
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NO SIGNS OF IMPROVEMENT



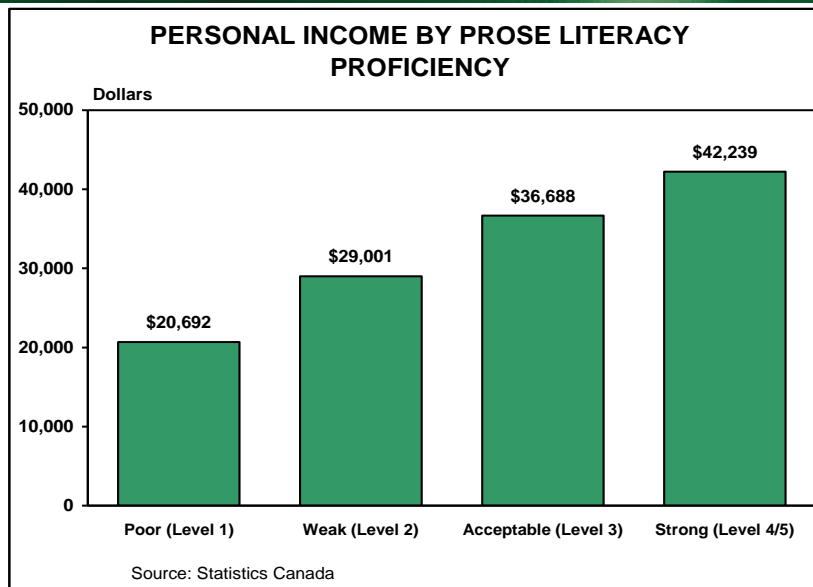
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DECLINING NUMERACY



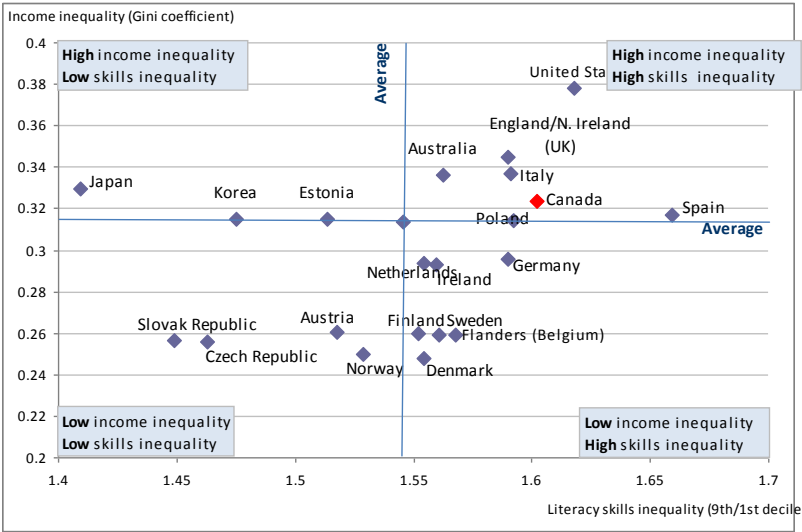
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HIGHER LITERACY RAISES INCOME



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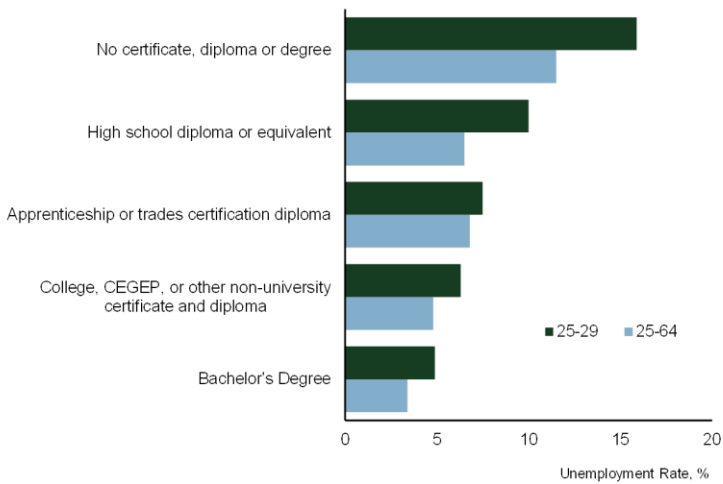
WEAK LITERACY IS CONTRIBUTING TO INCOME INEQUALITY TD



Source: Survey of Adult Skills (PIAAC) (2012), Table A6.16 (L) and OECD.Stat "Country statistical profiles"

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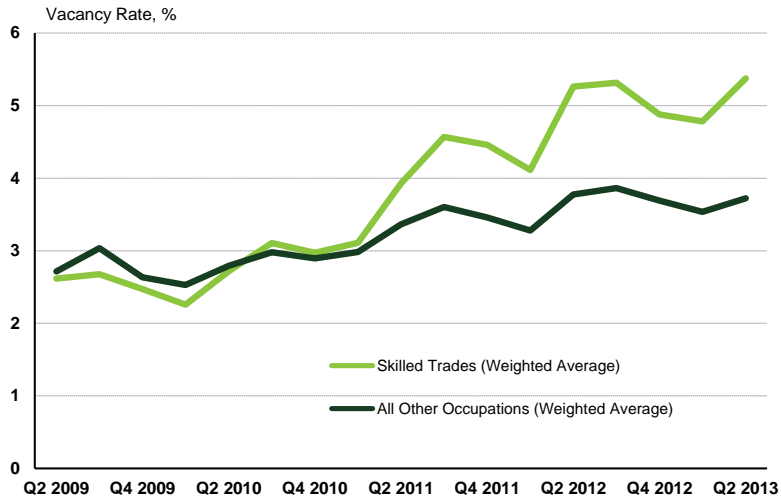
EDUCATION HAS A HIGH RETURN ON INVESTMENT TD



Source: Association of Universities and Colleges of Canada.

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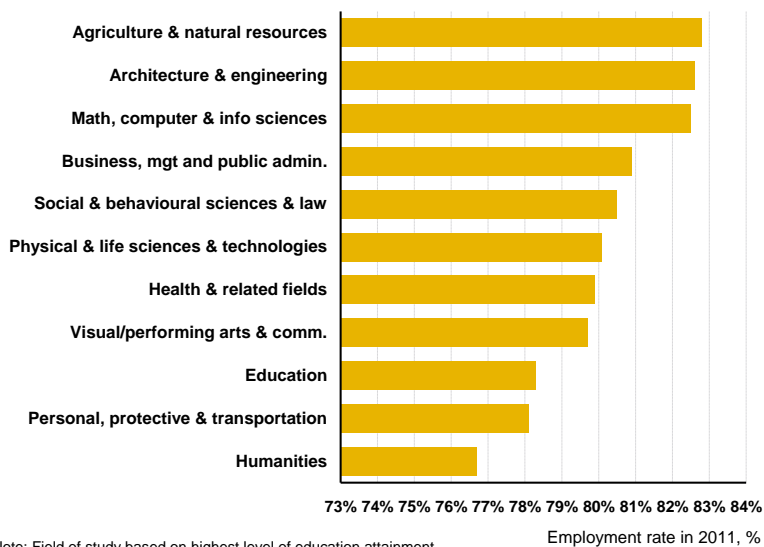
LITTLE EVIDENCE OF BROAD-BASED LABOUR SHORTAGES...FOR NOW



Source: Statistics Canada, WANTED Analytics; Calculations by TD Economics.

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CONCERNS ABOUT SKILL MISMATCHES, LEADING TO POOR OUTCOMES FOR YOUTH

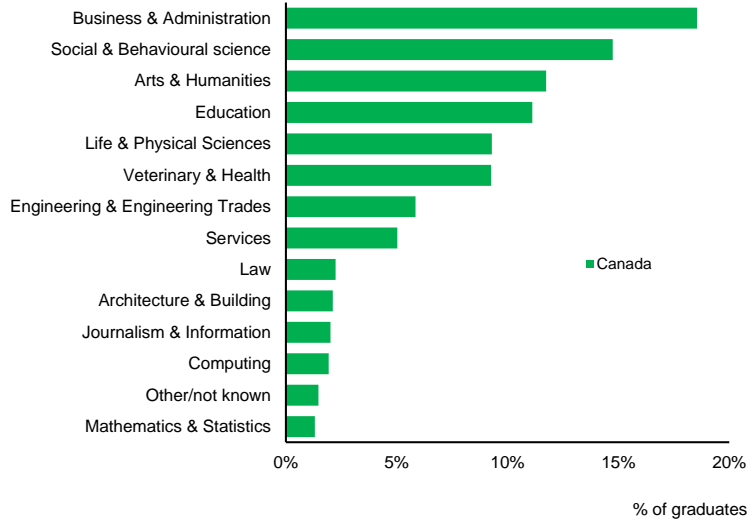


Note: Field of study based on highest level of education attainment.
Source: Statistics Canada.

Employment rate in 2011, %

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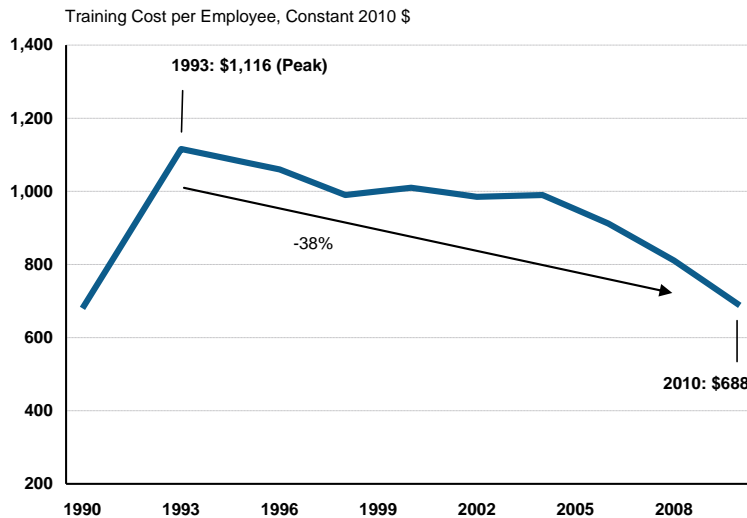
HUMANITIES & EDUCATION HIGH IN TERMS OF GRADUATES, LOW IN TERMS OF EMPLOYMENT



Source: OECD Education Database, 2011.

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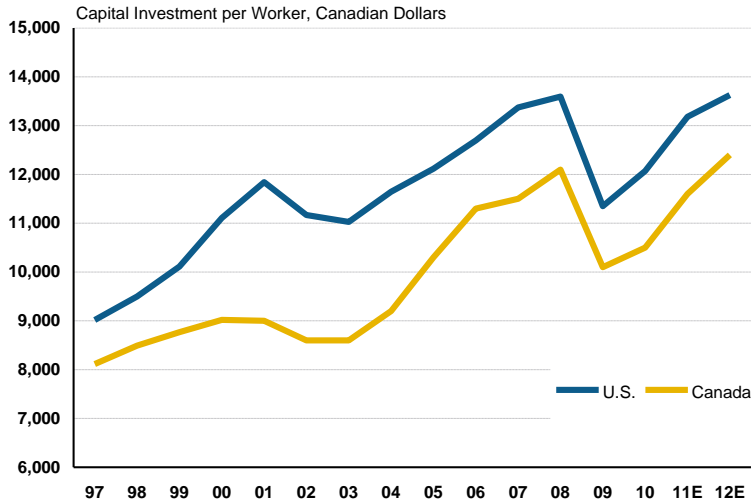
EMPLOYERS WANT WORK READY EMPLOYEES, BUT THEY ARE NOT DOING THEIR PART



Source: Conference Board of Canada.

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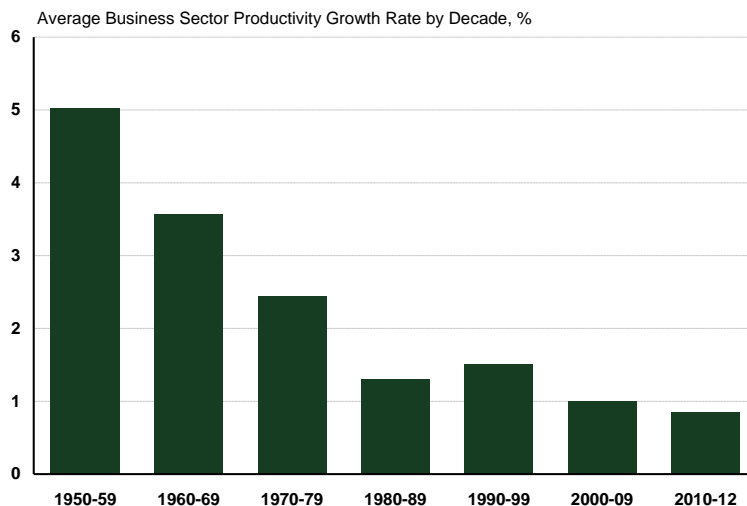
CANADA MORE RELIANT ON LABOUR



Source: C.D. Howe Institute, 2007 and 2012

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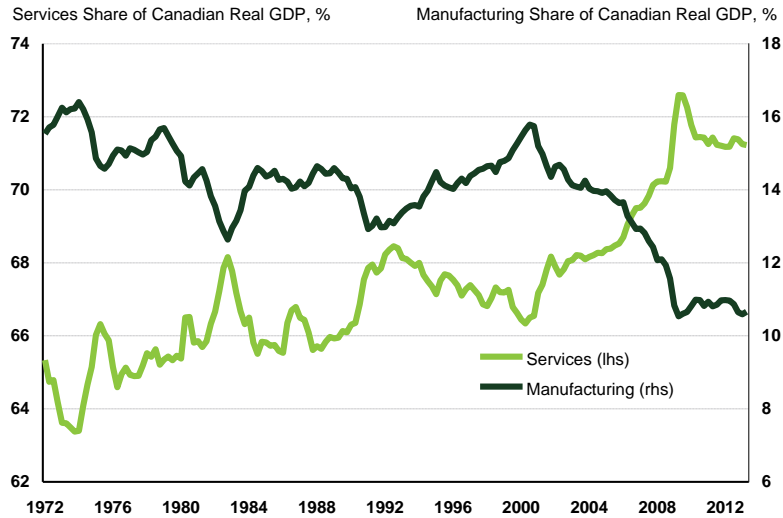
CANADA NEEDS TO UPSKILL ITS WORKFORCE TO ADDRESS WEAK PRODUCTIVITY PROBLEM



Source: Statistics Canada (1981-2012), Centre for the Study of Living Standards (Pre-1981)

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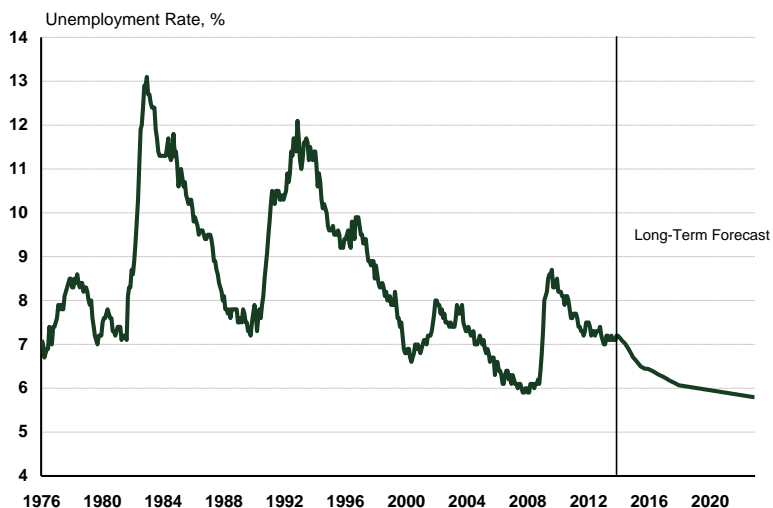
GLOBALIZATION AND TECH CHANGE WILL PERSIST, REQUIRING MORE SKILLED WORKERS



Source: Conference Board of Canada

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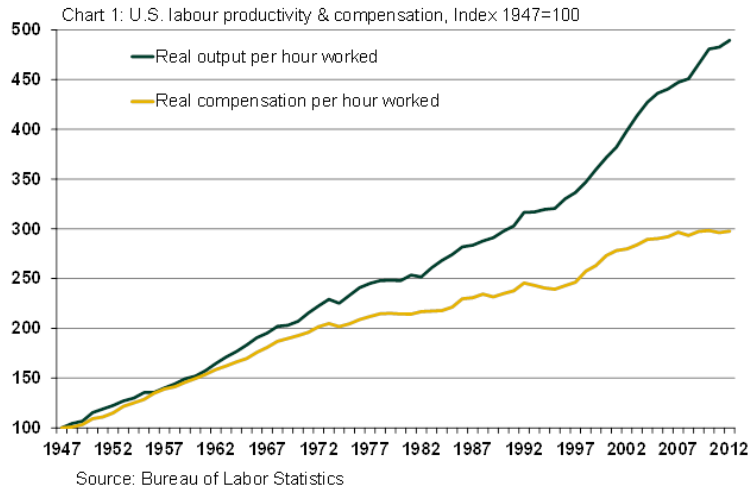
DEMOGRAPHICS POINTS TO FUTURE LABOUR MARKET SHORTAGES



Source: Statistics Canada/Haver Analytics; Long-Term Forecast by TD Economics

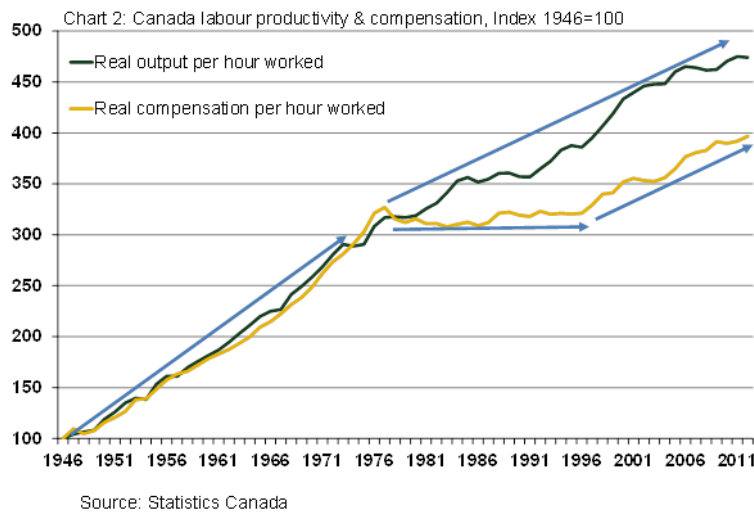
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ECONOMIC ASSUMPTION HIGHER PRODUCTIVITY LIFTS LABOUR INCOME HAS FAILED IN U.S.



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...BUT IN CANADA MORE EVEN SPLIT BETWEEN CAPITAL AND LABOUR, SO WE NEED TO UPSKILL



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