



Dr. Rick Miner

Keynote Speaker and Author of “People Without Jobs, Jobs Without People: Ontario’s Labour Market Future”

PRESENTATION REPORT



North Superior
Workforce Planning Board



**EMPLOYMENT
ONTARIO**



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**What kind of new jobs/workforce
does Ontario need?**

***Dr. Rick Miner, "Preparing Our Future Employees Today for the Jobs of Tomorrow!"
Thunder Bay, Ontario***

Dear Colleague!

On behalf of the partners who hosted the author of *People Without Jobs, Jobs without People: Ontario's Labour Market Future*, thank you for attending Dr. Miner's presentation on January 20, 2011 in Thunder Bay! One hundred and ten (110) attendees were updated on the evolution of future jobs not yet known, Ontario's current labour market trends, the impact of an aging population, and exciting projections on Ontario's 2031 labour market.

One key point is that jobs are changing. Some jobs in the future sound like something out of a science-fiction movie and could include "body part maker, weather modification police, memory augmentation surgeon, and virtual lawyers." This makes the need for a flexible and educated workforce critical.

Dr. Rick Miner is Seneca College's President Emeritus and Past Chair of the Committee of Presidents of Ontario Colleges. He works closely with various federal government departments on issues that impact on immigration, skills shortages, innovation, and commercialization. In 2008, Dr. Miner was appointed to serve on a five person panel to recommend improvements to Canada's Labour Market Information System. John MacLaughlin, Manager of the Ontario Literacy Coalition (OLC) in Toronto, also spoke at this event on the work the OLC is doing to help companies overcome barriers to growth including helping employees adapt to new and innovative technologies and procedures.

The event was a great success with delegates providing close to 100% satisfaction rate. Please find attached for your reference the slide presentation graciously provided by Dr. Miner.

Marg Scott
Executive Director



People Without Jobs,



Jobs Without People

**Canada's Labour Market:
Jobs With A Future**

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Rick Miner, Ph.D.

II

Two Mega Trends:

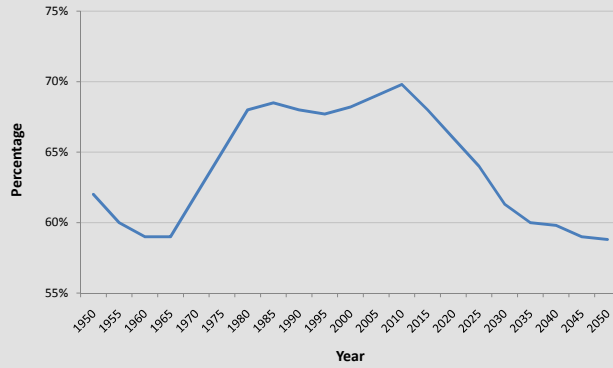
- Aging population resulting in lower labour force participation rates
- Knowledge economy requiring a more educated work force

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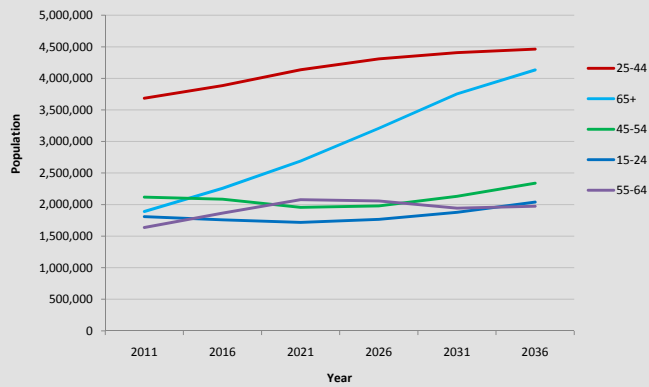
Figure 1. Percentage of Total Canadian Population, 15 - 64 Years of Age



Source: Russell Barnett, Bank of Canada Review, Summer 2007

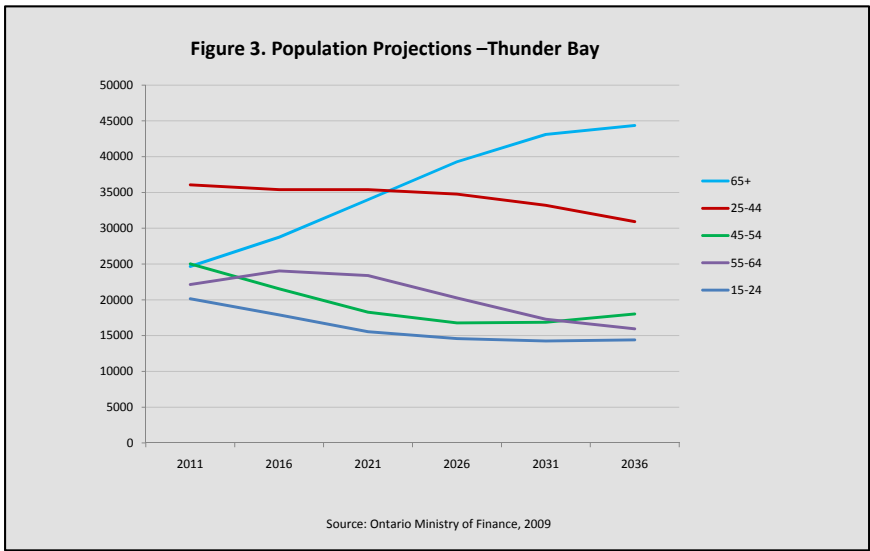
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Figure 2. Ontario Population Projections by Age



Source: Ontario Ministry of Finance, 2009

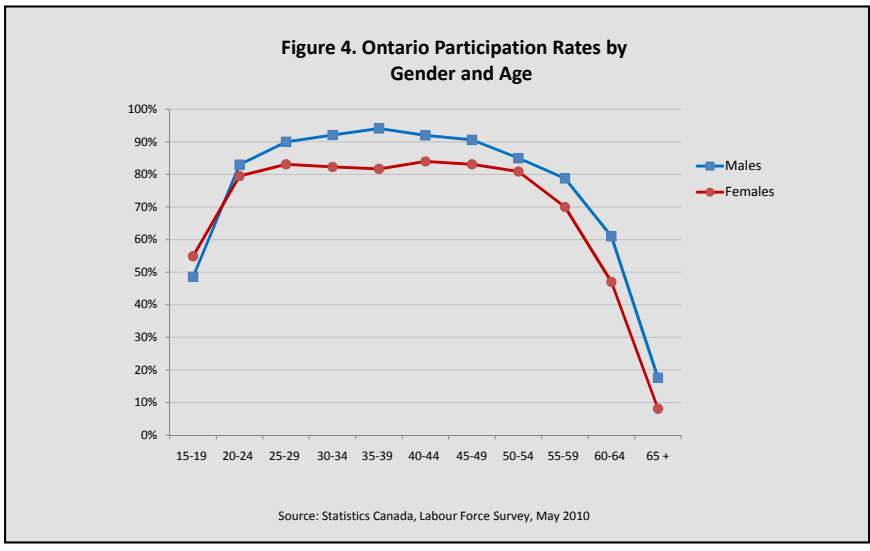
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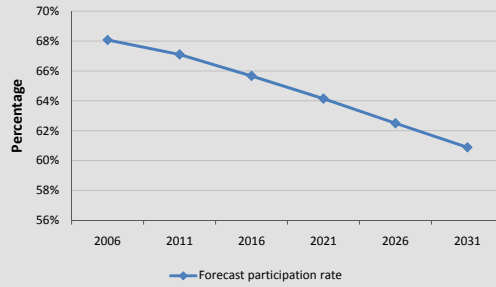


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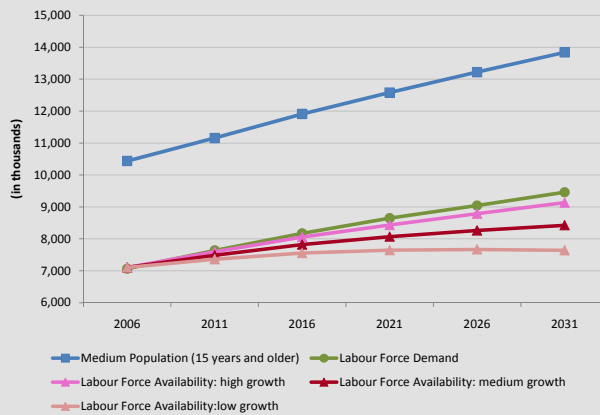
Figure 5. Ontario Labour Force Participation Rate Changes: 2006 to 2031



Source: Created using Statistics Canada data

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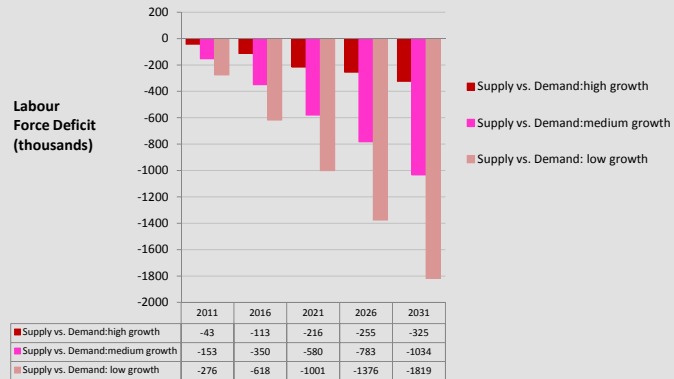
Figure 6. Ontario Population and Workforce Projections: 2006 - 2031



Source: Ontario Ministry of Finance, 2005 and 2008

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**Figure 7. Ontario Labour Force Supply and Demand:
High, Medium and Low Population Growth Projections**



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What kind of new jobs/workforce does Ontario need?

- In 2003, a quarter of the jobs listed in the U.S. Occupational codes did not exist in 1967.
- “Old” jobs become new jobs every 15 years.
- Knowledge economies require knowledge workers.

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Estimates of Current & Future “New Job” Requirements:

- 65% (HRSDC, 2007)
- 67% (Canadian Council on Learning, 2009)
- 75/76% (B.C. Ministry of Advanced Education & Labour Market Development, 1997 and 2009)
- 78% (U.S. Skills2Compete, 2007)
- 81% (Ontario Ministry of Education, 2005)
- BC targeting an 80% attainment rate for 2030 and a 90% transition rate by 2020 (Skills for Growth, 2010)

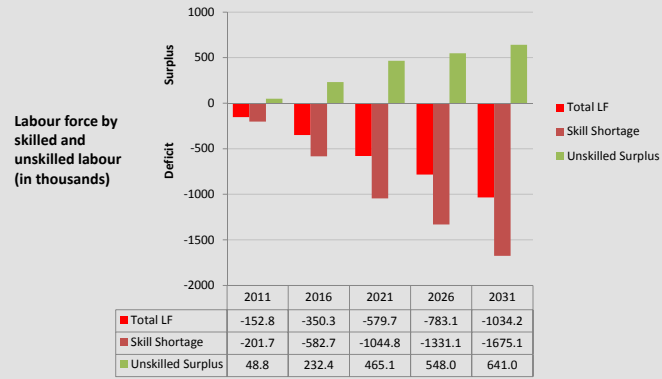
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Table 1. Labour Force Skill Assumptions

	2006	2011	2016	2021	2026	2031
New Job Skill Requirements	65.0%	70.0%	72.5%	75.0%	77.5%	80.0%
Labour Force Skill Availability	60.0%	62.0%	63.0%	64.0%	65.0%	66.0%
Overall Labour Force Skill Requirements	60.0%	63.4%	67.4%	71.8%	74.1%	76.5%

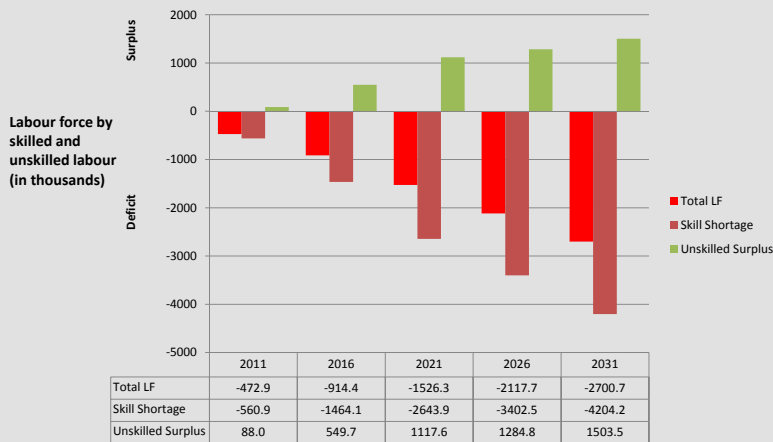
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**Figure 8. Ontario Labour Force Balance:
Medium Population Growth**

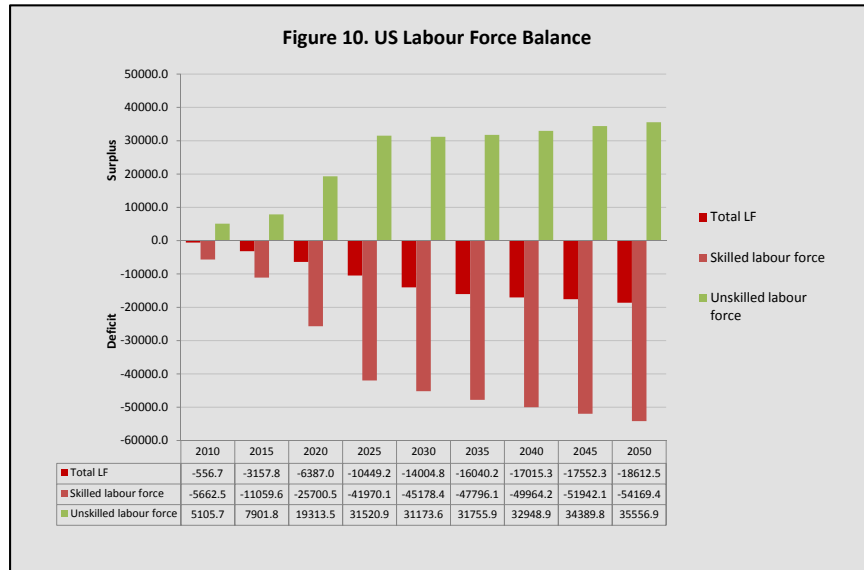


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**Figure 9. Canada Labour Force Balance:
Medium Population Growth**



II



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To Avoid This Crisis We Need:

- A better trained/educated workforce
- More workers and higher labour force participation rates

II

The labour force objective requires increased involvement of:

- Immigrants
- Aboriginal individuals
- Persons with Disabilities
- Women
- Younger workers
- Older workers

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**Table 2. Immigrant vs. Ontario Labour Force Participation Rates:
25 - 54 Years of Age**

	Canadian ¹	Immigrant ²		
		Very Recent	Recent	Established
Labour Force Participation Rate	88.2%	74.8%	83.1%	87.0%

¹ Born in Canada

² Very Recent = 5 years or less

Recent = 5 to 10 years

Established = 10 years or more

Source: Statistics Canada, 2008

II

Table 3. Ontario Aboriginal Labour Force Participation Rates¹

Age (years)	Population		
	Total Population ²	Aboriginal Population	Difference
15 - 24	65.2%	57.0%	8.2%
25 - 54	85.6%	77.1%	8.5%
55 - 64	61.5%	50.3%	11.2%

¹Taken from 2006 Census data, Statistics Canada, No. 97-559-XCB2006008

² Includes the Aboriginal population which makes the difference less

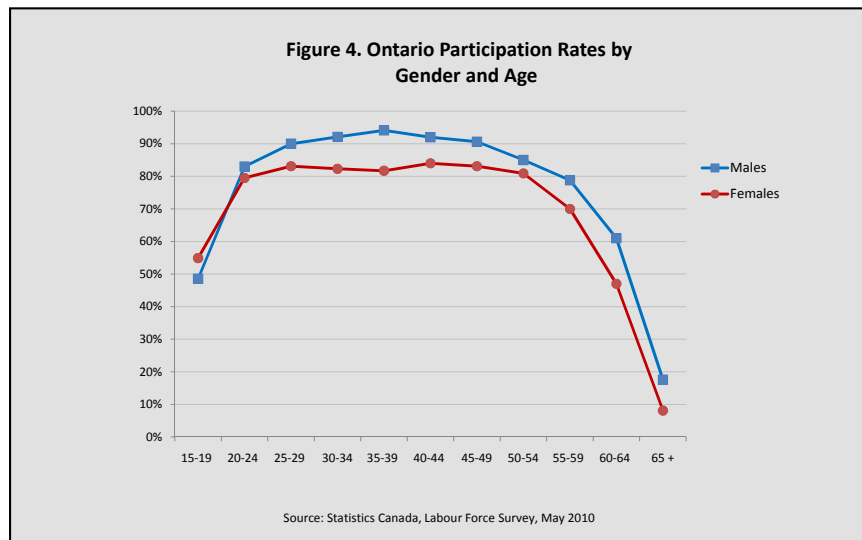
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Table 4. Persons with Disabilities: Labour Force Participation

	Ages 15 – 64	
	With disabilities	Without disabilities
Participation Rates	54.9%	77.3%
Specific Disability		
Hearing	64.1%	
Seeing	49.9%	
Learning	47.6%	
Developmental	32.7%	
Mobility	53.6%	
Memory	40.2%	
Agility	52.8%	
Psychological	45.2%	

Source: Statistics Canada, 2006

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Labour Force

- Youth (15 to 24 years)
 - accelerated degree completion (summers)
 - more university-college joint programs: less time
 - reinstatement of “old” 3-year B.A. Degree
 - improve high school – university/college coordination & cooperation
 - attitudinal changes (79% high school graduation rate –5 yrs)

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Labour Force

- Older (55 years and older)
 - more work-retirement transition opportunities
 - different retirement and tax provisions
 - more work-life balance opportunities
 - creation of a new entrepreneurial class
 - mentoring programs & options (knowledge transfer & increased workforce)

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Jobs of the Future

Job Predictions: Approaches

- Traditional Approach: Existing Jobs
- Trends Approach: Existing Jobs
- Futuristic Approach: New Jobs

There will still be “old” jobs.

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Traditional

HRSDC: Canadian Occupational Projection System (COPS) (www23.hrsdc.gc.ca)

Projections by National Occupational Classification Codes (NOC): **2009-2018 -- 140 NOCs**

Projections based on:

- expansion demand,
- retirements,
- other replacements,
- emigration,
- projected job openings vs. job seekers

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Traditional

HRSDC Good Job Prospects: 45 of 140 NOCs

- 21 Health-related
- 11 Business/Finance/Administrative/Managerial
- 4 Social/Legal/Counselling
- 7 Technological/Engineering/IT
- 2 Other

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Traditional

US Bureau of Labour Statistics Projections: 2010-11 Edition

(www.bls.gov)

Fastest Growing Occupations (Top 10)

- Biomedical Engineers
- Network Systems and Data Communications Specialists
- Home Health Aides
- Personal and Home Care Aides
- Financial Examiners
- Medical Scientists
- Physician Assistants
- Skin Care Specialists
- Biochemists & Biophysicists
- Athletic Trainers

Largest Numerical Growth: Top 10

- Registered Nurses
- Home Health Aides
- Customer Service Representatives
- Food Preparation
- Personal and Home Care Aides
- Retail Sales Persons
- Office Clerks
- Accountants and Auditors
- Nurses Aides And Orderlies
- Post-secondary Teachers

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Traditional / Trends

Ontario's New Occupations and Industries

(www.tcu.gov.on.ca)

- Aerospace
- Biotechnology (Agriculture, Forestry, Fishing, Pharmaceuticals)
- Distance Learning
- Environment
- Green Energy Technologies
- Health Informatics
- Multimedia, particularly for mobile communications

What other jurisdictions have listed the same?

II

Trends

University of Calgary Career Counseling

(www.ucalgary.ca/counselling)

Trends & Jobs

Information Revolution (selected from 16)

Information System Librarian
Specialist
Researcher
Manager of Communications
Financial Advisor

Natural Systems Awareness (selected from 20)

Natural Healing Practitioner
Fitness
Consultant
Environmental Engineers
Genetic Researcher
Water Quality Technician

High Technology and Material Creation (selected from 13)

Software Developers
Computer Animators
Electrical Trades
Technical Writers

Demographics (selected from 34)

Any elder health field
Travel Consultant
Estate Lawyer
Funeral Director
Human Resource Personnel Officer

Global Village (selected from 7)

Internet Specialists
Protocol Officers
Translators
International Lawyers

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Futuristic

Futurist Adam Gordon (2020-2030 Jobs):

- **Body Part Maker**
- **Nano-Medic**
- **Memory Augmentation Surgeon**
- Organ Agent
- Old Age Wellness Manager
- End-of-life Planner
- **Climate Change Reversal Specialist**
- 'New Science' Ethicist
- Time Broker
- **Weather Modification Police**
- Quarantine Enforcer
- Automated Systems Monitor
- Vertical Farmer
- **'Pharmer' – Genetically Engineered Crops & Livestock**
- **Narrowcasters**
- **Social "Networking" Worker**
- **Personal Branders**
- Virtual Clutter Organizer
- **Waste Data Handler**
- Virtual Lawyer
- Avatar Manager
- **Space Pilot**
- Alternative Vehicle Developers

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Futuristic

U of Calgary: Sharon Crozier (selected from 24)

(www.ucalgary.ca)

- Robot Technician
- Euthanasia Ethics Advisor
- Gene Replacement Specialist
- Online Astrologer
- Virtual Vacation Broker
- Cloning Expert
- Multi-Generational Relationship Counsellor
- Fusion Engineer
- Cultural Projection Advisor

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Sometimes, new ideas are not so easily accepted...

"Drill for oil? You mean drill into the ground to try and find oil? You're crazy."

-- Associates of Edwin L. Drake refusing his suggestion to drill for oil in 1859.

And sometimes, predictions can be wrong...

"I think there is a world market for maybe five computers."

--Thomas Watson, chairman of IBM, 1943.

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Jobs Of The Future: A Reality Check

- Poor predictive validity --not much beyond 3 years (typically less)
- Better at predicting “old jobs” than “new jobs”
- Job locations are increasingly less predictable
- Organizational and political competition creates complexity
- Knowledge workers are more mobile

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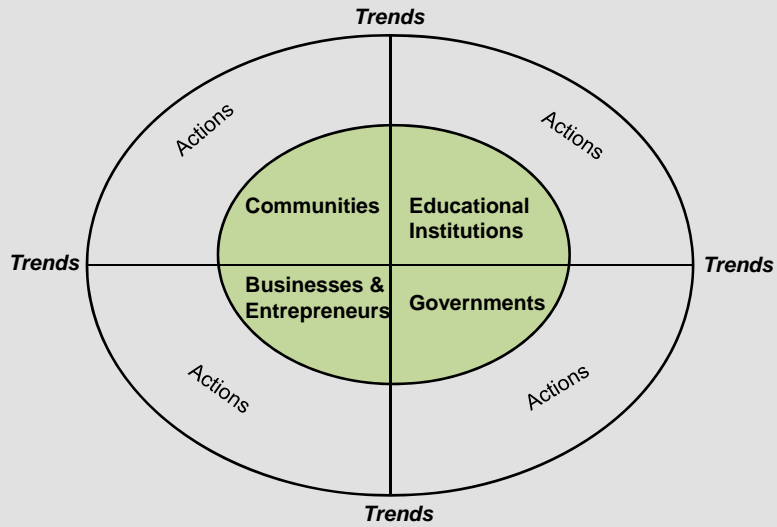
What Have We Learned?

- Projections Differ
- Location Matters
- More Education Will be Required

Is There Another Approach?

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Planning for the Jobs of the Future



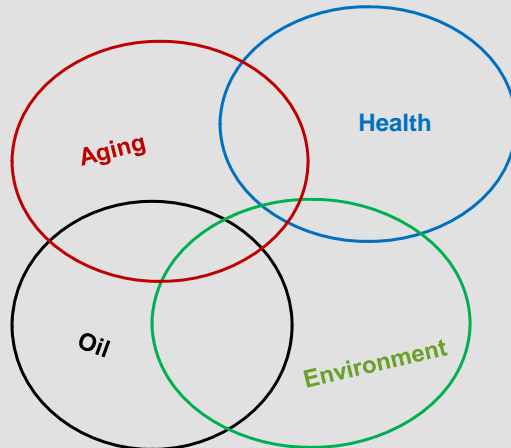
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Mega Trends/Paradigm Shifts

- Demographic changes (aging population)
- Increased oil prices
- Health paradigm shift
- Global warming/climate change/ environmental industries
- Advancements in information, communication & social networking technologies and usages
- Water usage, management & sale
- Security enhancement
- Globalization & multiculturalism

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Overlapping Trends



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Education Actions

Educational institutions need to:

- Provide generic and specific employability skills
- Work together (colleges, universities, high schools)
- Shorten program durations
- Delay specialization decisions
- Increase program relevancy
- Significantly increase credit recognition
- Develop continuous learning models
- Increase flexibility
- Increase affordability

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Timely: First job timelines are too long

Grade 11 to:	Employment time horizon
3 year college diploma	5 years
4 year college/university degree	6 years
Degree + post-graduate diploma	7-8 years
Master's degree	8 years
Ph.D.	12 years

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Completion Times Too Long & Too Costly

- Degree Completion

(http://nces.ed.gov/programs/coe/2003/section3/tables/t21_1.asp)

<u>Institutions</u>	<u>Norm (in months)</u>	<u>Actual (in months)</u>
One	44	55.4
Two	44	58.9
Three or more	44	66.7

- Cost: Undergraduate student debt (2009)

(Canadian University Survey Consortium, Graduating Student Survey 2009)

Percentage with Debt: 58%

Average Debt: \$26,680

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PSE Programming (Employment Skill and Acceleration/Content)

Type	Duration (months)	
	<u>normal</u>	<u>accelerated</u>
One year diploma	8	8
Two year diploma	20	16
Three year diploma	32	24
2+2 degree	44	32
3+1 degree	44	32
4 year degree	44	32
Grad programs	TBD	TBD

Program Content (degree and aging illustration)

Semesters 1-4

- Variety of content areas with employability skills associated with the cluster incorporated into the curriculum
- Exposure to possible areas of “trend specialization”

Semesters 5-8

- Selection of “trend specialization” area
-business -social services -health -leisure -personal support -etc.

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Basic Employability and Literacy Skills

- reading
- writing
- speaking
- numeracy
- document usage
- thinking
- group work
- continuous learning
- computer usage

Plus

- entrepreneurship
- multiculturalism

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Relevancy is compromised without:

- good applied content and continuous curriculum updates
- advanced and relevant technologies
- both technical knowledge and essential employment skills
- good economic development, workforce training and PSE partnerships
- literacy support

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Affordability is enhanced by:

- Accelerated programs
 - “year round”
 - on-site preparation
 - 3-year bachelor + specialized diploma
- well-articulated agreements between:
 - university – university
 - college – university
 - high school – college – university
 - business – PSE institution
- full credit recognition (transfer credits)
- teaching-focused colleges and universities

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Flexibility is achieved by:

- allowing for alternative directions by delaying decision timeframes
- building a foundation for future programs
- providing multiple career paths
- building a literacy and essential skills foundation

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How business can help

- Invest in continuous employee training
- Work with educational institutions in providing curriculum content
- Provide employment experiences for students in high school, college, university
- Champion and support the need for literacy and essential skills
- Invest in new jobs

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How communities can help:

- Establish educational priorities, including literacy objectives
- Support and encourage PSE cooperation
- Create community economic plans and directions
- Invest in economic development and educational cooperation
- Encourage entrepreneurial growth

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How governments can help:

- Tie funding to literacy and essential skills development
- Provide clear indication of economic investment priorities
- Invest in life-long learning (part-time learners, corporate training, attitude changes) by increasing system capacity
- Fund Centres for Economic Development and Advanced Curriculum Design
- **“Accept” Failure**

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Create Centres for Economic Development and Advanced Curriculum Design

Who would be involved?

- Economic development offices
- Colleges
- Universities
- High Schools
- SME's/Entrepreneurs
- Literacy organizations
- Government(s) (local/provincial/federal)
- Workforce Planning Boards

What would they do?

- Concentrate on and analyze future job trends(s) in the community
- Jointly develop curriculum/ programs
- Jointly support and fund cluster-related start-ups
- Provide networking and expansion opportunities

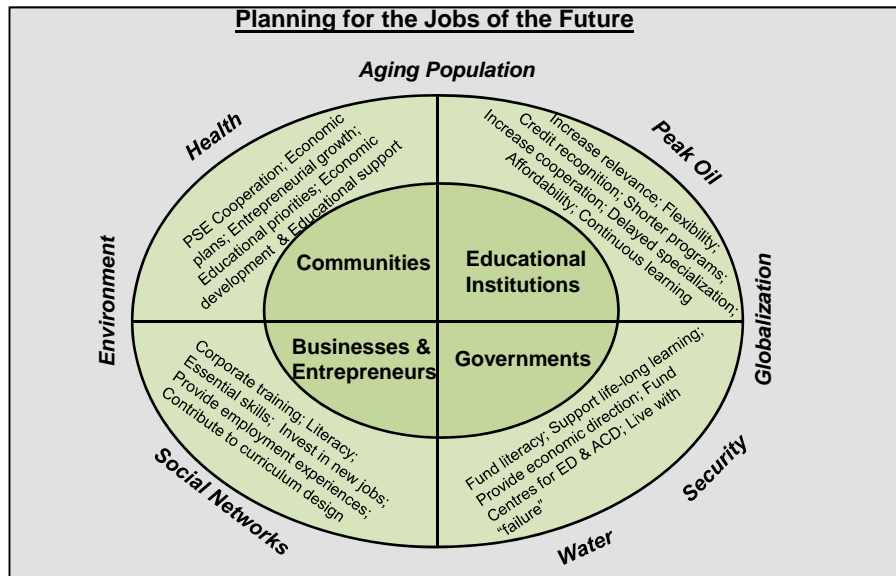
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Let's Review Individual and Community Strategies

- Traditional approaches to jobs are good if the timelines are short
- Trend approaches are good providing the trend is right, you are mobile and you have enough time to catch the wave
- For future jobs, planning for continuous change is best
 - Develop core employability skills
 - Analyze potential growth areas using your basic skills
 - Obtain a post-secondary credential in an area related to the growth area
 - Use your PSE experience to define your employability skills in the area of growth
 - Delay your "specialization" decision as long as possible (shorten time to market)
 - Begin all over again for the next job/career
- Create Centres for Economic Development and Advanced Curriculum Design

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Planning for the Jobs of the Future



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Ultimately, Success Depends on Cooperation Between

- Communities
- Governments
- Businesses/Entrepreneurs
- Educational Institutions

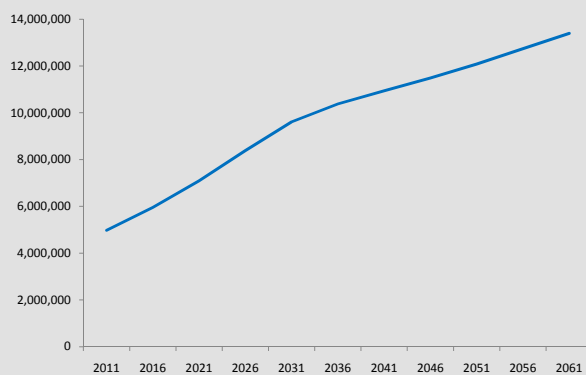
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A Brief Illustration: Aging

Aging Population: Understanding the Dynamics and Job Opportunities

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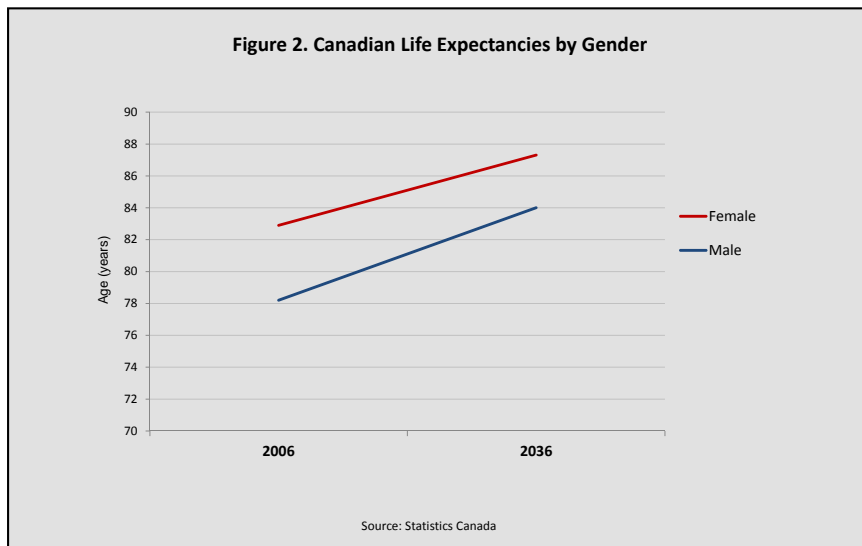
Figure 1. Canadian Population Growth Estimates, Age 65+



Source: Statistics Canada, Population Projections for Canada, Provinces and Territories 2010 (Tables 11-1 & 17)

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Figure 2. Canadian Life Expectancies by Gender

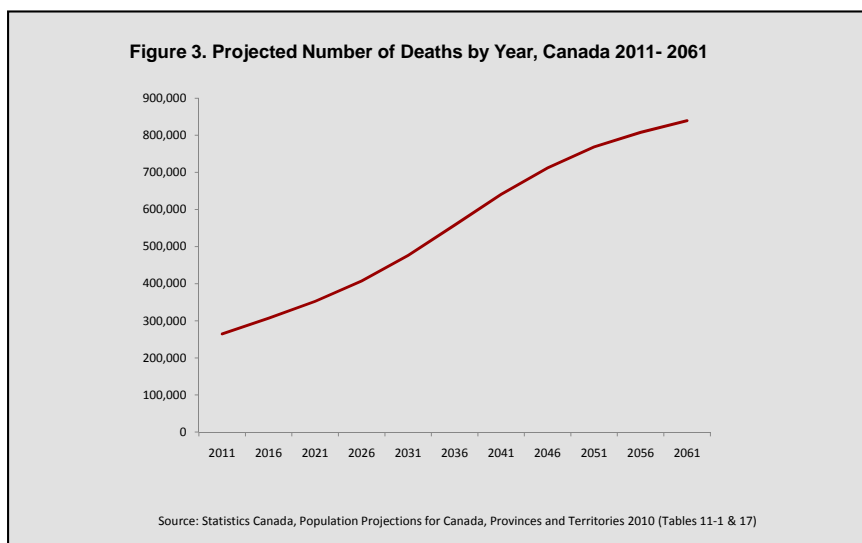


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Figure 3. Projected Number of Deaths by Year, Canada 2011- 2061



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Boomer Attitudes, Opinions & Views

2010 Del Webb Baby Boomer Survey

(http://dwboomersurvey.com/2010_Baby_Boomer_Survey.pdf)

Young Boomers: 50 years in 2010 (N=504)

Old Boomers: 64 years in 2010 (N=510)

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Life Priorities

50

Family: Spouse
Financial: Retirement Savings
Health
Living, Enjoyment, Fun

64

Family: Spouse
Health
Living, Enjoyment, Fun
Financial: Retirement Savings

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How Old is Old?

50	- 78 years
64	- 80 years

How Old Do You Feel?

50	- 39 years
64	- 50 years

Why? active, diet, workout, mental attitude

New Hobbies (Yes)

50	- 41% (biking, gardening, yoga, woodwork)
64	- 39% (computers, fishing, gardening, photography, quilting, woodwork)

Educational Programs/Courses (Yes)

50	- 32% (career-related)
64	- 22% (personal interest)

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Marital Status

	<u>50</u>	<u>64</u>
never married	16%	6%
married	59%	64%
divorced	19%	19%
widow/widower	2%	8%
common law	5%	4%

Financially Prepared for Retirement

	<u>Yes</u>	<u>No</u>
50 (2010)	16%	84%
50 (1996)	34%	66%
64 (2010)	38%	62%

Plan to Work Past Retirement (Yes)

50 (2010)	72%
50 (1996)	68%
64 (2010)	74%

Why?

Boredom, need money, self-satisfaction, enjoyment

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US Baby Boomer Work Related Retirement Wishes

42%	cycle between periods of work and leisure
17%	never work again
16%	PT work
13%	start their own business
6%	FT work
6%	undecided

Source: Merrill Lynch, 2005, N=2,348 (40 to 58 years old)

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HR Council for the Non-Profit Sector (Canada 2010)

Sample

N = 5,300
Age = mostly 45-65
Employment = mostly private sector
Gender = 63% female

Do you plan to work past retirement?

57% yes

What benefits are important in a new job?

67%	extended health benefits
61%	availability of PT work
50%	leave for personal/family reasons
47%	availability of seasonal (PT) work
45%	generous vacation/leave
41%	life/disability insurance
39%	pension plan

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Misc.

- Baby boomers (BB) will inherit trillions in the next 20 years (BMO)
- 2/3rds of BBs believe they will be care-givers for their elderly parents
- BB are/will be major consumers (Canadian Newspaper Association, N = 1,980; 44-62 years)
 - Do you plan to do any of these in the next 12 months? (Yes)
 - 40% take a vacation
 - 35% buy home electronics
 - 31% buy furniture
 - 24% buy appliances
 - 23% buy car
 - 23% buy computer
 - 40% say they feel ignored by advertisers
- 1/3rd of BB are obese (Canadian)

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Canadian Boomer Survey Results

Employee and Employer Desires

- 63% want to be accommodated in some way past traditional retirement
 - 54% of employers are willing to do so
- 34% want to ease into retirement (flexible work, PT hours)
 - 21% of employers will allow this
- 64% say it is difficult to talk to their employers about retirement
- 33% of employers say they would allow older workers to stay on past retirement in FT positions
- If allowed to stay beyond retirement (PT or FT)
 - 60% retire fully in 5 years or less
 - 40% retire after 5 years

Source: Ipsos Reid Survey, Dec 2009, 50-64 year olds, N=804 boomers & 254 managers/executives

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- Data are valuable (example: marketresearch.com)

Search Results
(2382 reports)

Keywords: baby boomer or boomer or middle age or third age or mid life
Published: Last 2 Years
Region: All Regions
Category: All Categories

Search this List <prev 1 2 3 4 5 6 7 8 9 10 next >
Use column headings to sort

Ref.	Title	Published	Price
	Generational Market Research Bundle - Baby Boomers, Gen X and Gen Y By: Packaged Facts For years Packaged Facts has examined a wide range of consumer industries and produced several market research studies useful to companies interested in the demographics market. To maximize market research dollars, we've assembled more... Search inside this report	12/12/08	\$7,995.00
	Baby Boomers and Finance - US By: Minner International Group Ltd Baby Boomers were caught unprepared by the current financial crisis. Most had not established a sufficient nest egg and instead counted on the rising values of their homes and 401(k) portfolios. When the value of more... Search inside this report	1/1/2010	\$3,995.00
	Lifestyles of Baby Boomers - US By: Minner International Group Ltd Defining their own status quo: A look at the American advertising landscape shows that Boomers are usually ignored. Minner's	10/1/2009	\$3,995.00

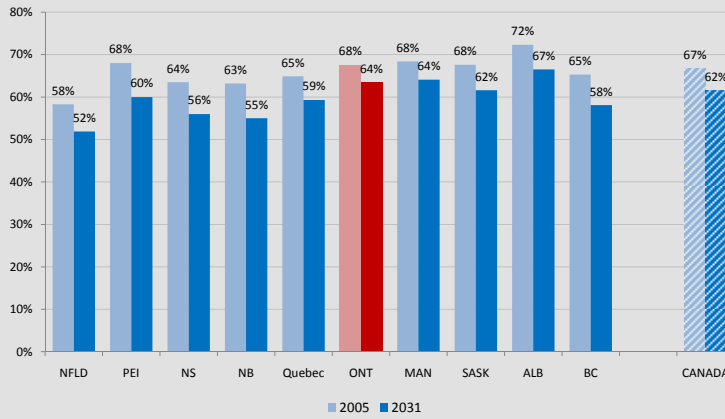
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Areas of Job Growth (selected)

- | | |
|---|---|
| <ul style="list-style-type: none"> • Health & Death Services • New & Expanded Life Services
(children of retirees will be retired)
--Alternative living arrangements
Retirement co-ops
Movement to underdeveloped countries
Modularized accommodations
--Financial, technological & social
Bonded financial managers
Intergenerational communications consultants
Professional power of attorney managers
Augmented living support technologies | <ul style="list-style-type: none"> • Increased Time
Volunteer coordination
Travel & experience managers
Educational providers
- Formal
- Informal
Work coordinator
- Specialized temp agencies
- Expertise head hunters
- Work place coordinators |
|---|---|

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**Figure 10. Participation Rate Projections by Province:
2005 and 2031**



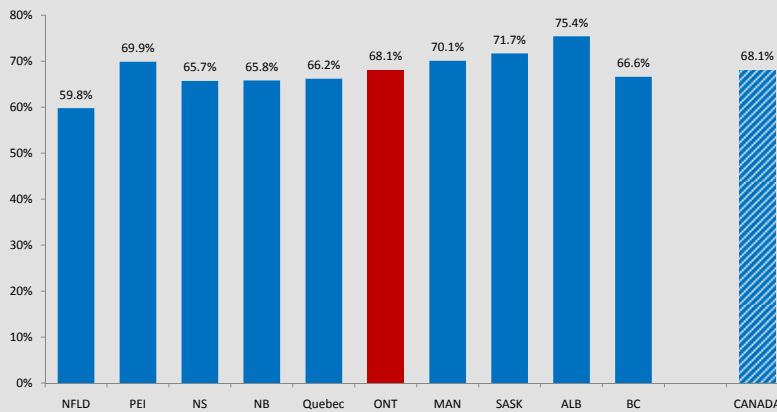
Source: Statistics Canada, 11-010-XIB using population scenario 3 (medium growth)

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Figure 11. Labour Force Participation Rates by Province: May 2009



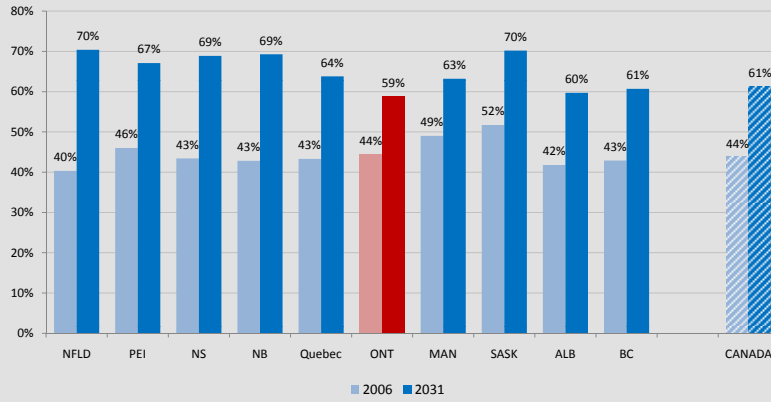
Source: Statistics Canada, monthly labour force characteristics

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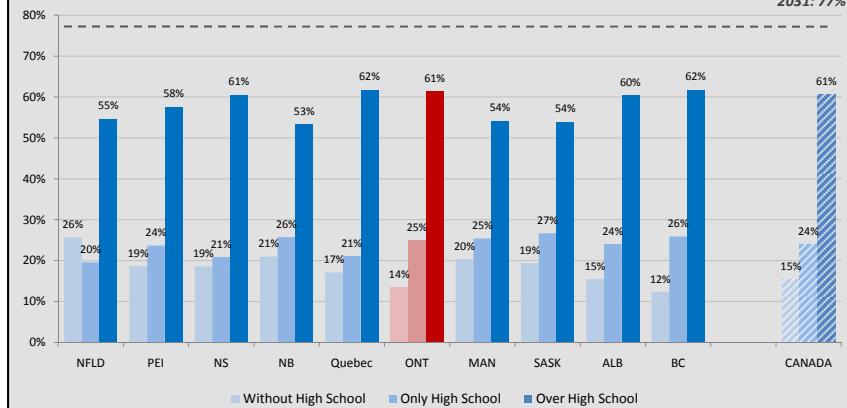
Figure 12. Dependency Ratios¹ by Province: 2006 and 2031



¹Dependency ratio is the percentage of population in the younger and older age groups. Source is Statistics Canada - catalogue no. 91-520 using scenario 3 population projection (medium growth)

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Figure 13. Educational Attainment by Province: Ages 25 to 64¹



Source: Statistics Canada using 2006 Census data



North Superior
Workforce Planning Board

“Connecting community partners to improve the quality of life in our communities through workforce development.”