

# On the Edge: Memorial University's Contribution to Economic Development

A presentation to: Canadian Re-Generation(s) Conference,  
Waterford Institute of Technology, April 26 – 28, 2018

Presentation by

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Waterford Institute of Technology, Ireland

# 30 Minutes Presentation Outline

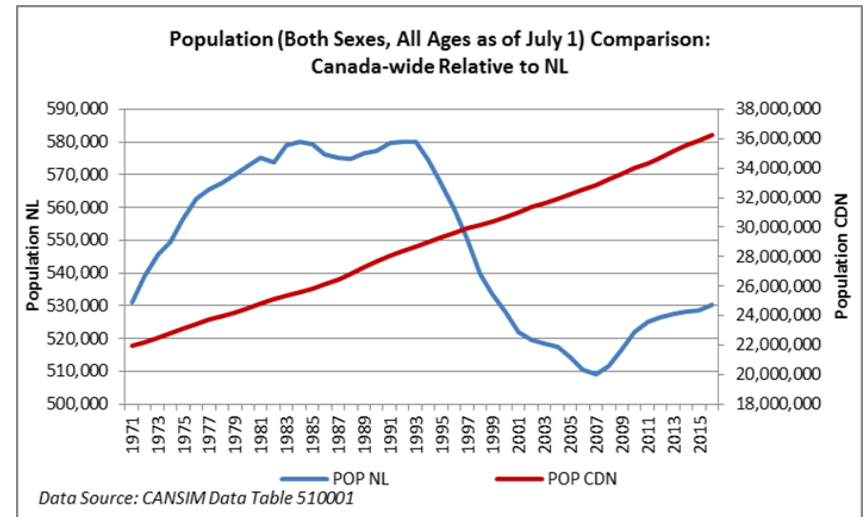
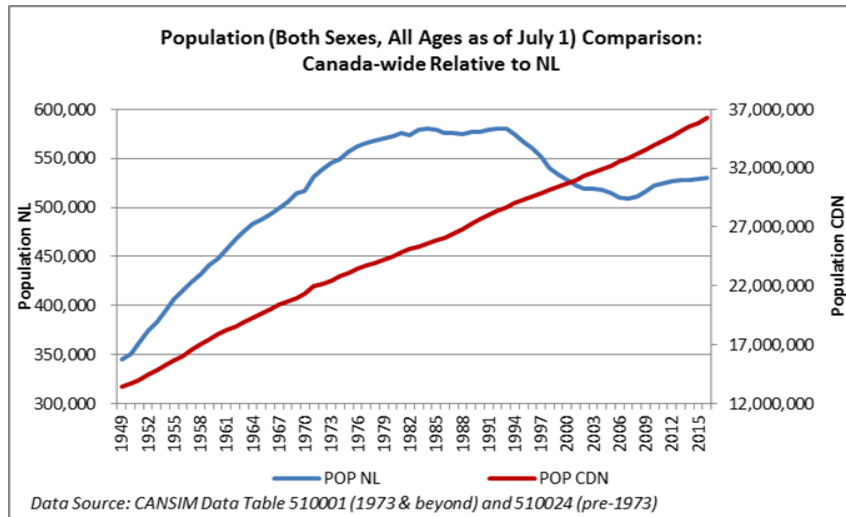
1. NL Economic Performance in Context
2. Memorial University's contribution to economic development
3. The Collaborative Applied Research in Economics (CARE) initiative <http://www.mun.ca/care/>
4. What lessons might there be for Ireland/Waterford?
5. Is a formal collaboration worthwhile between Waterford Institute of Technology and CARE?



By TUBS - Own work. This vector graphics image was created with Adobe Illustrator. This file was uploaded with Commonist. This vector image includes elements that have been taken or adapted from this: Canada location map.svg (by Yug)., CC BY-SA 2.5, <https://commons.wikimedia.org/w/index.php?curid=15951616>

Demographically on the Edge

# Population Levels and Change



The 1992 cod moratorium changed the demographic profile within the province, relative to the country as a whole and relative to all other provinces.

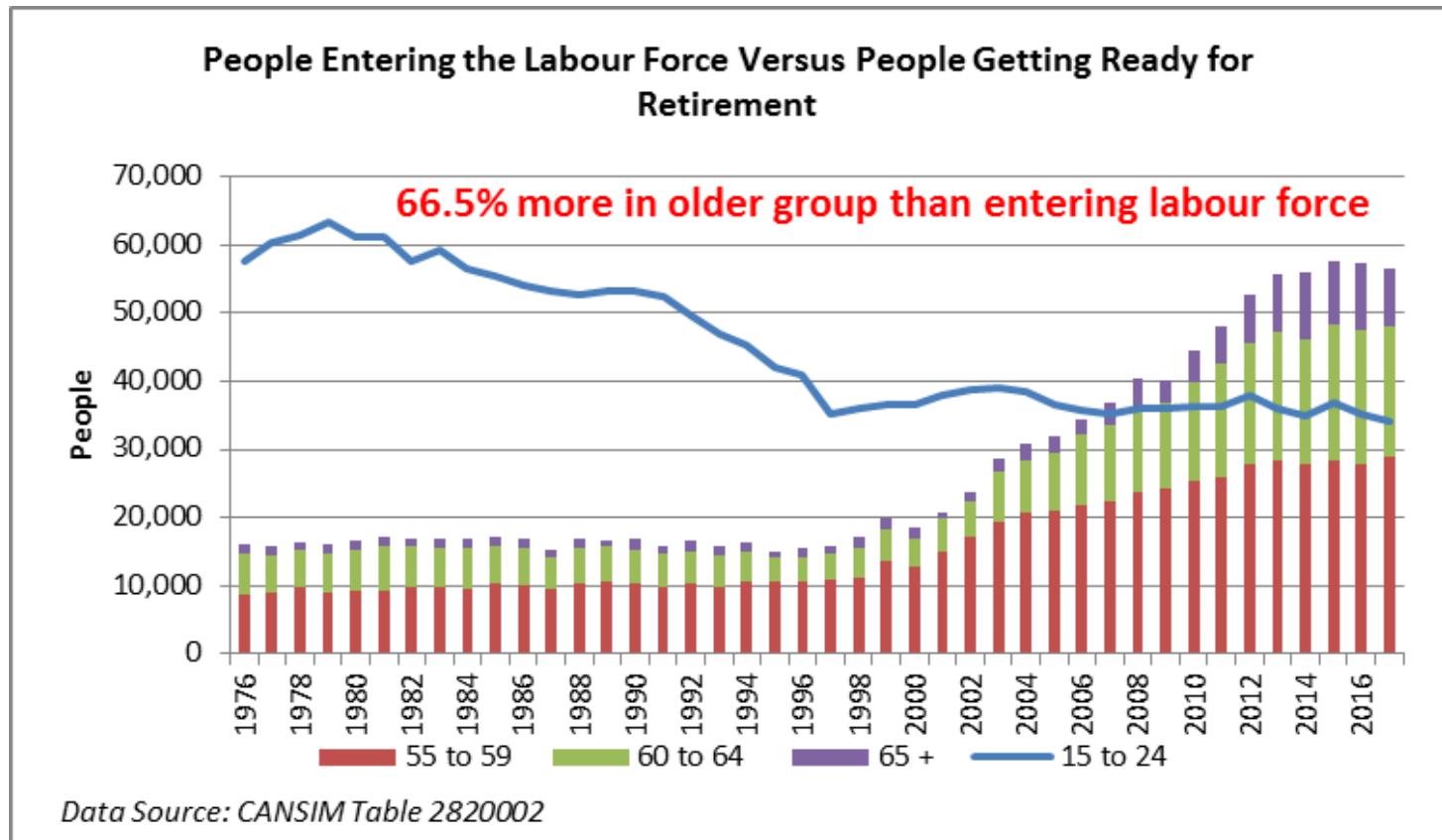
Between 1993 and 2007 our population fell by **12.2%**.

Only province to have experienced a population loss over the period 1990 to 2016

We are getting fewer people and we are getting older

NL went from the youngest to the oldest population (as measured by median age – NL 45.7 and CDN 40.6)

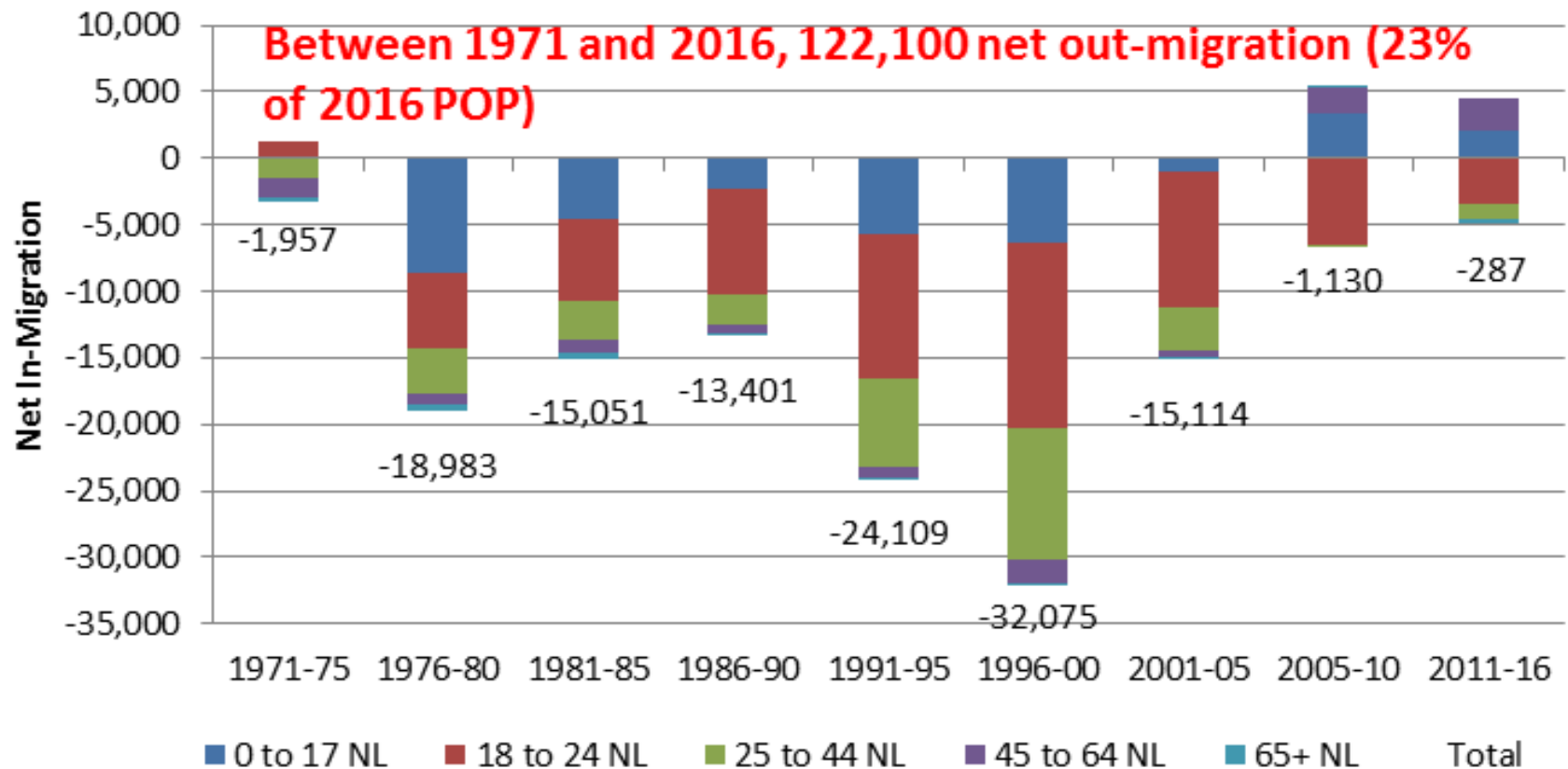
# Older Labour Force



In 2007, NL had more people getting reading for retirement than entering the labour force.

There is a limit on the extent that older workers can continue to substitute for younger workers

## Net Interprovincial In-Migration by Age for Five-Year Intervals - NL



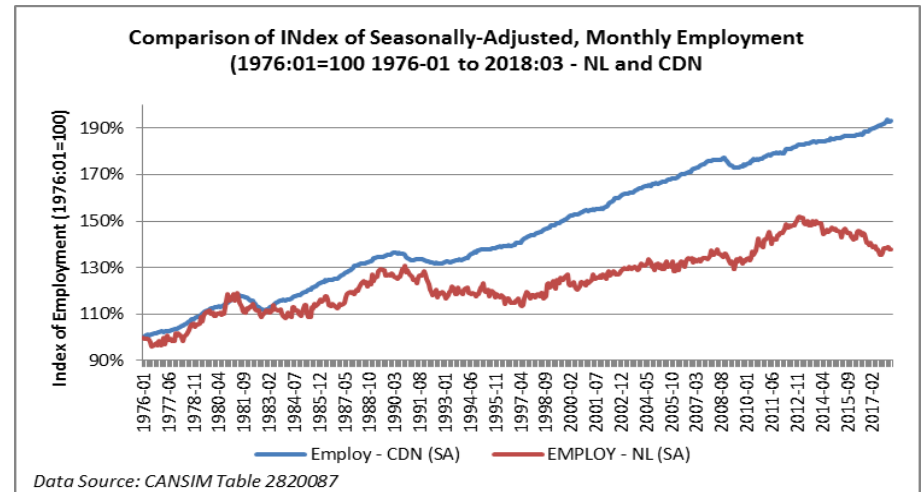
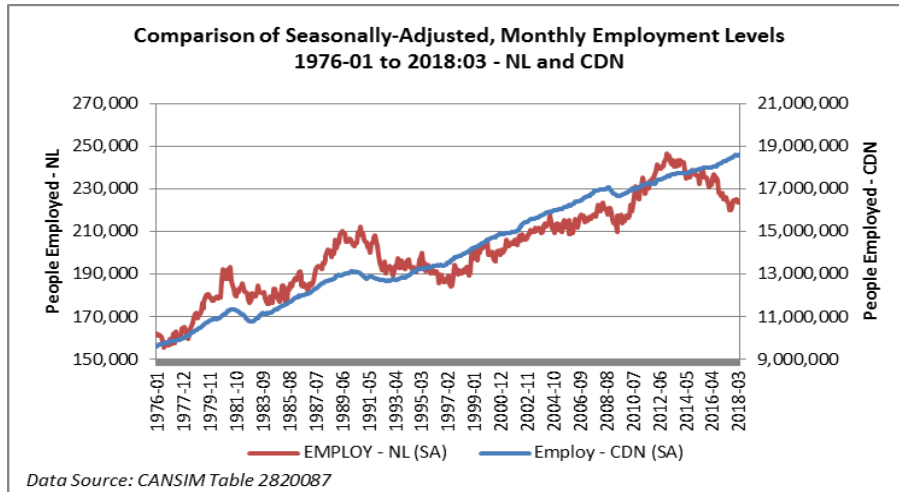
Data source: Author's calculations based on CANSIM Table 510012

Recent in-migrants are in 45 to 64 group and 0 to 17, coming for jobs with families, but even that appears to have reversed in 2016, as reflected by net out-migration from 2011-16

# Economy on the Edge



# Employment



**NL Employment in 2018:03 was 38% higher than 1976:01. The corresponding estimate for CDN was 93%. There was no decline after 2013 in CDN, but there was an obvious decline in NL.**

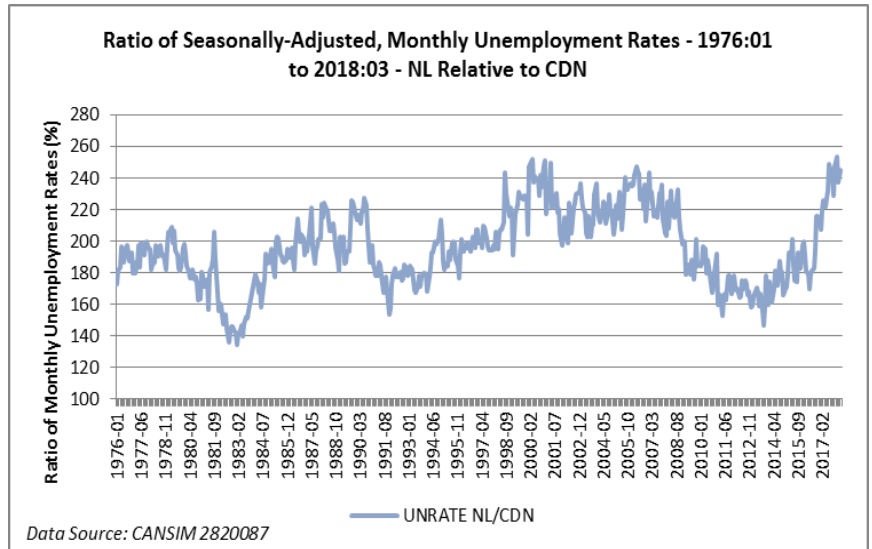
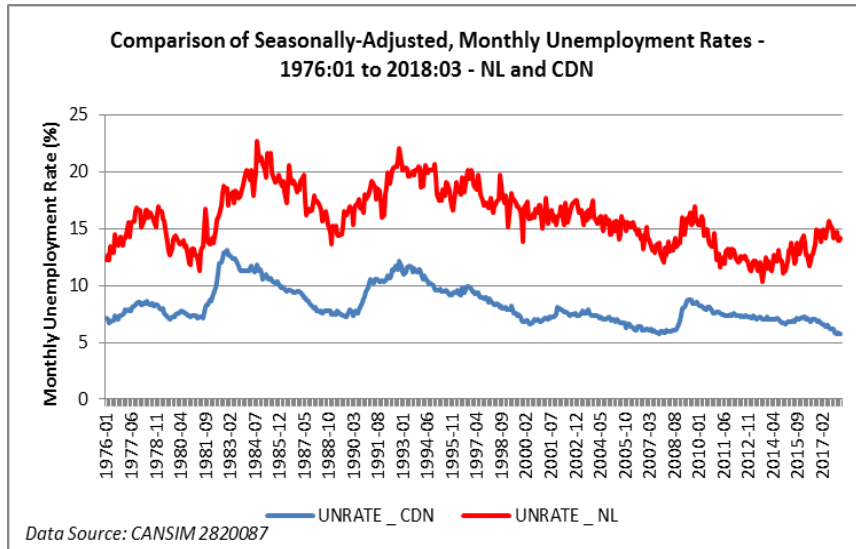
**From 1976:01 to 2018:01, employment of males 25 to 54 increased by only 1.1% (800 people), while employment of females 25 to 54 increased by 188% (50,700)**

**Employment rose from 210,00 in 2009:05 to 246,500 in 2013:01 (+17.4% or 36,500) before falling to 223,500 in 2018:03 (-9.3% or -23,000)**

**Employment growth in NL has not kept up with any other provinces**

**Employment in NL exhibits substantially more seasonality than in other provinces and in recent years, the seasonality has gotten more pronounced**

# Unemployment Rates

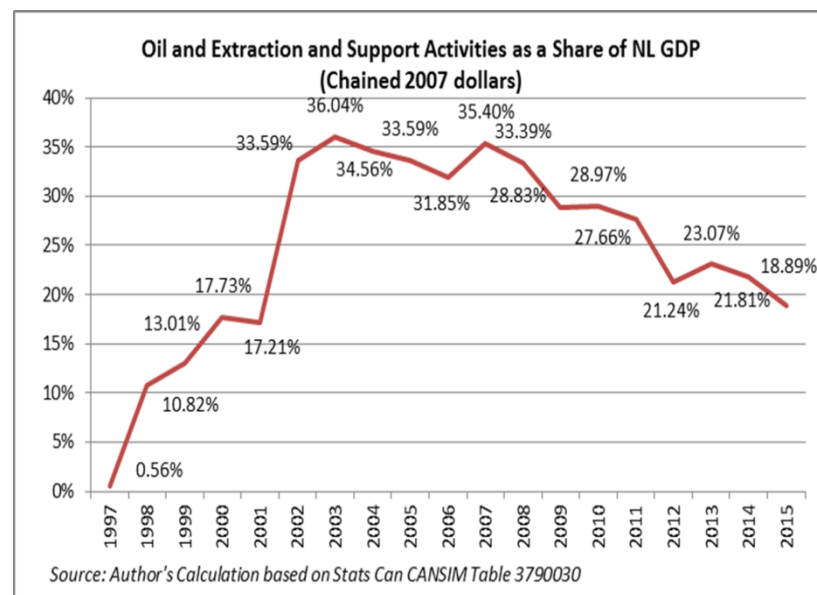
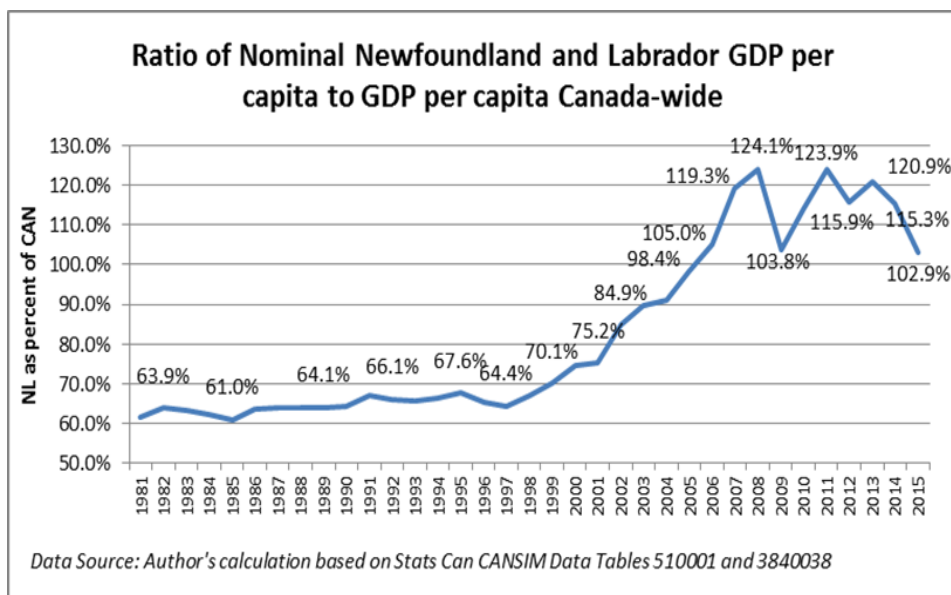


**NL has highest unemployment rate of any province (16% average over the period) and more than double the CDN average (6% over the period). The average ratio of NL UNRATE to CDN UNRATE is 196%**

**NL has lowest participation rate of any province (56% average over the period), which is 10 points lower than the CDN average (56% over the period). The average ratio of NL PARTRATE to CDN PARTRATE is 85%**

**NL has lowest employment rate of any province (47% average over the period) and 23 points less than the CDN average (60% over the period). The average ratio of NL UNRATE to CDN UNRATE is 78%**

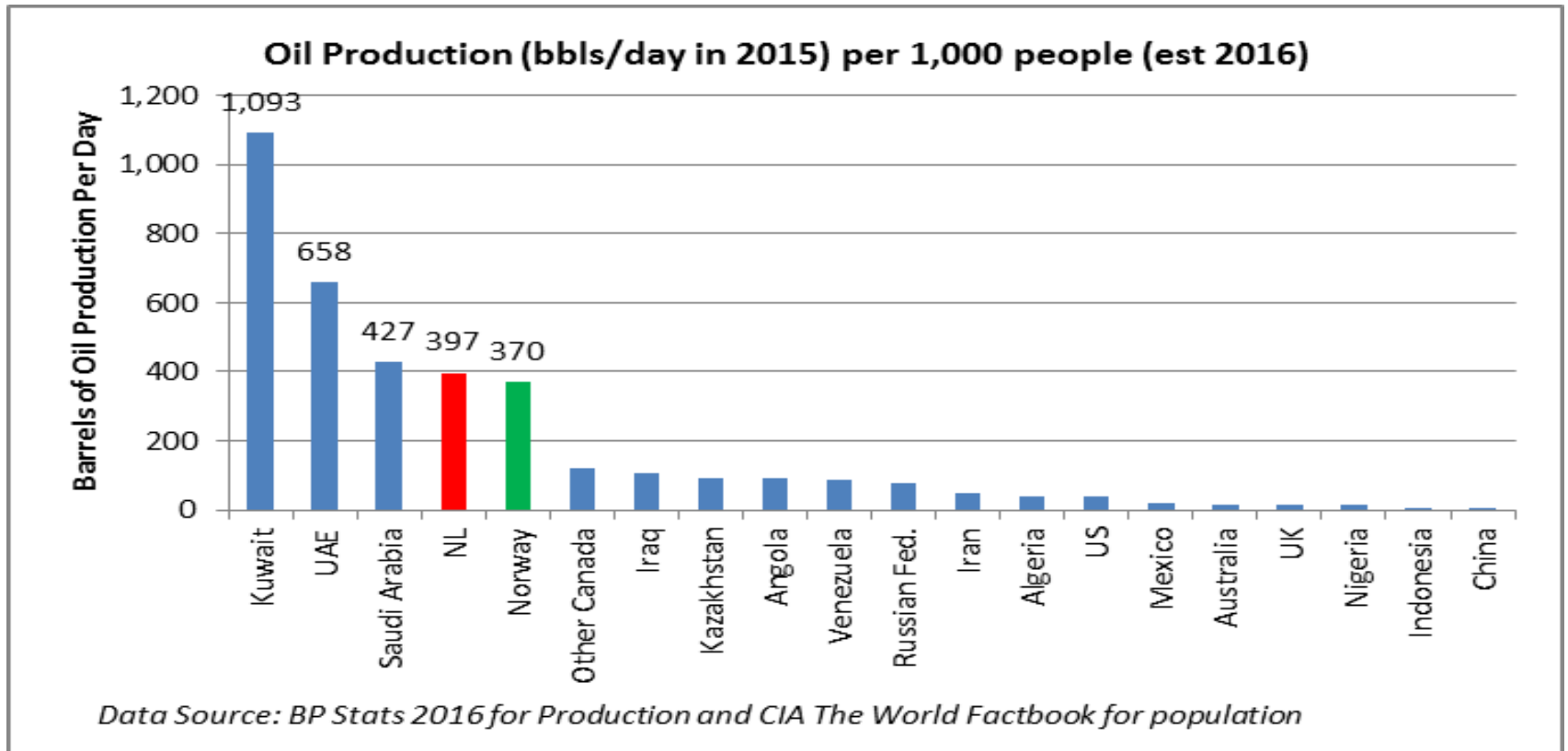
# NL GDP Per Capita Relative to Canada



**While the exploitation of oil meant that NL's economic activity relative to that for Canada has been improving since 1997, in recent years the downturn in prices has had a significant impact upon NL GDP per capita, both in absolute terms and relative to that for the country as a whole**

**As share of NL economy oil has fallen by approximately half of what it was at peak**

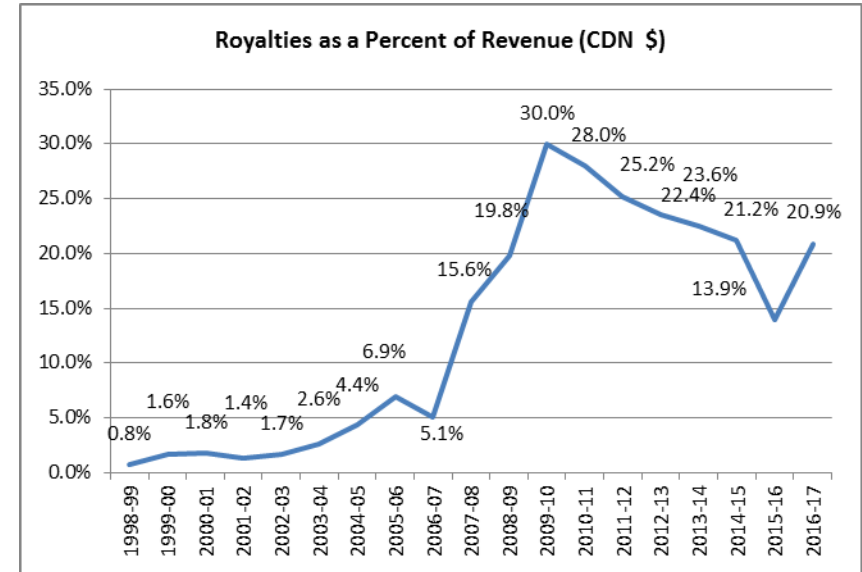
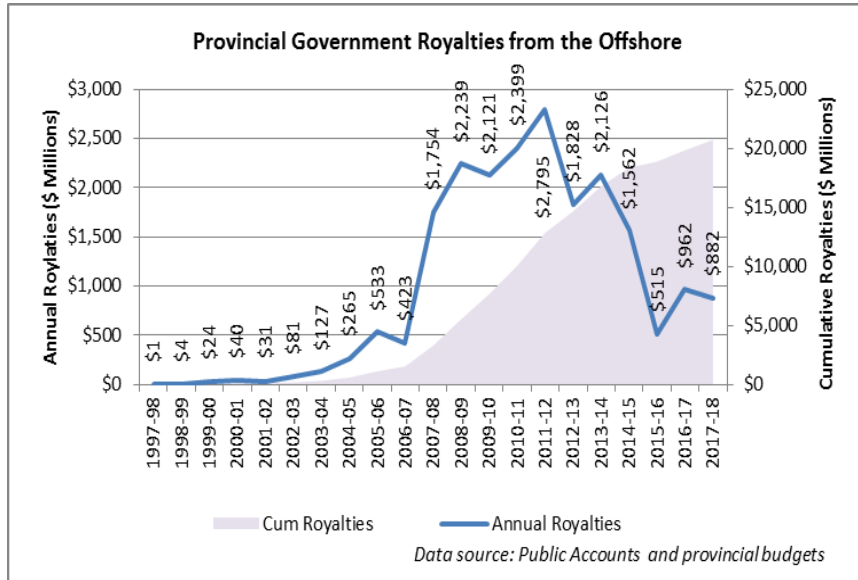
# Relative Importance of Oil to NL



**NL has plenty of resources relative to size of our population, it is not about lacking revenue capacity**

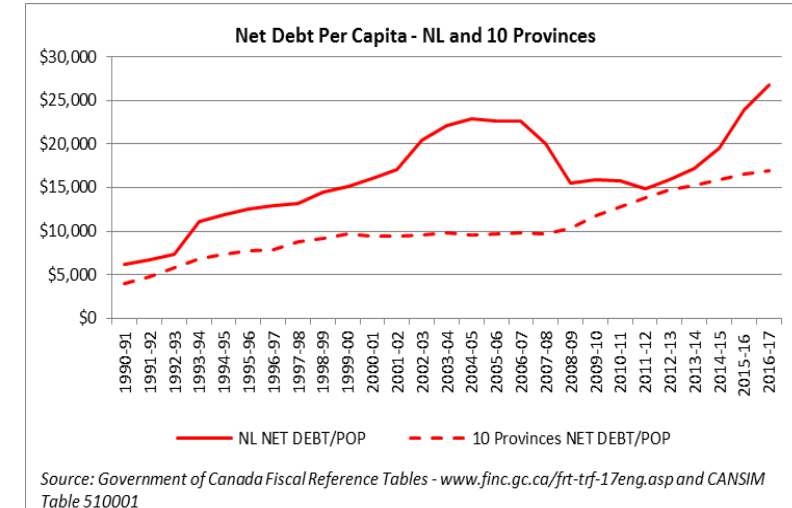
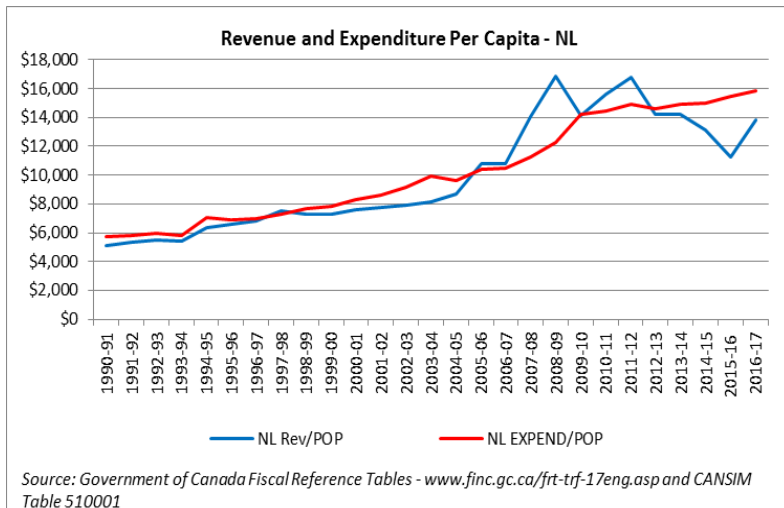
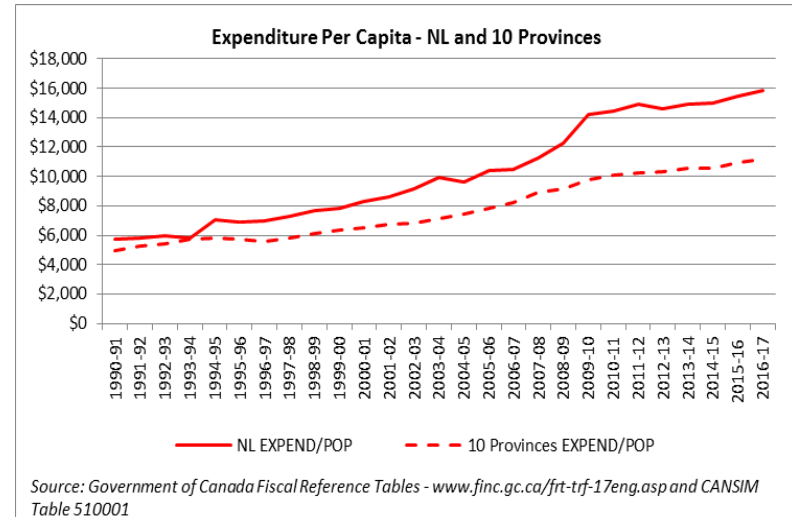
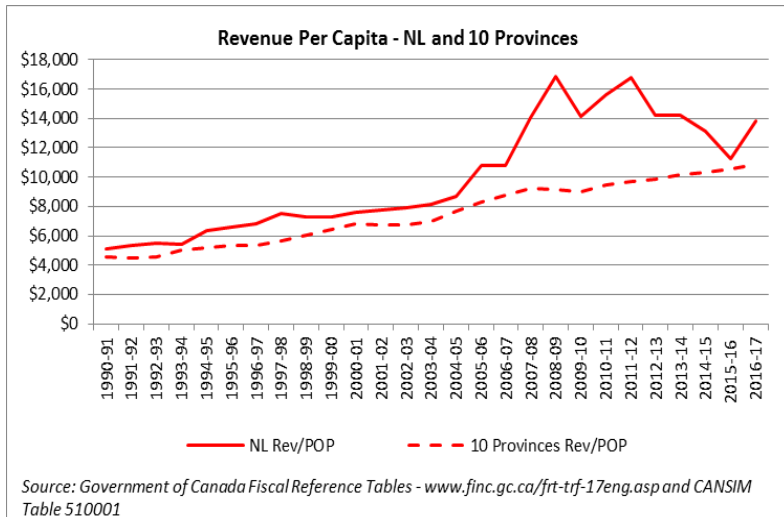
# Fiscally on the Edge

# Oil and Government Revenue

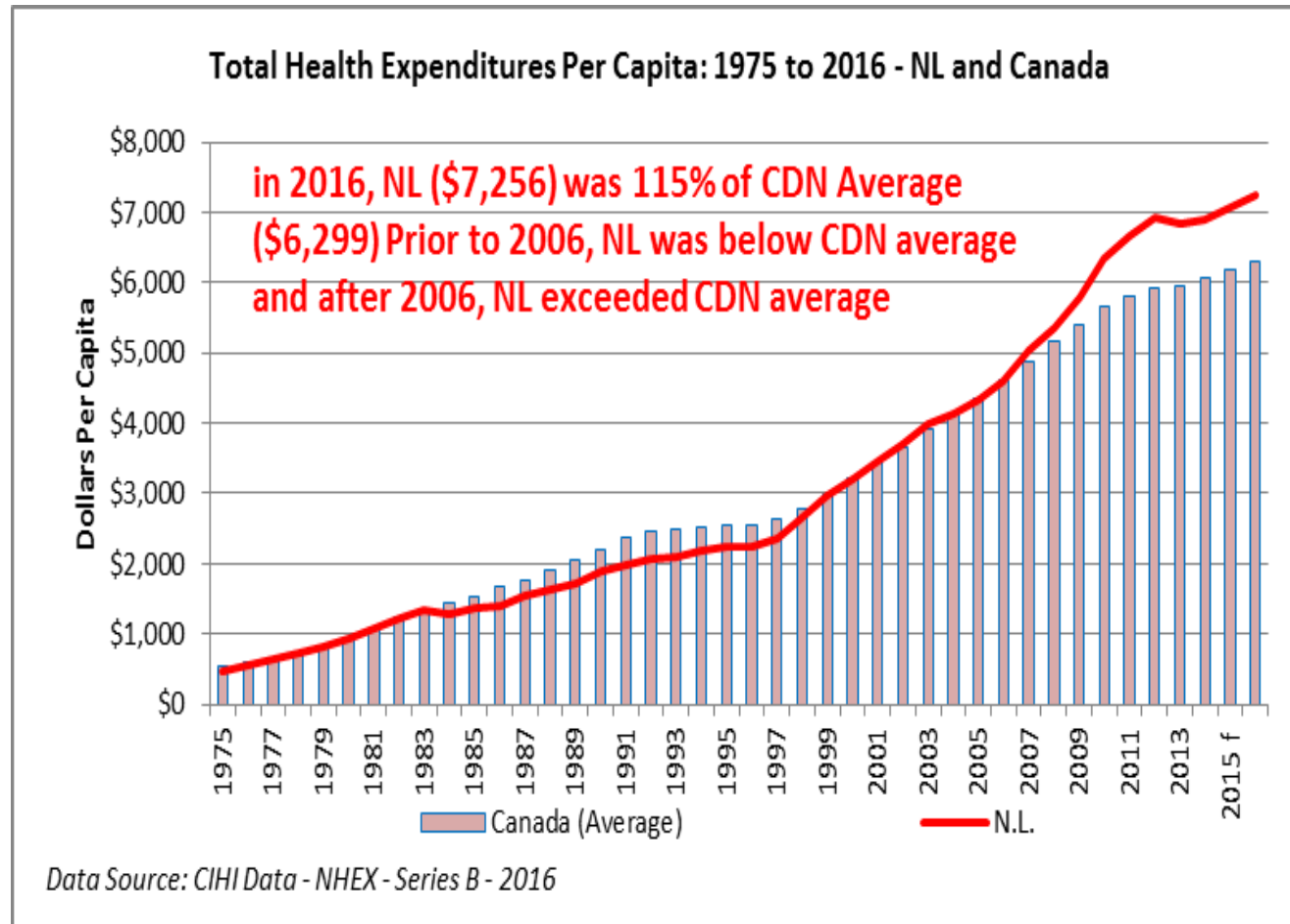


**Oil royalties have fallen from \$2.8 B at peak in 2011-12 to just above \$500 M in 2015-16. This fall of \$2.3 B occurred with no change in expenditure explains why NL has been running deficits recently**

# Highest Per Capita Revenue, Highest Per Capita Expenditure and a Big Fiscal Hole



# Per Capital Health Care Expenditures

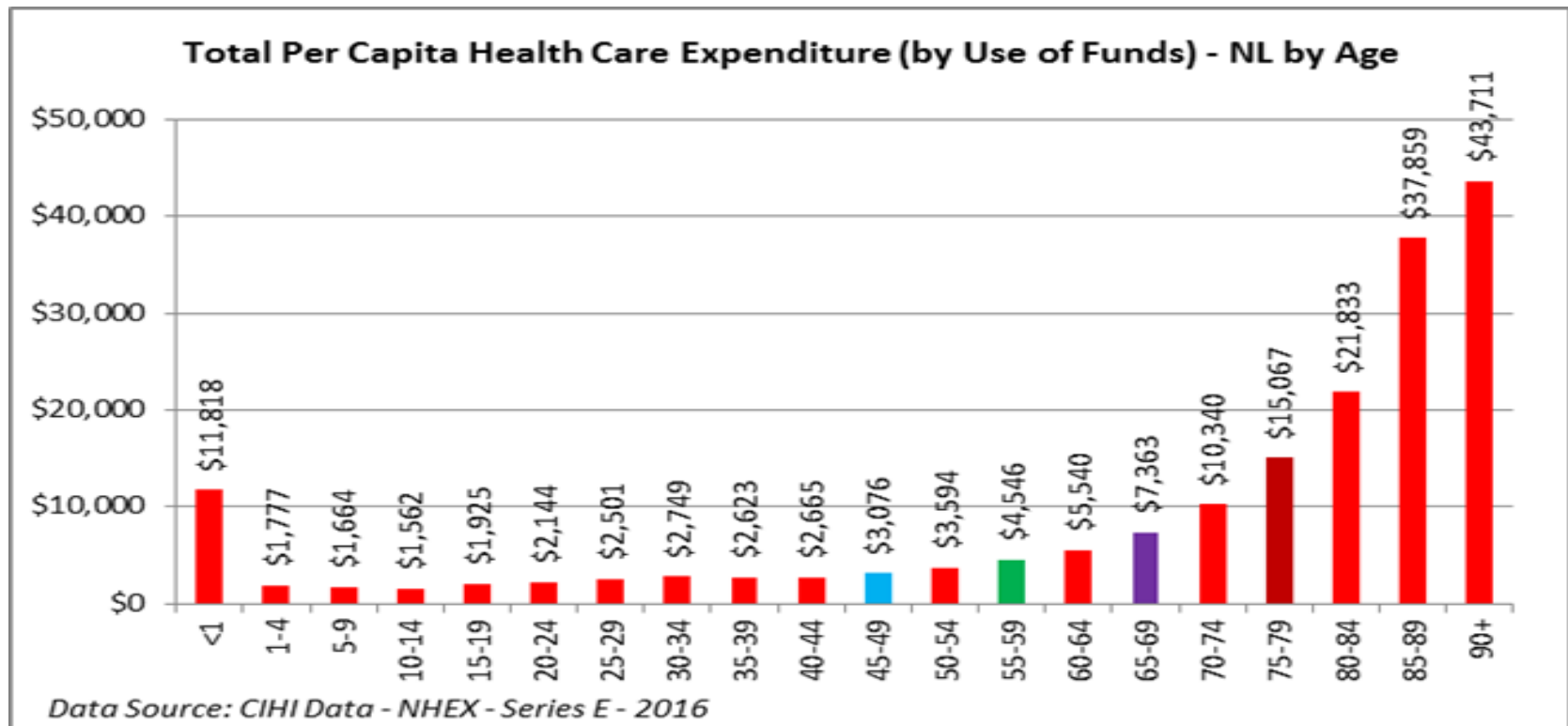


**NL per capita expenditures on total health exceeds that in any other provinces**

**Expenditure per capita on health has been similar to that experienced Canada-wide, but in the most recent decade, NL is far outpacing the rest of Canada.**



# Health Care Costs – Exerting Pressure



An aging population would normally be expected to put more pressure on health care costs, which is one of the most significant cost drivers for the government

On average, it costs NL \$5,060 per capita for health care costs in 2014, which compares to \$3,975 per capita Canada-wide or we were 27.3% higher in per capita terms in 2014. We exceed all other provinces on average – closest is Alberta where we were 8.5% higher in 2014

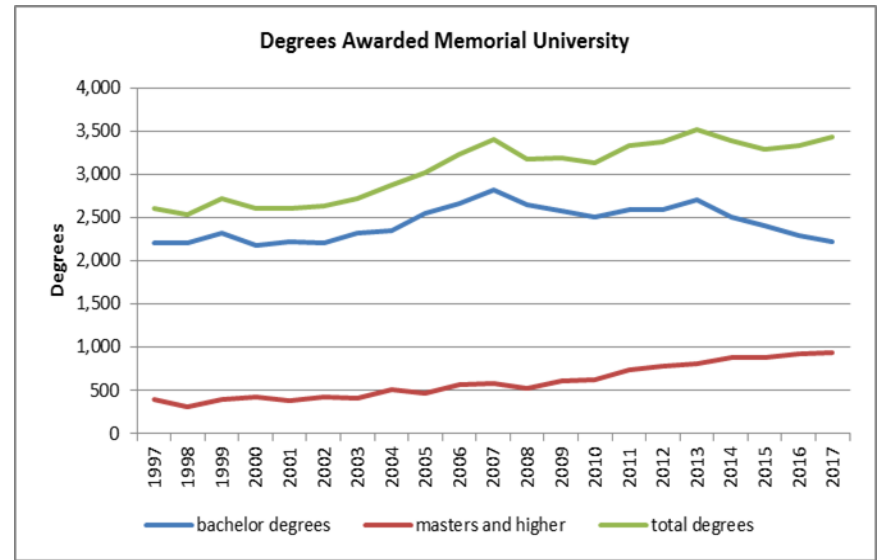
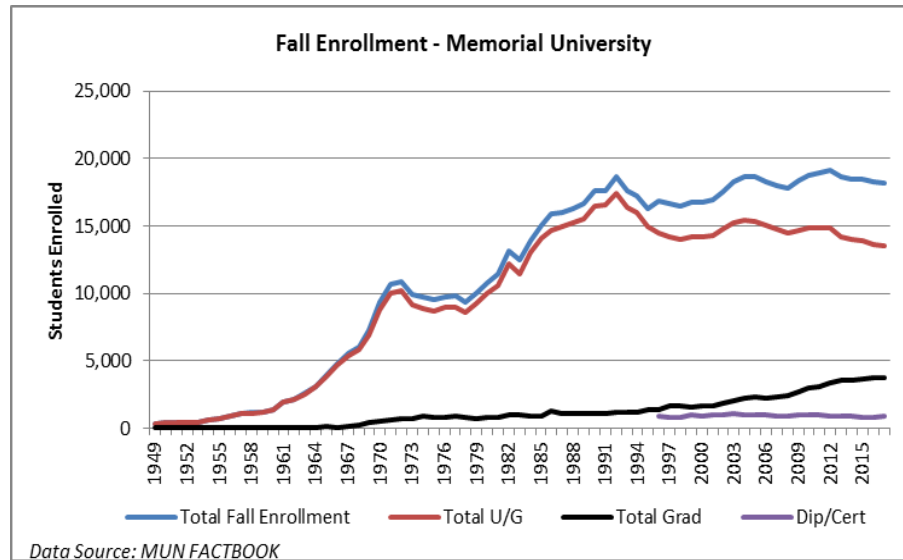
It is one of the most significant cost drivers for the government

Memorial University (MUN)

# Memorial University has a long history of engaging with the community

- MUN, the only university in NL, was established as a memorial to the Newfoundlanders who lost their lives on active service during the First and Second World Wars
- Four Campuses: St. John's main campus, Grenfell Campus (Corner Brook), Marine Institute and Harlow Campus
- It is a comprehensive university that has more than 100 degree program options
  - It has everything, but a law school, a school of dentistry and a veterinary college
- Memorial recognizes that it has a special obligation to the people of this province.

# Memorial University - Enrollment



**When NL entered confederation 1949, there were 307 enrolled at Memorial College, by 1961, with the opening of the St. John's campus, there 1,925 and today there are 18,204**

**75% of students are UG, 20% are GRAD & 5% enrolled in Diplomas/Certificates**

**About 20% of students are part-time and 5% Diplomas/Certificates**

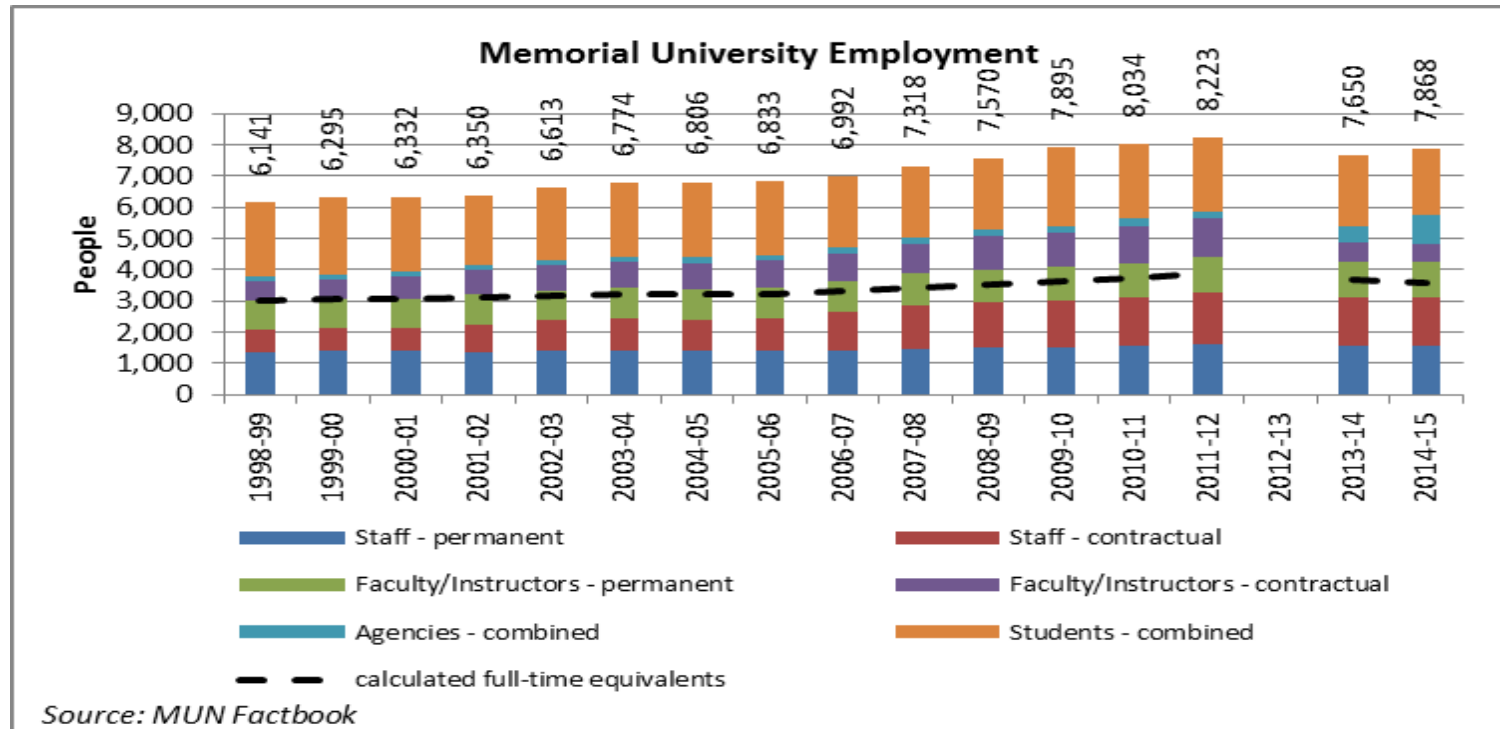
**85% UG students are full-time and 64% of GRAD students are full-time**

**UG enrollment is in decline (13,564, which is down from peak 17,453 in 1991), while GRAD enrollment is increasing (currently 3,774)**

**In 2017, NL students make up 68%, Rest of Canada make up 16% and international comprise 16%**

**In 2005, NL students made up 83%, Rest of Canada make up 12% and international comprise 5%**

# Memorial University Employment



**On average from 2006-07 to 2014-15**

**Approximately 2,000 faculty (53% permanent & 47% contractual)**

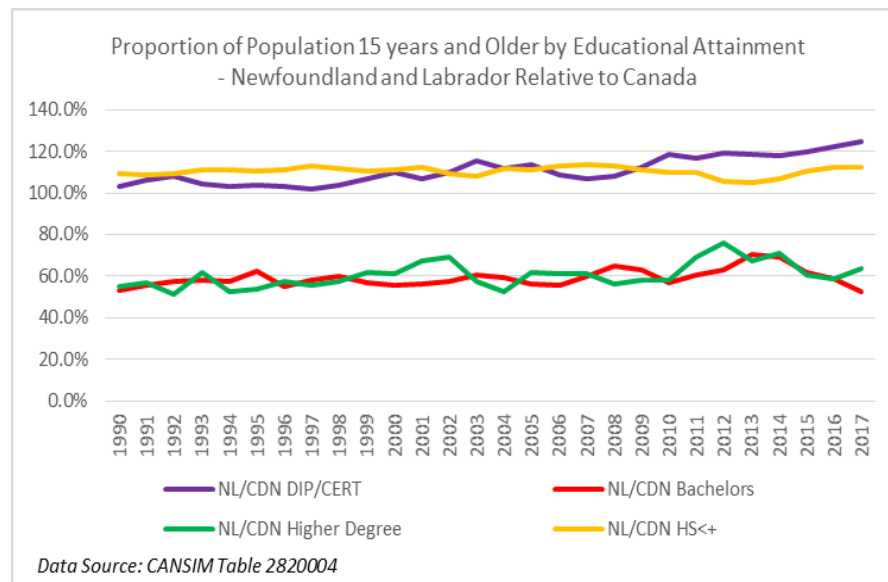
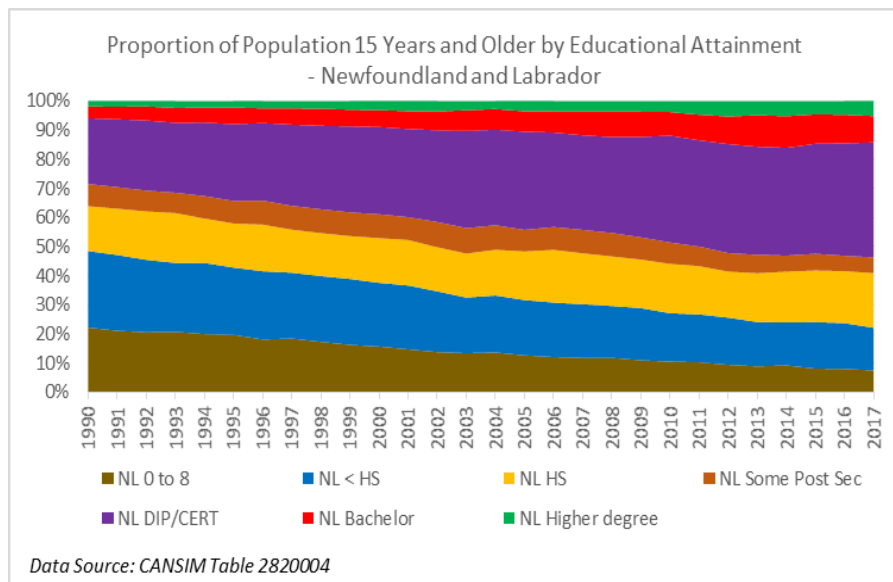
**Approximately 3,000 staff (51% permanent & 49% contractual)**

**Approximately 2,300 students and 350 contractual employees at agencies (e.g. Bookstore)**

**Approximately 7,700 total employees for 3,600 full-time equivalent employees**

**MUN accounts for 5.6% of employment, 4.2% of earned incomes and 3.1% of GDP in NL**

# Educational Attainment



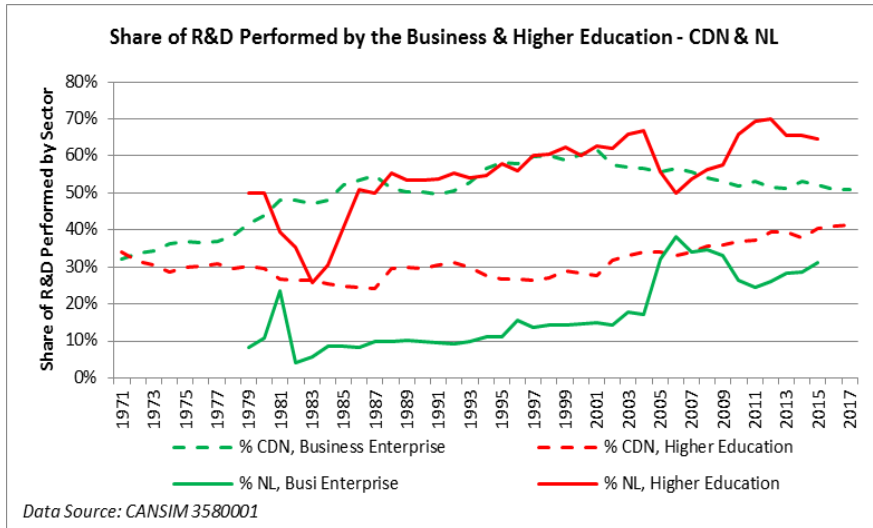
**NL is about 60% of Canadian average in terms of university degrees**

- NL rose from 6% in 1990 to 14% in 2017
- Canada rose from 11% in 1990 to 23% in 2017

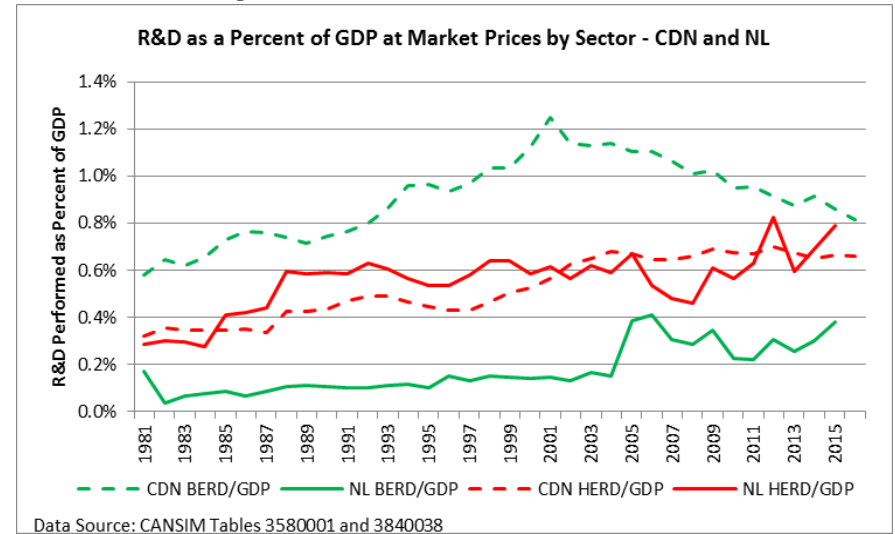
**In 1990, 63% of NL had HS or less, but this decreased to 53% in 2017**

**For Canada 59% had HS or less in 1990, but decreased to 36% in 2017**

# R&D Performed by Sector



	Business Share	Higher Ed Share
NL	17.35%	55.17%
CDN	53.39%	30.82%



	Business R&D/GDP	Higher Ed R&D/GDP
NL	0.18%	0.55%
CDN	0.91%	0.52%

Noticeable difference in R&D undertaken by the business sector and the higher education sector in NL relative to the Canadian average (relationship is inverted)

Notwithstanding the differences in the incentive structures, a relative small business sector performing R&D implies lower ability to adopt and adapt technology, to develop technology and to apply technology to facilitate innovation, productivity and development

In this environment, the university has a larger role to play in engaging with the community to enable enhanced innovation, productivity and economic development

# Memorial University has a long history of engaging with the community

- Memorial has a long history of engaging with the community and CARE is one of many vehicles through which this is achieved
  - MUN Extension services 1959 to 1991 provided continuing education and facilitated the ability of people to be actively involved in their own communities as field workers actually lived in amongst the people in rural areas
  - Institute for Social and Economic Research (ISER) started in 1961 to create a research environment that encouraged research in economic and social issues important to Newfoundland
  - The Genesis Centre was founded in 1997 to help entrepreneurs commercialize their ideas and to build successful companies in Newfoundland and Labrador.
  - the Harris Centre was established in 2004 to coordinate and facilitate the university's educational, research and outreach activities in the areas of regional policy and development through Workshops, Synergy Sessions, and Memorial Presents
  - The Memorial Centre for Entrepreneurship (MCE), established in 2017, is a network that promotes entrepreneurship for Memorial students, faculty and staff and the development of new business ideas. Its main purpose is to create and promote the idea of an “attractive entrepreneurial ecosystem”.
  - Centre for Social Enterprise (CSE) ), established in 2017, is a partnership between the Faculty of Business Administration, the School of Social Work and the School of Music to help others in the province by developing social enterprises and social innovation



C.A.R.E.

<http://www.mun.ca/care/>



# Collaborative Applied Research in Economics :

- CARE is a collaborative approach to applied research in Newfoundland and Labrador.
- Our objective is to promote applied economic research within the region, with a view to promoting a greater understanding of our economies and any associated wider social impacts.
- In carrying out research, that is both technical and of interest to Newfoundland and Labrador, we seek to integrate students into the applied research projects
- The integration of students improves their skills and increases their interests in carrying out further research in this area and, in so doing, this increases their knowledge capital and provides them skills that make them more productive employees when they enter the job market.
- CARE purchases necessary software and hardware in support of research, funds faculty teaching release time, supports promising students and provides travel assistance for consortium members to disseminate their research work and to collaborate with researchers in other jurisdictions.

# Collaborative Applied Research in Economics :

- CARE is in the second three-year period of funding.
- In the first three years, CARE received approximately \$700,000 CDN in unconditional grants from Industry, the Provincial Government, the Government of Canada, the Office of the Vice-President Research, and the Office of the Dean of Arts
- In the second three years, CARE received approximately \$1,000,000 CDN in unconditional grants from Industry, the Provincial Government, the Government of Canada, the Office of the Vice-President Research, and the Office of the Dean of Arts
- In applying for the funding, we have indicated general categories of spending, such as students, computers, software, marketing and administrative support, but did not specify the specific projects to which these funds would be applied
- CARE provides grants, through an application process), to interested researchers who are proposing to undertake interesting and relevant research  
(<http://www.mun.ca/care/about/application.php>)
- CARE retains the right to disseminate the research via our website and requires a public presentation on the research, but we encourage the authors to published the results in mainstream academic journals – that is, there is joint copyright with the research report

# Collaborative Applied Research in Economics

- CARE's objectives are:
  - to encourage students to become involved and to mentor students engaged in applied economic analysis.
  - to provide opportunities for integrating students into an effective and stimulating applied research environment
  - to increase graduate and undergraduate student employment in applied research projects, which should awaken the interest/passion for NL-based research
  - to transform the research environment and build research capacity within NL through encouragement, inducements and incentives
  - to develop a collegial research cluster in order to enhance research capacity and effort and improve research productivity
  - to expand the department's ability to make meaningful contributions to the province in terms of evidence-based policy advice

# Collaborative Applied Research in Economics

- CARE has a collegial governance structure (funding decisions made by majority vote of three principal investigators)
- Research is not directed by anyone, but driven by intellectual curiosity of researchers
- CARE does not engage in consulting
- CARE philosophy is that everything we do is to be available to the public
- CARE has an advisory committee to help generate feedback once a year on research topics that may have interest in the community.
- The advisory committee includes representatives from three levels of government, industry, labour groups , social groups, business groups and academia
- The annual advisory meeting is really brainstorming session once a year to help researchers appreciate what might be applied research topics that are of interest to the broader community

# Collaborative Applied Research in Economics

- The advisory committee is integral to the success of CARE
- Their advice, suggestions and guidance facilitates the ability of CARE to make a meaningful impact on the society and economy of Newfoundland and Labrador through providing professional and comprehensive research that both meets academic rigor and addresses real world issues that are important to people of the province, while simultaneously effectively communicating the research results to policy makers, other stakeholders and the general public
- The partnership of our advisory committee, our collaborating economists and our students increase the likelihood of our success in contributing to better policy analysis and improved applied economics research within Newfoundland and Labrador

# Collaborative Applied Research in Economics

- CARE has Twitter and Facebook accounts and a website that are continuously updated
- We have an email list of thought leaders (close to 400 people) to whom we email information on our outputs, our activities and the events that we are sponsoring
- CARE releases monthly the Labour Market Observer and CARFOR (our forecast of key economic indicators)
- CARE produces information videos to make complex economic concepts accessible to the general public
- CARE researchers makes presentations on interesting and relevant economics issues of the day and post them on our website
- CARE sponsors panel discussions on various aspects of public policy
- CARE researchers release commentaries on important economic debates/discussions
- CARE researchers generate and disseminate knowledge through the support and publication of research topics on our website, through mainstream academic journals and via sponsored visiting speakers
- CARE hires graduate and undergraduate students and post-doc students

# Collaborative Applied Research in Economics

- CARE research topics run the gamut from:
- income inequality, poverty, social progress,
- productivity and innovation,
- discrimination and health, mental health and insurance, full day forum on health outcomes and healthcare costs addressing: What Can We Afford?
- economic well-being, economics performance of young cancer survivors,
- gender wages gaps, defining the fiscal and economic realities being faced by the province,
- economic impacts of cruise tourism, universities, the community sector, and culture and heritage,
- and resource studies involving the fishery, electricity, oil and gas, the environment, taxation, and royalty analysis.



# Collaborative Applied Research in Economics

- At the end of the day, economics has a role to play in helping to improve peoples' lives (their well being)
- The math and statistical skills help us gather and analyze data and ask better and more precise questions so we are further ahead and are better placed on how to interpret data and information
- We need to be innovative in how we approach knowledge mobilization and outreach
- We see the Collaborative Applied Research in Economics as a good first step in this direction

# Lessons for Ireland

# Lessons (1)

- The CARE model can work with reasonable funding
- It is important to have institutional champions that appreciate and understand the importance of what you are trying to accomplish
- Have an established mandate that focuses on local problems and solutions to the same through the provision of evidence derived from technical and legitimate research. Your research needs to be technical and relevant to real world problems
- It is important to involve local and national politicians so that they can understand what you are doing, but it is a must to include the technical bureaucrats, key people in business, labour, social groups and thought leaders in your advisory committee
- It is important to be transparent and non-political, while tackling the important political issues of the day
- Help your local media understand what you are doing and trying to do and continuously let them know what you are doing

# Lessons (2)

- Have an extensive and broad group of collaborating researchers, which cuts across many disciplines
- Never miss an opportunity to involve the public and those outside the institution
- Have many different way of disseminating your information
- Don't be afraid to fail, you need to take risks when you are trying to be innovative in tackling you issues
- It is important to provide an honest and accurate portrayal of the research that is understandable to the intelligent lay person
- Have your dissemination vehicle be dynamic and continuously updated
- Look around to see what is working elsewhere and do not be afraid to collaborate with others throughout Ireland and internationally – knowledge transfers go in both directions
- Good Luck