

# P20: Is Canada able to meet its needs for research and innovation on northern issues, given that it does not have graduate programs situated in the three Canadian territories?



Association of Canadian Universities for Northern Studies (ACUNS)  
Association universitaire canadienne d'études nordiques (AUCEN)



YUKON RESEARCH CENTRE  
Yukon College



Northwest Territories



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Nunavut Arctic College



ArcticNet

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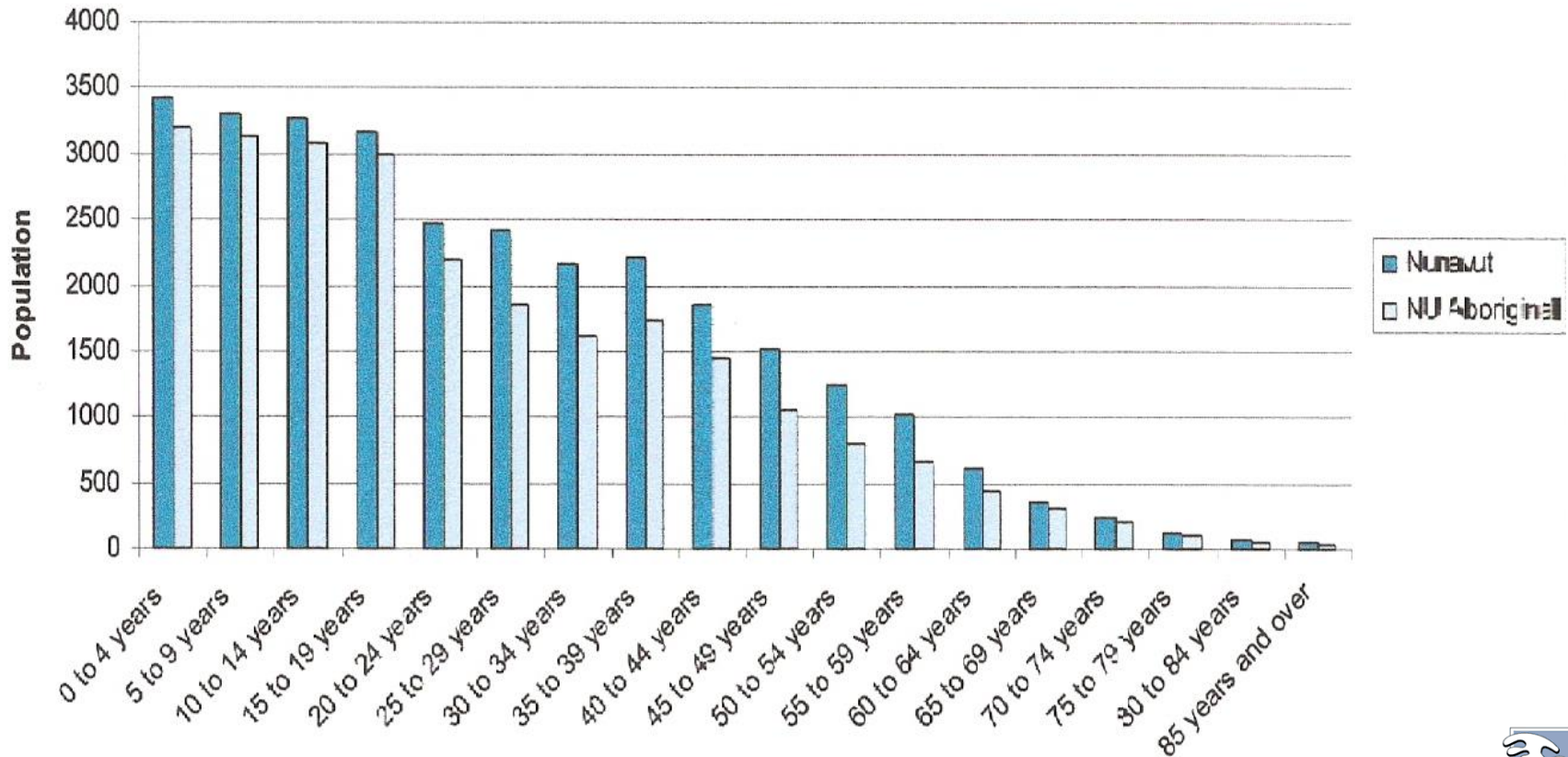


Speaker	Topic	Time
<b>Lindsay Sowadluapik-Lloyd</b> <i>Nunavut Arctic College</i>	What are the needs?	20 min
<b>Andrew Applejohn</b> <i>Government of Northwest Territories</i>		
<b>Jean-Sebastian Blais</b> <i>Government of Yukon</i>		
<b>Jennifer Provencher</b> <i>Association of Polar Early Career Scientists</i>		
<b>Chris Hawkins</b> <i>Yukon Research Centre</i>	How are needs being met?	15 min
<b>Kevin Turner</b> <i>Association of Canadian Universities for Northern Studies</i>		
<b>Martin Fortier</b> <i>ArcticNet</i>		
<b>Audience Q&amp;A</b>	Audience Q&A	45 min

# What are the needs?

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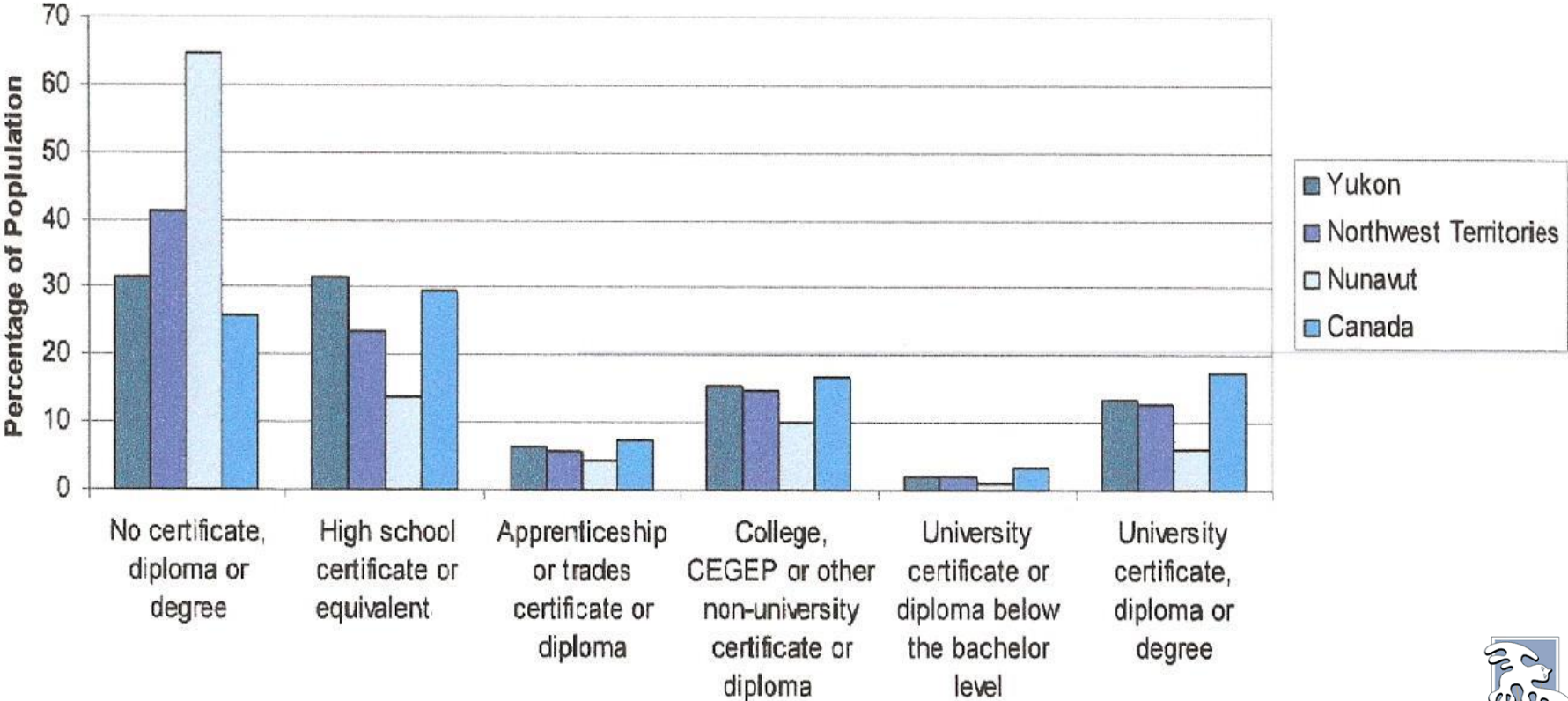
# Nunavummiut Age Distribution



**What are the needs?** Lindsay Sowadluapik-Lloyd, Nunavut Arctic College



# Nunavummiut Education Attainment



*What are the needs?* Lindsay Sowadluapik-Lloyd, Nunavut Arctic College



# NWT: The need for science

## GNWT Science Agenda:

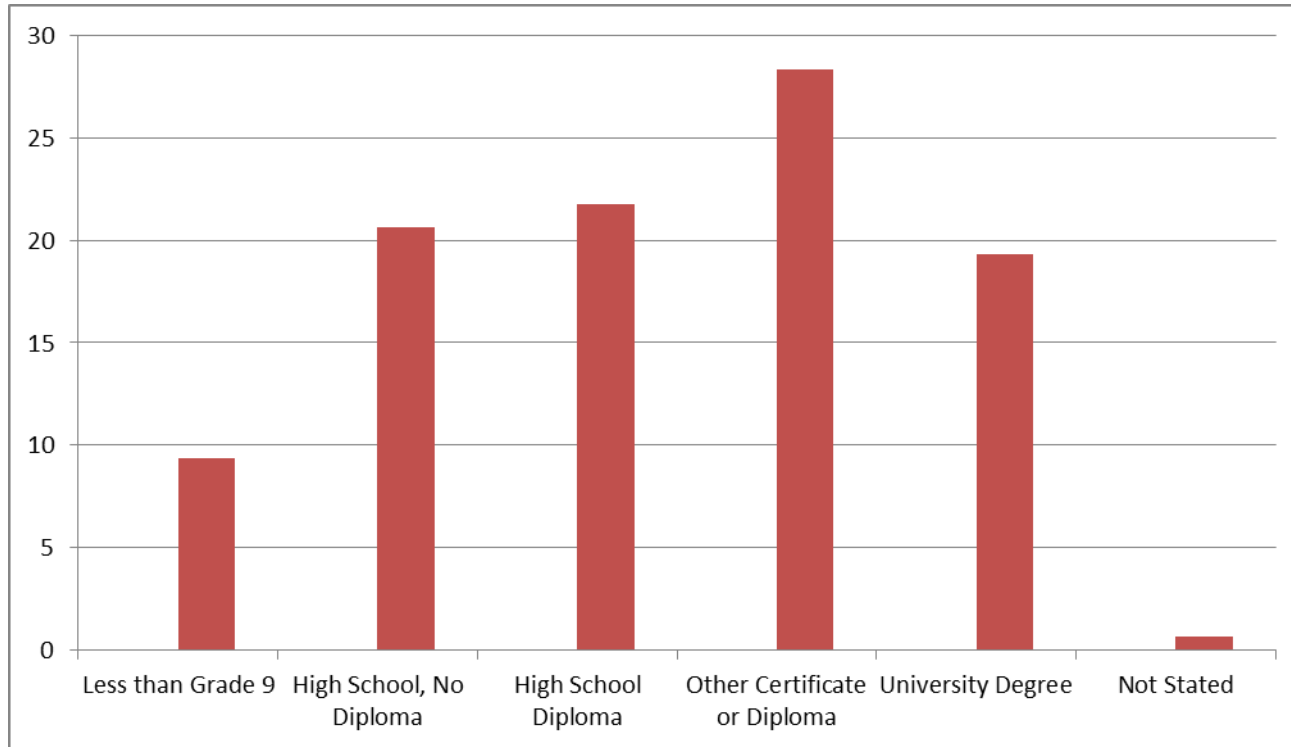
- “The Government of the Northwest Territories will be an active leader, practitioner, partner and promoter of scientific research, regulation and integration throughout the territory to inform relevant, timely and effective policy, planning and legislation for its constituents”
- Requirement for sound reliable evidence based information for decision making
- Requirement for scientific information to address major environmental, social and political change
- Commitment to providing science based information in binding agreements and strategies made at territorial , national, and international levels and GNWT has legislation which requires science based information to implement
- Establishes roles for GNWT in relation to science
- Establishes goals for GNWT



***What are the needs?*** Andrew Applejohn, Government of Nunavut



# NWT Highest Level of Education



Source: 2009 Community Survey  
Prepared by: NWT Bureau of Statistics

***What are the needs?*** Andrew Applejohn, Government of Nunavut

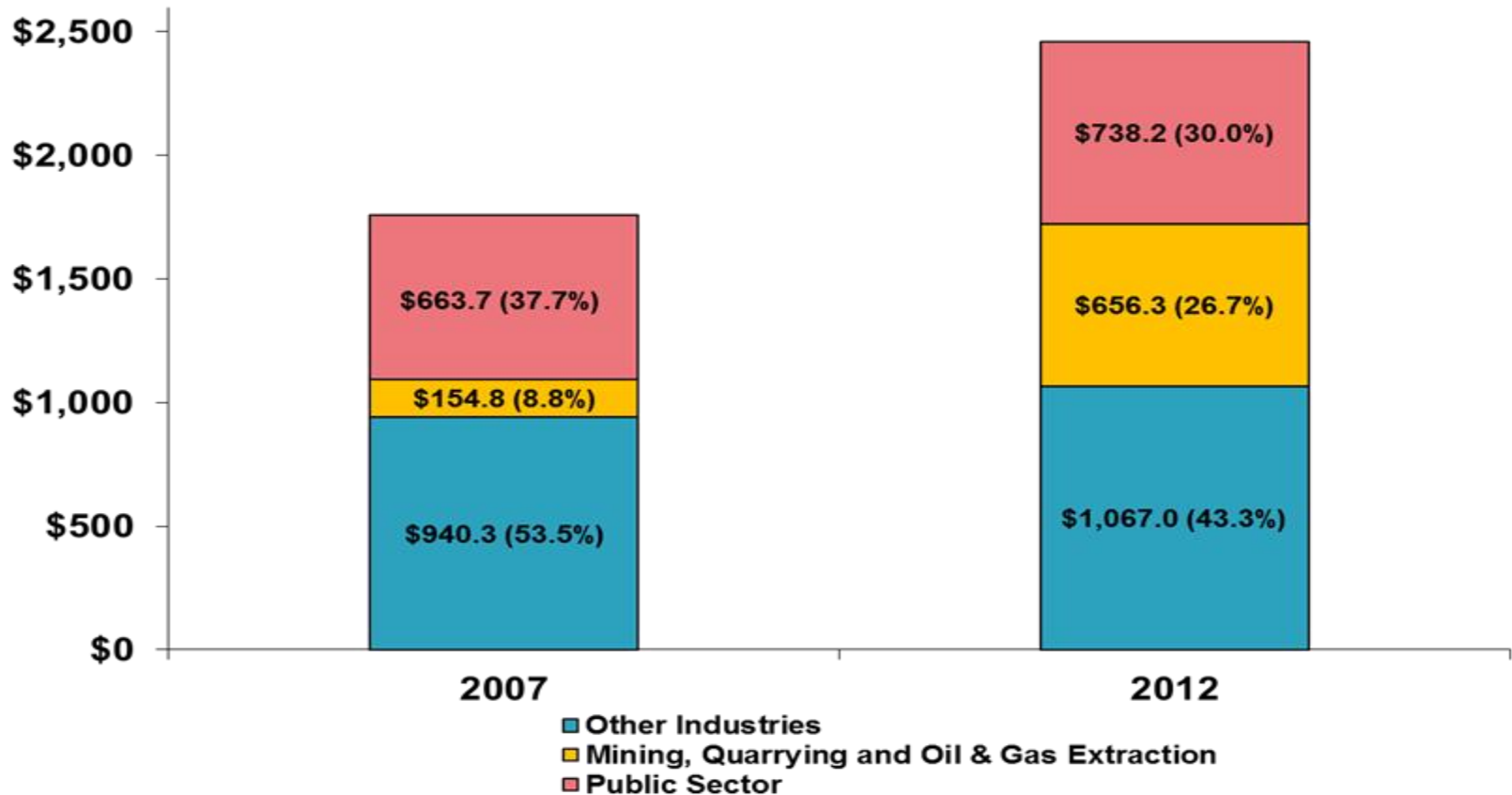


# Drivers of NWT Science HR Needs

- Devolution of responsibilities from Canada to GNWT
  - Environment and Natural Resources
  - Lands
  - Industry Tourism and Investment
  - Municipal and Community Affairs
- Industrial development
- Climate Change

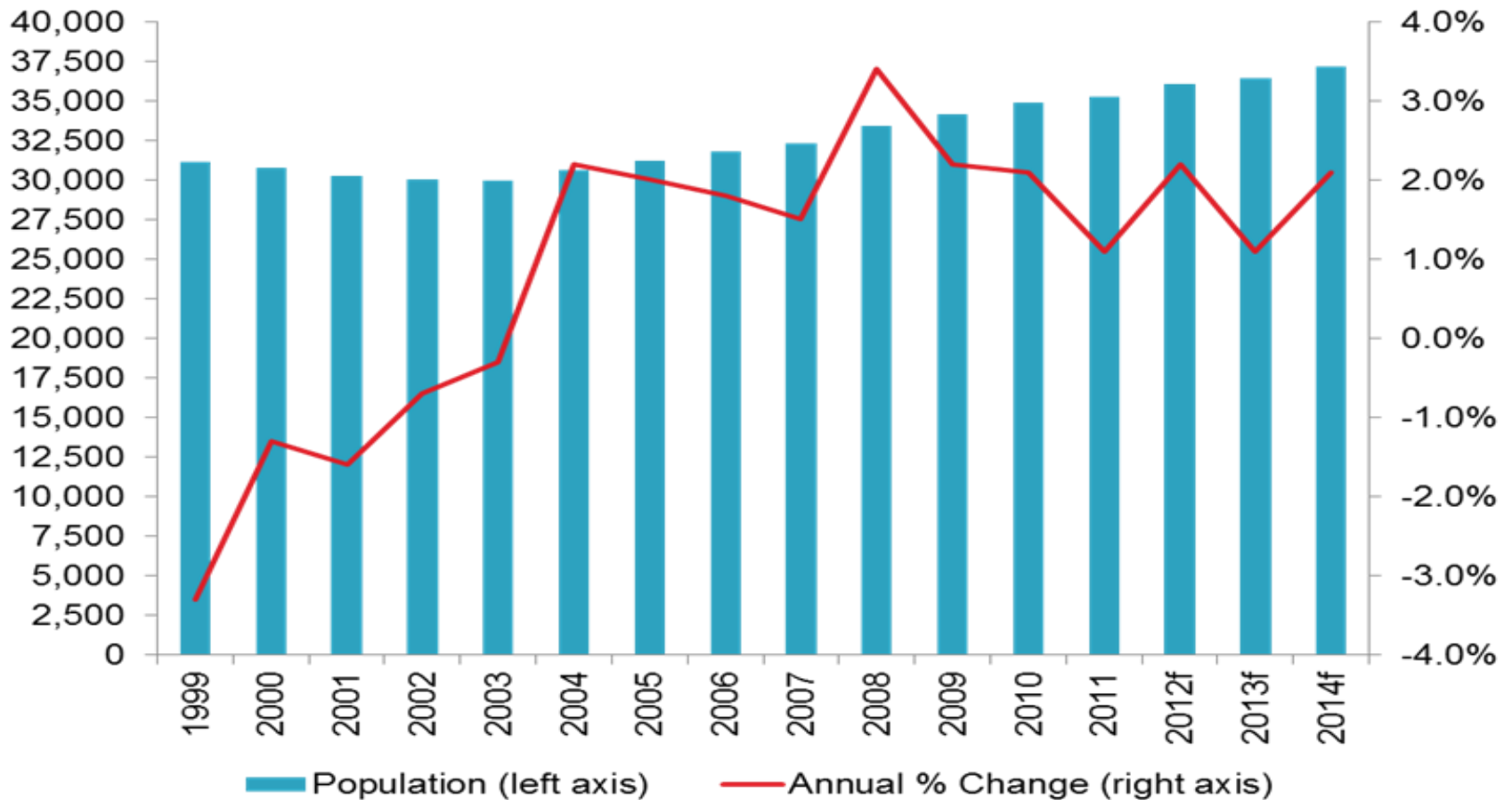


# Yukon: A need for skills



*What are the needs?* Jean-Sebastien-Blais, Government of Yukon

# Yukon's Changing Population



*What are the needs?* Jean-Sebastien-Blais, Government of Yukon

# Yukon's Labour Market Strategy




\* These are now combined into one strategy


# Disconnect between needs and what is being taught

**APECS** Association of Polar Early Career Scientists | **UC** UNIVERSITY OF CANTERBURY | **NSF** | Shaping the Future of Polar Research

## Working with Northern Communities

**Dr. Gary Kofinas**  
Associate Professor of Resource Policy and Management  
School of Natural Resources and Agricultural Science  
University of Alaska – Fairbanks, USA






**APECS** Association of Polar Early Career Scientists | **UC** UNIVERSITY OF CANTERBURY | **NSF** | Shaping the Future of Polar Research

## Non-Academic Careers in Polar Research

Kriss Rokkan Iversen, Co-Founder and Co-Founder of SALT  
Faustine Bernadac, Polar Field Services  
Kristina Creek, ARCUS  
Dorte Dissing, ABR Environmental Research and Services  
Angela Matz, US Fish and Wildlife Service



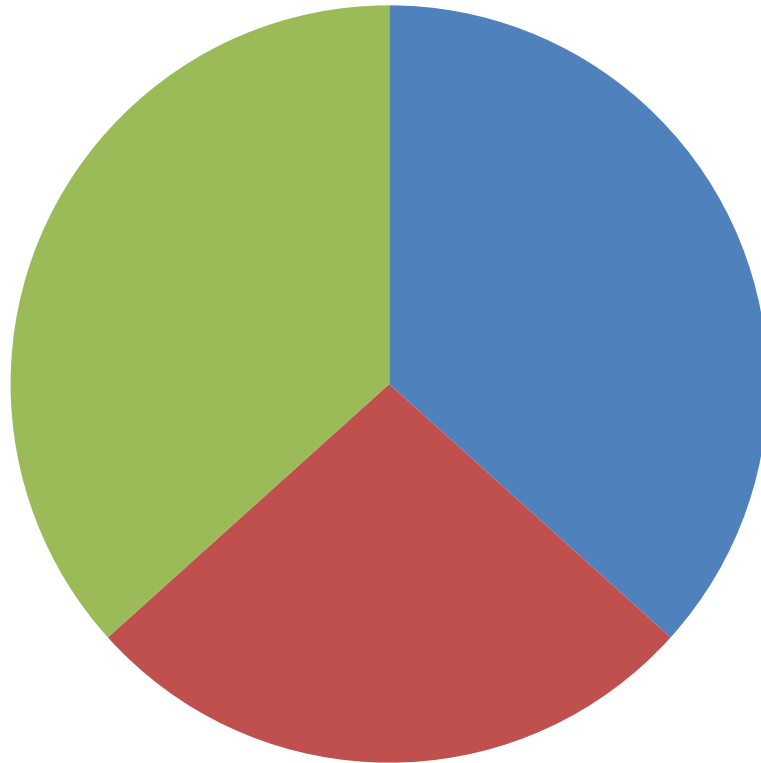
Hundreds of views since being viewed live and posted.

*What are the needs?* Jennifer Provencher, APECS



## Question posed to APECS Canada members:

Do you feel that establishing graduate programs based in the north is important to meeting Canada's research and innovation needs?

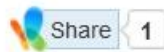


■ No  
■ Yes  
■ Maybe

= complex, innovative solution is needed

# Is graduate programs what we need in the north?

## Grise Fiord, Nunavut, celebrates single graduate



Grise Fiord, Nunavut's northernmost community, held a ceremony Tuesday night for its high school graduating class of one.

Grise Fiord has a population of about 150, and Umimmak School has between 28 and 32 students from kindergarten to Grade 12.

Jessie Ningiuk is the community's sole graduate this year.

"It's just the way it worked out," said Cara Cormier, the school's acting principal.

***What are the needs?*** Jennifer Provencher, APECS







# How are the needs being met?

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# Evolution of Yukon College

1963 Yukon Vocational School

1983 Yukon College Act



***How are needs being met:*** Chris Hawkins, Yukon Research Centre

# Evolution of Yukon College



1988 move to Ayamdigut Campus  
2009 Yukon College Act Revised  
2011 territorial election

***How are needs being met:*** Chris Hawkins, Yukon Research Centre

# Yukon College and HQP

1991 Northern Research Institute  
2010 Yukon Research Centre



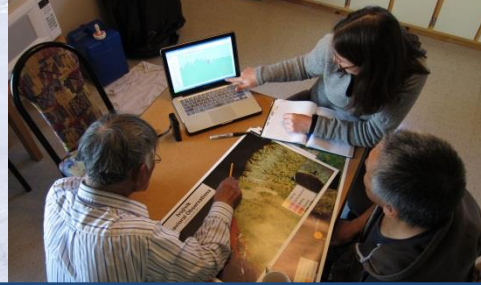
***How are needs being met:*** Chris Hawkins, Yukon Research Centre

# Yukon College and HQP

2013 Post graduate climate change program  
Université du Québec en Abitibi-Témiscamingue (UQAT)



***How are needs being met:*** Chris Hawkins, Yukon Research Centre



## The Association of Canadian Universities for Northern Studies (ACUNS)

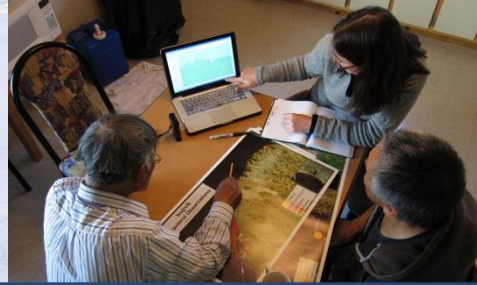
- Established in 1978 as a registered charitable organization
- Comprises a Board of Directors and volunteer representatives from over 40 member institutions across the country
  - Program Manager based in Ottawa
  - Council of representatives distribute information from the Association and meet annually to oversee developments
  - An elected Executive and Board of Directors are responsible for the activities of the Association between general meetings.

### **Vision**

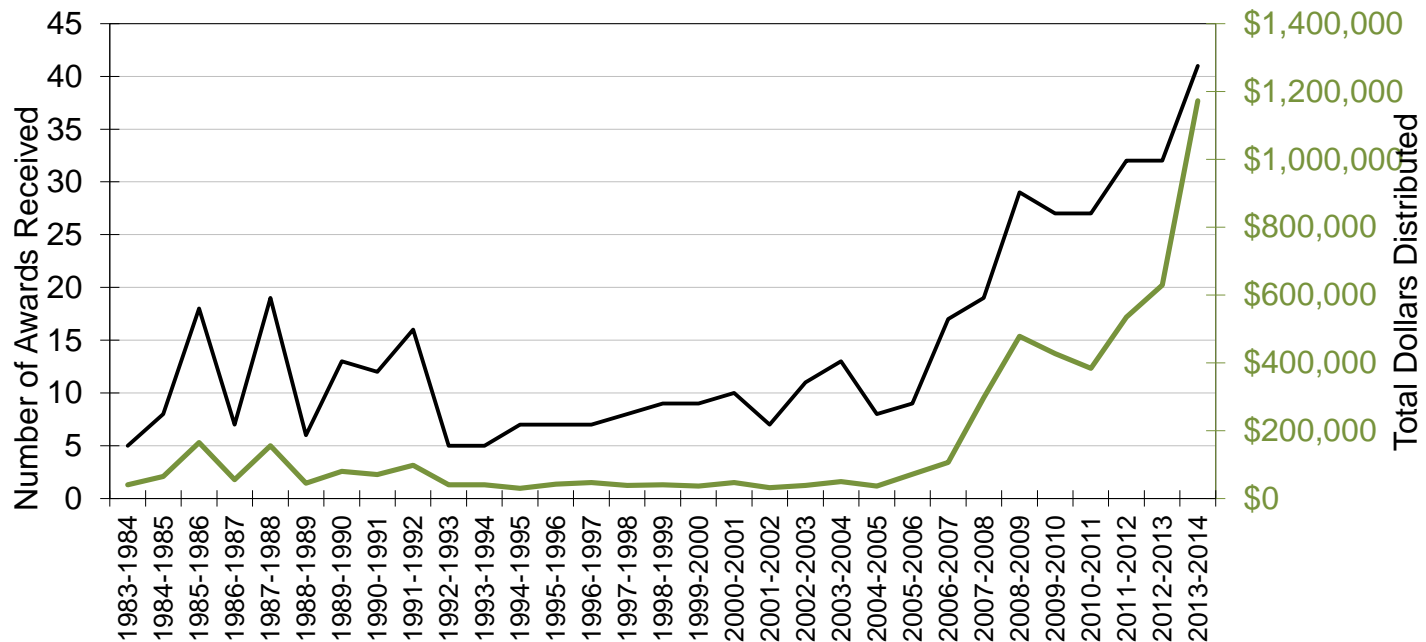
*To engage Canadians in research and education in Canada's north.*

### **Mission**

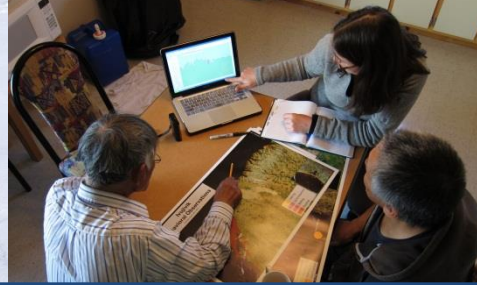
*To advance and promote northern research and education, notably through scholarships, conferences and collaboration.*



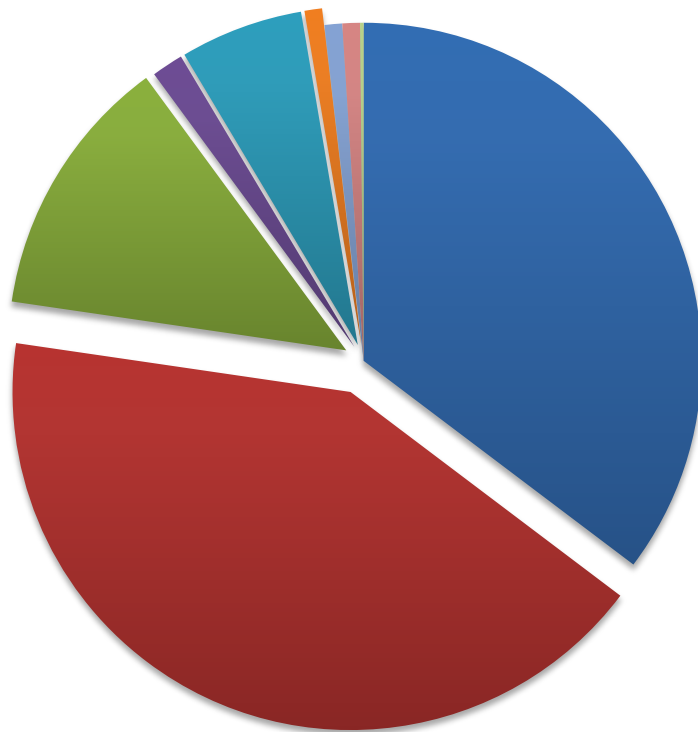
## Total Annual Funding Granted Since 1983



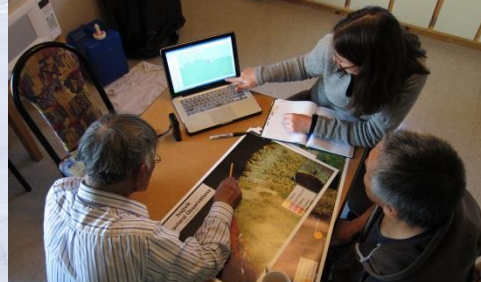




## 2013-14 Funding Breakdown (total = \$1.19 million)



- W. G. Weston Award - Post Doc
- W. G. Weston Award - PhD
- W. G. Weston Award - MSc
- W. G. Weston Extended Stays Pilot
- Northern Resident Scholarships
- Northern Resident Awards
- CNST Scholarship
- CPC Scholarship

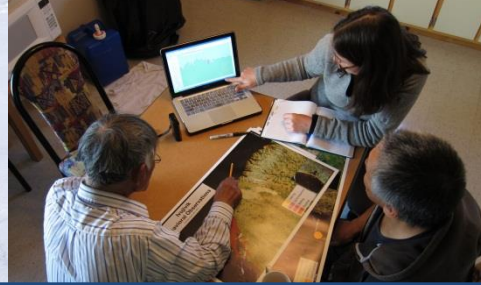


## Results from a survey of past recipients of graduate student W. Garfield Weston Northern Research Awards

Status	Number	Percent
Degree Complete	26	68%
# of years to complete	Average = 3.6, Max = 5.5	
Degree not complete	12	32%
Employed	27	71%
Employment related to research	25	96%
Still active in research community	36	97%
Still work in the north	22	73%
Work specifically in northern communities	9	30%

### General Comments:

- Direct and indirect benefits to north through their research
- Award provides freedom to concentrate on their research
- W. G. Weston Awards are recognized as prestigious and raise profile of their research
- Increased interaction with community members
- Engagement of community members into research (from analysis to field guides)
- Dissemination of knowledge across many platforms, raising the profile of northern issues (e.g., climate change)
- Educating people not from the north about the north



## Northern Resident Award

- Provide support for researchers from the north to conduct research in the north
- 9 awards for 2013-2014 (total = \$80,000)

## W. Garfield Weston Extended Stays Program

- Provide support for researchers to stay in northern communities for longer periods (up to 12 weeks)
- The aim is to facilitate dissemination of knowledge and build community-research ties
- Provide potential for collaboration among researchers and community members
- Engagement of community members into research
- Enhance research outcomes through incorporation of local traditional knowledge
  
- Evaluated by focus group and pilot program
  - Consensus has been positive
- Expected to launch soon



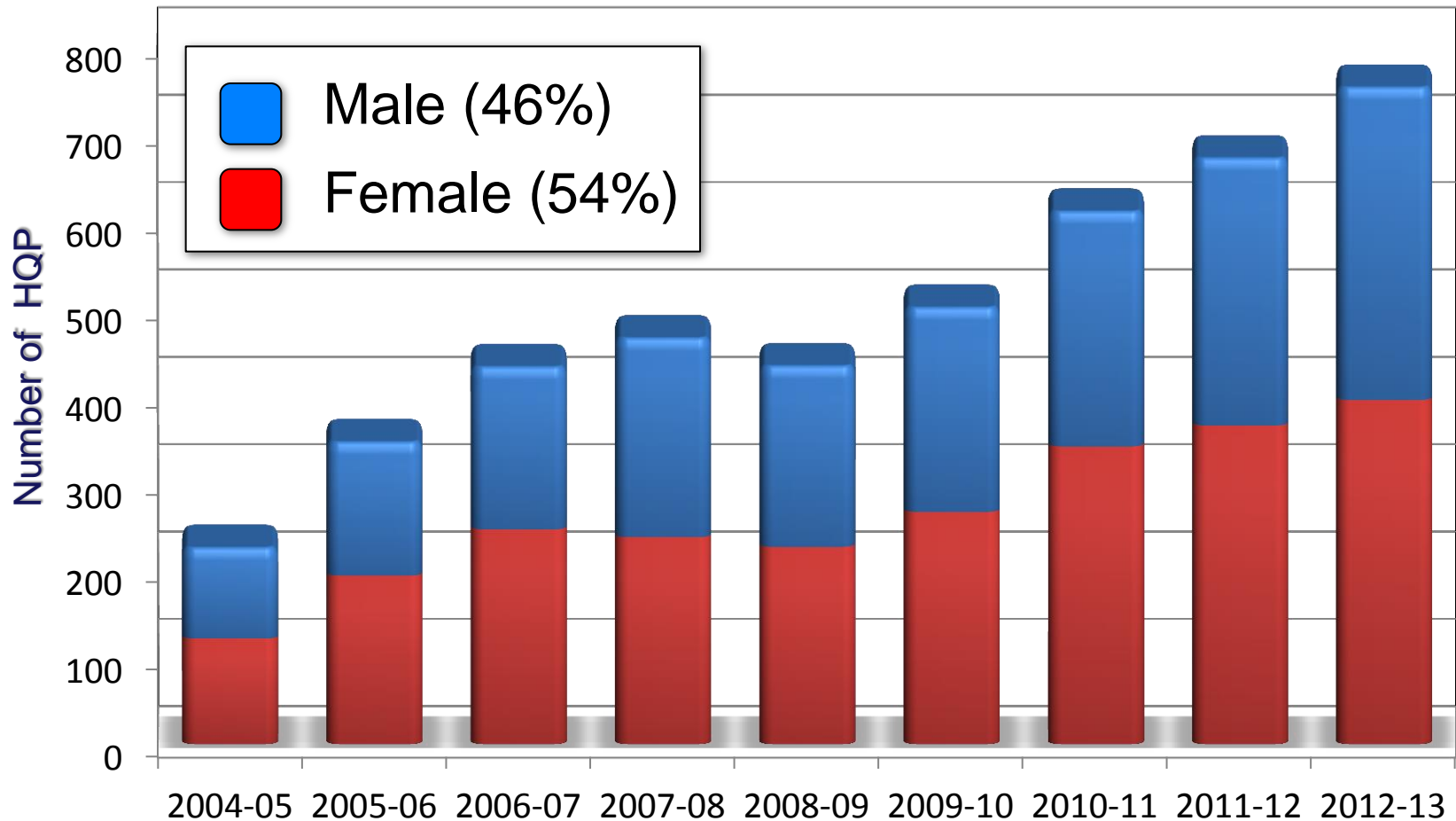
# General objectives of ArcticNet:

- To **build synergy** among existing Centres of Excellence in the natural, human health and social arctic sciences.
- To **involve Northerners, government and industry** in the steering of the Network and scientific process through bilateral exchange of knowledge, training and technology.
- To **increase and update the observational basis** needed to address ecosystem-level questions raised by climate change and globalization in the Arctic.
- To provide academic researchers and their national and international collaborators with **stable access to the coastal Canadian Arctic**.
- To **consolidate national and international collaborations** in the study of the Canadian Arctic.
- To contribute to the **training of the next generation of experts**, from north and south, needed to study, model and ensure the stewardship of the changing Canadian Arctic.
- To help translate our growing understanding of the changing Arctic into **impact assessments, national and global policies and adaptation strategies**.

# ArcticNet

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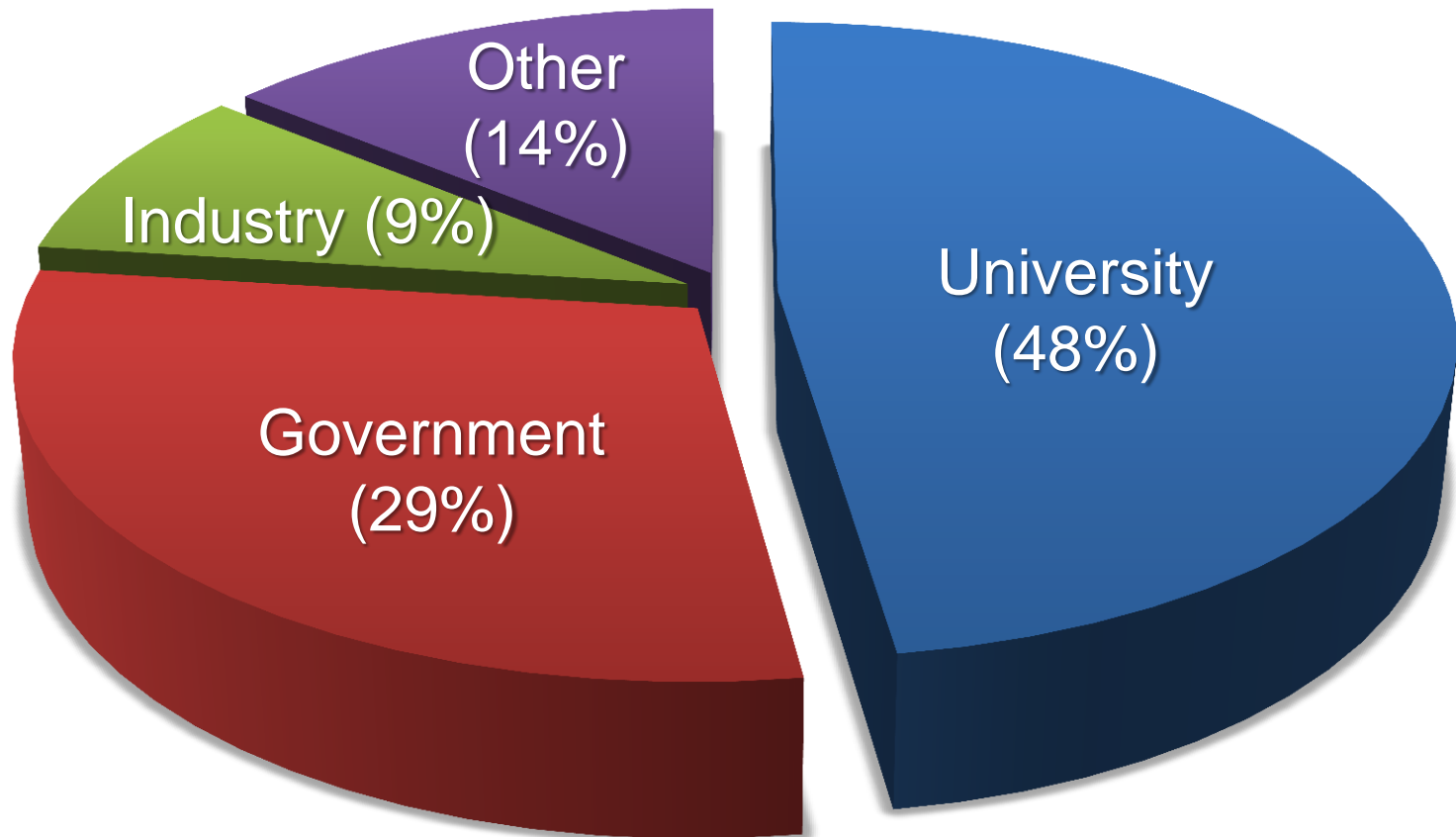
## Regular increase in HQP since 2003



# ArcticNet

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## Post Graduate Employment (MSc, PhD, PDF)



# Most HQP are not Northerners, but are all trained in the North









# TUKITAARVIK INUIT STUDENT CENTRE

HOME

INFORMATION

CONNECTING

INSPIRATION

PROJECT

- **BE INSPIRED** by interviews from Inuit graduates
- **DISCOVER** post-secondary institutions, their support services, Inuit students and graduates
- **UNDERSTAND** what to expect when you're living the student life
- **ACCESS** information to help prepare for the journey, such as **scholarships**, programs and **lodging**
- **CONNECT** with peers and mentors through an interactive map, a discussion board and an online chat (Members Only)

### Videos Testimonies



Thomas (Anguti) Johnston



Becky Mearns



Joseph Flowers



Krista Zawadzki



James Kuptana



Jennifer Kilabuk



Kelly Fraser



Maatali Okalik



Udoriak Hanson



Natan Obed



Pamela Gross



Puujjuut Kusuqak

## www.tukitaarvik.ca



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Government



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Northwest  
Territories



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