### The Conference Board of Canada

In partnership with



# Made in Nunavut

Building Inuit Skills for Northern Offshore Fisheries and Beyond

Impact paper | December 14, 2021





The Future Skills Centre – Centre des Compétences futures (FSC-CCF) is a forward-thinking centre for research and collaboration dedicated to preparing Canadians for employment success. We believe Canadians should feel confident about the skills they have to succeed in a changing workforce. As a pan-Canadian community, we are collaborating to rigorously identify, test, measure, and share innovative approaches to assessing and developing the skills Canadians need to thrive in the days and years ahead.

The Future Skills Centre was founded by a consortium whose members are Ryerson University, Blueprint, and The Conference Board of Canada.

If you would like to learn more about this report and other skills research from FSC, visit us at fsc-ccf.ca or contact info@fsc-ccf.ca.

fsc-ccf.ca

In partnership with:



The Conference Board of Canada

Blueprint

Funded by the Government of Canada's Future Skills Program







- 1 Key findings
- 2 Introduction
- 3 Made in Nunavut: Developing Inuit-led fisheries and marine capacity
- 8 NFMTC's achievements in building Inuit labour force capacity
- 12 Challenges to growing Nunavut's offshore fisheries and marine capacity
- 17 Lessons learned

Appendix A 20 Methodology

Appendix B 21 Bibliography

# Key findings

- The Nunavut Fisheries and Marine Training Consortium (NFMTC) plays a pivotal role in training Nunavummiut for employment in the Northern fisheries and broader marine sectors, with spillover benefits for other sectors.
- NFMTC's made-in-Nunavut approach to skills development teaches employers how to design culturally appropriate training for fundamental labour force skills. It is also opening up meaningful career paths for Northern Indigenous workers.
- Persistent skills gaps and structural challenges must be overcome to unlock the full potential of Nunavut's offshore fishery and Indigenous marine capacity.

- Major challenges to address include:
  - Incoming students continue to demonstrate low literacy and numeracy skills compared with the Canadian average.
  - Career advancement in offshore fisheries can require years of technical training and experience. As a result, Inuit are over-represented in entry-level positions.
  - A lack of investment in local marine infrastructure and fleet renewal continues to hamper industry sector growth and labour market opportunities.



### Introduction

### Nunavut's economy is largely dependent on mining and public administration. But the territory's commercial fishery and associated marine capacity has continued to grow over the past two decades.

Just prior to COVID-19, the Nunavut Fisheries Alliance estimated that the territory's commercial fishery added \$112 million to Canada's 2019 GDP.<sup>1</sup> This includes the fishery's direct operations, its companies' supply chains, and associated consumer spending. While this estimate is modest, considering that Nunavut's GDP in 2019 was \$3.4 billion, the study suggests that this emerging industry has an important role to play in building regional employment and local Inuit marine capacity. As the sector has expanded, new career pathways for Nunavummiut,<sup>2</sup> Nunavut's Inuit residents, have opened. In 2019, Nunavut's four commercial fishing enterprises collectively sustained 946 jobs. This included over 300 fulltime, part-time, and seasonal positions for Inuit.

In 2005, Nunavut's fishing industry partners created the Nunavut Fisheries Training Consortium (NFTC) – a non-profit organization dedicated to addressing the need for skilled employees in Northern fisheries.<sup>3</sup> Notably, the organization focused on training Nunavummiut to address these labour market gaps. NFTC then changed its name to the Nunavut Fisheries and Marine Training Consortium (NFMTC). The change reflects the economic potential and need for skills development across Nunavut's emerging marine sectors.

This impact paper explores NFMTC's unique made-in-Nunavut approach to training and forging career paths for Inuit in Northern marine sectors. Our case study analysis is particularly focused on skills training for Nunavut's commercial offshore fisheries. But the lessons learned are applicable to Nunavut's inshore fisheries, broader marine sectors, and other Northern industries. It also examines the current challenges that NFMTC must face to help Nunavut's Inuit-driven fisheries grow sustainably beyond their current limitations.

By providing Inuit with valuable skills for careers in an emerging regional industry, NFMTC's approach and story combine to provide an informative case study on how to support sustainable livelihoods in the North.



2 "Nunavummiut" is an Inuktut term for people of Nunavut.

<sup>1</sup> Anselmi, "Nunavut's Offshore Fishery Contributes \$112M to Territory's Economy."

<sup>3</sup> NFMTC also recently expanded to deliver training in the Northwest Territories and Nunavik.

### Made in Nunavut: Developing Inuit-led fisheries and marine capacity

Fisheries and marine activities are now recognized to offer the best opportunity for long-term socio-economic well-being, including food security and job creation, in Nunavut.

**Government of Nunavut**, Department of Environment

The development of Nunavut's fisheries and marine capacity reflects an implicit social contract, as outlined in the *Nunavut Fisheries Strategy, 2016–2020.*<sup>4</sup> Nunavummiut expect the fisheries and associated marine sectors, such as shipping, to play an important role in the region's long-term socio-economic well-being: "Nunavut's fisheries must be inclusive of Inuit, proportional among inshore and offshore interests, and representative of the needs and desires of Nunavummiut...."<sup>5</sup>

### The Nunavut Fisheries Strategy

The 2003 Nunavut Economic Development Strategy<sup>6</sup> identified commercial fishing as a pillar of inclusive growth in the territory.<sup>7</sup> In 2005, the Government of Nunavut and Nunavut Tunngavik Incorporated released the first Nunavut Fisheries Strategy.<sup>8</sup> The six objectives of the 2005 Strategy are echoed in the revised 2016–2020 Strategy, indicating that they are enduring challenges to fully realize the potential of fisheries for Nunavut and Nunavummiut. (See Table 1.)

### Table 1Objectives and priorities

2005 Nunavut Fisheries Strategy objectives	2016-2020 Nunavut Fisheries Strategy priorities
Science and conservation	Inuit Qaujimajatuqangit (Inuit traditional knowledge), science, and sustainability
Organizational capacity and governance	Governance and regulation
Access and allocation	Harvest levels, access, and allocation
Labour market development and training	Organizational capacity, employment and training
Infrastructure	Infrastructure
Funding and revenue generation	Funding and revenue generation
	Marketing and market access

Source: Government of Nunavut, Department of Environment.

- 6 The 2003 Nunavut Economic Development Strategy expired in 2013.
- Inclusive growth ensures equality of opportunity and equity are part of the goals of economic growth.
- 8 Government of Nunavut & Nunavut Tunngavik Incorporated, Nunavut Fisheries Strategy.

4 Government of Nunavut, Department of Environment, Nunavut Fisheries Strategy, 2016-2020.

5 Ibid., 4.

The current goals of the Nunavut Fisheries Strategy related to the Consortium are to:

- enable Inuit to move from factory and deckhand positions to managerial and technical positions;
- educate Nunavummiut about employment opportunities in the offshore, inshore, and recreational fisheries;
- work toward certifying Nunavummiut as trainers for NFMTC courses;
- extend training in quality control for fish handling across Nunavut;
- improve communication and keep stakeholders informed of available funding or training opportunities and developments;
- assist fisheries workers in developing career development plans, including training needs, the development of transferable skills, and family support requirements;
- support NFMTC in the review of training approaches and whether these are meeting industry needs;
- investigate the incorporation of fishery training needs and opportunities into community economic development plans through collaborative efforts and strategic partnerships;
- support financial and project management training for individuals and small businesses involved in fisheries.

Source: Government of Nunavut, Department of Environment.

Inuit-led commercial fisheries help support sustainable livelihoods in Nunavut's remote communities.9 The story of Nunavut's offshore fisheries' development offers insights into how economic growth, job creation, and food security might be balanced in the future. NFMTC Board Director Jerry Ward recalls that 20 years ago, "We had no vessels, we had minimal guotas, we had minimal Inuit employment."10 But the last two decades have seen positive change. Today, four Inuit-owned companies own and operate 100 per cent of the vessels harvesting Nunavut's offshore fishing quotas. These four quota owners can collectively harvest 52 per cent of the shrimp and turbot in Nunavut's adjacent waters-up from about 19 per cent less than 20 years ago.<sup>11</sup> And over 300 Nunavummiut work in Nunavut's commercial fishery annually.12

### Nunavut's offshore fisheries: From royalties to Inuit-owned and Inuit-crewed vessels

Fishing has been a part of Inuit culture for millennia.<sup>13</sup> Today, 65 per cent of Inuit in Nunavut engage in harvesting activities. They do this for many reasons, including securing nutritious food for family and the community, cultural continuity, and supplementary income.<sup>14</sup> While the primary focus of this impact paper is Nunavut's offshore

- 9 Government of Canada, "Northern Integrated Commercial Fisheries Initiative."
- 10 Jerry Ward (Board Director, NFMTC), telephone interview by Oana Spinu, April 30, 2020.
- 11 Adjacent waters for Nunavut's offshore fishing are areas in the Atlantic Ocean that border the coast of Nunavut.
- 12 Ward, interview.
- 13 Randy Pittman (Captain, Fisheries and Marine Institute of Memorial University of Newfoundland), telephone interview by Oana Spinu, April 30, 2020.
- 14 Kumar and others, Harvesting Activities Among First Nations People Living Off Reserve, Métis and Inuit.



fisheries, the Nunavummiut's long-standing inshore and inland fisheries have shaped and continue to shape Nunavut's evolving fishing economy and culture. The inshore fishery is "dominated by the harvest of Arctic char and less commonly whitefish and some dried whale meat products."<sup>15</sup>

Over the past 50 years, several initiatives have been undertaken to modernize the inshore fisheries, including the development of community-based fish processing plants. Five plants currently operate today, including three owned by the Nunavut Development Corporation, a territorial corporation of the Government of Nunavut, and one operated by Pangnirtung Fisheries Ltd. and partners.



15 Government of Nunavut, Department of Environment, Nunavut Fisheries Strategy 2016–2020, 6.

### Nunavut's inshore fisheries and fish processing plants

Three community-based processing plants (Kivalliq Arctic Foods Ltd. in Rankin Inlet, Pangnirtung Fisheries Ltd. in Pangnirtung, and Kitikmeot Foods Ltd. in Cambridge Bay) process char and whitefish into products that are marketed locally as well as across Canada and internationally. Pangnirtung Fisheries Ltd. and Kitikmeot Foods Ltd. have the capacity to process char from their local areas. Other communities send their catch to Kivalliq Arctic Foods Ltd. in Rankin Inlet, as well as the Nunavut Country Food Store, located in Iqaluit and privately owned by Iqaluit Enterprises.

According to Government of Nunavut estimates, an average participant in the inshore fishery brings home a landed value of \$4.40 per kilogram (kg) of char (gutted or frozen whole). Depending on the scale of their operations and time of year, inshore fishers can bring in between 200 and 5,000 kg of char. In terms of market value, the Government of Nunavut estimates that processed char can sell for \$15.40/kg for a whole fish, \$33/kg for fillets, and \$100/kg for char nuggets or jerky.

Source: Government of Nunavut, Department of Environment.

The offshore fisheries are a relatively new phenomenon in Nunavut. In the 1980s, Inuit in the region had limited access to fishing licences, and quota holders often sold their fishing rights in exchange for royalty fees and crew positions on foreign and Canadian vessels.<sup>16</sup> In some cases, more lucrative deals were struck when quota holders combined their shares. These deals provided enough leverage to secure some crew positions and on-board training for local Inuit. Yet, there was still only token involvement by Inuit in the industry.<sup>17</sup>

In the early 2000s, Nunavut started to develop its own offshore turbot fishery. The nascent Inuit-owned industry set its sights on gaining more control over quota access and vessel ownership. Increasing Inuit employment on the vessels and securing more significant benefits for Nunavut's communities were key objectives.<sup>18</sup> And, since 2004, no foreign fishing vessels have been employed in Nunavut waters.<sup>19</sup> As predominantly Inuit-owned enterprises, Nunavut's quota holders represent Inuit and local community interests in the development of Nunavut's offshore resources. Their collective impact includes:

- 40 per cent direct Inuit employment in 12 of Nunavut's 25 communities, with the goal of increasing Inuit employment to an average of 71 per cent within the next five years<sup>20</sup> and advancing Inuit into more technical and managerial positions<sup>21</sup>
- offering Inuit opportunities at well-paying jobs—the average salary (for Inuit and non-Inuit employees) was \$86,296 in 2018<sup>22</sup>
- community-level benefits beyond employment income, including dividends to community shareholders, spinoff business opportunities, and \$2.8 million invested in social programs over the last three years<sup>23</sup>



- 16 Standing Senate Committee on Fisheries and Oceans, Nunavut Marine Fisheries.
- 17 TAVEL Limited, and Brubacher Development Strategies Inc., *Organizational and Performance Review* of *Nunavut's Offshore Fishing Industry*; Brian Burke (Executive Director, Nunavut Fisheries Association), telephone interview by Oana Spinu and Kiefer Van Mulligen, April 23, 2020.
- 18 Burke, interview.
- 19 Standing Senate Committee on Fisheries and Oceans, Nunavut Marine Fisheries.
- 20 Anselmi, "Nunavut's Offshore Fishery Contributes \$112M to Territory's Economy."
- 21 Ward, interview.
- 22 Burke, interview.
- 23 Anselmi, "Nunavut's Offshore Fishery Contributes \$112M to Territory's Economy."

### **Nunavut's allocation holders**

Nunavut's commercial turbot and Northern shrimp fisheries are currently harvested by four enterprises. These are the Baffin Fisheries Coalition, Qikiqtaaluk Fisheries Corporation, Arctic Fishery Alliance, and Pangnirtung Fisheries/Cumberland Sound Fisheries Partnership. These four enterprises have evolved from owning no ships to currently owning and operating several seagoing vessels. They have also formed a lobbying group for securing more of Nunavut's offshore resources.<sup>24</sup>

The Baffin Fisheries Coalition (BFC) is owned by the Hunters and Trappers Associations (HTAs) of Iqaluit, Pond Inlet, Clyde River, Kimmirut, and Pangnirtung. Together the HTAs form Nunavut's largest and entirely Inuit-owned commercial fishing operation. BFC owns four fishing vessels, including two large factory-freezer trawlers and two factory-freezer fixed-gear vessels. These are the *MV Sivulliq* and *MV Inuksuk I*, and the *MV Arluk II* and *MV Sikuvut*.<sup>25</sup>

On October 29, 2021, BFC announced it will buy a new vessel for \$72.5 million, to be delivered in 2024. This addition to its fleet will be an 80-metre stern trawler capable of handling 1,320 tonnes of frozen turbot or 930 tonnes of cold-water shrimp.<sup>26</sup>

The Qikiqtaaluk Fisheries Corporation (QFC) is a subsidiary of the Qikiqtaaluk Corporation, which is owned by the Qikiqtani Inuit Association. QFC owns the Saputi, a multi-species factoryfreezer vessel.<sup>27</sup> The Arctic Fishery Alliance (AFA), which operates the *Suvak* and the *Kiviuq*, is owned by the HTAs and community trusts of Arctic Bay, Grise Fiord, Qikiqtarjuaq, and Resolute Bay. As AFA explains, its shared ownership structure "ensures the benefits from Nunavut's offshore commercial fisheries can be distributed to all residents in these communities, rather than select shareholders."<sup>28</sup>

The Pangnirtung Fisheries/Cumberland Sound Fisheries Partnership operates a fish processing plant in Pangnirtung. Initially a subsidiary of the Nunavut Development Corporation, a territorial corporation of the Government of Nunavut, this enterprise is now owned by the local HTA and other community shareholders in Pangnirtung, and by Baffin Fisheries.<sup>29</sup>

In 2018, the four allocation holders employed over 300 Inuit:  $^{30}$ 

- 78 full-time Inuit staff on offshore vessels
- 70 part-time Inuit staff on offshore vessels
- an estimated 150 harvesters and helpers involved in the winter turbot fishery
- 30 employees at the Pangnirtung Fish Plant

Source: Brian Burke.

26 Venn, "Baffin Fisheries Buying \$72M Fishing Vessel."

28 Arctic Fishing Alliance, "About AFA: Ownership Structure."

<sup>24</sup> Government of Nunavut, Department of Environment, Nunavut Fisheries Strategy 2016-2020.

<sup>25</sup> Baffin Fisheries, "Vessels."

<sup>27</sup> Qikiqtaaluk Fisheries Corporation, "Advancing Innovation to Create Opportunities and Build Our Future."

<sup>29</sup> Qikiqtaaluk Fisheries Corporation, "Advancing Innovation to Create Opportunities and Build Our Future." 30 Burke, interview.

### NFMTC's achievements in building Inuit labour force capacity

In 2005, the original consortium began to offer training opportunities for Nunavummiut seeking employment in offshore fisheries.<sup>31</sup> Collectively, the major players in the industry recognized that increasing Nunavut's offshore fishing and marine capacity went hand-in-hand with building up the Inuit labour force. And this could be achieved only through a coordinated training approach.<sup>32</sup>

Since its inception, NFMTC has invested over \$65 million from the Government of Nunavut, the Government of Canada, and industry partners to train over 1,200 Inuit participants through 250 programs.<sup>33</sup> NFMTC training programs have had a 93 per cent course completion rate, which has brought approximately 300 Nunavummiut into the offshore fisheries.<sup>34</sup> Several factors have contributed to the Consortium's achievements to date, including:

- close integration with the Government of Nunavut, community-based associations, and local Inuit-driven fisheries;
- bringing training and jobs closer to home for Nunavummiut;
- adapting to the changing demographics and changing mindsets of younger Nunavummiut;
- tailoring training programs to address local Inuit skills development contexts and needs.

### Close integration with the Government of Nunavut, community-based associations, and local Inuit-driven fisheries

NFMTC is closely integrated with Nunavut's fisheries. This partially explains the success its programs have had in training Inuit for careers in the commercial offshore fishery. Nunavut's four fishing companies are directly involved in the governance of the Consortium as voting board members. These companies are also answerable to community-based Inuit associations, such as HTAs, and Regional Inuit Associations. Industry partners provide financial resources, assistance with curriculum requirements and planning, and employment for program graduates.<sup>35</sup> In 2016, 58.1 per cent of the students enrolled in NFMTC were participants on the Baffin Fisheries Coalition crew.<sup>36</sup>

Courses are responsive to the needs of the broader fisheries and other Northern marine sectors. NFMTC's original mandate was to train Nunavummiut for the commercial offshore fishery. However, courses now cater both to the offshore and inshore fisheries (including inshore fish processing). Training can include entry-level skills for working on a ship to more advanced technical and mechanical skills. Courses such as the Kisarvik Program also focus on essential skills (e.g., literacy, numeracy, problem-solving, form completion, budgeting, banking, and resumé writing), in addition to marine first aid, the

- 31 Government of Nunavut, Department of Environment, Nunavut Fisheries Strategy 2016-2020.
- 32 Ward, interview.

34 Ward, Interview.

<sup>33</sup> Anselmi, "Nunavut's Offshore Fishery Contributes \$112M to Territory's Economy."

<sup>35</sup> Open Parliament, "Government Operations Committee on March 4th, 2014."

<sup>36</sup> Baffin Fisheries, "Baffin Fisheries Statement on Last-In First-Out (LIFO) Management."

Workplace Hazardous Materials Information System, and basic seamanship. In 2012, a desktop training simulator was added to the Iqaluit training facility, providing trainees with a more realistic shipboard experience.

### Bringing training and jobs closer to home for Nunavummiut

NFMTC recruits students from across Nunavut. Training and employment opportunities are available in smaller communities outside the territorial capital. NFMTC regularly participates in career fairs across Nunavut, promotes career opportunities in the fisheries and other marine sectors, and raises awareness about NFMTC's training offerings.

Many Nunavut students must travel outside the territory in pursuit of a post-secondary education.<sup>37</sup> Bringing training opportunities and facilities closer to home has been a key factor in NFMTC's success.<sup>38</sup> As former Baffin Fisheries Coalition President Adamee Itorcheak puts it, "At the beginning, it was very difficult to get students because they saw this obstacle of having to go away, even just for the training. It was pretty traumatic."<sup>39</sup> Courses are offered in Iqaluit as well as in smaller communities across Nunavut. NFMTC has also expanded its operations to Hay River in the Northwest Territories.

Broader research by Inuit Tapiriit Kanatami suggests that by bringing training opportunities closer to home, these types of initiatives promote local interest in continuing education and can help to increase broader Inuit uptake of postsecondary education opportunities.<sup>40</sup>

### Adapting to the changing demographics and changing mindsets of younger Nunavummiut

Compared with 15 years ago, NFMTC trainees are now generally younger and come to the program with a higher level of education.<sup>41</sup> Changing demographics has meant changing mindsets. Today's younger trainees are more readily available, both for training and for the weeks spent at sea in the offshore fisheries and other marine sectors.<sup>42</sup> This younger demographic also represents "a newer generation who sees [fishing] as a career, rather than a job."<sup>43</sup>



37 Savanta Inc., "ITK Post-Secondary Education Survey Summary."

- 40 Savanta Inc., "ITK Post-Secondary Education Interview Summary."
- 41 Ward, interview.
- 42 Itorcheak, interview.
- 43 Ibid.

<sup>38</sup> Rodon and others, "Post-Secondary Education in Inuit Nunangat."

<sup>39</sup> Adamee Itorcheak (former President, Nunavut Fisheries and Marine Training Consortium), telephone interview by Oana Spinu, April 29, 2020.

# Portrait of NFMTC students

NFMTC students have the following characteristics:

- The average age of students is 25.
- 95 per cent of students are male and 5 per cent are female.
- 60 per cent of students have a high school diploma or equivalent.<sup>44</sup>

Source: Nunavut Fisheries and Marine Training Consortium.



44 Elisabeth Cayen (Executive Director, Nunavut Fisheries and Marine Training Consortium), telephone interview by Oana Spinu, May 5, 2020. While NFMTC continues with outreach across the territory, most trainees are attracted to the program and the industry by word of mouth. They may know someone in the offshore fishery who makes a good living.<sup>45</sup> The scheduled, shift-based work also appeals to those who want to stay in their home communities and continue living on the land. They can maintain traditional economic pursuits, such as hunting and harvesting, while also earning a substantial wage in the commercial offshore fishery.<sup>46</sup>

Instruction is strict but supportive. Some younger trainees lack the maturity for completing training the first time around. If the first try does not succeed, students can return to the program for a second chance and focus on essential skills they may have overlooked the first time around. NFMTC has a 93 per cent completion rate, and an estimated 10 to 15 per cent of NFMTC's students are "second chancers." The support and example of their peers also play a role in encouraging students to complete the program.<sup>47</sup>



45 Itorcheak, interview.

- 46 Ibid.
- 47 Ibid.

### Tailoring training programs to address local Inuit skills development contexts and needs

#### **Pretraining course**

Training program spots are limited. There can be 40 to 50 applicants for 12 subsidized placements.48 A two-week pretraining course for eligible candidates helps manage expectations and optimize training investments.<sup>49</sup> The two-week course, delivered in Nunavut communities, gives potential students an accurate portrayal of the offshore fisheries and training requirements.50 Students get an introduction to the marine industry and learn about possible employment opportunities in different sectors. They also learn about the demands of life at sea from seasoned instructors with deep practical experience. The classroom experience is also designed to simulate the work environment on a ship so that graduates know what to expect and what is expected of them.

Since the introduction of the pretraining course seven years ago, completion levels have significantly improved. Almost all students who enter the program finish. The success that NFMTC has had with its locally tailored and culturally relevant screening program echoes findings from broader research on success factors for Indigenous post-secondary education achievement.<sup>51</sup>

### Continuity of instructors and relationships with students

NFMTC has a long-standing relationship with the Marine Institute at Memorial University (Newfoundland and Labrador), which describes itself as "Canada's most comprehensive centre for education, training, applied research and industrial support for the ocean industries."52 The Institute's Community-Based Education Delivery Unit (CBED) has decades of experience providing community-based training across Newfoundland and Labrador. Instructors from CBED deliver NFMTC's training program in Nunavut. Their experience with community-based training in Newfoundland and Labrador's small coastal communities has benefited NFMTC's programs. On a social and practical level, Marine Institute instructors and NFMTC students can relate to each other.

As **Brian Burke**, Executive Director of the Nunavut Fisheries Association, explains,

These are instructors who have a background in community-based training. They're used to being out in [small, remote] communities.... There seems to be a lot of similarities or a lot of synergy between the outports here [in Newfoundland and Labrador] and the small communities in Nunavut. So, they say they've had some really good success with the instructors that they've been able to provide and bring up to Nunavut.<sup>53</sup>

48 Ibid.

50 Ward, interview.

- 52 Marine Institute, "About Us."
- 53 Burke, interview.

<sup>49</sup> Burke, interview.

<sup>51</sup> Dowden, "What We Heard From Indigenous Partners and CNA Stakeholders."

Many of NFMTC's instructors have taught its programs for multiple years. They have developed connections with their students, both in the classroom and beyond. This creates a professional and social support network for NFMTC graduates throughout their careers.<sup>54</sup>

NFMTC staff also dedicate significant resources to student support and follow-up.<sup>55</sup> With each training cycle, NFMTC graduates who have the certifications and sea time required to take their next level of training are encouraged to keep progressing in their careers.<sup>56</sup>

### Skills are transferable and graduates can and do work in other sectors

Although NFMTC's program has been successful in training Inuit specifically for commercial offshore fishing, an estimated 35 per cent of graduates choose not to enter the industry.<sup>57</sup> Graduates of the program possess transferable skills for work in other marine sectors and beyond.

To many in Nunavut and within the Consortium itself, this is a welcome development. The *Nunavut Economic Outlook 2010* noted that many NFMTC graduates were entering the mining and exploration industries, and that "from a broad perspective on education and training, turning any training into employment is a positive result."<sup>58</sup> Skills and certifications acquired in NFMTC training are transferable to other industries, particularly those related to ship operations. Transport Canada and the International Maritime Organization have certified NFMTC's training programs. Trainees have found crew positions on research vessels for ocean science, as guides and interpreters for ecotourism companies and cruise ships, as well as crew positions with the Canadian Coast Guard.<sup>59</sup>

By helping students acquire the skills and confidence to pursue employment, NFMTC training is a boon for Inuit employment across the territorial economy. And the Inuit-owned offshore fishing enterprises know that boosting Inuit employment outside of the industry is indirectly beneficial for them as well.<sup>60</sup>

### **Challenges to growing Nunavut's offshore fisheries and marine capacity**

NFMTC has successfully prepared many Nunavut residents for employment. The Inuit-led offshore fisheries have also made substantial progress in expanding their operational capacity and securing a larger share of quotas. Yet, the fisheries must address many challenges to remain socially, economically, and environmentally sustainable.

<sup>54</sup> Pittman, interview.

<sup>55</sup> Itorcheak, interview.

<sup>56</sup> Pittman, interview.

<sup>57</sup> Cayen, interview.

<sup>58</sup> Impact Economics, 2010 Nunavut Economic Outlook, 87.

<sup>59</sup> Brown, "Transport Canada Funds Ocean Career Training for Inuit."

<sup>60</sup> Burke, interview.

The industry is aware of these challenges. The latest Strategy explains: "While the industry as a whole has made significant gains it is still challenged by a lack of marine infrastructure, funding for education and training, the cost of and time it takes to grow and expand Arctic fisheries, the remoteness of the territory, transportation costs, competition with aquaculture fish, lack of Nunavut-specific fisheries regulations, and the unfair limits on offshore fisheries due to not being allocated a fair share of adjacent shrimp and turbot resources."<sup>61</sup>

International trends will also influence how Nunavut's offshore fisheries are managed. The development of what the World Bank has called the "blue economy" involves promoting economic growth, social inclusion, and livelihood improvements while maintaining the environmental sustainability of oceans.<sup>62</sup> Continued strategic planning is needed if Nunavut's commercial offshore fisheries are to follow this trajectory.



### Incoming students continue to demonstrate low literacy and numeracy skills compared with the Canadian average

Northern fisheries offer prospects for sustainable livelihoods with modest formal education requirements. The industry-specific training provided by NFMTC is open to students from a range of academic backgrounds. Yet, while the essential literacy and numeracy skills of incoming students have improved over the last 15 years, they continue to lag even among high school graduates.<sup>63</sup> These skills are required for entering more specialized training pathways needed for advancing to higher-skilled and better-paying roles within the offshore fisheries.<sup>64</sup> Improving these basic skills among Inuit remains a critical need.

#### Structural barriers continue to impede Inuit progression to higher positions across marine industries

NFMTC effectively provided many Inuit with the essential skills and knowledge needed for finding meaningful careers in Northern fisheries, other marine sectors, and the broader wage economy. At the same time, Inuit are over-represented in entry-level positions in the offshore fisheries. This mirrors Inuit labour market participation in other sectors.<sup>65</sup>

- 61 Government of Nunavut, Department of Environment, Nunavut Fisheries Strategy 2016-2020, 11.
- 62 World Bank and United Nations Department of Economics and Social Affairs, The Potential of the Blue Economy, vi.
- 63 Itorcheak, interview.
- 64 Government of Nunavut, Department of Environment, Nunavut Fisheries Strategy 2016-2020.
- 65 National Indigenous Economic Development Board, The Indigenous Economic Progress Report 2019.

### **Inuit crew on vessels**

Fishing vessels offer several different positions, depending on the size or gross tonnage. These include:

- engineer
- deckhand
- marine diesel mechanic
- quality control manager
- factory supervisor
- fisheries observer
- factory worker
- chief engineer

- bookkeeper
- bridge officer
- second mate
- first mate
- captain
- master
- bosun
- cook

Aboard a fishing vessel, entry-level positions are mostly found in the factory where the catch is processed. Factory positions require fewer specialized skills and pay less than other roles. Advancement into a factory supervisor position requires experience in the factory and additional training in quality control. More technical positions outside of the factory require additional training/certifications and experience/sea time. For example, acquiring the certifications and sea time required for a captain (or master) position can take 10 years or more. Nunavut's offshore fishing industry employs three large vessels and two small vessels. Inuit crew on these vessels are mostly employed in factory positions. On a larger ship with an average crew of 26, there are:

- 12 to 13 positions in the factory with an average of 10 to 11 Inuit in these roles
- 13 positions on the deck and bridge (responsible for the navigation and operation of the vessel) with an average of two to three Inuit in these roles

The average crew size on a smaller vessel is 13, with an average of four to five Inuit crew in factory and deck positions.

Each vessel averages 10 to 12 annual trips. Individual Inuit crew members will take between two and seven trips. On average, an Inuit crew member makes 3.5 trips per year.

Sources: TAVEL Limited and Brubaker Development Strategies Inc.; The Conference Board of Canada.



The latest Nunavut Fisheries Strategy acknowledges the importance of career progression opportunities for increasing the participation of Nunavummiut in offshore fisheries. Currently, Inuit are employed primarily at the factory level, which represents about 50 per cent of the available jobs on a vessel. Moving Inuit into deck and bridge positions is a challenge for increasing total Inuit employment in the industry and for making room for new trainees at the entry level.<sup>66</sup>

Those familiar with the industry highlight many reasons why there are fewer Inuit in higherlevel positions.

#### As Brian Burke explains,

There's a requirement for training, but [you] still need years of experience to be considered for some of these higher positions on a vessel. So, it's not something overnight where we could go from having no Inuit to having a very high percentage of Inuit.

Advancement can therefore be a long career progression of training and experience.<sup>67</sup> The process of going from a factory worker position to a bridge position can take 10 years or more.<sup>68</sup> By comparison, Nunavut's offshore fisheries are still relatively young. And NFMTC has been in existence for only 15 years.

Social and cultural factors can also deter trainees from advancing in their careers. Younger Inuit, for example, are sometimes hesitant to accept positions where they would be required to supervise older workers.<sup>69</sup> Inuit have advanced into supervisory roles in the factory; yet, as NFMTC Board Director Jerry Ward explains, some "found it rather stressful and in a lot of cases decided to go back into [the] factory where they put [in] their hours, and [...] have [less] responsibility." Understanding and addressing the social and cultural friction between younger Inuit in supervisory positions and older Inuit crew members could help unblock a career advancement pathway. This generational phenomenon is likely not unique to Nunavut's offshore fisheries.

Increasing Inuit participation in all facets of the offshore fisheries requires political will and strategic planning. A critical first step is to develop ambitious but achievable targets for increasing Inuit employment in the industry – particularly in technical and management positions. Employment targets can be supported by parallel training targets and realistic pathways to achievement.

The industry is also exploring mentorship programs to help younger Inuit advance in their maritime careers. But this model presents challenges. Crews base their remuneration on a share arrangement. The more workers there are on a vessel, the smaller the share of the profits for each. Duplicating positions through mentorship will not necessarily affect vessel productivity. But it diminishes remuneration for the entire crew.<sup>70</sup>

66 Ward, interview; Itorcheak, interview.67 Ibid.68 Ward, interview.69 Ibid.70 Ibid.

Fishing has been part of Inuit cultures for millennia—and Nunavut's growing marine capacity has opened career prospects that did not exist before.

THE PARTY AND A DAY OF THE PARTY OF THE PART

The industry has expanded through the combined efforts of federal and territorial governments, Inuit organizations, Nunavut's Inuit-owned fishing companies, and NFMTC. Each has a role to play in setting the level of ambition, creating realistic career pathways, and holding each other accountable for achieving industry-wide goals.

### **Lessons learned**

NFMTC has helped many Inuit acquire the essential skills and knowledge needed for participating in Nunavut's offshore fisheries and beyond. While the offshore fisheries are only one aspect of Nunavut's growing marine capacity, they continue to be critical catalysts for helping Inuit become more confident and capable in a modern marine economy.

The approach that NFMTC has taken also presents useful lessons for building Indigenous labour force capacity in other Northern economic sectors such as mining, oil and gas, and the public sector. More industries and more Indigenous communities across Canada's North can benefit from the lessons that NFMTC has learned around designing realistic and culturally appropriate training, establishing essential labour force skills, and creating meaningful careers for Indigenous workers in the North.

# Local capacity is critical to building skills in remote communities

Skills training programs in the North can be costly and logistically challenging, especially in technically advanced marine sectors. While it can make sense for educators and employers to concentrate training efforts in larger urban hubs, it is often difficult for residents of remote communities to leave their homes in pursuit of new technical skills and associated qualifications. Many small Northern communities lack adequate family services, childcare, and other supports that would make it easier for a parent to leave their home for extended periods of time.

NFMTC has based its training facilities in Northern hubs such as Iqaluit and Hay River, and provides mentorship and other social supports that make it easier for Nunavummiut to pursue training opportunities. It has channelled investments from industry and government partners to build a stateof-the-art training experience in the North. Casting a wide net to promote the program throughout Nunavut's Arctic hamlets has also helped to make NFMTC's training opportunities relevant to Nunavummiut from across the territory.

After graduates of NFMTC's programs begin their careers, pursuing additional training to move up a career ladder could also be made easier if additional courses were offered close to home. Internet access and connectivity are limited in the North–especially in Nunavut. But online learning in the post-COVID era could open new doors to enrich education and training opportunities for Inuit in their communities. Improving infrastructure to make online instruction possible should be a priority for both public and private partners interested in strengthening Northern skills development ecosystems.

### Culturally appropriate capacity-building

Northern Indigenous and especially Inuit populations are young and growing.<sup>71</sup> This presents a demographic opportunity for building labour force capacity in Nunavut and across Inuit Nunangat.

To fully realize the opportunity, however, education and skills training approaches need to meaningfully engage Inuit perspectives on work and connect with their associated social and cultural values. They must also address the specific employment and learning contexts of Inuit and help them see the connections between their values, aspirations, and the possible livelihoods and career opportunities available within Northern industries. As the latest Nunavut Fisheries Strategy highlights: "Understanding the kinds of work that Nunavummiut want is an important part of the recruitment and staffing process, as is making potential employees aware of the variety of employment available in fisheries, from processing to science to management."72

Not all industries may match Inuit cultural sensibilities as well as Nunavut's fisheries appear to do. Fishing has been a part of Inuit cultures for millennia. And the inshore and offshore fisheries conveniently exist at the intersection of traditional and market economies. The seasonality of work in the offshore fisheries allows Inuit workers to hold a potentially lucrative position on a ship while also affording the time necessary to participate in community-based activities such as hunting, harvesting, and the arts. Nunavut's commercial fisheries are also well-positioned for growth. The expansion of the industry and Nunavut's broader marine capacity over the past two decades has opened new career prospects for Inuit that did not exist before.

Livelihoods and careers are often conceptualized in non-Indigenous terms. Competing for jobs in a labour market that values formal educational credentials is not always in line with Inuit values and aspirations. Any future skills initiatives for other emerging industries in Nunavut and Inuit Nunangat need to be mindful of these realities.

For example, traditional land-based activities like hunting and inshore fishing are grounded in Inuit culture and history. They can be time-intensive and prevent individuals from participating in the labour market and wage economy full time. Yet, Northern trainers and employers should not get caught up in thinking that traditional land-based activities leave Inuit unprepared for the realities of wage-based occupations. Instead, they must recognize that traditional and market-based forms of work operate interdependently as part of a more complex mixed economy for Northern Indigenous communities.

The full complement of traditional and wageoriented skills strengthens Indigenous self-reliance and resilience in the North. Seasonal industries may find it easier to accommodate Inuit workers' mixed economy schedules. But for other sectors, flexible approaches to accommodating and, more importantly, integrating traditional values and skills can pay off in terms of worker wellness and enhanced productivity.

<sup>71</sup> National Indigenous Economic Development Board, The Indigenous Economic Progress Report.

<sup>72</sup> Government of Nunavut, Department of Environment, Nunavut Fisheries Strategy, 2016-2020, 35.

### Essential skills developments enable workers to succeed in multiple industries

A lack of qualifications can limit prospects for a sustainable livelihood or meaningful career. Yet, possessing the wrong qualifications can also lead to discouragement and poor labour market outcomes. Close integration with marine industry stakeholders has allowed NFMTC to offer specific and practical skills for contemporary work. The best way to identify these skills is to engage with industry about trends and workforce needs.

Matching skills training with labour market needs can also take a broad view. Industries do not exist in a vacuum. The range of careers open to graduates of NFMTC demonstrates the wide applicability of training focused on fundamental skills. When program graduates know they have an opportunity to gainfully apply the skills they have learned in more than one regional industry, they will more likely remain in Nunavut and contribute to the territorial economy.

### More than skills development

Skills development is only one facet of the strategic partnerships that Northern Indigenous communities need with employers and governments. Across occupational and industry categories, Northern Indigenous workers typically hold lower-paid positions. Even in Nunavut's Inuit-driven fisheries, this trend persists. The industry is relatively new, which partially explains this phenomenon. But there are other contributing factors. For example, the hesitation of younger Inuit workers to enter supervisory positions is influenced by cultural factors and community forces. Addressing this barrier to career advancement requires understanding Inuit perspectives on leadership and management. From an equity perspective, Inuit should occupy higher-paid positions commensurate with their training and experience. But innovative solutions will emerge only from a frank and open dialogue between community representatives and employers.

Skills training is not enough to provide Inuit with sustainable livelihoods. Indigenous workers also face the persistent effects of historical disadvantages, including the intergenerational legacies of colonialism and Canada's Indian residential school system.<sup>73</sup>

Having a better understanding of the less visible social and cultural barriers to Northern Indigenous employment will maximize the success of training and employment programs. Once the root causes and effects of these barriers are understood, they can be carefully addressed. This will lead to more meaningful career advancement opportunities and sustainable livelihoods for Indigenous workers.



73 Truth and Reconciliation Commission, Canada's Residential Schools: The Legacy.

# Appendix A Methodology

The findings presented in this impact paper flow from several sources.

The authors reviewed more than 100 academic and grey literature sources on Indigenous-led fisheries, skills development initiatives in Inuit Nunangat, and broader issues for Indigenous economic development in Northern Canada.

In 2019 and 2020, we conducted 15 interviews with representatives of the Nunavut Fisheries and Marine Consortium (NFMTC) and Nunavut's fisheries. Interview participants were recruited through a purposive snowball sampling method. Our purposive sample included senior managers, trainers, and graduates of NFMTC programs. Our team also interviewed 12 subject matter experts from Indigenous economic development organizations, federal and territorial governments, and academia to better understand the broader context of skills development initiatives in Inuit Nunangat. These experts were identified through our literature review, and through discussions with project advisors and contacts in Inuit Nunangat. Unless otherwise stated, the views shared by the participants were their own and not taken to be representative of their communities, employers, or any professional associations.

All interviews were recorded, transcribed, and coded using qualitative data analysis software.



## Appendix B Bibliography

Anselmi, Elaine. "Nunavut's Offshore Fishery Contributes \$112M to Territory' Economy: Report." *Nunatsiaq News*, March 20, 2020. Accessed July 24, 2021. https://nunatsiaq.com/stories/article/nunavutsoffshore-fishery-contributes-112m-to-territoryseconomy-report/.

Arctic Fishing Alliance. "About AFA: Ownership Structure." Accessed July 24, 2021. Arctic Fishery Alliance - Ownership Structure.

Baffin Fisheries. "Baffin Fisheries Statement on Last-In First-Out (LIFO) Management." June 3, 2016. Accessed July 24, 2021. https://www.dfo-mpo.gc.ca/fisheriespeches/consultation/shrimp-crevette/pdf/Baffin%20 Fisheries%20LIFO%20Presentation%20June%20 2016.pdf.

-. "Vessels." 2021. Accessed July 27, 2021. Vessels | Baffin Fisheries | Premium, Wild, Cold Water Seafood.

Brown, Beth. "Transport Canada Funds Ocean Career Training for Inuit." *Nunatsiaq News*, February 8, 2018. Accessed July 24, 2021. Transport Canada funds ocean career training for Inuit | Nunatsiaq News.

Dowden, Amy. "What We Heard From Indigenous Partners and CNA Stakeholders: Recommendations for CNA's Mature Student Admission Pathway and Other Supports." Stephenville, NL: College of the North Atlantic, n.d.

Government of Canada. "Northern Integrated Commercial Fisheries Initiative." May 6, 2019. Accessed July 28, 2021. https://www.dfo-mpo.gc.ca/fisheries-peches/ aboriginal-autochtones/nicfi-ipcin/index-eng.html. Government of Nunavut, Department of Environment. *Nunavut Fisheries Strategy 2016–2020*. Iqaluit: Government of Nunavut and Department of Environment, 2016. Accessed March 6, 2020. https://oceantrackingnetwork.org/wp-content/ uploads/2017/04/FisheriesStrategy\_Text\_EN\_Web.pdf.

Government of Nunavut & Nunavut Tunngavik Incorporated. *Nunavut Fisheries Strategy*. Iqaluit: Government of Nunavut and Nunavut Tunngavic Incorporated, March 2005. Accessed July 26, 2021. Microsoft Word - 2005-25 -C eng GN NTI fisheries strategy (nwmb.com).

Impact Economics. *2010 Nunavut Economic Outlook*. Yellowknife: Impact Economics, 2010. Accessed July 29, 2021. Nunavut Economic Outlook (landclaimscoalition.ca).

Kumar, Mohan B., Chris Furgal, Peter Hutchinson, Wade Roseborough, and Stephanie KootooChiarello. *Harvesting Activities Among First Nations People Living Off Reserve, Métis and Inuit (2001–2017): Time Trends, Barriers and Associated Factors*. Ottawa: Statistics Canada, April 16, 2019. Accessed July 29, 2021. https:// www150.statcan.gc.ca/n1/en/pub/89-653-x/89-653x2019001-eng.pdf?st=pDZsY3Ji.

Marine Institute. "About Us." Accessed July 24, 2021. About Us (mun.ca). National Indigenous Economic Development Board. *The Indigenous Economic Progress Report 2019.* Gatineau: NIEDB, 2019. Accessed July 28, 2021. http://www.naedb-cndea.com/wp-content/uploads/ 2019/06/NIEDB-2019-Indigenous-Economic-Progress-Report.pdf.

Open Parliament. "Government Operations Committee on March 4th, 2014." March 4, 2014. Accessed July 28, 2021. Government Operations Committee on March 4th, 2014 | openparliament.ca. Video available.

Qikiqtaaluk Fisheries Corporation. "Advancing Innovation to Create Opportunities and Build Our Future." n.d. Accessed July 24, 2021. Home | Qikiqtaaluk Corporation (qcorp.ca).

Rodon, Thierry, Fiona Walton, Frances Abele, Sheena Kennedy Dalseg, Darlene O'Leary, and Francis Lévesque. "Post-Secondary Education in Inuit Nunangat: Learning From Past Experiences & Listening to Students' Voices." *Northern Public Affairs* Special Edition 20142 (2013): 70–75.

Savanta Inc. "ITK Post-Secondary Education Interview Summary." Ottawa: Inuit Tapiriit Kanatami, May 2018. Unpublished.

-. "ITK Post-Secondary Education Survey Summary." Ottawa: Inuit Tapiriit Kanatami, May 2018. Unpublished.

Standing Senate Committee on Fisheries and Oceans. *Nunavut Marine Fisheries: Quotas and Harbours*. Ottawa: Standing Senate Committee on Fisheries and Oceans, 2009. Accessed July 24, 2021. https:// sencanada.ca/Content/SEN/Committee/402/fish/rep/ rep04jun09-e.pdf. TAVEL Limited and Brubaker Development Strategies Inc. Organizational and Performance Review of Nunavut's Offshore Fishing Industry. 2006. Accessed July 28, 2021. https://www.nwmb. com/iku/2013-11-09-01-41-51/2013-11-09-01-46-43/2007/jun-12-13-2007-allocation-policy-for-marinefish/496-06-organizational-and-performance-reviewof-nunavuts-offshore-fishing-industry-eng/file.

Truth and Reconciliation Commission. *Canada's Residential Schools: The Legacy.* Winnipeg: TRC, 2015. http://www.trc.ca/assets/pdf/Volume\_5\_Legacy\_ English\_Web.pdf.

Venn, David. "Baffin Fisheries Buying \$72M Fishing Vessel." *Nunatsiaq News*, October 29, 2021. Accessed November 30, 2021. https://nunatsiaq.com/stories/ article/baffin-fisheries-buying-72m-fishing-vessel/.

World Bank and United Nations Department of Economic and Social Affairs. *The Potential of the Blue Economy: Increasing Long-Term Benefits of the Sustainable Use of Marine Resources for Small Island Developing States and Coastal Least Developed Countries.* Washington: World Bank, 2017.



Find Conference Board research at conferenceboard.ca.

### Acknowledgements

This impact paper was prepared by Oana Spinu, Kiefer Van Mulligen, and Adam Fiser at The Conference Board of Canada, on behalf of the Future Skills Centre. It was reviewed internally by Stefan Fournier, Director; Bryan Benjamin, Vice President; Michael Burt, Executive Director; and Susan Black, Chief Executive Officer.

This research benefited from external reviews by Erika Marteleira, Manager of Post-Secondary Education Secretariat, Inuit Tapiriit Kanatami, and Stephan Schott, Associate Professor, Carleton University.

This research stream is supported by Research Advisory Board members commissioned by the Conference Board, including:

Patrice Gilbert, Vice President, Agnico Eagle

**Terry Ma**, Manager Economic Development, Inuit Tapiriit Kanatami

John Main, Legislative Assembly, Nunavut

Jeff Maurice, Director, Nunavut Tunngavik Inc.

Katherine Minich, Lecturer, Carleton University

Stephan Schott, Professor, Carleton University

This impact paper was prepared with financial support provided through the Future Skills Centre. The Conference Board of Canada is proud to serve as a research partner in the Future Skills Centre consortium. For further information about the Centre, visit the website at https://fsc-ccf.ca/.

Any omissions in fact or interpretation remain the sole responsibility of The Conference Board of Canada. The findings do not necessarily reflect the views of the Future Skills Centre, its funder, or its partners.

#### Made in Nunavut: Building Inuit Skills for Northern Offshore Fisheries and Beyond Oana Spinu, Kiefer Van Mulligen, and Adam Fiser

To cite this research: Spinu, Oana, Kiefer Van Mulligen, and Adam Fiser. *Made in Nunavut: Building Inuit Skills for Northern Offshore Fisheries and Beyond*. Ottawa: The Conference Board of Canada. 2021.

©2021 The Conference Board of Canada\* Published in Canada | All rights reserved | Agreement No. 40063028 | \*Incorporated as AERIC Inc.

An accessible version of this document for the visually impaired is available upon request. Accessibility Officer, The Conference Board of Canada Tel.: 613-526-3280 or 1-866-711-2262 E-mail: accessibility@conferenceboard.ca

<sup>®</sup>The Conference Board of Canada is a registered trademark of The Conference Board, Inc. Forecasts and research often involve numerous assumptions and data sources, and are subject to inherent risks and uncertainties. This information is not intended as specific investment, accounting, legal, or tax advice. The findings and conclusions of this report do not necessarily reflect the views of the external reviewers, advisors, or investors. Any errors or omissions in fact or interpretation remain the sole responsibility of The Conference Board of Canada.



### Where insights meet impact

The Conference Board of Canada Publication 11298 Price: Complimentary conferenceboard.ca