

MARINE PEOPLE PARTNERSHIP

STUDENT INTENTIONS AND PERCEPTIONS SURVEY

Executive Summary Report prepared by the
Institute for Ocean Research Enterprise (IORE)

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Executive Summary

Introduction

In January of 2016, in partnership with the Department of Education and Early Childhood Development (EECD), a study was initiated involving students in grades 6-9 across the province of Nova Scotia. The Student Intentions and Perceptions survey was launched across English, French, and MK schools, and received 14,497 responses – a nearly 40% response rate.

Understanding the perceptions of marine-related and trades/technology careers among today's youth and understanding their intentions and influences will provide useful insights to inform recommendations for the design of future awareness/exposure building initiatives and career development programs to help us shift the dial on the looming future workforce challenge.

It was hoped that surveying younger students (grades 6-9) would provide useful insights into understanding when and how their career perceptions are formed, which could signal optimal periods for targeting career counseling and awareness and exposure building programs.

The survey tool was comprised of 17 key questions that solicited responses to key constructs relating to awareness, intention, perceptions, and attitudes regarding careers in the region generally, and careers relating to the marine industry and skilled trades and technology roles specifically. The survey data provided insights into;

- the perceptions young people have of alternative education and career pathways
- how and when those perceptions are formed, and who has strongest influence over them
- young people's career and mobility intentions
- young people's perceptions of minimum requirements for jobs and education

The sample group reflected the population well, with representative participation by grade, gender, school board, region, and urban/rural community.

Data Summary

The full report provides a detailed analysis of the data, as well as a summary of insights and recommendations for career literacy interventions and programs aimed at the grade 6-9 cohort. This executive summary shares the highlights and key findings of this study, including;

- More than ¾ of students reported an interest in continuing with post-secondary education immediately following high-school. This is considerably higher than the present rate of tertiary attainment of 53% (among adults aged 25-64), according to the 2015 OECD report¹, which shows a trend towards (expectations for) post-secondary education, or increased optimism among young people in their abilities to participate and persist in the tertiary system. Persistence in post-secondary, as reported by OECD do indicate that roughly 20% of combined first-year

¹ Education at a glance 2015. (November 24, 2015). OECD Indicators.

students in college/University do not remain in their programs beyond first year², and thus the significant gap between actual attainment and expected attainment may be explained by persistence challenges.

- 42% of students responded that they intend to stay in Nova Scotia, while 31% intended to leave, and 27% did not know. If we combine those with the intention to leave, with even a fraction of those who weren't sure, we could potentially be facing the loss of a significant proportion of the region's youth – or at the very least, the disengagement of those youth from regional pathway exploration activities. The data further suggests that the intention to leave is not as a result of a push from the region (i.e. due to poor economic conditions, and poor employment prospects), but rather is due to a pull to other regions (i.e. the allure of mobility itself)
- The question of mobility was addressed a second time towards the end of the survey to evaluate consistency of response. Both intention to leave and intention to stay in Nova Scotia decreased, while uncertainty increased significantly. The change effect was equally pronounced among urban and rural students. This indicates that the survey itself provoked students to think more critically about their future options. It also demonstrated the malleability of youths' attitudes and intentions when they are given an opportunity to consider new information, ideas, and pathway. This in turn illustrates the potential positive influence of career literacy initiatives to broaden young people's exploration of career options.
- Responses demonstrated that students form strong early bias against certain education and career pathways (i.e. community college), and a correspondingly strong bias towards a socially-endorsed academic pathway (University) – even without a specific career/credential outcome in mind. This means that young people are narrowing down their options and disregarding those that don't align with their perceptions of socially validated options that are endorsed (by parents and peers).
- A significant proportion of participants expressed fear, lack of interest, or outright aversion to oceans as their reasons for not considering an ocean-related career. This needs to be addressed – especially in a province that is literally surrounded by oceans. This suggests a need for more experiential learning opportunities, in and out of school, that expose youth to oceans in safe, engaging, and adventurous way. There is an immediate need to replace fear of the oceans with curiosity, and to replace reluctance of getting wet and dirty with the thrill of exploration and discovery.
- Only ~3% of Nova Scotian youth expressed an interest in pursuing an entrepreneurial pathway
- Interestingly, of the ~3% of students who did indicate an interest in entrepreneurship, only 8% of those (or 33 students) expressed an interest in opening a business that was skilled trades-related. This suggests that, while students have some awareness of this option, entrepreneurship is not the pull that draws students along a skilled trades career pathway
- It is important to recognize the value of both an informed yes and an informed no. A key outcome of any awareness and exposure program is to support students in making an informed

² Andrew Parkin and Noel Baldwin. Persistence in Post-Secondary Education in Canada: The Latest Research. http://www.yorku.ca/pathways/literature/Aspirations/090212_Persistence_EN.pdf

decision about whether or not to pursue a particular pathway. Without some awareness, students are too often dismissing some career options without consideration, or defaulting to others, with similarly little information.

- Participant responses indicated that the top three preferred sources of information about future goals and careers are friends (45.56%), parents & other family members (19.10%), and social media and the internet (16.72%). Information sources that received the lowest responses from students included coaches & mentors (0.06%), teacher or principal (0.91%), career days at school (2.26%), guidance counsellors (4.8%), and pamphlets from school (5.4%). These low responses to more traditional sources of career information suggest that young people do not seek out and/or trust these sources, and instead rely on more proximal or self-directed sources of information. This may suggest that the roles of teachers and coaches have been limited (or perceived to be limited) to the communication of immediate subject content, and has largely withdrawn the (perceived) counseling role. This also reflects the general trend away from the reliance on the printed word, and a preference for (and relatively higher trust for) digital sources of information. These findings are consistent with the work by Holowiak-Urquhart and Taylor³ and the public perception in Nova Scotia⁴.
- Students were asked to identify which subjects would help them to get their desired job. This question provided insights into students' awareness of subject relevance to careers, and of the importance of courses in opening education pathways. Consistency between career choices and relevant subjects and skills demonstrated awareness and career maturity for students. Subjects that received the highest frequency of responses overall were (in order); math, science, technology, and language arts. This suggests that young people are aware of the importance of core STEM courses across a wide range of careers, even those not directly STEM-related. These responses may also reflect learner effects or participant demand characteristics (i.e. providing the assumed desired response).
- Students were asked to identify the skills (or competencies) that would help them to get that job. The skills that had the highest frequency of responses were (in order from most); hardworking, good with people, organized, and good communication skills. The skills that received the lowest response overall were (in order, from least); inventive/innovative, structured, computer skills, and artistic. These responses demonstrate some awareness of the importance of 21st century competencies.
- Students from across the province showed significant optimism in their opportunity to get a good job in the province.
- A key insight from this study is the general and broad lack of awareness of Nova Scotian youth of marine oriented careers. Young people generally have a very narrow perception of career options in the marine industry, with awareness largely limited to traditional notions (i.e. fishing, Navy).
- The data suggested that the lack of interest in marine industry careers is rooted in a broad lack of awareness of the range of available careers (i.e our youth are not sure what the 'marine industry'

³ Holowiak-Urquhart & Taylor, 2005

⁴ Minister's Panel on Education, 2014

means beyond fishing and Navy), and in lack of positive exposure to the oceans, resulting in fear and apathy in place of stewardship and fascination. We need more oceans presence in our provincial curriculum, and more experiential programs and teaching to reconnect young people to the oceans (and other waterways), to build engagement and curiosity, and to connect with the broad range of opportunities that are locally available. We need optional exposure and awareness programs (extracurricular), as well as mandatory ones to ensure that we are reaching young people who might not have exposure through their own social networks, or for those who have not even considered the oceans an option worth exploring. We can't rely on voluntary extracurricular programs to reach all students. These opportunities will help to ensure that even if students decide that they aren't interested in a marine-oriented career, that at least it is an informed decision.

- Similarly, responses generally showed a lack of awareness of skilled trades careers which is reported by youth as a lack of interest in these careers. There is a prevailing stigma against skilled trades pathways (i.e. prestige, approval, compensation) that students as young as grade 6 are conscious of. Additionally, students remain poorly informed about the myriad career pathways that emerge from a skilled trades credential, and about the high-tech/low-touch characteristics of many modern-day trades. More exposure and awareness programs are needed in the grades 6-9 cohort to erode the stigma and build fascination with the creative and problem solving contributions of skilled trades and technology roles.

Insights & Recommendations

A key insight is that our youth form strong biases against certain careers or pathways from an early age (i.e. by grade 6). These biases are not always well-informed, but they influence and limit the options that youth consider as they progress through school and through their career exploration. Overall, youth in Nova Scotia communicated strong preferences against careers in skilled trades and marine oriented careers. Open text responses revealed that these preferences against were not well-informed. This is an important insight as it demonstrates that at an early age, young people are restricting rather than expanding the range of career options within their consideration. Just at a time when they should be looking more broadly, they are disregarding certain pathways, without having a chance to actually explore them. Even more noteworthy is the finding that the rationale being employed by youth to dismiss career and education options is often based on perceptions of social prestige and value (and associated peer and parent approval), and is not necessarily based on individual talents, skills and interests. This has relevance to exposure and awareness programs that rely on voluntary participation, as young people may not be engaging in the exploration activities they could, having already dismissed certain options. This, in turn, points to the importance of mandatory awareness programs during these early years (i.e. prior to grade 10), before education choices are made that further restrict their pathway options.

We also see evidence of the bias-forming effects of negative narration (i.e. from parents, friends, media) on perceptions and career choices. Many students expressed an intention for a specific pathway (predominantly University-oriented), however these education intentions were not always consistent with their career intentions (i.e. I want to go to University, I want to be a travel agent), or the intention was expressed without an outcome in mind (i.e. I don't know what I want to do, but I know that I want to go to University). This shows a strong awareness of the prestige and social preference for University pathways, and is evidence of the academic default that many of our young people are socialized for.

This study reinforces the need for highly interactive career exposure programs well before grade 9. This recommendation is supported by research⁵ that suggests that students as young as 10-12 years old will benefit from career education, and that by the age of 14, the potential negative aspects of certain careers begin to take hold. The consensus in the literature is that early exposure to a wide variety of career options is important⁶. Career education needs to advocate for many options that include the ‘big dream’ as well as more plausible options that are linked to the individual’s skills, competencies, and interests. These programs need to be interactive and socially focused –and also need to be more adjectivally focused (instead of job title focused) to link to the compelling competencies and qualities of a career path (i.e. creative, problem solving, interactive, entrepreneurial, independent, etc.). And finally, we need to coach our young people on the types of skills and competencies they’d like to build to launch their career webs that can take them in numerous directions, versus coaching them towards a terminal or linear notion of career.

The data also provides insights into the most effective (i.e. trusted and accessible) modes for providing career counseling. Responses indicate that the traditional models of career counselors, guest speakers, or of one-on-one career counseling, are not trusted or valued. Today’s young people value career exploration with an experiential versus informative focus. In addition to the importance of highly interactive career exposure programs well before grade 9, the data suggests that these programs need to be experienced in a social, peer education environment that utilizes technology channels.

This study also confirmed the researchers’ hypothesis that mobility is not driven as much by pessimism in local opportunities as by a *mobility motive* itself (i.e. that mobility has become a motivator in itself). This means that our youth are not feeling pushed out of the region by lack of local opportunity, but rather that they are feeling pulled to other regions because mobility has become more normalized and interesting to a broader range of youth than in previous generations. It would seem that the trend has shifted from *leaving because we have to* – to *leaving because we want to*. This has considerable implications for post-secondary recruitment programs, and for youth employment programs. A course of action may be to find ways to provide opportunities for our youth to explore their mobility pursuits through more temporary experiences that won’t ultimately lead to the shedding of our youth as they depart the k-12 system.

Finally, we see a need for different career coaching focus for urban and rural students. For both groups, we see that our youth do form strong biases/opinions regarding their education and career futures by an early age, but the study itself provides some evidence that these biases can be shifted with information – even if the shift is from uninformed certainty, to more informed uncertainty. Uncertainty is the open door to developing broader career awareness and maturity in the career exploration process.

⁵ Hartung, Porfelli, and Vondracek (2005)

⁶ Carpenter, 1993; Welde et al., 2016; Zimmer-Gembeck and Mortimer, 2006