THE CANADIAN APPRENTICESHIP JOURNAL

Encouraging Canadian Youth to Enter the Skilled Trades

By Jeff Hines, Department Head of Technological Studies at Emily Carr Secondary School

This paper shares the findings of a survey with high school students that explored their attitudes towards careers in the skilled trades. The results highlight some of the challenges to encouraging youth to consider apprenticeship training as a postsecondary option. Student responses to the survey did not directly align with existing peer reviewed research and government census data findings, which suggests that additional research on this topic would be worthwhile.

Background for the study

For my Bachelor of Arts degree in Labor Studies at the National Labor College (NLC) in the United States, I chose to conduct research on high school students' knowledge, opinions and attitudes towards careers in the skilled trades as part of the program requirements. My position as a high school technological studies teacher led me to this topic. I developed and administered a survey to the student population of Emily Carr Secondary School in Woodbridge, Ontario. The survey and data collection followed strict academic research standards and controls. The project was overseen by Professor Dr. Thomas Kriger, who is now the Director of Research at the American Federation of Labor and Congress of Industrial Relations (AFL-CIO). The findings from the survey were analyzed and compared with current peer reviewed data. My final project was well received by the faculty of the NLC and has since been nominated for a United Association for Labor Education literary award.

Limitations

Readers should note that the survey that was delivered to the sample group generated results specific to the conditions and opinions of students attending Emily Carr Secondary School in Woodbridge, Ontario. As such, the survey is limited to the reflections of the conditions and opinions of this geographic area. The results of the survey likely do not accurately reflect that of the region, other municipalities, the province, or the country.

Survey approach

The actual size of the student population that was initially surveyed was approximately 650 students. This survey sample group consisted of students in the second semester of English course classes at Emily Carr Secondary School. These classes were selected because English is a compulsory course for all grade levels, which ensured that students completed the survey no more than one time, results represented male and female students equally, and students were represented from various demographic and academic streams at the school (workplace, college and university). From this larger set of survey responses, a controlled but randomized selection from the response surveys of 35 male and 35 female responses per grade level were used for the final quantitative analysis. The final sample size represents approximately 18 per cent of the entire school population.

The survey identified a limited amount of accurate and important information on student perspectives regarding apprenticeships and careers in the skilled trades. The goal of the survey was to generate and collect the data necessary to analyze the results using quantitative methods. The student responses to the two-page, 12-question survey, including written comments, provide insight into the challenges of enticing students to consider careers in the skilled trades. These results have been used to determine the level of existing knowledge and to identify key barriers that are limiting the choice of skilled trades as a potential career destination for many high school students.

Overview of findings

The demographic base selected for the survey sample group produced a welcomed and surprisingly higher level of perceived parental and teacher support towards apprenticeships and careers in the skilled trades than was originally predicted. The students also demonstrated higher than expected levels of interest in and knowledge about apprenticeships and careers in the skilled trades.

Student survey responses did not identify gender as a barrier. Although skilled trades careers are dominated by men, comprising 97 per cent of the workforce,[1] no link was found to exist between this and the level of interest and consideration by females of the skilled trades as a career option. In many cases, the results of the student surveys produced a much higher than expected level of knowledge, support and interest in this field than were originally projected. These results are encouraging, but do little to shed light onto the low levels of youth entering apprenticeships and careers in the skilled trades.

Many student comments attest to the pressure to seek a university degree and pursue a professional career that does not fall into the range of skilled trades.

The examination and analysis of the student survey results show, however, that there are barriers to considering careers in the skilled trades. The survey results revealed a striking and consistent trend amongst the student population in that a large percentage of students responded neutrally to the questions posed. For the majority of survey questions, over one-quarter of the student population answered with a neutral response. It is this relatively large proportion of students that is in need of attention. These students are perhaps part of the solution to finding a source of young workers to fill the future needs of Canada's forthcoming skilled trades worker shortage. There is also a sufficient amount of evidence to identify strong parental pressures being placed on the students who wanted to pursue careers in the skilled trades. Many student comments attest to the pressure to seek a university degree and pursue a professional career that does not fall into the range of skilled trades. The recommendations that are offered at the end of this article take into consideration the findings of the student survey analysis, peer reviewed research, and government census reports.

Analysis of survey responses

In an effort to focus on the data analysis and compare findings within the subgroups of the sample, the surveys were originally subdivided into cohorts of grade level and gender. Dividing

[1] Wendy Pyper, "Skilled trades employment," *Perspectives on Labour and Income*. Statistics Canada, October 2008. See www.statcan.gc.ca/pub/75-001-x/2008110/article/10710-eng.htm.

the students into these cohorts offered the greatest insight into identifying areas of concern. Any anomalies that existed within these subgroups were easily identified and explored. However, as was discovered through the analysis of the data, student responses did not deviate significantly from cohort to cohort. Therefore, only the overall responses from each gender will be used during the analysis and review that follows.

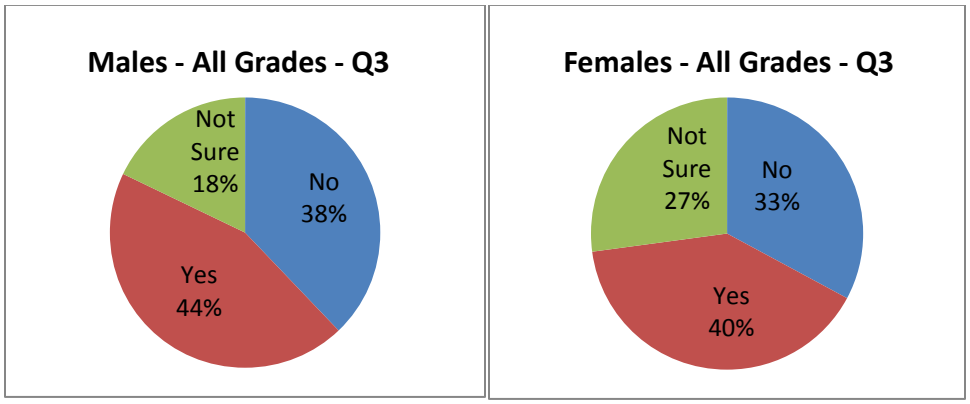
Family influence

The current careers of parents and guardians understandably influence students' understanding of and opinions toward careers. As is well-documented, parents and guardians have a great deal of influence with regards to their children.[2] While parenting styles vary greatly from household to household, parents and guardians help their children establish sets of values and gain an understanding of the world around them. The careers, hobbies and lifestyles of parents influence the level of understanding that their children have of careers and work vocations.

The responses to the survey question "Do you have any family members who work in the skilled trades?" were surprising. Surveyed students had three responses from which to choose: yes, no and not sure. The gender of the student appeared to have a direct link to the ability to answer the question. Female students were far more likely to answer "not sure" than their male counterparts by nearly 10 per cent (see Chart 1 below). Likely reasons for this are non-technical related courses taken during high school, being unsure of their parents' or guardians' careers, and a general low level of interest in careers in the field of trades and technologies. Some further insight into the gender divide is that careers in the skilled trades are comprised of men at 97 per cent.

[2] See Serena Cheung, "Education Decisions of Canadian Youth,",Higher Education Quality Council of Ontario, 2007 and "Pan-Canadian Study of Career Development Practices in K-12 Public Schools," Canada Millennium Scholarship Foundation, 2009.

Chart 1: Question 3 – Do you have any family members who work in the skilled trades?



A second unexpected aspect of this survey question was the higher than expected response level of students who indicated that they have family members who work in the skilled trades. Both male and female student cohorts indicated a consistently high level of family members who work in the skilled trades. The overall school average of 42 per cent is much higher than Canada's national skilled trades employment average of 8 per cent.[3] An obvious challenge of surveying students is validating their answers. It is somewhat unlikely that 42 per cent of the students actually have family members working in the skilled trades.

Possible reasons for such a high level of response to this question may be student confusion as to what qualifies as a skilled trades career. Similarly, the term "family" may have had different interpretations. During an informal follow-up interview with some students post-survey, the group was asked for clarification on family members who work in the skilled trades. The group of students began to mention cousins, uncles, distant relatives, and other family members that were far removed from the idea of immediate family that was intended by the question. The lack of clarity within this question frustrates the results and subsequent analysis.

Two key observations have been discovered as a result of analysis of this section of the survey. First, with nearly one quarter of the student population unsure of their parents' occupations, it would suggest that there is an opportunity for students to learn about potential careers directly from their immediate families. Second, it is possible that there is a higher than average ratio of family members who work in the skilled trades at Emily Carr Secondary School. This second

[3] Pyper, "Skilled trades," 2008.

point needs to be further explored and verified as it could potentially lead to stronger involvement of parents at the school to help raise student awareness of careers in the skilled trades.

Postsecondary education options

Survey questions 4, 5, 8 and 11 all deal with student perceptions and understanding of apprenticeship as a form of postsecondary education. The survey questions were as follows:

- Q4: Do apprentices get paid while they work and attend apprentice training classes?
- Q5: Can apprentices gain college credits for apprenticeship training?
- Q8: An apprenticeship is a form of postsecondary education.
- Q11: The skilled trades are a destination for students who do not get good grades in school.
- Q12: I understand the steps required to become a registered apprentice.

These survey questions test not only student opinions and understanding, but also the effectiveness of the career lessons at Emily Carr Secondary School. Questions 4 and 5 examine students' basic understanding of apprenticeship training. Two attractive features of pursuing an apprenticeship are that apprentices earn while they learn, and that colleges recognize the training that takes place in an apprenticeship by way of granting academic credits for their efforts through Prior Learning Assessment and Recognition (PLAR).[4]

[4] Many postsecondary institutions increasingly offer PLAR as an opportunity to earn credits towards diplomas and degrees. In the United States, PLAR is popular at universities and colleges for skilled tradespersons and ex-military people who seek further education.

Chart 2: Question 4 – Do apprentices get paid while they work and attend apprentice training classes?

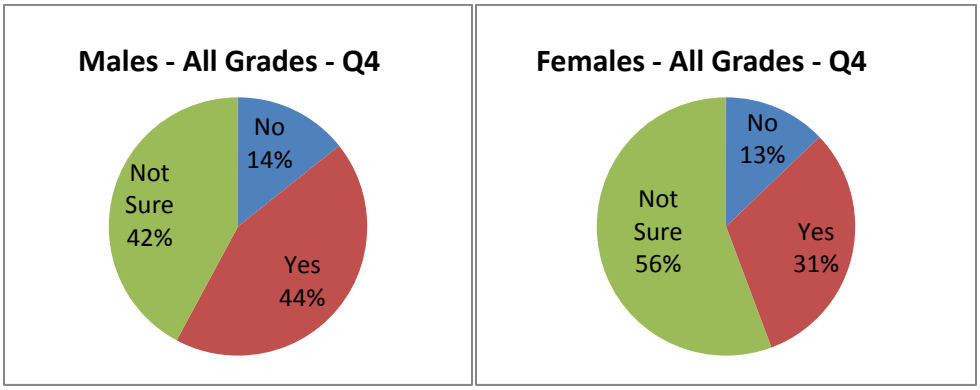
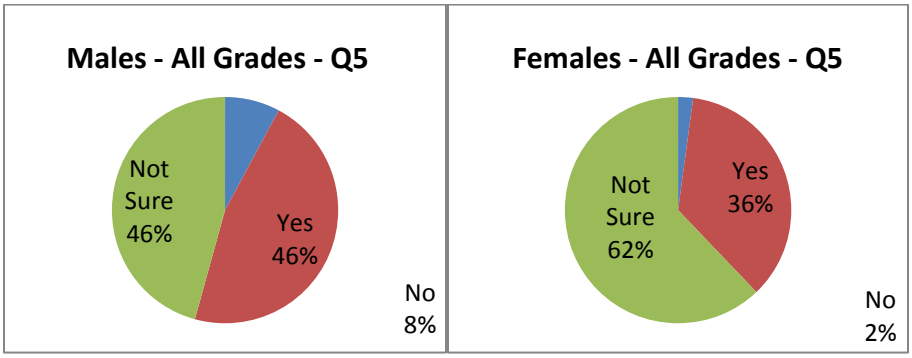


Chart 3: Question 5 – Can apprentices gain college credits for apprenticeship training?



Upon examination of the results of questions 4 and 5 above, it is clear that the majority of students do not understand the process for completing an apprenticeship. The overall response rate averaged 50 per cent for those “not sure” about the correct answers for these questions, suggesting that students do not fully understand the apprenticeship process. The results were fairly consistent throughout the cohorts studied. Results indicate that males have a somewhat better understanding of the apprenticeship process than females. This may be due to the fact that technological studies programs typically experience larger enrolments of males than females. The cohort of Grade 10 females provided the most surprising set of results. Although all Grade 10 students are required to take a career studies course, results showed that they were completely unfamiliar with the apprenticeship process.

Survey questions 8 and 11 were somewhat opinion-based questions and students responded to them consistently regardless of their cohort. It is encouraging to learn that the students' opinions of apprenticeships and careers in the skilled trades are mature and that they show respect towards people who enter careers in the skilled trades. The majority of students surveyed agreed that apprenticeship is a form of postsecondary education. However, the number of neutral student responses continues the theme, remaining high in response to apprenticeship-related questions (see Charts 4 and 5). A fairly consistent 25 per cent of the students surveyed provided a neutral "neither agree nor disagree" response.

Chart 4: Question 8 – An apprenticeship is a form of postsecondary education.

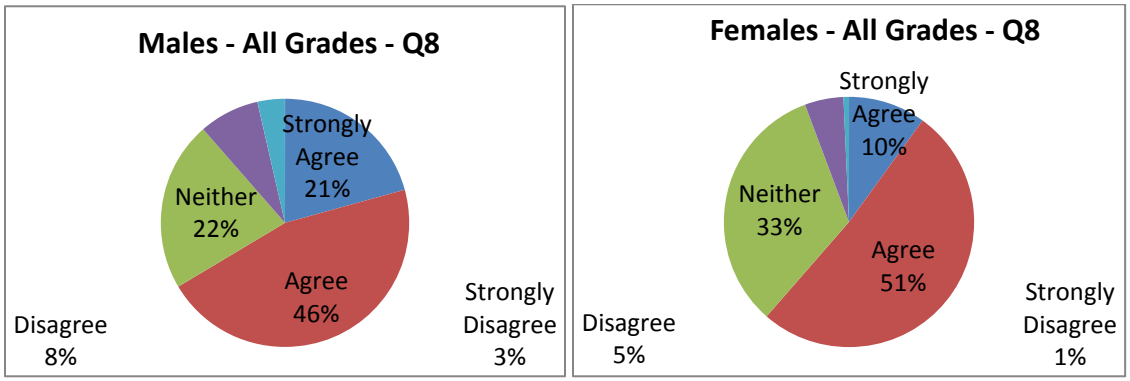
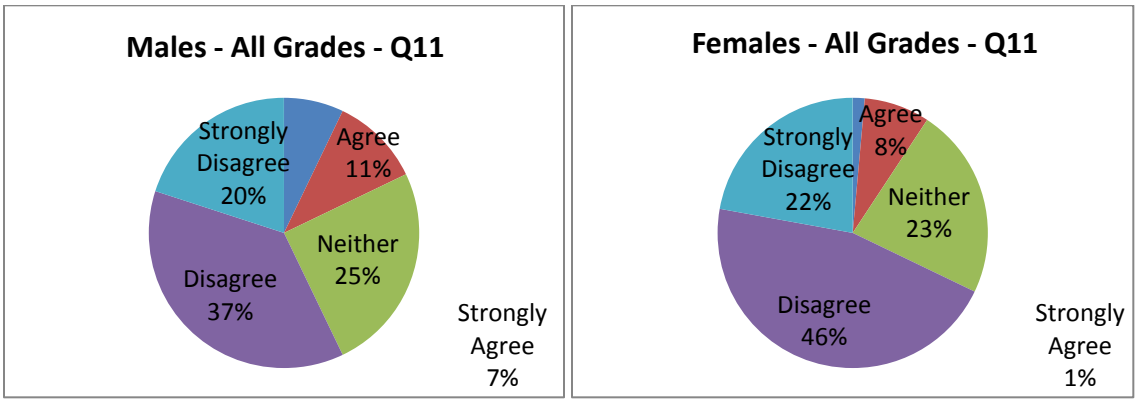


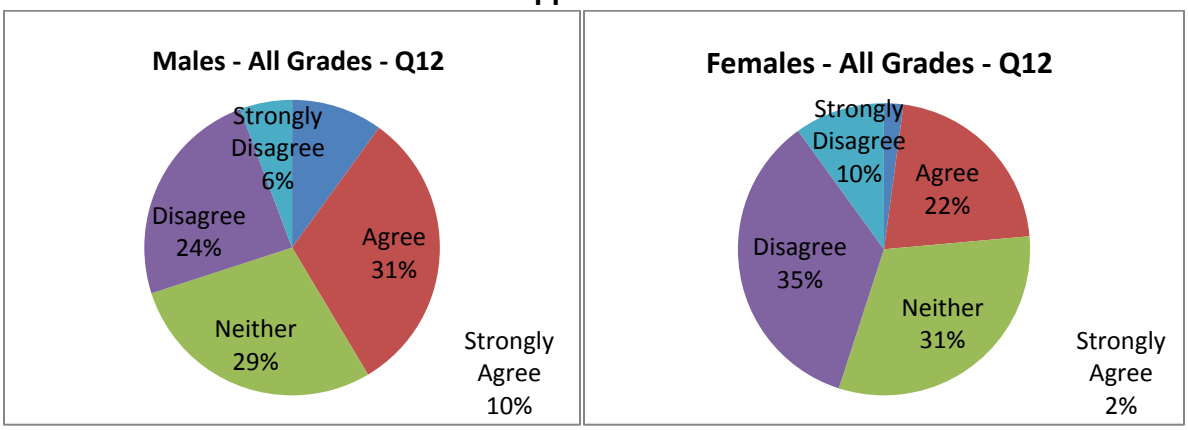
Chart 5: Question 11 – The skilled trades are a destination for students who do not get good grades in school.



The final question to be explored in this grouping of questions was "I understand the steps required to become a registered apprentice." The low response rates, especially from the female cohort, suggest that students are unaware of how to enter into an apprenticeship. The

results below (see Chart 6) suggest that only half of male students and only a quarter of female students feel that they understand the apprenticeship process.

Chart 6: Question 12 – I understand the steps required to become a registered apprentice.



The school system is set up well to efficiently and effectively serve students who wish to enter into colleges and universities directly from high school, but little help is available to students interested in apprenticeship training. Students not engaged in co-op studies programs or youth apprenticeship programs, where available, are limited in terms of supports that would help them transfer seamlessly from high school to apprenticeship.

The questions that focused on student opinions of apprenticeship as a form of postsecondary education were both encouraging and eye-opening. The survey results indicate that students recognize careers in the skilled trades as a dignified vocation, yet the student survey results also suggest that a large portion of the student body remains relatively unaware of apprenticeships and careers in the skilled trades. The school system should explore opportunities to better inform students about apprenticeship as a postsecondary destination and the process of registering in an apprenticeship program.

Student interest and support from youth influencers

Perhaps two of the most powerful influencers on a student's career decision are parents and teachers. Many parents and guardians pressure their children to perform well academically to attain successful and respectable professions. Similarly, some teachers may influence their

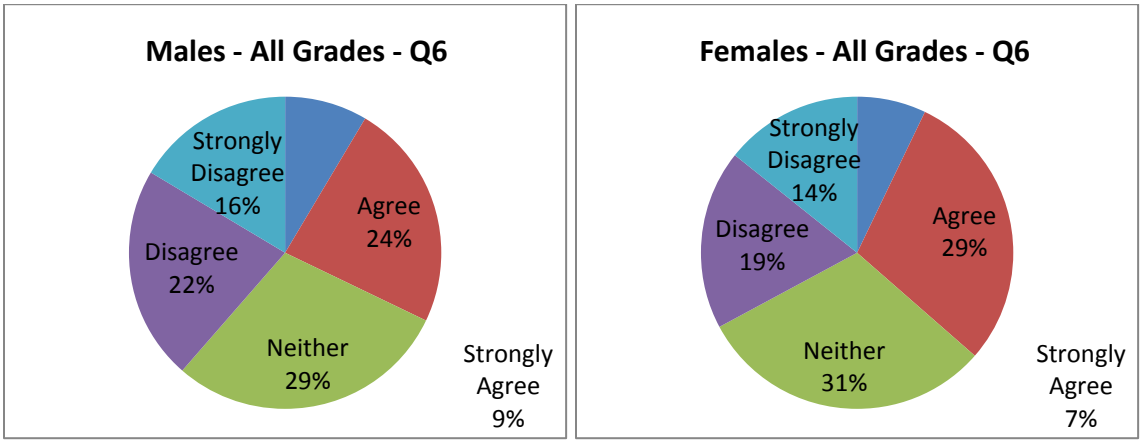
students by equating good grades with good careers, rationalizing the need for students to perform well in their studies. Future careers, earning potentials and professional success are often interwoven into teachers' lessons and in-class discussions. In addition, parents, guardians and teachers also have the potential to influence youth implicitly through their own career decisions and attitudes towards various professions.

Questions 6 and 10 on the student survey focused specifically on parents' and teachers' levels of support for apprenticeships and careers in the skilled trades. The questions included:

- Q6: My parents or guardians would support my decision to pursue a career in the skilled trades.
- Q10: When studying careers, teachers have always presented skilled trades as a career option.

These survey questions help identify possible parent and teacher influences on students.

Chart 7: Question 6 – My parents or guardians would support my decision to pursue a career in the skilled trades.



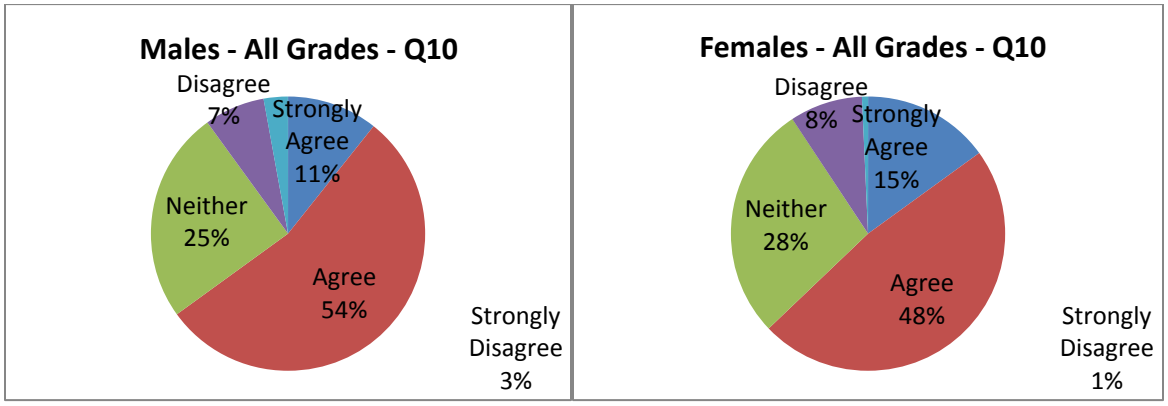
Once again, fairly consistent results from the various cohorts were observed in questions 6 and 10 (see Chart 7 above). Both male and female responses for question 6 are fairly evenly distributed across the three primary options. Approximately one-third of the surveyed students indicated that their parents would support their decision to pursue a career in the skilled trades, which was much higher than anticipated. An additional one-third of students were unsure whether their parents would support such a decision. In regard to this response, it is possible that many parents and students have yet to decide on a career path that would be best for the

student. The final one-third of respondents, who indicated that they either disagreed or strongly disagreed that their parents would support a decision to pursue a career in the skilled trades, could include additional comments on the survey. The statements that were provided by the students were generally along the lines of:

- My parents want me to go to university.
- Those jobs are dirty and dangerous.
- I have more potential.
- Those jobs are not respectable.
- My parents want me to become a doctor/lawyer/engineer.
- The work is too hard.

These comments are not surprising and imply that at least some parents apply pressure on their children to avoid a career in the skilled trades. These findings suggest that many parents would benefit from receiving accurate information and statistics on careers in the skilled trades.

Chart 8: Question 10 – When studying careers, teachers have always presented skilled trades as a career option.



When reviewing the student responses for survey question 10, it was encouraging to see that 65 per cent of students either agree or strongly agree that teachers at Emily Carr Secondary School present the skilled trades as a career option (see Chart 8 above). However, the approximately 35 per cent of students who responded that they disagree, strongly disagree, or neither agree nor disagree with the statement are the students who need to be addressed. That more than one-third of the students surveyed were unable to recognize whether or not their teachers introduced the skilled trades as a career option in their lessons is problematic. The

results indicate that teachers are including skilled trades careers in their teachings, but for 35 per cent of the population, the lessons appear to be unmemorable. Greater effort in identifying and distinguishing between the various postsecondary options may remedy this situation.

The questions concerning students' levels of interest in skilled trades careers and their perceptions regarding future demand for skilled tradespersons are related. When compared to one another, these two questions provide greater clarity on student opinions towards careers in the skilled trades. Both male (70 per cent) and female (63 per cent) cohorts agreed and recognized that careers in the skilled trades will be in demand in the future (see Chart 9 below). Student perceptions of the high demand for skilled trades workers does not align with the percentage of students who would consider a career in the skilled trades, however. As the results of question 9 illustrate on the next page, only 29 per cent of males and 20 per cent of females would consider a career in the skilled trades. Less than half of the students that recognized the future demand for skilled trades workers indicated that they would consider a career in the skilled trades. Consistent with past questions, a large number of students remain neutral in response to the question.

Chart 9: Question 7 – There will be a demand for the skilled trades in the future.

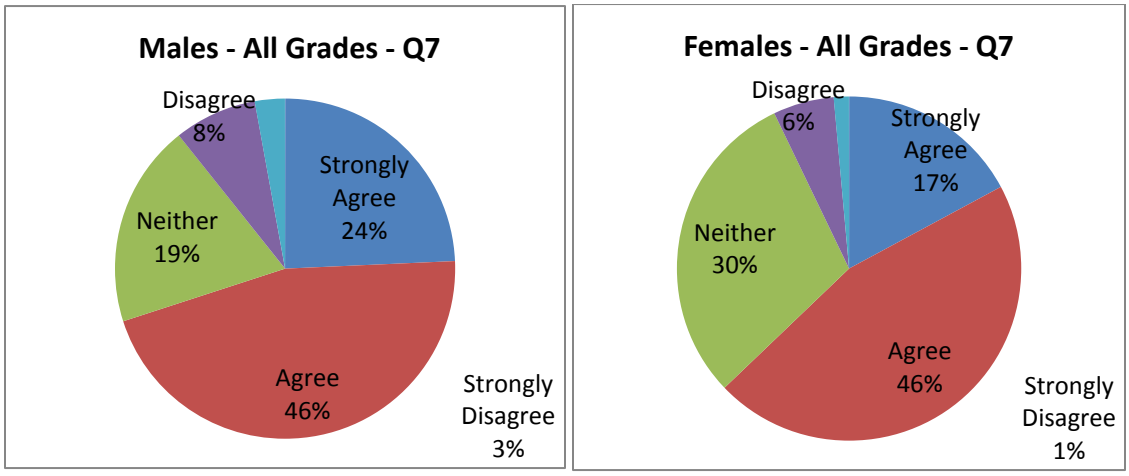
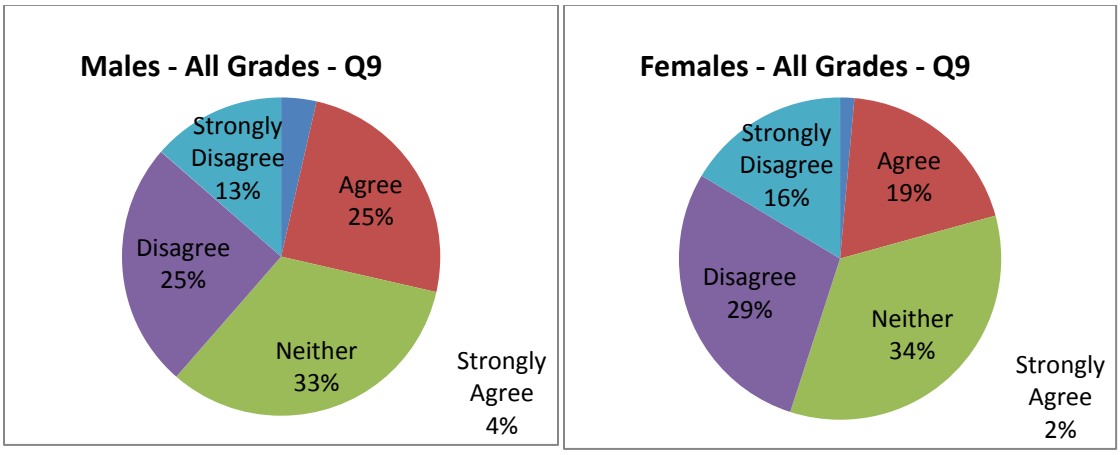


Chart 10: Question 9 – A career in the skilled trades is something that I would consider.



Identified barriers

The analysis of the student survey results did not align itself directly with that of existing peer reviewed research and government census data. There were no major indications of gender or parental barriers as was originally predicted and no indication that teachers are failing to present the skilled trades as a career choice. The analysis also provided some surprises including minimal differences of opinion between the cohorts surveyed, and generally positive attitudes towards careers in the skilled trades.

The major barrier that was uncovered through the analysis of the student survey results was the large number of neutral responses given by the students. Consistently, approximately one-quarter of the students surveyed selected a neutral response for each question. It is these neutral students who need to be better understood, and where possible, accommodated. Garnering the interest of such a large group of students in the skilled trades and raising their awareness of the apprenticeship process have the potential to help address at least part of the projected skilled trades workforce crisis.

Recommendations

As a result of the analysis of the Emily Carr Secondary School student surveys, the following recommendations are made:

- Explore the indicated high level of female student interest in the skilled trades.
- Offer female-only technological studies courses to capitalize on this high level of interest.

- Expand upon the apprenticeship process when providing lessons on careers.
- Share labour market information and career-demand forecasts with parents, students and teachers.
- Provide apprenticeship registration information and helpful links on the school website.
- Invite tradespeople as guest speakers for career classes.

Conclusions

The results of this survey do not directly align with current data and were not what was initially expected. Many of the responses are in direct opposition to the findings of peer reviewed research, government census information and commonly held beliefs by many in the education system. These results suggest that further research is needed to clarify the results and investigate students' needs in terms of career exploration.

There were many opportunities to learn from students through the analysis of the survey results. The high level of interest by female students to explore the skilled trades as a career option has come as a welcome surprise. This interest needs to be further studied and supported. Female-only technological studies courses may be an option and will be suggested for the 2013–2014 school year. The number of students who provided neutral responses to the questions is of concern and these students' needs should be addressed. One approach may be to modify lessons on careers to enhance retention of the information provided.

The project findings draw attention to the importance of being relevant and meeting the needs of students. Relaying accurate and appropriate career information that equips them to make well-informed decisions about their postsecondary pursuits will best serve the students, their local communities and the country.

Jeff Hines is the department head of technological studies at Emily Carr Secondary School in Woodbridge, Ontario. His dedication towards his students' future has steered him to conduct research of student opinions related to careers in the skilled trades.