



# Global University Entrepreneurial Spirit Students' Survey

GUESSS 2013/2014  
Student Entrepreneurship at the  
John Molson School of Business



**JOHN MOLSON**  
**SCHOOL OF BUSINESS**

Alexandra Dawson,  
Pramodita Sharma,  
Barbara Reda

John Molson School of  
Business  
Concordia University  
1450 Guy St.  
Montreal, Québec  
Canada H3H 0A1

Alexandra Dawson is an Associate Professor at the John Molson School of Business, Concordia University, Montreal, Canada

Pramodita Sharma is the Sanders Chair & Professor for Family Business at the School of Business Administration, University of Vermont

Barbara Reda is a PhD student in Business Administration at the John Molson School of Business, Concordia University, Montreal, Canada

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## Contents

1	Introduction .....	7
1.1	<i>GUESSS goals</i> .....	7
1.2	<i>Theoretical framework</i> .....	8
1.3	<i>Project organization and data collection procedure</i> .....	9
1.4	<i>International country representatives and their students</i> .....	9
2	Participants and sample .....	12
2.1	<i>Participants</i> .....	12
2.2	<i>Sample characteristics</i> .....	12
2.2.1	Age .....	12
2.2.2	Gender .....	13
2.2.3	Marital status .....	13
2.2.4	Nationality .....	14
2.3	<i>Summary</i> .....	15
3	Entrepreneurial intentions of students .....	16
3.1	<i>Career choice intentions</i> .....	16
3.1.1	Career choice intentions right after graduation .....	16
3.1.2	Career choice intentions five years after graduation .....	17
3.1.3	Changes in career choice intentions .....	18
3.1.4	Career choice intentions by gender .....	19
3.2	<i>Entrepreneurial intention index</i> .....	21
3.3	<i>Level of motivation</i> .....	21
3.4	<i>Entrepreneurial context</i> .....	22
3.4.1	University context .....	22
3.4.2	Family context .....	29

3.4.3	Social context.....	30
3.5	<i>Competencies</i> .....	31
3.6	<i>Risk tolerance</i> .....	31
3.7	<i>Summary</i> .....	32
4	Entrepreneurial activities.....	34
4.1	<i>Nascent entrepreneurs</i> .....	34
4.1.1	Business characteristics .....	34
4.1.2	Co-founders.....	37
4.1.3	Industrial sectors .....	37
4.1.4	Steps taken to found a new business.....	38
4.1.5	Anticipated parental support.....	39
4.1.6	Summary .....	40
4.2	<i>Active entrepreneurs</i> .....	40
4.2.1	Business characteristics .....	40
4.2.2	Co-founders.....	41
4.2.3	Industrial sectors .....	42
4.2.4	Actual firm performance.....	43
4.2.5	Parental support .....	44
4.2.6	Summary .....	45
5	Family businesses.....	46
5.1	<i>General characteristics</i> .....	46
5.2	<i>Industrial sector</i> .....	48
5.3	<i>Family business performance</i> .....	49
5.4	<i>Relationship with the family business</i> .....	50
5.5	<i>Intentions about being a successor in the family business</i> .....	51

5.6	<i>Summary</i> .....	52
6	Summary and recommendations .....	53
6.1	<i>Key insights</i> .....	53
6.2	<i>Recommendations</i> .....	54
7	Bibliography .....	56

## Figures

Figure 1:	Theoretical framework of GUESSS .....	9
Figure 2:	Age of students .....	12
Figure 3:	Gender of students.....	13
Figure 4:	Marital status of students.....	14
Figure 5:	Nationality of students.....	15
Figure 6:	Career choice intentions right after graduation .....	17
Figure 7:	Career choice intentions five years after graduation .....	18
Figure 8:	Changes in career intentions.....	19
Figure 9:	Career choice intentions by gender right after graduation .....	20
Figure 10:	Career choice intentions by gender five years after graduation .....	20
Figure 11:	Career motives (JMSB and international sample).....	22
Figure 12:	Attendance of entrepreneurship courses.....	23
Figure 13:	Percentage of time spent on entrepreneurship courses.....	23
Figure 14:	Comparing the entrepreneurial environment (JMSB and international sample).....	25
Figure 15:	Assessment of entrepreneurial learning at JMSB.....	27
Figure 16:	Comparing the assessment of entrepreneurial learning (JMSB and international sample).....	27
Figure 17:	Percentage of students whose parents own a businesses or are self-employed.....	29
Figure 18:	Comparing career choice of students five years after graduation with family background.....	30
Figure 19:	Participants' perception of the reaction of their social environment.....	30

Figure 20: Participants’ perception of their level of competence regarding their entrepreneurial skills .....	31
Figure 21: Comparing risk perception (JMSB and international sample) .....	32
Figure 22: Nascent entrepreneurs, timing for new business .....	35
Figure 23: Nascent entrepreneurs, type of product.....	35
Figure 24: Nascent entrepreneurs, planned hours spent in new business .....	36
Figure 25: Nascent entrepreneurs, expected equity in new firm .....	36
Figure 26: Nascent entrepreneurs, plan to have co-founders.....	37
Figure 27: Nascent entrepreneurs, planned sector of activity.....	38
Figure 28: Nascent entrepreneurs, activities already undertaken .....	39
Figure 29: Nascent entrepreneurs, expected parental support .....	39
Figure 30: Active vs. nascent entrepreneurs, equity in business .....	41
Figure 31: Active vs. nascent entrepreneurs, number of co-founders (JMSB and international sample).....	42
Figure 32: Active vs. nascent entrepreneurs, source of partners (JMSB and international sample) .....	42
Figure 33: Active vs. nascent entrepreneurs, main sector of business operation (JMSB and international sample).....	43
Figure 34: Active entrepreneurs, performance of business compared to competitors.....	44
Figure 35: Active entrepreneurs, expected and actual parental support .....	44
Figure 36: Number of family businesses .....	46
Figure 37: Number of years firm has been owned by the family .....	47
Figure 38: General information about the family business.....	47
Figure 39: Personal and family equity share.....	48
Figure 40: Family business sector of operation .....	49
Figure 41: Family business performance compared to competitors .....	50
Figure 42: Participants’ relationship with their family business .....	51
Figure 43: Participants’ intentions to become a successor in their family business.....	52

## Tables

Table 1: List of country representatives.....	9
Table 2: Universities, students and response rate of the participating countries.....	10
Table 3: Items included in the entrepreneurial intention index .....	21
Table 4: Items used to assess entrepreneurial learning at JMSB .....	25
Table 5: Items to assess the entrepreneurial learning in JMSB .....	28
Table 6: Measure of risk perception .....	34

## 1 Introduction

The Global University Entrepreneurial Spirit Students' Survey (GUESSS) is a global research project whose main objective is to assess the entrepreneurial intention and activity of students. This project was started by the Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG) in 2003. Since its launch, a new wave of data collection has been carried out every two years. The 6<sup>th</sup> data collection wave was conducted between October 2013 and March 2014 among 109,026 students from 759 universities in 34 countries around the world. This is the first data collection in Canada, with the participation of Concordia University's John Molson School of Business, in Montreal.

For more information about GUESSS please visit <http://www.guesssurvey.org>

To access the 2013/2014 International GUESSS report:

[http://www.guesssurvey.org/PDF/2013/GUESSS\\_INT\\_2013\\_REPORT.pdf](http://www.guesssurvey.org/PDF/2013/GUESSS_INT_2013_REPORT.pdf)

### 1.1 GUESSS goals

The primary goal of the project is to document the founding intention and activity of students on a long-term basis. In addition, the project allows for:

- Systematic and long-term observation of entrepreneurial intentions and activities of students.
- Identification of antecedents and boundary conditions in the context of new venture creation and entrepreneurial careers in general.
- Observation and evaluation of Universities' activities and offerings related to the entrepreneurial education of their students.

The GUESSS project also has specific objectives for different stakeholders:

- Participating countries: to generate insights about their respective basic conditions for entrepreneurship in general, and learn more about the entrepreneurial power of their students.
- Participating Universities: to be able to assess the quality and quantity of their offerings in the context of entrepreneurship.



- Politics and the public: to be sensitized to entrepreneurship in general and new venture creation in particular, and hopefully identify a need for action.
- For students: to benefit from the implementation of respective actions in the long run.

To date, GUESSS is perhaps the largest entrepreneurship project in the world. The aim is to continue its expansion in order to create an even stronger impact on research and practice.

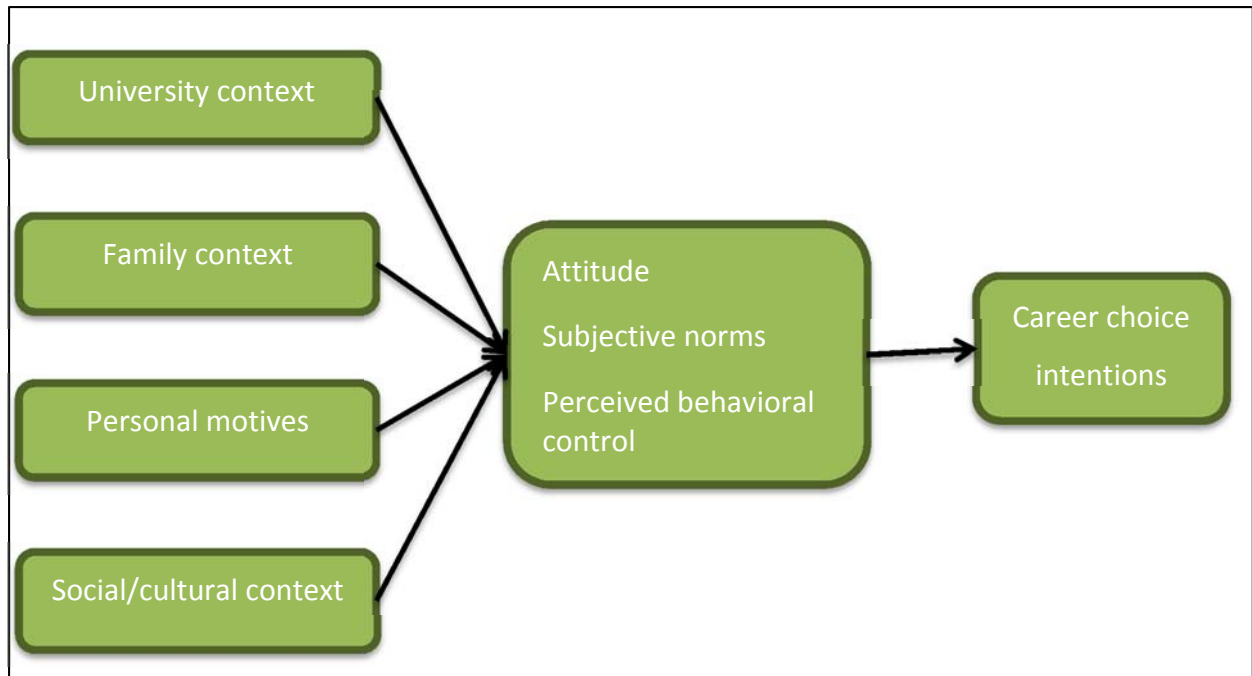
### *1.2 Theoretical framework*

The theoretical foundation for the GUESSS project is the theory of planned behavior (Ajzen, 2002; Fishbein & Ajzen, 1975). According to this theory, the best predictor of behaviour is intention. Intention is formed on the basis of three different types of beliefs:

- behavioral beliefs: i.e., beliefs about the consequences of a particular action, which may produce either a favourable or a not favourable attitude towards a particular behaviour;
- normative beliefs: i.e., beliefs about the social pressures perceived by the individual (subjective norms); and
- control beliefs: i.e., beliefs about how easy or difficult it would be for the individual to perform the behaviour.

Individuals will engage in certain behaviours based on these three types of beliefs. An individual's intention towards performing a certain behaviour will also be influenced by their perceived notion of control over their behavior as well as the presence of an appropriate opportunity within the environment (Ajzen, 2002).

The GUESSS project focuses on career choice intentions, and specifically on entrepreneurial intentions. Based on the theory of planned behavior model, GUESSS investigates four factors that can influence a person's entrepreneurial intentions: university context, family context, personal motives, and social/cultural context.



**Figure 1: Theoretical framework of GUESSS**

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**Source: Adapted from the International Swiss report of GUESSS 2013/2014 (Sieger, Fueglistaller, & Zellweger, 2014)**

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### *1.3 Project organization and data collection procedure*

The GUESSS project is managed by the KMU-HSG at the University of St. Gallen in Switzerland. Each participating country has one or more universities participating. Data are collected through a Web-based online survey, using a link that is sent out to participating universities, which are responsible to disseminate the link among their students, offer incentives to students for participation, and prepare institution-level reports. The global report is prepared by KMU-HSG.

### *1.4 International country representatives and their students*

Table 1 lists the country 34 countries that participated in 2013/2014 and their country representatives.

**Table 1: List of country representatives**

#	Country	Representative	University
1	Argentina (ARG)	Prof. Silvia Carbonell Aranzazu Echezarreta	IAE Business School
2	Australia (AUS)	Prof. Paull Weber, Louis Geneste	Curtin University of Technology
3	Austria (AUT)	Prof. Norbert Kailer, Birgit Wimmer-Wurm	Johannes Kepler University Linz
4	Belgium (BEL)	Prof. Dr. Hans Crijns, Karen de Visch	Vlerick Leuven Gent Management School
5	Brazil (BRA)	Prof. Edmilson Lima	UNINOVE Universidade Nove de Julho
6	<b>Canada (CAN)</b>	<b>Prof. Alexandra Dawson, Barbara Reda</b>	<b>Concordia University, Montreal</b>
7	Colombia (COL)	Prof. Claudia Alvarez	Universidad de Medellin
8	Denmark (DEN)	Prof. Britta Boyd, Prof. Kristian Philipsen	University of Southern Denmark
9	England (ENG)	Prof. Robert Blackburn, Arif Attar	Kingston University, Kingston
10	Estonia (EST)	Prof. Urve Venesaar	Tallinn University of Technology
11	Finland (FIN)	Prof. Asko Miettinen Sampo Kokkonen	Lappeenranta University of Technology
12	France (FRA)	Prof. Alain Fayolle, Emeran Nziali	EM Lyon Business School
13	Germany (GER)	Dr. Heiko Bergmann	University of St. Gallen
14	Greece (GRE)	Prof. Katerina Sarri	University of Western Macedonia
15	Hungary (HUN)	Dr. Szilveszter Farkas	Budapest Business School
16	Israel (ISR)	Prof. Brian Polin	Jerusalem College of Technology
17	Italy (ITA)	Prof. Tommaso Minola, Giovanna Campopiano	University of Bergamo
18	Japan (JAP)	Prof. Tomoyo Kazumi	Senshu University
19	Liechtenstein (LIE)	Prof. Dr. Urs Baldegger Simon Zäch	Hochschule Liechtenstein
20	Luxembourg (LUX)	Prof. Pol Wagner, Frédéric Ternes	Institut Universitaire International Luxembourg
21	Malaysia (MAL)	Prof. Raja Suzana Kasim	Universiti Malaysia Kelantan
22	Mexico (MEX)	Prof. Juan Arriaga	EGADE Business School Tecnologico de Monterrey
23	Netherlands (NED)	Prof. Roy Thurik, Dr. Ingrid Verheul, Sofia Karali	Erasmus University, Rotterdam
24	Nigeria (NIG)	Prof. Tomola Obamuyi	Adekunle Ajasin University
25	Poland (POL)	Prof. Adrianna Lewandowska, Lukasz Tyleczynski	Poznan School of Banking
26	Portugal (POR)	Prof. Joao Leitao Prof. Miguel Amaral	Technical University of Lisbon Instituto Superior Tecnico
27	Romania (ROM)	Dr. Lilian Ciachir	University of Bucharest
28	Russia (RUS)	Prof. Galina Shirokova, Tatyana Tsukanova	St. Petersburg State University Graduate School of Management
29	Scotland (SCO)	Dr. Erik Monsen	University of Strathclyde, Glasgow
30	Singapore (SIN)	Prof. Poh Kam Wong, Low Pei Chin	National University of Singapore
31	Slovenia (SLO)	Prof. Jaka Vadnjak, Predrag Ljubotina	GEA College of Entrepreneurship
32	Spain (ESP)	Prof. Joan Batista, Prof. Ricard Serlavos, Maika Valencia	ESADE
33	Switzerland (SUI)	Prof. Philipp Sieger Prof. Rico Baldegger	University of St. Gallen HEG Fribourg
34	USA	Prof. Torsten Pieper Prof. Pramodita Sharma	Kennesaw State University (KSU) University of Vermont (UVM)

Source: GUESSS International report 2013/2014

The following table presents the response information obtained from the various the countries and students that took part in the 2013/2014 wave of the GUESSS project. The response rate varies from 0.4% to 33.4%. The response rate for JMSB was 6.8%, higher than the overall average (5.5%).

**Table 2: Universities, students and response rate of the participating countries**

	Responses	Valid Percent	# of universities	# addressed students	Response rate
ARG	190	.2	14	1800	10.6
AUS	495	.5	6	3500	14.1
AUT	4,220	3.9	34	149587	2.8
BEL	402	.4	16	n.a.	n.a.
BRA	12,561	11.5	104	220000	5.7
CAN	509	.5	1	7436	6.8
COL	801	.7	22	5700	14.1
DEN	1,027	.9	10	28000	3.7
ENG	654	.6	20	n.a.	n.a.
ESP	10,545	9.7	21	126870	8.3
EST	1,391	1.3	23	33880	4.1
FIN	704	.6	12	33943	2.1
FRA	332	.3	14	14450	2.3
GER	10,570	9.7	44	292000	3.6
GRE	435	.4	8	2500	17.4
HUN	8,844	8.1	31	161000	5.5
ISR	1,086	1.0	17	4500	24.1
ITA	7,765	7.1	46	142698	5.4
JPN	890	.8	19	5835	15.3
LIE	203	.2	2	607	33.4
LUX	153	.1	4	6457	2.4
MEX	637	.6	17	5000	12.7
MYS	2,452	2.2	21	7400	33.1
NED	9,907	9.1	67	268808	3.7
NGR	7	.0	1	n.a.	n.a.
POL	11,860	10.9	37	115000	10.3
POR	213	.2	3	3000	7.1
ROM	277	.3	10	n.a.	n.a.
RUS	4,578	4.2	35	28600	16.0
SCO	280	.3	11	68900	0.4
SIN	6,471	5.9	9	88990	7.3
SLO	903	.8	44	22000	4.1
SUI	7,419	6.8	33	87200	8.5
USA	245	.2	2	25768	1.0
<b>Total</b>	<b>109,026</b>	<b>100.0</b>	<b>759</b>	<b>1961429</b>	<b>5.5</b>

Source: GUESSS International report 2013/2014

## 2 Participants and sample

This section describes the characteristics of the students who participated at JMSB and compares them to the international sample, which includes all 34 countries.

### 2.1 Participants

All undergraduate students attending the John Molson School of Business were contacted electronically at the end of 2013 and asked if they were interested in completing a survey. Out of the 7,436 students invited to participate, 509 responded, resulting in a response rate of 6.8%.

### 2.2 Sample characteristics

This section focuses on demographics of the sample, including information on age, gender, marital status, and nationality.

#### 2.2.1 Age

The majority of participants (81.0%) were under the age of 24, followed by the category 25-30 years old (12.5%).

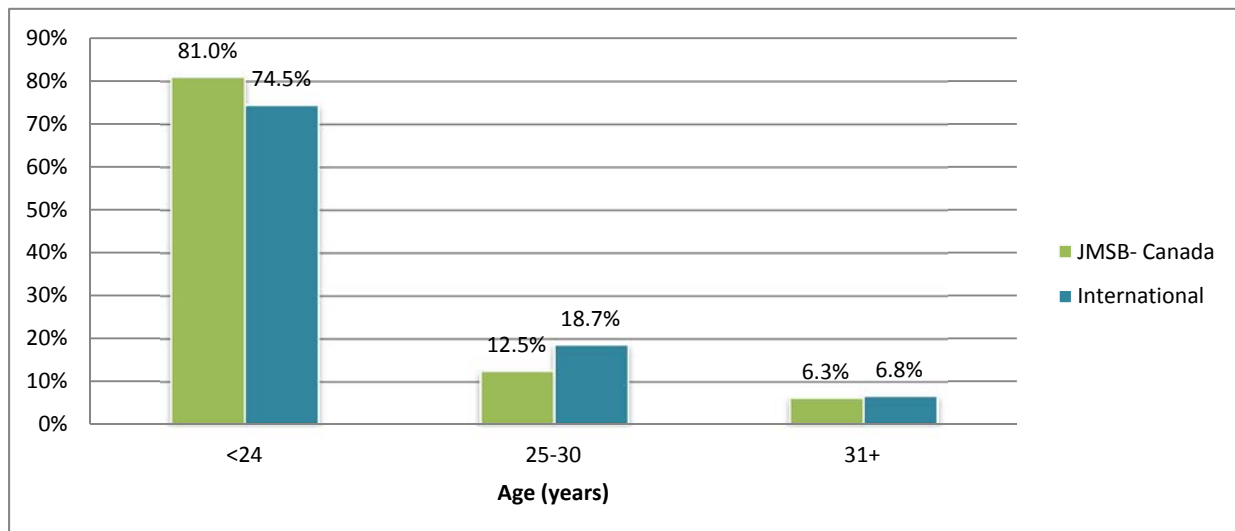
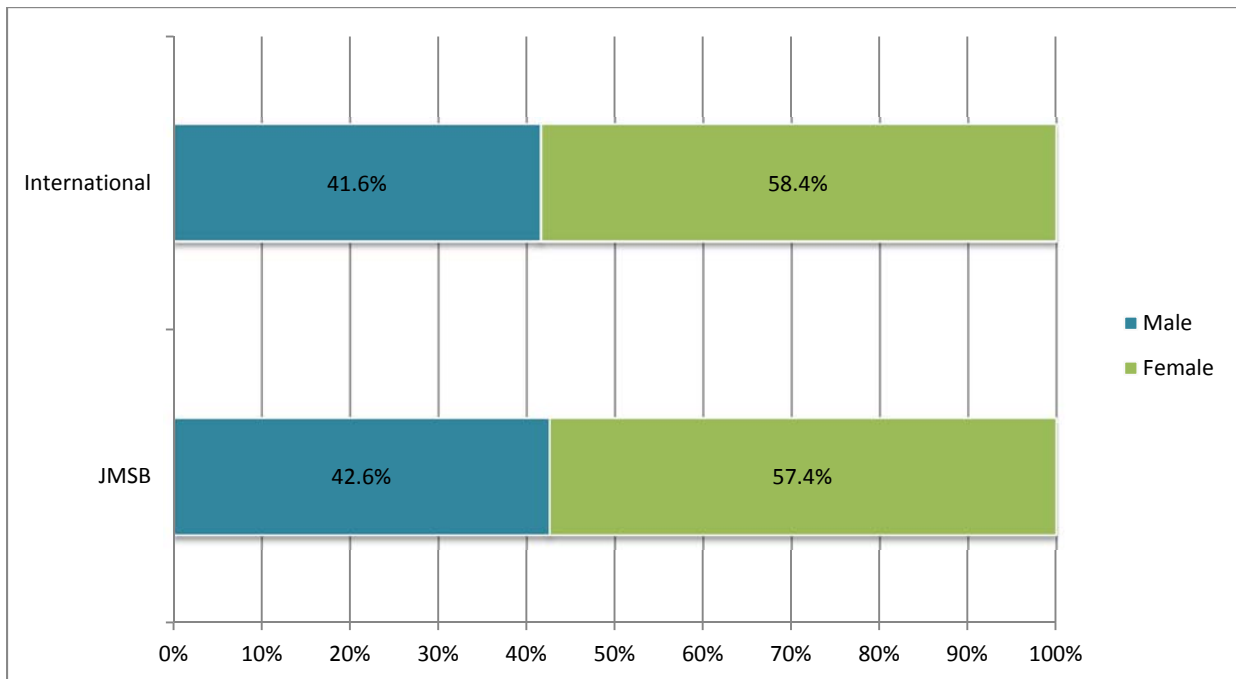


Figure 2: Age of students

### 2.2.2 Gender

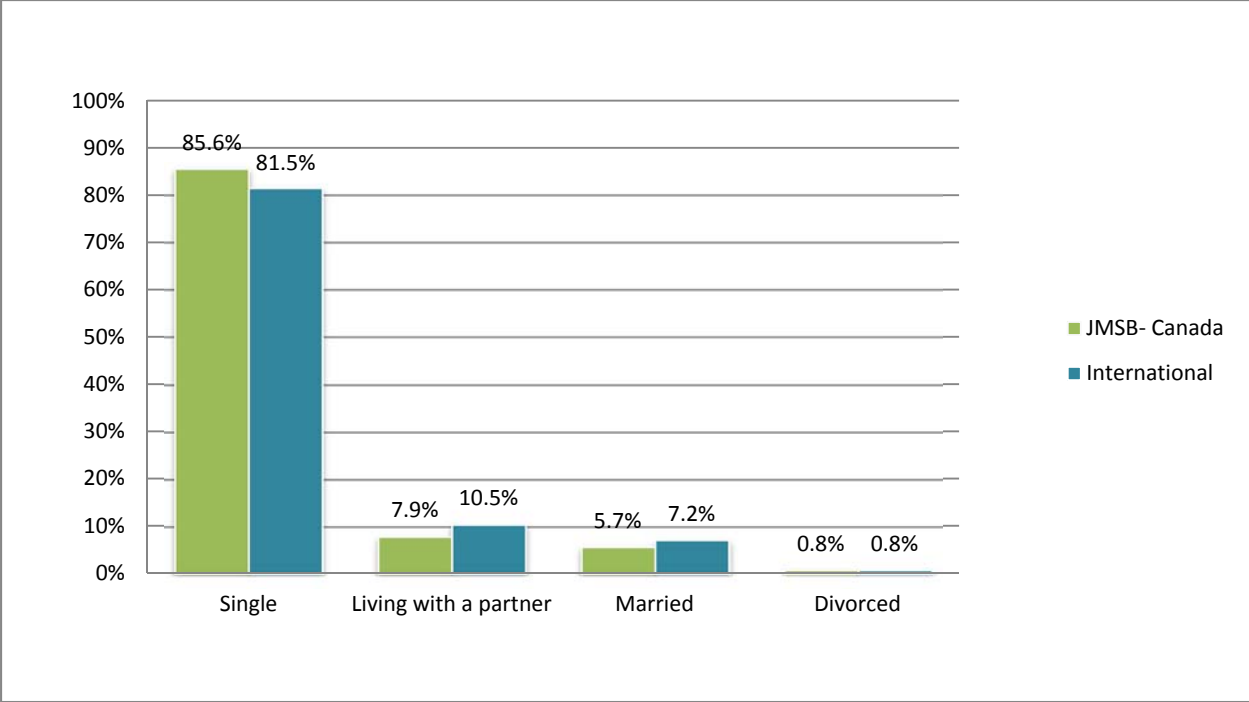
The gender distribution of the student sample is similar to the international sample, with 42.6% male respondents (41.6% in the international sample) and 57.4% female respondents (58.4%).



**Figure 3: Gender of students**

### 2.2.3 Marital status

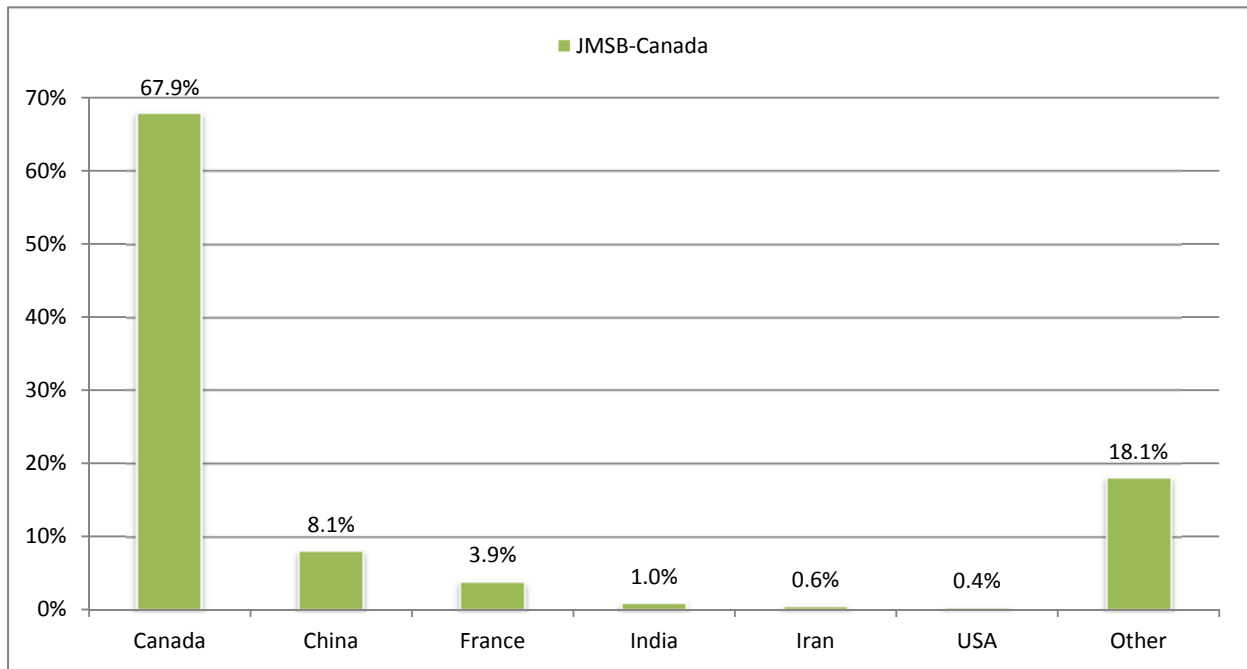
The student sample was homogeneous with regard to marital status, with 85.6% of respondents indicating they were single (81.5% in the international sample).



**Figure 4: Marital status of students**

2.2.4 Nationality

Most of the respondents (67.9%) indicated their nationality as being Canadian. The next largest nationality was Chinese, with 8.1%.



**Figure 5: Nationality of students**

### 2.3 Summary

The JMSB sample was homogeneous, with the majority of respondents being less than 25 years old, single, and Canadian. Respondent characteristics closely resembled those of the international sample with regard to age, gender, and marital status.



### **3 Entrepreneurial intentions of students**

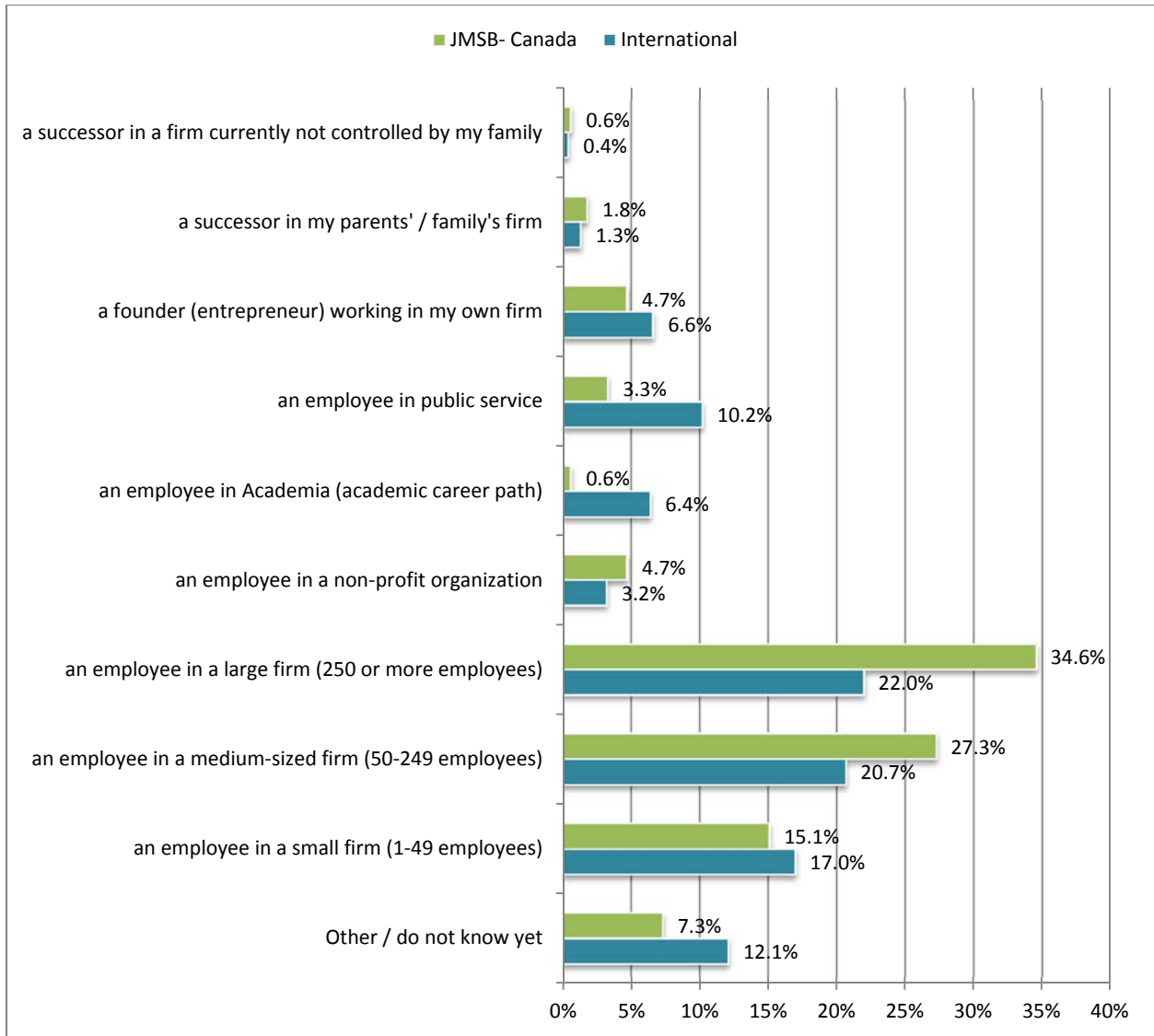
One of the main objectives of the GUESSS project is to assess students' entrepreneurial intentions. This section analyzes students' reported career choice intentions, their entrepreneurial intention index, their level of motivation to become entrepreneurs, the effects of the context on their entrepreneurial intentions, their self-perceived level of competency of entrepreneurial related tasks, and their risk tolerance.

#### *3.1 Career choice intentions*

In this section we will look at participants' career choice intentions right after graduation and five years after graduation. These intentions are compared with those of the international sample.

##### *3.1.1 Career choice intentions right after graduation*

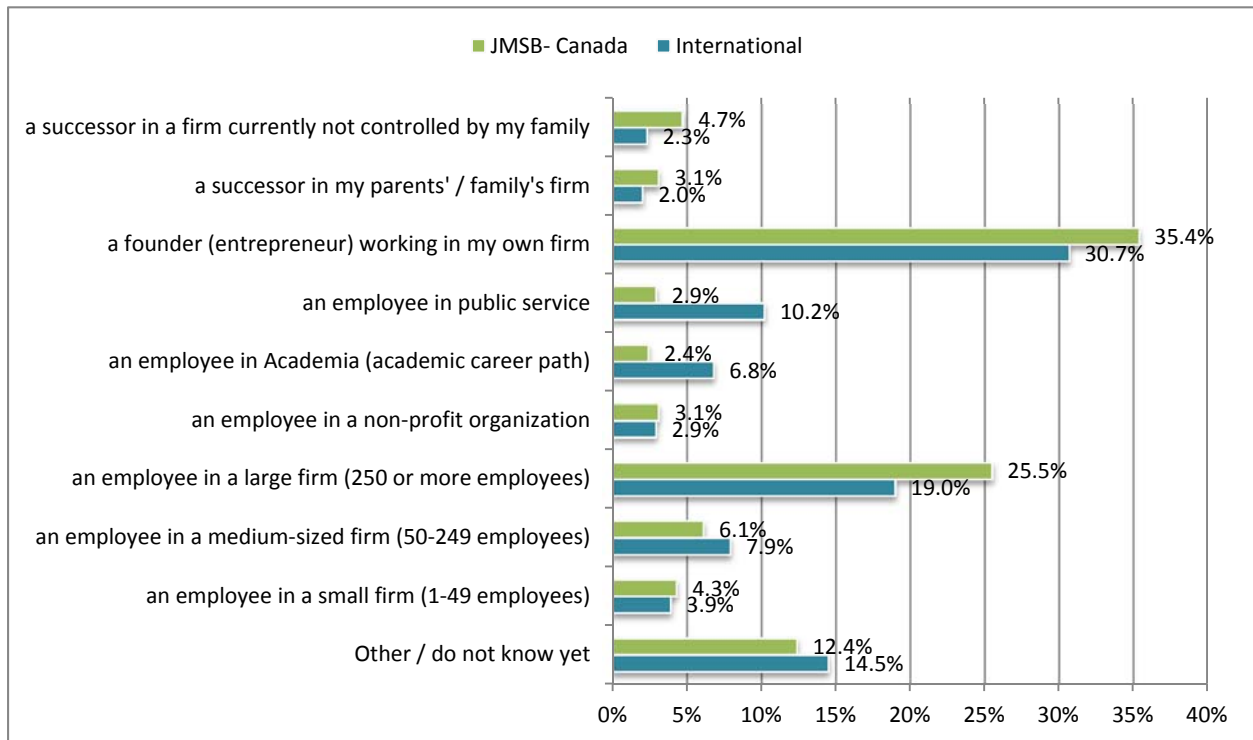
Upon graduation, over 60% of participants indicated their intention to work as an employee in a large (34.6%) or medium (27.3%) firm. These figures are higher than for the international sample, in which 22.0% of participants said they intended to work as an employee in a large firm and 20.7% in a medium firm. Few participants indicated that they intended to start their own business (4.7%) or work as successors in their family business (1.8%). While the former was lower than for the international sample (6.6% indicated they intend to start their own business), the latter was higher (1.3% indicated they intend to work as successors in their family business).



**Figure 6: Career choice intentions right after graduation**

### 3.1.2 Career choice intentions five years after graduation

When participants were asked about their career intentions five years after graduation, 35.4% indicated that they planned to start their own businesses. This is higher than the intentions expressed by the international sample (30.7%). The second highest response was the intention to work for a large firm (25.5%, higher than 19.0% for the international sample).



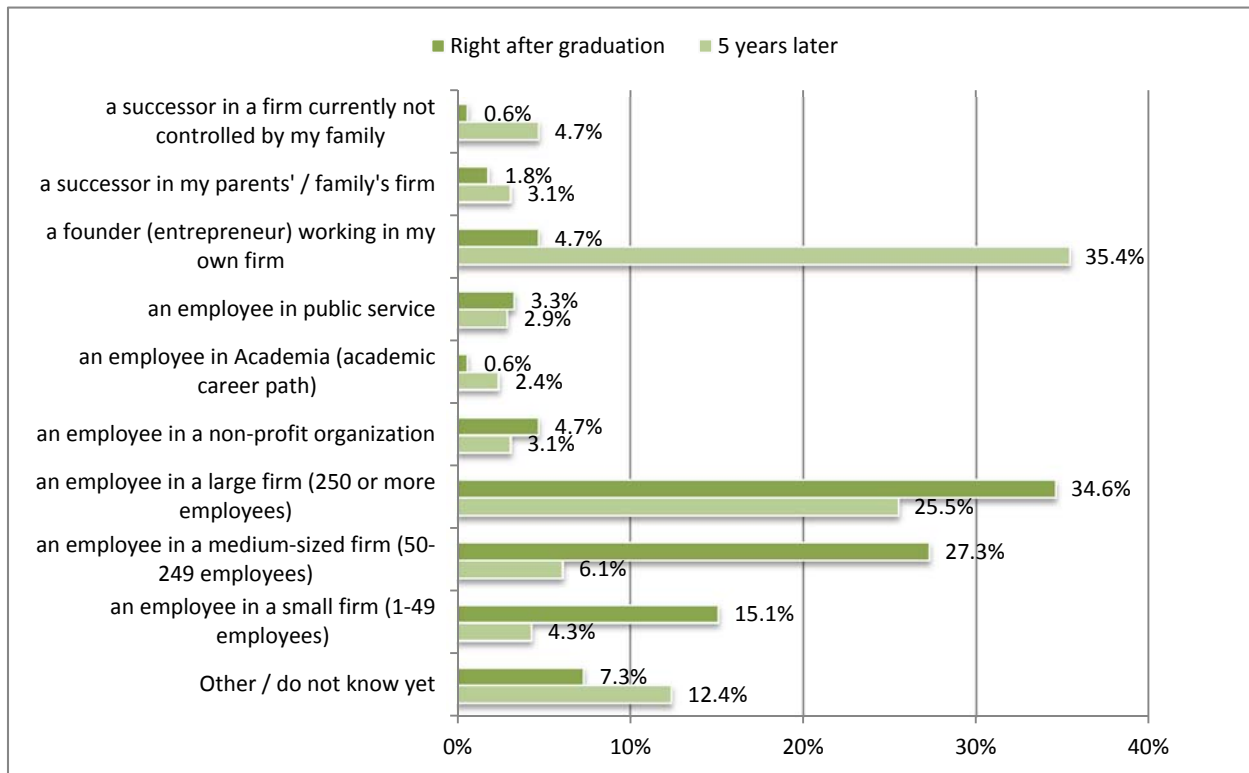
**Figure 7: Career choice intentions five years after graduation**

### 3.1.3 Changes in career choice intentions

As indicated in Figure 8, which compares intention immediately after and five years after graduation, JMSB participants reported they intend to change careers five years after graduating. Whilst the majority of respondents reported that upon graduation they intend to work for a large firm (34.6%), five years after graduation the majority of respondents (35.4%) reported that they intend to work in a firm that they have started.

Another large change was recorded with regard to the intention to work for a medium firm, with 27.3% reporting this intention upon graduation but only 6.1% after five years.

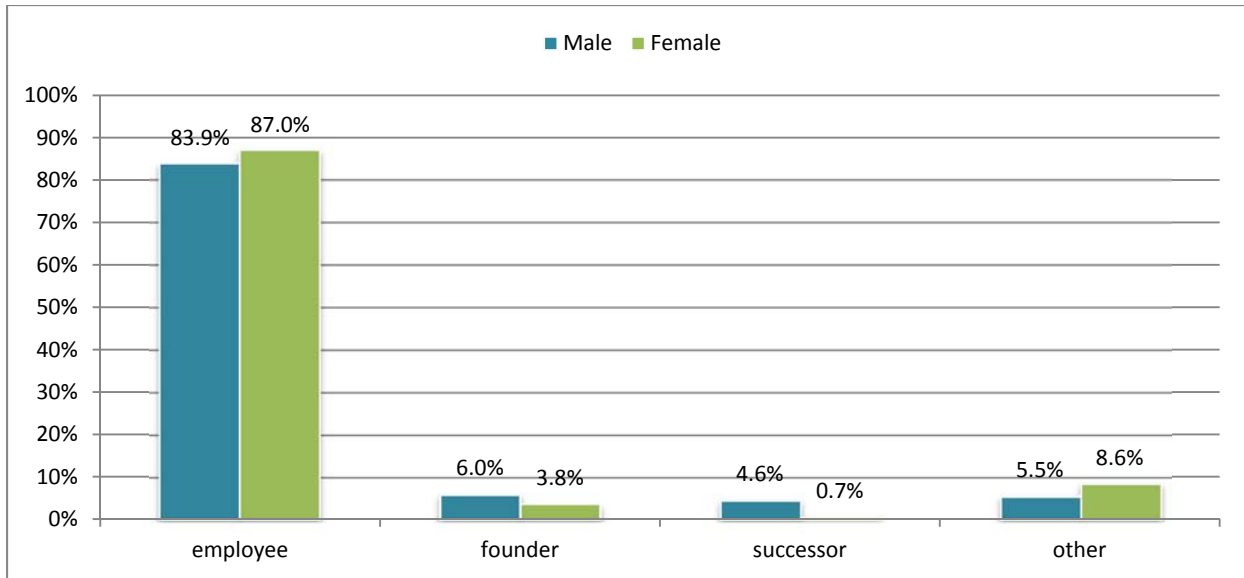
More participants reported that they intended to be a successor in their family business five years after graduation (3.1%) than upon graduation (1.8%), presumably after having gained work experience elsewhere.



**Figure 8: Changes in career intentions**

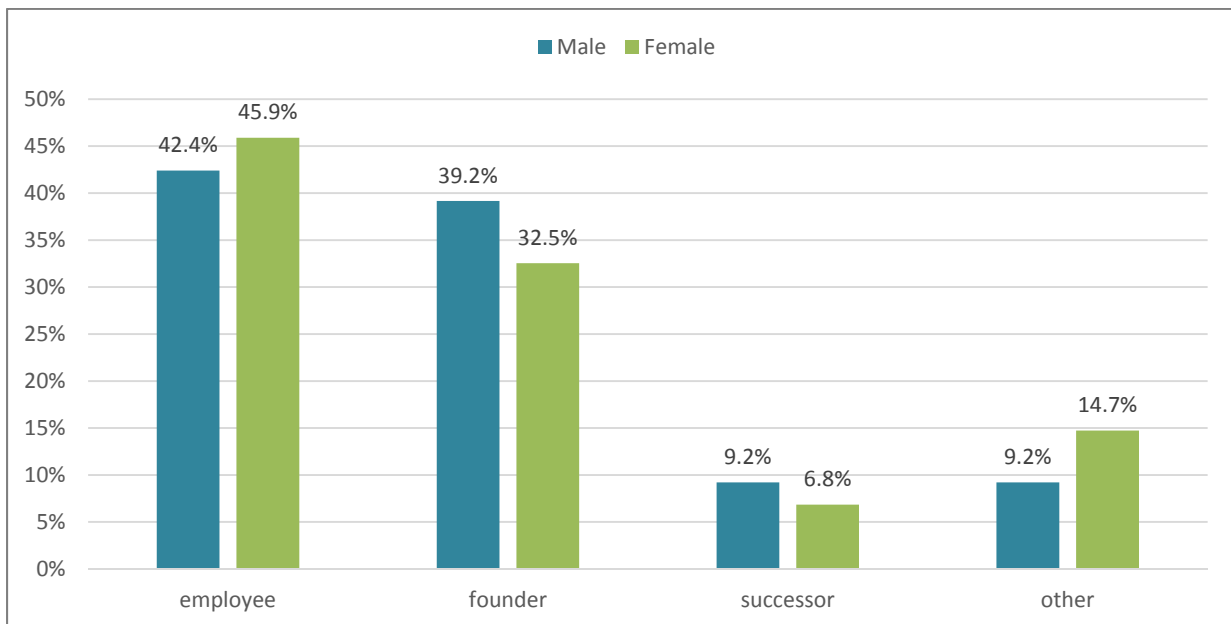
### 3.1.4 Career choice intentions by gender

The data indicate that right after graduation both genders intend to take on the role of employee as opposed to a more entrepreneurial role. This is especially evident for female respondents: 87.0% (vs. 83.9% for male respondents) reported intending to work as an employee and fewer reported an intention to create their own business (3.8% vs. 6.0% for male respondents).



**Figure 9: Career choice intentions by gender right after graduation**

When participants were asked about their career intentions five years after they graduated, fewer reported they intended to be an employee (42.4% of male and 45.9% of female respondents). In fact, 39.2% of male respondents and 32.5% of female respondents said their intention was to be a founder in their own business; and 9.2% of male respondents and 6.8% of female respondents said their intention was to work as a successor in their family business.



**Figure 10: Career choice intentions by gender five years after graduation**

### 3.2 Entrepreneurial intention index

The entrepreneurial index captures the extent to which students intend to start their own business in the future. The index is an average of six items, with responses ranging from 1 (strongly disagree) to 7 (strongly agree).

**Table 3: Items included in the entrepreneurial intention index**

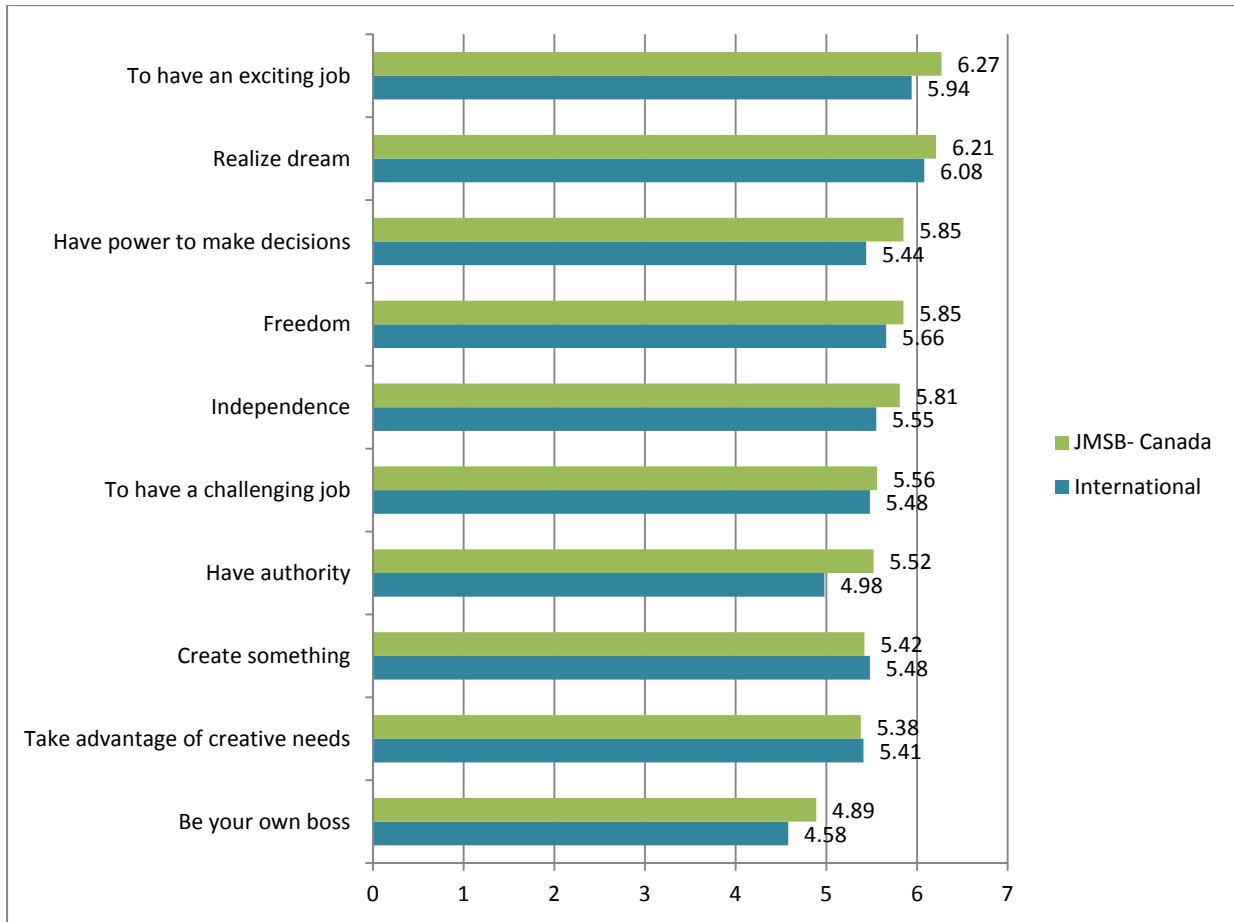
Item	Text
1	I am ready to do anything to be an entrepreneur.
2	My professional goal is to become an entrepreneur.
3	I will make every effort to start and run my own firm.
4	I am determined to create a firm in the future.
5	I have very seriously thought of starting a firm.
6	I have the strong intention to start a firm someday.

The entrepreneurial intention index for JMSB students was 4.1, higher than the international average (3.7), indicating that JMSB students on average have higher intentions of becoming entrepreneurs in the future than the international sample, confirming results included in Figure 10. The entrepreneurial intention for male respondents (4.5) is higher than that for female respondents (3.9), although the latter is still higher than the overall international average.

### 3.3 Level of motivation

Motivation is an important factor which can determine a person's career path choice. The following items, with responses ranging from 1 (not important at all) to 7 (very important), were used to determine respondents' motivation for following a particular career path.

The data show that having "an exciting job" was the most important motive for selecting a particular career path (6.27), followed by "realizing a dream" (6.21). "Being your own boss" was the least important reason for following a particular career path (4.89), in line with data included in Figure 6 which shows that after graduation most participants want to become an employee of a for-profit organization. Data for JMSB respondents are consistent with the international data.



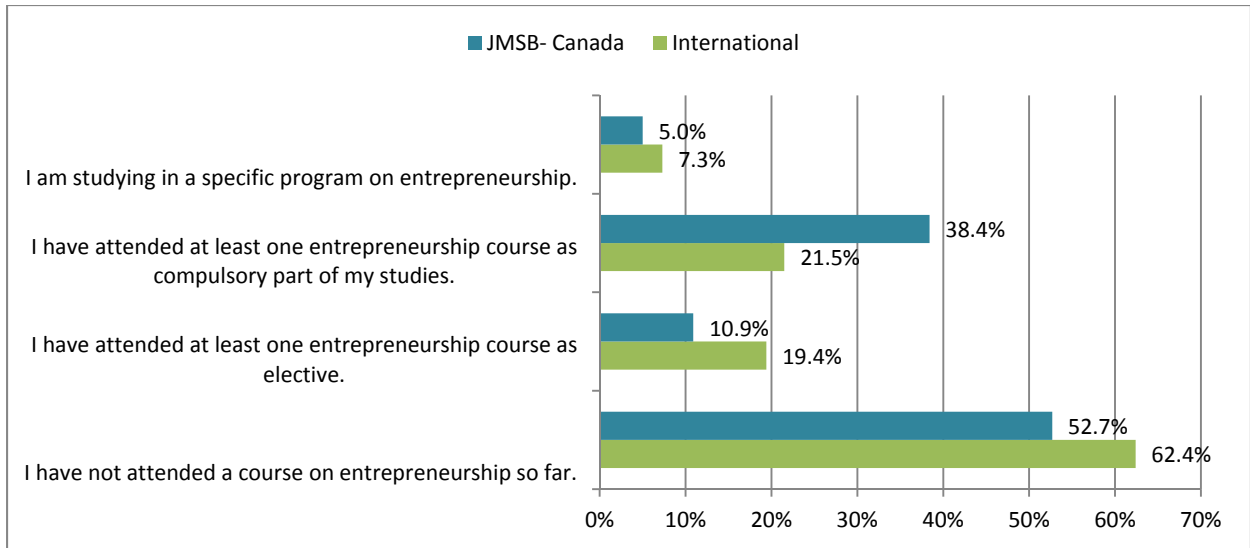
**Figure 11: Career motives (JMSB and international sample)**

### 3.4 *Entrepreneurial context*

The external context has been found to influence individuals' entrepreneurial intentions. In this section, we focus on the effect of the university, family and social contexts on participants' entrepreneurial intent.

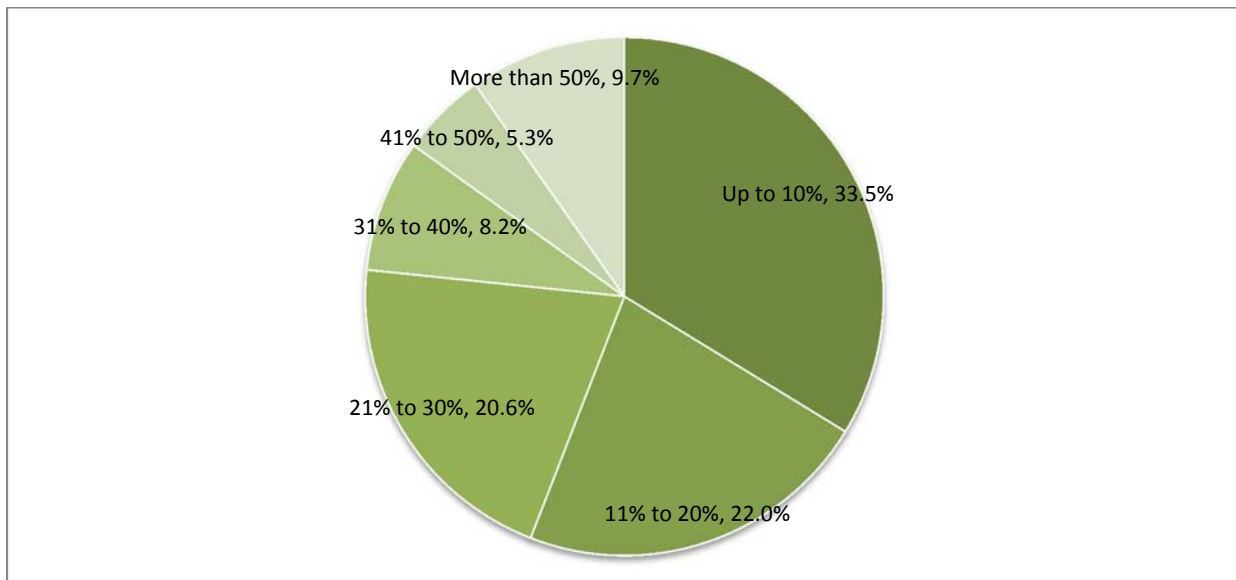
#### 3.4.1 University context

Results indicate that 52.7% of the participants had not yet taken an entrepreneurship course. However, 38.4% had attended a compulsory entrepreneurship course and 5.0% were in a specific entrepreneurship program (Minor in Entrepreneurship, offered at JMSB).



**Figure 12: Attendance of entrepreneurship courses**

Of those who had taken entrepreneurship classes, the majority of participants (33.5%) indicated that they spent on average less than 10% of their total study time on those classes and 22.0% indicated that they spent between 11% and 20% of their time on entrepreneurship classes.



**Figure 13: Percentage of time spent on entrepreneurship courses**



To look further into this phenomenon, we asked students what they learned by attending entrepreneurship classes. Participants were asked to rate the following statements, all of which started with “The courses and offerings I attended...”, and rate the extent to which they agreed or disagreed with the statements (with 1 corresponding to “not at all” and 7 to “very much”). JMSB scored more highly on all items than the international sample, indicating a favourable climate for entrepreneurial learning.

**Table 4: Items used to assess entrepreneurial learning at JMSB**

Item	Text	JMSB	International
1	The atmosphere at my university inspires me to develop ideas for new businesses.	4.56	3.85
2	There is a favorable climate for becoming an entrepreneur at my university.	4.77	4.06
3	At my university, students are encouraged to engage in entrepreneurial activities.	4.90	4.17

More detailed results can be found in Figure 14.

## Entrepreneurial Environment at the University

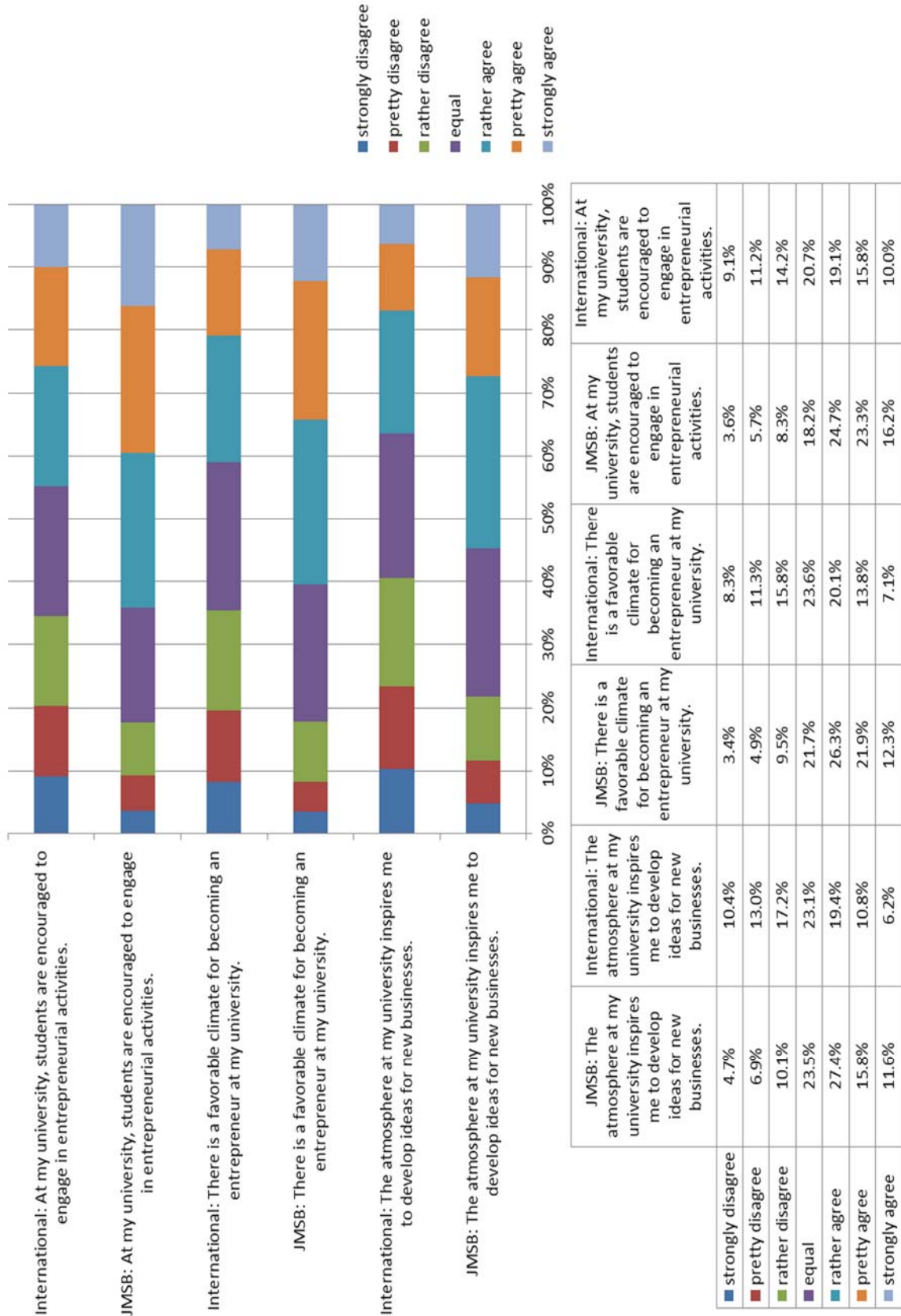


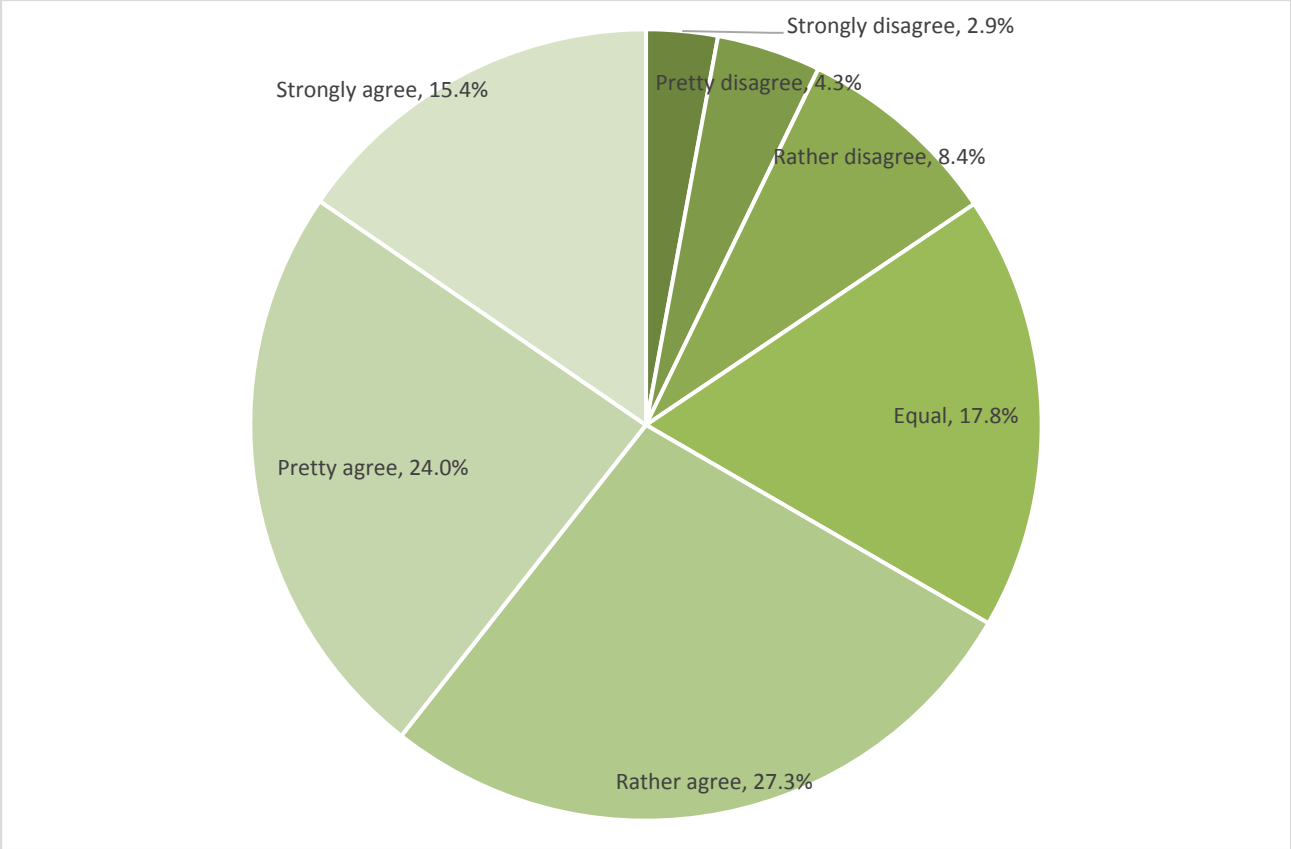
Figure 14: Comparing the entrepreneurial environment (JMSB and international sample)

We were also interested in finding out what students felt they had learned in their entrepreneurship courses. This was measured using the following statements (Table 5), which began with, “The courses and offerings I attended...”. Participants were asked to choose the extent to which they agreed or disagreed with the statements, with 1 corresponding to “not at all” and 7 to “very much”.

**Table 5: Items to assess the entrepreneurial learning in JMSB**

Item	Item
1	...increased my understanding of the attitudes, values and motivations of entrepreneurs.
2	...increased my understanding of the actions someone has to take to start a business.
3	...enhanced my practical management skills in order to start a business.
4	...enhanced my ability to develop networks.
5	...enhanced my ability to identify an opportunity.

Results show that a majority of respondents (66.7%) responded positively to questions about learning entrepreneurship at JMSB, with 27.3% responding they “rather agreed”, 24.0% responding they “pretty agreed”, and 15.4% responding they “strongly agreed” with the statements above.

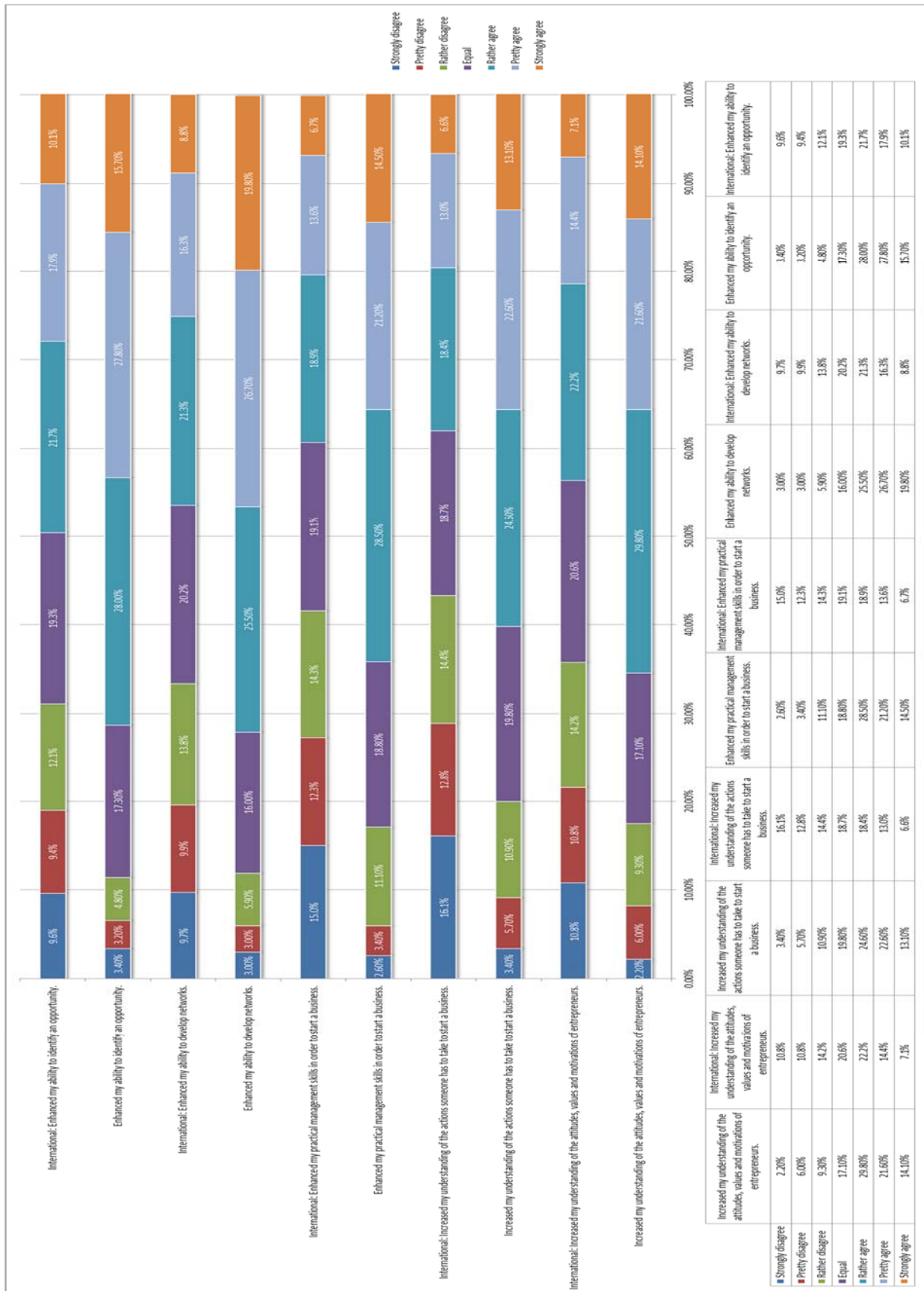


**Figure 15: Assessment of entrepreneurial learning at JMSB**

In fact, JMSB students appear to be more satisfied with their entrepreneurship learning than the international sample.

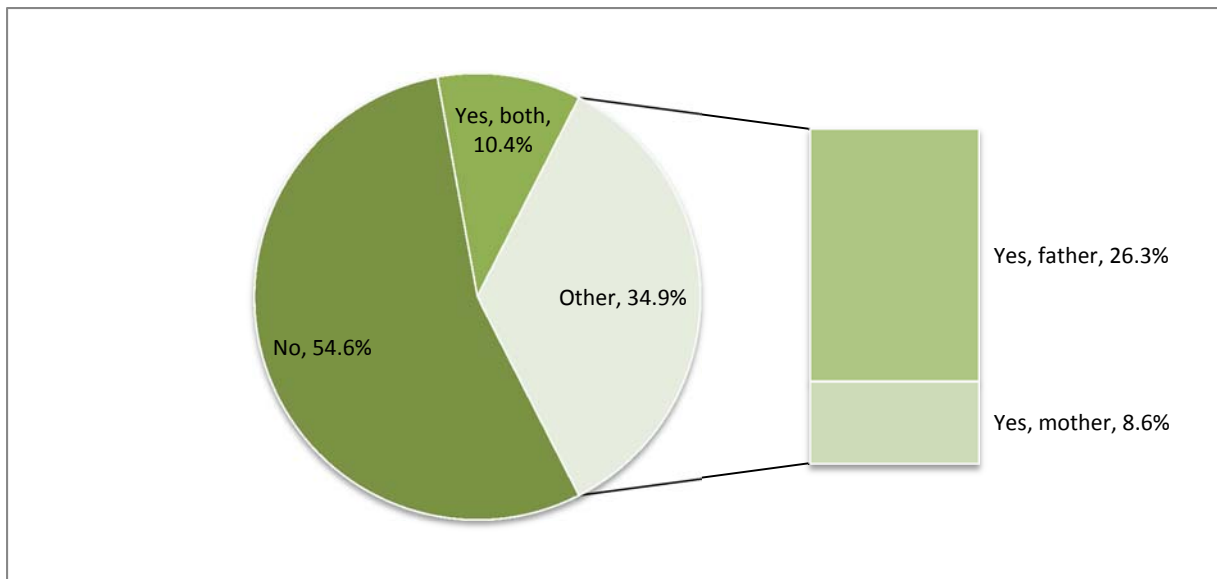
**Figure 16: Comparing the assessment of entrepreneurial learning (JMSB and international sample)**

(see next page)



### 3.4.2 Family context

The literature indicates that family may be another important influence on the entrepreneurial intention of young individuals. Participants were asked if their parents had their own business or were self-employed. About half (54.6%) indicated that neither had their own business nor was self-employed. The rest (45.3%) replied that one or both of their parents were running their own business or self-employed: 10.4% indicated a positive response for both parents; and 34.9% indicated a positive response for one parent (26.3% the father and 8.6% the mother).



**Figure 17: Percentage of students whose parents own a businesses or are self-employed**

Intended career paths of participants five years after graduation suggest that students who want to become employees tend not to have entrepreneurial parents (26.7%). Interestingly, respondents who reported intending to create their own business were equally distributed between those having (17.5%) and not having (17.9%) entrepreneurial parents.

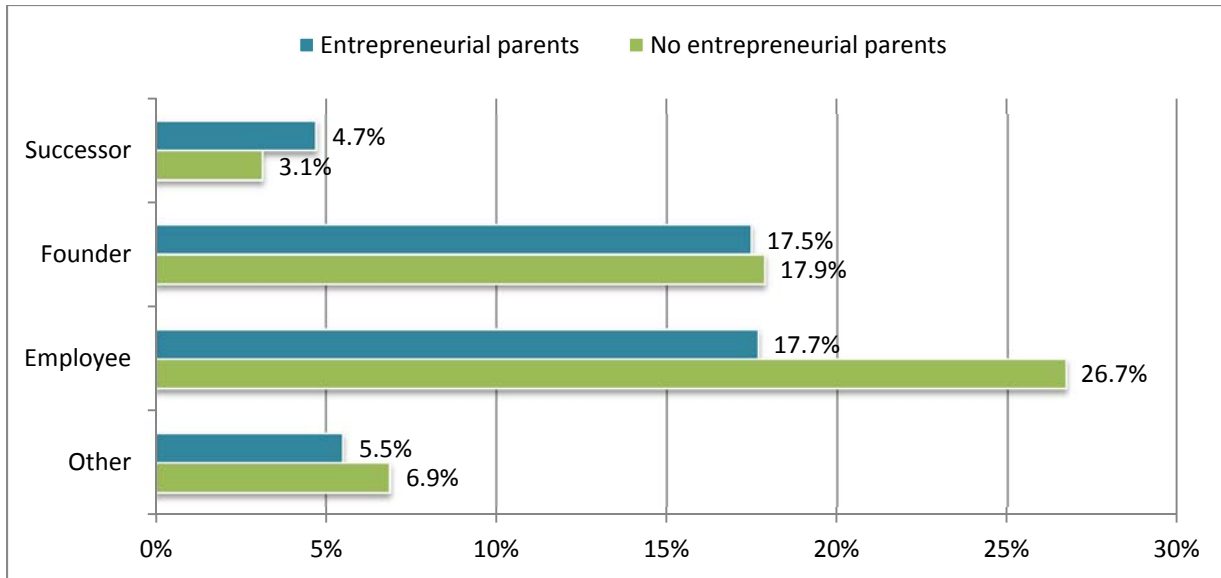


Figure 18: Comparing career choice of students five years after graduation with family background

### 3.4.3 Social context

Participants were asked the reactions they would expect from their social environment should they decide to announce their intention of becoming entrepreneurs. Responses ranged between 1 (“very negative”) to 7 (“very positive”). Results suggest that the majority of participants believe that their social environment would react positively to their decision to become entrepreneurs (i.e. they reported a rating of at least 5). Friends were expected to have a slightly more positive reaction (5.93) than close family (5.77).

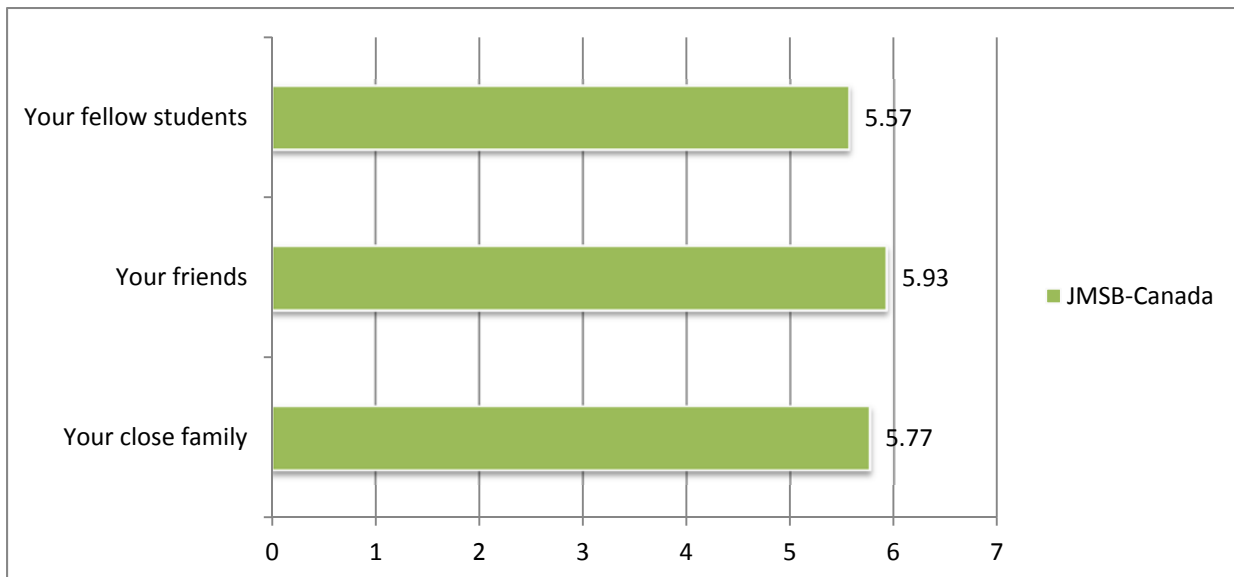


Figure 19: Participants' perception of the reaction of their social environment

### 3.5 Competencies

General self-efficacy can be thought of as a person's perception about their level of competency to do certain tasks (Johns & Saks, 2011). Higher levels of self-efficacy are associated with greater motivation to take part in activities included in those tasks. Thus, measuring a person's level of self-efficacy with respect to entrepreneurial tasks may indicate their level of motivation in taking part in entrepreneurial activities. Participants were asked how confident they felt with regard to the skills required to be entrepreneurial. Responses ranged between 1 (not at all competent) and 7 (very competent). Results suggest that the average participant felt the most confident in their ability to be a leader and communicator (average rating of 5.59). They felt the least confident in their ability to innovate, with an average rating of 4.52 for "creating new products and services", 4.86 for "commercializing a new idea or development", and 4.92 for "managing innovation within a firm".

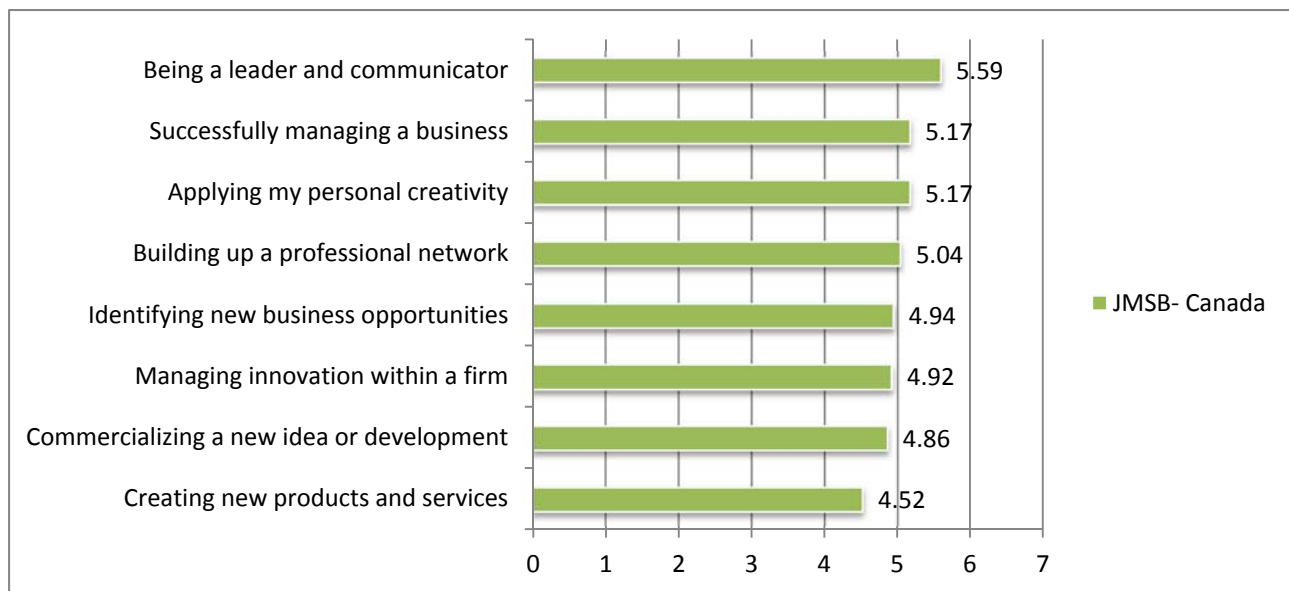


Figure 20: Participants' perception of their level of competence regarding their entrepreneurial skills

### 3.6 Risk tolerance

Risk perception has always been associated with the pursuit of entrepreneurial activities. To assess the risk perception of participants, they were asked to indicate on a scale from 1 (strongly disagree) to 7 (strongly disagree) to what extent they agreed or disagreed with the statements indicated in Table 6.



**Table 6: Measure of risk perception**

Item	Item
1	I consider starting up my own business to be very risky.
2	I think it is dangerous to manage your own business.
3	I believe that business ownership has high risk.
4	I am generally a person who is fully prepared to take risks.

Overall, results suggest that participants perceived business ownership in general as being rather risky (average score of 5.26) but managing one’s own business as being slightly less risky (4.17). When asked if they are prepared to take risks, the JMSB sample scored very closely to the international sample.



**Figure 21: Comparing risk perception (JMSB and international sample)**

### 3.7 Summary

Overall, the majority of participants would rather start their career as employees right after graduation, although five years later their intention is to become more entrepreneurial, by starting their own business. Male respondents intend to pursue more entrepreneurial ventures

than female respondents. The entrepreneurial intention of JMSB respondents tends to be neutral, but higher than for the international sample. The entrepreneurial context was reported to be positive, indicating that students feel supported by their university, family and social environment. JMSB respondents also seem to be confident in their ability to undertake tasks related to entrepreneurship.

## **4 Entrepreneurial activities**

The second objective of the GUESSS project is to look at the activities students have undertaken to create their own businesses. Participants were divided into three sub-categories based on their activities: those who have not undertaken any activities (and thus are not included in this section), those who have indicated that they are currently trying to start a business (nascent entrepreneurs), and those who are already running their own businesses (active entrepreneurs). In this section, we assess and compare the latter two sub-categories (nascent and active entrepreneurs) to each other and to the international sample.

### *4.1 Nascent entrepreneurs*

The first type of entrepreneur to be assessed is the nascent entrepreneur. To identify these individuals, students were asked: “Are you currently trying to start your own business / to become self-employed?” In this section we describe these individuals’ general characteristics, and assess them based on their potential partners, planned industrial sector, the steps they have already taken in establishing their business, and the expected parental support.

#### **4.1.1 Business characteristics**

Students were asked if they were currently trying to start a business. Among the participants, 15.7% indicated that they were starting their own business. This is very close to the international sample, in which 15.1% of respondents indicated they were nascent entrepreneurs. Almost a third of JMSB respondents (31.0%) indicated that they were looking to start their businesses in between six and 12 months’ time.

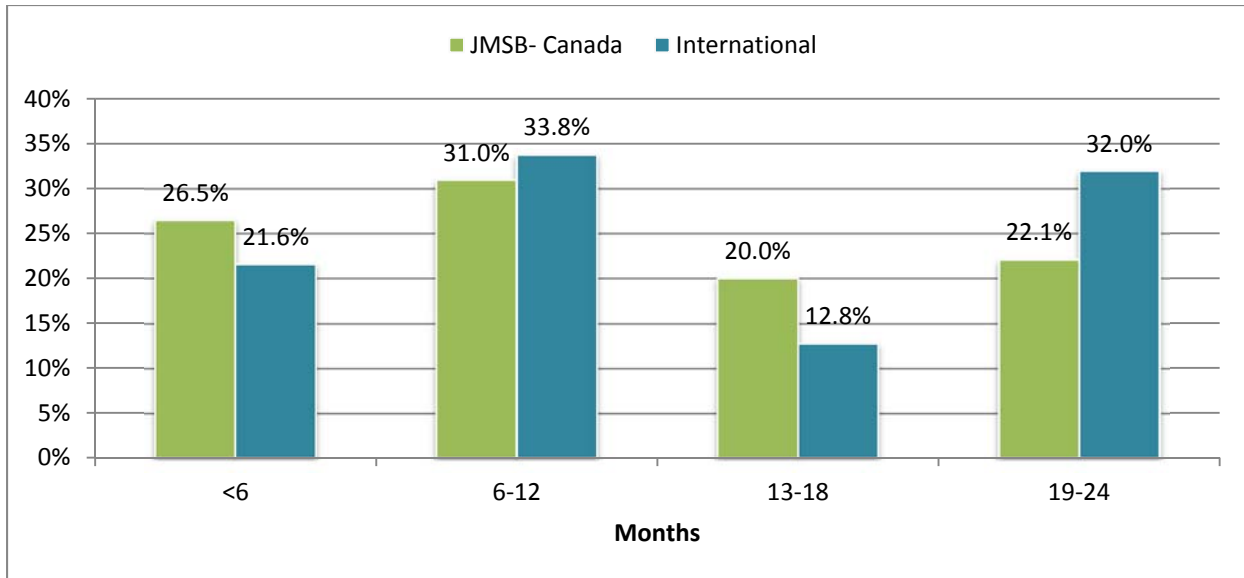


Figure 22: Nascent entrepreneurs, timing for new business

Students were then asked about the types of products they aimed to bring to market. The majority (35.4%) indicated that they had aspirations to bring a fairly new product to market, i.e. a product most customers have yet to see. This is in line with results for the international sample.

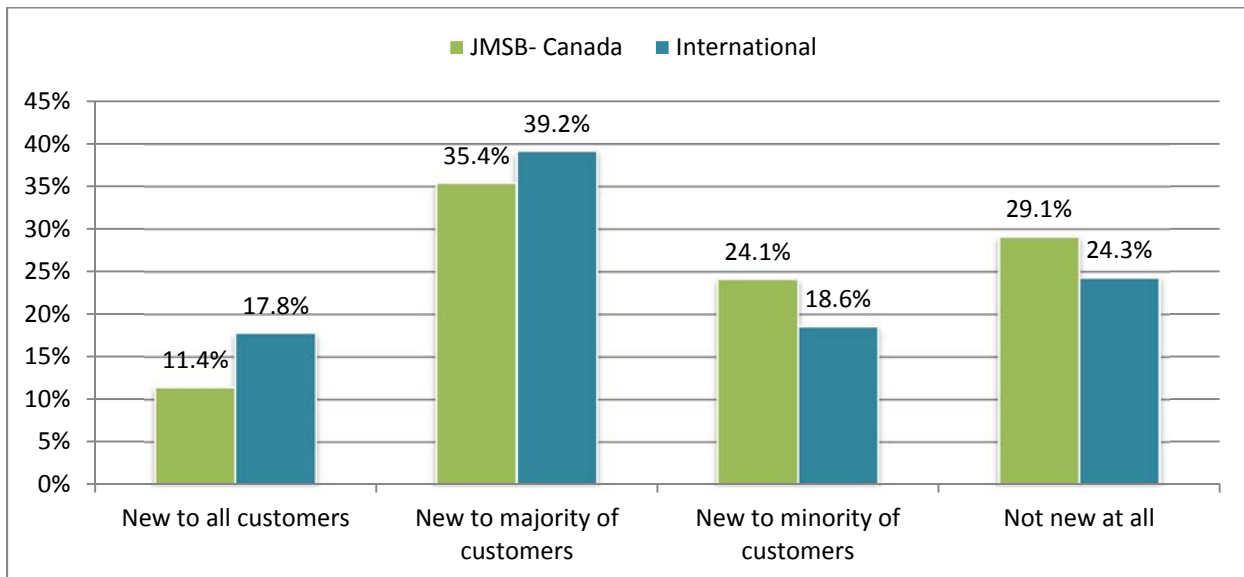


Figure 23: Nascent entrepreneurs, type of product

Students were asked how many hours they planned to spend on building their business. The majority (30.6%) of respondents reported that they plan to work full time on their business, spending between 61 to 80 hours per week.

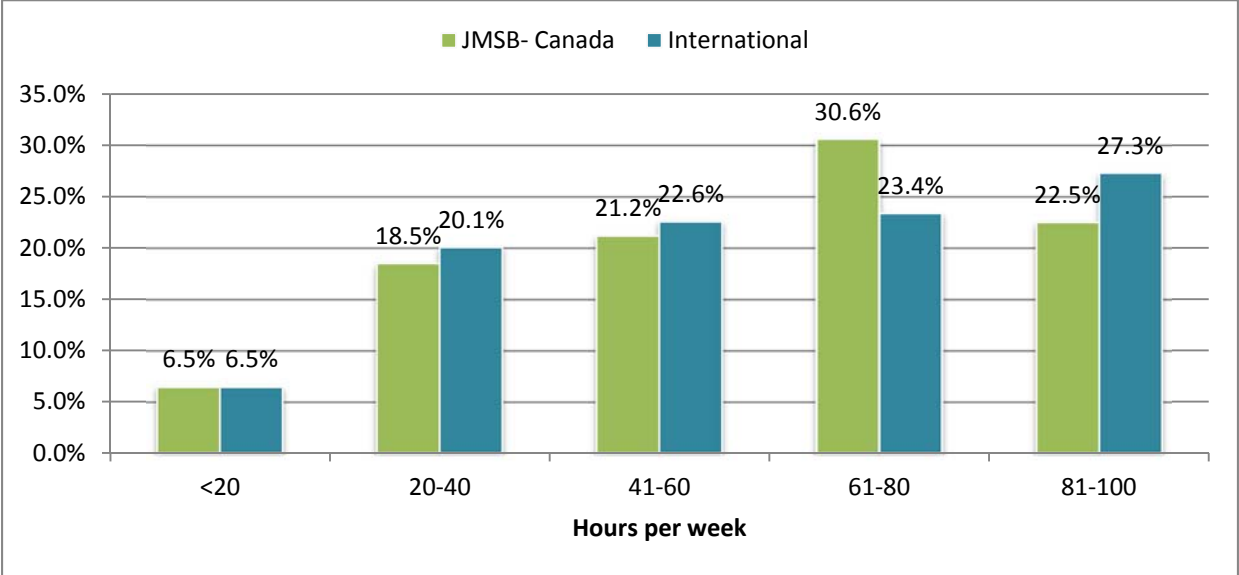


Figure 24: Nascent entrepreneurs, planned hours spent in new business

When asked how much equity they expected to have in their new business, 54.4% of the students indicated that they expect to be majority shareholders in their firm, with between 50% and 99% of equity.

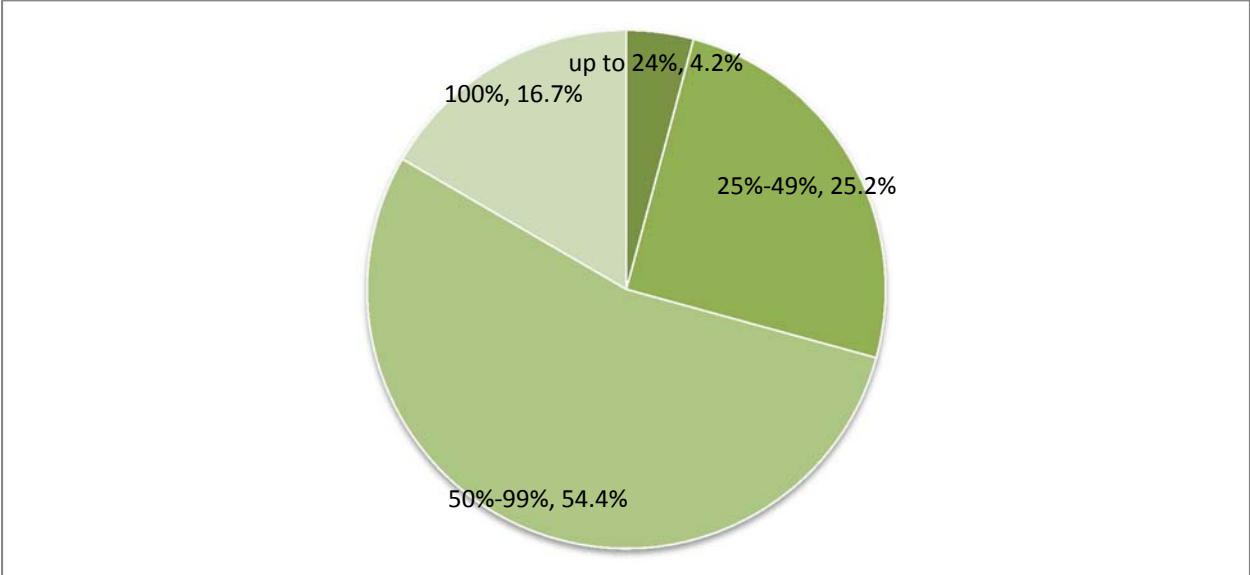
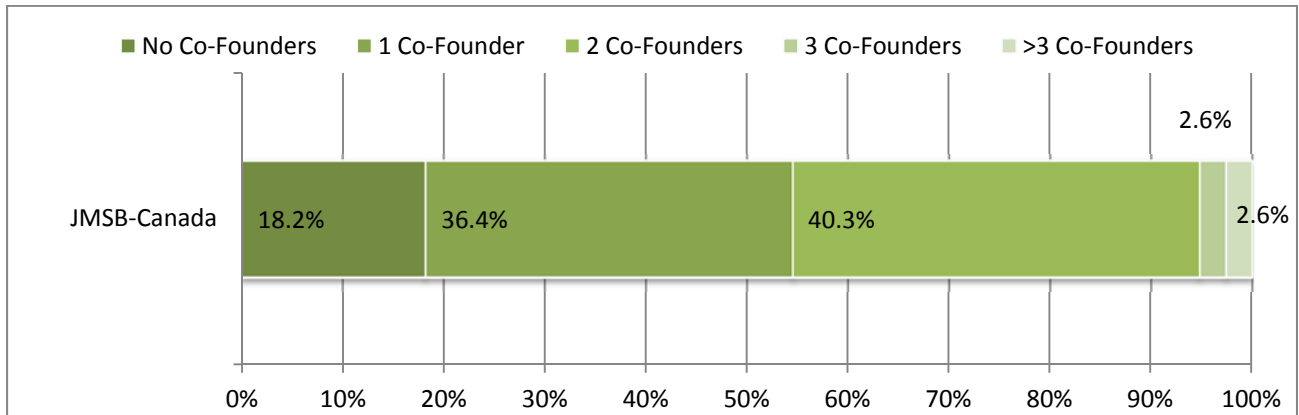


Figure 25: Nascent entrepreneurs, expected equity in new firm

#### 4.1.2 Co-founders

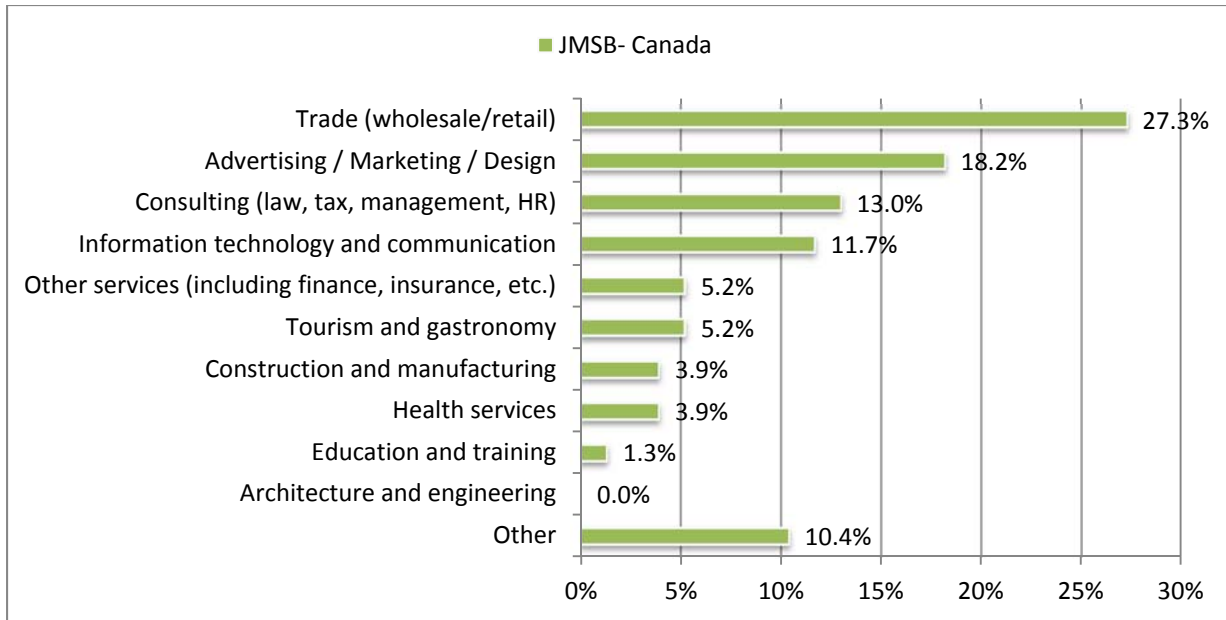
When asked about how many founding team members they planned to have to start their businesses, the majority of respondents answered either one (36.4%) or two (40.3%). 18.2% said they would not have a co-founder. When asked to indicate the source of their potential partner, the most popular was among their friends (66%). Other potential sources of partners were their university (48%), their professional network (47%), and family members (47%).



**Figure 26: Nascent entrepreneurs, plan to have co-founders**

#### 4.1.3 Industrial sectors

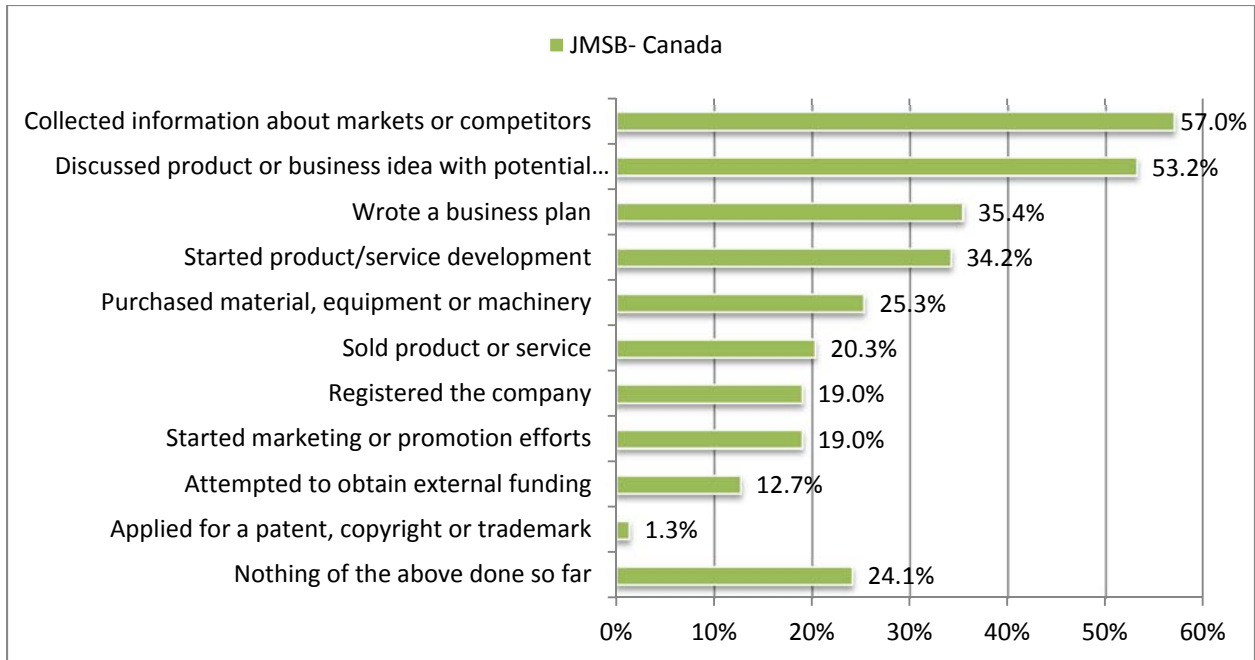
Students indicated an interest in establishing a business in a wide variety of industrial sectors, with the majority indicating wholesale and retail business (27.3%), followed by advertising, marketing and design (18.2%).



**Figure 27: Nascent entrepreneurs, planned sector of activity**

#### 4.1.4 Steps taken to found a new business

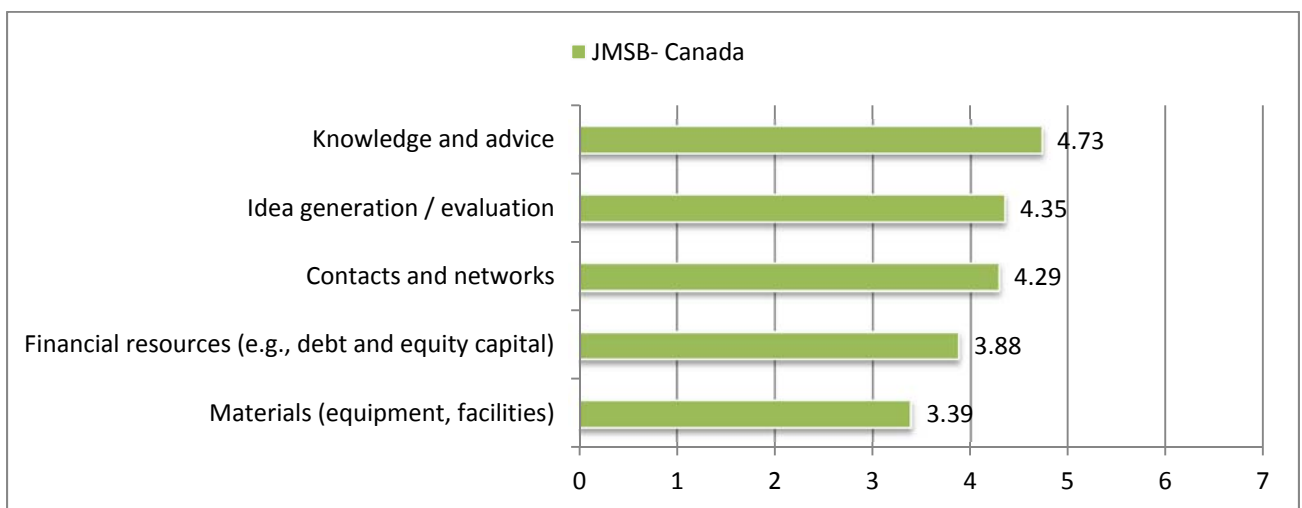
Participants were asked to indicate what steps they had already undertaken to establish their business. Students indicated that they had already taken some preliminary steps, such as “researching and selecting target markets and carrying out meaningful competitive analysis” (57.0%) and “discussed product or business idea with potential customers” (53.2%). Some had already written a business plan (35.4%) and started product or service development (34.2%).



**Figure 28: Nascent entrepreneurs, activities already undertaken**

#### 4.1.5 Anticipated parental support

When students were asked about the type of support they expected to get from their parents, on average they did not expect to get a lot of support (responses ranged from 1 “not supported at all” to 7 “very much supported”). Responses about materials and financial resources were the lowest (between 3 “rather unsupported” and 4 “neither supported nor unsupported”). Participants expected to receive most support in terms of knowledge and advice.



**Figure 29: Nascent entrepreneurs, expected parental support**



#### 4.1.6 Summary

Overall, JMSB students expect to be working full-time to build their own business, developing products that are new to the majority of customers and focusing on the retail/wholesale or advertising/marketing/design sectors. These nascent entrepreneurs expect to start their business within 6 to 12 months. The majority plan to have one or two partners to help them create the business, however they plan to retain the majority of equity in the business. In order to do so they have already collected market information and discussed their product ideas. Lastly, they anticipate parental support mostly in the form of knowledge and advice.

#### 4.2 *Active entrepreneurs*

In this section we focus on JMSB students who indicated that they are already running their own business. To identify these individuals, students were asked: “Are you already running your own business or are you self-employed?” Where applicable we compare these active entrepreneurs to nascent entrepreneurs as well as to the international sample.

##### 4.2.1 Business characteristics

Among participating students, 8.3% indicated that they were already running their own business and/or were self-employed. This is higher than for the international sample, in which 5.5% reported already being entrepreneurs. The businesses established by the students fell under the micro/small business category since they were all described as having fewer than 50 employees. 21% indicated that they did not have any employees and 56% indicated that they had either one or two employees. When students were asked about how many employees they planned to have within five years, 83% indicated that they would have fewer than 50 employees, 14% indicated they would have between 50 and 250 employees, and 3% indicated they would have more than 250 employees. Therefore, 17% of these students predict substantial growth in their businesses within five years. On average, 81% of the students indicated that they spend fewer than 40 hours working in their business. In fact, 46% of them spend fewer than 20 hours per week working in their business. This suggests that for most active entrepreneurs their businesses is more a part-time than a full-time job unlike their nascent entrepreneur counterparts – due to the fact that they are still enrolled at university.

Whereas nascent entrepreneurs expected to retain a majority stake in their businesses (between 50% and 99%), the majority of active entrepreneurs tend to be sole owners of their business.

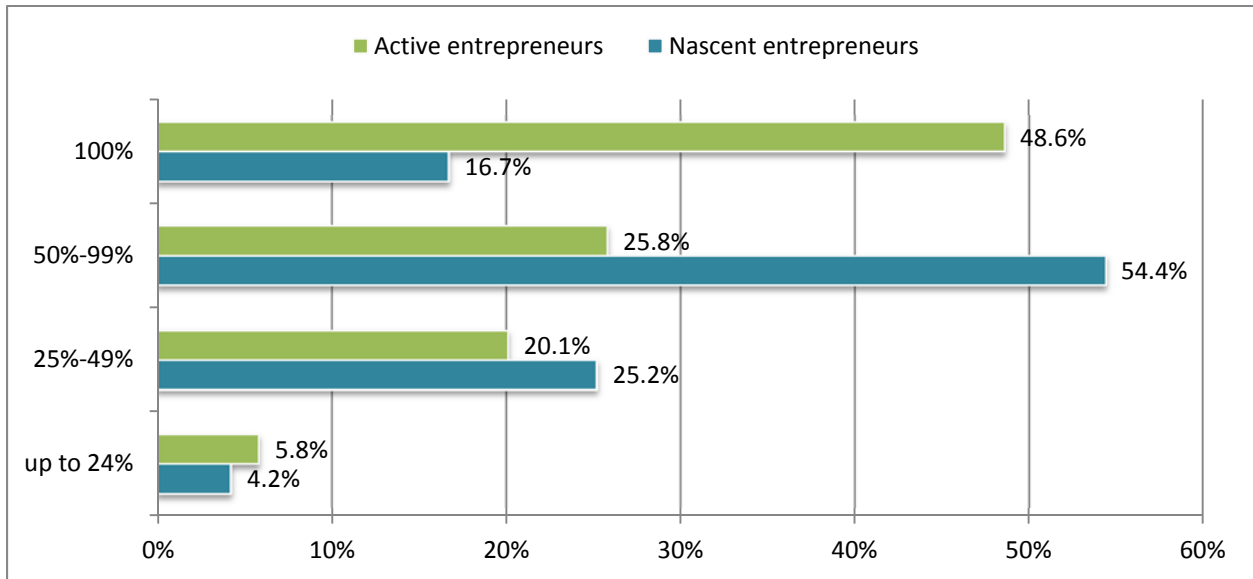
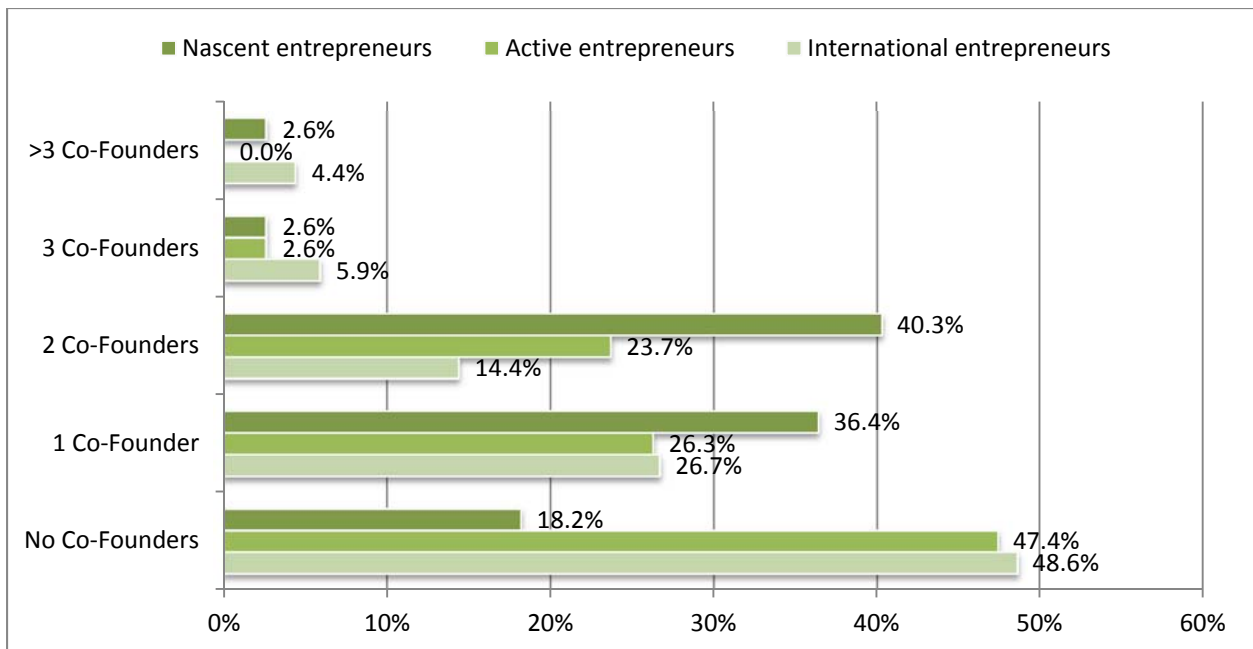


Figure 30: Active vs. nascent entrepreneurs, equity in business

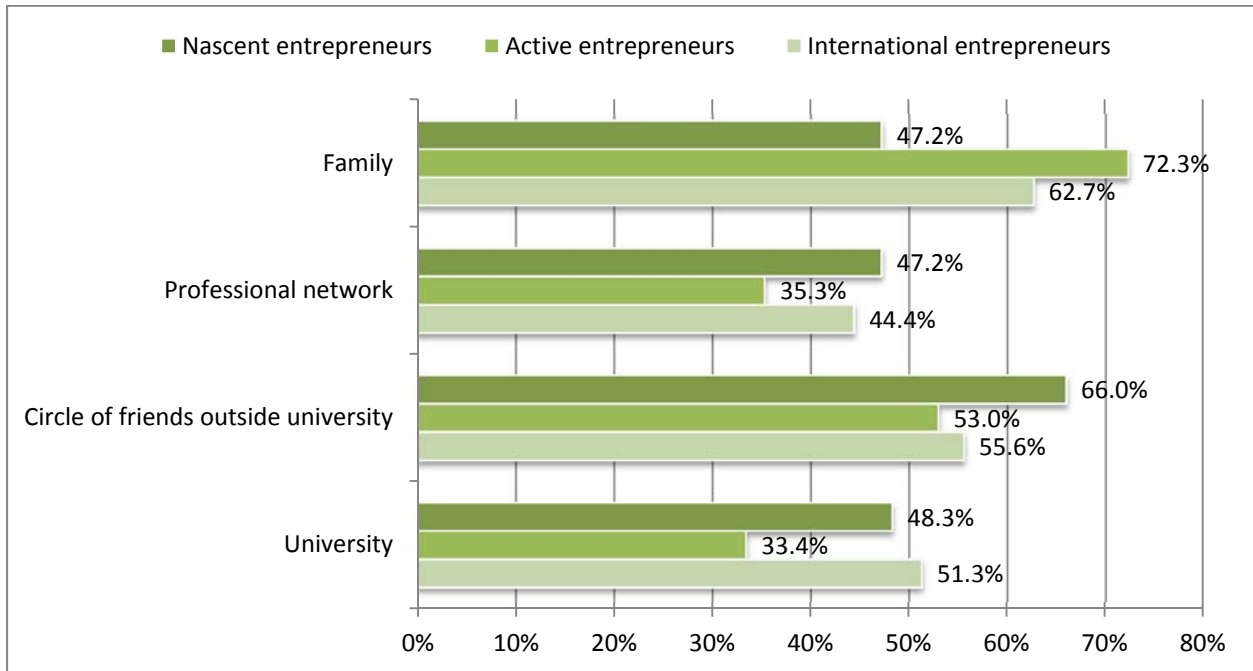
#### 4.2.2 Co-founders

Unlike nascent entrepreneurs, who tend to expect to have co-founders, most (47.4%) active entrepreneurs do not have any co-founders in their business, in line with the international sample.



**Figure 31: Active vs. nascent entrepreneurs, number of co-founders (JMSB and international sample)**

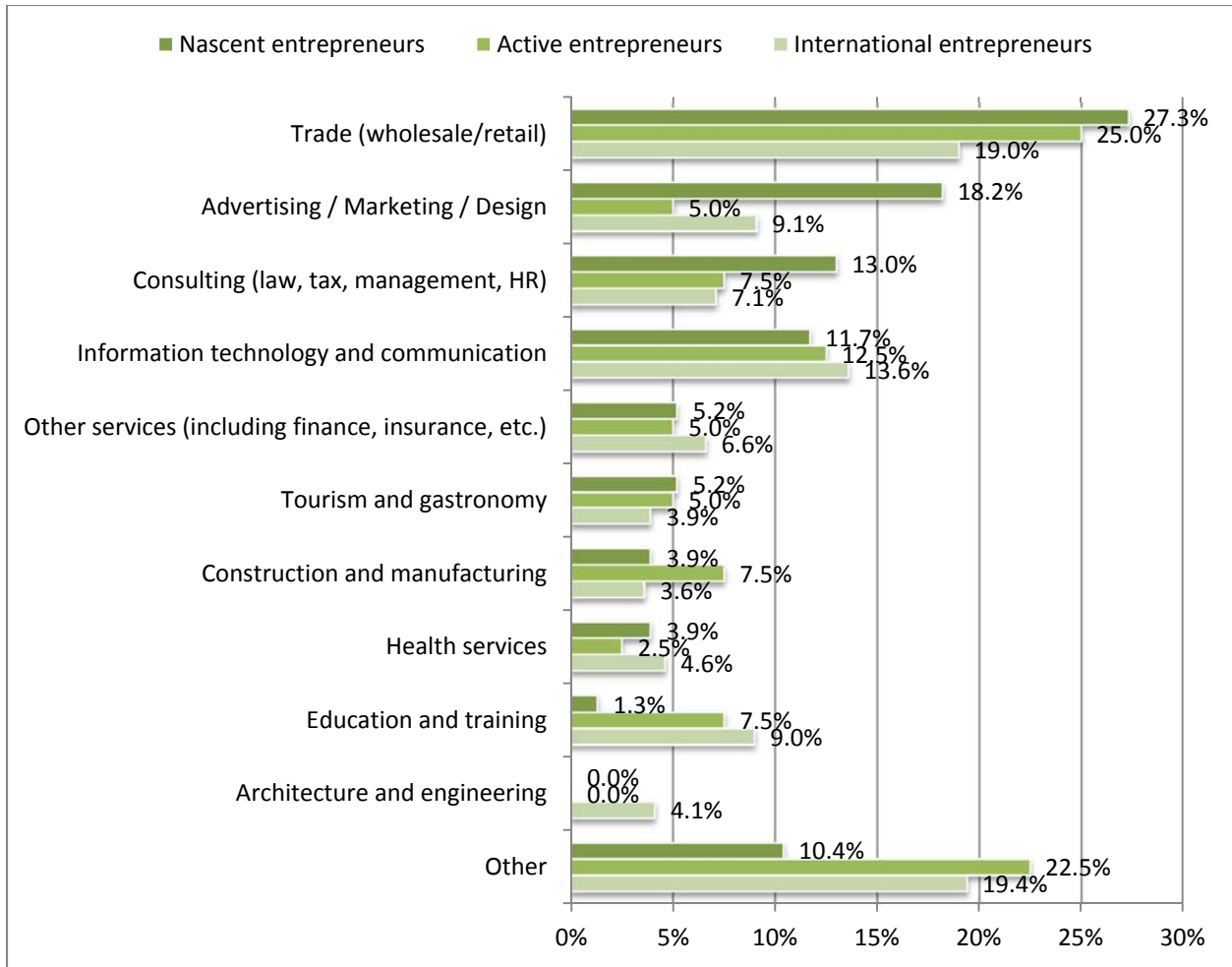
Whereas most (66.0%) nascent entrepreneurs reported they would choose a co-founder among their friends, 72.3% of active entrepreneurs reported choosing their co-founders from within their family. This is similar to the international sample (62.7%).



**Figure 32: Active vs. nascent entrepreneurs, source of partners (JMSB and international sample)**

#### 4.2.3 Industrial sectors

The majority of active entrepreneurs reported that their business was in wholesale and retail (i.e. trade), consistent with both nascent entrepreneurs and the international sample. Whereas nascent entrepreneurs indicated advertising, marketing and design as their second most preferred domain (18.2%), few active entrepreneurs had actually developed their business in this domain (5.0%).



**Figure 33: Active vs. nascent entrepreneurs, main sector of business operation (JMSB and international sample)**

#### 4.2.4 Actual firm performance

When asked to compare the performance of the business they created with that of their competitors, respondents rated it as being equal (average rating for all the items was 4 out of 7, or neutral). The area that was reported to be the most challenging compared to competitors was job creation (3.23) followed by market share growth (3.95). Innovation (4.28) and sales growth (4.08) were perceived by active entrepreneurs as being comparable to their competitors’.

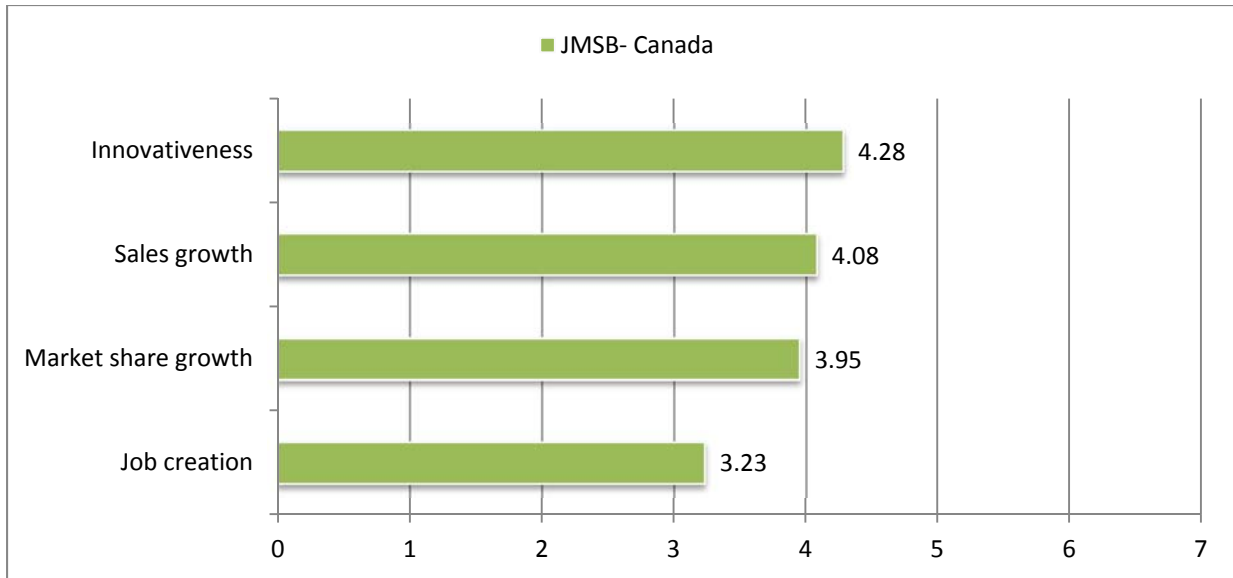


Figure 34: Active entrepreneurs, performance of business compared to competitors

#### 4.2.5 Parental support

Active entrepreneurs in our sample reported that they did not receive a lot of support from their parents. They rated each of the items included in the Figure below between 3 (rather not supported) and 4 (neutral) out of a maximum of 7. According to respondents, most of the support they received from their parents involved sharing knowledge and advice, consistent with the expectations held by the nascent entrepreneurs. The resource they received the least was financial support.

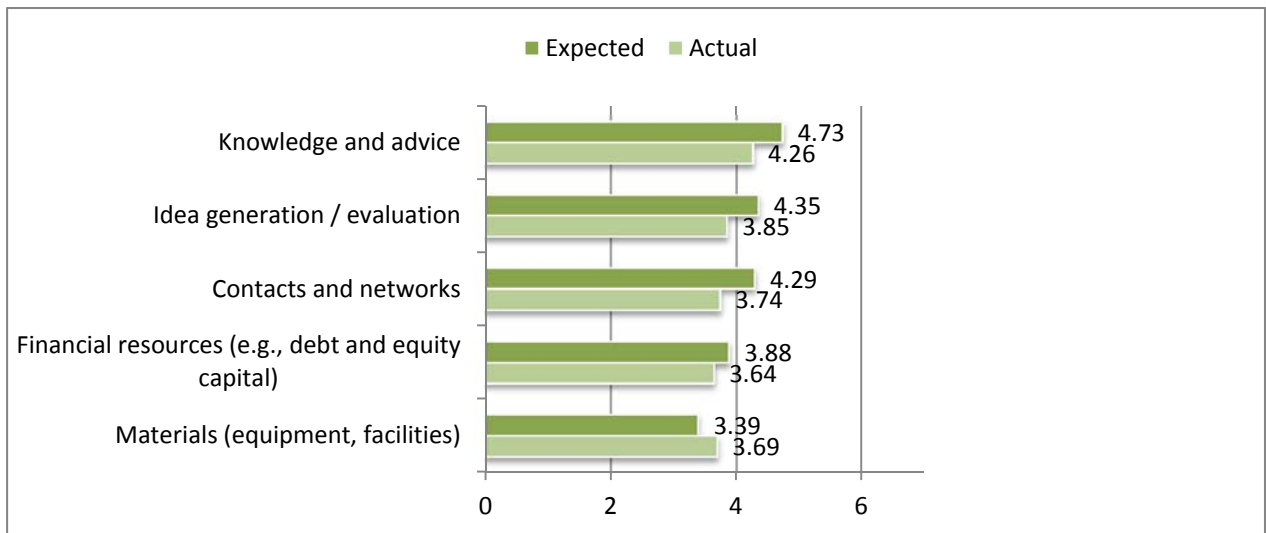


Figure 35: Active entrepreneurs, expected and actual parental support

#### 4.2.6 Summary

Active entrepreneurs at JMSB tended to form micro or small businesses, although 17% expected to grow their businesses substantially within five years. Active entrepreneurs spent on average fewer than 40 hours per week developing their business, consistent with their status as students at JMSB. The majority of active entrepreneurs reported not having co-founders in their businesses, resulting in their retaining the majority equity. Similarly to nascent entrepreneurs, active entrepreneurs tended to found their businesses in the trade sector and they received support from their parents mainly in the form of knowledge and advice.

## 5 Family businesses

The family has often been thought of as the “oxygen that feeds the fire of entrepreneurship” (Rogoff & Heck, 2003, p. 559). Very often, the family acts as an incubator whose purpose is to nourish the next generation into taking over the family business and continue its legacy (Hoy & Sharma, 2010). This section focuses on the 45.3% of all respondents who, as reported in Section 3.4.2, have parents who run their own business or are self-employed. We address the impact of the family business on the student’s entrepreneurial spirit by describing the general characteristics of the family business, the industrial sector, the family business performance, the student’s relationship with the family business, and intentions about succession within the family business.

### 5.1 General characteristics

In general, most of the respondents (80.5%) said their parents own one business.

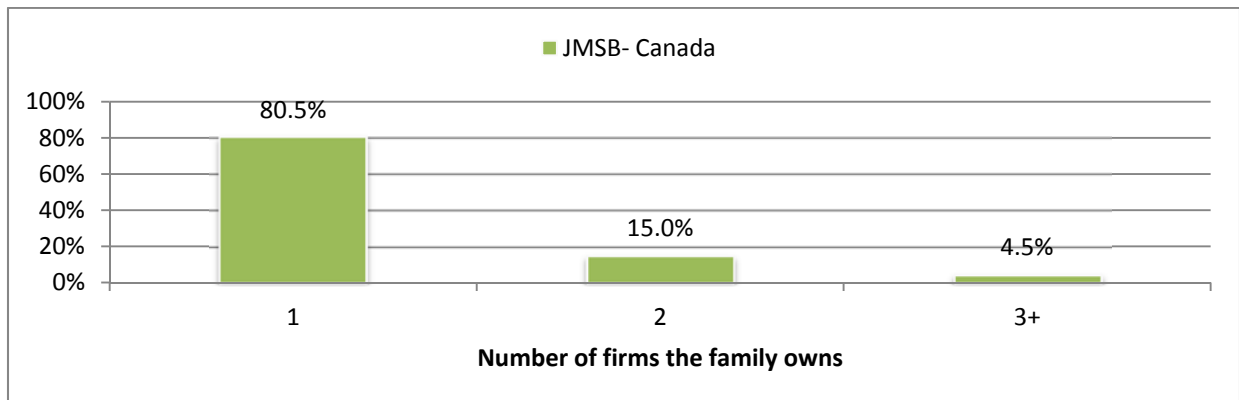


Figure 36: Number of family businesses

Participants were asked to indicate for how many years the family has owned the business: 26.5% indicated that their family has owned the firm for less than five years, and only 6.0% for more than 31 years.

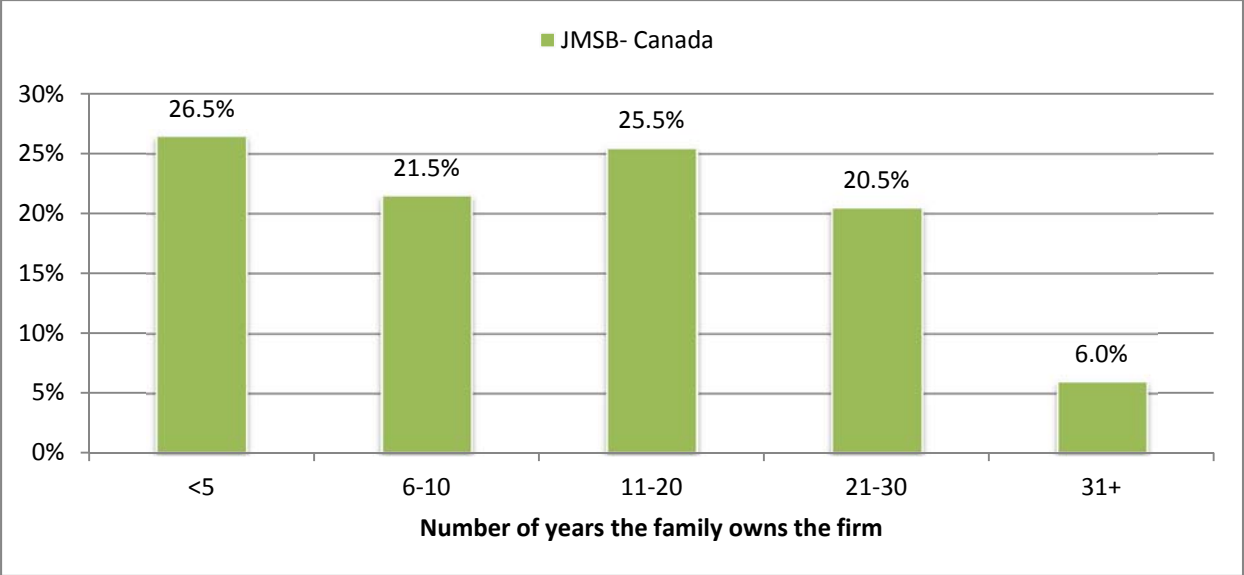


Figure 37: Number of years firm has been owned by the family

The majority of the sample (81.1%) indicated that a family member has created the family business. Moreover, 93.2% of parents are actively involved in the firm, with 70.4% being the CEO.

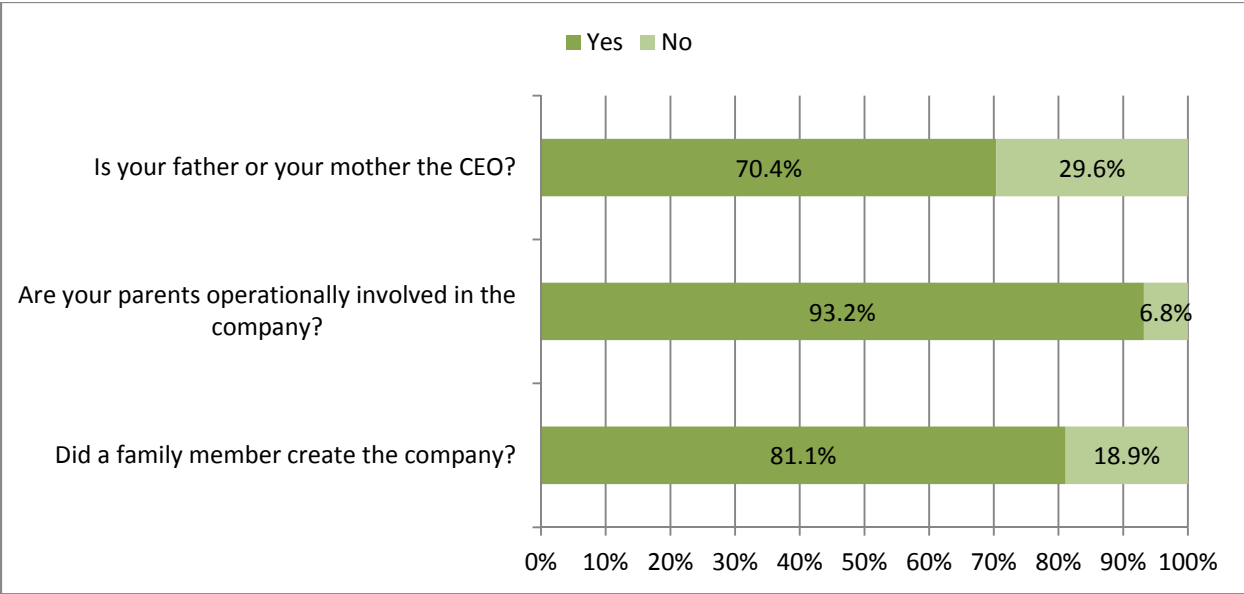


Figure 38: General information about the family business



In 52.6% of cases, respondents reported that the family owns 100% of the equity of the family business. Most respondents (76.2%) said that their personal share of equity in the business was less than 24%.

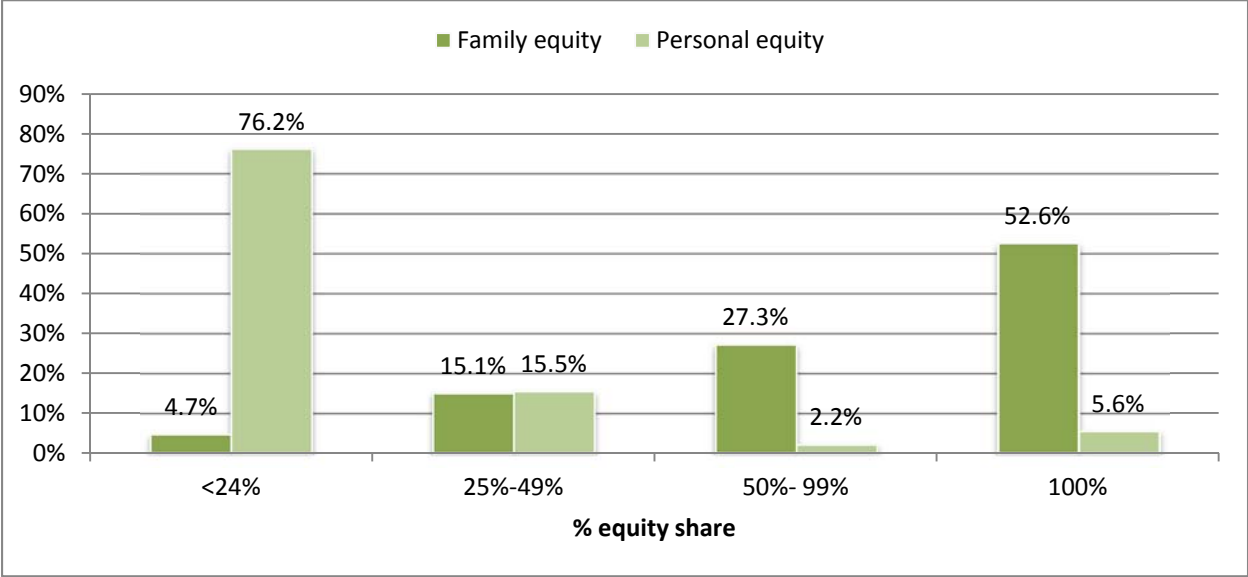
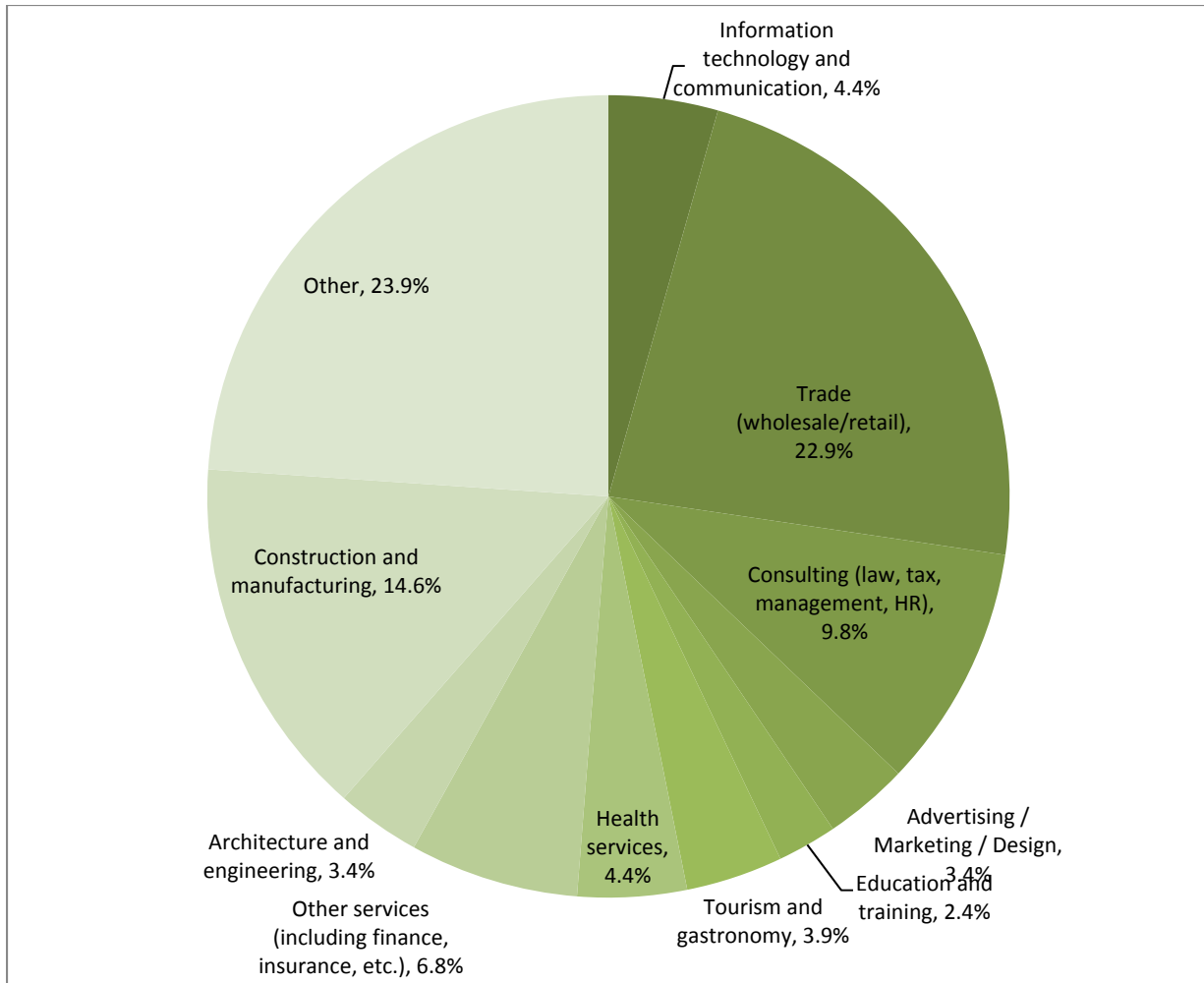


Figure 39: Personal and family equity share

Approximately 95% of participants reported their family business as being small, with 50 or fewer employees. Out of respondents whose parents own a business, 35.7% reported they were working in the business. Of these, 61.5% indicated that they had started working for their family business when they were 15 years old or younger. Moreover, 33% indicated that they had worked for less than one year in their family business, while 50% indicated that they had worked for more than two years.

5.2 Industrial sector

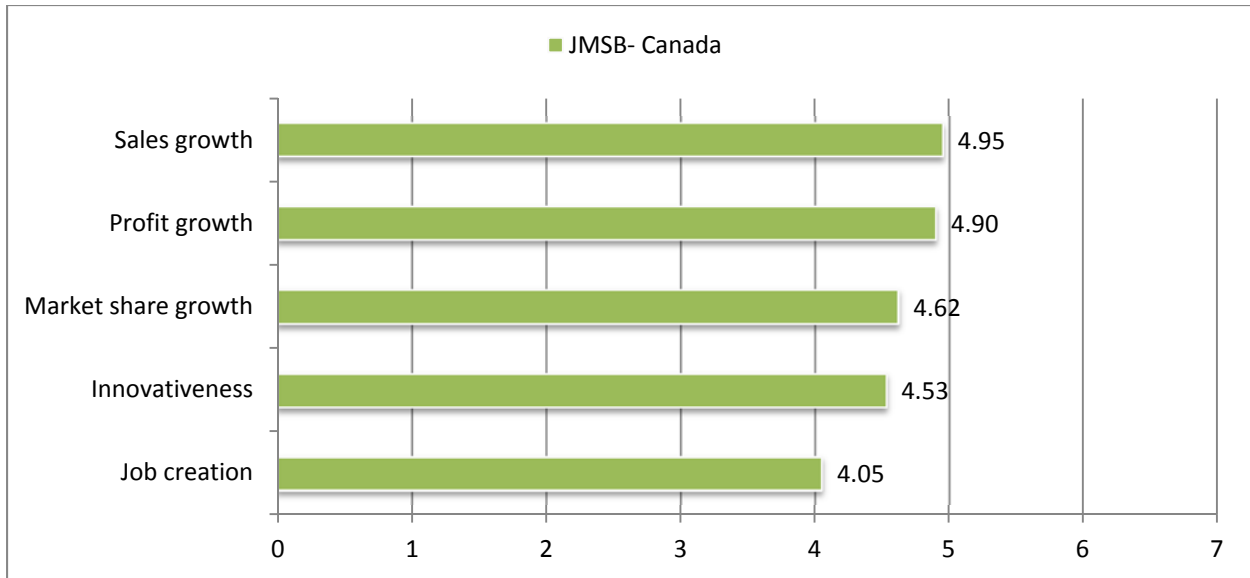
The three largest sectors for the family businesses were trade (wholesale/retail) (22.9%), construction and manufacturing (14.6%), and consulting (law, tax, management, HR) (9.8%).



**Figure 40: Family business sector of operation**

### 5.3 Family business performance

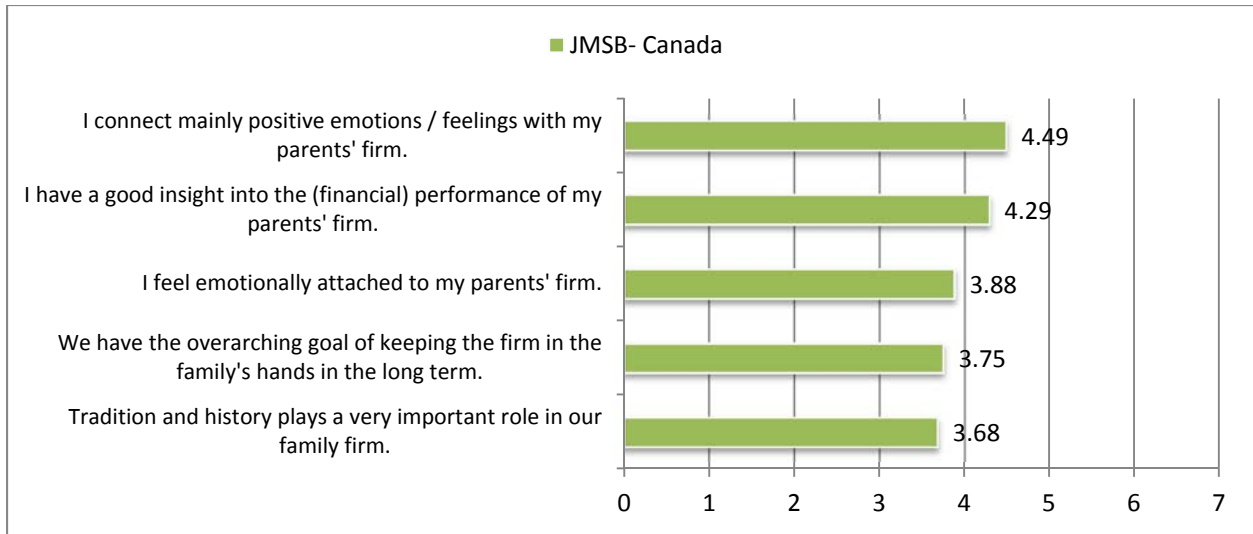
Participants were asked to rate the performance of their family business along certain criteria with respect to their competitors, ranging from 1 (much worse) to 7 (much better). Results indicate that the participants believed that their family businesses performed just as well (average rating of 4) as their competitors. Family businesses tended to perform rather well compared to competitors in terms of sales (4.95) and profit growth (4.90).



**Figure 41: Family business performance compared to competitors**

#### *5.4 Relationship with the family business*

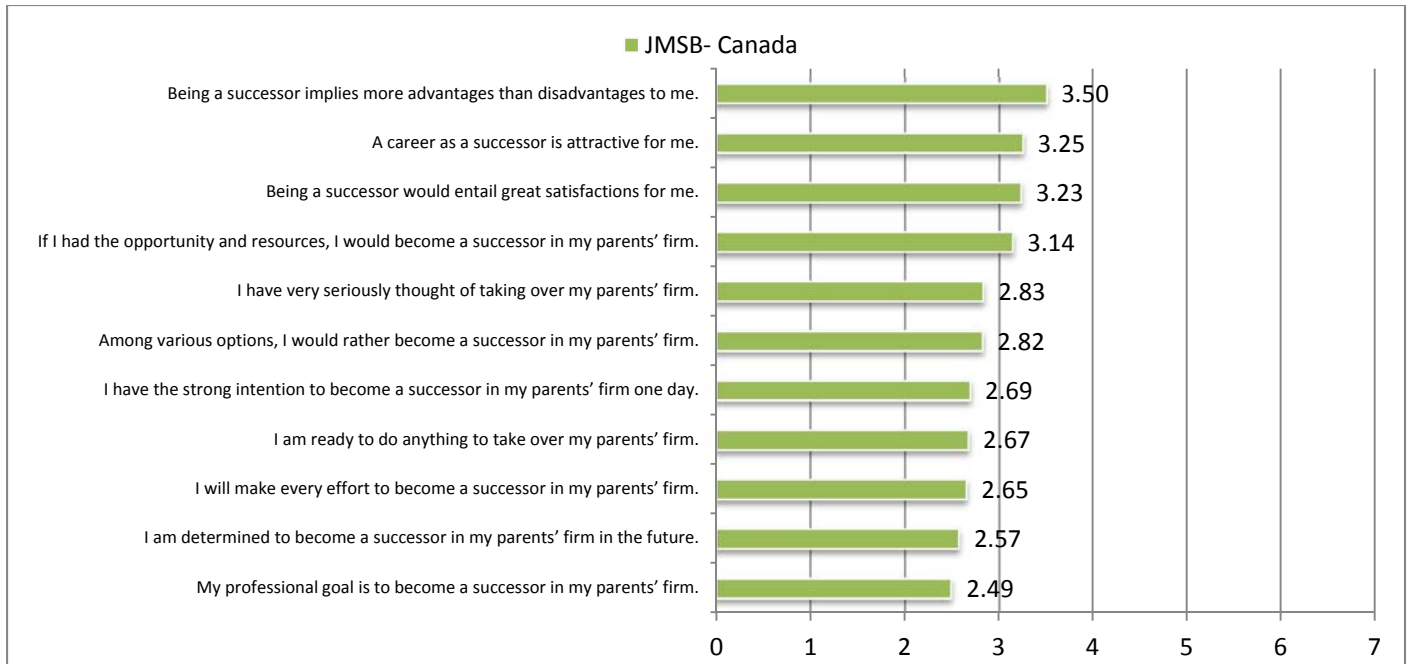
When participants were asked to describe their relationship with their family business, on average, they described their relationship as being satisfactory. Responses could vary between 1 (strongly disagree with the statement) and 7 (strongly agree with the statement). The statements that were rated most positively were about having a positive emotional connection with the family business (4.49) and good financial insight into the firm (4.29). However, respondents reported the lowest scores with regard to “tradition and history playing a very important role in the family firm” (3.68) and “having the overarching goal of keeping the firm in the family’s hands in the long term” (3.75).



**Figure 42: Participants' relationship with their family business**

### 5.5 Intentions about being a successor in the family business

On average, participants indicated that they rather disagreed with the statements that becoming a successor to their family businesses was a desirable career option for them. Responses could range between 1 (strongly disagree with the statement) and 7 (strongly agree with the statement). Although participants indicated that they had a positive relationship with their family business (as described above), on average responses to statements reported in the Figure below ranged between 2.49 and 3.50, corresponding to “rather/pretty disagree”.



**Figure 43: Participants' intentions to become a successor in their family business**

### 5.6 Summary

In summary, the majority of family businesses described by the participants were small businesses, started and solely owned by the family. Prevalent sectors were trade (wholesale/retail), construction and manufacturing, and consulting (law, tax, management, HR). Respondents perceived that their family business's performance was comparable to their competitors'. Although participants felt a connection with their family business, becoming successors did not appear as an attractive option for them.

## 6 Summary and recommendations

This section summarizes the key findings for the JMSB edition of the 2013/2014 GUESSSS project and offers recommendations.

### 6.1 Key insights

The objectives of the GUESSSS project are to study the entrepreneurial intentions and activities of students. The following are the key findings of this report:

- JMSB students appear to be satisfied with the entrepreneurial context and learning offered at JMSB. A majority of respondents responded positively to questions about learning entrepreneurship at JMSB, a higher percentage than for the international sample.
- The pattern of becoming an employee first and a founder later, which has been observed in previous editions of the GUESSSS project for other countries, has also been observed in the JMSB sample. Most JMSB students intend to work for a medium or large firm upon graduation. In our sample, only 5% intend to start their career as entrepreneurs (creating their own business), but five years later this number rises to 34%.
- Our data indicates that male students show higher entrepreneurial intentions than female students.
- “Having an exciting job” and “realizing a dream” are the two most important reasons given by students for starting their own business.
- The environmental context was perceived by the students as being supportive to their entrepreneurial interests, consistent with the entrepreneurship literature. The only notable deviation from the literature was with regard to the family context and its effects on founders. Our sample indicates that coming from an entrepreneurial family does not seem to have a significant effect on the intention to found a business. However, and more consistent with the literature, the sample shows that students who come from entrepreneurial families intend to become successors in their family business.
- Students reported having rather high general self-efficacy with respect to their perceived level of competence with regard to entrepreneurial tasks. Furthermore, they tended to be rather tolerant to risk compared to their international peers.

- JMSB has a similar proportion of nascent entrepreneurs (15.7% of all respondents) as the international sample (15.1%). The majority of nascent firms in our sample were expected to be formed by entrepreneurial teams of three individuals, mostly friends. Respondents expected to remain the majority shareholder. Businesses were expected to be rather innovative as they planned to bring new products to the majority of customers.
- There is a higher proportion of active entrepreneurs among JMSB students than in the international sample: 8.3% of JMSB respondents vs. 5.5% of international respondents. The majority of active entrepreneurs in our sample were single-owner firms. Although the majority did not intend to grow their business much during the next five years, a number of active entrepreneurs (17%) reported their intention to grow the business substantially over the next five years.
- JMSB students tend to have more entrepreneurial parents than the international sample, with 45.3% reporting that their parents own a business or are self-employed. In the international sample 31.3% of respondents said their parents run their own business or are self-employed. However, only a small proportion of JMSB students intends to become a successor in their parents' business, with 1.8% reporting this intention upon graduation (1.3% in the international sample) and 3.1% five years after graduation (2.0% in the international sample).

## 6.2 *Recommendations*

Based on the results of the JMSB edition of the GUESSSS project survey, we offer the following recommendations.

- Universities
  - Our results indicate that students show an interest in attending entrepreneurship classes and feel that classes at JMSB are useful to develop entrepreneurial skills. Hence, developing the entrepreneurial curriculum further and focusing on developing academic and practical skills is likely to be beneficial to promote entrepreneurial intentions of JMSB students over time.

- Students
  - In general, learning entrepreneurial skills can be beneficial not only for those who intend to start their own business, but also for those who wish to become employees in existing organizations. Our data indicate JMSB student satisfaction with the university's learning environment, which should continue to be enhanced.
- Public
  - Given the benefits entrepreneurs offer to society and the economy, there appears to be a need to encourage entrepreneurship more, particularly among females. Furthermore, not many students reported that they intended to become successors in their family business. Given the high number of family businesses in Québec, many of which will undergo succession over the next decade, there appears to be a need to make this career more attractive.
- Researchers
  - Based on the results of this first JMSB edition of the GUESSS project, future collaboration should be beneficial to track the entrepreneurial intentions of our students over time.
  - Cooperating with other universities across Québec and Canada will help us improve our understanding of entrepreneurial intentions across universities and across the country.



## 7 Bibliography

- Ajzen, A. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32(4), 665-683.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Hoy, F., & Sharma, P. (2010). *Entrepreneurial Family Firms*. Upper Saddle River: Pearson Education, Inc.
- Johns, G., & Saks, A. (2011). *Organizational behavior: Understanding and managing life at work* (4th ed.). Toronto: Pearson Education, Inc.
- Rogoff, E. G., & Heck, R. K. (2003). Evolving research in entrepreneurship and family business: Recognizing family as the oxygen that feeds the fire of entrepreneurship. *Journal of Business Venturing*, 18, 559-566.
- Sieger, P., Fueglistaller, U., & Zellweger, T. (2014). *Student entrepreneurship across the globe: A look at intentions and activities*. St. Gallen: Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG).