GUESSS

Global University Entrepreneurial Spirit Students' Survey

Global Student Entrepreneurship 2018: Insights From 54 Countries

2018 GUESSS Global Report

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Preface

Entrepreneurship among young individuals, and particularly students, has a crucial economic and social impact. Their new ventures will create financial and non-financial value that is pressingly needed in the future.

Therefore, it is imperative to generate in-depth insights into students' entrepreneurial intentions and activities.

The GUESSS Project (Global University Entrepreneurial Spirit Students' Survey) is dedicated to this mission since 2003. The 2018 Global Report presents the related findings of the 8th data collection wave in the history of GUESSS. It was conducted in late 2018 in 54 countries, at more than 3'000 universities, and generated more than 208'000 completed responses, which are all new record numbers.

Specifically, the report provides insights into students' (entrepreneurial) career choice intentions and their underlying drivers. Also, it sheds a nuanced light on their entrepreneurial activities in terms of being in the process of new venture creation or already running their own business. Hopefully, the findings will advance and inspire research and practice on students' entrepreneurship and entrepreneurship in general.

The 2018 edition of GUESSS would not have been possible without the invaluable effort and support of all country teams, national university partners, EY as the international project partner, and of course the students who responded to the survey invitation. Thank you!

We are already looking forward to the next GUESSS edition in 2021!

Yours sincerely,

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Executive Summary

More than 208’000 students from more than 3’000 universities and 54 countries. One report. The key findings are briefly summarized below.

Regarding students’ (entrepreneurial) career choice intentions

- 9.0 percent of all students intend to be an entrepreneur directly after studies
- 34.7 percent plan to be entrepreneurs 5 years after completion of studies
- A central pattern is “first employee, then entrepreneur”
- Creating an own business does not automatically mean that the founders will be entrepreneurs forever
- The share of intentional entrepreneurs differs considerably across countries, with developing and particularly Latin American countries exhibiting the highest numbers

Regarding influencing factors

- The university context plays a very important role. Entrepreneurship education and the entrepreneurial climate are key determinants of entrepreneurial intentions and activities.
- Field of study is crucial as well. The general patterns observed across countries remain stable when looking at business and management students only.
- We observe a gender gap with regard to entrepreneurship. Surprisingly, the gap is comparably small in rather male-dominated study fields.
- Working in a startup as an employee seems to boost own entrepreneurial intentions and activities.
- Entrepreneurial parents are helpful for offspring’s entrepreneurship. Ideally, both parents are entrepreneurs.

Other important findings

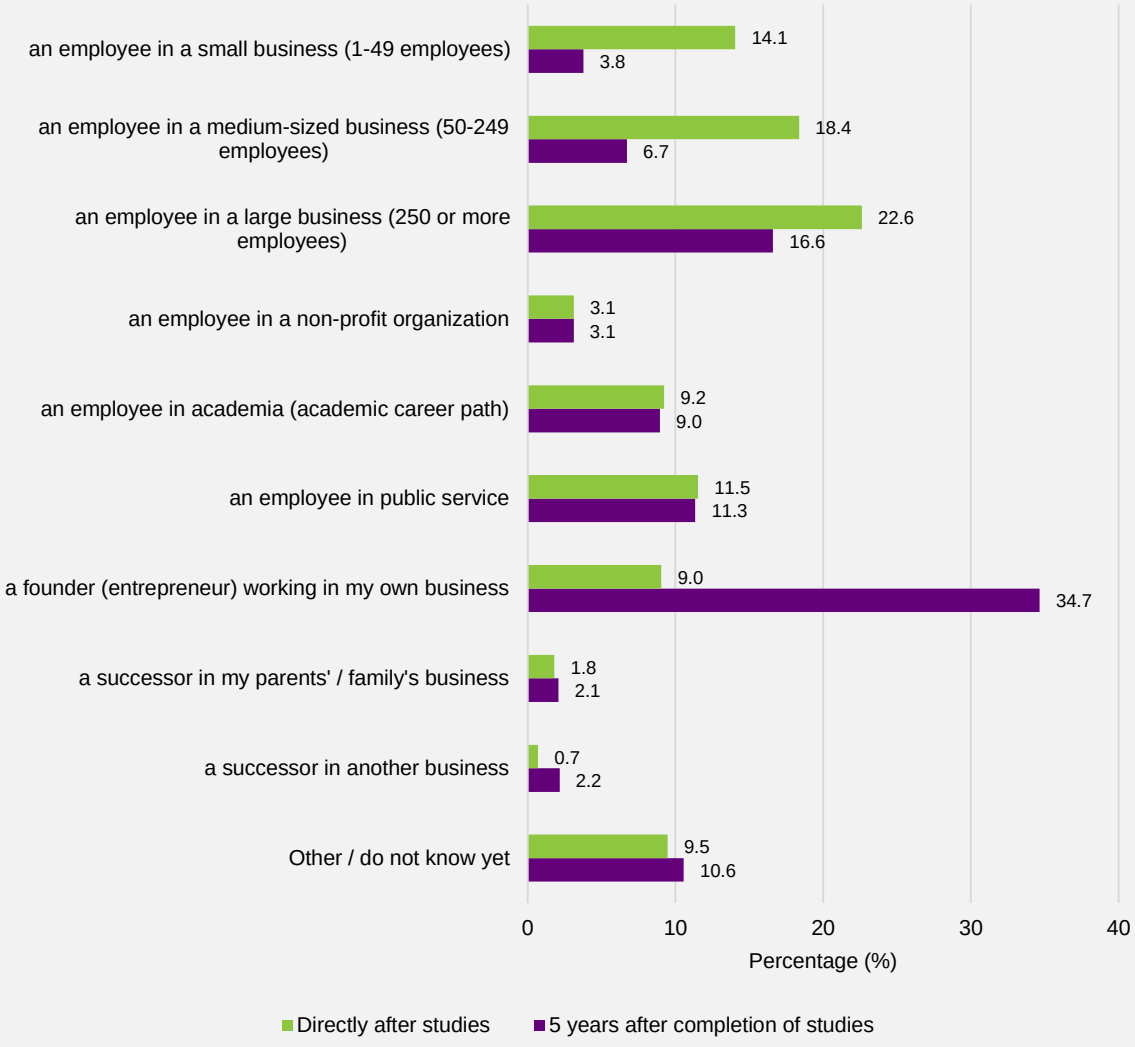
- Entrepreneurial intentions fluctuate over time, with a stable positive trend since 2013 (after a drop between 2011 and 2013).
- Many nascent entrepreneurs have not made too much progress in the founding process yet.
- Founding teams are of crucial relevance for both nascent and active founders. Only around one third of all firms have been created without a co-founder.
- The ventures run by the students are mostly very young and very small. Still, the entrepreneurs are rather happy with their performance.

1. Students' Career Choice Intentions

Which career path do the students intend to pursue right after completion of their studies, and which one 5 years later?

Almost 35 percent of all students intend to be an entrepreneur 5 years after completion of studies, compared to 9 percent directly after studies. Thus, entrepreneurial intentions (meaning the intention to create a new business)[1] almost increase fourfold between the two points in time.

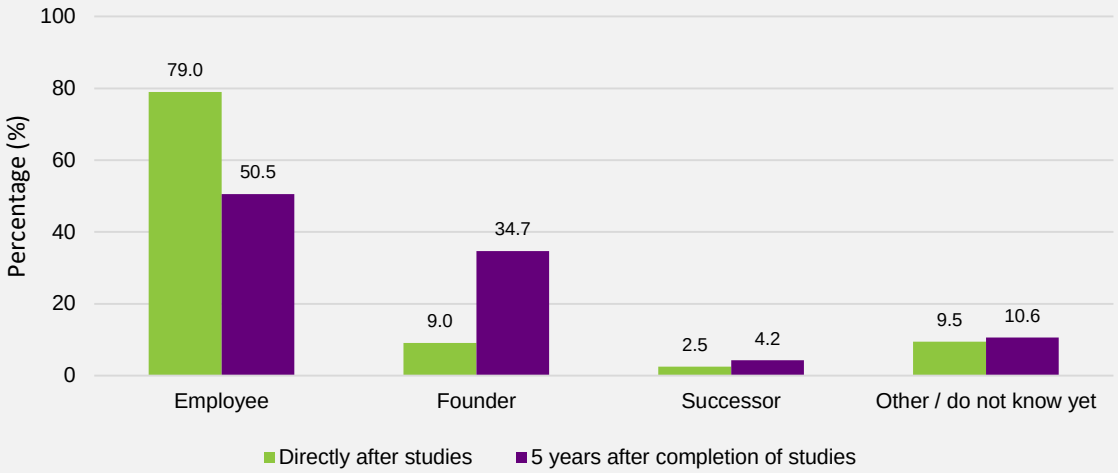
Figure 1. Detailed career choice intentions.



When forming three career groups (i.e., employee, founder, and successor in the parents' business if existing), we see a clear pattern: students prefer organizational employment directly after studies, and many then plan to swing to an entrepreneurial career path within the next 5 years.

[1] We use the terms "entrepreneurial intentions" and "founding intentions" synonymously. Strictly speaking, also becoming a successor in the parents' firm or in another firm represents a type of entrepreneurial career; we do not refer to these options unless noted otherwise.

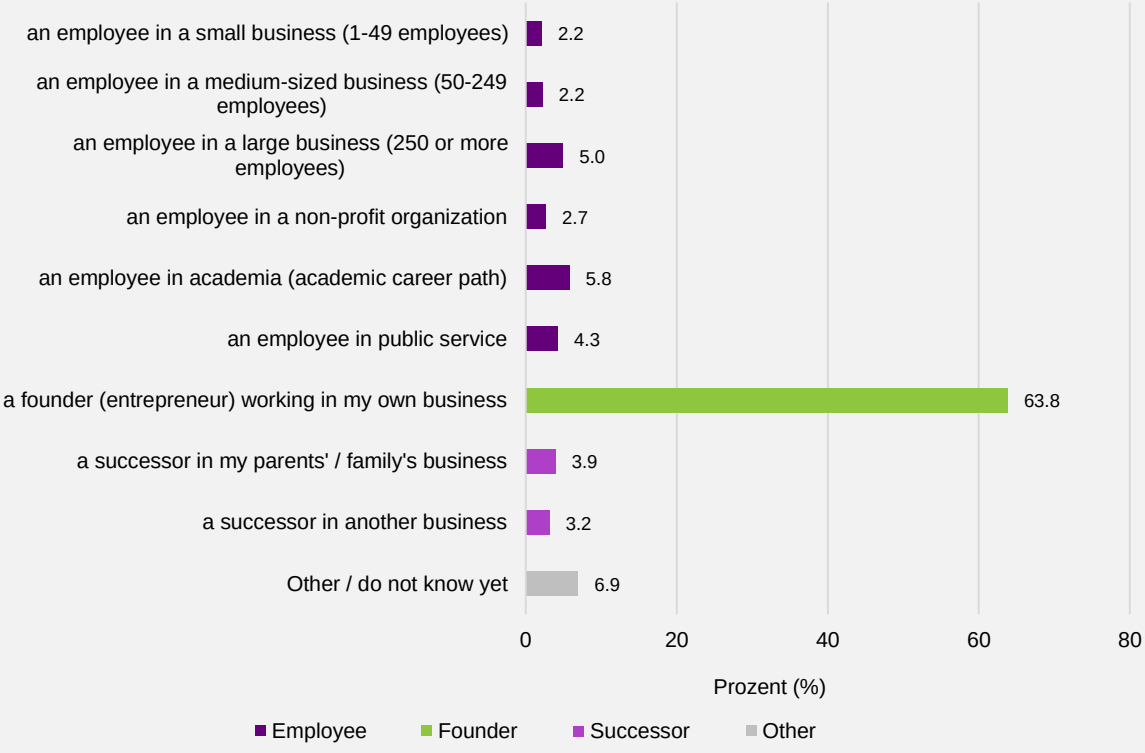
Figure 2. Career choice intentions in groups.



For more in-depth insights into the specific career plans of intentional entrepreneurs, the figure below shows which career path those students who intend to be entrepreneurs right after studies plan to pursue 5 years later.

Interestingly, 63.8 percent still want to be entrepreneurs. Put differently, more than one third of the "direct" intentional entrepreneurs do not want to pursue an entrepreneurial career in the long run (except those who plan to become successors in their parents' business or to take over a different firm).

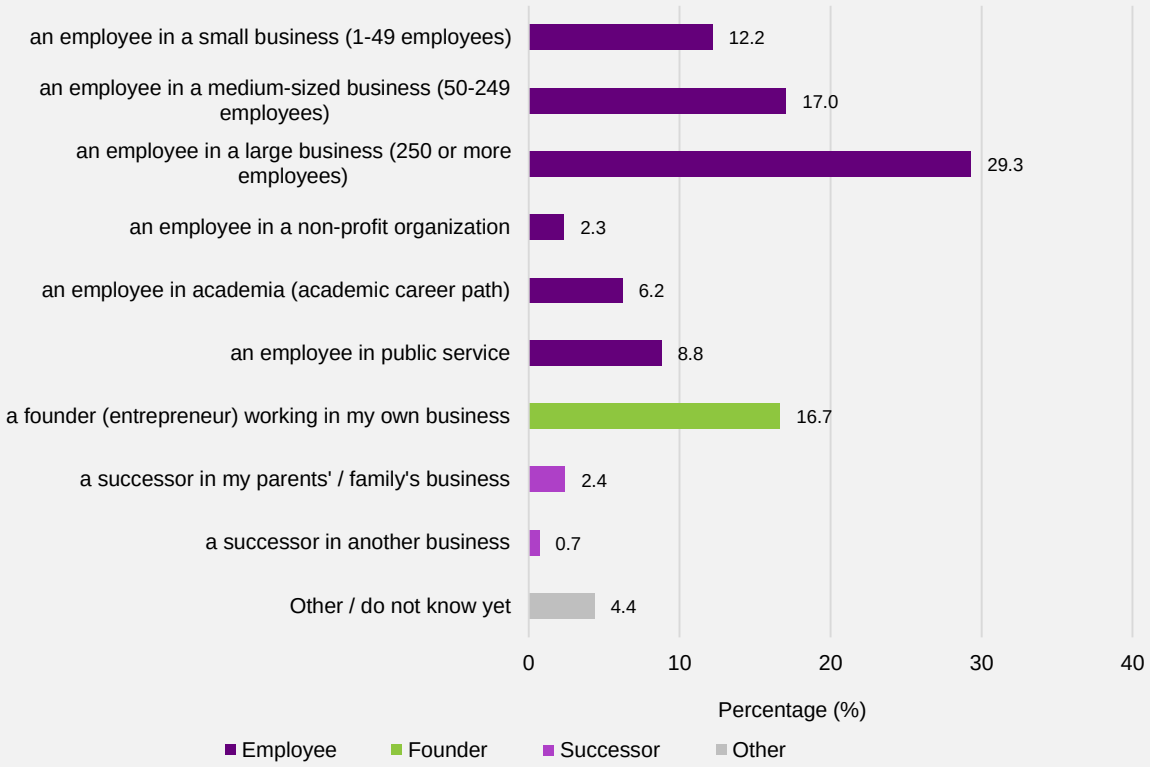
Figure 3. The career plans 5 years after completion of studies of direct intentional entrepreneurs.



The other way round, the next figure shows what those students who intend to be an entrepreneur 5 years after completion of studies plan to do directly after studies.

Only 16.7 percent want to be an entrepreneur at this point in time; around 75 percent intend to be employees in the private or public sector. This further supports the "first employment, then entrepreneur" pattern we observed above.

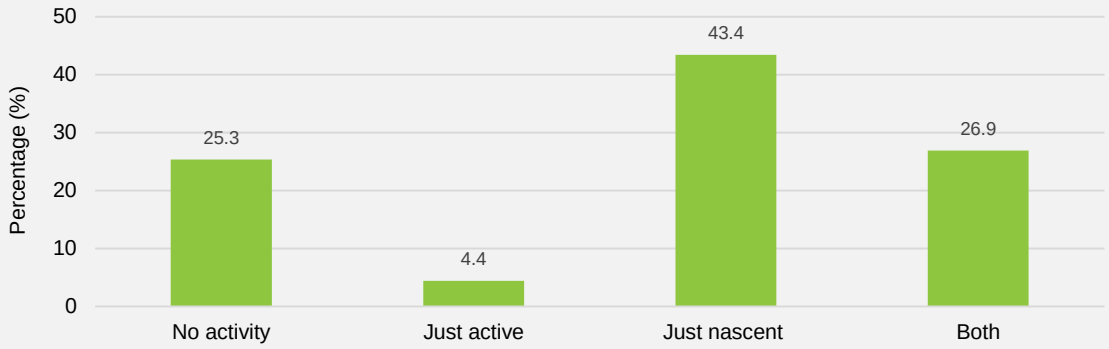
Figure 4. The career plans directly after studies of the "5 years intentional entrepreneurs".



To delve even deeper, we assessed whether the students who intend to be an entrepreneur right after completion of studies are already in the founding process or are even entrepreneurs at the point of data collection already.

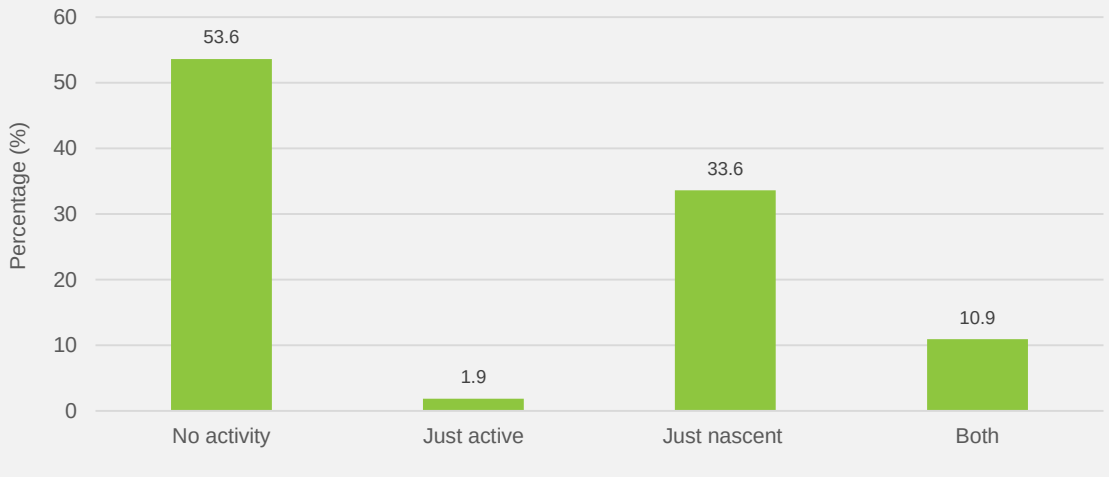
As shown below, more than 40 percent of them are in the founding process (i.e., they are nascent entrepreneurs), and very interestingly, more than 25 percent of them are currently running their own business (active entrepreneurs) and create another one at the same time. Another quarter of the "direct intentional entrepreneurs" has not started with any activity yet.

Figure 5. Entrepreneurial activities of "direct intentional entrepreneurs"



For those who intend to be an entrepreneur 5 years after completion of studies it looks a bit different: the majority has not undertaken any steps toward entrepreneurship yet; more than one third is currently in the founding process.

Figure 6. Entrepreneurial activities of "5 years intentional entrepreneurs".



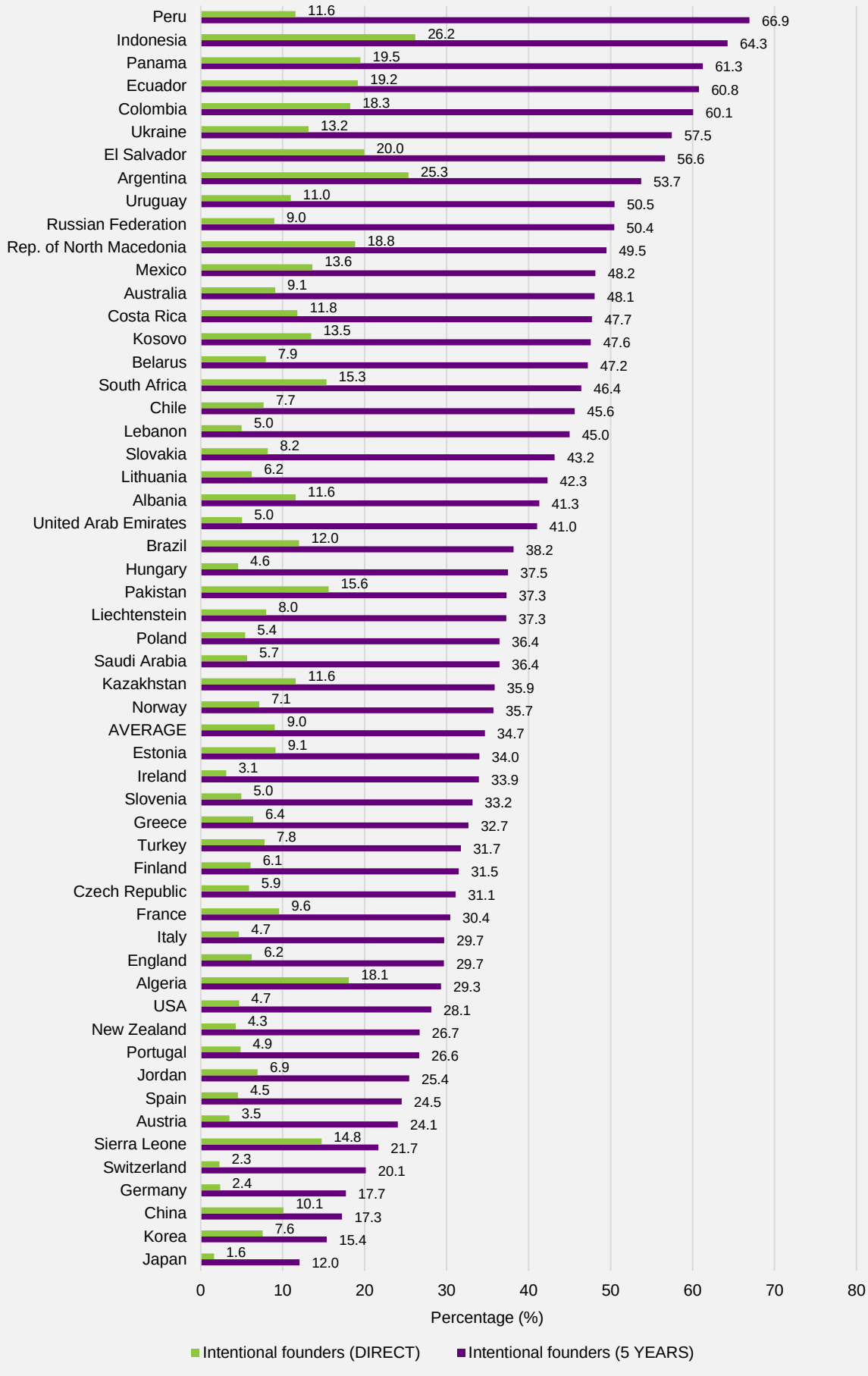
Turning to country comparisons, we look at the share of intentional founders in the 54 countries of GUESSS 2018 below.

We note that these numbers have to be interpreted with greatest caution. The 54 country samples differ considerably in terms of size, number and types of participating universities, student demographics, and so forth. Still, we see that intentional founders are particularly prominent in developing countries (and in particular, in Latin American countries).

Developed industrial countries tend to appear at the bottom of the list, which is a phenomenon already revealed in previous GUESSS editions (Sieger, Fueglistaller & Zellweger, 2014; Sieger, Fueglistaller & Zellweger, 2016).

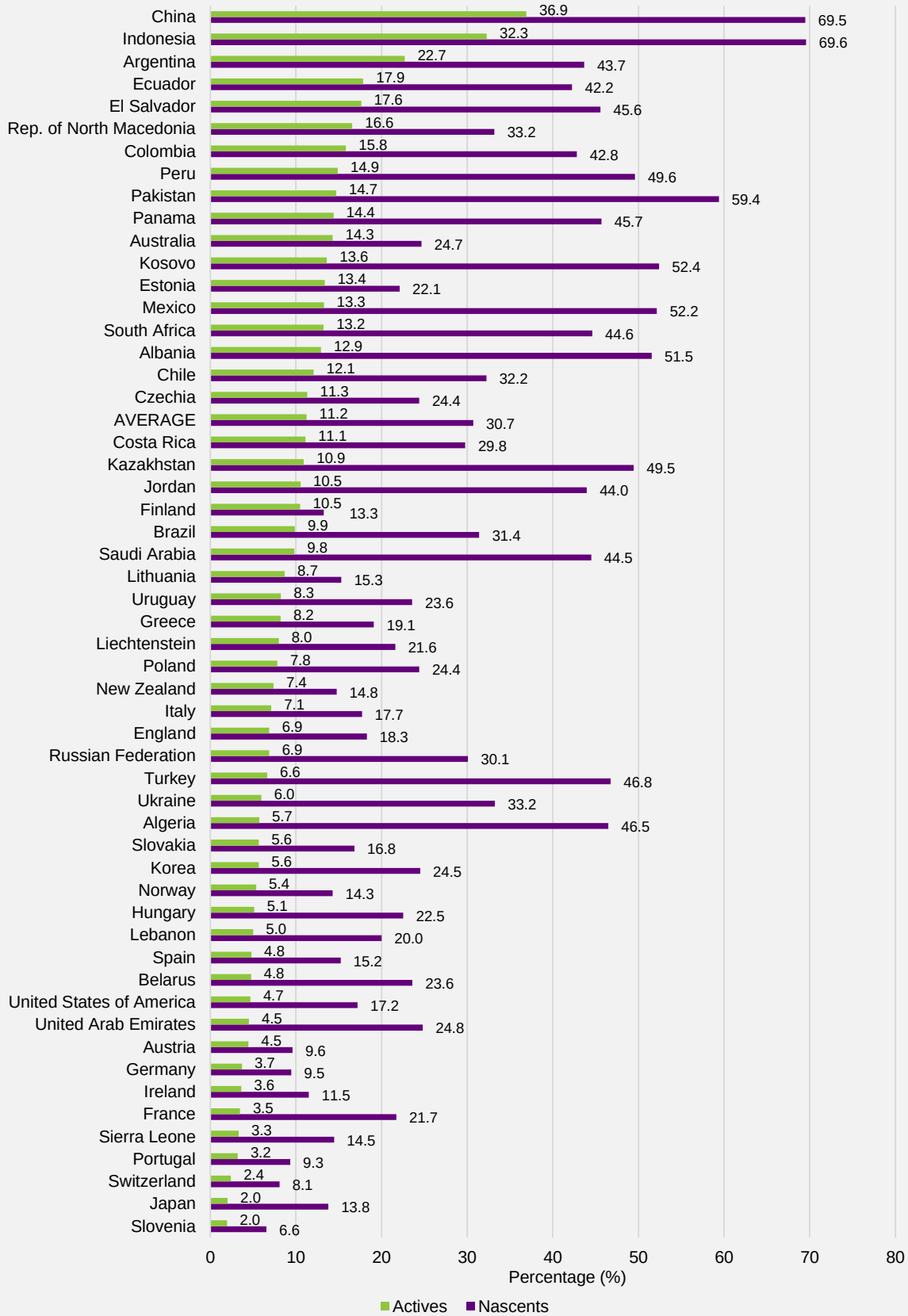
The general pattern of "first employee, then entrepreneur", however, appears in all countries independent of the level of economic development.

Figure 7. Share of intentional founders across countries.



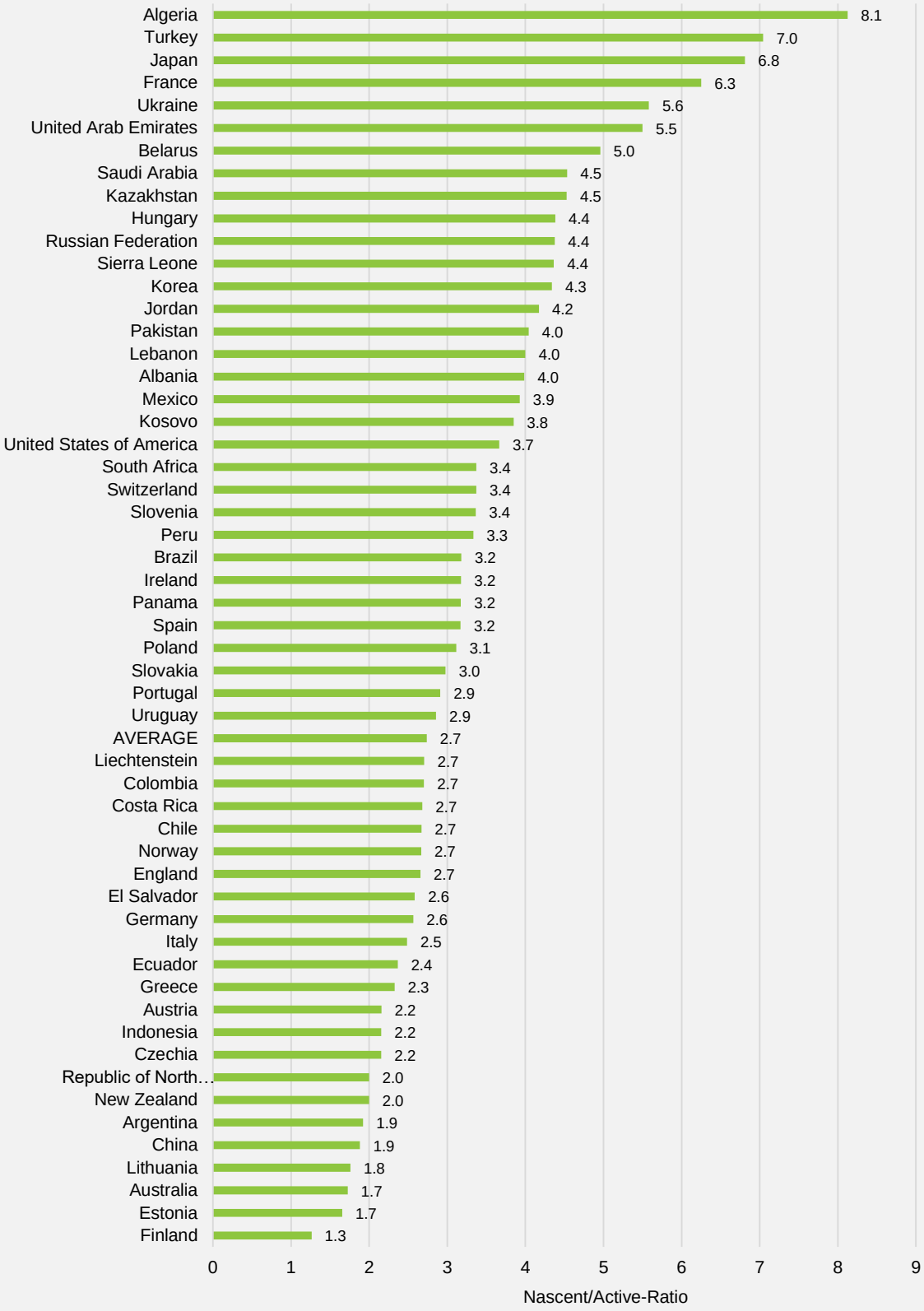
We also compare the share of nascent entrepreneurs (i.e., students who are in the process of creating their own business) and active entrepreneurs (i.e., students who are already owning and running their own business) across countries. Here, a very similar picture emerges.

Figure 8. Shares of nascent and active entrepreneurs across countries.



To assess the corresponding future trend, we also assessed the proportion of nascent versus active entrepreneurs in each country. On average, there are 2.7 nascent entrepreneurs for each active entrepreneur, with numerous countries exceeding this number considerably, which signals particularly strong entrepreneurial dynamics.

Figure 9. Proportion of nascent versus active entrepreneurs in each country.



2. Influencing Factors

2.1 The University Context

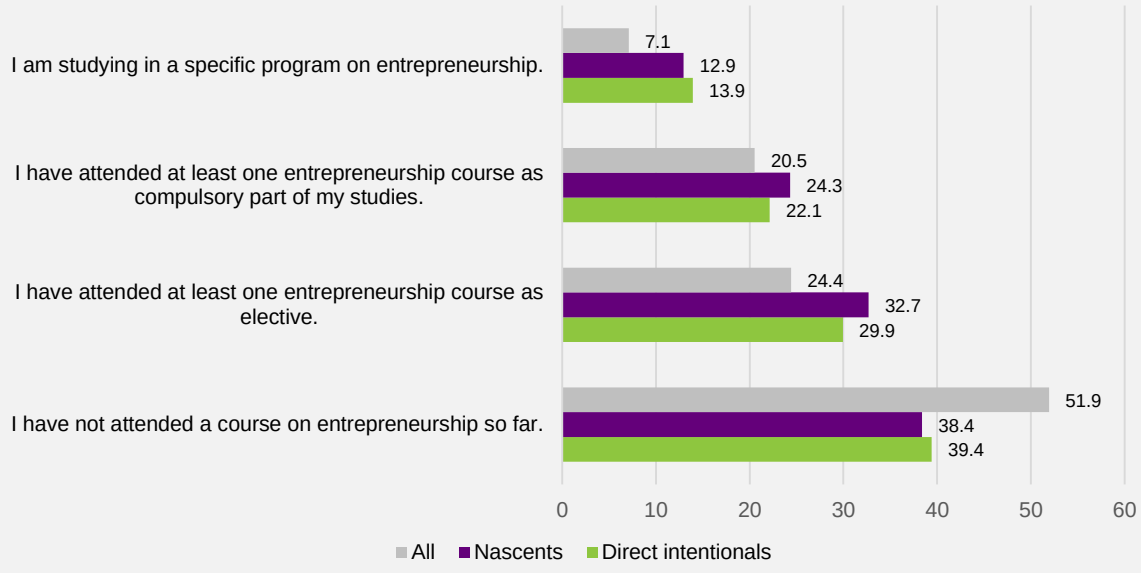
The effect of entrepreneurship education at universities on entrepreneurial attitudes and behaviors has been a core interest of research and practice for decades.

Therefore, we take a nuanced look. First, we examined the extent to which the students had attended different forms of entrepreneurship education. As the below figure shows, more than half of the students in our sample had not attended any entrepreneurship course so far. Between 20 and 25 percent, roughly, have attended elective or compulsory courses, and 7.1 percent even study in a specific program (multiple answers were possible).

Second, to assess the actual effect of entrepreneurship education, we checked whether these numbers differ when considering nascent entrepreneurs or students who intend to be entrepreneurs directly after studies, respectively.

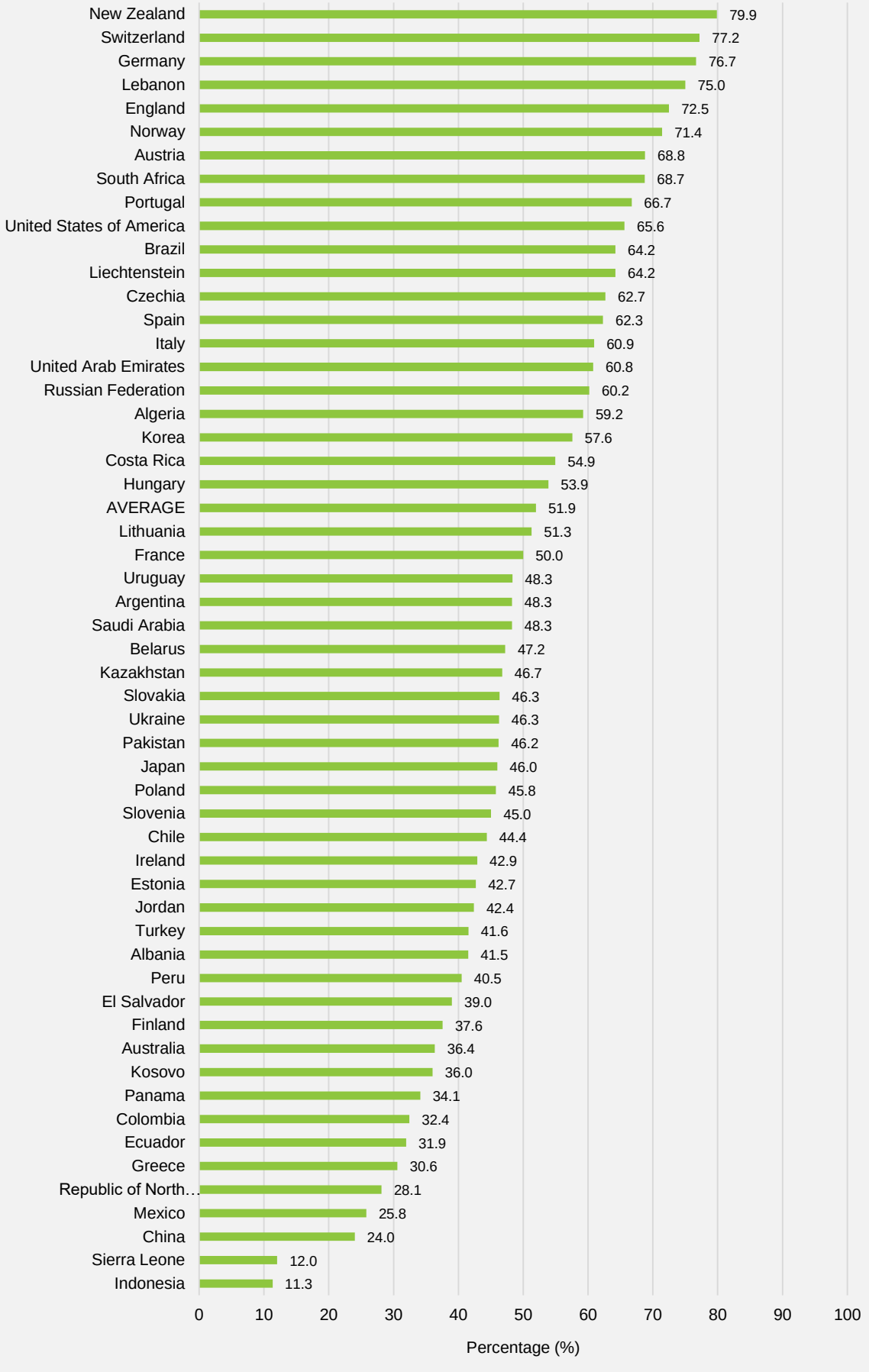
While we cannot exclude reverse causality, meaning that entrepreneurial students self-select themselves into entrepreneurship education, the numbers suggest that entrepreneurship education indeed has the desired effect as the shares of students who attended any form of entrepreneurship education are consistently higher among nascent and intentional entrepreneurs.

Figure 10. Attendance of entrepreneurship offerings among different student groups



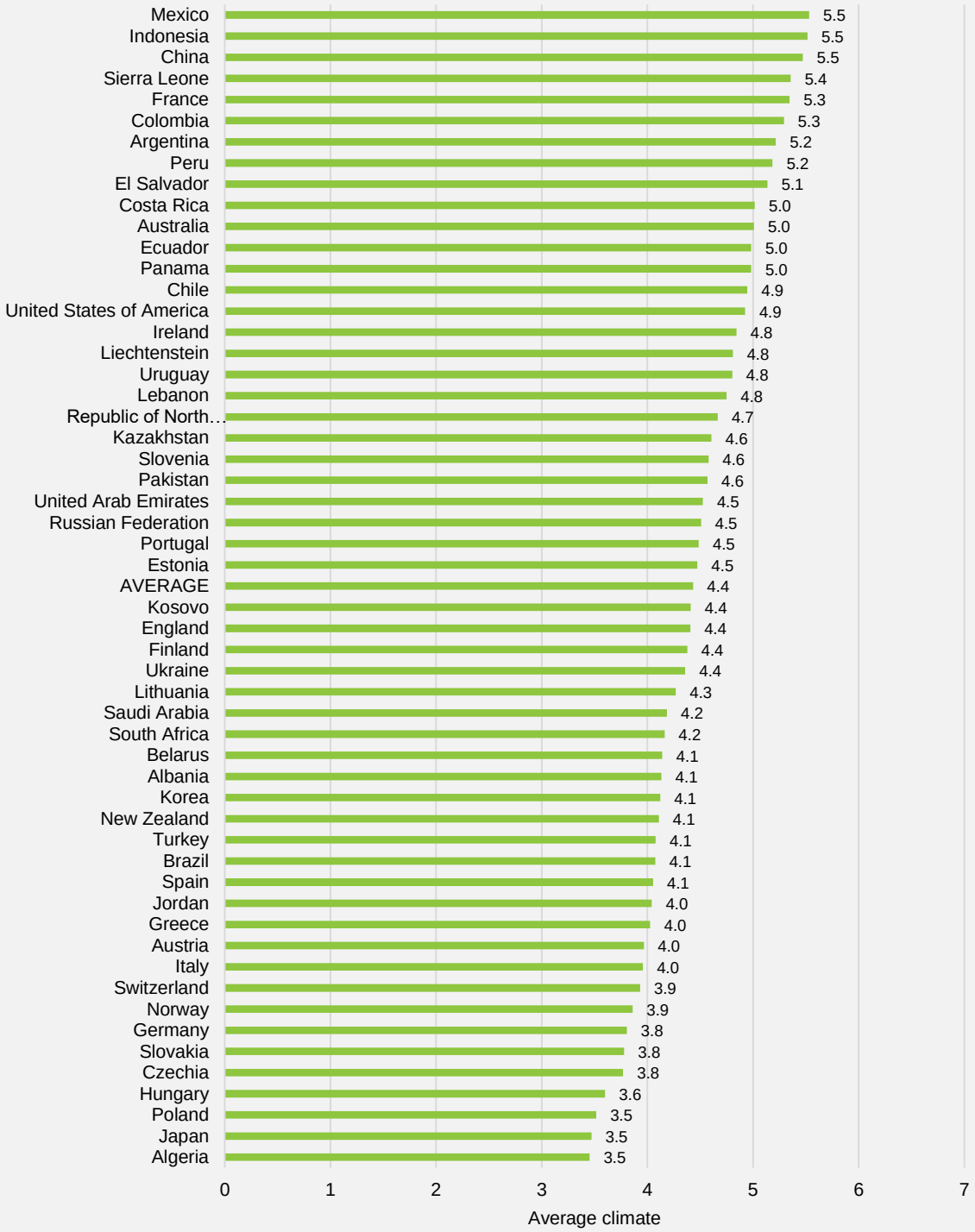
Even though the country samples differ considerably in various important aspects, as mentioned above, we draw an international comparison by sorting the 54 countries according to the share of students who have not attended any entrepreneurship-related course yet. Of course, this depends strongly on the type of universities represented in the respective samples; still, it offers interesting insights, also when it comes to interpreting other related findings.

Figure 11. Non-attendance of entrepreneurship education across countries.



How entrepreneurial is the university environment as perceived by the students across the globe? Interestingly, the global average is 4.4, which is slightly above the neutral point of our 1-7 scale.[2] Hence, there is considerable room for improvement on a general level.

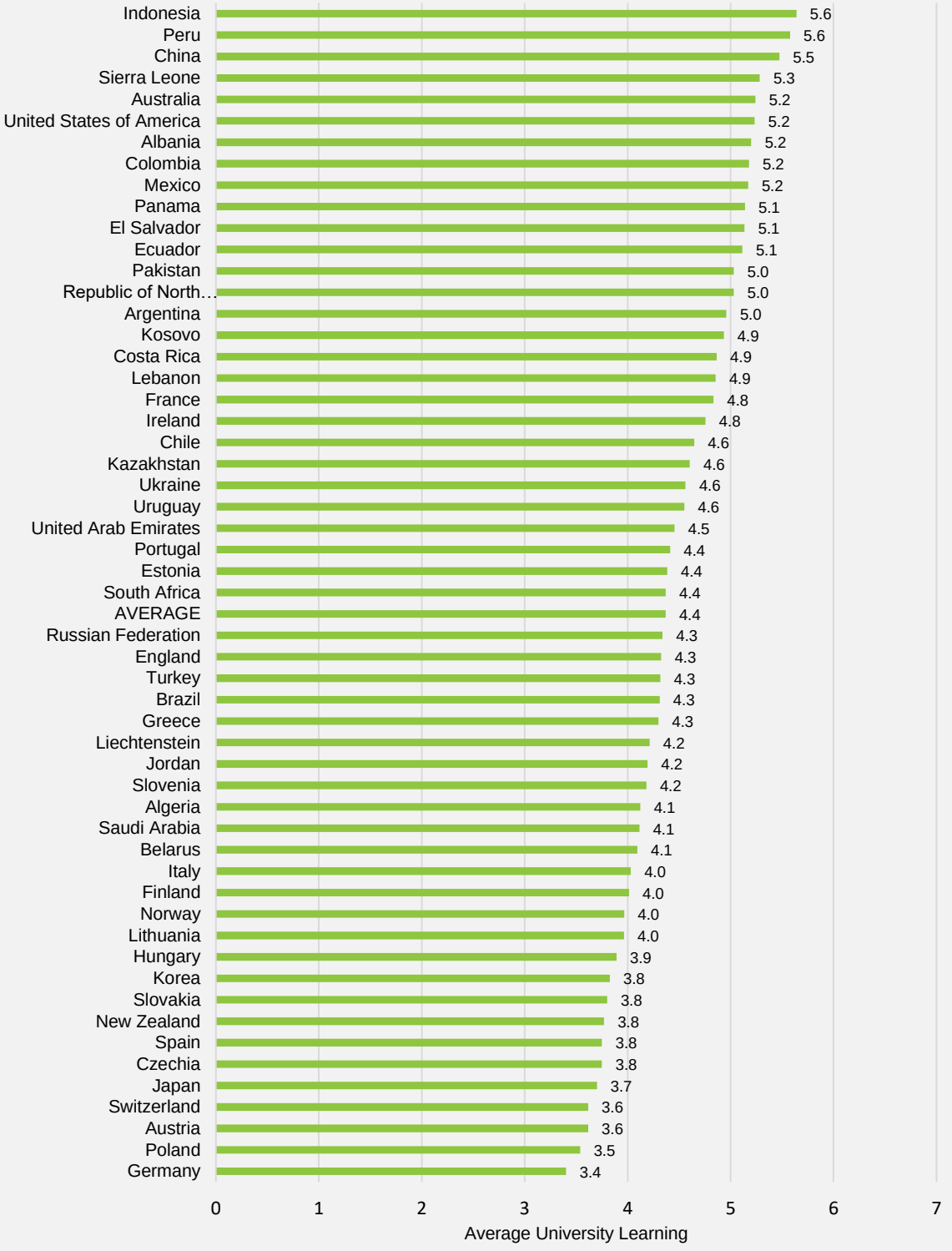
Figure 12. Average university entrepreneurial climate across countries.



[2] Based on Franke and Lüthje (2004), we used three items: “the atmosphere at my university inspires me to develop ideas for new businesses”; “there is a favorable climate for becoming an entrepreneur at my university”; and “at my university, students are encouraged to engage in entrepreneurial activities”. Students were asked to indicate the extent to which they agree with these statements (1=not at all, 7=very much).

Similarly, we looked into how the university studies in general had enhanced the students' entrepreneurial knowledge and capabilities; again, the global average is 4.4.[3]

Figure 13. University learning across countries.



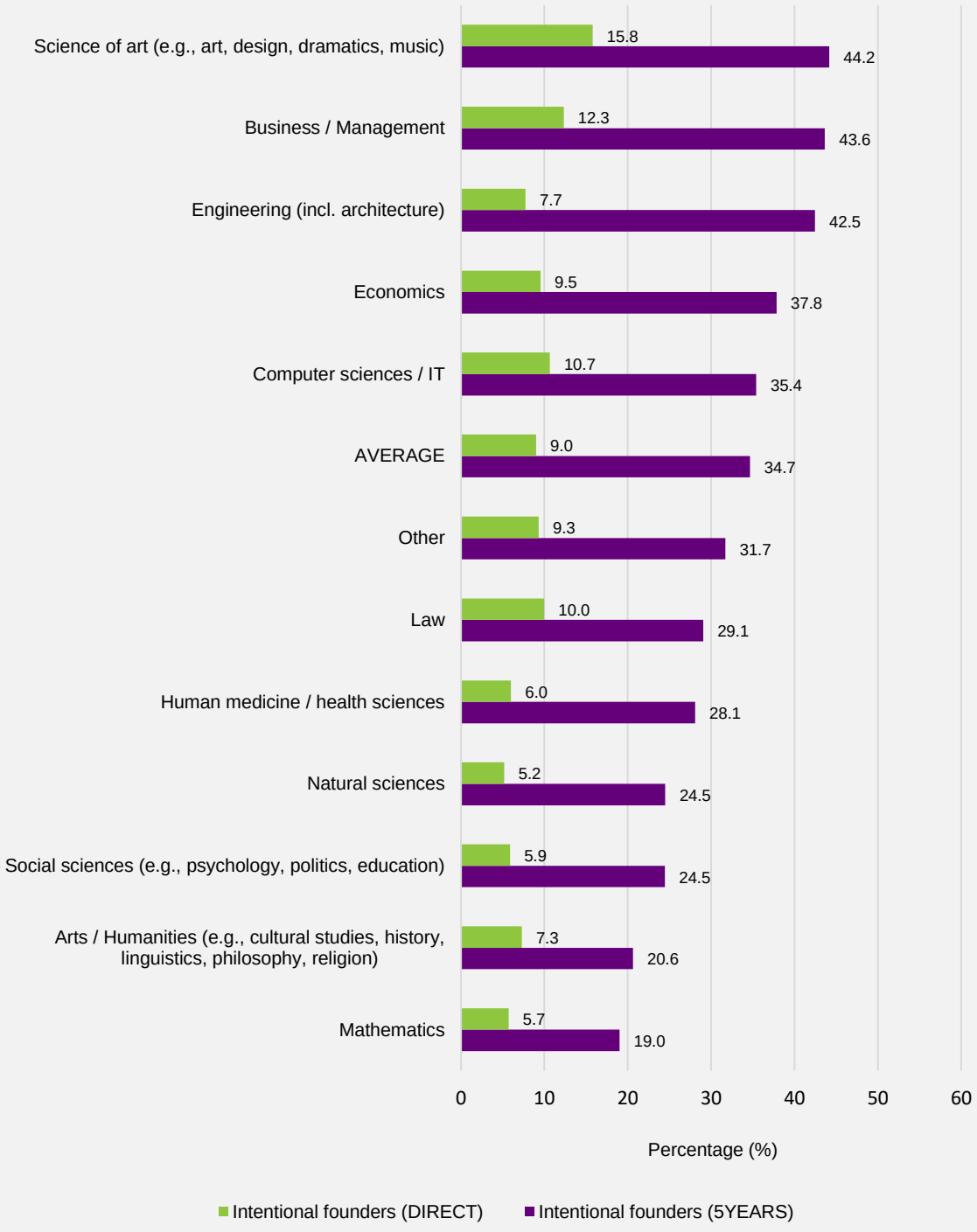
[3] Items (1=not at all; 7=very much) from Souitaris et al. (2007): the courses and offerings I attended… "increased my understanding of the attitudes, values and motivations of entrepreneurs"; "increased my understanding of the actions someone has to take to start a business"; "enhanced my practical management skills to start a business"; "enhanced my ability to develop networks"; "enhanced my ability to identify an opportunity".

2.2 Field of Study

Quite obviously, entrepreneurial intentions and activities of students strongly differ by field of study.

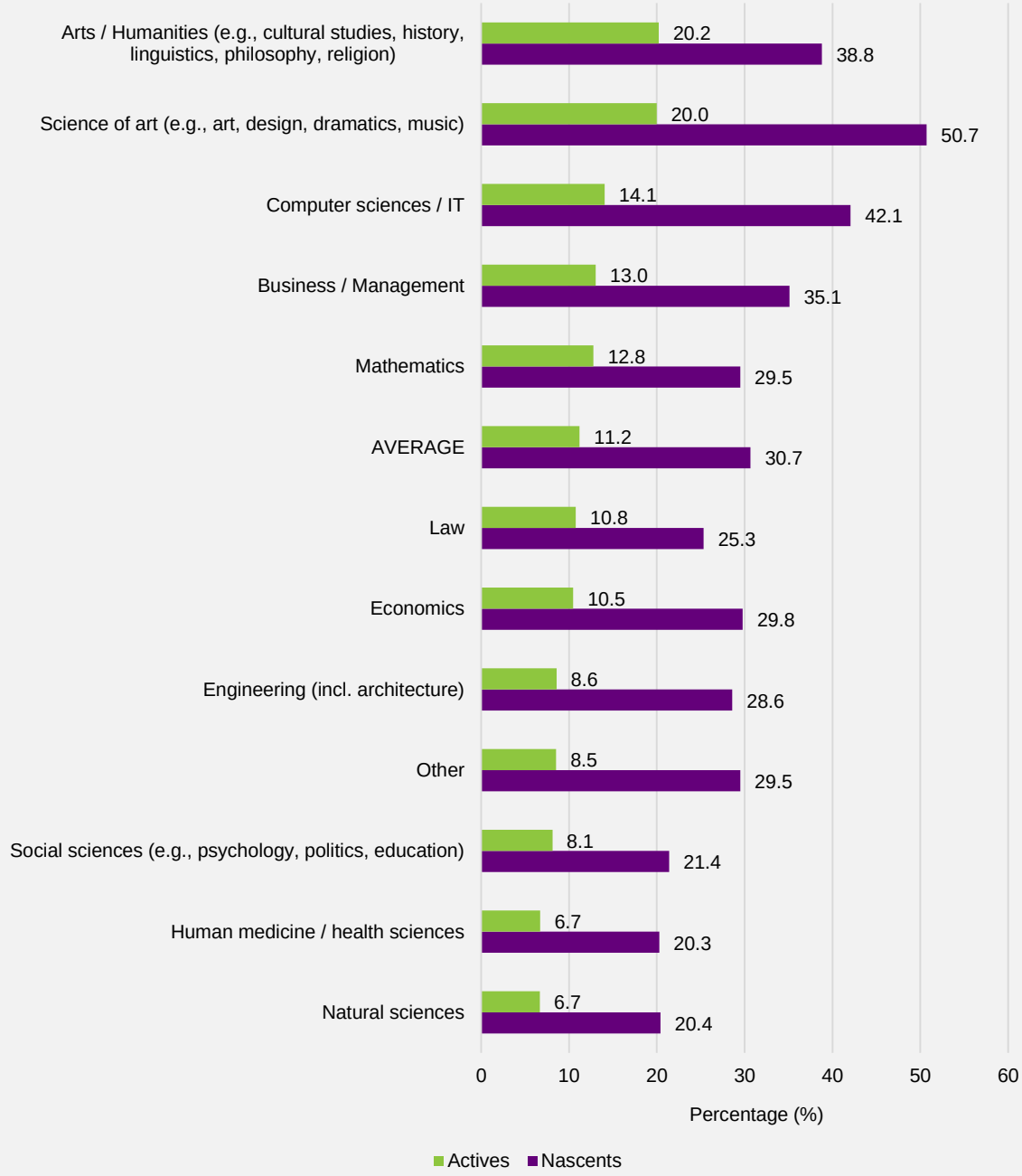
As shown below, science of art students have the strongest entrepreneurial intentions, both directly after studies and 5 years later, which might be due to the specific job profiles in this field (e.g., working as an independent freelancer) and is in line with previous GUESSS reports (Sieger et al., 2016).

Figure 14. Entrepreneurial intentions depending on field of study.



The picture when looking at the shares of active and nascent entrepreneurs depending on field of study is very similar; interestingly, the share of active entrepreneurs is highest among “arts/humanities” students.

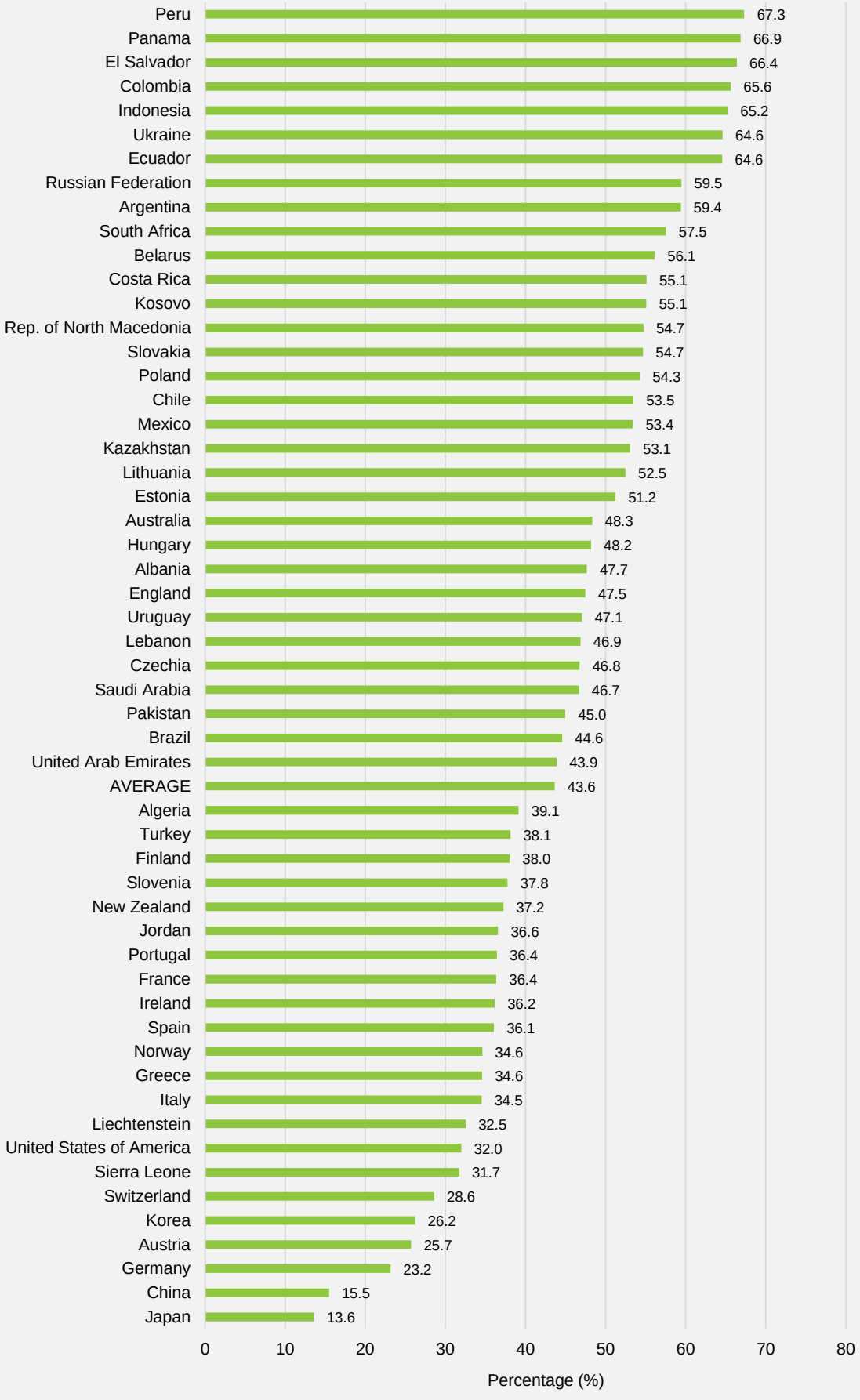
Figure 15. Nascent and active entrepreneurs depending on field of study.



To avoid any bias related to study field in the different country samples, we now only look at “Business and Management” students which constitute the largest group in our sample (24.7 percent of all students).

Looking at the share of intentional founders (5 years after studies) across all countries reveals the same pattern as in Figure 7: the highest shares occur in developing countries (especially in Latin American countries), whereby industrialized countries tend to exhibit the lowest shares.

Figure 16. Intentional founders (B&M Students) 5 years after studies across countries.

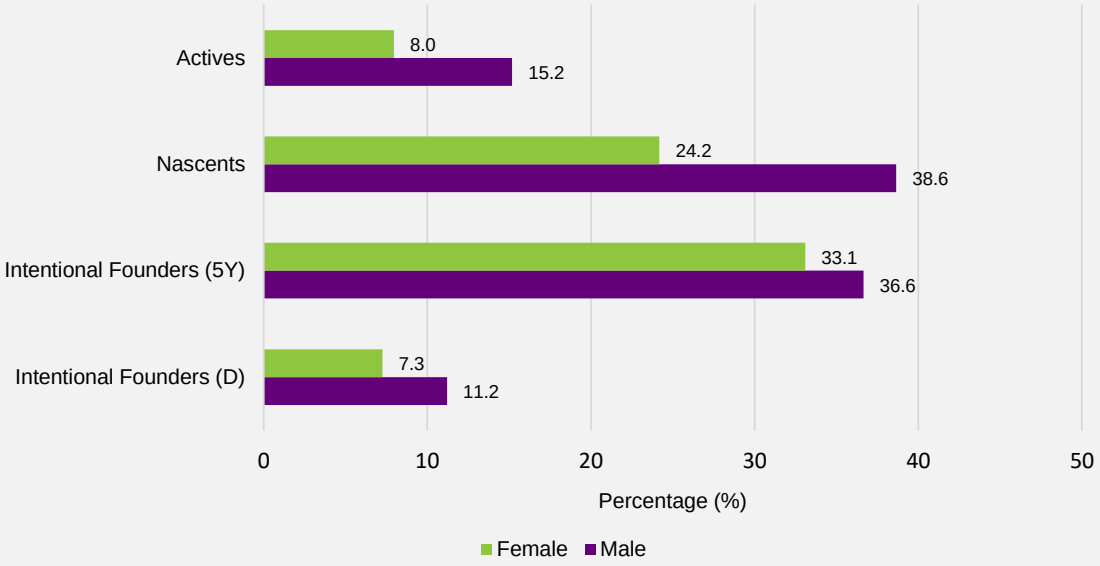


2.3 Gender

Gender is a core topic in entrepreneurship research and practice for many years. Studies generally observe that females are less likely to engage in entrepreneurship than males (Sieger et al., 2016).

In the 2018 GUESSS data, we clearly confirm this: the shares of active, nascent, and intentional entrepreneurs (both directly and 5 years after studies) are consistently smaller among females than among males, whereby the gap is quite small when looking at intentional founders 5 years after completion of studies.

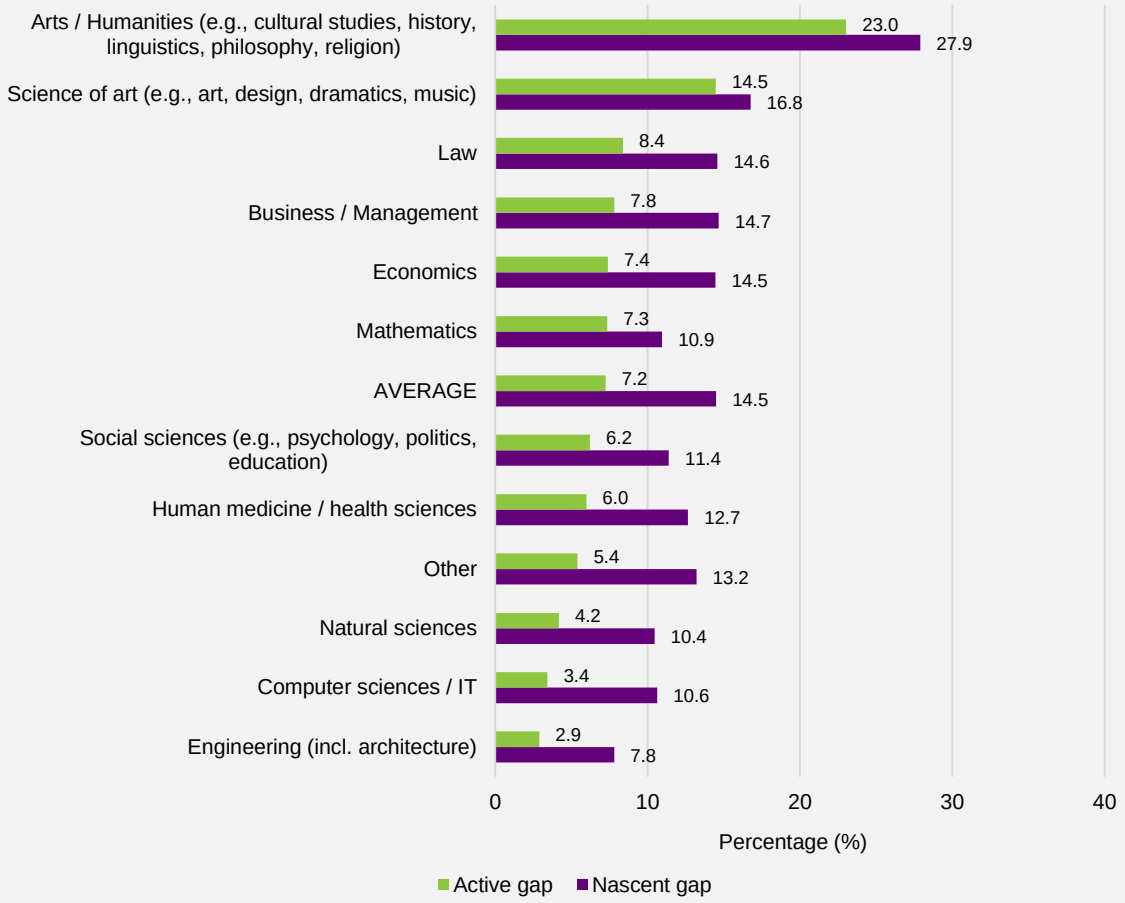
Figure 17. Gender differences among intentional, nascent, and active entrepreneurs.



Looking at the gender gap among nascent and active entrepreneurs across fields of study, we see that the gender gap always exists but varies between study fields.

For instance, among “arts / humanities” students, the share of active entrepreneurs among males is more than 20 percent higher than among females (absolute numbers). Interestingly, the gender gap is relatively small in study fields that can be regarded as rather “male-dominated”. In the natural sciences, computer sciences / IT, and in engineering, the gender gap among active entrepreneurs ranges roughly between 3 and 4 percent; among nascent entrepreneurs, the gender gap in these study fields is between 7.8 and 10.6 percent.

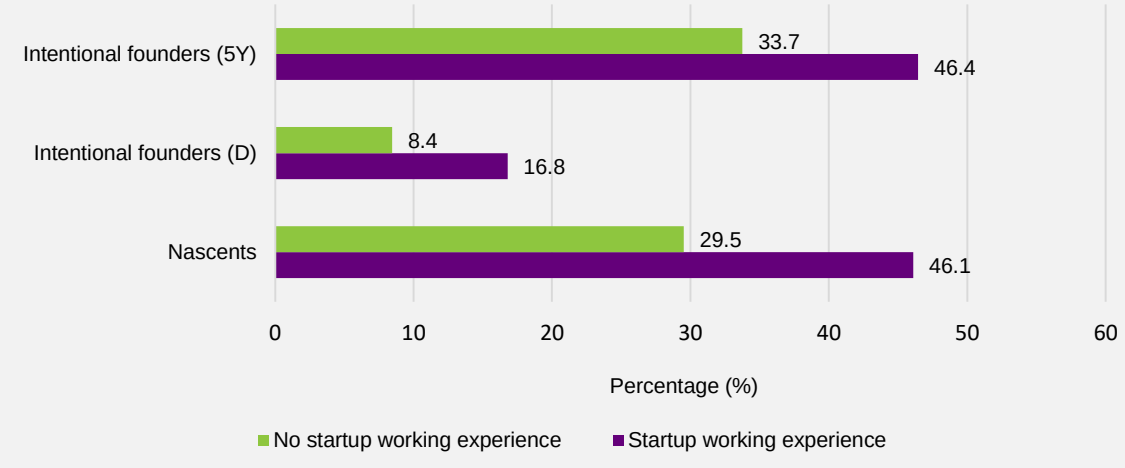
Figure 18. Gender gap among nascent and active entrepreneurs across study fields.



2.4 Startup Work Experience

Before creating an own startup, it might be worthwhile to gain experiences in the startup context as an employee. In fact, our data shows that when students are currently working in a startup, meaning in a business that has been created in the last 5 years and that is not owned by them, the shares of intentional and nascent entrepreneurs are higher (see below).

Figure 19. Shares of intentional and nascent entrepreneurs depending on startup working experience

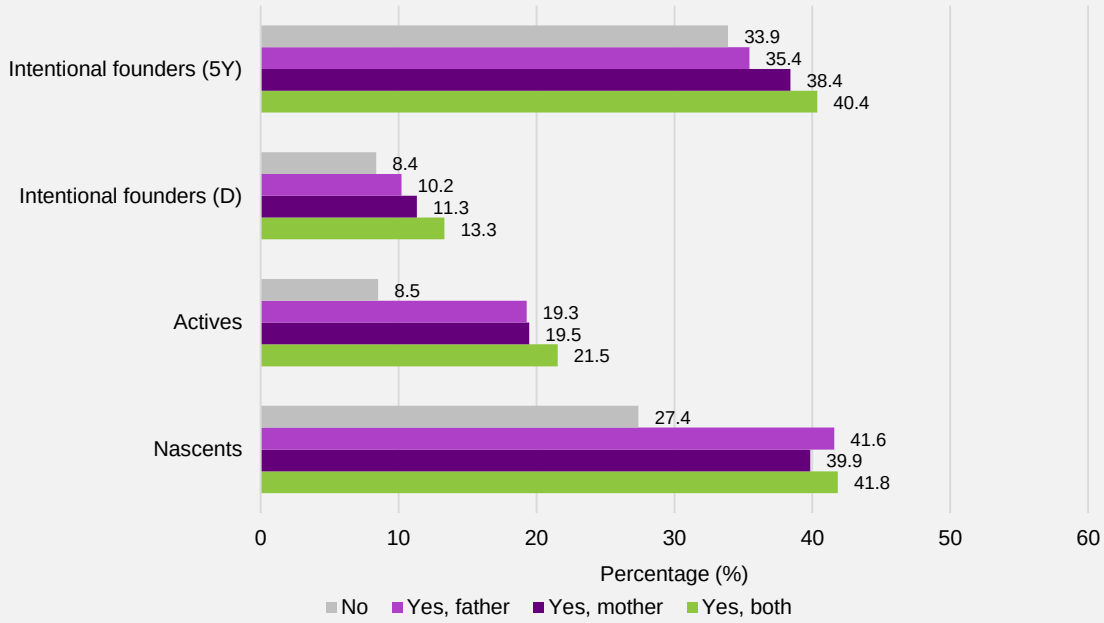


2.5 The Family Context

We take a nuanced look at the role of having entrepreneurial parents by asking students whether one of their parents or both are entrepreneurs. 13.9 percent indicated that their father is an entrepreneur (meaning that he is the majority owner of a private business); 3.7 percent indicated the same for their mother; 6.1 percent did so for both parents (total: 23.7 percent).

Looking at how this relates to the shares of intentional, nascent, and active entrepreneurs, we see that having at least one entrepreneurial parent is generally associated with higher shares. Interestingly, having an entrepreneurial mother is slightly more important than having an entrepreneurial father among intentional entrepreneurs.

Figure 20. Share of different types of founders depending on parents' entrepreneurship.

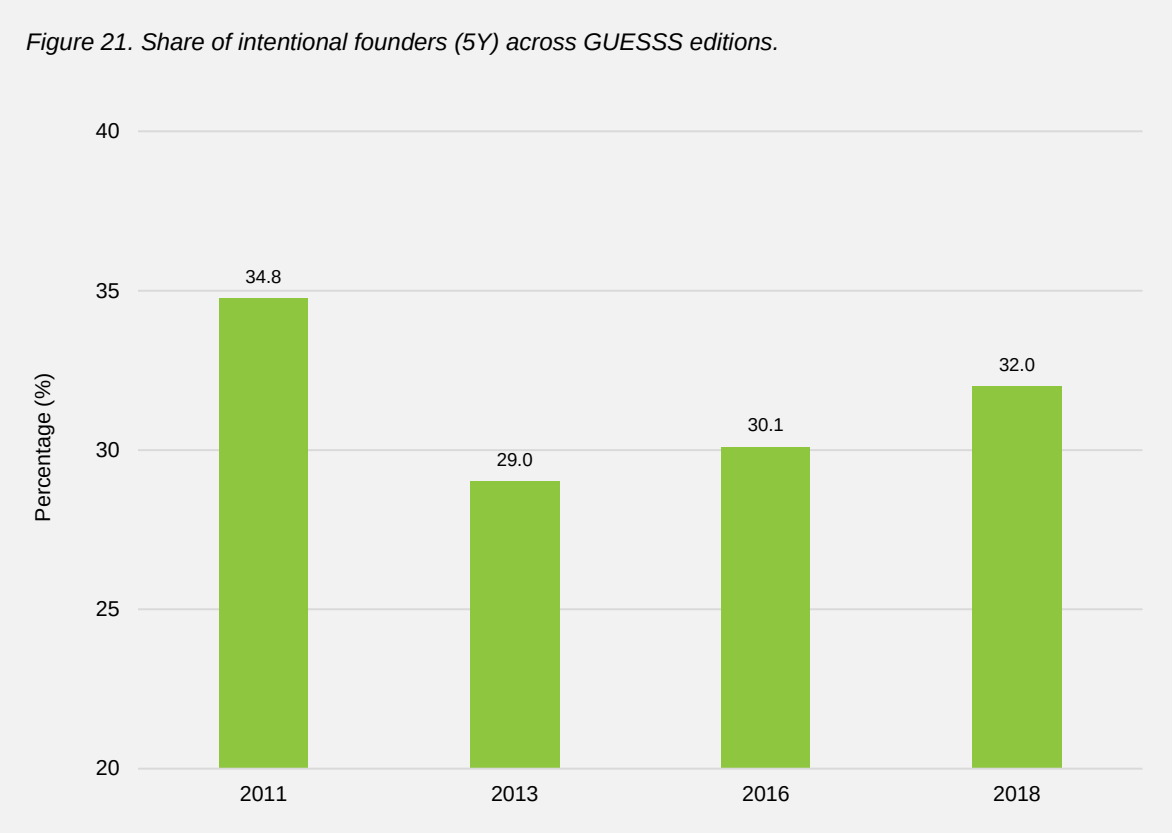


3. Entrepreneurial Intentions Across Time

How have entrepreneurial intentions developed over time? This is a very central and important question. Trying to answer it, we analyzed data from 16 countries who have participated in the last four GUESSS data collection waves (2018, 2016, 2013/14, and 2011).[4]

We see that the share of intentional entrepreneurs (referring to 5 years after completion of studies) has been the highest in 2011. After a considerable decline in the subsequent GUESSS edition, the numbers are recovering again, but have not reached the 2011 level yet.

Figure 21. Share of intentional founders (5Y) across GUESSS editions.

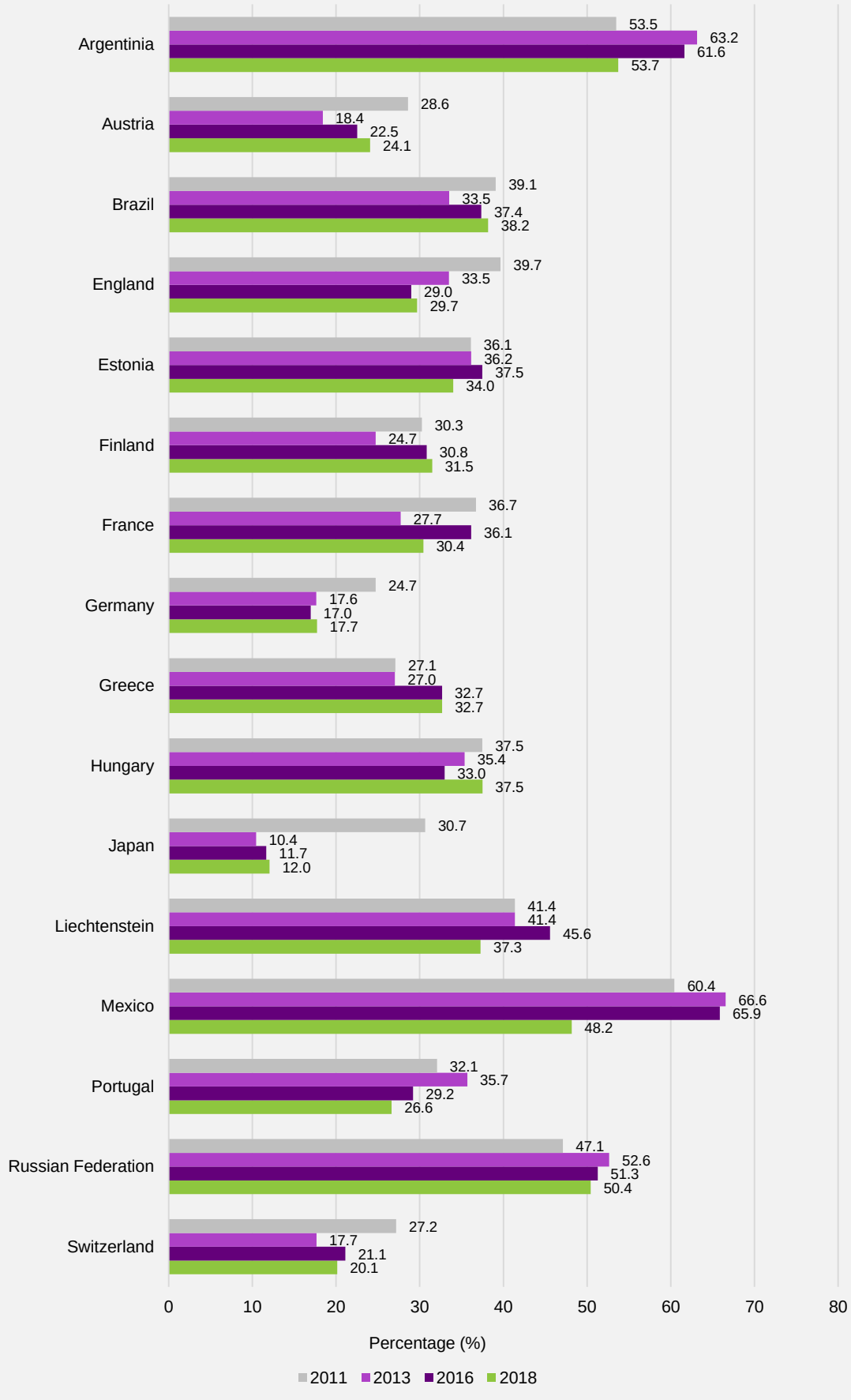


Naturally, the underlying reasons and drivers can be manifold. Therefore, it is hard to find a precise and "final" answer (see also Sieger et al., 2014; Sieger et al., 2016). Nevertheless, we carefully interpret these numbers as a good sign that the entrepreneurial spirit among students in these countries is developing in the right direction over the past few years. Obviously, more in-depth systematic research is needed here.

The same applies to the 16 investigated countries themselves. Here, we see different patterns of increasing and decreasing shares of intentional founders that call for further in-depth investigation on the country level.

[4] The number and types of participating universities within each country may vary, as does the number of responding students per university and country. However, the GUESSS country teams remained stable, so we do not assume that there is a systematic variation with regard to the data collection procedure and in particular with regard to the university recruitment strategy. Thus, we believe that our longitudinal findings are reliable and valid. Nevertheless, they have to be interpreted with great care.

Figure 22. Shares of intentional founders (5 years after studies) across countries and time.

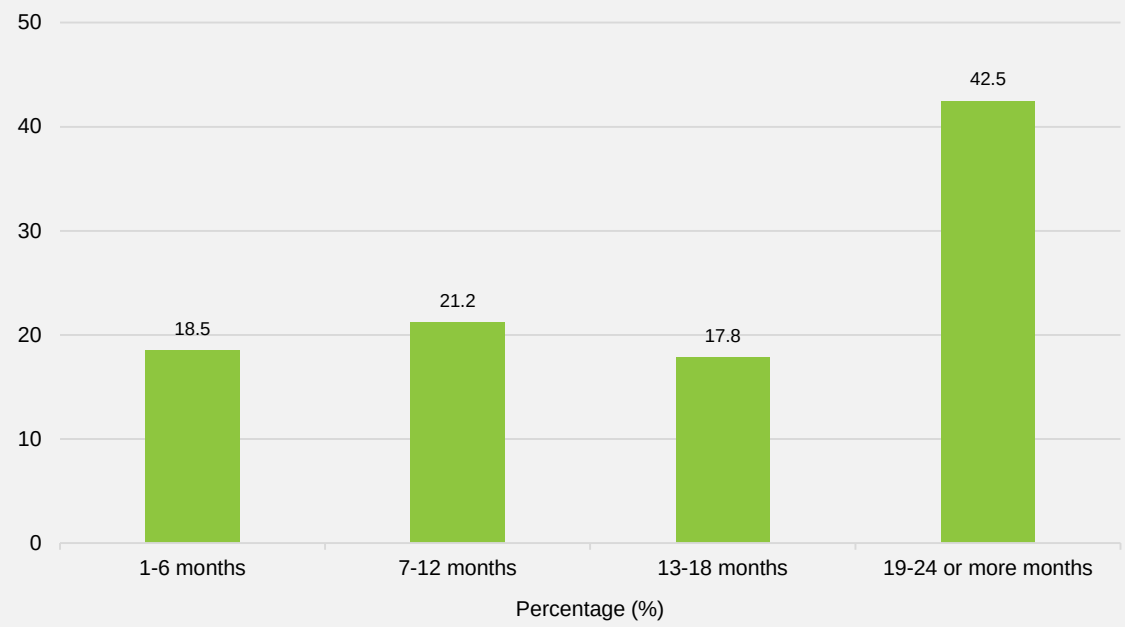


4. Nascent Entrepreneurs

A very important group are those students who are in the process of creating their own business, the so-called nascent entrepreneurs. In our sample, 30.7 percent of all students (N=64,078) indicated that this applies to them. 15.5 percent of this group have already created a business before and can thus be regarded as serial or portfolio entrepreneurs.

In general, the process of creating the business does not seem to have advanced too far in many cases. In fact, more than 40 percent of all nascent entrepreneurs indicate that they plan to complete the process of business creation in the next 19 to 24 months.

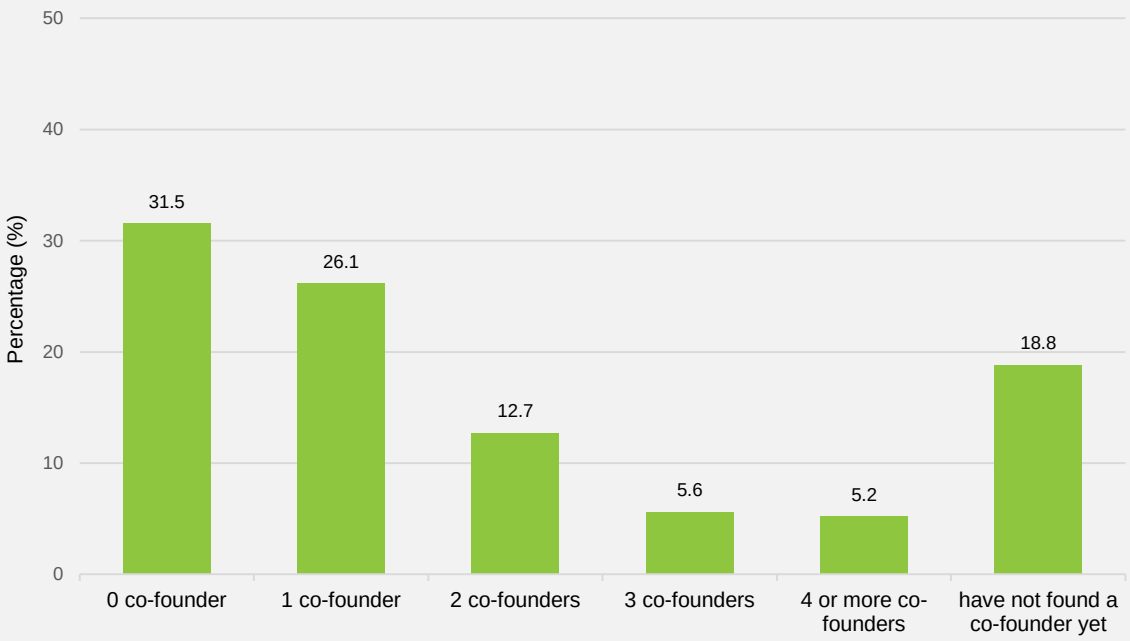
Figure 23. Time horizon of nascent entrepreneurs.



Interestingly, only 35.9 percent of the nascent entrepreneurs indicate that they plan that this business should become their main occupation after graduation. 28.7 percent said that this is not planned; 35.4 percent have not decided upon this yet.

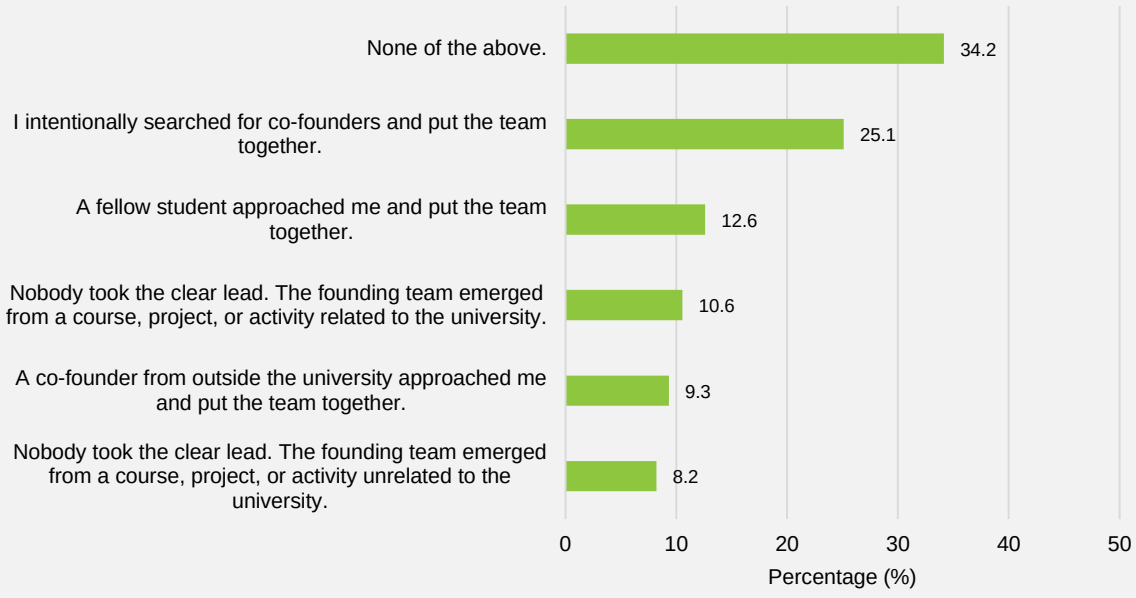
The strong relevance of entrepreneurial teams has been acknowledged in the literature already (Schjoedt et al., 2013). This is also evident in our sample, as for instance only 31.5 percent of the nascent entrepreneurs plan to create their business on their own. Also, almost 20 percent indicate that they would like to include a co-founder but have not found one yet. This indicates the relevance of networking and support offerings in order to bring together entrepreneurial teams.

Figure 24. Number of co-founders of nascent entrepreneurs.



An interesting question is how these founding teams actually emerged. Here, it is rather hard to see a pattern. The most prevalent specific answer option that we provided was an intentional search; in most cases, however, the founding teams seem to have formed in other ways.

Figure 25. Formation of entrepreneurial teams.



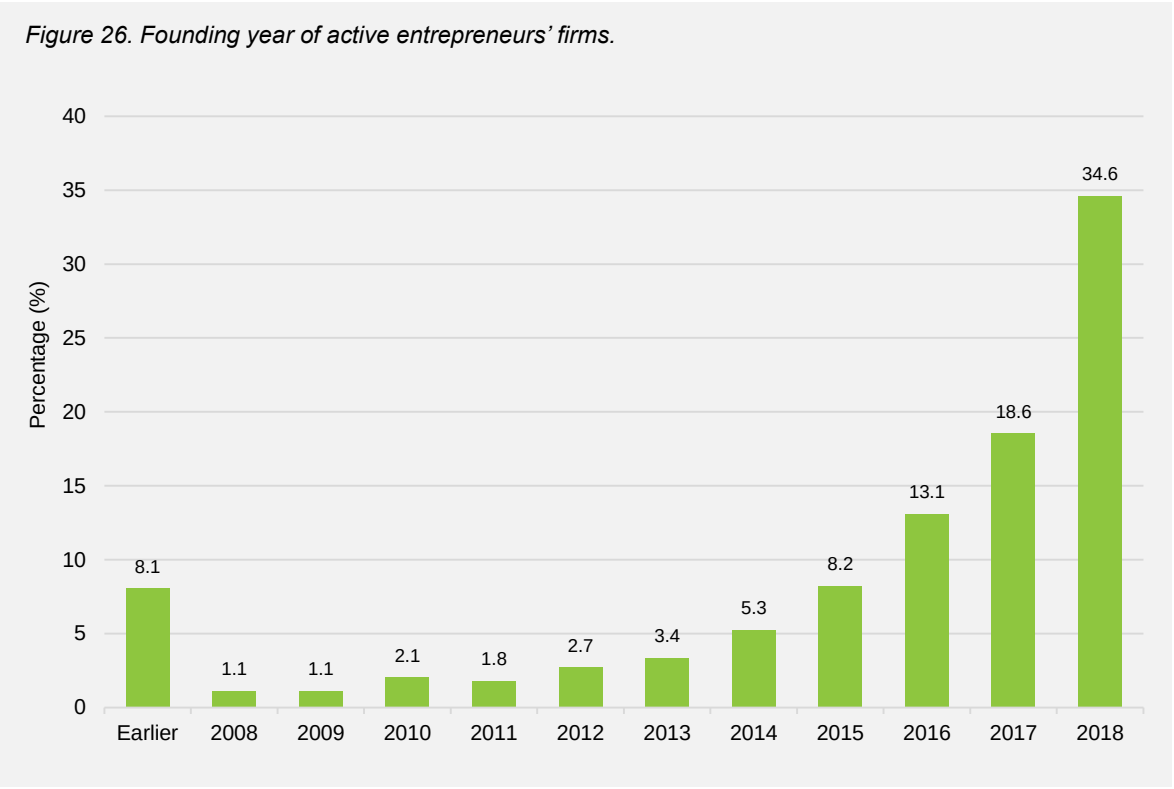
5. Active Entrepreneurs

Looking at the process of creating a business as a whole, forming entrepreneurial intentions can be regarded as the first step (i.e., the intentional entrepreneurs). Working on the actual creation of the business is the next step (i.e., the nascent entrepreneurs); and the "final stage" are the "active entrepreneurs" who have completed the founding process and are owning and running their own firm.

In our sample, we have 23,414 students who indicated that they are active entrepreneurs (11.2 percent). As shown below, the businesses they are running are very young; more than one third indicates that it has been created in 2018, and almost 20 percent say that this happened in 2017.

In addition, and not surprisingly, the businesses are very small. 22.7 percent of the firms have no employees (yet); around 30 percent have 1 or 2 employees.

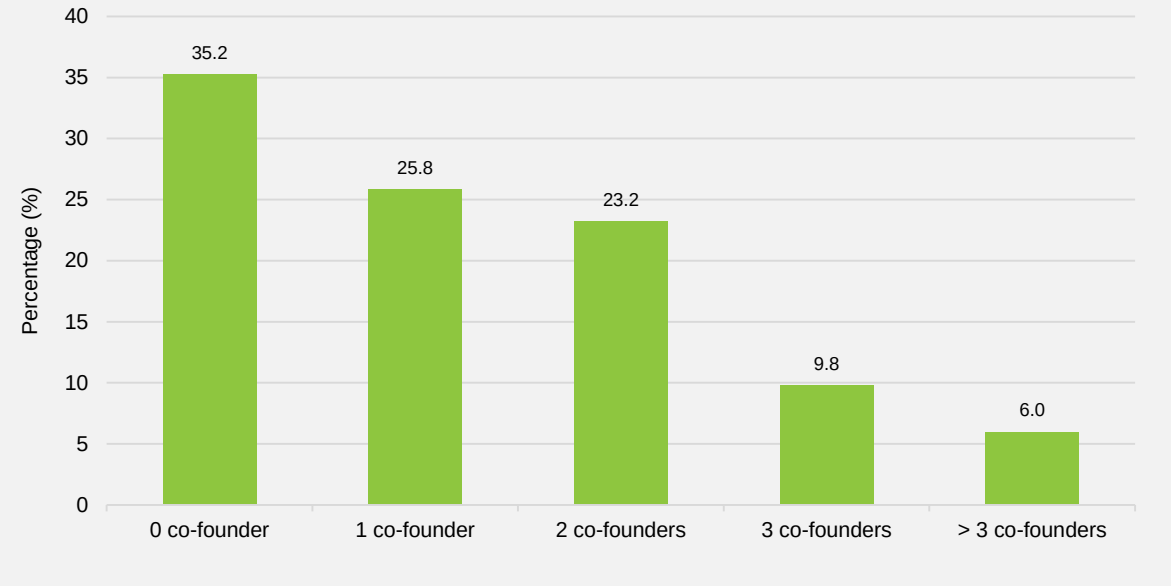
Figure 26. Founding year of active entrepreneurs' firms.



What is quite surprising is that 44.3 percent of all active entrepreneurs indicated that this business will not be their main occupation after completion of studies; put differently, the created firms might be continued on a part-time basis or might even be abandoned. Still, 24.8 percent of the entrepreneurs have not finally decided on this issue yet, and 30.9 percent plan that the business will actually be their main occupation.

Referring to the topic of co-founders, around one third of the firms have been created without a co-founder, but 49 percent of all firms have 1 or 2 co-founders. This further illustrates the relevance of co-founders in student entrepreneurship.

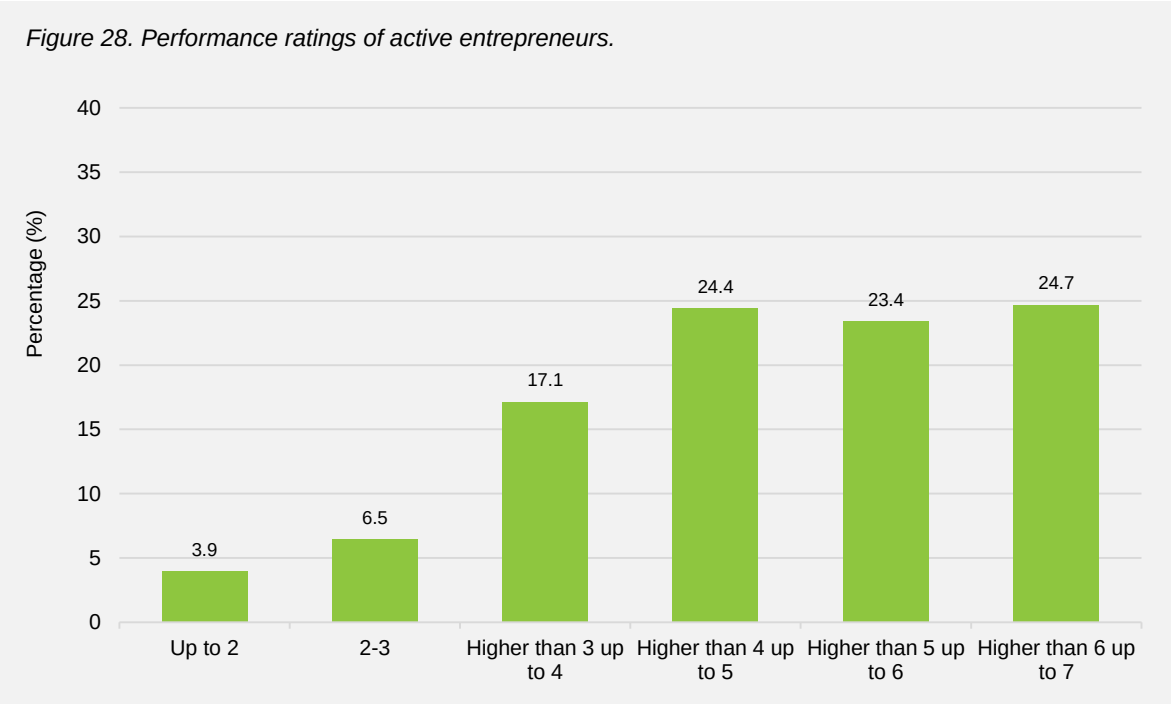
Figure 27. Number of co-founders of active entrepreneurs.



To assess how satisfied the active entrepreneurs are with the performance of their business, we asked them to rate their business' performance as compared to its competitors since its establishment in several dimensions (i.e., sales growth, market share growth, profit growth, job creation, and innovativeness) on a scale from 1 (much worse) to 7 (much better).

The average is 4.99, which is above the neutral point of the scale and therefore quite good news. The same is true for the fact that around 48 percent of the active entrepreneurs rate the performance as higher than 5.

Figure 28. Performance ratings of active entrepreneurs.



6. Recommendations

The 2018 GUESSS edition allows deducting important recommendations for different stakeholders.

Students should…

- Indeed consider becoming an entrepreneur as a promising and attractive career path. This could be creating an own business or taking over their parents' business, if existing
- Be aware of the crucial importance of finding the right co-founder(s)
- Get prepared for an entrepreneurial career as good as possible by attending university offerings, gaining first-hand insights by working in a startup as an employee, and benefit from their parents' (or other mentors') knowledge and advice
- Be aware that "first employee, then entrepreneur" makes general sense but that the opportunity costs are rising the longer they wait with starting their own business
- Keep in mind that students who have already created own ventures are quite happy with their performance

Universities and public institutions should…

- Further improve and expand entrepreneurship education offerings
- Provide an objective view on what it means to become an entrepreneur
- Keep in mind that not the number of student entrepreneurs is ultimately decisive but the number of successful student entrepreneurs, which is obviously not the same
- Actively promote entrepreneurial ecosystems and try to reduce administrative barriers to becoming an entrepreneur
- Be aware of the obvious gender gap in entrepreneurship and systematically promote female entrepreneurs in different ways

Entrepreneurship scholars should…

- Delve even deeper into the determinants of students' entrepreneurial intentions and activities
- Contextualize their research by looking at country-level factors
- Go also beyond rather "traditional" topics like entrepreneurship education by looking at, for instance, entrepreneurial teams, entrepreneurial ecosystems, founder social identities, and so forth
- Target not only entrepreneurship journals but also general management journals in order to establish entrepreneurship as a core field of research even more.

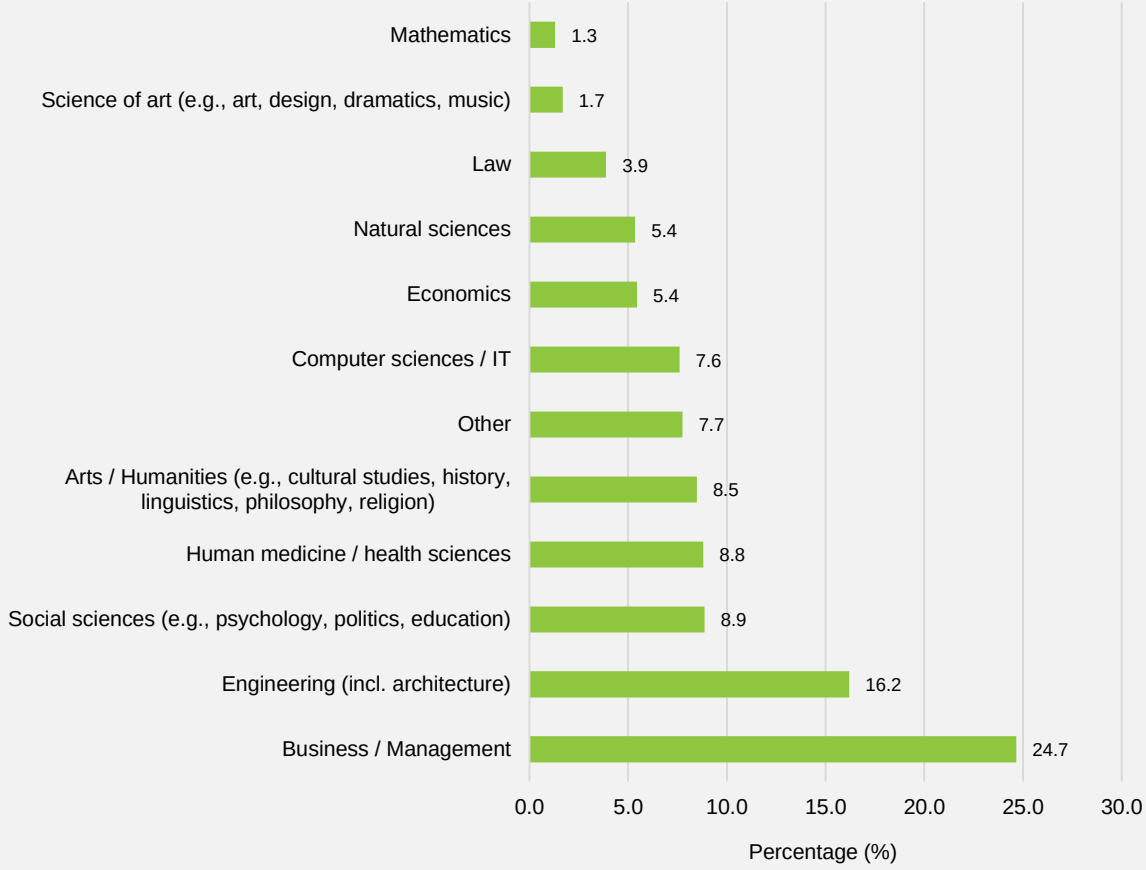
7. Further Information

7.1 The Sample

79.1 percent of the students in our sample are undergraduate (bachelor-level) students. 12.9 percent study on the graduate (master) level, 2.9 percent are PhD students, and the remaining ones are for instance MBA students.

Regarding the major field of study, business / management students constitute almost one quarter of our whole sample.

Figure 29. Share of students depending on major field of studies.



The majority of students (55.6 percent) are between 18 and 23 years old, and 54.6 percent are female.

The number of respondents and universities per country are distributed as shown in the following.

Table 1. Countries and responses.

#	Country	Number of universities	Completed responses	Valid percent
1	Albania (ALB)	5	518	0.25
2	Algeria (ALG)	10	979	0.47
3	Argentina (ARG)	26	2691	1.29
4	Australia (AUS)	1	77	0.04
5	Austria (AUT)	33	1999	0.96
6	Belarus (BLR)	15	504	0.24
7	Brazil (BRA)	143	20623	9.88
8	Chile (CHI)	30	7704	3.69
9	China (CHN)	2010	18685	8.96
10	Colombia (COL)	65	15851	7.60
11	Costa Rica (CRC)	85	7359	3.53
12	Czech Republic (CZE)	9	1254	0.60
13	Ecuador (ECU)	8	3702	1.77
14	El Salvador (ESA)	11	641	0.31
15	England (ENG)	6	465	0.22
16	Estonia (EST)	26	1303	0.62
17	Finland (FIN)	16	181	0.09
18	France (FRA)	7	230	0.11
19	Germany (GER)	25	10082	4.83
20	Greece (GRE)	32	1157	0.55
21	Hungary (HUN)	24	9667	4.63
22	Indonesia (IND)	7	1279	0.61
23	Ireland (IRL)	12	1408	0.67
24	Italy (ITA)	21	7299	3.50
25	Japan (JAP)	49	4150	1.99
26	Jordan (JOR)	29	4564	2.19
27	Kazakhstan (KAZ)	20	3425	1.64
28	Kosovo (KOS)	4	683	0.33
29	Lebanon (LBN)	1	40	0.02
30	Liechtenstein (LIE)	1	338	0.16
31	Lithuania (LTU)	24	1059	0.51
32	Mexico (MEX)	53	5173	2.48
33	New Zealand (NZL)	2	1924	0.92
34	Norway (NOR)	10	56	0.03
35	Pakistan (PAK)	17	2389	1.15
36	Panama (PAN)	8	3564	1.71
37	Peru (PER)	1	121	0.06
38	Poland (POL)	8	332	0.16
39	Portugal (POR)	26	4178	2.00
40	Republic of Korea (KOR)	19	832	0.40
41	Republic of North Macedonia (MKD)	6	398	0.19
42	Russia (RUS)	15	2851	1.37
43	Saudi Arabia (KSA)	16	1641	0.79
44	Sierra Leone (SLE)	11	332	0.16
45	Slovakia (SVK)	17	4868	2.33
46	Slovenia (SLO)	6	564	0.27
47	South Africa (RSA)	16	3515	1.68
48	Spain (ESP)	76	33278	15.95
49	Switzerland (SUI)	69	9784	4.69
50	Turkey (TUR)	25	693	0.33
51	Ukraine (UKR)	25	722	0.35
52	United Arab Emirates (UAE)	5	931	0.45
53	Uruguay (URY)	3	509	0.24
54	USA	2	64	0.03
	Total	**3191**	**208636**	**100.0**

7.2 The 2018 GUESSS Country Team Leaders

Table 2. List of country teams.

#	Country	Team Leader(s)	University
1	Albania (ALB)	Prof. Ermira Qosja	European University of Tirana
2	Algeria (ALG)	Dr. Mohammed Kerbouche	University Mustapha Istambouli Mascara
3	Argentina (ARG)	Prof. Silvia Carbonell	Universidad Austral - JAE Business School
4	Australia (AUS)	Prof. Paull Weber / Dr. Louis Geneste	Curtin University
5	Austria (AUT)	Prof. Norbert Kailer / Prof. Alfred Gutschelhofer	Johannes Kepler University Linz / University of Graz
6	Belarus (BLR)	Dr. Radzivon Marozau	Belarusian Economic Research and Outreach Center (BEROC)
7	Brazil (BRA)	Prof. Edmilson Lima	UNINOVE - Universidade Nove de Julho
8	Chile (CHI)	Prof. Gianni Romaní	Universidad Catolica del Norte
9	China (CHN)	Jing Su	Shanghai Lixin University of Accounting and Finance
10	Colombia (COL)	Prof. Claudia Alvarez	Universidad EAFIT
11	Costa Rica (CRC)	Dr. Juan Carlos Leiva	Technology Institute of Costa Rica
12	Czech Republic (CZE)	Prof. Klara Antlova	Technical University of Liberec
13	Ecuador (ECU)	Prof. Mariella Jácome Ortega	UCSG & UCACUE
14	El Salvador (ESA)	Prof. Manuel Sifontes	Universidad Dr. Jose Matias Delgado
15	England (ENG)	Prof. Robert Blackburn	Kingston University
16	Estonia (EST)	Prof. Urve Venesaar	Tallinn University of Technology
17	Finland (FIN)	Prof. Timo Pihkala	Lappeenranta University of Technology
18	France (FRA)	Prof. Alain Fayolle	EM Lyon Business School
19	Germany (GER)	Prof. Heiko Bergmann / Prof. Stephan Golla	University of St.Gallen (SUI) / Fulda University
20	Greece (GRE)	Prof. Katerina Sarri	University of Macedonia
21	Hungary (HUN)	Dr. Szilveszter Farkas / Dr. Andrea Gubik	Budapest Business School / University of Mikolc
22	Indonesia (IND)	Dr. Eko Suhartanto	Universitas Prasetiya Mulya
23	Ireland (IRL)	Dr. Eric Clinton	Dublin City University
24	Italy (ITA)	Prof. Tommaso Minola / Dr. Davide Hahn	University of Bergamo
25	Japan (JAP)	Prof. Tomoyo Kazumi	Senshu University
26	Jordan (JOR)	Dr. Omar Shubailat	German Jordanian University
27	Kazakhstan (KAZ)	Dr. Olga Sudibor	Turan University
28	Kosovo (KOS)	Dr. Ermal Lubishtani	University for Business and Technology
29	Lebanon (LBN)	Dr. Georges Samara	American University of Beirut
30	Liechtenstein (LIE)	Prof. Marco Furtner / Prof. Urs Baldegger	University of Liechtenstein
31	Lithuania (LTU)	Virginija Kargytė	Vytautas Magnus University
32	Mexico (MEX)	Prof. José Ernesto Amorós	EGADE Business School
33	New Zealand (NZL)	Prof. Rod McNaughton	University of Auckland
34	Norway (NOR)	Prof. Marina Solesvik	Western Norway University of Applied Sciences
35	Pakistan (PAK)	Dr. Altaf Hussain Samo	Sukkur IBA University
36	Panama (PAN)	Dr. Maria do les Angeles Frende Vega	Universidad de Panama
37	Peru (PER)	Prof. Jaime Serida	Universidad Esan
38	Poland (POL)	Dr. Adrianna Lewandowska	Family Business Institute Poland
39	Portugal (POR)	Prof. Rui Quaresma	University of Evora
40	Republic of Korea (KOR)	Jaelin Lee	Korea Entrepreneurship Foundation
41	Republic of North Macedonia (MKD)	Dr. Makedonka Dimitrova / Prof. Marjan Bojadjiev	University American College Skopje
42	Russia (RUS)	Prof. Galina Shirokova	St.Petersburg University - GSOM
43	Saudi Arabia (KSA)	Dr. Dalal Alrubaishi	Princess Nourah bint Abdulrahman University
44	Sierra Leone (SLE)	Dr. Alfred Mbeteh / William Conteh	University of Sierra Leone
45	Slovakia (SVK)	Dr. Marian Holienka	Comenius University in Bratislava
46	Slovenia (SLO)	Predrag Ljubotina / Dr. Valerij Dermol	International School for Social and Business Studies
47	South Africa (RSA)	Prof. Kobus Visser	University of Western Cape
48	Spain (ESP)	Prof. Antonio R. Ramos / Prof. José Ruiz-Navarro	Universidad de Cádiz
49	Switzerland (SUI)	Prof. Philipp Sieger / Prof. Rico Baldegger	Universities of Bern & St.Gallen / HEG Fribourg
50	Turkey (TUR)	Prof. Gonca Günay	Istanbul Bilgi University
51	Ukraine (UKR)	Prof. Marina Solesvik	Western Norway Univ. of Applied Sciences (NOR)
52	United Arab Emirates (UAE)	Prof. Rodrigo Basco	American University of Sharjah
53	Uruguay (URY)	Prof. Magdalena Giuria	Universidad Católica del Uruguay
54	USA	Prof. Isabel Botero	Stetson University

7.3 The GUESSS Project

GUESSS (Global University Entrepreneurial Spirit Students´ Survey) has been founded at the Swiss Research Institute of Small Business and Entrepreneurship at the University of St.Gallen (KMU-HSG) in 2003. Its research focus is on students' entrepreneurial intentions and activities.

Since 2016, the GUESSS project is jointly organized by the University of St.Gallen (Switzerland, KMU-HSG/CFB-HSG) and the University of Bern (Switzerland, IMU). The GUESSS CEO is Prof. Dr. Philipp Sieger (University of Bern). The supervisory board consists of Prof. Urs Fueglistaller (University of St.Gallen), Prof. Thomas Zellweger (University of St.Gallen), Prof. Norris Krueger, and Dr. Frank Halter (University of St.Gallen).

GUESSS is one of the largest entrepreneurship research projects in the world. With every data collection wave, GUESSS has grown and has become more internationally, culminating in the 8th edition in 2018 with 54 participating countries.

For every data collection wave, the GUESSS core team develops a comprehensive survey that meets the highest academic standards. The link to the online survey is then sent out to the different country teams. These country teams then forward the survey invitation to their own students and to the university partners they have recruited (who then also forward it to their respective students).

GUESSS data have been used for numerous studies, reports, practitioner-oriented articles, and academic publications (e.g., in renowned journals such as RP, JBV, ETP, SBE, and JSBM).

For more information about GUESSS, please visit http://www.guesssurvey.org or follow GUESSS on Research Gate (http://www.researchgate.net). Both on the GUESSS website and on Research Gate we regularly post updates, reports, and other publications.

If you are interested in participating in the next GUESSS edition in 2021 or if you have any questions, please contact Prof. Dr. Philipp Sieger (philipp.sieger@imu.unibe.ch).

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