UNIVERSITY OF HELSINKI CAREER MONITORING REPORT. MASTER'S GRADUATES 2003–2016

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CONTENTS

- Accessibility of the report
- Redesigned monitoring of graduates' employment at the University of Helsinki
  - **Career monitoring surveys of Finnish universities**
  - **Statistics by Statistics Finland**
  - **Report content and graphs used**
- Graduates of the University of Helsinki:
  - **Labour market situation after graduation**
  - **Employer sector, duties and salaries**
  - **Indicators concerning graduates five years after graduation**
  - **Qualitative correlation between education and employment**
  - **Factors affecting employment**
  - **Labour-market skills needs and skills gained from the studies**

ACCESSIBILITY OF THE REPORT

- The graphs in the report are not accessible. The key content of all graphs is described in the text.

REDESIGNED MONITORING OF GRADUATES' EMPLOYMENT AT THE UNIVERSITY OF HELSINKI

- The redesigned career monitoring report model of the University of Helsinki reports thematically on topics related to graduates' employment and careers after graduation, utilising both Statistics Finland's statistics and responses to the career monitoring surveys of Finnish universities.
- This table describes the information content of the report and the sources of information used.

Theme	Master's graduates' career monitoring for Finnish universities (graduates from 2016, survey conducted in autumn 2021)	Statistics by Statistics Finland
Labour market situation	Five years after graduation	One, three and five years after graduation (latest data for graduates of 2019, situation in 2020)
Employer sector, duties	Employer sector and primary content of duties five years after graduation	See Vipunen (status in employment)
Salary	Monthly salary five years after graduation	Mean annual income one, three and five years after graduation (latest data for graduates of 2014, situation in 2019)
Indicators concerning graduates five years after graduation	Career type Graduates with experience of unemployment Entrepreneurship/freelancing Participation in training after graduation	Degrees completed after graduation (latest data for degrees completed by the end of 2019)
Qualitative correlation between education and employment	Correspondence of job with qualifications Applicability in the current job of the skills and knowledge learned at the University Did the studies equip graduates sufficiently for working life? Satisfaction with the degree in terms of career	See Vipunen (status in employment)
Factors affecting employment	Assessment of factors affecting employment after graduation	
Labour-market skills needs and skills gained from the studies	Assessment of the skills needed in work at the time of the survey Assessment of the skills gained from the studies What skills are needed in the future?	

CAREER MONITORING SURVEYS OF UNIVERSITIES

- Nationwide career monitoring surveys:
  - Surveys of master's graduates five years after graduation
  - Surveys of doctoral graduates two or three years after graduation (three years in the most recent surveys)
- While the career monitoring group of the Aarresaari network of university career services is responsible for the surveys, universities are responsible for utilising their data.
- The data on the toissa.fi website are based on career monitoring: https://toissa.fi/en_US/home-en-us
- Further information on career monitoring: https://www.aarresaari.net/career_monitoring
- The latest master's career monitoring data: graduates of 2016 (responses October–December 2021)
- The latest doctoral career monitoring data: graduates of 2018 (responses October–December 2021)

DATA COLLECTION IN CAREER MONITORING SURVEYS

- Career monitoring surveys are sent to all those in the relevant target group.
- The target group for master's career monitoring includes all master's graduates as well as all those with a Bachelor of Science (Pharmacy) degree or a Bachelor of Arts (Education) degree in early childhood (kindergarten teacher) education.
- Doctoral career monitoring surveys are sent to all those in the relevant target group.
- Information on the target group is obtained from the national VIRTA database (which combines data from the student records of Finnish universities).
- The background variables of respondents are supplemented with information from student records (major subject, degree programme, department, faculty).
- Address details are retrieved from the Digital and Population Data Services Agency.
- The surveys were sent to respondents by SMS (if number known) or by email. Additionally, the universities distributed the survey by email to those in the target group whose details were found in alumni registers.
- The data were collected in a nationwide and central manner by Research Stats Service TUPA of Tampere University and CSC – IT Centre for Science, in collaboration with the career monitoring group of the Aarresaari career services network.
- Responses are always processed confidentially and in such a way that individual respondents cannot be identified.

RESPONSE RATE OF CAREER MONITORING SURVEYS AND REPRESENTATIVENESS OF DATA

- In recent years, the response rate of master's graduates' career monitoring surveys has become fixed at roughly 40% nationally and at the University of Helsinki. At the University of Helsinki, the response rate has remained unchanged at 42% in the past four surveys. Faculty-specific response rates differ greatly.
- In a European comparison, this response rate of roughly 40% is fairly good for career monitoring surveys conducted five years after graduation. However, the response rates of career monitoring surveys conducted earlier, from 2008 to 2014, were higher than in recent years.
- The following tables describe the response rates of the University and individual faculties in different survey years. The tables present the absolute number of responses first, followed by the response rate in parentheses.
- In the survey data, women and Finnish citizens are overrepresented and men and non-Finnish citizens underrepresented. The respondent and graduate populations are compared in the table below. The unemployed may be underrepresented in the survey data.

RESPONDENTS

- Of the respondents, 74% were women (71% of graduates).
- Of the respondents, 96% were Finnish citizens (93% of graduates).
- The average age of respondents was 31 at the time of graduation (31 for graduates).

RESPONSE RATES 1/2

Year of graduation (survey year)	Biological and Environmental Sciences	Veterinary Medicine	Pharmacy	Medicine	Agriculture and Forestry	Science	University of Helsinki
2016 (2021)	**45 (44%)**	**47 (57%)**	**56 (34%)**	**94 (35%)**	**113 (45%)**	**134 (43%)**	**1,218 (42%)**
2015 (2020)	64 (50%)	30 (45%)	63 (32%)	115 (45%)	99 (41%)	142 (42%)	1,256 (42%)
2014 (2019)	59 (44%)	26 (44%)	63 (34%)	70 (32%)	106 (43%)	121 (45%)	1,202 (42%)
2013 (2018)	72 (58%)	28 (42%)	70 (34%)	91 (38%)	116 (43%)	132 (42%)	1,242 (42%)
2012 (2017/18)	65 (52%)	21 (47%)	71 (32%)	68 (32%)	86 (38%)	131 (42%)	1,109 (40%)
2011 (2016)	39 (36%)	21 (55%)	47 (26%)	63 (30%)	75 (39%)	120 (44%)	917 (38%)
2009 (2014)	29 (54%)	32 (53%)	70 (40%)	75 (38%)	40 (44%)	72 (42%)	794 (45%)
2007 (2012)	69 (48%)	26 (63%)	100 (47%)	110 (49%)	107 (51%)	170 (53%)	1,425 (50%)
2005 (2010)	72 (52%)	30 (63%)	104 (55%)	96 (54%)	83 (43%)	153 (53%)	1,305 (51%)
2003 (2008)	83 (71%)	33 (56%)	131 (53%)	116 (63%)	117 (53%)	149 (58%)	1,478 (56%)

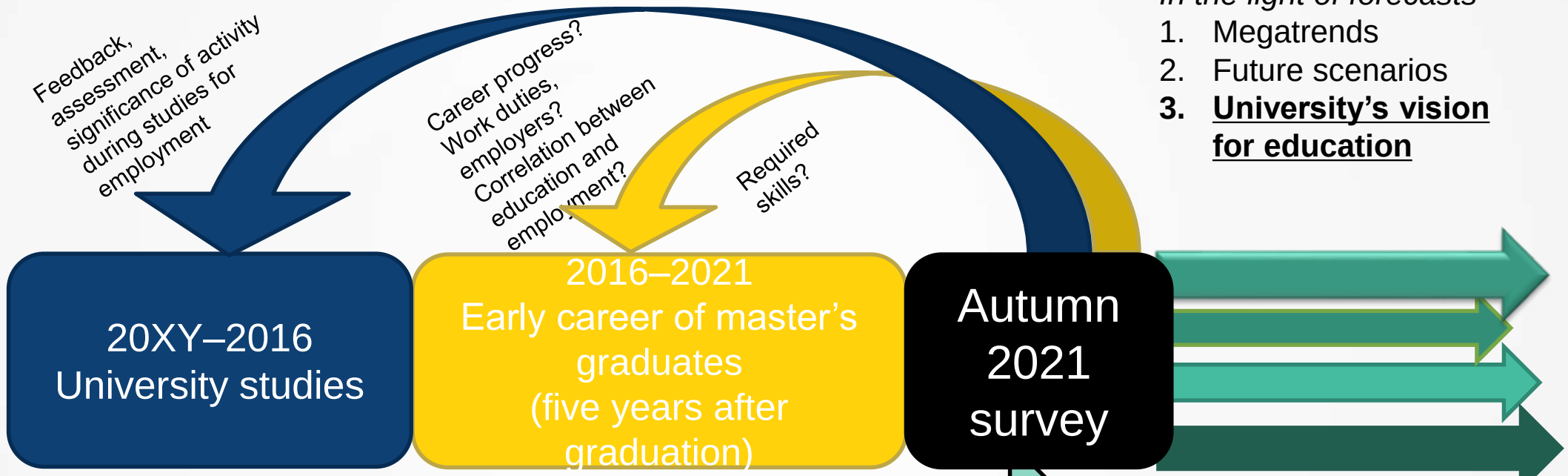
RESPONSE RATES 2/2

Year of graduation (survey year)	Arts	Educational Sciences	Law	Theology	Social Sciences	University of Helsinki
2016 (2021)	**240 (45%)**	**149 (41%)**	**88 (31%)**	**62 (42%)**	**190 (48%)**	**1,218 (42%)**
2015 (2020)	202 (42%)	180 (43%)	86 (33%)	80 (46%)	195 (49%)	1,256 (42%)
2014 (2019)	248 (47%)	169 (41%)	77 (28%)	80 (45%)	183 (46%)	1,202 (42%)
2013 (2018)	239 (42%)	169 (45%)	89 (34%)	70 (42%)	166 (47%)	1,242 (42%)
2012 (2017/18)	214 (43%)	176 (46%)	68 (29%)	65 (42%)	144 (40%)	1,109 (40%)
2011 (2016)	162 (40%)	119 (39%)	82 (34%)	52 (42%)	137 (41%)	917 (38%)
2009 (2014)	149 (47%)	115 (48%)	76 (42%)	43 (43%)	93 (48%)	794 (45%)
2007 (2012)	244 (48%)	216 (52%)	111 (42%)	85 (50%)	187 (54%)	1,425 (50%)
2005 (2010)	217 (48%)	187 (51%)	90 (45%)	85 (52%)	188 (53%)	1,305 (51%)
2003 (2008)	261 (49%)	243 (63%)	110 (50%)	62 (56%)	173 (52%)	1,478 (56%)

USE OF CAREER MONITORING SURVEYS IN THE DEVELOPMENT OF EDUCATION (E.G., MASTER'S CAREER MONITORING)

In the light of forecasts

1. Megatrends
2. Future scenarios
3. **University's vision for education**



To be analysed in the changing context:

Trends in academic education, economic and labour market developments, etc.

Cf. course feedback, Finnish Bachelor's Graduate Survey, HowULearn

STATISTICS BY STATISTICS FINLAND

- **This report focuses on statistics by Statistics Finland on the employment of graduates from 2007 to 2019. The data cover the statistical years 2008–2020.**
- Every year, the University of Helsinki purchases statistics from Statistics Finland on the employment, salaries and continuing education of graduates of the University. The reporting on the statistics by Statistics Finland uses the same classification as the reporting on the responses to career monitoring surveys.
- Description of the Transition from school to further education and work statistics (Statistics Finland, https://www.stat.fi/meta/til/sijk_en.html)
  - "These statistics examine graduates' employment and entry into further education, and their regional transition within a given time period from graduation. The phenomena are described at the end of the year according to transition to employment, unemployment, further studies, military service or other activity. In addition, the statistics describe the transition by area, industry, employer sector or other information. The statistics are produced by combining a number of Statistics Finland's individual-based data files. No surveys are conducted among graduates. […]"
  - "In accordance with the Statistics Act, the personal data from which these statistics are compiled are confidential. As a rule, the statistics produced from them are public. […]"
  - "The data are produced by combining Statistics Finland's individual-based total data files. Data on those who have completed qualifications are produced from Statistics Finland's Register of Completed Education and Degrees. Data on further education are produced from Statistics Finland's individual-based student data and data on employment and labour force from Statistics Finland's employment statistics. The employment statistics are compiled from several registers and, in addition to Statistics Finland's registers, the biggest ones are the Population Information System of the Population Register Centre, various Tax Administration's data, state and municipal employment relationship and pension registers, private sector employment and service relationship registers, and so on."
  - The results of career monitoring surveys and the transition statistics of Statistics Finland are partly available in the Vipunen – Education Statistics Finland portal. The classification used for reporting in Vipunen differs to some extent from that used by the University of Helsinki.

CAREER MONITORING AT THE UNIVERSITY OF HELSINKI

- The University of Helsinki uses the data obtained from career monitoring surveys and the employment statistics of Statistics Finland, for example, to develop education, guide and supervise students, monitor careers and conduct research.
- Since 2016, career monitoring and the tracking of graduates' employment have been conducted at the University through cooperation between several units. Career Services was previously responsible for coordinating the surveys, but this responsibility shifted to Strategic Services for Teaching in early 2019.
- Composition of the University's project group for career monitoring in the 2021–2022 academic year:
  - Eric Carver, Strategic Services for Teaching (group leader)
  - Aki Hagelin, Institutional Research and Analysis
  - Jarkko Immonen, Career Services
  - Kati Salmivaara, Communications
  - Kirsi Korpiaho, Research Services
  - Jonas Lindholm, Institutional Research and Analysis
  - Tarja Tuononen, Centre for University Teaching and Learning (HYPE)
  - Minnis Vierikko, alumni relations

ABOUT THE REPORT CONTENT

- The report focuses on the results of the latest career monitoring survey, conducted in autumn 2021.
- The target group of the nationwide survey consisted of the master's graduates of 2016 and those who completed a Bachelor of Science (Pharmacy) degree or a Bachelor of Arts (Education) degree in early childhood (kindergarten teacher) education in 2013.
- The report also uses the results of previous career monitoring surveys (graduates of 2003–2016) to enable temporal comparison.
- The results of the University of Helsinki are reported in accordance with the faculty structures that took effect in early 2017. In practice, this means that psychology and logopedics graduates are included in the results for the Faculty of Medicine, and phonetics and cognition science graduates are included in the results for the Faculty of Arts.
- When making comparisons between faculties, it should also be taken into account that those who completed a Bachelor of Science (Pharmacy) degree or a Bachelor of Arts (Education) degree in early childhood education are included in their faculties' results.
- While the University-level report compares faculties, faculty reports compare groups of disciplines within each faculty.
- The reporting on the statistics by Statistics Finland focuses on the placement of graduates in professional life from 2007 to 2019. The data cover the statistical years 2008–2020.
- The sources of information are specified in the tables and graphs (career monitoring surveys and Statistics Finland).

NOTES ON THE GRAPHS USED IN THE REPORT (CAREER MONITORING SURVEYS)

- The reporting of the employer sector and the primary nature of employment are based on a model in which only the 4–6 largest categories of response options are displayed. All other responses are categorised under ‘Other’. This solution facilitates interpreting the graphs and identifying the key response options.
- The University-level report on the career monitoring of master’s graduates mainly uses the results of the latest survey only. The faculty reports add up the responses of respondents in 2014, 2015 and 2016. This enables the more detailed reporting of results in fields with fewer graduates and survey respondents each year.
- In the case of six- and seven-level questions, the responses are reported by classifying them so that response options 4–6 (fully agree, agree, somewhat agree) add up. This same principle has been used also in the breakdown of responses in comparisons between faculties and disciplines.

LEGEND

Symbol	Meaning
	The value has increased from the previous survey, and the change is statistically significant.
	The value has changed from the previous survey, but the change is statistically insignificant.
	No change between surveys (change below one percentage point)
	The value has decreased from the previous survey, but the change is statistically insignificant.
	The value has decreased from the previous survey, and the change is statistically significant.

GRADUATES' LABOUR MARKET SITUATION AFTER GRADUATION

- From among graduates of 2017–2018 one year after graduation (Statistics Finland, statistical years 2018–2019)
  - 86% employed (both employed and students in employment*)
  - 4% unemployed
  - 3% full-time students
  - 4% other or unknown (most of whom have emigrated), 3% emigrated

Labour market situation of graduates of 2016 in autumn 2021 (career monitoring)

- 95% employed, 1% unemployed and 4% outside the labour force
- The share of gainfully employed graduates in the workforce 99%.
- Employed are classified by type of employment: permanent full-time job 61%; fixed-term full-time job 18%; part-time job 6%; independent entrepreneur/self-employed/freelancer 4%; several employment relationships in parallel 3%; and working with a grant 1%.

* Students in employment are persons with an employment contract and a right to complete a degree.

LABOUR MARKET SITUATION AFTER GRADUATION (STATISTICS FINLAND)

- In the light of Statistics Finland's statistics, the employment rate of recent graduates is good. The majority of graduates are employed (69%) or students in employment (17%) one year after graduation. It makes sense to combine students in employment and employed individuals (69% + 17% = 86%), as the former are in employment relationships and also have a right to complete a degree.
- The share of unemployed is fairly low at 4%. However, there are great faculty-specific differences. The rate of unemployment is highest among the graduates of the Faculty of Biological and Environmental Sciences (11%), the Faculty of Arts (8%) and the Faculty of Theology (8%).
- There are significant differences between Finnish and non-Finnish citizens. Non-Finnish citizens are significantly more likely to emigrate after graduation (the group of Emigrated and a large part of the group Other or unknown have emigrated). In addition, the employment rate of non-Finnish citizens who have remained in Finland is poorer than that of Finnish citizens (share of employed of the labour force living in Finland).

LABOUR MARKET SITUATION ONE YEAR AFTER GRADUATION BY FACULTY, GRADUATION YEARS OF 2017 AND 2018

Faculty	Employed	Students in employment	Unemployed	Students	Other or unknown	Emigrated
Theology (301)	66%	12%	8%	5%	6%	2%
Law (550)	75%	16%	2%	2%	3%	3%
Medicine (481)	75%	19%	0%	2%	2%	1%
Arts (861)	68%	13%	8%	2%	5%	3%
Science (568)	57%	24%	4%	2%	6%	7%
Pharmacy (400)	63%	26%	2%	6%	2%	2%
Biological and Environmental Sciences (283)	52%	25%	11%	4%	5%	3%
Educational Sciences (818)	77%	17%	1%	2%	2%	1%
Social Sciences (755)	68%	13%	4%	2%	7%	6%
Agriculture and Forestry (489)	69%	13%	6%	2%	7%	4%
Veterinary Medicine (132)	88%	8%	1%	1%	0%	3%
UH (5,665)	**69%**	**17%**	**4%**	**3%**	**4%**	**3%**

LABOUR MARKET SITUATION BY NATIONALITY, GRADUATES OF 2012–2015

Labour market situation	One year after graduation		Three years after graduation		Five years after graduation	
Nationality	Finland	Other	Finland	Other	Finland	Other
Employed	65%	25%	66%	21%	68%	21%
Students in employment	17%	13%	19%	16%	17%	14%
Unemployed	8%	5%	6%	3%	4%	4%
Ratio of gainfully employed graduates to the entire labour force	**91%**	**89%**	**94%**	**93%**	**96%**	**90%**
Students	4%	7%	3%	4%	3%	3%
Other or unknown	3%	25%	4%	28%	4%	25%
Emigrated	2%	25%	4%	28%	5%	33%
Number:	10,911	664	10,911	664	10,911	664

LABOUR MARKET SITUATION OF GRADUATES OF 2015 AND 2016 AT THE TIME OF THE SURVEY (CAREER MONITORING SURVEYS)

Share [%]	UH 2021 (N = 1,207)	UH 2020 (N = 1,249)	All universities 2021 (N = 6,771)
Permanent full-time job	61%	59%	68%
Fixed-term full-time job	18%	19%	14%
Part-time job	6%	5%	3%
Independent entrepreneur/self-employed/freelancer	4%	3%	3%
Several employment relationships in parallel	3%	2%	1%
Working with a grant	1%	2%	1%
Family leave (from an employment relationship)	2%	4%	4%
Employed, total	**95%**	**93%**	**94%**
Labour force training or similar	0%	0%	1%
Unemployed job seeker	1%	2%	0%
Unemployed, total	**1%**	**2%**	**1%**
Full-time studies	1%	3%	2%
Family leave (no employment relationship)	2%	1%	1%
Outside the labour force	0%	0%	0%
Other	1%	1%	1%
Outside the labour force, total	**4%**	**5%**	**4%**

LABOUR MARKET SITUATION OF GRADUATES OF 2016 AT THE TIME OF THE SURVEY (CAREER MONITORING SURVEY 2021)

Share [%]	Biological and Environmental Sciences (45)	Veterinary Medicine (47)	Pharmacy (54)	Arts (239)	Educational Sciences (148)	Medicine (93)	Agriculture and Forestry (112)	Science (133)	Law (86)	Theology (62)	Social Sciences (186)	UH (1,207)
Permanent full-time job	51%	53%	65%	52%	61%	48%	64%	69%	74%	56%	71%	61%
Fixed-term full-time job	24%	9%	15%	18%	23%	27%	12%	15%	16%	15%	16%	18%
Part-time job	2%	15%	2%	5%	2%	10%	4%	2%	1%	5%	2%	6%
Independent entrepreneur/self-employed/freelancer	0%	13%	2%	6%	1%	4%	4%	4%	0%	5%	1%	4%
Several employment relationships in parallel	2%	0%	0%	0%	1%	3%	2%	1%	0%	2%	0%	3%
Working with a grant	7%	0%	2%	6%	1%	0%	1%	2%	0%	3%	2%	1%
Family leave (from an employment relationship)	4%	11%	9%	5%	6%	8%	7%	4%	6%	8%	5%	2%
Employed, total	**91%**	**100%**	**94%**	**92%**	**94%**	**100%**	**94%**	**96%**	**98%**	**94%**	**97%**	**95%**
Unemployed job-seeker	0%	0%	2%	2%	0%	0%	0%	1%	0%	0%	2%	1%
Labour force training or similar	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	0%	0%
Unemployed, total	**0%**	**0%**	**2%**	**2%**	**0%**	**0%**	**1%**	**1%**	**0%**	**2%**	**2%**	**1%**
Full-time studies	9%	0%	2%	3%	2%	0%	2%	2%	1%	3%	0%	1%
Family leave (no employment relationship)	0%	0%	0%	0%	2%	0%	1%	1%	0%	0%	1%	2%
Outside the labour force	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Other	0%	0%	2%	2%	2%	0%	2%	0%	1%	0%	1%	1%
Outside the labour force, total	**9%**	**0%**	**4%**	**6%**	**6%**	**0%**	**4%**	**3%**	**2%**	**5%**	**1%**	**4%**

EMPLOYER SECTOR, DUTIES AND SALARIES (CAREER MONITORING SURVEY 2021)

- Most common employer sectors
  - Company, total 33%
  - Municipality or joint municipal authority, 27%
  - State, 13%
  - Organisation, foundation, congregation or similar (third sector), 11%
  - University, 8%

- Most common nature of duties
  - Work with customers/patients, 17%
  - Education, 15%
  - Planning, development or administrative duties, 15%
  - Research, 11%

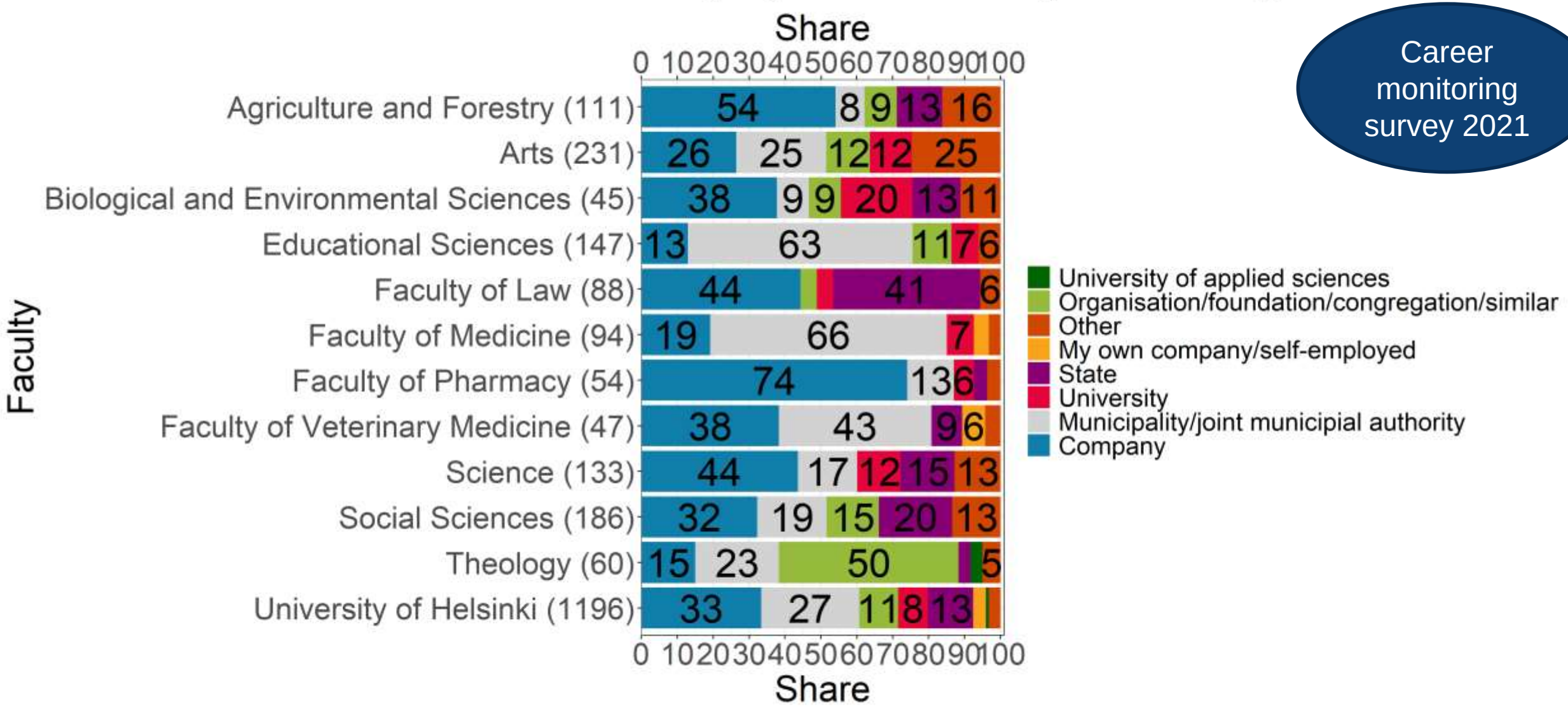
- Median monthly salary €3,700

EMPLOYER SECTOR AND DUTIES

- The private sector (33%) was clearly the largest employer of University of Helsinki graduates of 2016 and the municipal sector the second largest (27%). With a share of roughly 10% each, the state, the third sector and universities are also significant employers of University graduates.
- Of the options for best describing the nature of work duties, those most commonly reported by respondents were work with customers/patients (17%), education (15%), planning, development or administrative duties (15%) and research (11%).
- Faculty profiles differ considerably in terms of both the employer sector and the primary nature of duties.
- The importance of the private sector is particularly emphasised among the graduates of the Faculty of Pharmacy (74%) and the Faculty of Agriculture and Forestry (54%). The municipal sector is particularly emphasised in the Faculty of Medicine (66%) and the Faculty of Educational Sciences (63%). The third sector is the most important employer for graduates of the Faculty of Theology (50%).
- In contrast, graduates of the Faculty of Arts and the Faculty of Social Sciences work in an extremely broad range of sectors and fulfil a wide range of duties.
- Work with customers or patients was clearly the most significant primary nature of duties for graduates of the Faculty of Veterinary Medicine (81%) and the Faculty of Medicine (81%). Planning, development and administrative duties, and research, are key duties for graduates of several faculties.

Employer sector five years after graduation

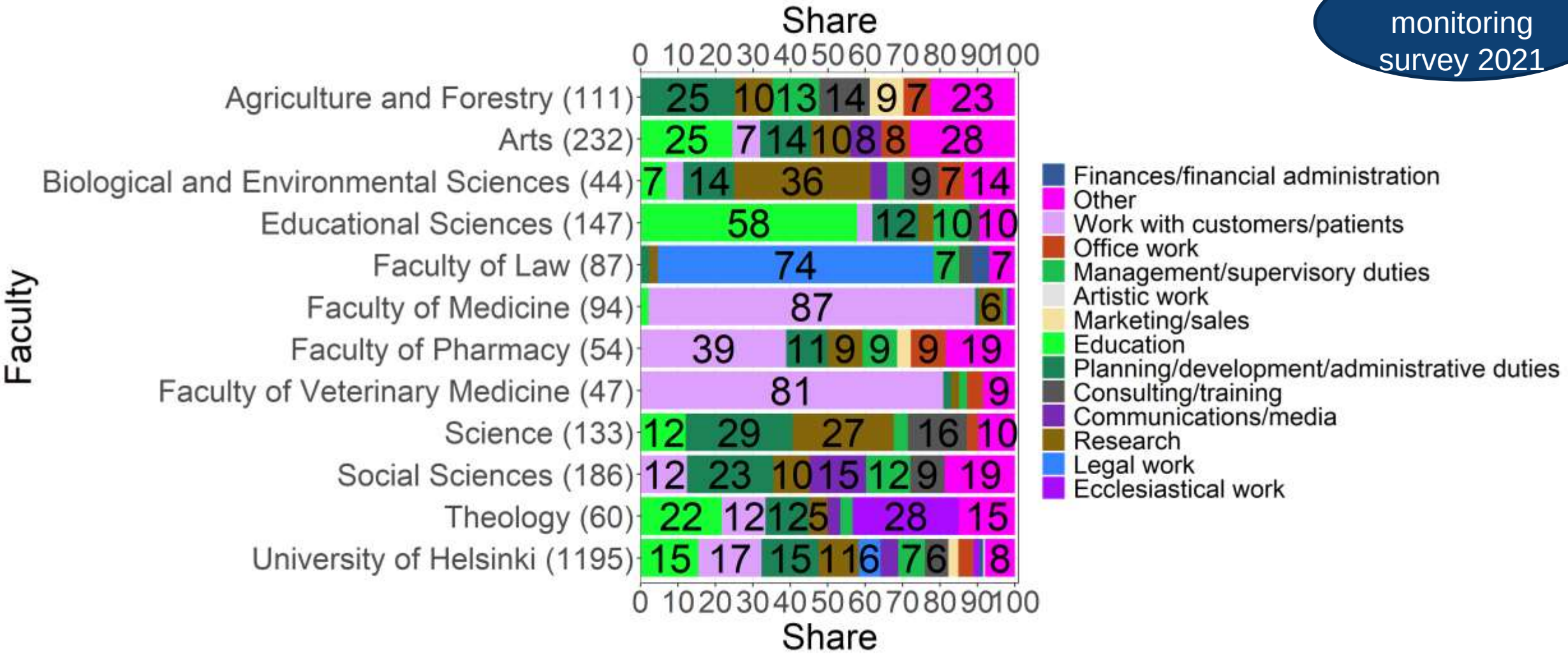
Career monitoring survey 2021



The graph displays information on the graduates of 2016
In brackets number of respondents
Maximum 5 options is shown.
The rest of the respondents are included in the category 'Other'.

The nature of the duties five years after graduation

Career monitoring survey 2021



The graph displays information on the graduates of 2016
In brackets number of respondents
Maximum 7 options is shown.
The rest of the respondents are included in the category 'Other'.

SALARIES

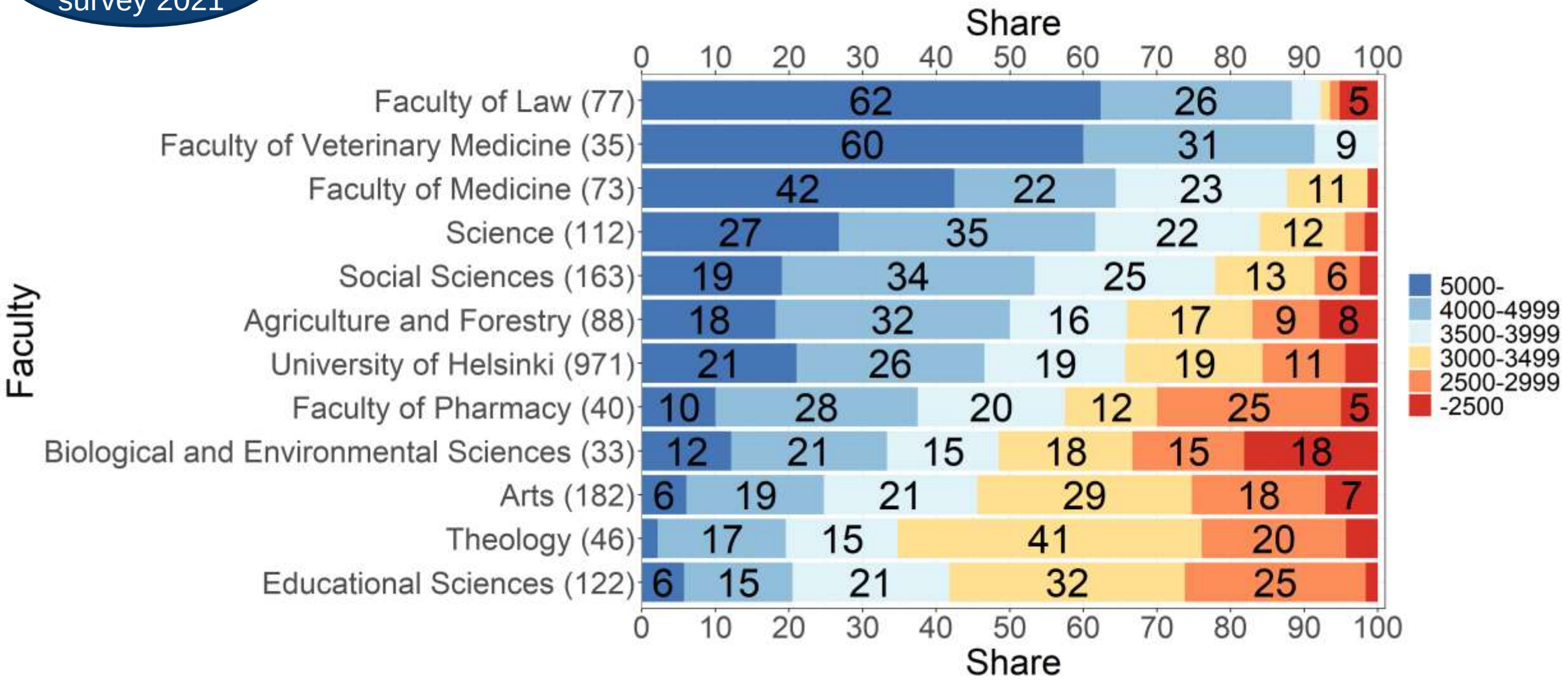
- There are significant differences in the income level of graduates of different faculties after graduation. The differences are visible in both Statistics Finland's annual earnings statistics and the monthly income statistics of the career monitoring survey.
- The statistics by Statistics Finland describe median annual earnings. The highest median earnings are for graduates of the Faculty of Medicine and the Faculty of Law, whose annual earnings exceed €60,000 five years after graduation. The lowest median annual earnings are for graduates of the Faculty of Biological and Environmental Sciences (€35,000), the Faculty of Theology (€36,000), the Faculty of Arts (€38,000) and the Faculty of Educational Sciences (€39,000) five years after graduation.
- The career monitoring survey asks for monthly salary. In the report, salary data are reported by monthly salary group. The Faculty of Law, the Faculty of Veterinary Medicine and the Faculty of Law top the comparison of median monthly salaries. However, it is important to note that there is a broad salary spectrum within each group. There are graduates of all faculties among top earners (€5,000 or more per month), also from faculties that rank low in the salary comparison.
- When comparing salaries between faculties, it is important to consider that the statistics pertaining to the Faculty of Educational Sciences and the Faculty of Pharmacy include graduates with a Bachelor of Arts (Education) degree in early childhood education or a Bachelor of Science (Pharmacy) degree.

ANNUAL INCOME (MEDIAN) BY FACULTY, GRADUATES OF 2015 (STATISTICS FINLAND)

Faculty	One year from graduation	Three years from graduation	Five years from graduation
Theology (N = 134–143)	28,000	33,000	36,000
Law (N = 234–239)	48,000	57,000	67,000
Medicine (N = 232–239)	55,000	59,000	63,000
Arts (N = 342–370)	29,000	34,000	38,000
Science (N = 242–258)	34,000	41,000	48,000
Pharmacy (N = 163–172)	31,000	34,000	41,000
Biological and Environmental Sciences (N = 98–101)	26,000	31,000	35,000
Educational Sciences (N = 357–363)	33,000	35,000	39,000
Social Sciences (N = 311–327)	34,000	40,000	45,000
Agriculture and Forestry (N = 175–185)	35,000	41,000	44,000
Veterinary Medicine (N = 62–66)	60,000	61,000	67,000
University of Helsinki (N = 2,387–2,445)	**37,000**	**42,000**	**46,000**

Career monitoring survey 2021

Salary classification organised according to the median



The graph displays information on the graduates of 2016
In brackets number of respondents
The figures include those in full-time employment as well as entrepreneurs/self-employed/freelancers.

INDICATORS CONCERNING GRADUATES OF 2016 FIVE YEARS AFTER GRADUATION (CAREER MONITORING SURVEY 2021)

- Options that best describe their career after graduation:
  - Working for several different employers or temporary jobs or assignments or working with a grant. Not many breaks. 40%
  - Continuously working for the same employer or as an entrepreneur since graduation. 40%
  - Various employers or duties, with breaks in between, studies or periods of unemployment in between or other breaks. 16%

- Experiences of unemployment after graduation. 42%

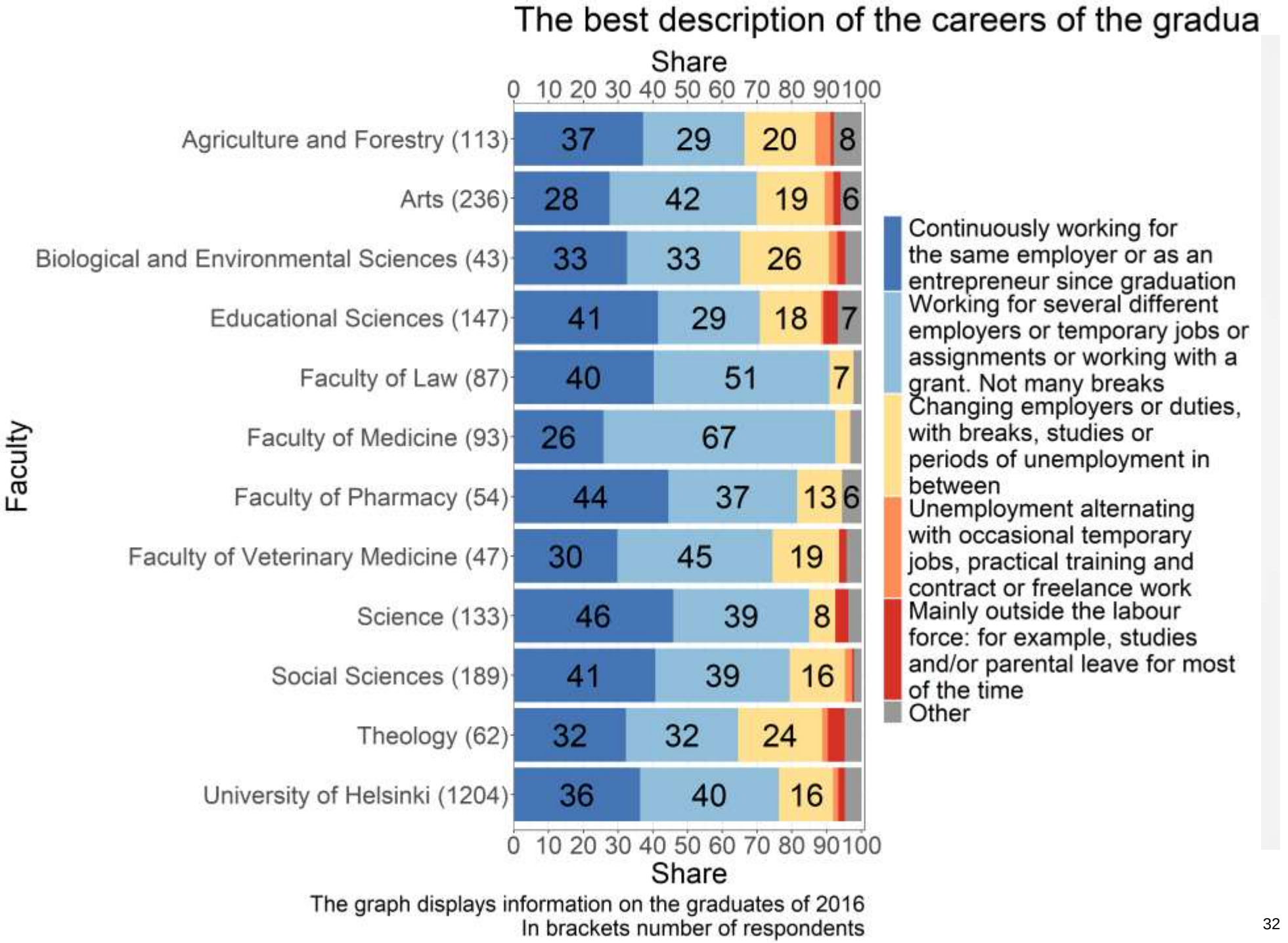
- A total of 23% of the respondents have worked as an entrepreneur, freelancer or self-employed professional.

*The manner in which unemployment after graduation is queried in the career monitoring survey has changed. The results are not directly comparable to previous surveys.

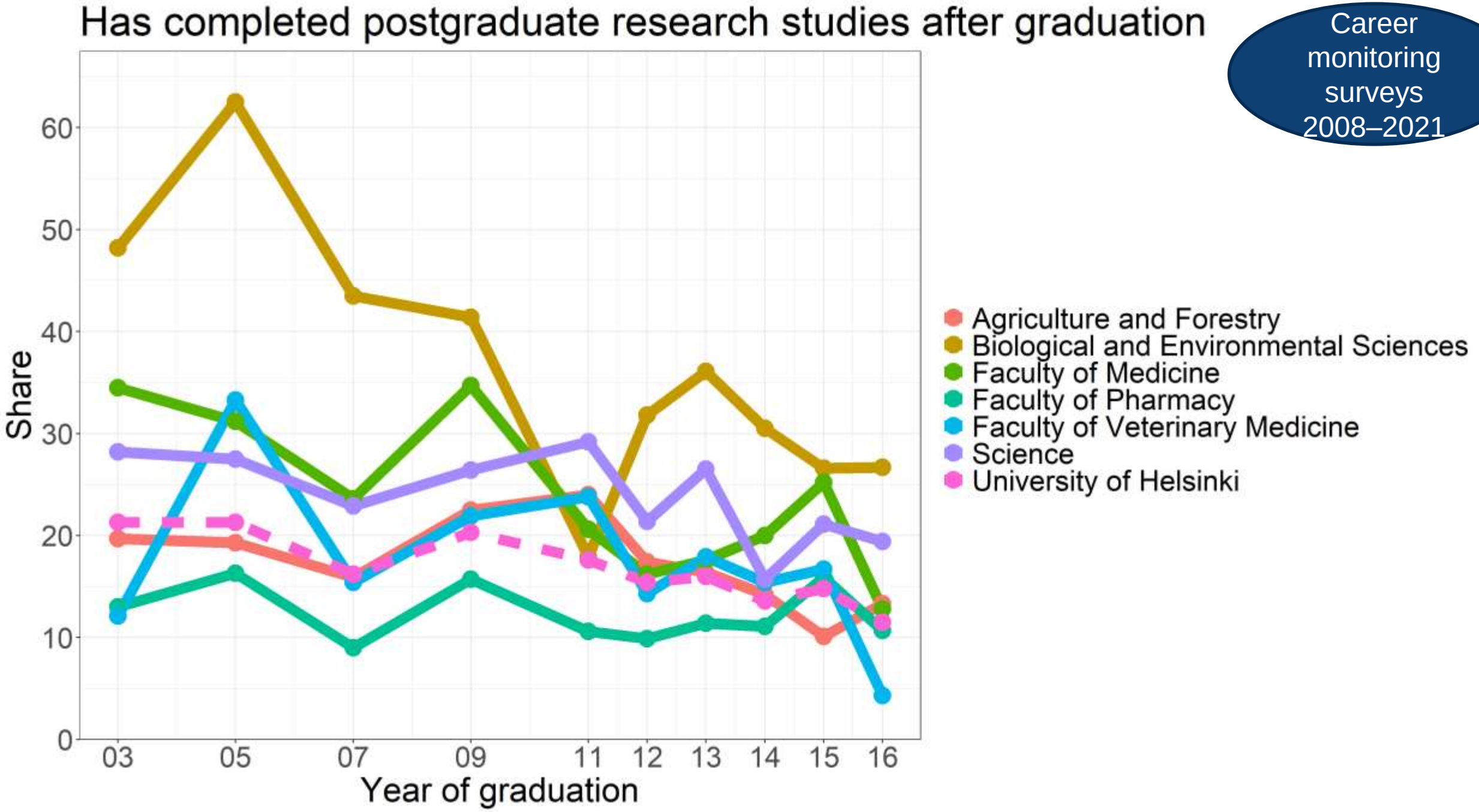
KEY OBSERVATIONS ON THE INDICATORS CONCERNING GRADUATES FIVE YEARS AFTER GRADUATION (CAREER MONITORING SURVEY)

- After graduating from the University of Helsinki, the majority of respondents have been employed or self-employed with no breaks, with either a single employer (36%) or several employers (40%). In contrast, 16% have experienced breaks in employment during the five-year period.
- The differences between faculties are significant. More than 20% of the graduates from the Faculties of Biological and Environmental Sciences, Arts, Agriculture and Forestry, and Theology have experienced breaks in their career during the five-year period.
- Just over 20% of the respondents have worked as an entrepreneur, freelancer or self-employed professional after graduation. Variation between faculties is significant. In this respect, the graduates of 2016 do not differ significantly from those of previous years.
- The share of graduates who have completed scientific/artistic postgraduate studies after graduation has fallen for almost all faculties, with the exception of the Faculty of Arts and the Faculty of Educational Sciences, where the share slightly increased.
- The share of graduates who have been studying towards another academic (first- or second-cycle) degree has also decreased from the previous year for all faculties except the Faculty of Law, where the share rose close to the long-term mean of the Faculty.

Career monitoring survey 2021

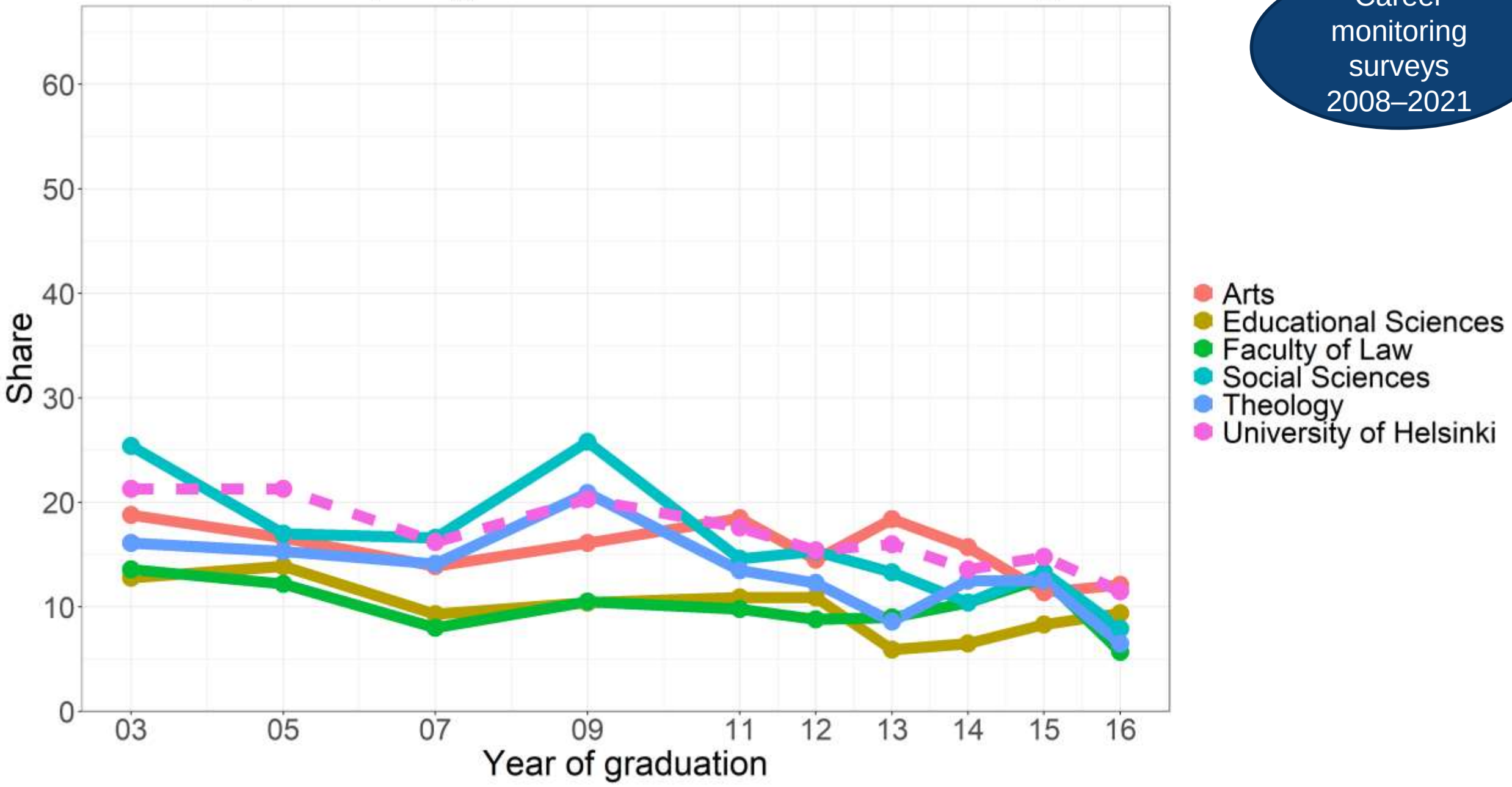


Career monitoring surveys 2008–2021



Has completed postgraduate research studies after graduation

Career monitoring surveys 2008–2021



FIVE YEARS AFTER GRADUATION BY FACULTY, GRADUATES OF 2016

Career monitoring survey 2021

Faculty, number of respondents in parentheses	Has been unemployed*	Has been an entrepreneur/freelancer/self-employed	Has completed scientific postgraduate studies	Has been studying towards another academic degree
Biological and Environmental Sciences (45)	51%*	20%	27%	11%
Veterinary Medicine (47)	30%*	68%	4%	2%
Pharmacy (55–56)	25%*	5%	11%	18%
Arts (239–240)	55%*	38%	12%	10%
Educational Sciences (148–149)	34%*	15%	9%	12%
Medicine (94)	31%*	21%	13%	3%
Agriculture and Forestry (113)	50%*	19%	13%	6%
Science (134)	35%*	19%	19%	7%
Law (88)	38%*	10%	6%	15%
Theology (62)	50%*	23%	6%	8%
Social Sciences (190)	41%*	15%	8%	7%
University of Helsinki (1,213–1,218)	42%*	23%	11%	9%

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*The manner in which unemployment after graduation is queried in the career monitoring survey has changed. The results are not directly comparable to previous surveys. See next slide.

HAS THE SHARE OF GRADUATES WITH EXPERIENCE OF UNEMPLOYMENT INCREASED? (CAREER MONITORING SURVEYS)

- In the career monitoring survey for 2021, the manner in which experiences of unemployment after graduation is queried was changed.
- Previously, respondents were asked whether they had been unemployed and, if so, for how long. Respondents were asked to specify this information in years and months. In 2021, ready-made options regarding the duration of unemployment were provided in the question concerning unemployment. **For this reason, the results of prior surveys are not directly comparable** (see next slide).
- It is possible that the previous method of asking about unemployment resulted in short-term periods of unemployment (e.g., less than a month) going unreported.
- When classifying the quantitative responses to the question about periods of unemployment according to the classification in the 2021 survey, the share of graduates of the University of Helsinki who have been unemployed for less than six months appears to have grown in particular. Correspondingly, the share of graduates with experience of unemployment lasting more than six months has dropped.
- In other words, it is possible that the increase in short-term unemployment after graduation is a genuine phenomenon, and the rewording of the question is not an explanatory factor. The increase in short-term unemployment after graduation could be explained, for example, by the coronavirus pandemic, during which many people, including graduates of the University of Helsinki, were furloughed for some time, especially in spring 2020 (see University of Helsinki career monitoring reports 2021).
- It is also entirely possible that the change is explained by both the change in the question formulation and the coronavirus pandemic.

HOW WAS THE QUESTION ON EXPERIENCES OF UNEMPLOYMENT CHANGED?

In previous years, the following was asked:

Since graduation, have you been [...] away from the working life due to unemployment (incl. layoffs)?

1 No

2 Yes _____ times, for____ years____ months.

Change

In the 2021, the following was asked:

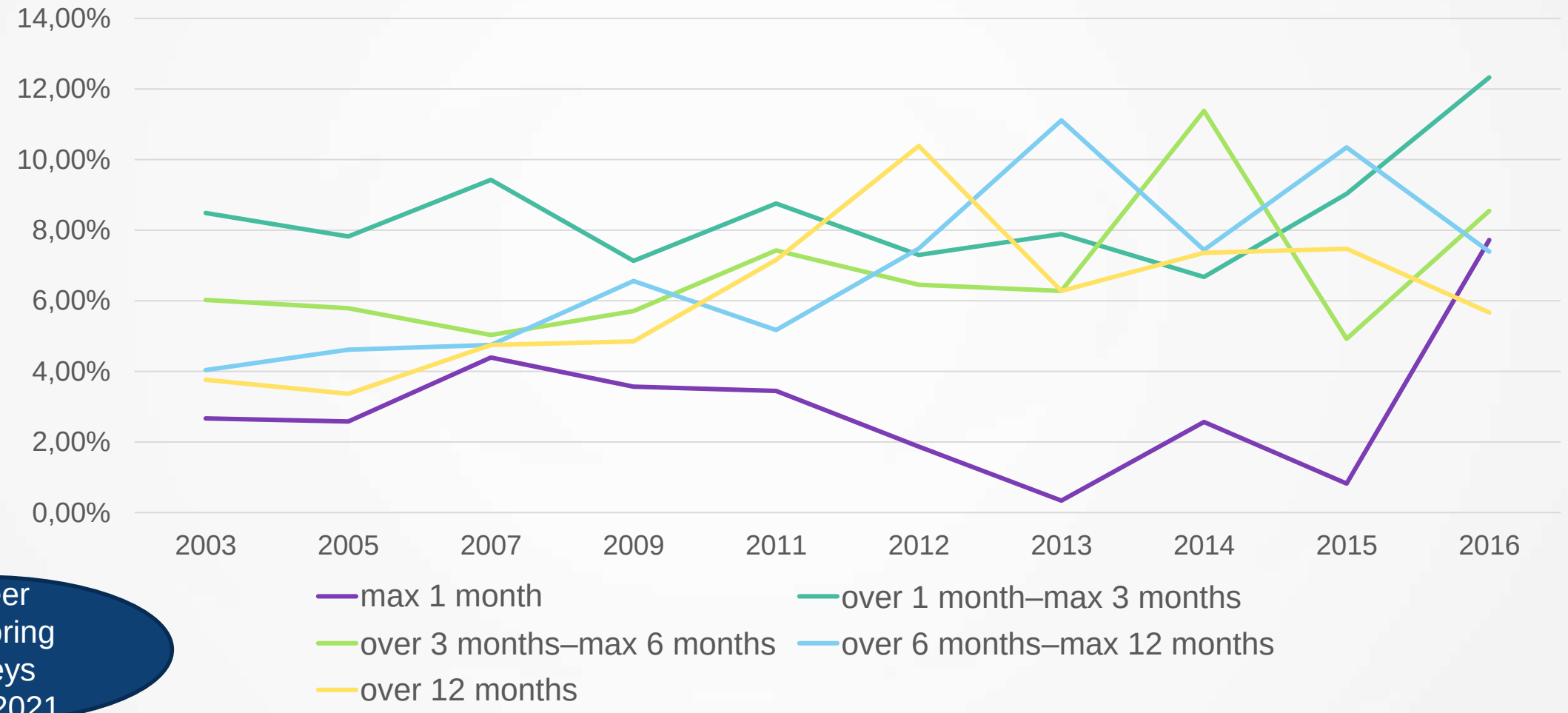
Since graduation, have you been away from the working life due to unemployment (incl. layoffs)?

1. No
2. max 1 month
3. over 1 month–max 3 months
4. over 3 months–max 6 months
5. over 6 months–max 12 months
6. over 12 months

SHARE OF GRADUATES WITH EXPERIENCES OF UNEMPLOYMENT AFTER GRADUATION AND DURATION OF UNEMPLOYMENT (%), (CAREER MONITORING SURVEY 2021, GRADUATES OF 2016)

		Unemployed				
	Has not been unemployed	max 1 month	over 1 month–max 3 months	over 3 months–max 6 months	over 6 months–max 12 months	over 12 months
Biological and Environmental Sciences (N = 45)	49%	7%	13%	11%	11%	9%
Veterinary Medicine (N = 47)	70%	11%	17%	0%	2%	0%
Pharmacy (N = 56)	75%	14%	9%	0%	2%	0%
Arts (N = 239)	45%	8%	17%	12%	11%	8%
Educational Sciences (N = 149)	66%	7%	10%	9%	4%	4%
Medicine (N = 94)	69%	14%	11%	5%	1%	0%
Agriculture and Forestry (N = 113)	50%	8%	5%	9%	18%	11%
Science (N = 134)	65%	4%	13%	7%	6%	5%
Law (N = 88)	63%	8%	13%	11%	3%	2%
Theology (N = 62)	50%	11%	15%	8%	6%	10%
Social Sciences (N = 190)	59%	4%	12%	9%	8%	7%
University of Helsinki (N = 1,217)	58%	8%	12%	9%	7%	6%

Share of graduates with experiences of unemployment in the five years after graduation by duration of unemployment (%), graduates of 2003–2016 (UH)



Career monitoring surveys 2008–2021

STUDIES TOWARDS ANOTHER DEGREE AFTER GRADUATION (STATISTICS FINLAND)

- The statistics by Statistics Finland show new degrees completed after graduation in Finland. The statistics provide no certainty on any degrees completed abroad.
- Most (90%) of the University of Helsinki graduates from 2011 to 2014 had not completed another academic degree by the end of 2019. The share of graduates who had completed a second-cycle degree or a doctoral degree is 5% in both cases. By the end of 2019, a university of applied sciences degree had been completed by 0.3% of respondents and a first-cycle academic degree by 0.2%.

SUBSEQUENT DEGREES BY FACULTY, DATA FOR 2019, GRADUATION YEARS OF 2011–2014

Faculty	No degree	First- or second-cycle degree from a university of applied sciences	First-cycle degree	Second-cycle degree	Doctoral degree
Theology (N = 621)	95%	0%	0%	3%	2%
Law (N = 1,011)	95%	0%	0%	4%	1%
Medicine (N = 879)	92%	0%	0%	0.5%	8%
Arts (N = 1,993)	94%	0.3%	0%	4%	2%
Science (N = 1,143)	85%	0.6%	0%	2%	12%
Pharmacy (N = 795)	70%	2%	2%	23%	3%
Biological and Environmental Sciences (N = 491)	81%	0%	0%	3%	15%
Educational Sciences (N = 1,478)	88%	0.6%	0.3%	9%	1%
Social Sciences (N = 1,426)	94%	0.1%	0%	3%	3%
Agriculture and Forestry (N = 935)	92%	0.1%	0%	2%	6%
Veterinary Medicine (N = 209)	92%	0%	0%	0%	2%
University of Helsinki (N = 11,021)	**90%**	**0.3%**	**0.2%**	**5%**	**5%**

CORRELATION BETWEEN EDUCATION AND EMPLOYMENT, GRADUATES OF 2016 (CAREER MONITORING SURVEY 2021)

- The questions were asked on a six-level scale. The share includes response options 4–6 (fairly satisfied/satisfied/very satisfied; slightly agree/agree/fully agree).
- Requirements of current job correspond well with academic qualifications: 84% of respondents
- The skills and knowledge learned at the university can be applied well in current job: 85%
- Studies equipped respondents sufficiently for working life: 69%
- Satisfaction with the degree in terms of career: 86%

KEY OBSERVATIONS, CORRELATION BETWEEN EDUCATION AND EMPLOYMENT (CAREER MONITORING SURVEY 2021)

- The majority (84%) of the 2016 graduates feel that their job at the time of responding to the survey matches their university education and that they can use the knowledge and skills acquired at university in their job (85%). The assessment of the 2016 graduates of their ability to use the knowledge and skills the learned at university is statistically significantly more positive than that of the graduates of 2015.
- The graduates are most critical in their assessment of whether their education equipped them sufficiently for the labour market. A little over two-thirds (69%) agree at least somewhat with this statement. However, the assessment is more positive compared with that of the 2015 graduates (65%). The change is statistically significant.
- Differences between faculties are partly significant in the assessment of the correlation between education and employment.

CORRELATION BETWEEN EDUCATION AND EMPLOYMENT, GRADUATES OF 2016 BY FACULTY

Career monitoring survey 2021

Faculty, number of respondents in parentheses	The requirements of the current job correspond well with the respondent's academic qualifications.*	The skills and knowledge learned at the university can be applied well in the current job.*	Studies equipped graduates sufficiently for working life.*	Satisfied with the degree in terms of career*
Biological and Environmental Sciences (44–45)	86%	89%	69%	82%
Veterinary Medicine (47)	96%	94%	87%	91%
Pharmacy (56)	79%	84%	84%	89%
Arts (237–238)	76%	81%	54%	77%
Educational Sciences (177–179)	81%	89%	70%	88%
Medicine (114–115)	95%	99%	88%	97%
Agriculture and Forestry (94–99)	81%	80%	71%	87%
Science (137–141)	87%	93%	80%	93%
Law (84–86)	95%	90%	69%	95%
Theology (79–80)	75%	72%	61%	73%
Social Sciences (190–195)	87%	79%	61%	84%
University of Helsinki (1,218–1,250)	84%	85%	69%	86%

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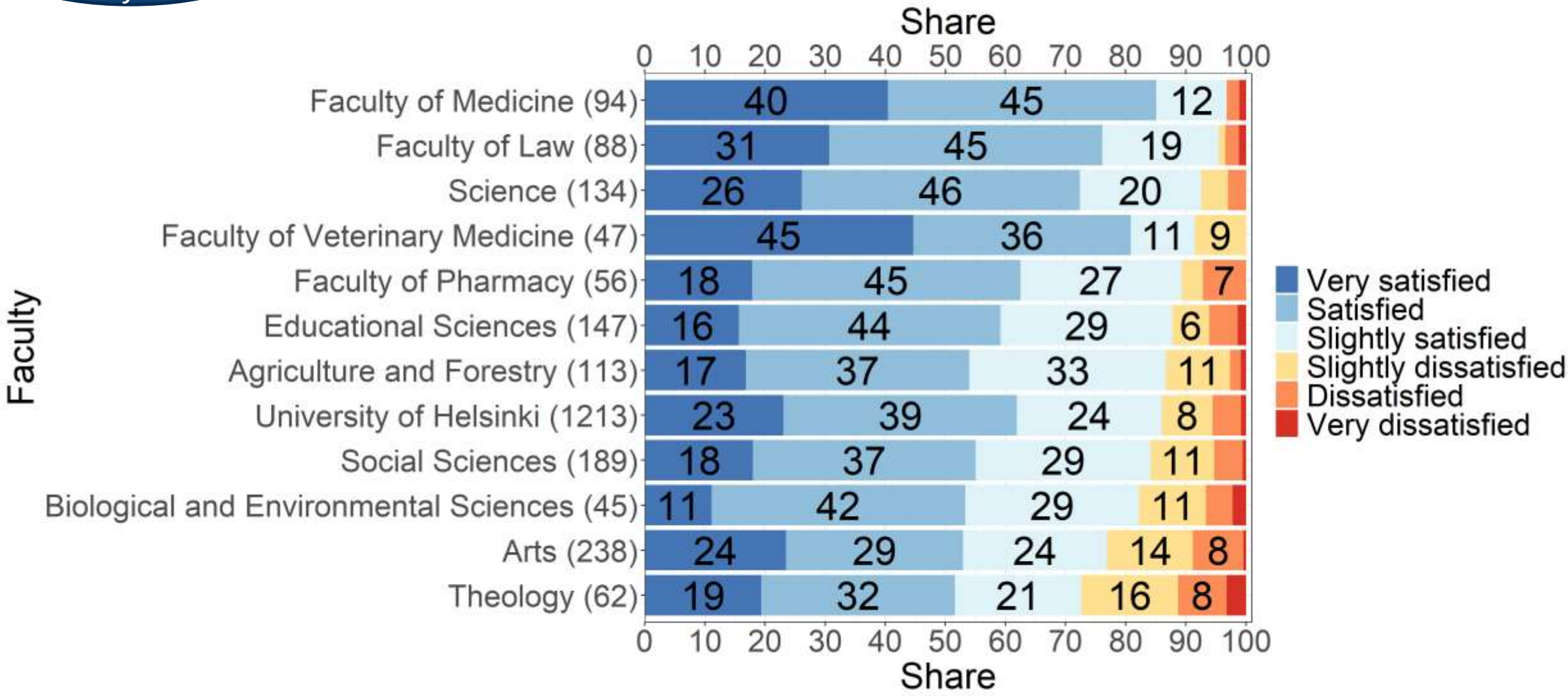
*Questions were asked on a six-level scale. The share includes response options 4–6 (fairly satisfied/satisfied/very satisfied; slightly agree/agree/fully agree).

HIGH SATISFACTION WITH DEGREES (CAREER MONITORING SURVEY 2021)

- Graduates of the University of Helsinki from 2016 are very satisfied with their degree in terms of their career. The share of satisfied graduates has slightly increased from the previous survey (84% → 86%).
- The share of graduates satisfied with their degree varies slightly by faculty. The highest degree satisfaction is found in the Faculty of Medicine (97%), the Faculty of Law (95%), the Faculty of Science (93%) and the Faculty of Veterinary Medicine (91%), the lowest in the Faculty of Theology (73%) and the Faculty of Arts (77%).
- To a certain extent, the distribution of responses highlights the difference between fields of education that prepare students either for a particular profession or role, or for a wide range of specialist positions. The correlation between education and employment is, on average, assessed more positively in the former than in the latter fields. However, it is important to note that views *also* differ significantly within faculties and fields of education.

Career monitoring survey 2021

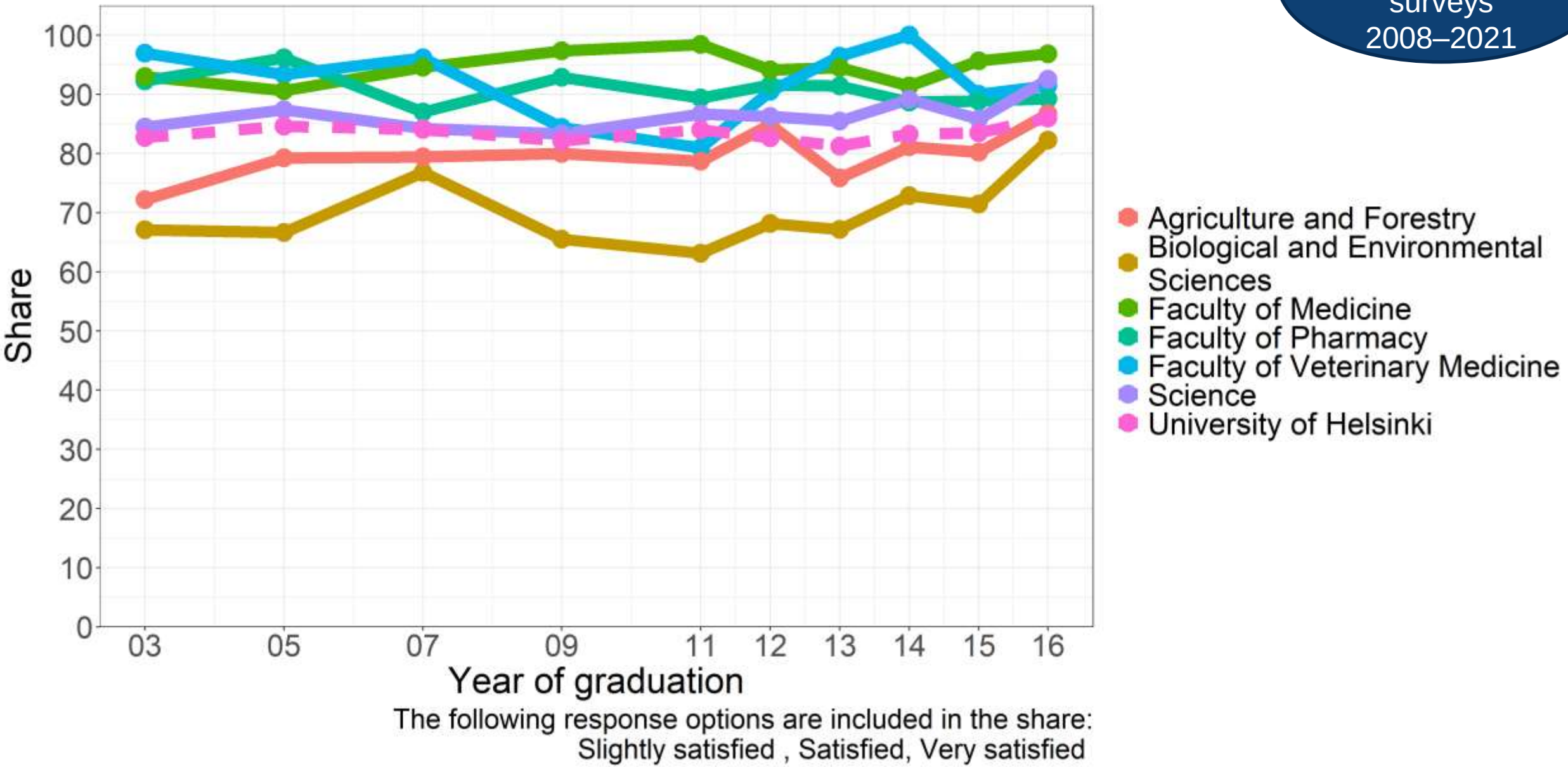
Overall satisfaction with the degree in terms of career



The graph displays information on the graduates of 2016
In brackets number of respondents

Overall satisfaction with the degree in terms of career

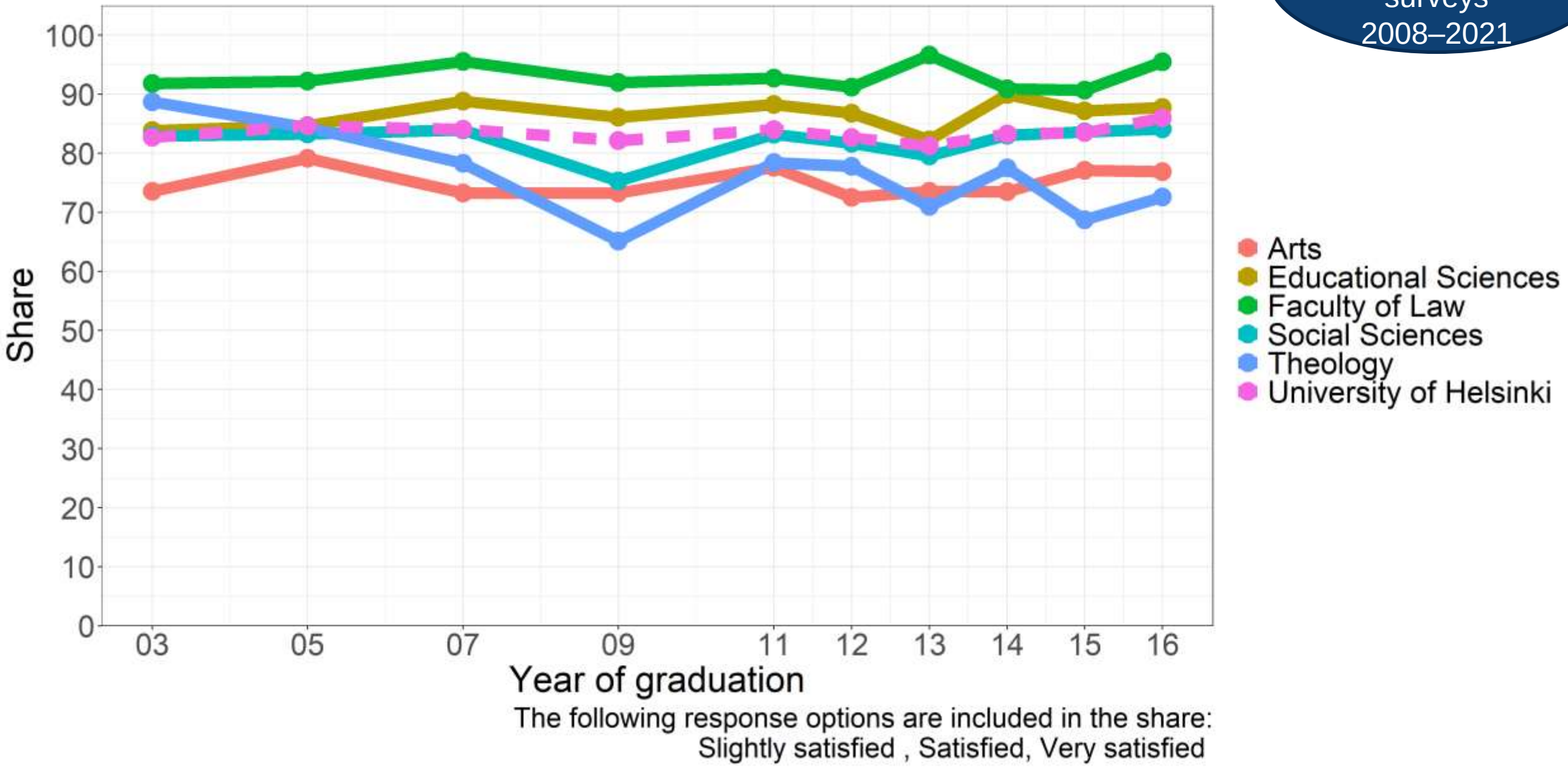
Career monitoring surveys 2008–2021



The following response options are included in the share:
Slightly satisfied , Satisfied, Very satisfied

Overall satisfaction with the degree in terms of career

Career monitoring surveys 2008–2021



The following response options are included in the share:
Slightly satisfied , Satisfied, Very satisfied

FACTORS AFFECTING EMPLOYMENT (CAREER MONITORING SURVEY 2021)

- Key factors affecting employment*
  - Ability to tell people about your skills, 81%
  - Other work experience, 74%
  - Combination of subjects in your degree, 57%
  - Practical training, 54%
  - Contacts/networks, 53%

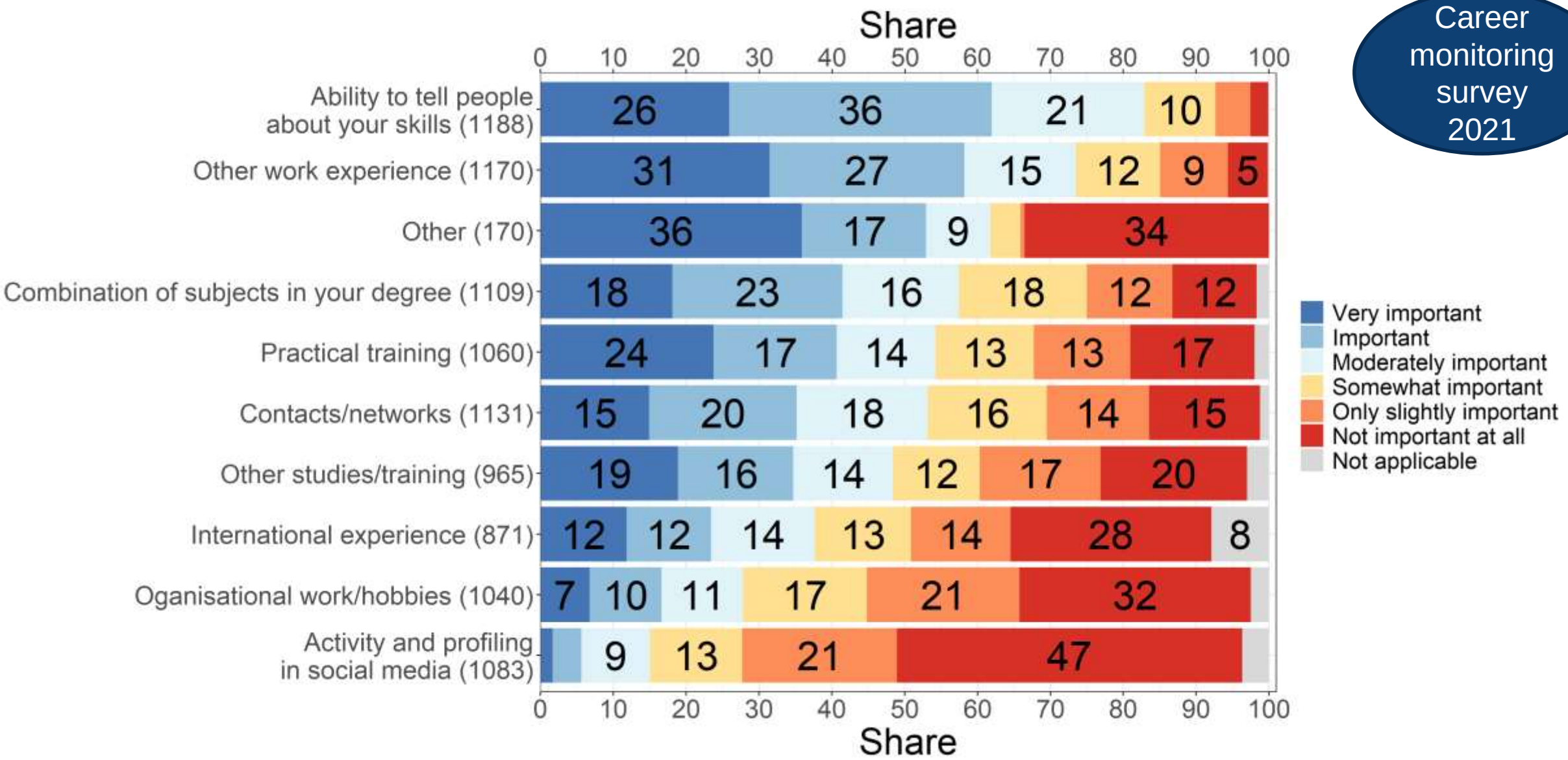
*Total for options 4–6 in a six-level scale (moderately important/important/very important)

FACTORS AFFECTING EMPLOYMENT (CAREER MONITORING SURVEY 2021)

- According to the respondents, their ability to tell people about their skills is the single most important factor affecting employment. Graduates from different faculties agree on this.
- Work experience, the combination of subjects in the degree, practical training related to the studies, contacts and networks, and field-specific other factors are important factors affecting employment. However, there is significant faculty- and field-specific variation in the assessment of the significance of these factors.
- It is essential to note that international experience, organisational work or hobbies as well as social media activity have been important or highly important for the employment of some respondents, even though these factors are not ranked at the top in the University-level analysis.

The factors that have affected employment

Career monitoring survey 2021



The graph displays information on the graduates of 2016
In brackets number of respondents

Career monitoring survey 2021

FACTORS AFFECTING EMPLOYMENT, GRADUATES OF 2016

	Biological and Environmental Sciences	Veterinary Medicine	Pharmacy	Arts	Educational Sciences	Medicine	Agriculture and Forestry	Science	Law	Theoloy	Social Sciences	UH
Ability to tell people about your skills	81%	**66%**	87%	83%	87%	**59%**	81%	84%	90%	85%	91%	83%
Other work experience	80%	**38%**	74%	77%	72%	**51%**	77%	68%	78%	**87%**	**84%**	74%
Combination of subjects in your degree	**68%**	**43%**	**27%**	61%	64%	**46%**	61%	**78%**	**44%**	**40%**	53%	57%
Practical training	62%	**41%**	47%	54%	51%	55%	59%	54%	47%	**39%**	**66%**	54%
Contacts/networks	60%	57%	**41%**	56%	**44%**	**40%**	**63%**	58%	47%	**67%**	54%	53%
Other studies or training	**70%**	**22%**	47%	54%	56%	30%	49%	48%	38%	64%	46%	48%
International experience	50%	**10%**	26%	48%	23%	**10%**	45%	43%	44%	33%	44%	38%
Experience relating to organisational work or hobbies	44%	18%	11%	32%	28%	**7%**	30%	23%	18%	**60%**	33%	28%
Activity and profiling in social media	30%	4%	22%	15%	9%	1%	18%	15%	12%	23%	20%	15%

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Options 4–6 on a six-level scale (moderately important/important/very important).
Colour map key: Difference between the University-level share is either 10% (if the University-level share exceeds 50%) or 20% (if the University-level share is below 50%).

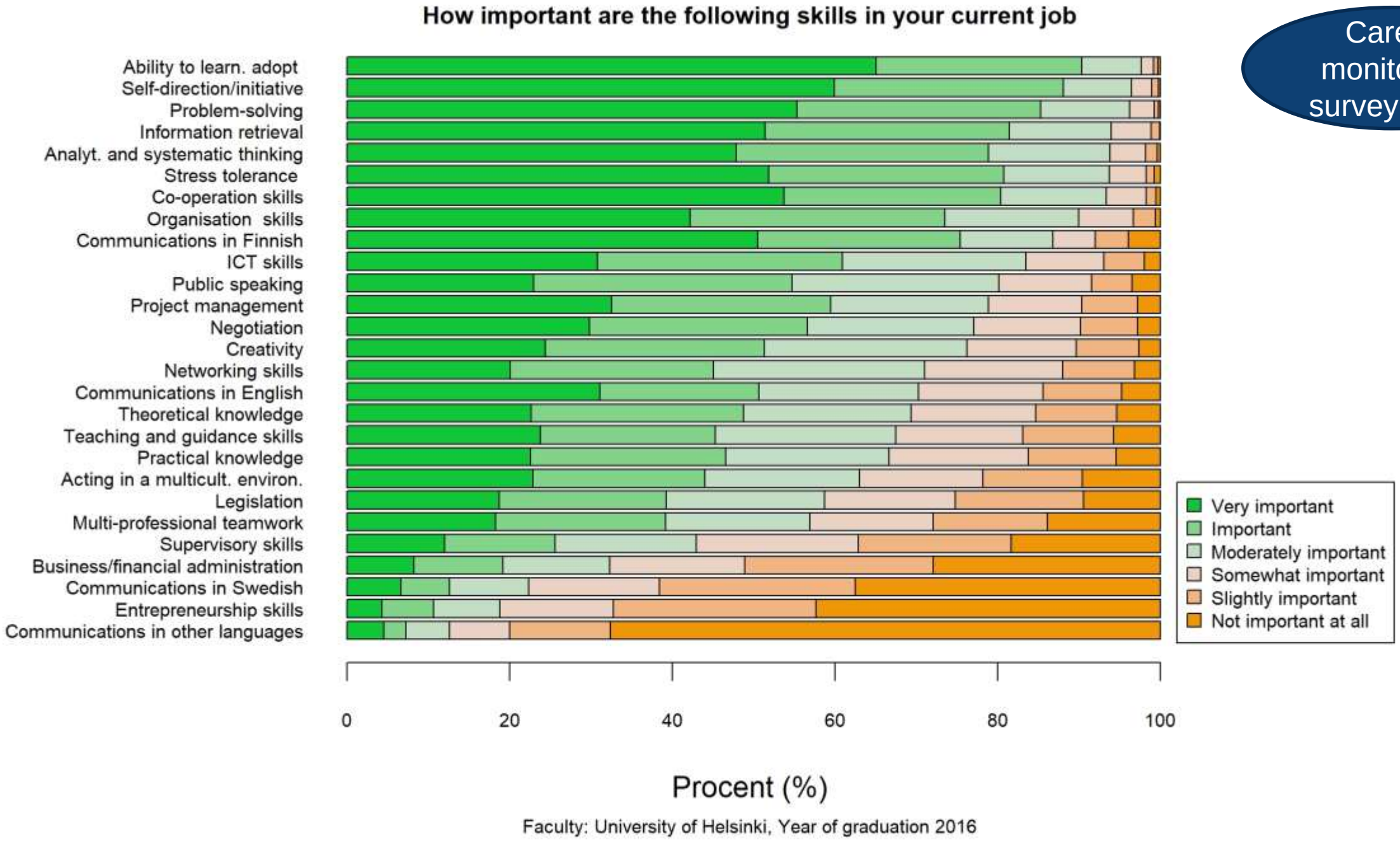
LABOUR-MARKET SKILLS NEEDS AND SKILLS GAINED FROM THE STUDIES (CAREER MONITORING SURVEY 2021)

- Key areas of knowledge and skills needed in current job:
  - Analytical and systematic thinking skills
  - Ability to learn and adopt new things
  - Stress tolerance
  - Self-direction/initiative
  - Cooperation skills
- Key skill sets where the most development will be seen in the future (a new survey question):
  - Self-regulation skills (e.g., ability to learn and adopt new skills, stress tolerance, ability to take initiative, curiosity)
  - Thinking skills (e.g., problem solving, decision making, analytical skills, critical thinking skills and creativity)
  - Knowledge-integration (e.g., theoretical skills within your own field, practical skills within your own field, skills in information retrieval, interdisciplinary skills, ability to work in multiprofessional groups)

LABOUR-MARKET SKILLS NEEDS (CAREER MONITORING SURVEY 2021)

- The master's career monitoring surveys of Finnish universities ask respondents to assess the knowledge and skills needed in their current job and the skills gained from the academic degree completed five years ago. The assessment of the labour-market skills needs is recent, from the time of the survey (autumn 2021).
- The respondents' assessments of the skills required in their work at the time of responding to the survey naturally vary according to the type of duties they perform and their field of education.
- However, certain skills are important for practically all graduates of the University of Helsinki in their work. Examples include the ability to learn and adopt new things as well as self-direction/initiative, cooperation skills, problem-solving skills and stress tolerance.
- However, it is important to note that the knowledge and skills with the lowest mean scores (including entrepreneurship skills or communication in Swedish) were extremely important to some respondents in their job at the time of the survey. In fact, the distribution of opinions is more interesting than the mean score from the perspective of the development of education.

Career monitoring survey 2021



IMPORTANCE OF KNOWLEDGE AND SKILLS AT LEAST MODERATELY IMPORTANT IN CURRENT JOB (SHARE OF RESPONDENTS %)

	BIO-ENVIR	VET-MED	PHARMA	ARTS	EDU	MED	ACR-FOR	SCIENCE	LAW	THEOL.	SOCIAL S..	UH
Ability to learn and adopt	98 %	100 %	91 %	97 %	97 %	100 %	96 %	99 %	98 %	97 %	98 %	**98 %**
Self-direction/initiative	95 %	100 %	91 %	96 %	97 %	93 %	97 %	97 %	98 %	95 %	98 %	**96 %**
Problem-solving skills	93 %	100 %	98 %	94 %	97 %	99 %	95 %	98 %	97 %	94 %	96 %	**96 %**
Information retrieval skills	98 %	96 %	95 %	93 %	92 %	96 %	93 %	95 %	95 %	92 %	94 %	**94 %**
Analytical and systematic thinking skills	98 %	98 %	85 %	92 %	95 %	97 %	95 %	99 %	95 %	87 %	93 %	**94 %**
Stress tolerance	89 %	98 %	91 %	90 %	97 %	99 %	90 %	96 %	97 %	90 %	94 %	**94 %**
Cooperation skills	95 %	89 %	93 %	90 %	98 %	95 %	96 %	93 %	89 %	92 %	94 %	**93 %**
Organisational & coordination skil.	89 %	**79 %**	**78 %**	90 %	97 %	84 %	95 %	92 %	90 %	87 %	90 %	**90 %**
Communication in Finnish	**68 %**	**98 %**	89 %	90 %	95 %	90 %	77 %	**73 %**	88 %	95 %	87 %	**87 %**
ICT skills	86 %	**59 %**	80 %	90 %	89 %	**63 %**	81 %	90 %	**74 %**	85 %	87 %	**83 %**
Public speaking skills	81 %	**60 %**	**69 %**	78 %	**95 %**	**63 %**	81 %	78 %	84 %	87 %	84 %	**80 %**
Project management skills	77 %	**40 %**	**67 %**	84 %	**89 %**	**51 %**	82 %	83 %	82 %	84 %	84 %	**79 %**
Negotiation skills	**66 %**	74 %	74 %	73 %	**93 %**	78 %	77 %	**60 %**	84 %	81 %	80 %	**77 %**
Creativity	70 %	**60 %**	**42 %**	84 %	**90 %**	74 %	67 %	79 %	71 %	**87 %**	75 %	**76 %**
Networking skills	**82 %**	70 %	**56 %**	70 %	74 %	**54 %**	74 %	67 %	69 %	**82 %**	79 %	**71 %**
Communication in English	**86 %**	**47 %**	69 %	73 %	62 %	69 %	75 %	78 %	76 %	**55 %**	71 %	**70 %**
Theoretical skills within your field	70 %	**98 %**	**81 %**	**57 %**	76 %	**97 %**	63 %	**82 %**	**80 %**	63 %	**47 %**	**69 %**
Teaching and guidance skill	64 %	**40 %**	65 %	69 %	**90 %**	61 %	63 %	63 %	**55 %**	**89 %**	63 %	**67 %**
Practical knowledge gained from the studies	64 %	**94 %**	69 %	62 %	**76 %**	**93 %**	57 %	75 %	**56 %**	58 %	**53 %**	**67 %**
Acting in a multicultural environment	70 %	**15 %**	**51 %**	**75 %**	**80 %**	69 %	**53 %**	56 %	**51 %**	61 %	63 %	**63 %**
Knowledge of legislation	**41 %**	**91 %**	**80 %**	**44 %**	**69 %**	66 %	52 %	**38 %**	**95 %**	52 %	60 %	**59 %**
Interdisciplinary/multi-professional teamwork	**68 %**	**30 %**	**47 %**	62 %	**73 %**	59 %	52 %	53 %	**47 %**	57 %	55 %	**57 %**
Supervisory or leadership skills	36 %	**23 %**	40 %	37 %	**63 %**	33 %	38 %	45 %	43 %	50 %	47 %	**43 %**
Knowledge of the basics of business/financial administration	25 %	38 %	27 %	27 %	26 %	14 %	**54 %**	23 %	**61 %**	19 %	40 %	**32 %**
Knowledge of the basics of business activities	20 %	**68 %**	5 %	38 %	15 %	21 %	19 %	19 %	10 %	23 %	15 %	**23 %**
Communication in Swedish	23 %	13 %	15 %	28 %	22 %	26 %	18 %	10 %	26 %	18 %	28 %	**22 %**
Entrepreneurship skills	18 %	**50 %**	7 %	19 %	19 %	16 %	19 %	17 %	22 %	15 %	16 %	**19 %**
Communications in other languages	8 %	2 %	2 %	27 %	6 %	9 %	16 %	6 %	9 %	8 %	13 %	**13 %**

DEVELOPMENT OF LABOUR-MARKET SKILLS NEEDS IN THE FUTURE 1/2

In the 2021 career monitoring survey, respondents were asked to assess how the importance of various skill sets will develop in the future. The skills were classified as follows:

How do you assess the development of the importance of the following skill sets within the five upcoming years?

Please select the most suitable option. 1 = importance decreases clearly, 2 = importance decreases slightly, 3 = importance remains the same, 4 = importance increases slightly, 5 = importance increases clearly, 0 = I cannot assess the development of the importance

1. Thinking skills (e.g., problem solving, decision making, analytical skills, critical thinking skills and creativity)	1	2	3	4	5	0
2. Knowledge-integration (e.g., theoretical skills within your own field, practical skills within your own field, skills in information retrieval, interdisciplinary skills, ability to work in multiprofessional groups)	1	2	3	4	5	0
3. Social competence (e.g., cooperation skills, negotiation skills, emotional intelligence)	1	2	3	4	5	0
4. Language skills and cultural competence (e.g., knowledge of cultures and communication in different languages)	1	2	3	4	5	0
5. Self-regulation skills (e.g., ability to learn and adopt new skills, stress tolerance, ability to take initiative, curiosity)	1	2	3	4	5	0
6. General skills (e.g., organisational and coordination skills, public speaking skills, ICT skills, project management skills)	1	2	3	4	5	0

DEVELOPMENT OF LABOUR-MARKET SKILLS NEEDS IN THE FUTURE 2/2

In practice, the respondents estimated that the importance of all of the above-mentioned skill sets will increase in the future.