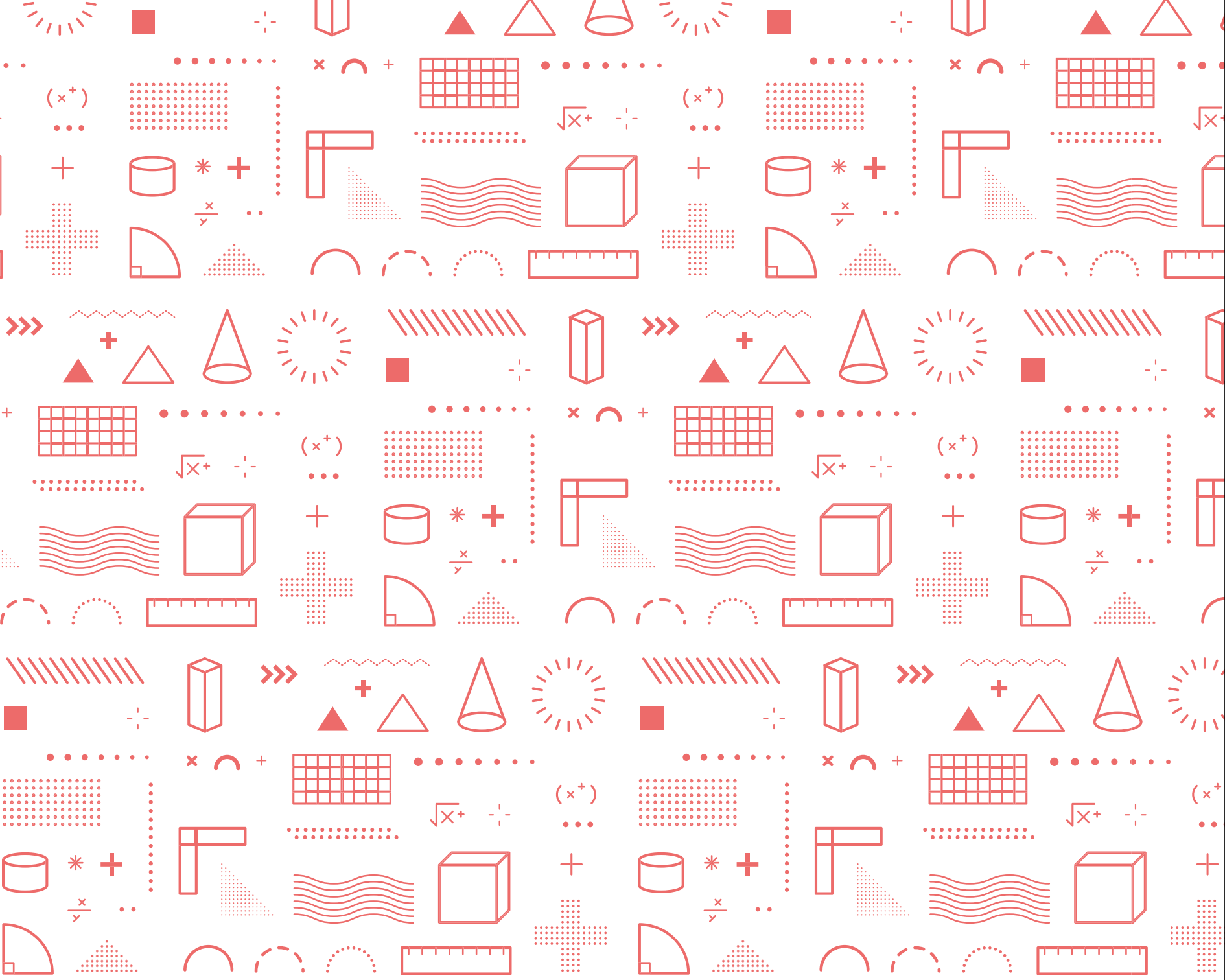




TEK Graduate Survey 2025

Differences in graduate outcomes by educational background





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Summary

The TEK Graduate Survey, conducted by Academic Engineers and Architects in Finland (TEK) in collaboration with Finnish universities, provides a comprehensive overview of the experiences and early labour market outcomes of newly graduated academic engineers and architects. The survey has been carried out annually since 2011, and in 2025 the focus was placed specifically on graduates' experiences according to the type of degree completed prior to the master's education. This thematic emphasis reflects the increasing diversity of educational pathways into master's level engineering education in Finland.

The survey received responses from 3,342 graduates, representing 69% of those who completed their degrees at the participating universities in 2025. This is the highest number of respondents and the highest response rate recorded in the history of the survey. Among the respondents, 31% had completed their bachelor's degree at another university in Finland or abroad, 17% had a degree from a university of

applied sciences (UAS), and the remainder had completed both their bachelor's and master's degrees at the same university. Data were collected between December 2024 and January 2026, and the results were analysed using quantitative methods.

The results indicate that earlier educational background is associated with differences in studying experiences, well-being, working during studies, and the transition to working life. Graduates with a UAS background are typically older and have more work experience. They are more often employed at the time of graduation, more likely to hold permanent contracts, and report higher salaries, particularly among Finnish respondents. Their studies are frequently combined with employment, and master's theses are often completed as part of paid work. At the same time, they participate less in student activities and feel less integrated into the university community.

Graduates who completed both degrees at the same university are more engaged

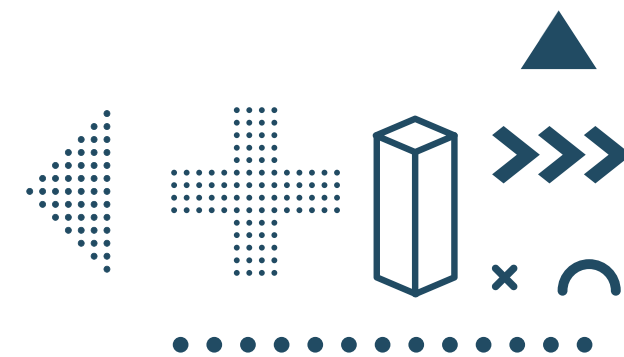
in student life and more often feel part of the university community, yet they tend to evaluate support services, well-being, and study experiences more critically. Graduates who entered the master's programme from another university, many of whom have an international background, report fewer delays in studies and faster thesis completion, but weaker employment outcomes at graduation and a higher likelihood of considering work abroad.

Overall, the findings highlight the growing diversity of educational pathways into engineering education and underline the need for universities to better recognise and respond to students' differing backgrounds and life situations.

This report explores graduates' experiences and views related to their studies, well-being, master's thesis, working life, and future. More detailed results for example by university, nationality and gender are available in the interactive visualization on the TEK website: www.tek.fi/graduate-survey.



Introduction



Introduction

Academic Engineers and Architects in Finland TEK and Finnish universities in technology together carry out an annual feedback survey for graduated academic engineers and architects. The focus is to understand the employment situation of graduates and to gather their opinions on their studies. The feedback and results are utilized in developing university education and influencing education related policy making. The survey is directed by an Advisory Board, which features a representative from every participating university (Table 1).

In 2025, the focus of the TEK Graduate Survey is placed especially on educational background. While the 2024 survey examined the situation of international graduates, this year our aim is to highlight the differences and similarities between graduates with different educational backgrounds. According to national statistics, the proportions

of students entering universities with a university of applied science background, as well as of international students, have increased (Vipunen 2026). As a result, higher engineering education in Finland has become increasingly diverse.

Against this background, the primary research question of this report is:

How do the experiences during and after their studies differ between graduates with different educational backgrounds?

The analysis will focus on six themes: backgrounds, experiences of studying, the master's thesis and working life, skills, well-being and satisfaction. Together, these themes provide a comprehensive view of how different educational pathways are reflected in graduates' study experiences and early career stages.

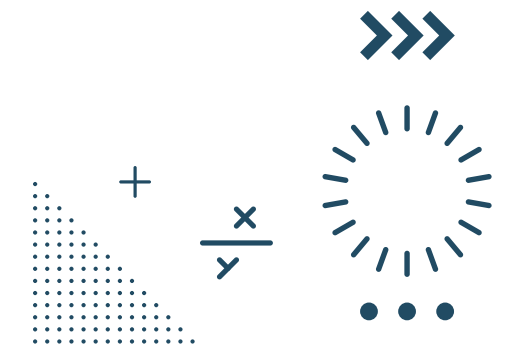
We examine the employment situation of recent graduates in more detail in a separate results report, and more findings can be found from the interactive visualization. There you can view results by university and school as well as by various background variables: www.tek.fi/graduate-survey.

Participating universities		
UNIVERSITIES	ABBREVIATION	LOCAL CONTACT
Aalto University	Aalto ALL	Mari Martinmaa
Tampere University	TAU	Hanna-Leena Hietaranta-Luoma
LUT University	LUT	Annikka Nurkka
University of Oulu	UO	Reijo Saari
University of Turku	UTU	Riikka Matikainen
Åbo Akademi University	ÅAU	Kerstin Fagerström
University of Vaasa	UV	Kati Kangasniemi
University of Eastern Finland	UEF	Pauliina Karvinen

Table 1: Participating universities



Implementation of the TEK Graduate Survey 2025



Implementation of the TEK Graduate Survey 2025

Data collection and analysis

The data for the TEK Graduate Survey is collected through the collaboration of TEK and Finnish universities, with the results reported both nationally and as a part of the universities' internal activities. TEK is responsible for accomplishing the survey, while the universities are responsible for reaching their new graduates. (Figure 1.)

As in earlier years, data collection for 2025 was conducted from December 2024 to January 2026. Universities distributed the survey link sent by TEK to recent graduates in various ways: some sent separate emails to students at the graduation stage, while in other universities, the link was integrated into electronic systems. Graduates could respond to the Surveyppal questionnaire in Finnish, Swedish, or English.

The questionnaire primarily consisted of traditional multiple-choice questions and Likert scale statements. The collected material was analysed quantitatively, mainly using cross-tabulation. Statistical significance tests used were Pearson's χ^2 test. For comparisons of means, ANOVA was used, and when necessary, its non-parametric counterpart, the Kruskal-Wallis test, was applied. Statistical significance was set at 0.05 and indicated with asterisks or p-values as follows: $p < 0.001$ ***, $p < 0.01$ **, and $p < 0.05$ *.

In most of the Likert statements, three-category variables were used. In these cases, "Fully Agree" and "Somewhat Agree" were combined into "Agree", while "Fully Disagree" and "Somewhat Disagree" were combined into "Disagree". Those who answered "Cannot Say" were excluded from the analysis.

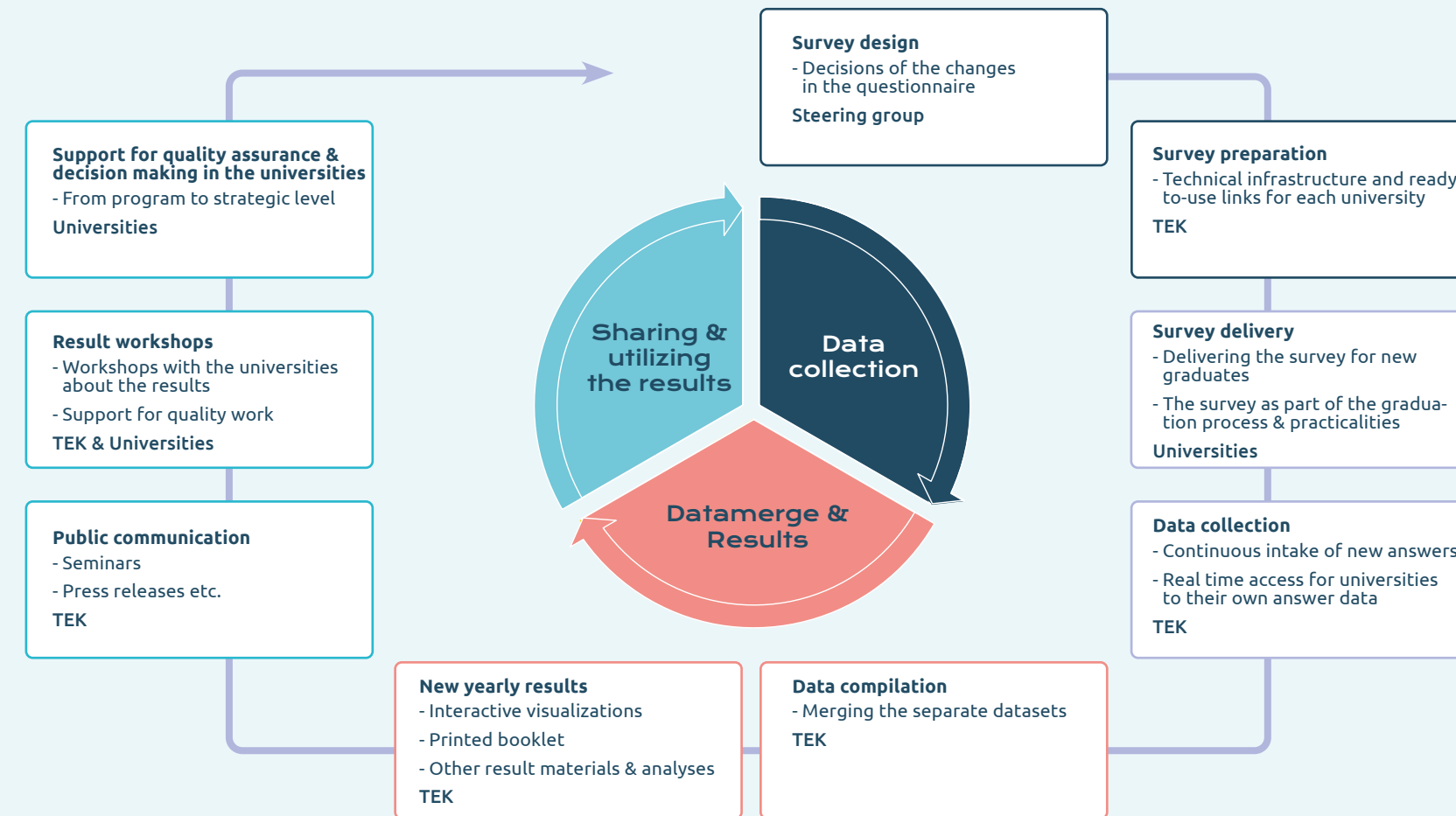


Figure 1: The yearly cycle of collaboration

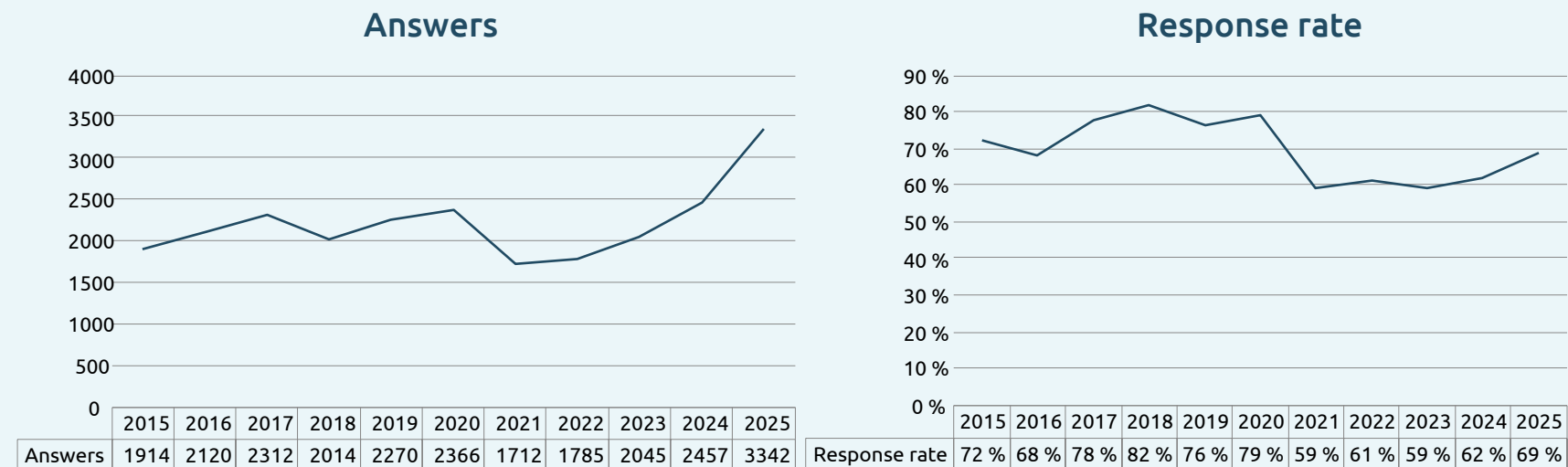
Number of graduates and responses 2025

In 2025 a total of 4,809 academic engineers and architects graduated from the participating universities, which covers every university with technology education except the University of Jyväskylä. Of these, 3,342 responded to the TEK Graduate Survey, resulting in a response rate of 69%.

The response rate represents an increase from last year (62%), and the number of respondents in 2025 was higher than in any previous TEK Graduate Survey (Figures 2 & 3). This is partly explained by the fact that more than 800 additional graduates completed their degrees compared with the previous year.

There were also considerable differences in response rates between universities (Table 2). LUT University had the highest response rate at 89%, while the rate increased most notably at the University of Oulu, reaching 83% (34% in 2024).

The University of Eastern Finland joined the survey for the first time in 2025, and the number of graduates and respondents there is clearly smaller than at other universities. Responses from graduates of the University of Eastern Finland are included in the overall totals, but for data protection reasons, university-specific results are not reported in this report or in the visualization.



Figures 2 and 3: Answers and response rates 2015–2025

	ALL	Aalto ARTS*	Aalto CHEM	Aalto ELEC	Aalto ENG	Aalto SCI	Aalto ALL	TAU	LUT	UO	UTU	ÅAU	UV	UEF
Graduates 2025 in the scope of the TEK Graduate Survey	4809	110	240	359	493	607	1809	1068	856	571	228	136	116	25
Answers (n)	3342	49	173	237	294	320	1073	717	766	474	144	83	79	6
Answer rate (%)	69 %	45 %	72 %	66 %	60 %	53 %	59 %	67 %	89 %	83 %	63 %	61 %	68 %	24 %

* Includes only M.Sc (Architecture) and M.Sc (Landscape Architecture) graduates from Aalto ARTS.

Table 2: Number of graduates and responses 2025



Background of respondents

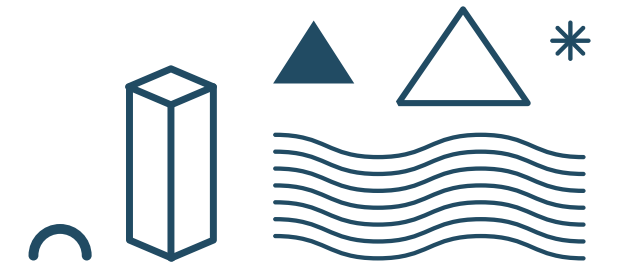
Field of education

Gender

Age at the time of graduation

Nationality

Earlier degree and educational background



Background of respondents

Field of education

Responses to the survey were received from all fields of engineering education (Table 3).

As in previous years, most respondents were from Information Technology (21%) and Industrial Management (15%). The fewest responses came from Landscape Architecture, which is only studied at Aalto ARTS (Table 3).

The variety of studies focused upon in different universities can also be seen from the responses. The University of Turku had respondents from only four fields, while Åbo Akademi University and the University of Eastern Finland had respondents from two fields (see Table 3).

Educational area		ALL	Aalto CHEM	Aalto ELEC	Aalto ENG	Aalto SCI	Aalto ARTS	Aalto ALL	TAU	LUT	UO	UTU	ÅAU	UV	UEF
Mechanical & Energy Engineering	Mechanical Engineering	10 %			32 %			9 %	9 %	12 %	12 %	8 %			
	Energy Engineering	5 %	6 %		16 %			5 %		13 %				14 %	
Electrical & Automation Engineering	Electrical Engineering	11 %		59 %				13 %	9 %	11 %	14 %			18 %	
	Automation Engineering	2 %		2 %				1 %	8 %					10 %	33 %
	Engineering Physics	3 %				36 %		8 %							67 %
	Science and Engineering	3 %	2 %					0 %	6 %	3 %					
Information & Telecommunications Technology	Information Technology	21 %		11 %		51 %		20 %	21 %	14 %	22 %	68 %	46 %		
	Telecommunications Technology	3 %		25 %				6 %			5 %			10 %	
Process & Materials Engineering	Chemical Engineering	5 %	34 %					6 %		9 %			54 %		
	Process Engineering	2 %	5 %					1 %			12 %				
	Environmental Engineering	4 %							7 %	9 %	7 %				
	Wood Processing Technology	1 %	19 %					3 %							
	Materials Technology, Rock Engineering	2 %	20 %					3 %	4 %			10 %			
Biotechnology	4 %	15 %					2 %	4 %			13 %				
Building Construction & Surveying Technology	Building Construction, Community Development	4 %			28 %			8 %	8 %		6 %				
	Surveying Technology	2 %			24 %			7 %							
Industrial Management	Industrial management	15 %				13 %		4 %	22 %	29 %	11 %			48 %	
Other Tech	Other or Unknown Technology	0 %		3 %				1 %							
	Architecture	4 %					82 %	4 %	5 %		12 %				
	Landscape Architecture	0 %					18 %	1 %							
Total		100 %	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 3: Educational areas within the universities and schools

Gender and age

The gendered nature of engineering fields was also visible in the data. Of the respondents, about 68% were male, 32% were female, and less than 1% selected the option 'Other'. Therefore, gender differences were examined in a binary manner. The highest proportion of female respondents was found at LUT University (36%), while the lowest proportion was at Åbo Akademi University (23%). The most female dominated field was Architecture (69%), whereas the lowest proportion of female respondents was in Mechanical & Energy Engineering (17%).

The age distribution was also very similar to that of previous years. As expected, most respondents were under 35 years old at the time of graduation, with a median age of 27 years and a mean age of 28.8 years (SD 5.5). LUT University had the highest average respondent age (31.3 years), while Åbo Akademi University had the lowest (27.5 years). Students of Industrial Management were slightly older on average, with a mean age of 30.5 years (SD 7.6). However, their median age was also 27. Architecture graduates had the highest median age, at 28 years.

Nationality

In total, 31% of respondents had nationalities other than Finnish: 27% were from non-EU countries and a further 4% from EU countries other than Finland. The proportion of respondents coming from outside the EU has increased compared to previous years (see TEK visualization).

There are statistically significant differences in respondent nationality between universities ($p < 0.001$) (Figure 4). At the University of Tampere, only about one sixth of respondents were non-Finnish (16%), whereas at University of Vaasa almost half were non-Finnish (49%). Differences were also visible between the schools of Aalto University: Aalto ARTS had 31% non-Finnish respondents, while Aalto ELEC had nearly half (49%). Although the proportion of international graduates varies from year to year, almost two third of respondents from other EU countries (64%) graduated from Aalto University.

More than half of respondents who graduated from Information & Telecommunications Technology were non-Finnish. In contrast, Industrial Management had the smallest proportion of international graduates, at only 14%.

Neither gender nor age had a statistically significant association with nationality.

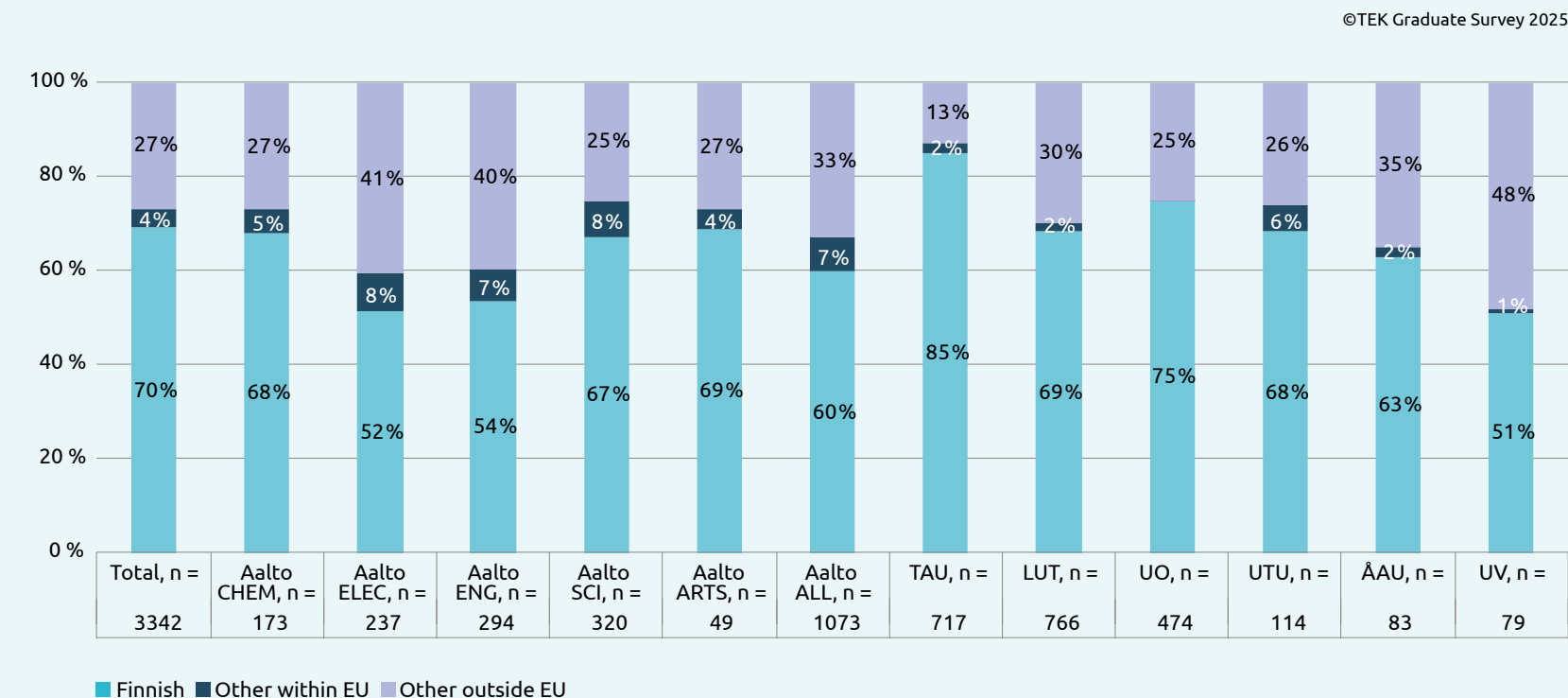


Figure 4: Nationality

Earlier degree and educational background

Overall, 51% of respondents stated that they began their studies in the bachelor's program at the university from which they graduated, and 52% had completed their bachelor's degree at their current university. Around one fifth had completed their previous degree at a university of applied sciences, and 7% selected the option "Other". This includes, for example, when the earlier degree was an MBA or another bachelor's or master's degree in the fields of technology or natural sciences, rather than a Bachelor of Science.

Compared with previous years, an increasing share of respondents had completed their bachelor's degree at a different higher education institution than the one from which they were graduating (Figure 5). It is also noteworthy that 17 respondents (0.5%) did not answer the questions concerning their educational background.

Within this report, a variable based on the respondent's earlier degree is used to classify prior education into three categories: "same university", "university of applied sciences", and "another university". The classification is primarily based on the respondent's selection regarding their earlier completed degree. Respondents who indicated a bachelor's degree from a university of applied sciences were classified into the "university of applied sciences" category, as were those who reported a completed master's degree from a university of applied sciences (YAMK) or a Finnish earlier engineer-level degree (opistotas). Respondents who selected "Other" were classified either as "same university" or "another university" depending on the reported institution where their previous degree had been completed. For those classified as "another university," the earlier university could be located either in Finland or abroad.

If information on the earlier degree or its institution was not available, respondents who indicated completing their bachelor's degree at their current university were classified as "same university", while those who had begun their master's studies at the university from which they were graduating were classified as "another university".

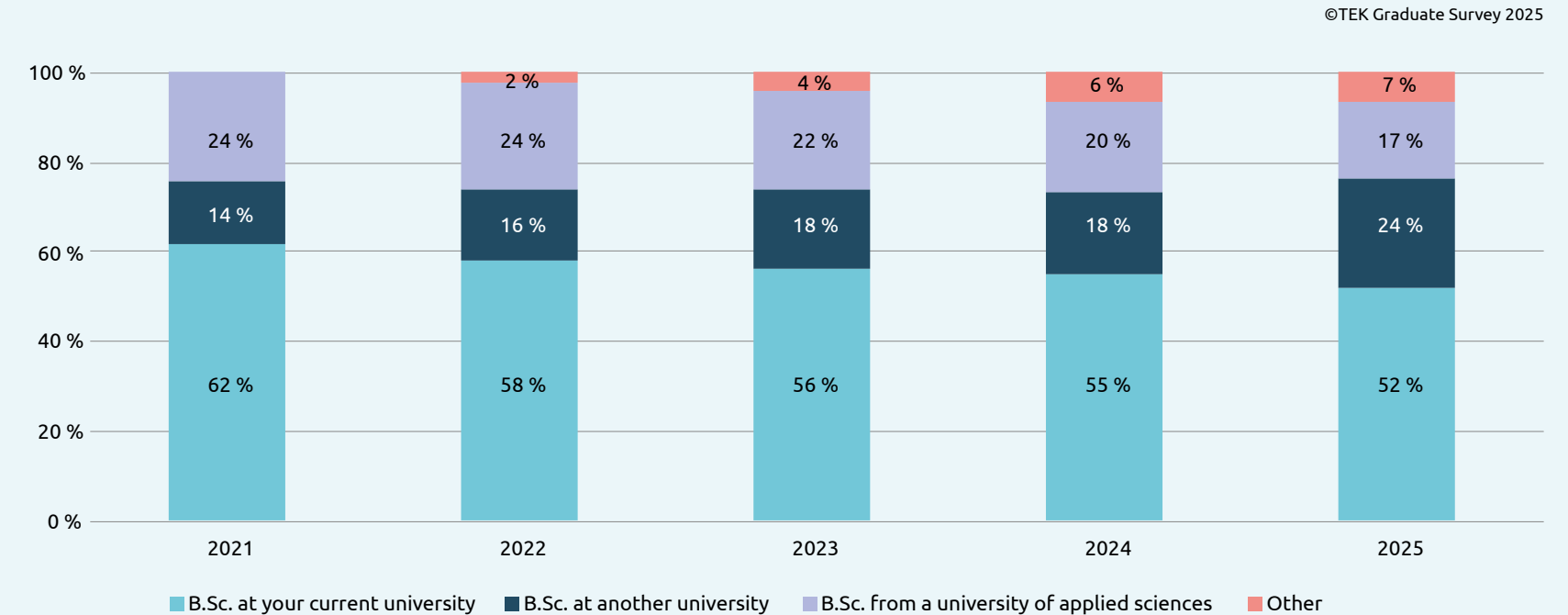


Figure 5: Degree and location of studies before master's degree 2021–2025

There are considerable differences in the educational pathways of recent graduates between universities (Figure 6). LUT University differed from the other universities in having the most evenly distributed respondent group with respect to earlier educational background. In total, one third of LUT respondents had completed a degree at a university of applied sciences, while at other universities the corresponding proportions ranged from 4% to 17%.

When examining the matter by previous degree, nearly 50% of graduates with a UAS background study at LUT University, and about one in five study at Aalto University. At Aalto University, as well as for example at University of Vaasa, the proportion of respondents whose earlier degree was from another university is relatively higher. In contrast, at University of Tampere and University of Oulu, the proportion of those who had completed their earlier degree at the same university is higher. At University of Turku and Åbo Akademi, the relative proportions of graduates from different educational backgrounds are similar.

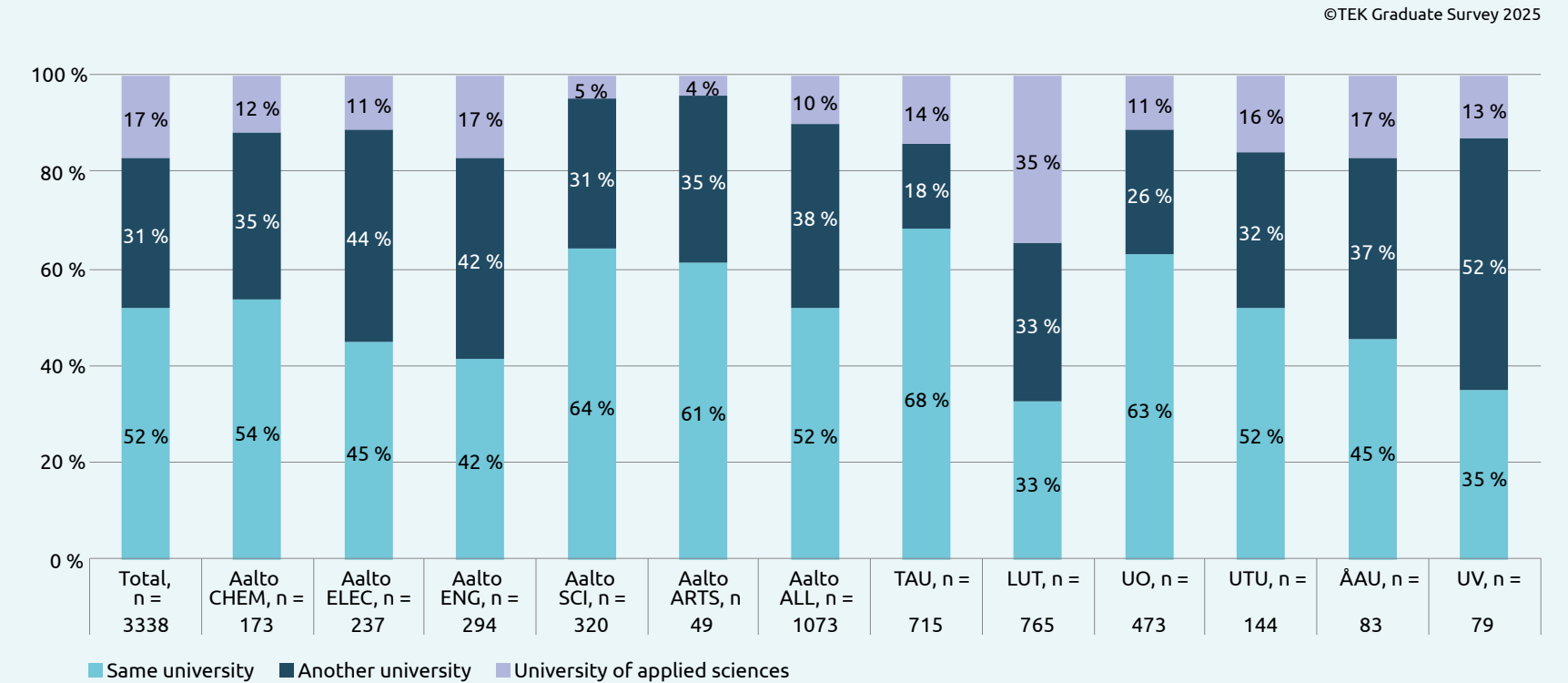


Figure 6: Educational background by university

Respondents aged at least 35 were more likely than those under 35 to have completed a degree from a university of applied sciences (53% vs. 13%, $p < 0.001$). Overall, one third of respondents with a UAS background were over 35 years old, and their mean age was 33.8 years (SD 7.6). Among the other groups the proportion was smaller, and the mean age clearly lower: in the same university 26.7 years (SD 3.1) and in another university 29.3 years (SD 4.9) (Figure 7).

By contrast, gender was not statistically significantly associated with earlier educational backgrounds.

For international respondents, as expected, the bachelor's degree was more likely to have been completed at a different university than for Finnish respondents ($p < 0.001$). Overall, only 3% of international respondents had completed their bachelor's degree at the same university (compared with 73% of Finnish respondents), and around 8% held a bachelor's degree from a university of applied sciences. Among Finnish respondents, approximately one fifth had a bachelor's degree from a university of applied sciences, and 6% had switched between two universities between their bachelor's and master's degrees. Figure 8 presents nationality with an educational background ($p < 0.001$).

Among international graduates who specified their earlier institution, 62% with a UAS degree had completed it in Finland, while only a few of those who came from another university had done so. Among Finnish respondents, only a couple had completed their UAS degree abroad, whereas 20% of those whose earlier degree was from another university had completed their degree outside Finland. Overall, 11% of respondents from another university and 93% of those with a UAS background had completed their earlier degree in Finland.

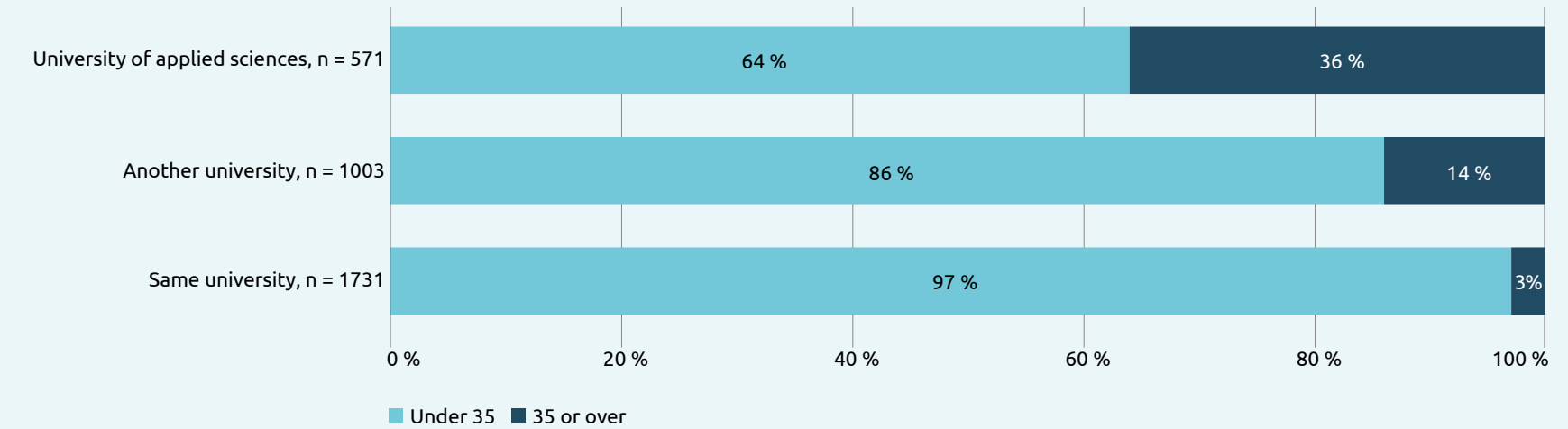


Figure 7: Age by educational background

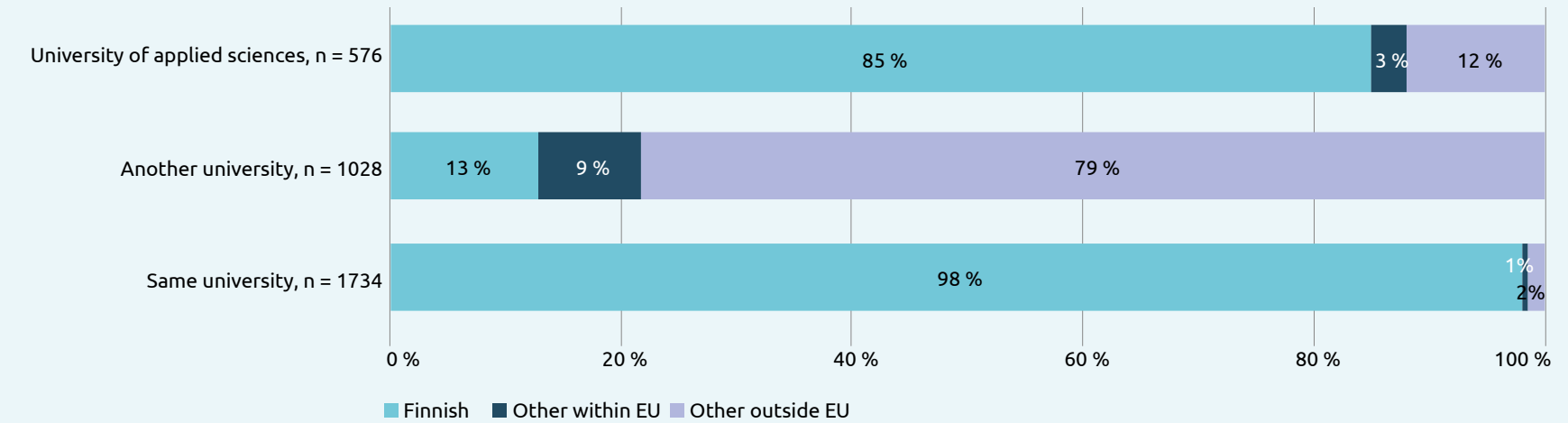


Figure 8: Nationality by educational background

When examining the relationship between respondents' previous degree and their current field of study, it was observed that educational backgrounds were distributed differently across fields ($p < 0.001$) (Figure 9). Among those with a UAS background, the highest proportion graduated in Industrial Management, while many also studied Mechanical & Energy Engineering. In contrast, Electrical & Automation Engineering as well as Information & Telecommunications Technology were fields in which their proportion was relatively smaller. (Figure 9). Among those coming from another university, one in three graduated in Information & Telecommunications Technology. In contrast, graduates from the same university were more evenly distributed across the different fields of study. However, it should be noted that Information & Telecommunications Technology was particularly prominent among international graduates, irrespective of their previous degree.

It was also noteworthy that among respondents aged under 35, Industrial Management had almost the same proportion of UAS-background respondents (23%) as Mechanical & Energy Engineering (21%). Among older respondents, Industrial Management had a far higher proportion (39% vs. 23% in Mechanical & Energy Engineering) ($p < 0.001$).

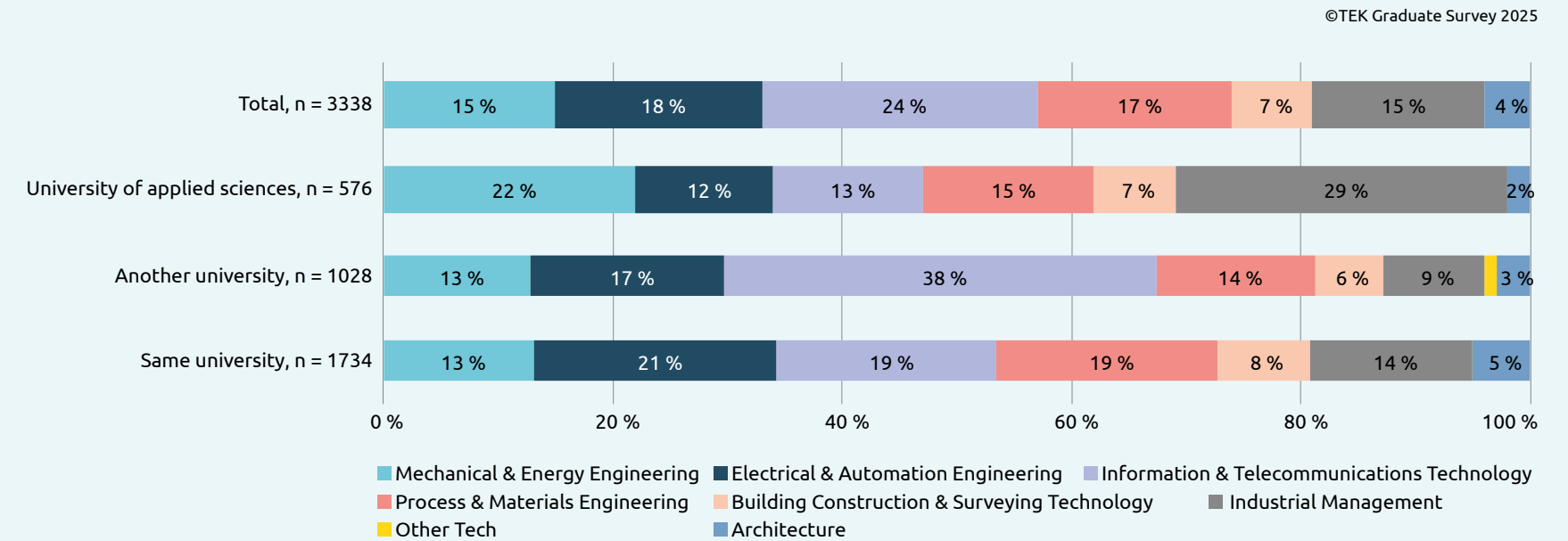


Figure 9: Field of education by educational background



Experiences about studying

Exchange studies or working abroad

Absence from the studies during studies in Finland

Delays in studies or graduation

Reasons for the delays in studies or graduation

Support, guidance and information in university studies



Experiences about studying

International experiences during studies in Finland

Studying or working abroad during studies was more common among international graduates who had completed their earlier degree at another university or in university of applied sciences. Over half of them had studied or worked abroad during their current degree. In contrast, among those international graduates from the same university only 30% had studied or worked abroad during their studies ($p < 0.001$). In this respect, they resembled respondents with a Finnish background, of whom less than one third had international experience during their studies. Such experience was least common among those with a UAS background.

Those international graduates who had completed their earlier degree at another university or in a university of applied sciences also spent longer periods abroad than those with a Finnish background. Among graduates from another university, one in three had studied or worked abroad for more than two semesters, and among those with a UAS background the share was one in five. In comparison, only one in ten Finnish-background respondents had such experience.

Absences

There were also educational-background-based differences in absences from studies. Overall, one in four respondents who had graduated from the same university had been absent during their studies, compared with 9% of those with an earlier degree from other university and 18% of those with a university of applied sciences background ($p < 0.001$) (Figure 10).

Longer absences were slightly more common among respondents with a university of applied sciences background. Among graduates from the same university, two semesters' absences were more common than one semester absences. (Figure 10.) Overall, the amount of absence among respondents was broadly similar to that of earlier years.

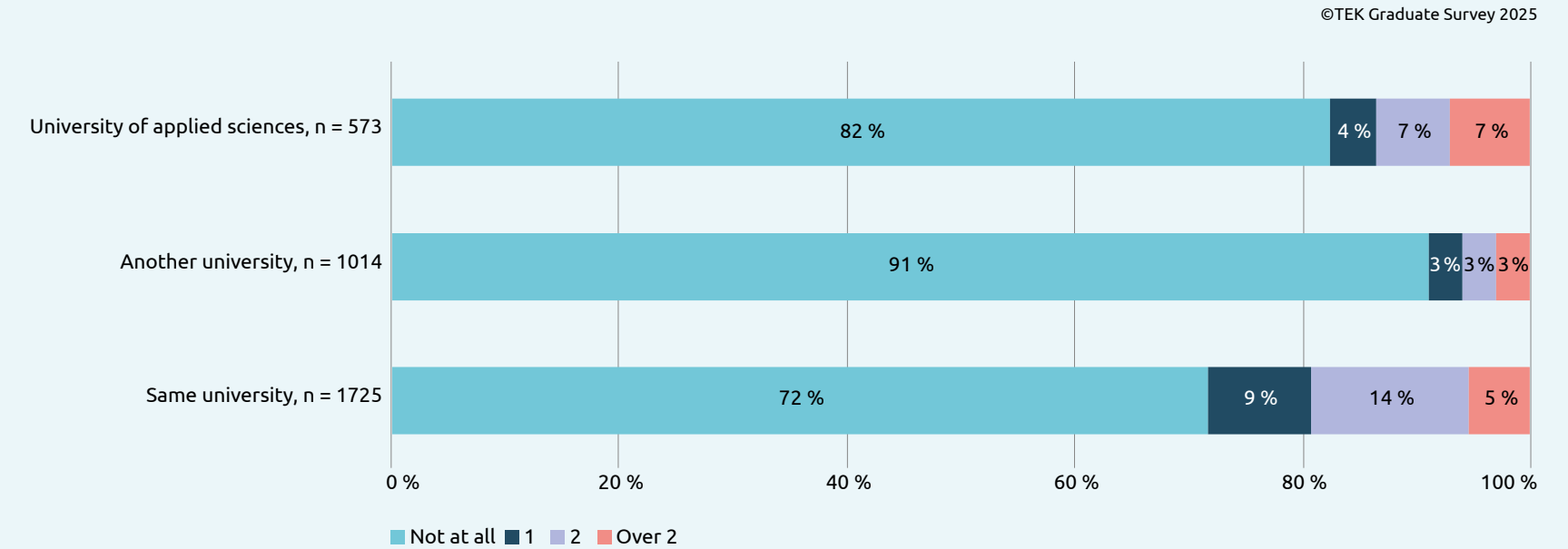


Figure 10: Absence from the studies during studies in Finland (semesters) by educational background

Delays in studies or graduation and their reasons

Statistically significantly fewer study delays were observed among international respondents whose prior degree had been completed at another university or a university of applied sciences compared with Finnish respondents. International graduates with a previous university degree reported fewer delays in their studies or graduation than other groups. Two thirds of these respondents indicated that their studies or graduation had not been delayed at all, whereas this was reported by slightly less than half of the other international respondents ($p < 0.001$). Among Finnish recent graduates, only approximately one third reported no delays, irrespective of educational background.

Both similarities and differences can be seen in the reasons why graduates from different educational backgrounds reported experiencing delays in their studies (Table 4).

For all three groups, the main source of delays was working during studies. However, while this was the reason for two third of those with a university of applied sciences background (69%), it was less frequently mentioned among the other groups.

The second most common reason was also the same for all three groups: delays due to difficulties in finding a thesis subject or a workplace.

Graduates who had studied at the same university most often mentioned being impacted by the COVID 19 pandemic as the third most common reason for delays, whereas only a small number of respondents in the other groups identified it as a cause. This may partly be explained by the

timing of when their studies began: for the clear majority of those entering master's studies, their studies started only after the pandemic had subsided, while for those who had studied at the same university, the pandemic period aligned with their bachelor's studies.

Personal issues, such as health problems, were among the top five causes of delays across all three groups. By contrast, insufficient motivation was more frequently mentioned by those who had studied at the same university, whereas other reasons were more common in the remaining groups.

In total, the given reasons were broadly similar to those reported in previous years.

©TEK Graduate Survey 2025

	Same university, n = 1146	Another university, n = 363	University of applied sciences, n = 384
1. Working during the studies.	43 %	Working during the studies. 38 %	Working during the studies. 69 %
2. Delay in finding a place or subject for the thesis work.	27 %	Delay in finding a place or subject for the thesis work. 30 %	Delay in finding a place or subject for the thesis work. 30 %
3. COVID-19	23 %	Personal issues, eg. health problems. 17 %	Family issues. 22 %
4. Insufficient motivation for studies.	16 %	Other matters related to master's thesis or graduation. 17 %	Some other reason. 15 %
5. Personal issues, eg. health problems.	16 %	Some other reason. 16 %	Personal issues, eg. health problems. 14 %

Table 4: Most important reasons for delays, if delayed, % mentioned

Support, guidance and information in university studies

As in previous years, graduates in 2025 were generally satisfied with the support, guidance and information provided by their university. However, when the results were analysed using a three-category variable, statistically significant differences emerged between educational background groups.

Across the items, respondents with a university of applied sciences background consistently reported the highest satisfaction levels, whereas graduates from the same university were systematically less satisfied than the other two groups (Figure 11). This pattern was visible in nearly all statements, including sufficient guidance for organising studies, communication with teaching staff, and ease of finding information. The largest difference appeared in opportunities to

influence and participate in the study programme, where only 65% of graduates from the same university agreed—clearly lower than among those from other universities or with a UAS background.

Graduates with an earlier degree from another university tended to fall between the two other groups, but they more often selected the neutral category. This was particularly evident for statements regarding communication with teaching staff and opportunities to influence their study programme, where the proportion of neutral responses reached 15–21%. The higher use of neutral options may reflect differences in familiarity with program structures among those who entered directly at the master's level.

Despite these differences, satisfaction was high across all groups regarding the availability of help when needed and the functionality of student information systems. Additionally, there were no statistically significant differences between the groups in the availability of sufficient guidance for the preparation of the master's thesis. In all three groups, roughly three out of four respondents were satisfied with this. Similarly, more than 80% of respondents across all groups agreed that there was always someone available to ask for help when needed.

¹ Those who answered "cannot say" were excluded from the analysis. Their proportion was about 1–2%, except for the statement regarding the opportunities to influence studies, where it was about 8%. Some respondents also chose not to express an opinion on the statements at all.

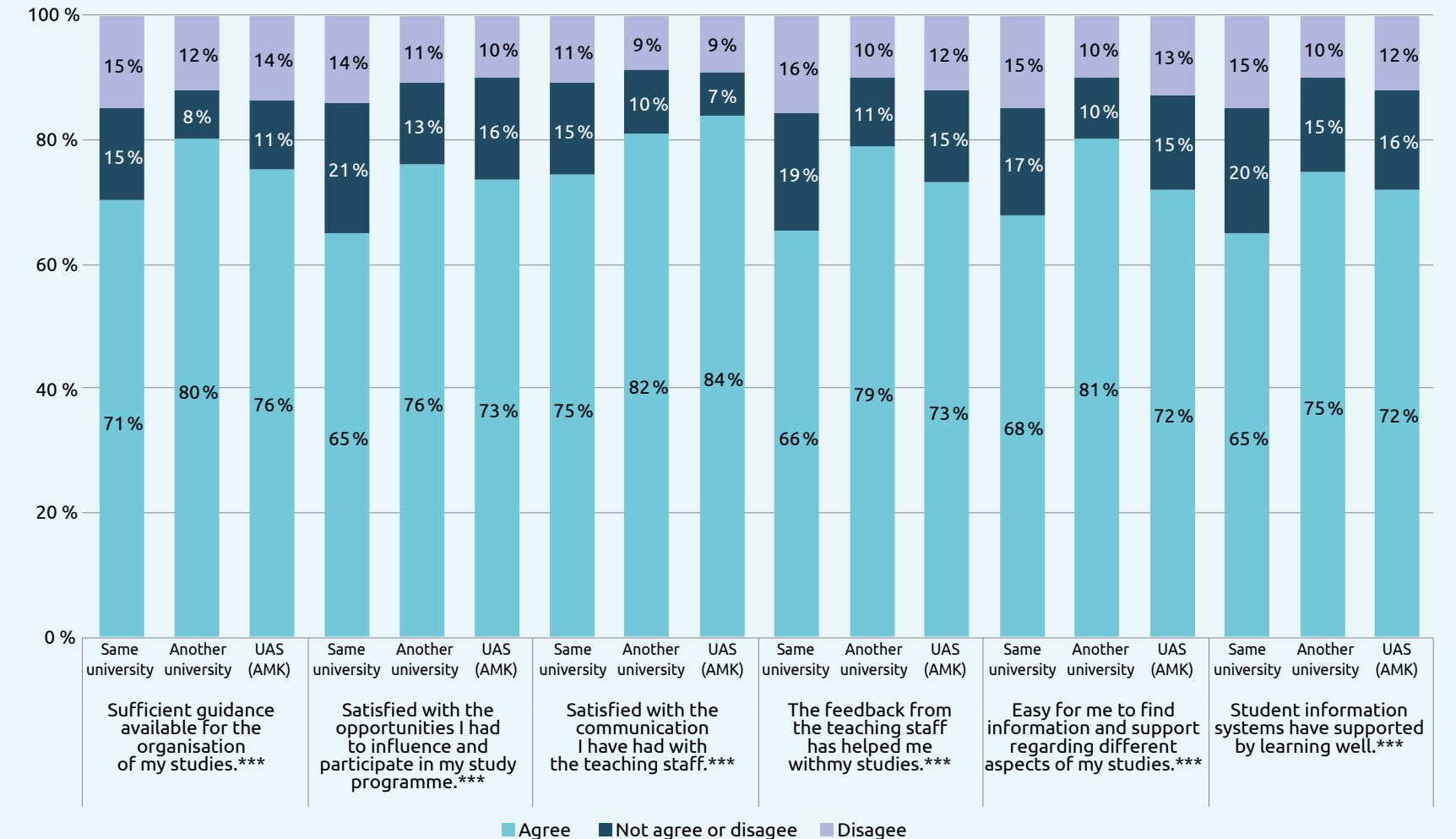


Figure 11: Statements of support, guidance and information by educational background



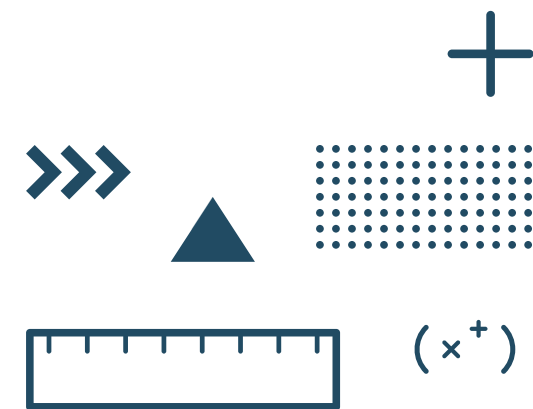
Well-being, coping and inclusion

Well-being

Coping

Voluntary engagement and activity

Part of the university community



Well-being, coping and inclusion

Well-being

Although most respondents reported positive experiences regarding well-being, differences again emerged between the educational background groups when three-category variable was applied in the analysis (Figure 12).

Respondents with another university background most often agreed that they felt comfortable at their university (86%) and were satisfied with their studies (84%), whereas those from the same university reported the lowest levels of agreement (76% and 76%).

Small differences were also visible in the inverse well-being items. Graduates from another university most frequently reported having slept poorly due to matters related to their studies (38%), while those from the same university most often felt that pressure from their studies had caused problems in their personal relationships (27%).

The only statement without statistically significant differences was “I have often felt like I am all over my head with the amount of work related to my studies.” Agreement was nearly identical across groups (42–44%), and this was also the item with the highest overall agreement of the inverse well-being questions. This suggests that feeling overwhelmed by study workload was a common experience regardless of educational background.

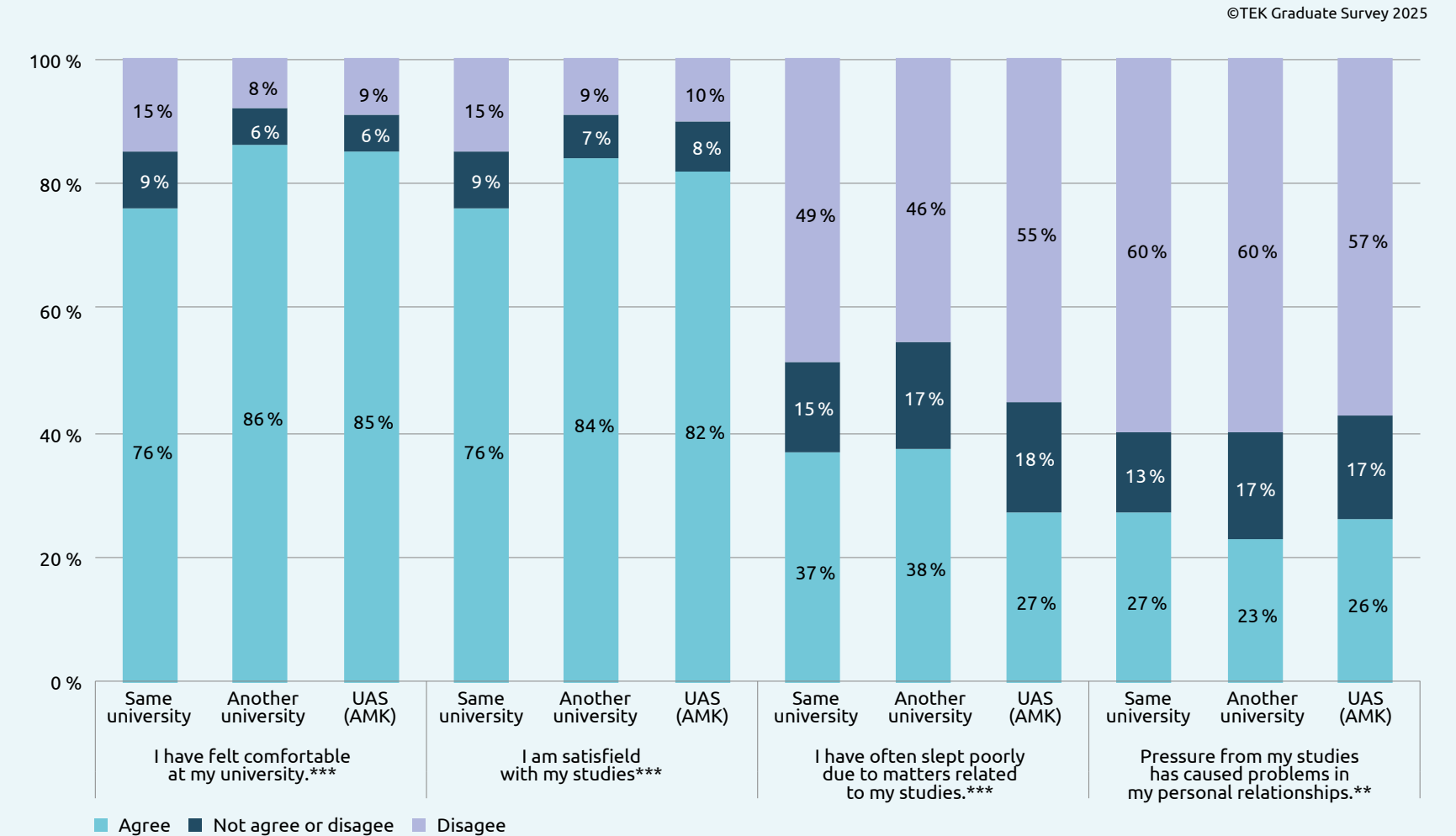


Figure 12: Statements of well-being by educational background

Coping

Respondents had asked whether they had been worried about coping during their studies, and the results show that a clear majority had experienced such concerns at least at some point (**Figure 13**).

Differences were again visible between educational background groups ($p < 0.001$). Respondents who had completed both their bachelor's and master's degrees at the same university reported worries about coping more often than the other groups. They were the least likely to indicate that they had not been worried at all, and the most likely to report having worried either several times or constantly.

Respondents from another university expressed such concerns least often, with those from a university of applied sciences positioned between these two groups.

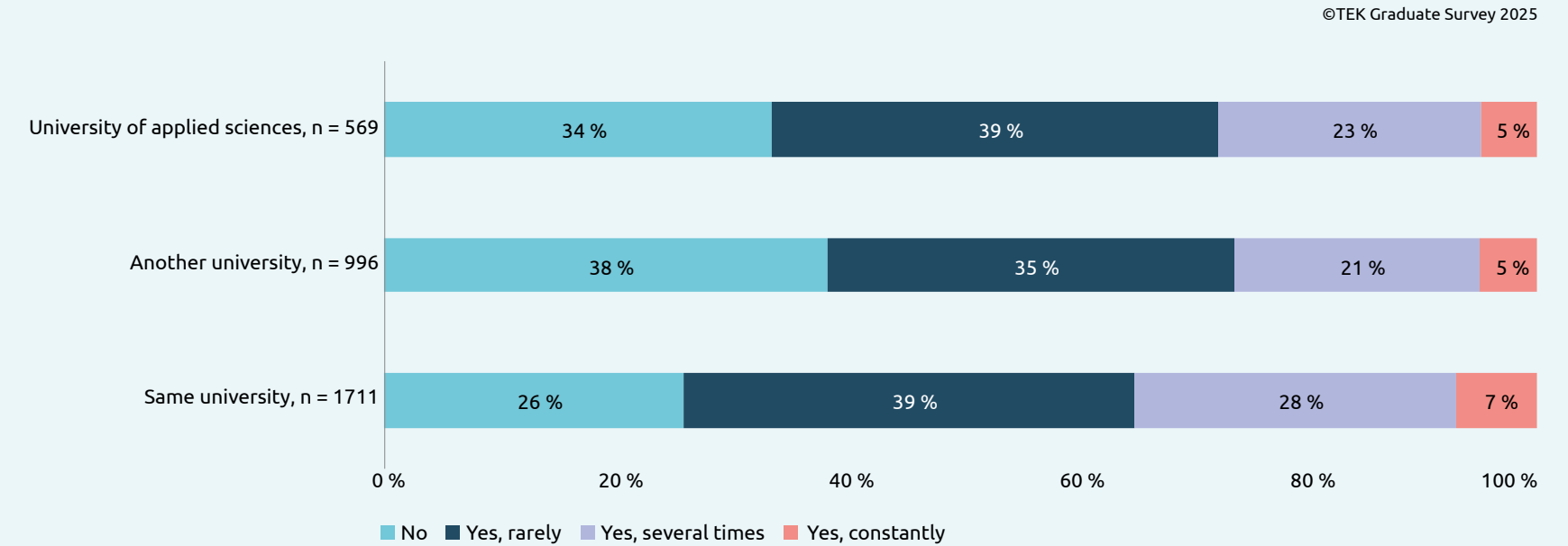


Figure 13: Worried about coping during studies by educational background

Voluntary engagement and activity

The results showed that respondents who had completed both degrees at the same university were clearly the most active participants in their field's guild or student association. In contrast, among those with a university of applied sciences background, as many as three out of four reported that they had never or only very seldom taken part ($p < 0.001$). (Figure 14.) Differences in participation activity were visible among both Finnish and international graduates, although the between-group differences were smaller among the international respondents.

When examining within-group differences, it was observed that among respondents with a UAS background, only a very small share of those aged 35 or older took part in student activities even occasionally, whereas the corresponding share was clearly higher among those under 35 (9% vs. 35%, $p < 0.001$). A similar pattern was visible in the other groups as well: older graduates participated less often than respondents under 35.

Among those who had completed their earlier degree at another university, Finnish-background respondents were more likely to be completely inactive participants compared to international graduates (65% vs. 51%, $p < 0.01$). However, the share of active participants was identical in both groups (11%). It also appears that among those with a UAS background, Finnish respondents are less active.

These differences are noteworthy, since when participation was examined solely by nationality, it was found - consistent with previous years - that international graduates were slightly less active than Finnish respondents ($p < 0.001$). Overall, half of the international graduates reported that they very seldom or never participated, compared to 44% of the Finnish respondents.

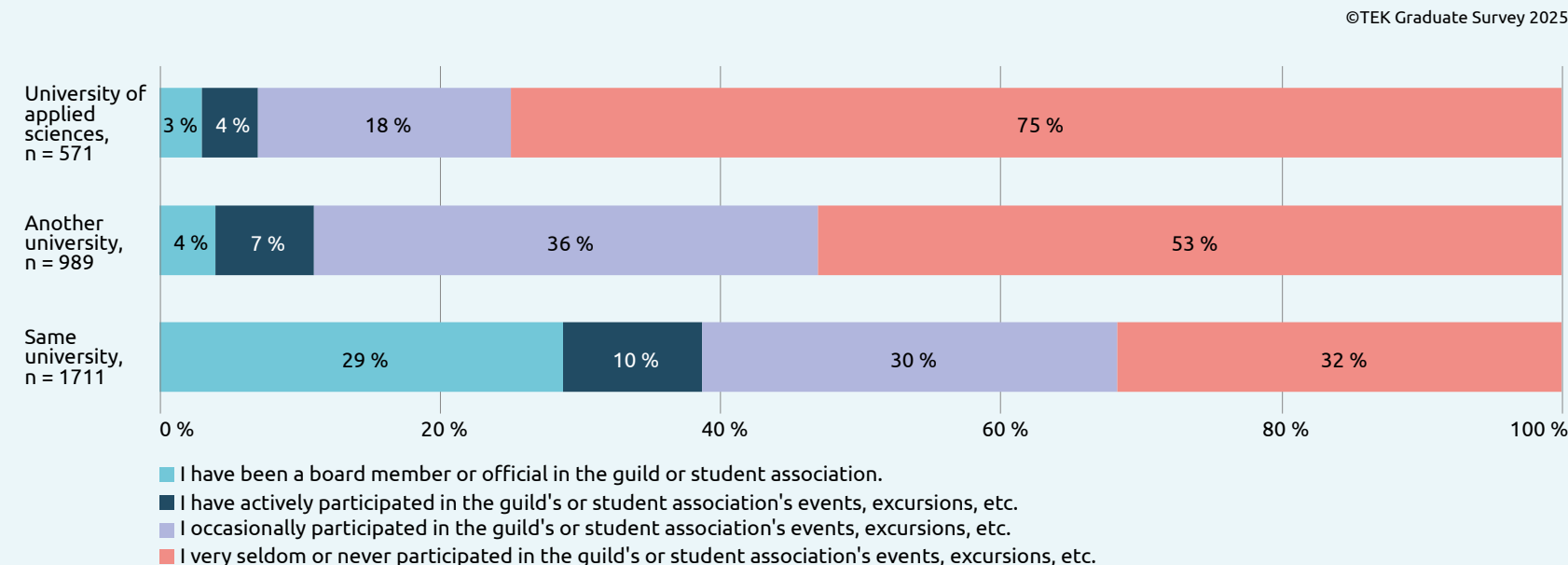


Figure 14: Participation in guilds or student associations and their activities in own field by educational background

Part of the university community

Small differences were also observed between the educational-background groups in how well respondents felt they had become part of the university community in the way they wanted. The highest proportion of respondents who fully agreed or somewhat agreed with the statement were those with a background from the same university (63%). Among respondents with another university background, the corresponding share was 45%, and among those with a UAS background 42%. Of the respondents with a UAS background, 12% selected “cannot say,” whereas the corresponding shares in the other groups were 4% and 3%.

When university integration was examined in more detail using the three-category variable (positive, neutral, negative), statistically significant differences emerged only among Finnish respondents. Finnish graduates who had completed both degrees at the same university were the most likely to agree that they had become part of the community in the way they wanted, compared with the other groups (Figure 15). Similarly, statistically significant differences by educational background were found only among respondents under 35 years of age, but not among older graduates.

An additional analysis focusing on within-group variation showed that neither age nor nationality had a statistically significant association with the experience of integration.

However, consistent with previous years, Finnish respondents overall agreed more often than international graduates that they had become part of the community in the way they wanted (58% vs. 45%, $p < 0.001$). Age-related differences followed a similar pattern: the youngest respondents were more likely than older respondents to fully agree or somewhat agree with this statement (55% vs. 42%, $p < 0.001$).

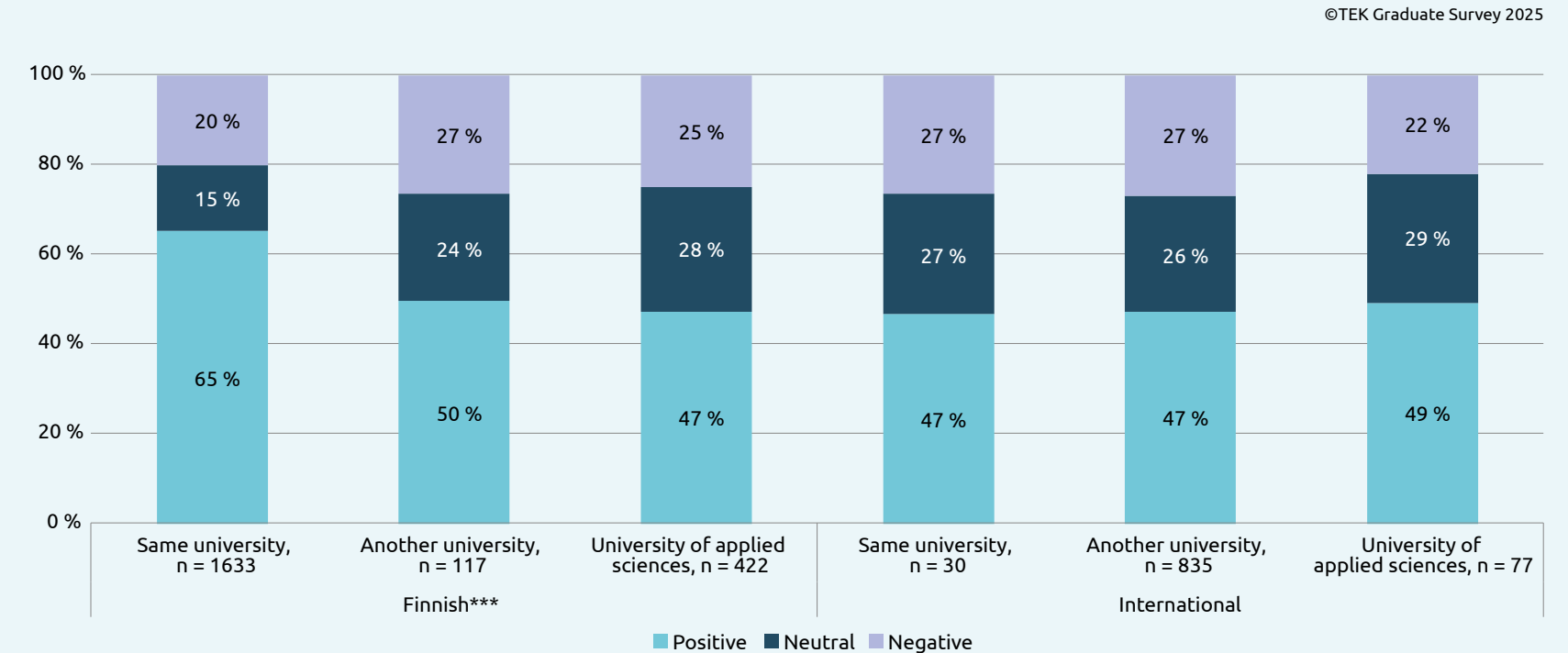


Figure 15: Becoming a part of university community the way wanted by nationality and educational background



Master's thesis and working life

Working during studies

Collaboration in master's thesis

Financing of master's thesis

Duration of master's thesis

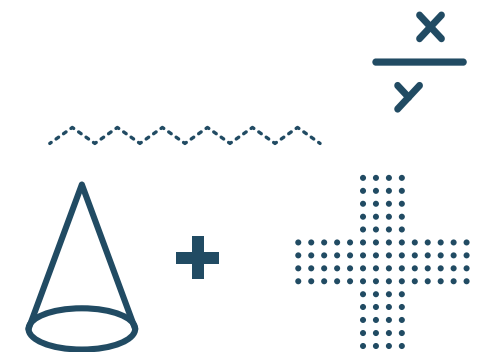
Support and supervision to master's thesis and working life

Information on job market and career planning

Employment situation at time of graduation

Quality of employment

Salary



Master's thesis and working life

Working during studies

When examining the total amount of work experience and the work experience gained in one's own field during studies, clear differences appeared between the educational background groups ($p < 0.001$).

Respondents whose earlier degree was from another university had the least work experience of any kind during their studies, and one in four of them (24%) reported having no work experience at all. Those with a UAS background had the most work experience, although even among them 7% reported having gained none. Among respondents who had completed their earlier degree at the same university, the corresponding share was 3%.

When looking only at work experience in one's own field, respondents with a UAS background stood out: they most often reported having accumulated at least two years of relevant experience during studies,

excluding the thesis (Figure 16). Notably, when examining field-specific experience among respondents aged 35 or older, the differences between educational background groups diminished. At least two years of work experience in one's own field was almost equally common among those with a UAS background (50%) and those from the same university (47%). Among younger respondents, the differences were somewhat larger: 37% of younger respondents with a UAS background, 27% of those from the same university, and only 6% of those from another university had accumulated more than two years of field-specific experience during their studies.

In contrast, respondents whose earlier degree was from another university were the most likely to have accumulated no work experience in their own field during their studies and the least likely to have gained more extensive experience. This

pattern was observed among both younger and older respondents. However, Finnish graduates from another university were in a somewhat better position: they were less likely to lack relevant work experience (7% vs. 24%) and considerably more likely to have accumulated longer-term experience. In particular, the difference in having more than two years of field-specific experience was substantial (35% vs. 3%, $p < .001$). Similarly, older respondents from another university were more likely than their younger counterparts to have accumulated at least one year of field-specific experience.

Respondents who had completed both degrees at the same university were the only group in which no statistically significant age differences were observed. Overall, they were also the least likely to report having no field-specific work experience at all.

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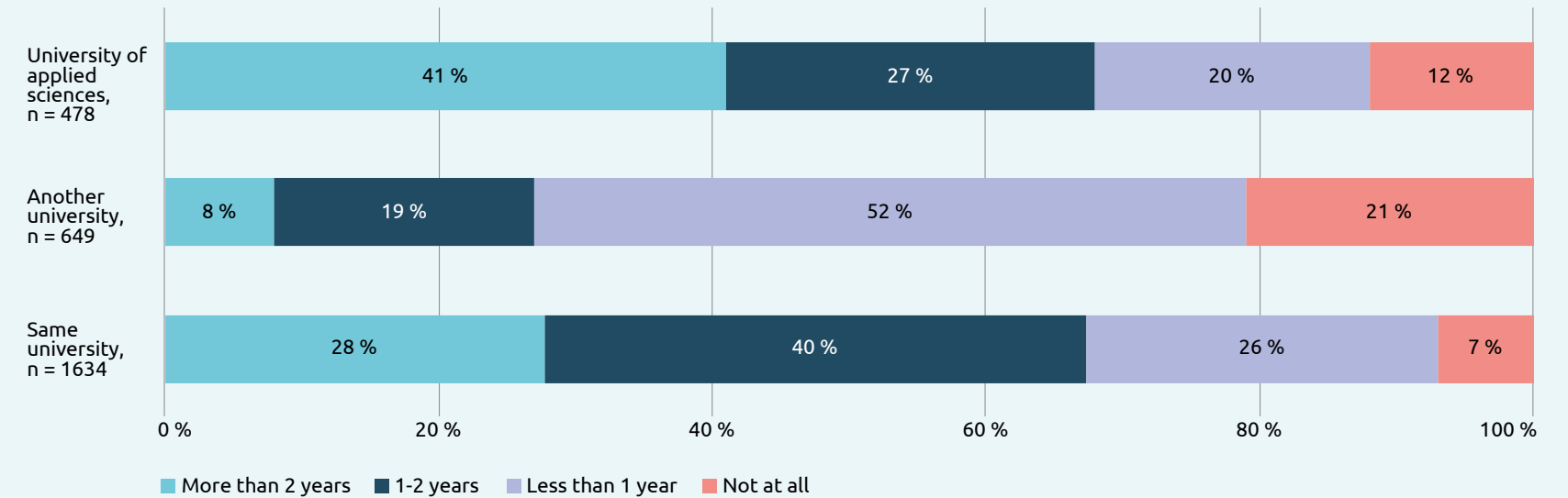


Figure 16: Work experience in own field (excl. thesis work) by educational background

As in previous years, study related practice or work experience was considered valuable regardless of respondents' earlier educational background. Interestingly, one in four respondents with a UAS background answered cannot say or that it did not apply to them. This may be explained by the fact that employment during studies was not directly connected to the degree programme, but rather constituted work carried out alongside studies.

Overall, only 3% of respondents felt that working during studies had accelerated their studies, and there were clear differences by educational background ($p < 0.001$, Figure 17). Most of the working respondents from the same university and from another university did not think that employment during studies had influenced the progress of their studies. In contrast, two out of three respondents with a UAS background thought that working during studies had slowed their studies down.

Age was also associated with these perceptions. Older respondents were more likely to report that working had slowed their studies than respondents under 35 years old (60% vs. 40%). This likely reflects the earlier finding regarding the amount of time spent working during studies.

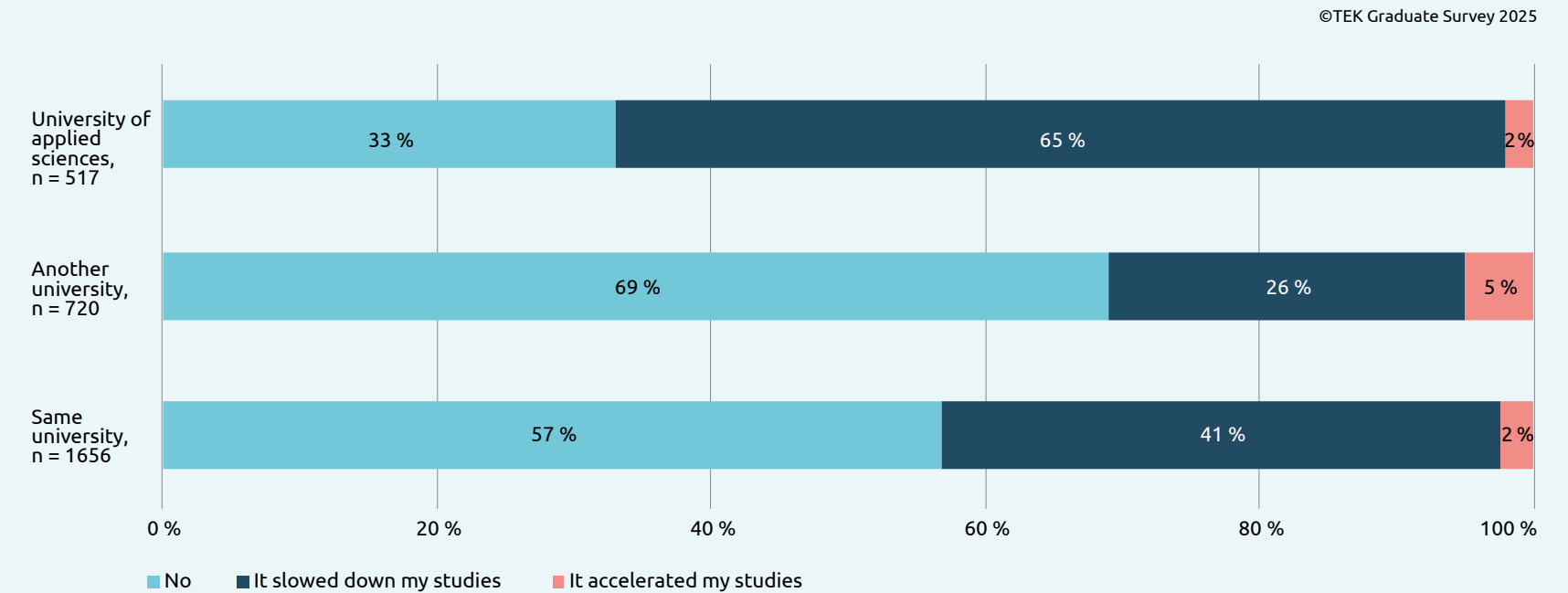


Figure 17: Opinion on how working during studies affected the progress of one's studies by educational background

Collaboration in master's thesis

Differences between educational background groups were also visible in whether the master's thesis involved collaboration within or outside the university ($p < 0.001$) (Figure 18).

Respondents who had completed their earlier degree at another university were the least likely to have worked outside the university on their thesis. They were also slightly more likely than the other groups to report having completed their thesis without any collaboration.

Those who had completed both degrees at the same university and those with a university of applied sciences background showed very similar patterns: in both groups, almost two thirds reported collaborating outside the university. However, respondents from UAS background completed their thesis on their own more often than those from the same university.

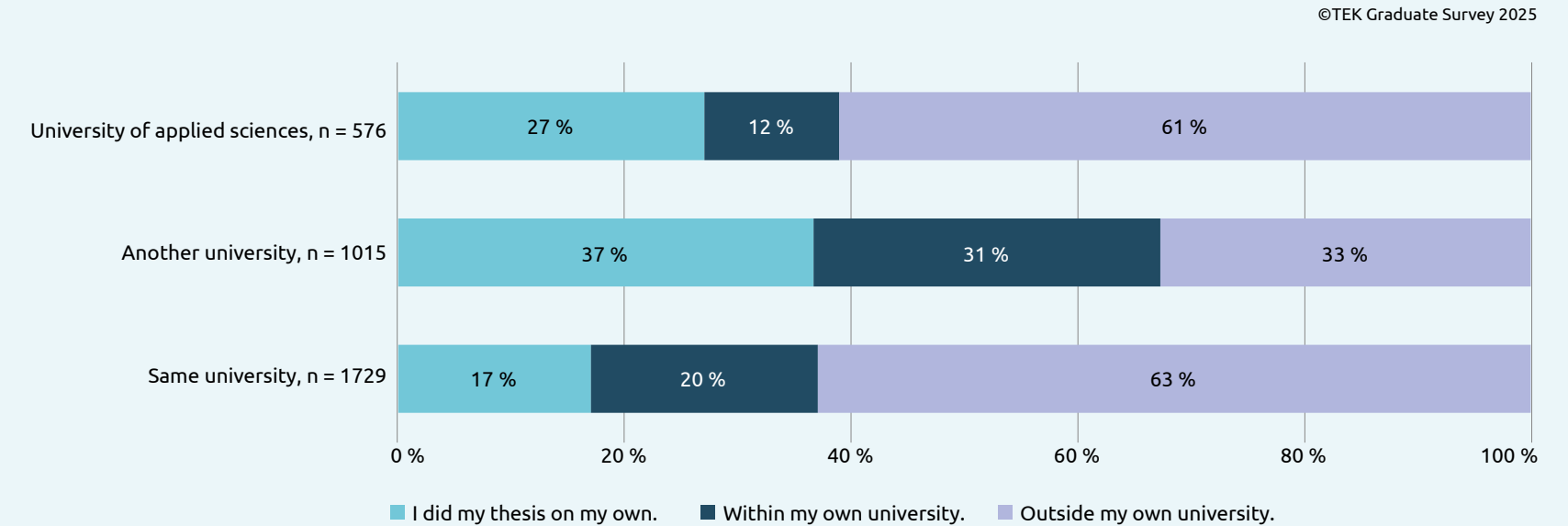


Figure 18: Collaboration in master's thesis by educational background

As in previous years, there were differences in the prevalence of thesis collaboration between Finnish graduates and international graduates, and this pattern was visible across all three educational-background groups. Regardless of their earlier degree, Finnish respondents engaged in collaboration outside the university clearly more often compared international respondents (Figure 19).

Differences were also visible in the location of collaboration. Those who had completed both degrees at the same university most often carried out their thesis in collaboration with a company, while respondents with an earlier degree from another university more frequently collaborated with a research institute.

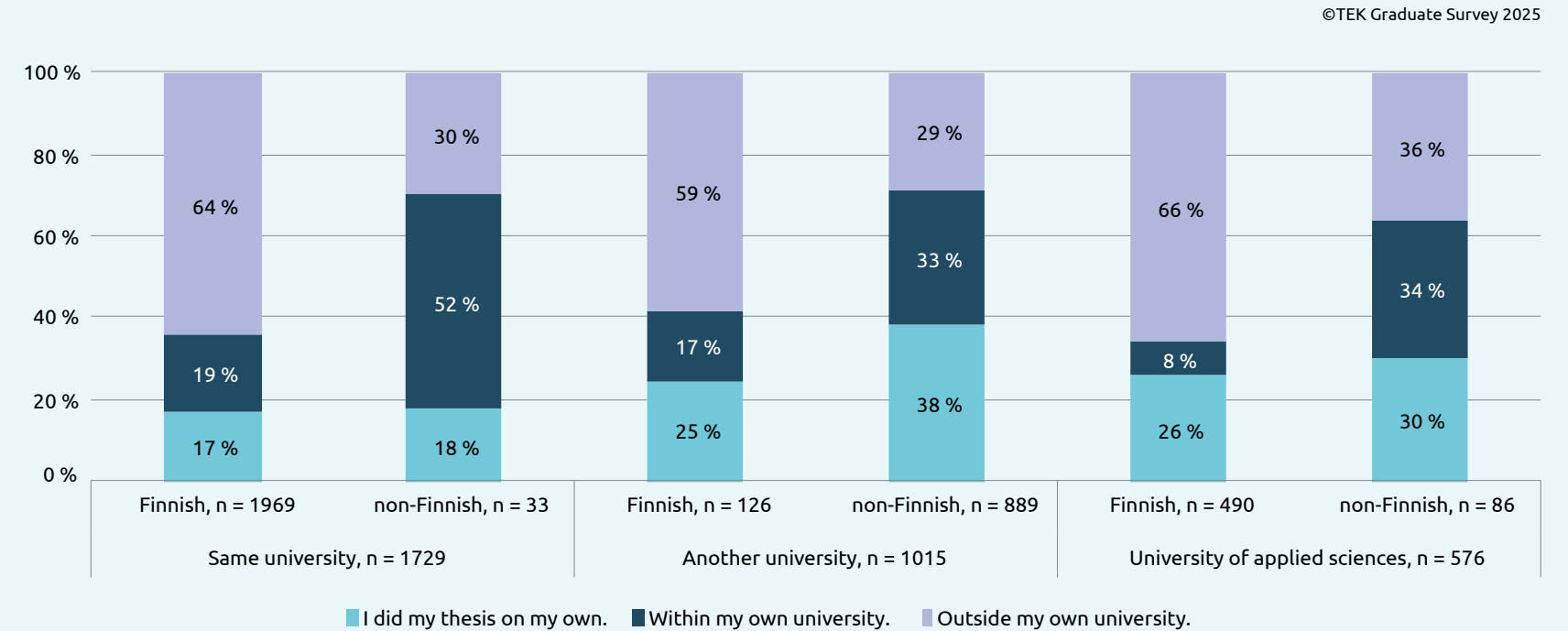


Figure 19: Collaboration in master's thesis by nationality and educational background

Financing of master's thesis

Differences in the financing of thesis work were evident between the educational background groups (Figure 20). Those who had completed both degrees at the same university were the most likely to receive a monthly salary for their thesis work, and only a relatively small share reported having received no financial support. Respondents who had completed their earlier degree at another university were less often paid for their thesis work; nevertheless, more than half of them still received some form of funding.

In contrast, respondents with a university of applied sciences background were less often paid for their thesis work. They had the smallest share receiving a monthly salary, but they were allowed to use their working time to complete the thesis. This may reflect that they are more often working during studies.

As in previous years, Finnish respondents were more often paid or allowed to use their working time to complete their thesis than international graduates ($p < 0.001$). Interestingly, both Finnish and international respondents showed similar differences based on their previous degree as observed in the overall data. Only among international graduates did those with a university of applied sciences background have a larger proportion without any funding compared to those with a previous degree from another university.

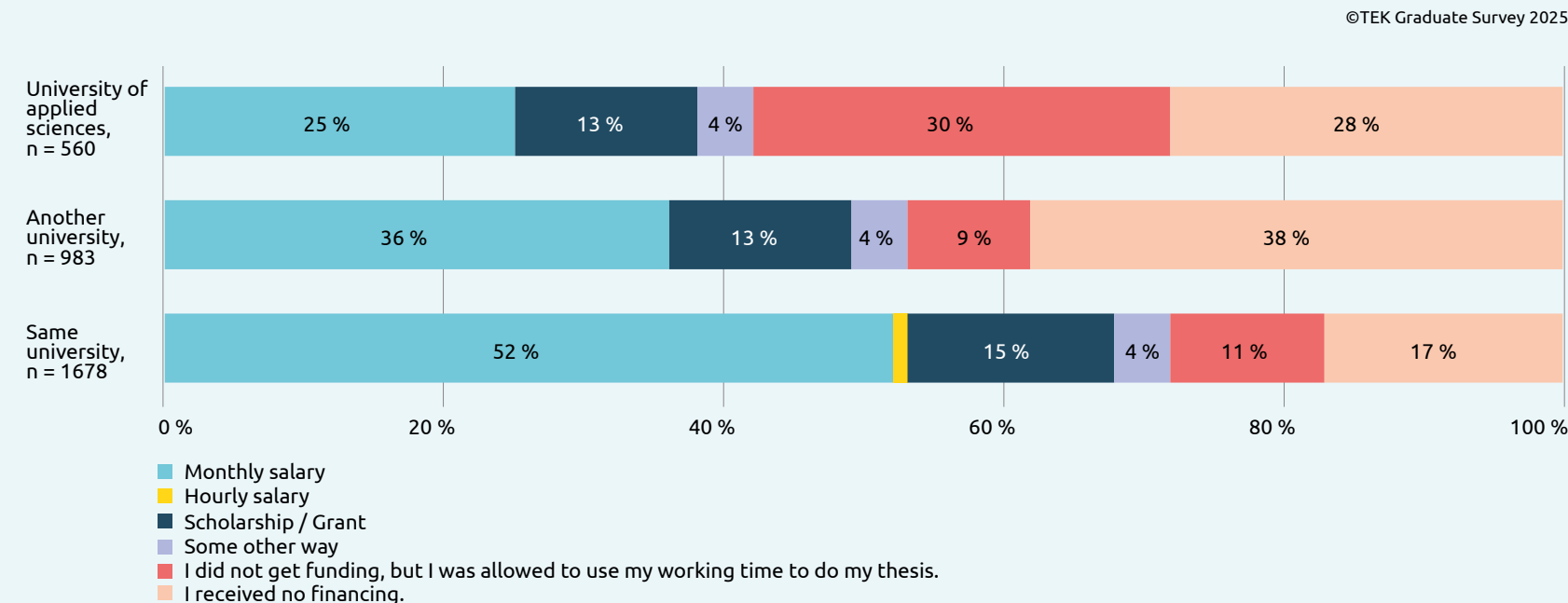


Figure 20: Financing of master's thesis by educational background

Duration of master's thesis

Half of all respondents completed their thesis within six months, but there were differences between educational background groups. Those who had completed their earlier degree at another university most often finished within this time frame. Respondents with a university of applied sciences background, on the other hand, more frequently reported longer completion times and were the most likely to spend at least nine months on the thesis (Figure 21).

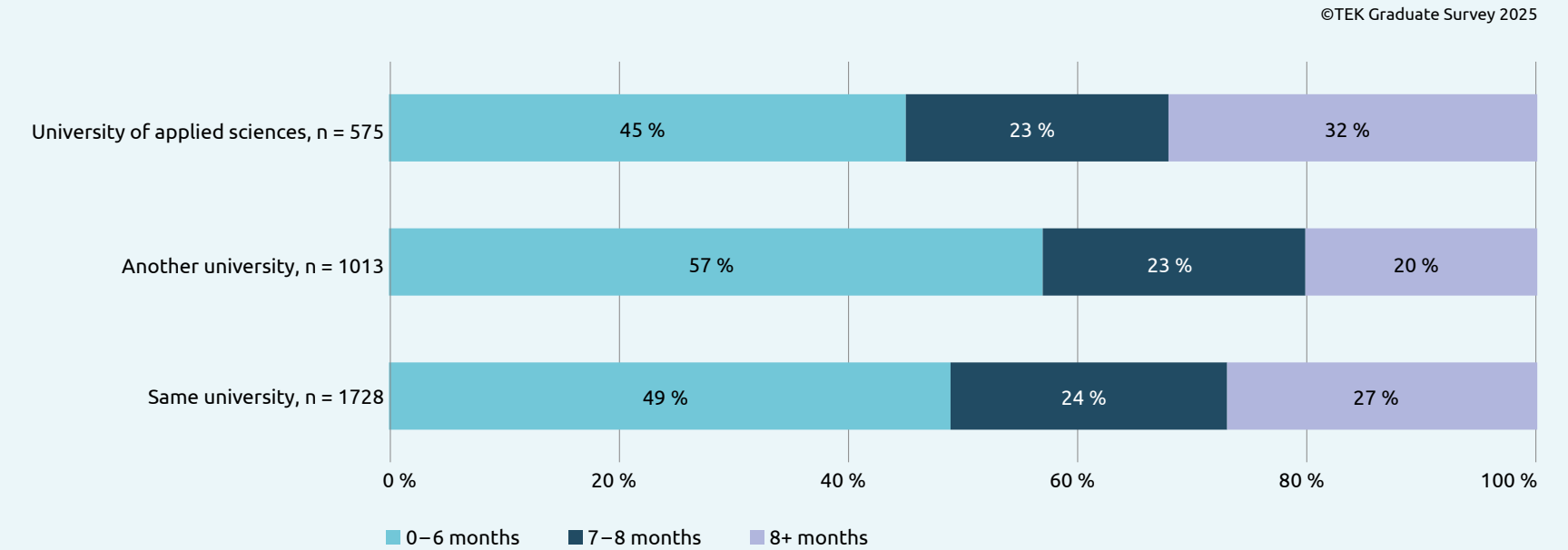


Figure 21: Duration of master's thesis by educational background

Support and supervision to master's thesis and working life

A clear majority of all respondents were satisfied with the guidance they received from both the university and their partner organization when writing their master's thesis. The statement with which respondents most often disagreed was that they had received sufficient guidance from the partnering organisation for their thesis work. (Figure 22.)

When using the three category classification, one small statistically significant difference emerged: a slightly smaller proportion of respondents who had completed their previous degree at another university felt that the guidance provided by the university was well organized and informative. Additionally, respondents who had completed their earlier degree at the same university were the most likely to disagree with the statement that they had received sufficient guidance from the university.

When examining within-group differences, it was found that among those from other universities, respondents with an international background were more often dissatisfied with the sufficiency of guidance received from the partnering organisation (23% vs. 4%, $p < 0.001$) and from the university (16% vs. 8%, $p < 0.01$).

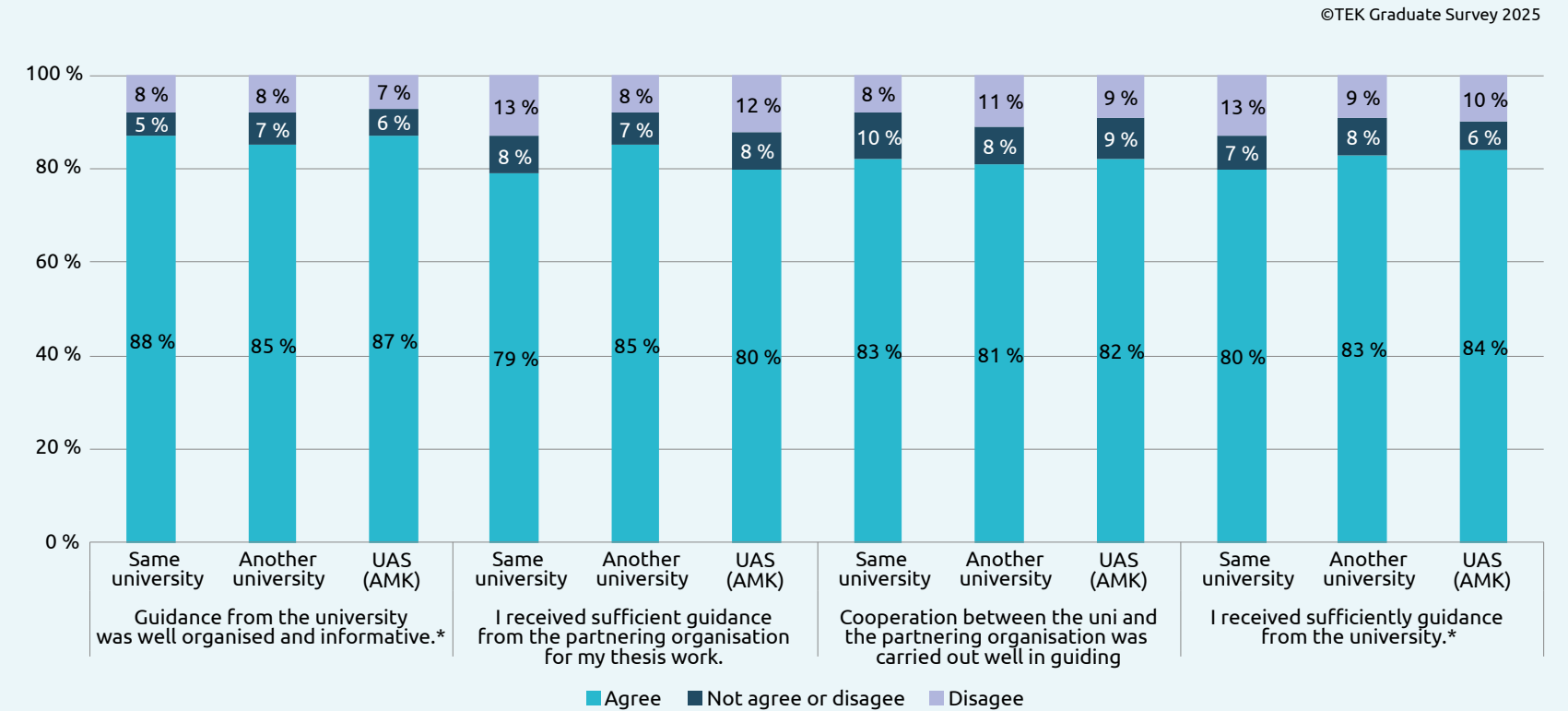


Figure 22: Statements of support and supervision during master's thesis by educational background

Information on job market and career planning

The results reveal notable differences in satisfaction with the information received about the job market and career planning during the studies ($p < 0.001$) (Figure 23). Respondents with a university of applied sciences background stood out from the other two groups: almost half indicated that they had not felt a need for such support. This pattern was particularly common among UAS-background respondents aged 35 or older, whose share was slightly higher than among younger respondents (56% vs. 40%, $p < 0.001$).

Among those who had completed their earlier degree at another university, international graduates were clearly more likely to feel a need for information about the job market and career planning. In contrast, as many as one third of Finnish respondents in this group reported that they did not need such information.

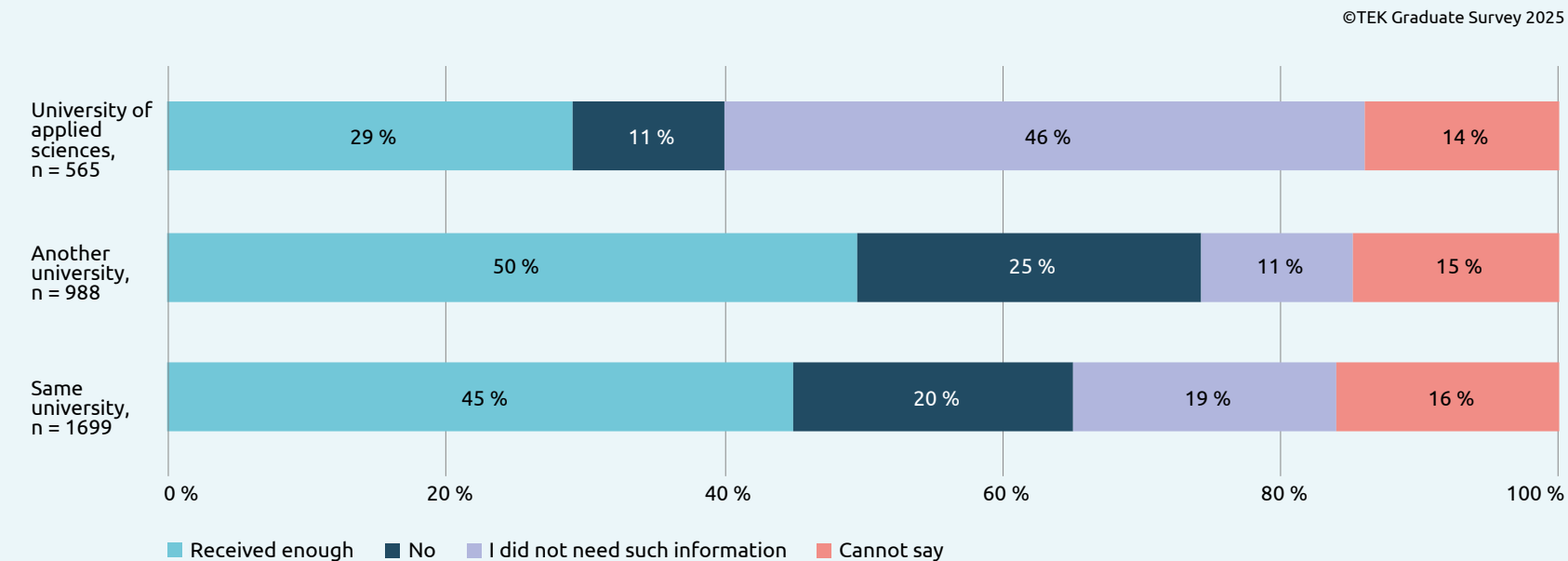


Figure 23: Support for career planning and information on job market in own field by educational background

Employment situation at time of graduation

Employment status at the time of graduation was associated with educational background. Graduates from universities of applied sciences background were more likely than others to have an existing job ($p < 0.001$). While four out of five of them were employed, fewer than half of the respondents from another university had a work contract. Among graduates from the same university, nearly two out of three were employed at the time of graduation. (Figure 24.)

Employment status at graduation was examined further using a three-category variable: “job secured or known”, “seeking employment”, and “other”. Respondents who were working as entrepreneurs or as doctoral students were classified into the “job secured or known” category. Similarly, respondents who chose “other” but indicated that they were employed were reclassified into the “job secured or known” group.

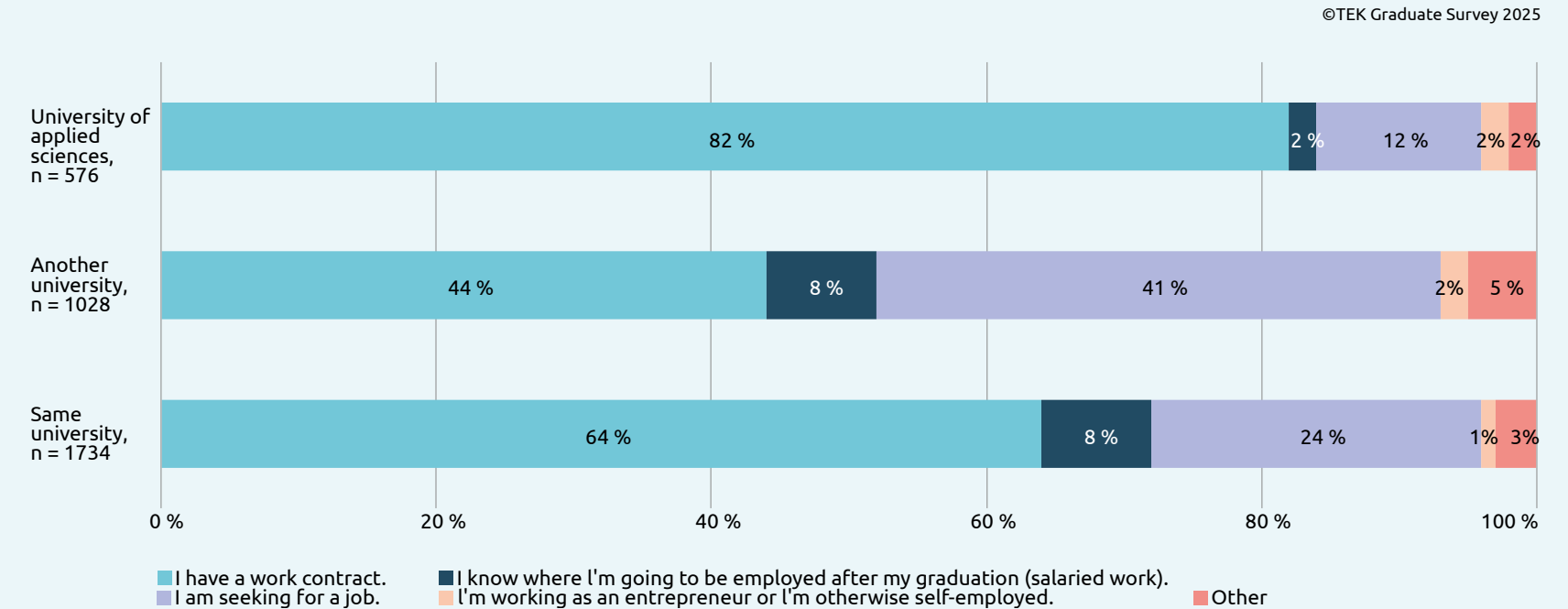


Figure 24: Situation at the time of graduation by educational background

As in previous years, the data showed that a larger share of international graduates were seeking employment at the time of graduation compared with Finnish graduates (45% vs. 20%, $p < 0.001$).

Further analysis was conducted within each educational background group. Interestingly, among graduates from the same university, nationality was not statistically associated with employment status. In contrast, among graduates from universities of applied sciences and from another university, a higher proportion of Finnish graduates were employed compared with international graduates ($p < 0.001$). (Figure 25.)

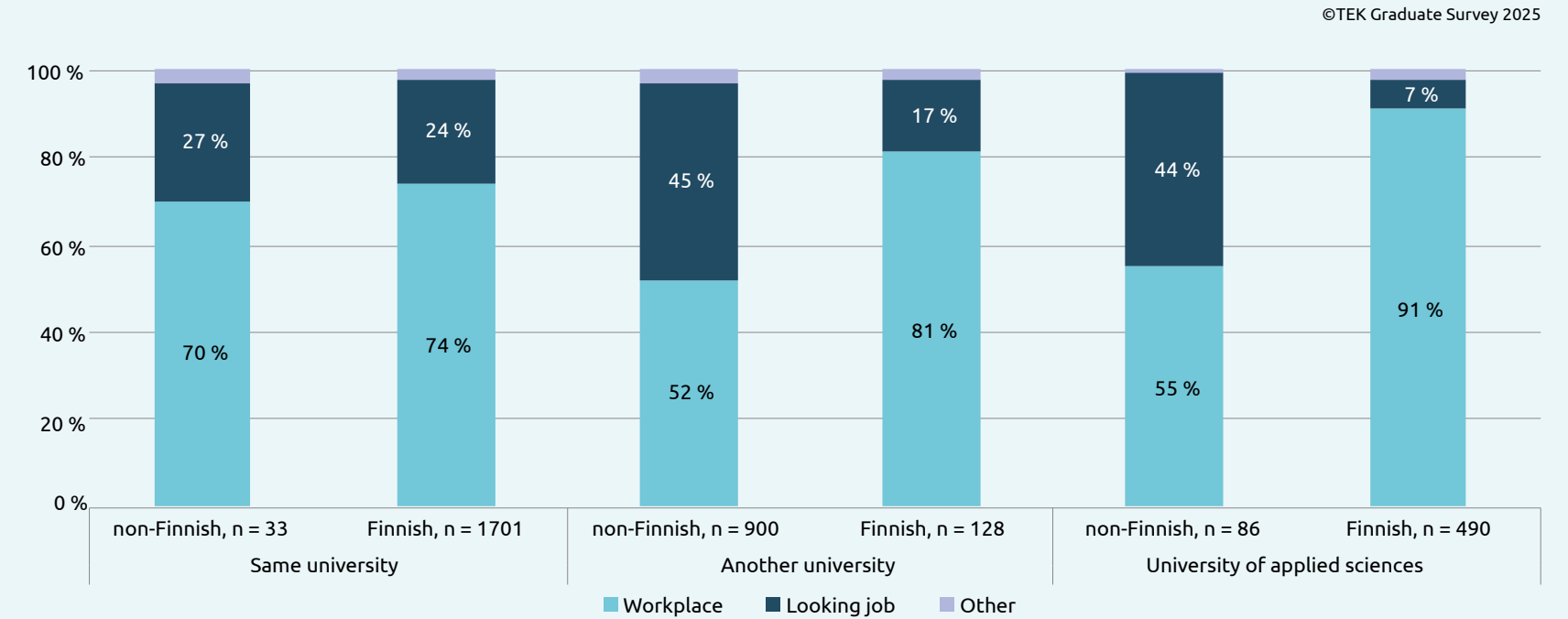


Figure 25: Situation at the time of graduation by nationality and educational background

The analyses examined employment status in greater detail, with particular interest in whether the situation of graduates with a UAS background differed from that of others. Where possible, nationality was also considered in the analyses.

The analyses revealed that, among those who were employed, respondents with a UAS background more often had a permanent contract than others, regardless of nationality. Overall, 89% of those with a UAS background were in permanent employment, compared with 54% of respondents who had graduated from another university and 63% of those who had graduated from the same university. Among Finnish respondents, permanent employment was more common in all these groups (Figure 26).

Differences between respondents were also observed in terms of working hours. Among employed international respondents who had graduated from another university, approximately four out of five (79%) were employed full time, whereas in the other groups - both among international and Finnish respondents - a clear majority, over 90%, were working full time.

As in previous years, international recent graduates were more often full time doctoral candidates than Finnish graduates (11% vs. 6%, $p < 0.001$). Among international respondents, full time doctoral studies were most common among those who had graduated from the same university (30%), compared with those from another university (11%) or those with a UAS background (2%). Among Finnish respondents, educational background was not associated with being a full time doctoral candidate, and the proportion was relatively small in all groups.

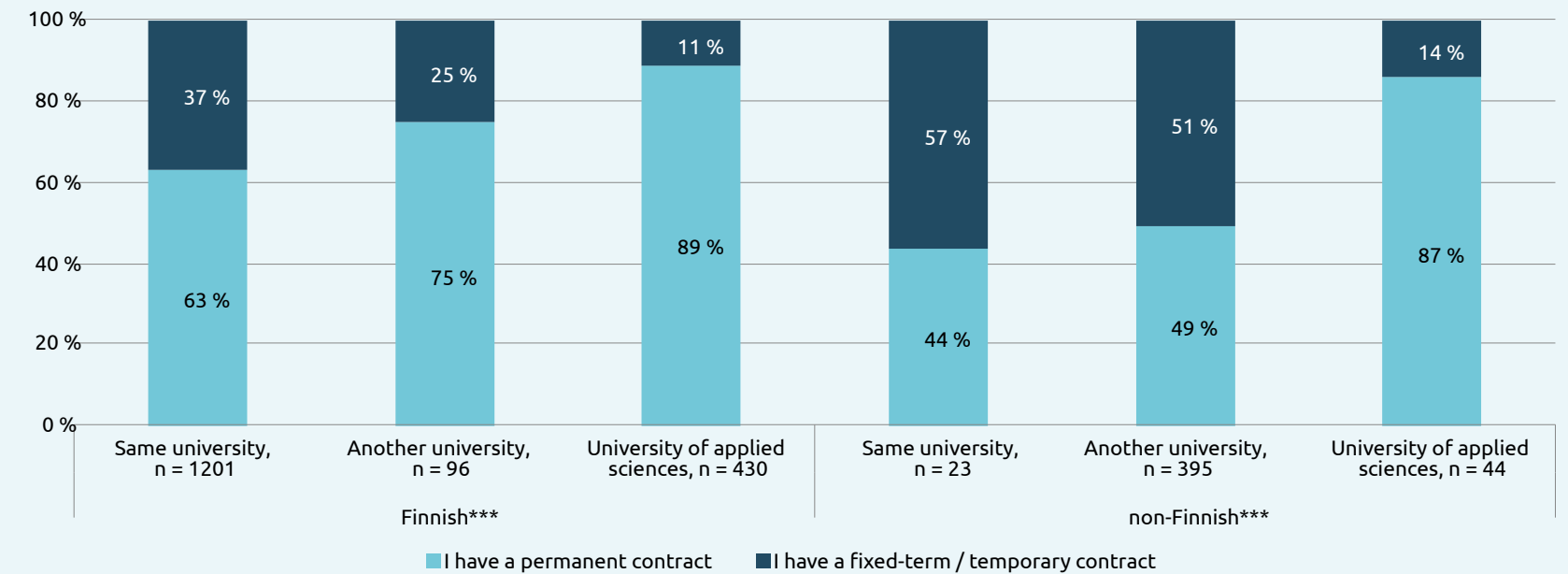


Figure 26: Work contract (if employed) by nationality and educational background

Among Finnish respondents, those with a UAS background more often worked in a workplace where they had completed their thesis and/or where they had been employed during their studies. Correspondingly, they less often worked in a position with an employer with whom they had had no prior connection through study time employment or thesis work (Figure 27).

Among respondents with an international background, a larger share had no prior relationship with their employer, and educational background did not emerge as a differentiating factor. More generally, differences by nationality were statistically significant only among respondents with a UAS background.

Quality of employment

As in previous years, the overall quality of employment among respondents was high. Irrespective of prior degree, a substantial

majority of respondents (74%) reported that their position corresponded either very well or well with their field of education. Approximately one fifth of respondents assessed the correspondence as moderate, while 4% perceived it as poor or very poor, and only 3% indicated no correspondence at all. The least favourable outcomes were observed among graduates from another university, of whom approximately one tenth (12%) reported that their job content corresponded at most very poorly with their field of education. Among respondents with a UAS background, moderate correspondence was reported more frequently: one quarter of this group, compared with 15% among graduates from another university and 20% among graduates from the same university.

Similarly, nearly four fifths of respondents stated that the level of demand in their current position corresponded very well or well with their level of education. Only 2%

reported no correspondence whatsoever, and in total approximately 5% felt that the correspondence was poor or very poor. Divergence between job demands and educational level was most pronounced among graduates from another university (13%), whereas the corresponding proportions were 7% among UAS graduates and 5% among graduates from the same university.

An examination of respondents in full-time employment revealed notable differences across educational backgrounds about working in positions corresponding to their level of education. Nearly one third (31%) of respondents with a UAS background reported that their job did not correspond to their educational level. The corresponding shares were 20% among graduates from another university and 23% among graduates from the same university ($p < 0.001$). No statistically meaningful association was observed between employment quality and nationality.

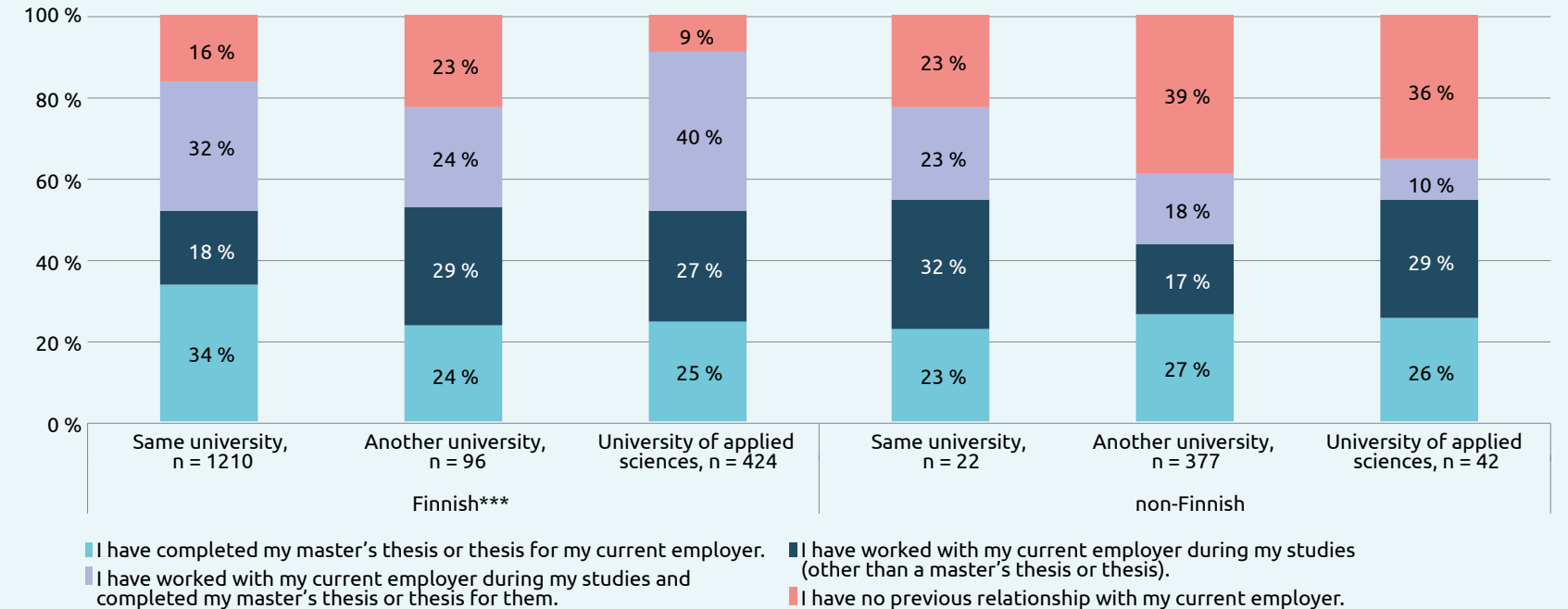


Figure 27: Previous relation with employer (if employed) by nationality and educational background

Salary

In the salary analyses, only full-time employees were included. The highest salaries at the time of graduation were reported by Finnish graduates who had an earlier degree from a university of applied sciences or from another university. For these groups, the median monthly salary was €4200. The lowest earnings were found among international graduates with a prior degree either from the same university or a different university, whose median salary was €3000. Differences in salaries by previous educational background were statistically significant only among Finnish graduates ($F(2,1471) = 112.32, p < .001$).

An interesting observation was that among Finnish graduates in the lowest-earning group - respondents from the same university - the median salary (€3600) was equal to that of the highest-earning international graduates, namely those with a UAS background.

Figure 28 shows that Finnish graduates generally reported higher salaries than international graduates, regardless of educational background. It is noteworthy, however, that the group sizes vary considerably, and the analysis did not account for previously identified differences in employment conditions, such as the amount of work experience.

In addition to nationality, age also emerged as a relevant factor: in all groups, younger respondents reported lower average earnings than those aged 35 or older. For example, among graduates with a UAS background, the median salary for respondents under 35 was €4000, whereas the median salary among older respondents was €4800. The distinct labour market position of UAS graduates is further highlighted by the fact that their younger respondents had a median salary comparable to the median salary of older respondents from the same university as well as from another university.

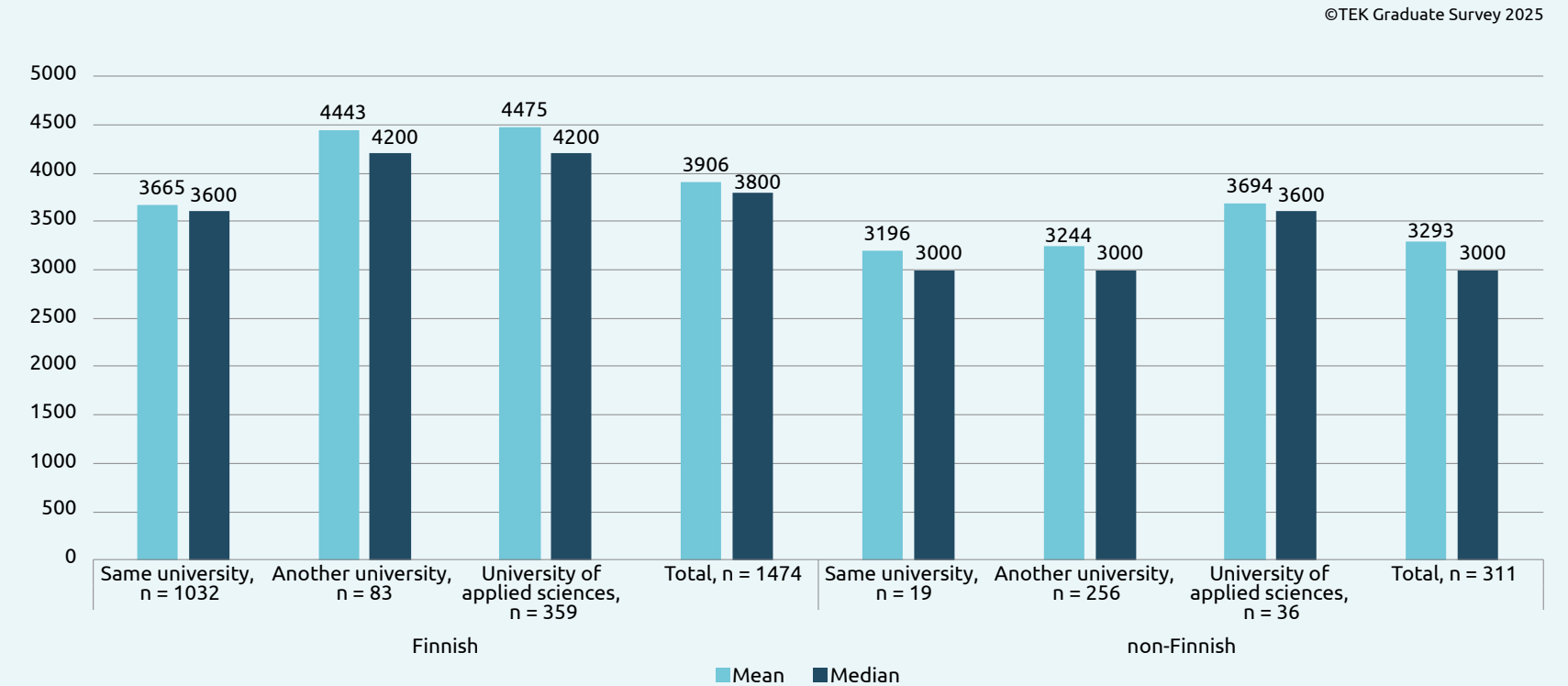


Figure 28: Basic wage/salary by nationality and educational background, EUR/month

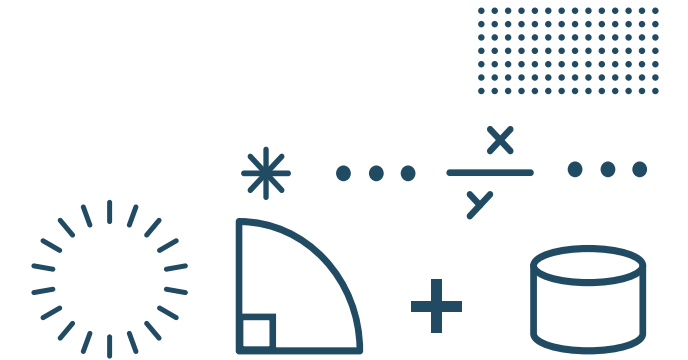


Expertise and skills

Items and factors

Factors mean by educational background

Importance and development



Items and factors

ITEMS IN FACTORS OF EXPERTISE					
Communication and Information processing	Social skills	Business and Management	Expertise and substance knowledge	Working Life skills	Analytical skills
Written communication	Leadership	Sustainable development	Know-how of own field	Working independently	Self-knowledge
Oral communication	Team working	Basics of business operations	Knowledge of the research of own field	Problem solving	Self-confidence
Visual communication	Social skills	Entrepreneurial capacities	Knowledge of the history and development of own field	Information retrieval	Creativity
Digitalization and utilization of data			Mathematics and natural science	International work environment	Critical thinking skills
			Practical application of theories	Project management	Analytical thinking skills
				Time management and of prioritizing	Ethicality
				Developing own skills in working life	
				Career management capacities	
				Looking after of own well-being	

METHOD:

With the following two questions, the respondents were asked to assess each of the 30 areas of expertise and skills from three different viewpoints:

1. "How important do you think the following areas of expertise are for your career?"
2. "Please compare how much the following areas of expertise developed in your studies and how much due to your work experience during your studies?"

A 7-point answer scale were used, where value (1) represented the option "Not at all" and (6) the option "Very much".

Respondents who chose "Unable to answer" (7) were excluded when calculating the means.

Based on factor analysis, the areas of expertise were classified in to 6 categories ("Factors").

Focus	Factor	ALL, n = 2780-3229	Same university, n = 1462-1682	Another university, n = 836-982	University of applied sciences, n = 495-567
Importance	Working Life Skills	5,5	5,5	5,5	5,5
	Analytical Skills	5,3	5,2	5,5	5,3
	Social Skills	5,3	5,2	5,3	5,4
	Communication and Information Processing	5,1	4,9	5,4	5
	Expertise and Substance Knowledge	4,9	4,8	5,1	4,9
	Business and Management	4,5	4,4	4,7	4,7
Development in studies (amount)	Working Life Skills	4,9	4,9	5,1	4,9
	Analytical Skills	4,8	4,6	5,2	4,8
	Social Skills	4,7	4,6	4,9	4,6
	Communication and Information Processing	4,7	4,5	5,1	4,6
	Expertise and Substance Knowledge	4,8	4,7	4,9	4,8
	Business and Management	4,1	3,9	4,4	4,2
Development in work (amount)	Working Life Skills	5,1	5	5,2	5
	Analytical Skills	4,8	4,6	5,2	4,8
	Social Skills	4,8	4,6	5,1	4,8
	Communication and Information Processing	4,6	4,4	5	4,6
	Expertise and Substance Knowledge	4,4	4,2	4,7	4,4
	Business and Management	3,9	3,6	4,4	4,1

Table 5: Factors mean by educational background

Importance and development

The results indicate that, although several skills and competencies - both in terms of their perceived importance and their development during studies and concurrent employment - show statistically significant differences between educational background groups, the substantive magnitude of these differences remains modest. When the mean values of the constructed factors were examined, working life skills emerged as the most important skill area across all educational backgrounds. These skills were also perceived to develop the most, both during studies and during employment undertaken alongside studies. Respondents from another university evaluated this development somewhat more positively than the other groups. (See Table 5 & Figures 29–31.)

Business and management skills were viewed as the least important, and this was particularly evident among those who had studied at the same university, who rated this area lower than the others. This factor was also perceived to have developed the least, both during studies and during concurrent employment. (See Table 5 & Figures 29–31).

At the level of individual skills, respondents from another university tended to consider many skills more important than respondents in the other groups. They also expressed a slightly more positive assessment of how these skills had developed during studies and work undertaken alongside studies. In contrast, respondents from the same university reported slightly more criti-

cal views compared to those from another university and those with a university of applied sciences background. (See Figures 33–35.)

An interesting observation was that, across all groups, employment during studies appeared to contribute more to the development of various skills than studying.

SCALE
 1 = Not at all (important)
 2 = Very little
 3 = Little
 4 = Somewhat
 5 = Much
 6 = Very much
 (7 = Cannot answer)

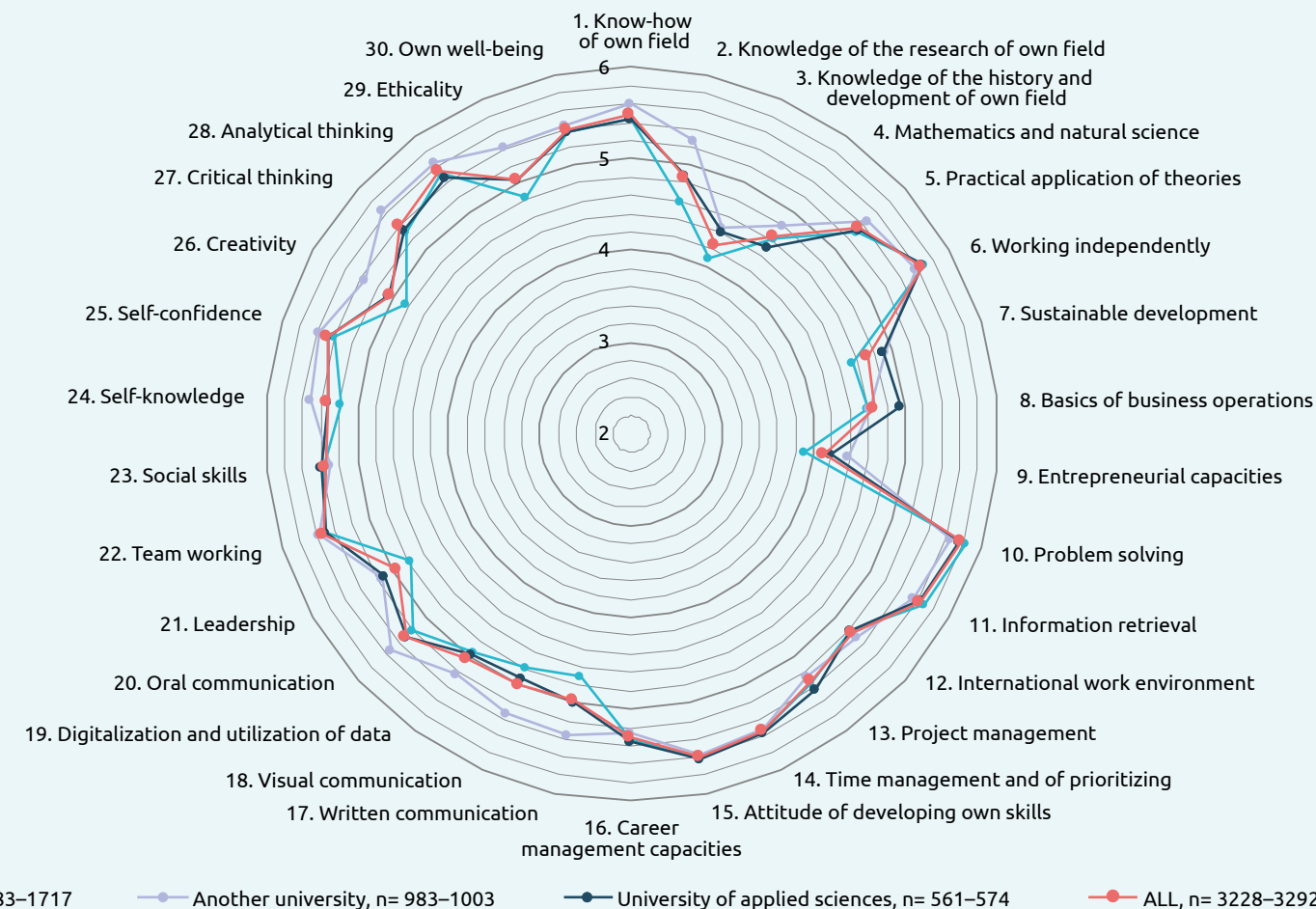


Figure 29: Perceived importance for own's own career by educational background

SCALE
 1 = Not at all (important)
 2 = Very little
 3 = Little
 4 = Somewhat
 5 = Much
 6 = Very much
 (7 = Cannot answer)

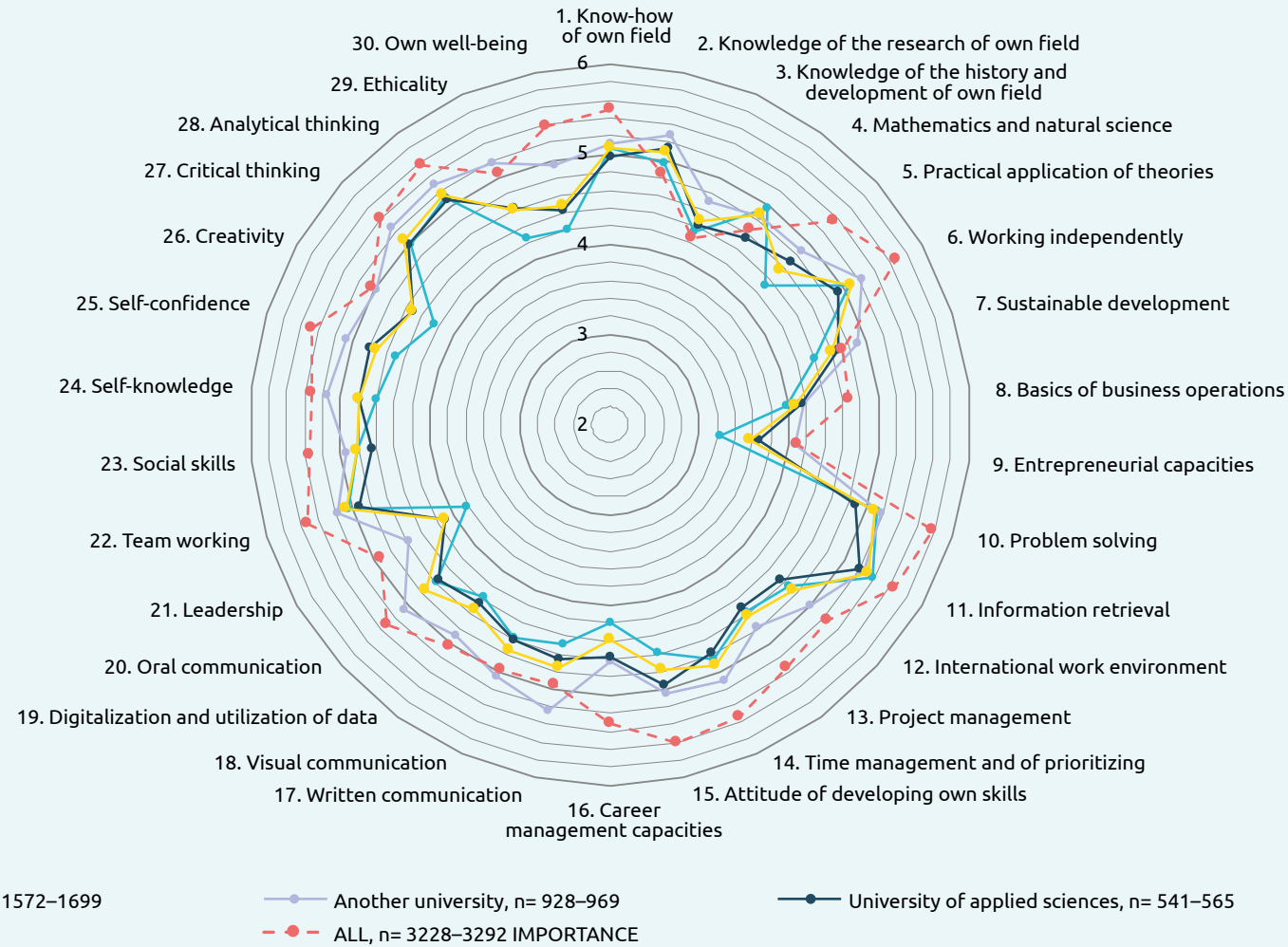


Figure 30: Perceived development in studies vs. importance by educational background

SCALE
 1 = Not at all (important)
 2 = Very little
 3 = Little
 4 = Somewhat
 5 = Much
 6 = Very much
 (7 = Cannot answer)

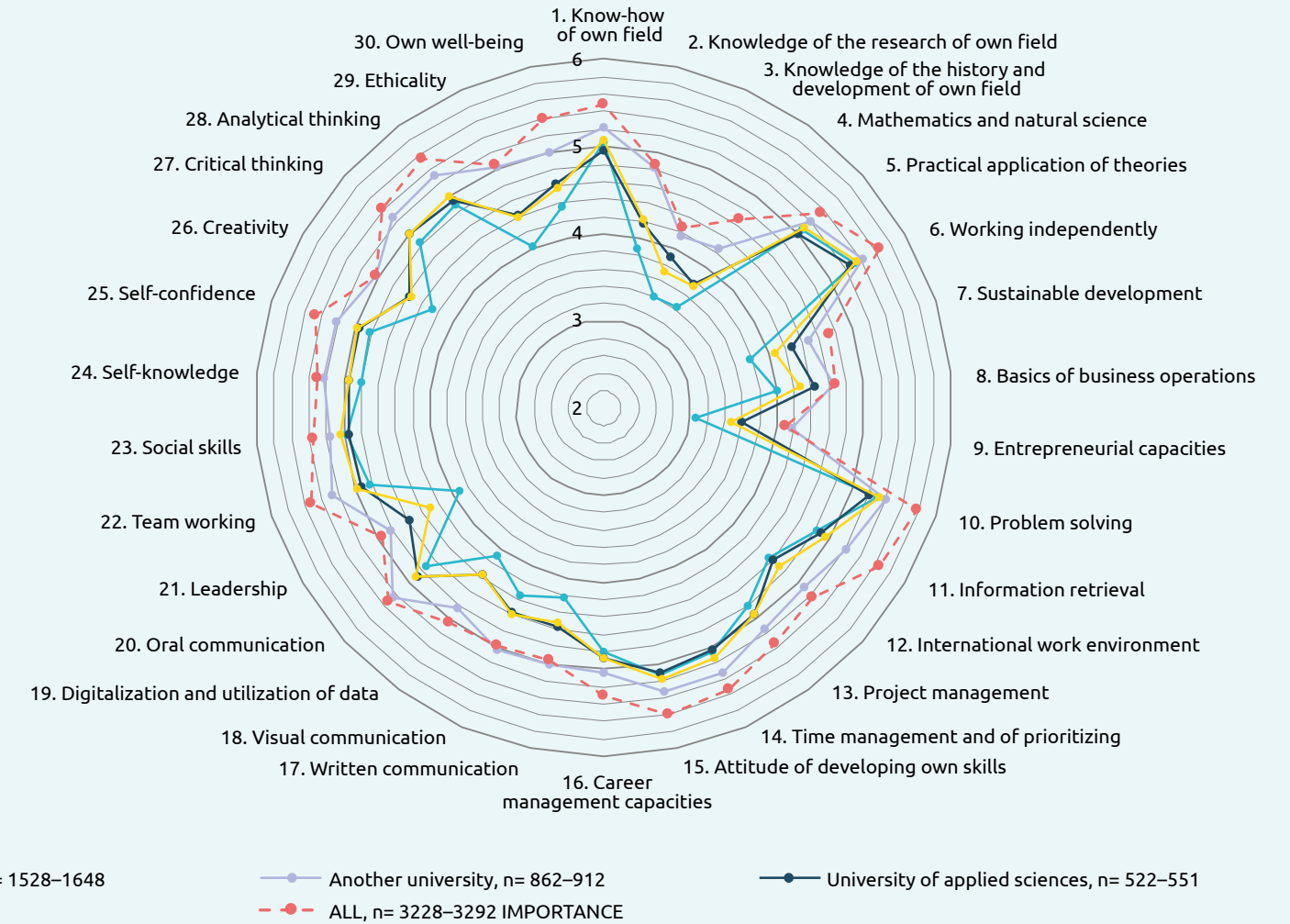


Figure 31: Perceived development in work vs. importance by educational background

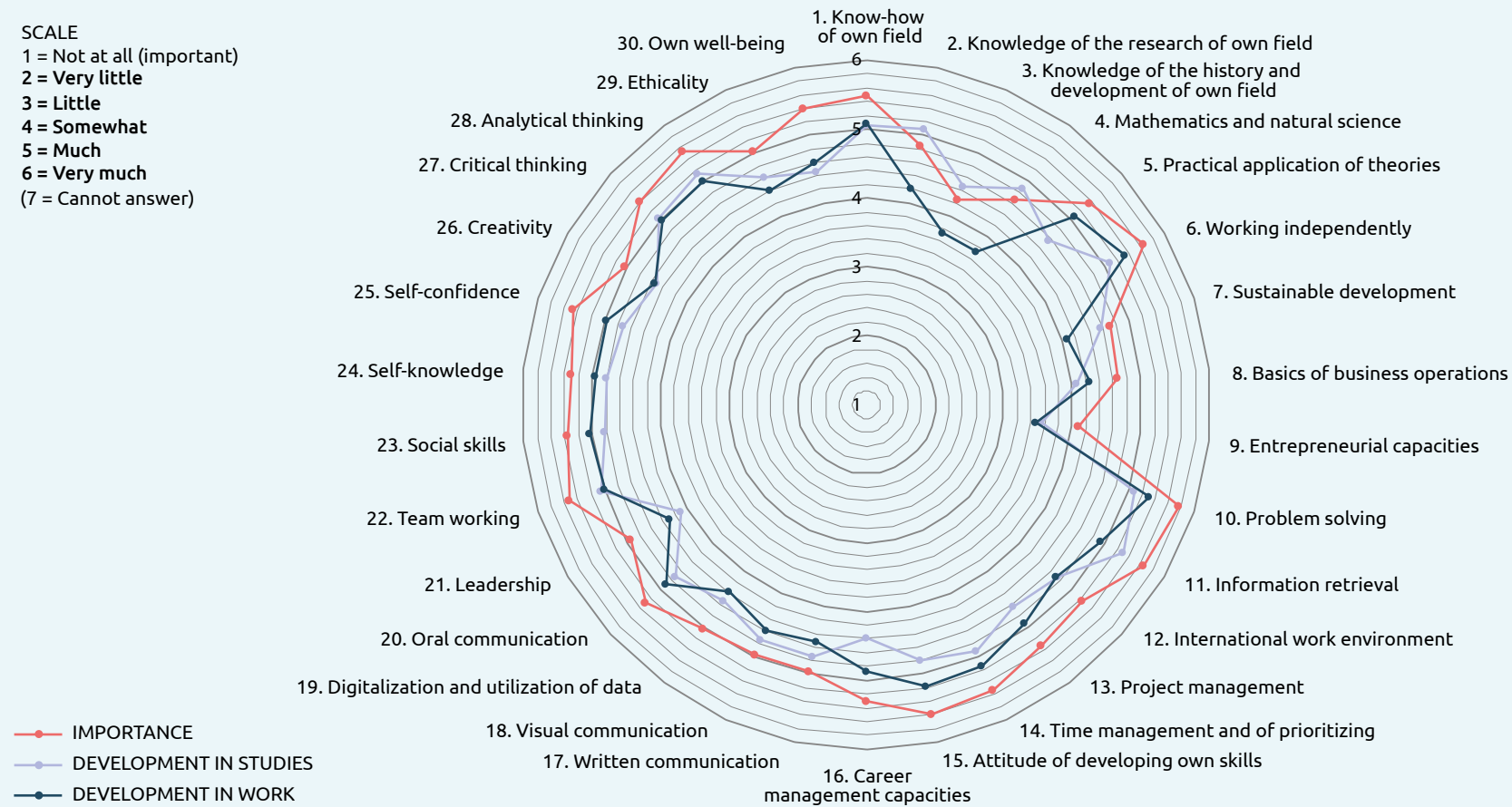


Figure 32: Expertise and skills by all (n = 2948–3292)

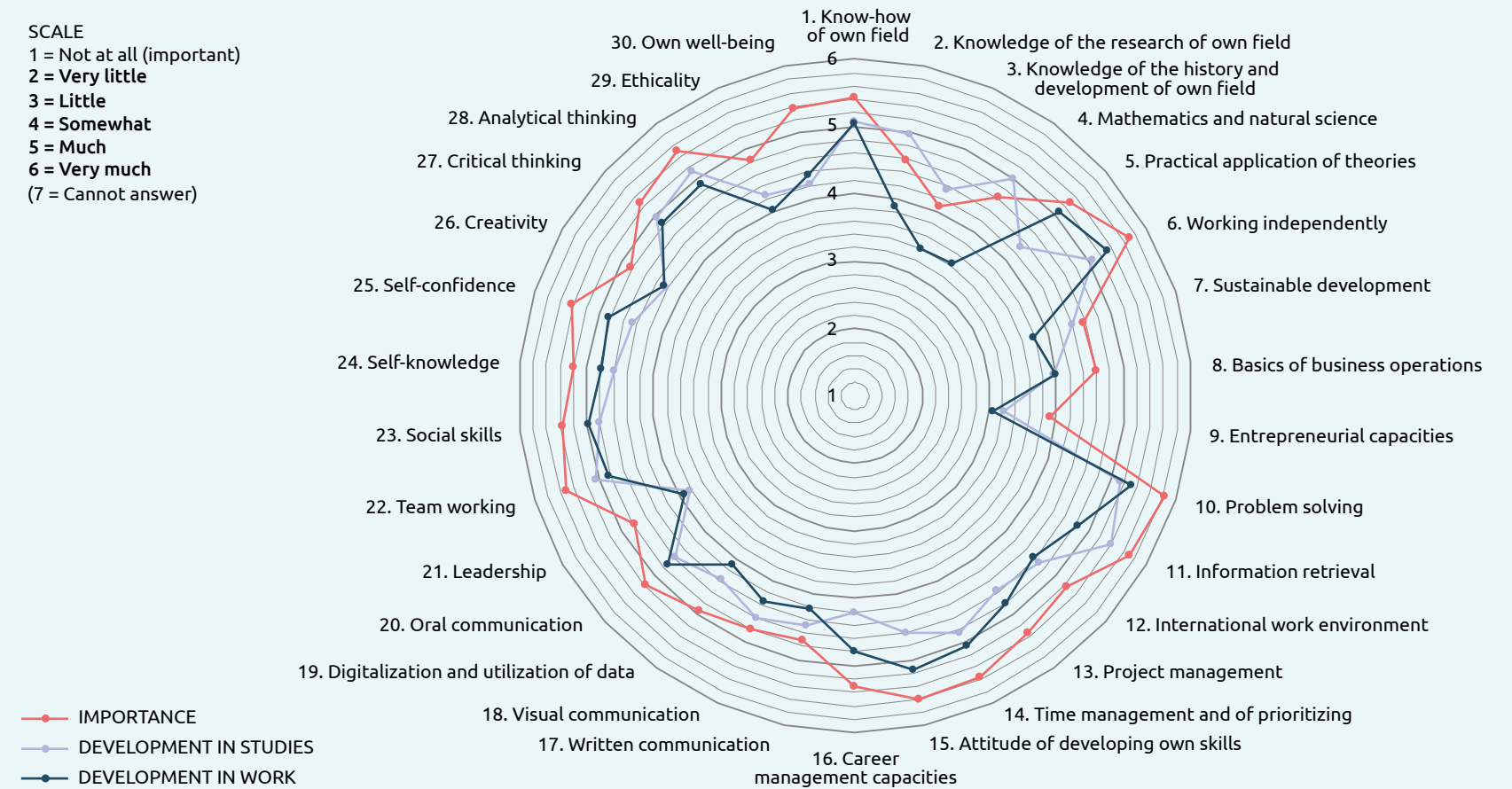


Figure 33: Expertise and skills by same university (n = 1528–1717)

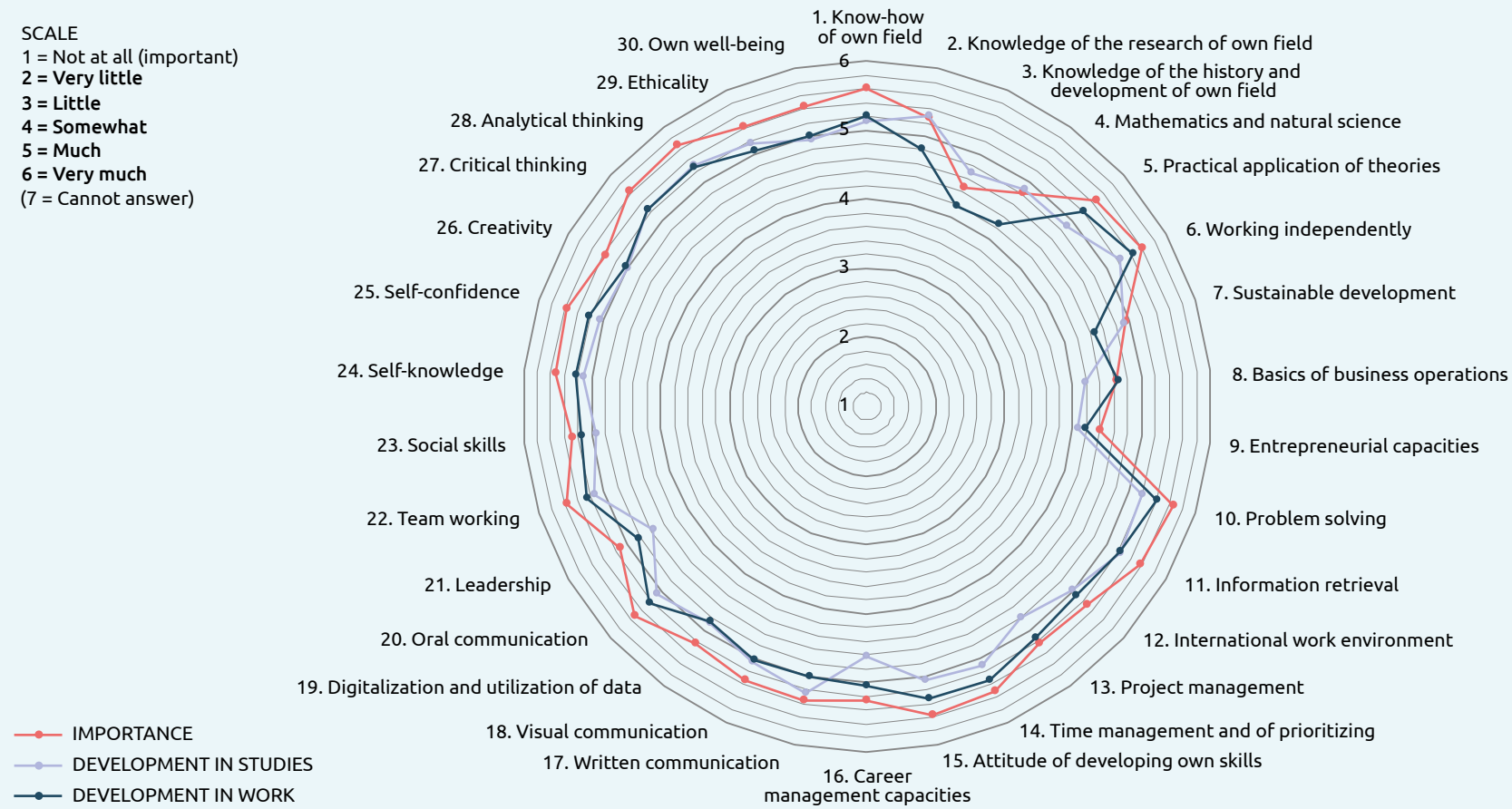


Figure 34: Expertise and skills by another university (n = 862–1003)

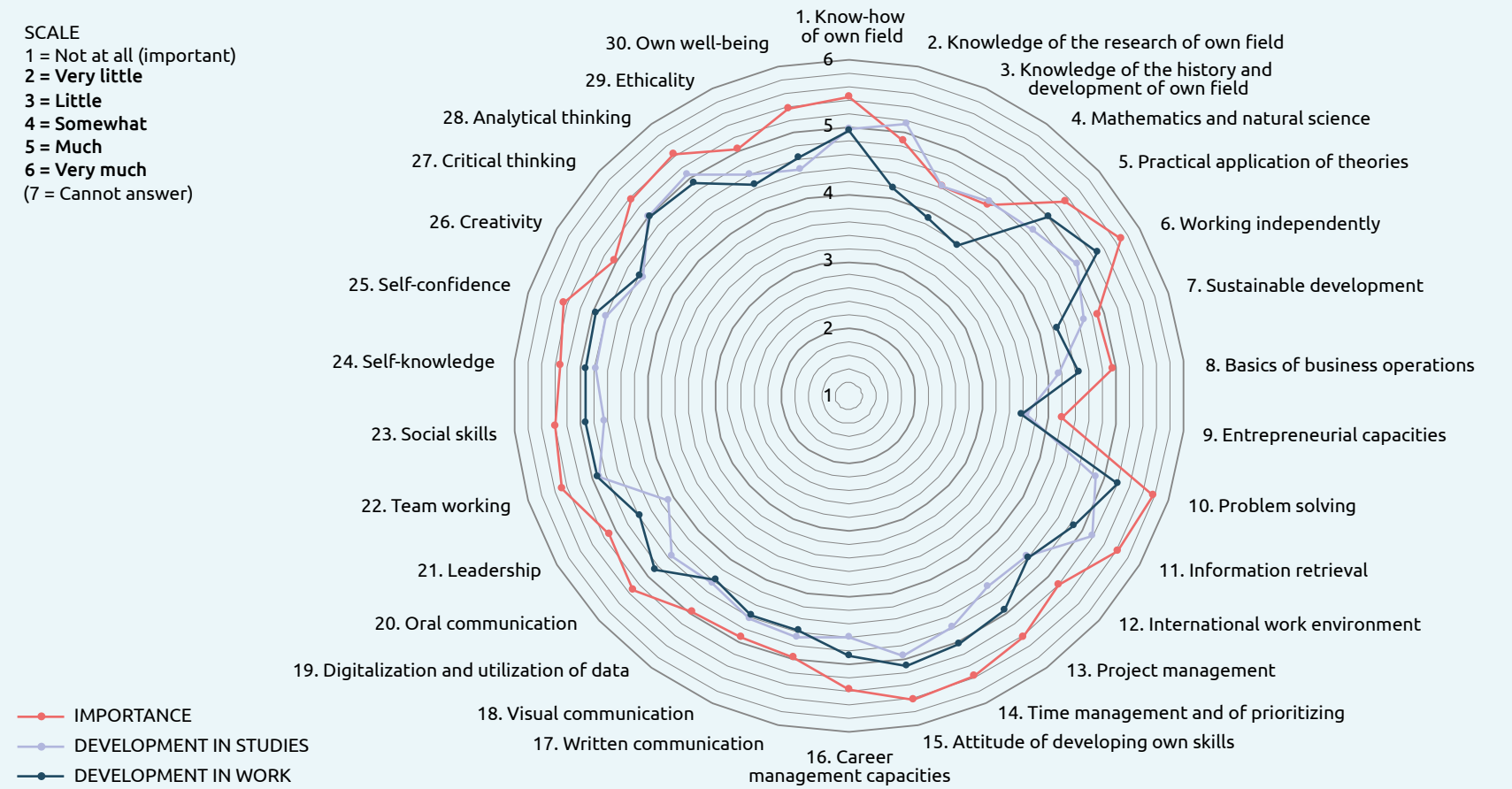


Figure 35: Expertise and skills by university of applied sciences (n = 522–574)

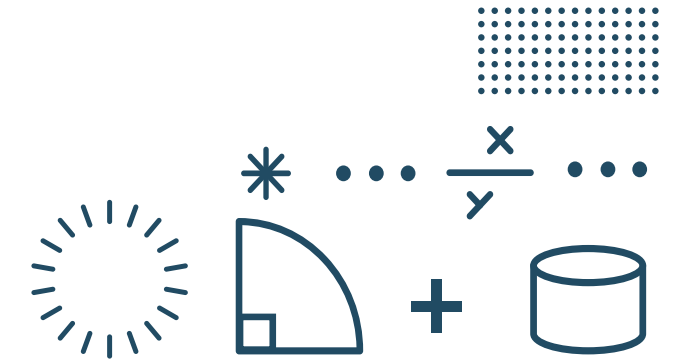


Satisfaction and future

Satisfaction with the studies

Reselection of the education

Future abroad or Finland?



Satisfaction and future

Satisfaction with the studies

Academic engineers and architects graduating in 2025 were generally highly satisfied with their studies and did not differ in this respect from earlier cohorts.

A three-category variable was used to assess satisfaction, and overall, more than 80% of respondents from each educational background group expressed agreement with almost all statements.

Satisfaction was lowest regarding the teaching methods used. Overall, three out of four graduates from the same university were satisfied with the teaching methods, while among those with a university of applied sciences background and those coming from another university, four out of five

reported being satisfied. About the statement “*Research results from the field were applied to teaching,*” graduates who had completed their earlier degree at another university were slightly less satisfied than those from the same university or those with a university of applied sciences background. Interestingly, across most statements, respondents who had studied at the same university were marginally less satisfied than the other two groups (Figure 36.).

No statistically significant differences were observed between the groups in their satisfaction with the education received, as measured by the statements “*I am satisfied with the education that I have received*” and “*My education meets the set goals.*”

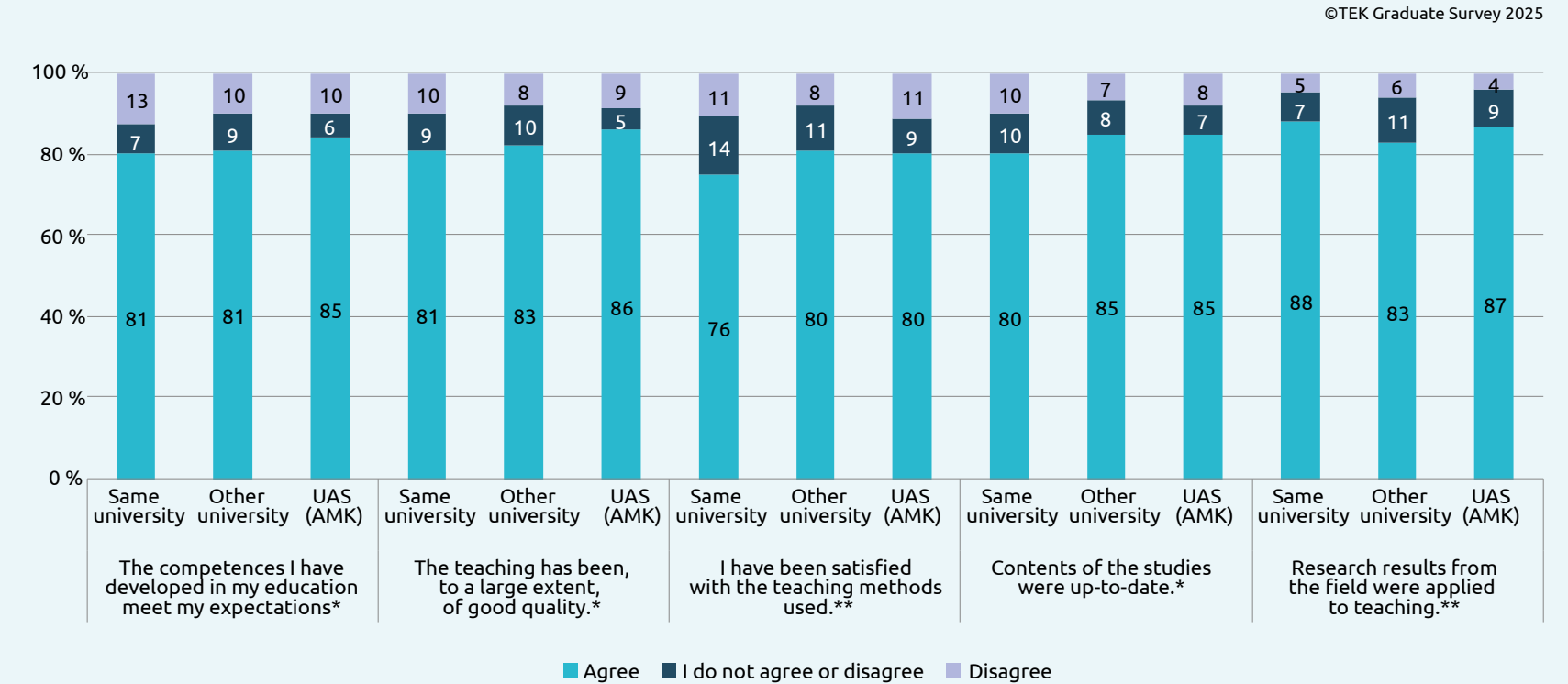


Figure 36: Satisfaction with the studies by educational background

Reselection of the education

As in previous years, most respondents would choose the same degree or programme/major again at the time of graduation. However, in 2025 an earlier degree was associated with the likelihood of reselection of education, in contrast with the results from 2024.

Graduates with a university of applied sciences background were more likely to choose the same basic degree and degree programme than graduates from the same university or from other university. Among graduates from the same university, one in eight would choose the same degree again but a different programme or major. Among graduates from other university, the corresponding proportion was one in six ($p < 0.001$). (Figure 37.)

Reselection was also examined at the university level. Based on the results, graduates with a university of applied sciences background would choose the same education more often than others across all universities and the schools of Aalto University. However, the differences in proportions were statistically significant only at LUT University, where respondents were most evenly distributed according to their previous educational background.

² The original four-category variable was used in these analyses.

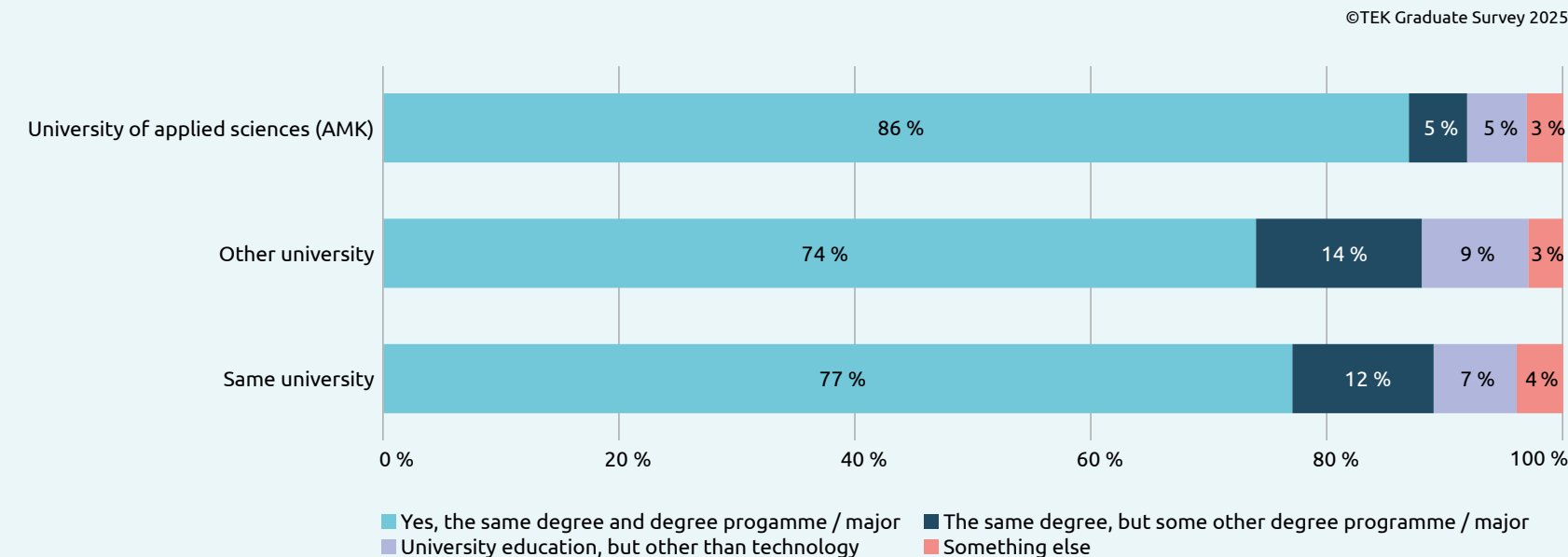


Figure 37: Reselection of education by educational background

Future abroad or Finland?

The respondents' earlier degree differentiated how likely they were to consider working outside Finland within five years of graduation. In total, 40% of respondents who had completed their earlier degree at other university considered leaving Finland likely. Among those with a university of applied sciences background and those who had completed their previous degree at the same university, only one in five shared this view. In both groups, a larger proportion considered it unlikely. (Figure 38.)

International graduates were more likely than Finnish graduates to consider moving abroad for work, like previous years. Therefore, future intentions were also examined by nationality. Among Finnish respondents, those who had completed their earlier degree at other university were the most likely to consider working abroad. In this group, one in four (24%) considered leaving Finland likely, compared with 13% among those with a university of applied sciences background and 16% among those who had studied at the same university.

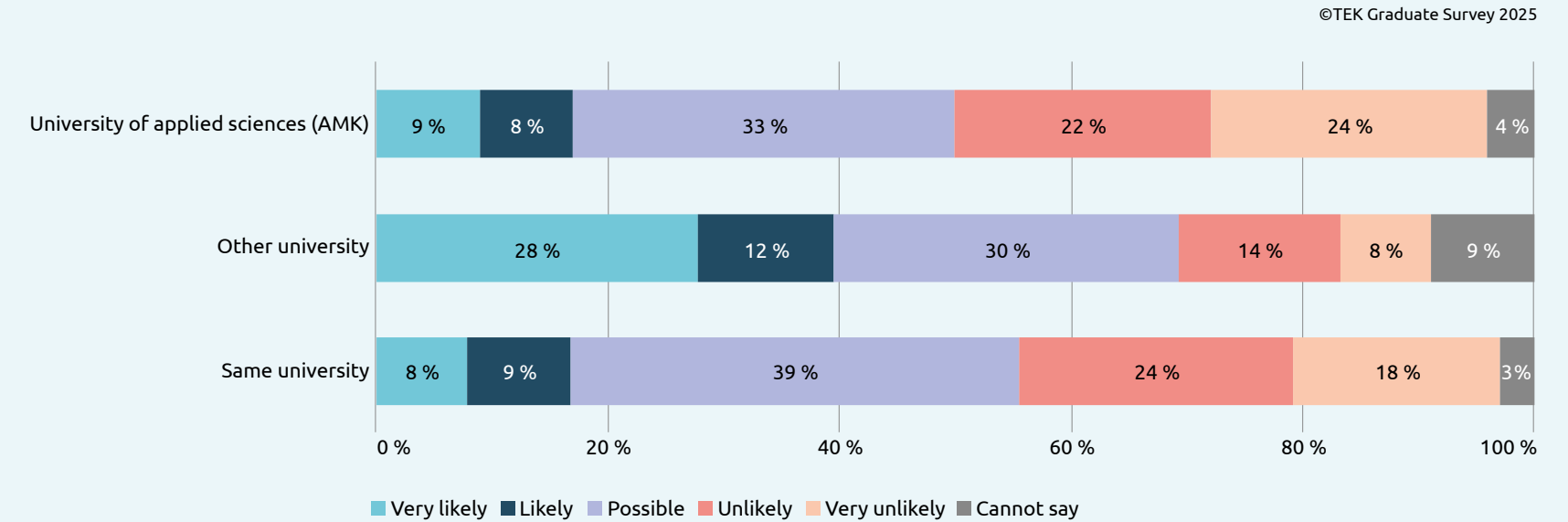


Figure 38: Likelihood to working abroad within 5 years graduation by educational background



Conclusion

The TEK Graduate Survey 2025 demonstrates that graduates' earlier educational background is closely linked to how they experience their studies and transition into working life. While the differences identified are rarely absolute and often moderate in magnitude, together they form distinct profiles that reflect varying life situations, expectations, and positions in the labour market.

Graduates with a university of applied sciences background stand out as a group with strong labour market attachment already at the time of graduation. Their higher age and longer work experience translate into higher employment rates, more permanent contracts, and higher salaries, particularly among Finnish graduates. Their studies are often closely intertwined with employment, and master's theses are more commonly completed as part of ongoing work than in the other groups. However, these advantages are accompanied by weaker integration into university communities and lower participation in stu-

dent activities, suggesting that institutional structures may not fully support students who combine studies with extensive work and family responsibilities.

Graduates who have completed both degrees at the same university represent a more traditional educational pathway. They are younger on average and more embedded in student life, as reflected in their higher levels of voluntary engagement and stronger sense of belonging to the university community. At the same time, they tend to evaluate support services, well being, and study experiences more critically and report higher levels of stress and concerns about coping.

Graduates entering the master's phase from another university form a diverse group, strongly shaped by international degree mobility. Their generally shorter study durations and positive assessments of skill development contrast with weaker immediate employment outcomes and greater uncertainty at the point of gradua-

tion. Their higher likelihood of considering work abroad indicates both strong international orientation and potential challenges in attachment to the Finnish labour market.

The results underline that increasing diversity in educational pathways requires increasingly differentiated forms of support. One-size-fits-all approaches to teaching, guidance, student services and career support are unlikely to adequately meet the needs of students arriving from different educational systems, age groups, and life situations. From both an educational and policy perspective, the key challenge is how to ensure equitable, high-quality education while recognising these differences.

The findings of the TEK Graduate Survey 2025 provide important evidence base for universities and policymakers seeking to develop education that is inclusive, flexible and responsive to changing student populations – while maintaining strong labour market relevance for all graduates, regardless of their educational starting point.



TEK Graduate Survey 2025

Academic Engineers and Architects in Finland TEK and Finnish universities in technology together carry out a yearly feedback survey for graduated academic engineers and architects.

The feedback and results are utilized in developing university education and influencing the educational policy making. In 2025, the focus was particularly on examining the experiences and views of graduates coming from different educational backgrounds.

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