

**Academic profession in
knowledge societies (APIKS) and
the conditions of academic work
in Slovenia**

**Alenka Flander, Manja Klemenčič and
Sebastian Kočar**



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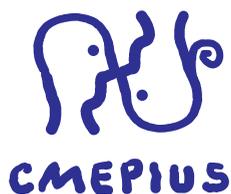
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**Academic profession in knowledge
societies (APIKS) and the conditions of
academic work in Slovenia**

Findings from the 2018 APIKS survey

**Alenka Flander,
Manja Klemenčič and Sebastian Kočar**



Ljubljana, August 2020

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EXECUTIVE SUMMARY

Key findings

This study captures the behaviour, perceptions and satisfaction of academic staff in Slovenia with academic profession and conditions of academic work. The data was collected in 2018 based on a survey instrument developed jointly within the global research network APIKS – Academic Profession in Knowledge Societies of which our research team is part of. For most questions, we offer longitudinal comparisons to data collected in Slovenia in 2013. The data presented in this study is based on 1064 responses of academic staff. We were also hoping to include the international comparative data to this report and were waiting for its release. Since it has not yet become available, we are releasing this report without comparative data not to delay its publication any further.

General conditions of academic work

Overall, in 2018 academic staff show most satisfaction with their employment situation, less with their work situation and least with their professional environment. There are notable differences according to rank and gender. The reported overall satisfaction improved considerably compared to 2013.

- **Satisfaction with their current employment (e.g., your contract status, salary):** In 2018, academic staff are overall more satisfied with their employment (i.e., their current job) than in 2013: in 2018, 49% of respondents reported to be very satisfied or satisfied with their current employment situation compared to 36% in 2013. However, there are notable differences according to rank. Satisfaction with job decreases as we move downwards in the academic rank: the lower the academic rank less satisfied are the academic staff with their employment. Compared to 2013, the satisfaction with current employment improved for all ranks, but mostly for full and associate professors and other academic staff. Male academics reported slightly higher satisfaction with their current employment than female (51% of male academics rated satisfaction as very high or high compared to 49.4% female), but also higher dissatisfaction (22.2% male compared to 20.4% female reported low satisfaction).
- **Satisfaction with current work situation (e.g., work load, work environment):** In 2018, 43.5% of respondents reported to be very satisfied or satisfied with their current work situation and 28.3% very dissatisfied or dissatisfied. There are notable differences according to rank: satisfaction is highest among full professors (49% expressed very high or high satisfaction with their work situation), then assistants (42.7%) and then assistant and associate professors (38.7%). Male academics reported notably higher satisfaction with their current work situation (47.6% of male academics rated satisfaction as very high or high compared to 40.4% female), whereas dissatisfaction was comparable for both genders – just under a third.

- Satisfaction with the overall professional environment:** In 2018, 38% of respondents reported to be very satisfied or satisfied with their overall professional environment and 27.9% expressed dissatisfaction or high dissatisfaction. Satisfaction with professional environment also varies according to academic rank: it is highest among full professors (40.6% expressed very high or high satisfaction with overall professional environment), then assistants (32.7%) and then assistant and associate professors (31%). Female academics reported especially low satisfaction with professional environment (30% of female academics are very dissatisfied or dissatisfied as compared to 28.3% females who expressed to be satisfied (but 0% very satisfied) and compared to male academics (25.2% males reported very low or low satisfaction and 39.1% satisfaction or high satisfaction).
- Perceptions on academic profession:** Majority of academics find their job to be a considerable source of personal strain (76.9%). Yet, if they could choose again, only 21% would not become academics. Majority of academics (59.4%) still believe that this is a difficult time for young people to start academic career.; however, this view improved from 2013 when 85.3% agreed with this statement.
- Sense of belonging – expressed importance of affiliation to discipline, department, faculty/school, university:** Overall, academic staff attributed most importance affiliating to their academic discipline or field (87% stated that discipline was important or very important to them), then to their department (74% stated that affiliation to their department was important or very important to them), then faculty (69% stated that affiliation to their faculty was important or very important to them) and then to their university or school (60% stated that affiliation to their university was important or very important to them). Compared to 2013, in 2018 academic staff express slightly higher importance affiliating to their department, faculty and university. Reported importance affiliating to discipline increased most compared to 2013 (from 82% in 2013 to 87% in 2013). Comparing 2013 and 2018 survey results, associate and assistant professors in 2018 report lower importance of the affiliation to their faculty than in 2013; and full and assistant professor report lower importance of affiliation to university. Female academic staff overall report higher importance of affiliation to discipline, department, faculty and university than their male counterparts, but their reported importance of affiliation to their department and university is lower in 2018 compared to 2013.

Academic career

- Country where obtained degree:** Among the 2018 survey respondents, most academic staff obtained their academic degrees in Slovenia. Those that obtained their degrees abroad most did so for their second (Masters) degree (18%) and doctoral degree (14%). Overall the share of those who obtained their degrees abroad is higher in 2018 compared to 2013 and ranges from 9% for first (Bachelor), 14% for doctoral and 18% for second (Masters) degree. Fewer female than male academics report to have obtained degrees abroad. The share of those who have obtained degrees abroad increased for both genders in 2018 compared to 2013. Gaining Bachelors' degree abroad is fairly evenly spread across academic ranks. Assistants professors are the group with the highest share of Masters' degrees abroad (23%). The share of those who obtained doctoral degree abroad increases with the academic rank (18% of full professors reported having earned doctoral degree abroad).
- Characteristics of doctoral training:** for the majority doctoral training consisted of writing thesis or dissertation (93.6%), could choose own research topic (65.6%) and had an employment contract during their studies (for teaching or research) (60.1%). Only small share of academic staff were employed outside academia (11.6%)

during their doctoral training and received training in instructional skills or learned about teaching methods (14.5%).

- **Employment pathways:** 87% of academics have full-time employment and majority of academics have permanent contracts (80.4%) and only a small share have fixed-term employment with continuous employment prospects (11.8%)¹. Highest share of those with permanent employment contracts is within senior ranks (full professors 97.1%; associate professors 96.6%; assistant professors 85.1% and assistants 48.8%)

Academic activities and preferences on teaching and research

- **Time spent on academic activities:** When classes are in session, the academic staff devotes most time to teaching and teaching-related activities (e.g., preparation of instructional materials and lesson plans, classroom instruction, advising students, reading and evaluating student work, etc.) as well as to research (e.g., reading literature, writing, conducting experiments, fieldwork, etc.). When classes are not in session, by far the most time is devoted research. Compared to 2013, academic staff reported overall less hours devoted to academic activities than in 2013. This reduction is visible across all categories of academic activities with the only exception of research when classes are in session (where there is a slight increase in 2018 in the reported time spent on research when classes are in session).
- **Length of a typical working week:** In 2018, the working week of academic staff at Slovenian universities when classes are in session lasts on average 41.9 compared to 50.4 hours reported in 2013 which is a significant decrease in reported time. When classes are not in session, the average working lasts 36.8 compared to 51 hours in 2013 which too represents a significant decrease in reported time. The difference in reported time devoted weekly to academic activities when classes are in session and when classes are not in session is about 5 hours.
- **Preferences for teaching versus research:** In 2018, more respondents expressed preference for teaching and research but leaning towards the research (52%) compared to 37% that expressed preference for both but leaning towards teaching. Compared to 2013, the balance shifted somewhat towards leaning to research: in 2013, 47% expressed preference for both teaching and research, but leaning towards research. The group that expresses highest preference for both but leaning towards research are full professors (64%) with the preferences decreasing with the rank. Compared to 2013, associate professors in 2018 express more preference for both but leaning towards teaching (and correspondingly less preference leaning towards research). The preferences primarily for research or teaching remain marginal among the respondents. According to gender, higher percentage of male professors (58%) express preference for both but leaning towards research than female (46%), but for both genders reported preference for both leaning towards research increased compared to 2013. Correspondingly, a higher percentage of female academics (42%) report preference for both but leaning towards teaching than male academics (32%) and reported preference leaning towards teaching decreased for both compared to 2013.
- **Academic service:** Overall, academic staff in 2018 reports more engagement in all listed academic service roles than in 2013. The largest share of respondents responded that in the current or previous year, they conducted peer-review (76%), or served as members of national scientific committees/boards/bodies (60%). Reported

¹ It is important to be noted however, that there is a share of academics working at the institutions based on service agreements (precarious arrangements), that were not able to participate in APIKS survey, as the survey excluded those without employment contracts (e.g. copyright contracts or sole proprietorship contracts) and those working for less than 1 day a week on average.

academic service increases with rank. The only exception is serving as peer reviewer which slightly more associate professors than full professors reported. Reported academic service is fairly evenly spread between female and male academic staff, with slightly more male academic staff report academic service than female (the difference is between 2%-7%). The only exception is editorship of national journals and book series which 2% more female academics reported than male.

- **Other engagements:** Among other engagements, 3.5% of academics served as an elected officer or leader of unions and 8.4% have been substantially involved in local, national or international politics. The participation is gender balanced. Junior academics (assistants) are in these activities involved the least (about half as much as other ranks).

Teaching

- **Different teaching-related activities and teaching approaches:** In 2018, the most common teaching approach or teaching-related activity reported by 94% of all academic staff is classroom instruction/lecturing followed by face-to-face interactions with students outside class (79), curriculum/program development (79%) and practice instruction and laboratory work (54%).
- **Teaching approaches:** Reports of individualised instruction decreased significantly compared to 2013: from 84% in 2013 to 48% in 2018. Another teaching approach that is less frequently reported in 2018 compared is ICT-based learning and computer-assisted learning which dropped from 64% of academic staff reporting it in 2013 to 30% in 2018. On the contrary, compared to 2013, more academic staff in 2018 reports using practice instruction and laboratory work as part of teaching approaches (54% in 2018). Learning in projects/project groups was reported by 40% of respondents (an increase from 2013 when 32% respondents reported it). Distance education remains marginal education mode and even smaller (12%) compared to 2013 (14%). Reports of individualised instruction and using projects/project groups decreases with academic rank. In contrast, the reports of using practice instruction and laboratory work increases as we move towards lower academic ranks. Using ICT and computer-based teaching approaches is more widely reported among associate professors and lower academic ranks and least used by full professors (24%).
- **Teaching-related activities:** Among teaching-related activities, majority of academic staff report development of course materials (79%). More academic staff (79%) report face-to-face interactions outside of class. Less than half (48%) report being involved in curriculum/program development. Developing course materials is evenly reported among full, associate and assistant professors and least among assistants. A larger share of full and associate professors report involvement in curriculum and program development than their colleagues in junior ranks. Slightly more full professors (85%) than academic staff from other ranks reported face-to-face interactions with students outside of class. There are no significant differences according to gender in their reported teaching-related activities.
- Perceptions of student's lack of preparedness – deficiencies in basic knowledge – have decreased between 2013 and 2018 (less academics report that they have to teach more basic skills due to deficiencies in student preparedness); however, the number of those who report having to do so is still more than half (57%). This perception is held strongest among associate and assistant professors.
- Training opportunities to improve teaching have notably increased between 2013 and 2018 (in 2018, 45% reported adequate training opportunities to enhance teaching quality compared to 16% in 2013). In 2018, 15% still

disagree and 7% strongly disagree that they have adequate training opportunities. Fewer assistant professors and assistants (39% and 40%) report adequate training opportunities than associate (51%) and full professors (50%). More females (25%) than males (19%) report lack of adequate training to enhance teaching quality.

- In 2018, majority of academics (77%) perceive that practically oriented knowledge and skills are emphasized in teaching, which is significantly more than in 2013 when 66% reported this. In 2018, more junior academics than senior academics and more women than men perceive this.
- Slightly more academic staff in 2018 (71%) than in 2013 (69%) report emphasizing international issues and contents in their teaching. Most full professors reported to do, so and the reports decrease with academic rank.
- There is a slight increase in academic staff reporting to incorporate discussions of ethics and values into their course contents in 2018 (61%) compared to 2013 (59%). These were reported more frequently by senior academics and significantly higher by female (68%) than male (54%) academics.
- Majority of academic staff report to informing students of the implications of cheating or plagiarism in their course (64%), which is about the same to 2013. Female academic (69%) more than male academics (60%) report to inform students about implications of plagiarism and cheating. More associate professors (71%) reported to so than other academic ranks.
- There is a perception of increase of international students since they started teaching (60% academic staff in 2018 report this compared to 44% in 2013). Academic staff of different rank have different perceptions on the increase of international students since they started teaching. Full professors (with the longest time span since they started teaching) most frequently report such an increase. The share of those who report to have international graduate students increased from 7% in 2013 to 10% in 2018.
- **Teaching-research nexus:** Majority of academic staff (83%) agree that research reinforces their teaching (2018), more than in 2013 (71%). Perceptions of research reinforcing teaching increases with rank. Slightly more female than male academics report that research reinforces their teaching.
- Majority of academic staff (79%) agree that external activities reinforce their teaching. The share of those that reported that their external activities reinforce their teaching increased between 2013 (68%) and 2018 (79%). The agreement with proposition that external activities reinforce their teaching decrease with rank. Slightly fewer female academics than male academics report that external activities inform teaching.
- **Research-teaching compatibility:** Most academics (65%) disagree or strongly disagree that teaching and research are not (or are hardly) compatible with each other. Such disagreement is strongest among senior academics and falls with rank: 85% of full professors see research and teaching as compatible and 50% of assistants see teaching and research as compatible. Fewer female academics (64%) than male academics (68%) perceive research and teaching as compatible.
- **Institutional rules on teaching:** For majority of respondents, the quantitative load targets or regulatory expectations for individual faculty on teaching are the number of hours in the classroom (82.6%), or number of students in classes (59.2.%). There are no major differences in the gender distribution. Within ranks, there are differences in the higher shares of senior academics reporting on institutional rules on teaching in regard to the student consultations and number of doctoral students, compared to junior ranks.
- **Language of instruction:** Majority of respondents' report that they teach primarily in Slovenian language (87.2%). Among teaching in foreign languages, most report teaching in English (8.3%) and German language (1.4%).

Research

- Research collaboration:** Majority of academic staff report to collaborate with scholars/researchers at other institutions in Slovenia (79%) which is slightly more than in 2013 (74%). Even more, 83% report collaborating with scholars/researchers abroad. Both, the reported collaborations with colleagues in Slovenia and abroad are slightly higher in 2018 compared to 2013. Collaboration with colleagues abroad decreases with rank. Fewer female academics (80%) than male academics (86%) report collaboration with colleagues abroad. Female academics report slightly more collaboration with Slovenian colleagues and assistant professors are the groups that reports most collaboration with Slovenian colleagues (85%). Majority (94%) of academics have collaborators in all their research projects and 90% collaborate also with other scholars and researchers at their institutions. 66% report that they also collaborate with junior academics, this share is higher for male (71.7%) than female (60.2%) academics and much higher among senior ranks. There are difference also in research collaboration with colleagues outside their disciplines among senior and junior ranks (87.6% for full professors, 83.8% for associate professors, 83.4% assistant professors, 64.9% assistants).
- Types of research:** Majority of academic staff report to conduct multidisciplinary research (64%) and applied or practically oriented (66%). 60% report that their research is international in scope or orientation. 48% academics report conducting socially oriented research, 40% basic research, 18% commercially oriented (technology transfer) research, and 29% research based in one discipline. Compared to 2013, more academics report conducting applied/practically oriented research (63% in 2013 and 66% in 2018), and research with intended social impact (40% in 2013 and 48% in 2018), and less report conducting research that is basic/theoretical (44% in 2013 and 40% in 2018). Reports of basic, international, socially oriented and multidisciplinary research tend to decrease with lower ranks whereas applied and commercial are evenly spread according to ranks. Only research in one discipline is reported by a larger share of associate and assistant professors compared to other ranks. Types of research are fairly balanced according to gender with the exception of commercially oriented research which was reported by greater share of male academics (21% and female 14%) and socially oriented research which more female academics reported (53% and male 45%).
- Self-reported scholarly publications:** In this question we have asked respondents to report how many scholarly contributions of different type they completed in the past three years. Most respondents (93%) reported publishing a chapter in an academic book or an article in a journal. Responses in this category increased notably compared to 2013 (77%). Next largest category are authored or co-authored scholarly books (36%) followed by edited or co-edited scholarly books (22%). Patents and licenses and computer programs written for public use remain marginal among reported scholarly publications. Reports of authored/co-authored books and edited/co-edited books decrease with lower academic ranks. Reports of published articles and chapters are balanced across ranked with the exception of assistants. More assistants than other ranks report publishing computer programs and more full professors than others report publishing patents/licenses. Except computer programs which are reported by more male academics than female, there do not exist notable differences between genders regarding self-reported scholarly contributions.
- Funding of research:** Among the various sources of research funding, most respondents report obtaining research funding from national research funding agencies (31.3%), but this share decreased slightly compared to 2013 (35.8%). 28.3% reported obtaining research funding from their own institution (which is a greater share than in 2013 when 19% reported this). International funding from EU sources and other sources was reported by 12.9% of respondents which is slightly more than in 2013 (10.8%). Funding from government entities (from

6% in 2013 to 9% in 2018) and business firms (from 3.5% in 2013 to 6.4% in 2018) are the least reported sources of research funding, and both increased compared to 2013.

External activities – contribution to society

- **Reported involvement in external activities:** Academics were mostly involved in joint research and publications (50.9%), public lectures and speeches (50.4%), volunteer-based work/consultancy in an honorary capacity (40.6%) and writing publications for a broader range of readers (39.5%). For all the involvement drops with ranks. Higher share of male academics than female are involved in consultancy (37.8% male; 24.3% female) and contract research (29.2% male, 19.3% female).
- **Partners in external activities:** 59% of respondents reported that their research is a basis to do external activities, and 22.1% reported not at all or very little connection to research. 41.6% of respondents reported that their teaching is the basis to do external activities, and 22.1% reported not at all or very little connection to their teaching.
- **Relationship between external activities and teaching and research:** The share of those that much or very much derive their external activities from their research is higher among male academics; and from teaching engagements among females. By rank, the share of those very much or much agree that their external activities derive from teaching drops with rank. For research, those reporting that their external activities are very much or much derived from research, the share is the lowest for assistant professors (52.9%) and is lower than for assistants (59%).
- **Impact of external activities:** Academics mostly agree much or very much that they contribute to society at national level (58.5%) and the local community (55.1%) and the least to industry (29.9%). The share of males (39.2%) seeing their external activities very much and much contributing to industry is much higher than for female academics (19.9%). The impact on society on international level is the highest for full professors and drops with ranks. That their external activities contribute much and very much to local community and society at national level (among all ranks) agrees the highest share of assistant professors.

Governance and management

- **Perceptions on decision-making:** Majority of academics perceive to have influence at the departmental level (69%), but the perceptions of influence decrease as we move from departmental to faculty/school or similar unit (46%) and to the institutional (university/central) level (18%). In all cases, the perceptions of influence on decision-making in 2018 improved compared to 2013. Reported perceptions of influence at all levels decrease with lower academic ranks. Male academic report notably higher influence than female academics at all levels and especially at departmental level (71% male vs 65% female) and faculty level (48% male vs 43% female).
- **Perceptions on governance and management:**
 - 53% agree or strongly agree with the statement that there is a competent leadership at their institution, which is more than in 2013 when 32% agreed or strongly agreed with this statement and 41% disagreed or strongly disagreed with this statement.

- 41% agree or strongly agree with the statement that there is a good communication between management and academics, which is more than in 2013 when 21% agreed and 54% disagreed or strongly disagreed with this statement.
 - 47% agree or strongly agree with the statement that there is a top-down management style (19% disagreed or strongly disagreed); which is about the same as in 2013 when 48% agreed with this statement and 28% disagreed or strongly disagreed with this statement.
 - 63% agree or strongly agree with the statement that the leadership supports academic freedom, which is more than in 2013 when 52% agreed or strongly agreed with this statement and 20% disagreed or strongly disagreed with this statement.
 - 37% agree or strongly agree with the statement that lack of interest and engagement of academics hinders the improvement of institutional quality, which is much less than in 2013 when 57% agreed or strongly agreed with this statement and only 18% disagreed or strongly disagreed with this statement (compared to 33% in 2018).
- **Perceptions of practices followed by the institution:** The perceptions of considerations of quality of teaching and of research both increased in 2018 compared to 2013. However, only 24.3% of academics perceive that teaching quality is considered in personnel decisions (and 45% do not see this practiced), whereas 54.7% perceive that research quality is considered in hiring. Specifically:
- 21.9% agree or strongly agree with the statement that there is performance-based allocation of resources to academic units, which is more than in 2013 when 12.7% agreed or strongly agreed with this statement and 67.9% disagreed or strongly disagreed with this statement.
 - 39.9% agree or strongly agree with the statement that funding of departments is substantially based on numbers of students, which is practically the same as in 2013 when 40.7% agreed or strongly agreed with this statement and 28.3% disagreed or strongly disagreed with this statement.
 - 54.7% agree or strongly agree with the statement that research quality is considered in personnel decisions (hiring/promotion), which is more than in 2013 when 42% agreed or strongly agreed with this statement and 37% disagreed or strongly disagreed with this statement.
 - 24.3% agree or strongly agree with the statement that teaching quality is considered in personnel decisions (hiring/promotion) and 45.1% disagree or strongly disagree, which is more than in 2013 when 15% agreed or strongly agreed with this statement and 62% disagreed or strongly disagreed with this statement.
 - 11% agree or strongly agree with the statement that practical relevance/applicability of work is considered in personnel decisions, which is more than in 2013 when 5.2% agreed or strongly agreed with this statement and 71% disagreed or strongly disagreed with this statement.
 - 16.6% agree or strongly agree with the statement that there is recruiting faculty who have work experience outside of academia, which is more than in 2013 when 13.2% agreed or strongly agreed with this statement and 43.9% disagreed or strongly disagreed with this statement.

Evaluations of academic work

- **Evaluations of teaching:** Academic staff report that their teaching is regularly evaluated mainly by: students (82.9%), head of the department (68.1%), in a form of self-assessment (58.1%) or peers in the department or unit (49.7%).

- **Evaluations of research:** Academic staff report that their research is regularly evaluated by: the head of the department (69%), self-assessed (56.6%), by peers in their departments (52.5%) and external reviewers 40.4%).
- **Evaluations of external activities:** Academic staff report that their external activities are regularly evaluated by: academics themselves (41.7), the head (27.6%) or peers (19.3%) from the departments.

Internationalisation and international cooperation

- **Perceptions on outcomes of internationalisation:** The effects of internationalisation are perceived by academic staff most strongly in increased student (72%) and faculty (61%) mobility, cooperation in research projects (63%), enhanced research networks (57%) and lectures by foreign lecturers at home institution (58%). Excessive commercialisation (51%), weakening cultural identity (68%) and increased revenue (58%) are by majority of respondents not perceived as an outcome of internationalisation. The views differ by rank. Full professors see more impact of internationalisation on prestige and enhanced research networks than other ranks. Associate professors see more effects of internationalisation on increased mobility of students and faculty. Female academics observe increased mobility of faculty and foreign lectures at their institutions in much higher share than their male colleagues. Prestige is seen as an outcome of internationalization by more male than female respondents.
- **Institutional support for internationalisation:** Less than half of respondents agrees or strongly agrees with statements that refer to various forms of institutional support for internationalisation. The only exception is the statement that their institution encourages faculty members to publish internationally which 71% of respondent agree or strongly agree with.
- **Language of instruction:** Majority of academic staff report that they teach primarily in Slovenian language (87.2%). Among teaching in foreign languages, most report teaching in English (8.3%) and German language (1.4%).

Academics in formative career stages

- **Capabilities of junior academics:** Most junior academics report high capabilities in working independently and taking responsibility for their actions and in working constructively with colleagues; and least junior academics report high capabilities in developing, maintaining and using academic networks or collaborations and in ability to obtain external funding (33% report not being able to obtain external funding). There are notable gender differences in reports of high capabilities in developing new ideas, processes or products, which are rooted in research, which more male academics report and in developing, maintaining and using academic networks or collaborations which more female academics report.
- **Importance that junior academics attribute to various capabilities:** Junior academics attribute most importance for their job in working constructively with colleagues and in working independently and taking responsibility for their actions, and less importance to developing new ideas, processes or products, which are rooted in research (but still 56% give this factor high importance). In general, more female academics attribute high importance to all factors than male with the exception of developing new ideas, processes or products, which are rooted in research, which slightly more male academics attribute high importance.

- **Perceptions on inclusion and social relations:** Less than half of junior academics agree that they are well integrated into academic unit (48), have good opportunities for social contact and networking in academic unit (47%). Only about a third feel well supported in their career development (31%) and has mentoring available when needed (38%). More male academics than female agree or strongly agree with each of these statements. Accordingly, more female academics disagree or strongly disagree to having mentoring available when needed, are well supported in career development, have good opportunities for social contact and that are well integrated in their academic unit.
- **Expectations and preferences for type of academic position:** In five years' time, 79% of junior academics expect to be in teaching and research position, 6% in teaching-only position, 7% in research-only position and 9% do not expect to remain in academic employment. 76% would like to be in teaching and research position, 8% would like to be in teaching-only position, 10% in research-only position and 6% would not wish to remain in academic employment.
- **Expectations and preferences for academic institution:** Majority of all academics responded that they would like to be (62.7%) and expect to be (70.2%) academics at their current institution. The shares are in both cases higher for assistant professors. There is no difference among genders. Slightly more than 10% would like and expect to be in a non-academic function outside academia, with much higher shares of these academics among assistants.
- **Satisfaction with work situation (with some notable gender differences):**
 - 31% find their salary as good or excellent and 34% as poor;
 - 55% find their job security as good or excellent and 22% as poor; 59% of male academics report this and 53% of female;
 - 37% find their career opportunities as good or excellent and 39% as poor;
 - 34% find the prestige of their institutions as good or excellent and 26% as poor; 30% of male academics report this and 37% of female;
 - 46% see their opportunities to learn and enhance competences as good or excellent and 17% as poor;
 - 73% see their personal independence in teaching as good or excellent and 11% as poor;
 - 70% see their personal independence in research as good or excellent and 11% as poor; 77% male academics report this and 66% female
 - 79% see the conditions for interesting work as good or excellent and 4% as poor; 77 male academics report this and 82% female.
- **Importance attributed to various factors influencing academic work (with some differences across gender):**
 - 63% attribute high importance to their salary;
 - 81% attribute high importance to their job security; 78% of male academics reported this and 86% female;
 - 79% attribute high importance to their career opportunities;
 - 49% attribute high importance to the prestige of their institutions; 43% of male academics reported this and 55% female;
 - 87% attribute high importance to their opportunities to learn and enhance competences;
 - 87% attribute high importance to their personal independence in teaching;

- 91% attribute high importance to their personal independence in research;
 - 96% attribute high importance to the conditions for interesting work.
- **Time spent on academic activities:** 55% of reported time that is spent on academic and related activities our respondents characterised as routine daily academic work and 37% as professional development. Gender differences were not significant.

Socio-demographic background and family situation

- **Familial status, age and citizenship:** Almost all academics participating in APIKS survey are of Slovene citizenship (97%), the rest are academics with citizenships from EU countries (2%) and 1% from non-EU countries. Majority of them are between 35 and 54 years old (60.2%). 15.7% are younger than 35 years and 20.8% are between 55 and 64 years old.
- **Family situation:** 55.3% of academics report that they have dependent children and 6% that other dependent persons are living with them. There is even distribution among genders on the age groups of dependent children. Within ranks, the highest share of those without dependent children are assistants and full professors. Associate professors have the highest shares of children living with them from the age groups between 6 to 17 years.
- **Parents' highest education level:** Majority of parents of academics have secondary or higher educational degree. Within ranks, the share of fathers having a doctorate falls with the rank. Fewer academics report having a mother with a doctorate. Among ranks, most reports of having a mother with a doctorate are among assistant professors. More full professors than other ranks also report having a father or a mother with only primary education or without formal education. Reports of fathers with higher education degree increases from full professors to assistant professors. Reports of mothers with her education degree decreases from full professors to assistant professors.

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1 Foreword

I have read the study that follows in the following pages of this publication with great interest, and its authors have now given me the honour of writing down some of the thoughts that have remained with me in my reading. My interest in reading the study is of course not only due to the fact that I have been involved in higher education research for decades, but also because it deals with my country and the higher education system with which I have spent most of my life. Unfortunately, higher education studies in Slovenia are generally still regarded as a marginal field of research, so I am pleased about any new systematic contribution that is made in this field.

On the other hand, this study also has a wider scope and greater potential: it is part of the international research project “Academic profession in knowledge societies” (APIKS). The APIKS project is being conducted for the third time (2016 - 2020), but this is the first time Slovenia has participated in it. It is worth remembering that seven years ago the same authors conducted a similar survey based on the project “The Academic Profession in Europe: Responses to Societal Challenges” (EUROAC), but conducted independently. This study (2013), which differs slightly in its approach from the current one, can now serve as an excellent reference point to compare and identify the aspects in which significant changes have taken place in the Slovenian higher education system over a period of five years. However, the results of the new study (2018) still need to be linked with the results of research teams from other countries included in the APIKS (the international comparative data have not yet been published, but it is good that the authors did not wait and published their national results as soon as they were ready); then the results for Slovenia can be interpreted in a broader light.

So let us try to comment provisionally on some of the results of the first Slovenian APIKS study, and at the same time point out some contextual aspects that might be particularly helpful for a foreign reader.

We should start with an observation that is well known, at least among researchers in the social sciences: opinion polls provide insight into a particular *cultural milieu*. The “facts” revealed by such a survey differ in some essential dimensions from the “facts” revealed, for example, in natural sciences. Research data from surveys that deal, for example, with the behaviour and values of different “academic tribes and territories” (Becher and Trowler) should be collected and interpreted differently than, for example, data from which researchers want to derive the prevalence of coronavirus in a population. We are talking about the effect of the cultural milieu. This is that specific contextual framework without which the interpretation of data can be misplaced. The data do not reveal any “objective truth”, but they authentically represent the “subjective” behaviour, preferences and values of the respondents who answered the questionnaires from various specific situations in which they found themselves at the time of the interview.

Among the results of this study we find some that differ dramatically from the results of the 2013 study. The reasons for this can be very different. On the one hand, from the perspective of a specific Slovenian *cultural milieu*, some questions in the questionnaire may simply be too broad and left to the individual interpretation of a respondent. On the other hand, it is necessary to consider the changes in the broader social context that took place between 2013 and 2018. It is important to note that Slovenian higher education felt the “low point” of the economic (and political)

crisis around 2013 and that in 2018 it was already in the “recovery phase”. This is probably the most important – albeit rather general – contextual factor explaining the increase in respondents’ satisfaction in this study.

The sample used by the authors of this study is relevant and meets the criteria of the APIKS project. However, it is good to keep in mind the specific features of the Slovenian higher education landscape, which certainly differs from many other, especially larger higher education systems in Europe and around the world. It is not only the quantitative dimension of the system; a country with 2 million inhabitants, about 5,000 academic staff and about 65,000 students in higher education (excluding other tertiary institutions) is probably not significantly different from the European average. More important are the structural features of the system: around 60% of the students and academic staff belong to the flagship university located in the metropolis; a smaller but still visible proportion (just under 30%) is shared by two other, younger public universities, and just over 10% belong to the true mass of small, independent, mostly private institutions, most of which were only founded after 2005. I suspect that this structure is reflected in the results of this study (and it would be useful to look at this issue more closely in later analyses). Just as one could speak of national characteristics in academic culture, one could also speak of differences between institutions. It is likely that the views of the staff of the flagship university dominate in the results of this study - because of their size in the sample, which is a structural feature of the national system and not a methodological error. I suspect that many readers in Slovenia - as well as abroad - would be interested to see how these views differ both between universities and between them and independent private institutions. The same applies to possible differences between the academic disciplines: some answers suggest that a rainbow is looming on this horizon as well. These are two further questions that could be addressed in one of the follow-up studies.

One of the specific features of Slovenian higher education is institutional fragmentation, which has its roots in the past (and is also characteristic of some neighbouring countries in South-East Europe), hence in its cultural milieu. It is related, among other things, to the long-lasting discussion on the distribution of academic power and thus also to the relationship between “university” and “faculty” as institutions with their own, genuine legitimacy. In 1993, legislative changes were made in the direction of a “reintegration of the university” (and in 1997 the Constitutional Court had to decide about it). This was a process that required a longer period of time and not only legislative measures: it was associated with changes in academic values and identities. The results of this study suggest that certain values and identities have progressed slightly over the last decade. Compared to 2013, academic staff in 2018 express a slightly higher importance of belonging to their university (and not only to their department or faculty; see 3.1.3): The share of those who chose “not important” and “not important at all” decreased from 20% in 2013 to 15% in 2018. On the other hand, the affiliation to a faculty also shows a slight increase (+3%). It should not be overlooked that both trends are particularly visible among full professors, but not in the lower ranks. I do not believe that this can be seen as an unexpected result: institutional affiliation is certainly related to experience over time, but also to academic promotion. It is also possible that these changes are partly the result of the gradual “pluralisation” of the Slovenian academic space over the last two decades. If there were only one university in a country (this was the case in Slovenia until 1975, the third was only established in 2003), it would be easier to expect a weaker affiliation to the “umbrella” level, i.e. to the university.

Of course, this complex of issues is also related to institutional governance. In this respect, too, Slovenia differs in some respects from the majority practise in the world: for example, the rector of the university is elected by universal suffrage, in which not only the entire academic staff, but also the students and other staff (in a certain proportion) are entitled to vote. The same applies to the election of the deans of the faculties. This is probably one of the factors that influence the perception of influence, but it is by no means the only one and should not be overestimated. Irrespective of what might be the key factor, the study shows that the perception of influence on decision-making has improved in 2018 compared to 2013 (see 3.7.1).

Many other aspects of the study could be commented on, but this will wait for a more appropriate time. At this point, where only a few preliminary remarks were possible, I would like to conclude by saying that, overall, the results of this study have not surprised me. Nevertheless, I still need to reflect on them in some places. To give just one example: The reports on individualised teaching have decreased significantly compared to 2013: from 84% in 2013 to 48% in 2018 (see 3.4.1). Even if I try to take different contextual factors into account, I cannot find a transparent explanation for such an extreme change. Perhaps this has to do with the way the questions are formulated and how they are understood in a particular cultural milieu, as mentioned above. This is probably one of the points that should be investigated in further research. And if the results of a study need to be further analysed, this usually means that it was successful and achieved its goal.

Ljubljana, May 5th 2020

Pavel Zgaga

2 Introduction

2.1 Introduction to the APIKS Study

The Academic Profession in the Knowledge Society (APIKS) is a large-scale international survey of academic profession at higher education institutions in 30 countries. In Slovenia, we conducted in 2018 a system-wide survey of academic staff at accredited higher education institutions. Other countries represented in the project include Argentina, Austria, Brazil, Canada, Chile, China, Croatia, Estonia, Finland, Germany, Ireland, Japan, Korea, Malaysia, Mexico, New Zealand, Netherlands, Norway, Pakistan, Poland, Portugal, Romania, Russia, South Africa, Sweden, Switzerland, Taiwan, Turkey, and the United States of America.

The survey builds on the previous several large-scale quantitative comparative surveys of the academic profession developed in the framework of the 1991-92 Carnegie Foundation for the Advancement of Teaching International Survey of the Academic Profession of 14 countries, the Changing Academic Profession 2004-2012 (CAP) global project and the Academic Profession in Europe: Responses to Societal Challenges 2009-2012 (EUROAC) (Bentley et al. 2013; Cummings & Finkelstein 2012; Teichler et al. 2013). Slovenia first participated in the EUROAC survey in 2013 with data and results published in the CMEPIUS analytical report *The Conditions of Academic Work in Slovenia: Findings from the 2013 EUROAC Survey* (Klemenčič, Flander & Žagar Pečjak 2015a, b) and several related publications (Klemenčič & Flander 2013a, b; Flander & Klemenčič 2014; Klemenčič & Zgaga 2015). The research unit within CMEPIUS - The Centre of the Republic of Slovenia for Mobility and European Educational and Training Programmes with external collaborators represents Slovenia in this global network of researchers of academic profession for the second time.

APIKS global network works on a mutually agreed questionnaire. Methods, sampling procedure, and a questionnaire are the same for all countries participating in the study. Overall focus of the present and the predecessor surveys has been on how the academic profession 'perceives, interprets, and interacts with the changes in the socio-economic environment and in the organisational fabric of higher education systems and institutions' (Kehm & Teichler eds. 2013, 2). In other words, APIKS Consortium investigates the academic staff's perceptions and reported behaviours related to their teaching, research and service activities as well as general conditions of academic work and academic career. Newly, APIKS survey also introduces a block of questions dedicated to early-career academic staff and researchers and their careers. The findings from the 2018 APIKS survey are, where possible, compared to the 2013 EUROAC survey in Slovenia. Only this year, data from other APIKS countries has become available which will allow for cross-national comparisons. The APIKS global consortium has organized several conferences enabling for international collaborative research on specific issues. Slovenian research team members participated in the following conferences: Aveiro, Portugal (2018), Hiroshima, Japan (2019), and Kassel, Germany (2019). The APIKS consortium has agreed that APIKS international dataset will be deposited in Finland, with an estimated accumulated number of 50,000 – 70,000 respondents from the participating countries.

APIKS survey was administered in Slovenia through an online data collection in June and July 2018 inviting responses from 7859 academics with responses obtained from 1035 at 16,4% response rate. Both the number of responses and the response rate meet the requirements of the APIKS Consortium, which were set on the basis of the past response rates for comparably long and complex questionnaire (Teichler & Höhle 2013; Kehm & Teichler 2013; Teichler et al. 2013).

2.2 General Background to Higher Education in Slovenia

Slovenian higher education system comprises six universities – four of which were only established after 2000 – and 39 independent higher education institutions.² The system is dominated by the concept of the national – flagship – university, with the capital-city university – University of Ljubljana – enrolling the largest share of the student body and consuming more resources than the other universities. The universities differ in age, size, research impact and reputation. Together, they form a small and highly stratified system.

As noted by Zgaga (2017, 1), '[t]he tradition of higher learning in Slovenia, which was part of the Habsburg monarchy until 1918, is similar to other countries of Central Europe. The first institution was a Jesuit college in Ljubljana (1597–1773). Due to the proximity of other universities (Vienna and Graz in Austria; Padua in Italy), the University of Ljubljana was founded only in 1919, after the collapse of the Habsburg Empire, when Slovenia became part of the Kingdom of Yugoslavia. After 1945, in the socialist Yugoslavia, the University developed rapidly and acquired new departments. In 1975, the University of Maribor was founded.' University of Ljubljana served for seventy years as the national university; a role which is intimately associated with the promotion of the national language. There was little competition between, or division of work among, Yugoslav universities due to the highly decentralised higher education system of socialist Yugoslavia, and the differences in culture and tradition (Zgaga 1998).

The peculiarity of the Slovenian higher education system are the so-called independent (or free-standing) higher education institutions (Higher Education Act, Article 13). These are mainly higher professional schools (professional colleges; public and private) but may also be independent faculties and academies of art. Independent institutions mainly provide professional first and second cycle programs; however, independent faculties may also provide PhD programs (Zgaga 2017). Two types of institutions – universities and independent faculties – offer degree programmes at all three cycles but higher professional schools cannot offer doctoral programmes (Zgaga 2017).

There is no clear division between public and private institutions (Klemenčič & Zgaga 2014). Private higher education institutions can also receive (under certain conditions; in practice most of them have met these conditions) public subsidies for accredited degree programmes (Klemenčič & Zgaga 2014). Furthermore, higher education in public institutions is tuition-free for full-time students (redni študenti), while part-time students (izredni študenti) pay fees (as they already did prior to 1990). As noted by Zgaga (2017, 3), '[c]ompared with regular students, the volume of contact hours is reduced and the share of self-directed learning is increased. This category of students (before 1990 marked as "study in addition to work") emerged several decades ago and was established for employed adults who wanted to improve their education. After 1990, during the boom of the student enrolment, many students who

2 The complete list of accredited higher education institutions, both universities and independent higher education institutions, can be found at the website of the Slovenian Quality Assurance Agency for Higher Education: <https://www.nakvis.si/akreditacije-in-evalvacije-v-visokem-solstvu/javne-evidence/>

failed to enrol in full-time studies (due to the existence of a numerous *clausus*, i.e., an access restriction based on grade point averages) joined this category.’ In recent years, the number of freshmen has been declining and the proportion of part-time students has fallen sharply, especially in the category of those who were previously unable to enroll in full-time studies due to numerous clauses.³

Universities follow a traditional continental European approach to academic governance and administration. Rectors and deans are typically senior academic staff members elected by their peers, with 20% of votes allocated to students. They serve four-year terms and can be re-elected. At the end of their mandate, they typically return to academic positions. Governing bodies in the universities and within faculties are comprised of both academic staff and students. Students are organised into representative student associations: student councils and student unions, of which the former play a role in institutional governance (Klemenčič 2015, 2017; Zgaga et al. 2013). Before the 1990s, the model of the socialist self-managed society and economy was applied to the governance of higher education systems and higher education institutions in both countries (Zgaga et al. 2013). Under the Yugoslav system, individual faculties within the university enjoyed a high degree of legal and financial autonomy, which is an institutional path dependency difficult to eradicate in present time (Vukasović & Elken 2014). The “reintegration” of the university from autonomous faculties were among the central strategic issues during the “transition” phase after 1990 (Zgaga & Miklavič 2011). As stated by Zgaga (2017, 3), [t]he legal provision from the period of socialist self-governance (typical for the whole of former Yugoslavia) on compulsory “association” of faculties and colleges in a “community of higher education institutions” (i.e., a university) caused serious fragmentation of the higher education sector. The problem did not only affect the complex relationships between the state and the university and the issue of accountability; it was also linked to no less complex relationships among individual institutions (“university members”). In Slovenia, the legal abolition of “autonomous faculties” was achieved in 1993, but the provision was immediately followed by an appeal from some institutions to the Constitutional Court...The Court [...] confirmed the abolition of the “independent faculties”.’ The universities still grapple with integrating the university governance. Faculties divided along traditional disciplinary lines were also primarily teaching institutions and there was rather limited engagement with local community organisations and private sector especially, and absence of quality assurance mechanisms (Vukasović & Elken 2014). In the present arrangement, faculties are still free to a large extent to use the funds they accumulate in their own commercial activities and to implement the decision and broad guidelines concerning teaching, research and other activities which have been set at the university level (Zgaga 2017).

Overall, Slovenia has experienced profound higher education reforms over the last three decades. These reforms have initially been driven by the overarching socio-economic developments encompassing the reform of public institutions in the context of nation-building and democratisation following the Slovenia’s declaration of independence in 1991 (Zgaga 2010; 2012). Joining the European Union in 2004 opened access to various European Union funding instruments that directly or indirectly support education and training, most notably the Erasmus+ Programme (and its predecessor the Lifelong Learning Programme), and the Horizon 2020 Programme (and its predecessor, the Seventh Framework programme for Research) that support international exchanges for students, academic staff and researchers, structured cooperation between higher education institutions and public authorities in different countries. Furthermore, Slovenia could also access the funding for investment into modernisation of education and training systems, including investments into educational infrastructures through the European Social Fund, the European Regional Development Fund and the European structural and investment funds (ESIF) in higher education.

³ Authors would like to thank Professor Pavel Zgaga for introducing this point.

Complementary to the EU membership, participation in the intergovernmental Bologna Process have also had profound impacts on higher education policies and reforms of Slovenian higher education. In general, the Bologna Process to which Slovenia joined at its inception in 1999, has been a major driver of higher education reforms in Slovenia, including consolidation of degree structures; ECTS, definition of learning outcomes and of qualifications frameworks, recognition of qualifications; and quality assurance (Klemenčič 2016; Klemenčič et al 2015). The quality assurance structures in Slovenia have evolved from (and due to) the Bologna Process, although national accreditation body existed earlier. Implementation of these reforms was supported by aforementioned European Union funding.

As Slovenia has transitioned into a knowledge society, there has been a renewed interest in and new expectations towards the higher education institutions to support social, political and economic developments in the country. However, these developments have also shaped the organisational fabric of the higher education institutions with profound implications on the key aspects of the academic enterprise, including the expectations on academic profession and conditions of academic work (Kehm & Teichler 2013). Among the major weaknesses identified for Slovenian higher education are the high rate of dropout (estimated 35%) and fictitious enrolment, i.e. enrolment of students who are not actually following courses in that institution but often seek student status for social benefits associated with student work (OECD 2016).

In 2017/2018, Slovenian higher education institutions enrolled in total of 76,534, which is 46.5% of the 19-24 cohort (SURS 2018). Following the global trends, the Slovenian higher education system has also gone through a period of substantive expansion, shifting from an elite to a high participation system. Looking at the entire post-secondary system (including two-year vocational colleges), there were around 64,000 students enrolled in 1991, compared to almost 116,000 students when enrolments peaked in 2006 (SURS). Since then, enrolments have been decreasing due to declining birth rates (although the number of foreign students has been slightly rising), and the proportion of young people aged 19 to 24 years participating in tertiary education is also slightly declining and amounting to almost half of the age cohort, i.e. 46.5% in 2017/2018 (SURS 2018).⁴ The student enrollment in the academic year 2017/18, were lower than in the previous year in all types of higher education institutions except doctoral education (SURS 2018).

2.3 The General Trends and Characteristics of the Slovenian Academic Labour Market

In 2018, there were 4,889 employed at higher education institutions (universities, independent faculties) and 464 at other higher education institutions excluding the support staff, such as assistants, language preceptors and other non-titled academic staff and 5,436 in total at all institutions and including support staff (SURS 2018). Out of those employed at universities, 4,314 were full-time employed (88%) and 575 were part-time employed (12%); 2,654 were male (54%) and 2,235 were female (46%) (SURS 2018).

There was a trend of continuous growth of the academic staff at higher education institutions until 2013 when the downturn begun. While the total number of academic staff between 2013 and 2018 decreased from 5,596 to 4,889,

⁴ <https://www.stat.si/StatWeb/en/News/Index/7433>

there is an improved gender balance. In the past five years since the previous survey of academic profession in Slovenia, the number of female academic staff compared to male increased, i.e. in 2012/13, 2,113 (37.8%) academic staff were female and 2,182 (46%) in 2018. Even though the balance improved, notable imbalances persist in the higher ranks; for example, in 2013, there were 1,248 male and 375 female full professors and 780 male and 387 female associate professors, and in 2018, 591 male and 283 female full professors and 411 male and 270 female associate professors (SURS 2013, 2018). The gender balance improved more in the lower academic ranks.

2.4 The characteristics of the Slovenian academic labour market

All academic staff are civil servants and their pay is determined by their grade on the pay-scale as per the remuneration framework for salaries in the public sector. Base salaries and bonuses for the entire public higher education sector are determined by a comprehensive collective bargaining framework between the government and the Higher Education Union [Visokošolski sindikat Slovenije],⁵ which was established in January 2012. Higher education also comes under the umbrella of the Union for Education, Science and Culture.⁶ While the two unions have a co-operative relationship, the difference between them is that the former is mostly comprised of academics whereas the latter predominantly unites non-academic higher education staff and employees in the public education sector.

There are different forms of employment for academic staff in higher education in Slovenia. First of all, employment at higher education institutions can be permanent or on a fixed-term basis. According to hours of work, there are three basic categories. Full-time employment is the most common form. Institutions also commonly sign contractual agreements with their own full-time academic staff to work additional hours, most frequently to teach part-time courses, graduate courses, thesis defences or prepare handbooks. Such employment can only equate to a maximum of 20% of a full-time position; hence an individual academic can be employed up to 1.2 FTE. Second, academic staff can be employed on a part-time basis (any percentage of FTE), which can be combined with work at other higher education institutions, or other public or private sector organisations; again, up to a maximum of 1.2 FTE accumulated. Third, academic staff can also be self-employed, even though this is extremely rare. An independent higher education teacher [zasebni visokošolski učitelj] has to be elected into an academic rank and registered with the Ministry of Higher Education. An independent researcher [zasebni raziskovalec] has to be registered with the Slovenian Research Agency, which has certain conditions regarding the number of publications that have to be met.

Academic salaries at public higher education institutions in Slovenia are widely believed to guarantee a middle-class standard of living. Given that salaries are regulated by the remuneration framework for the public sector, they are similar across institutions, i.e. fixed according to academic rank and the number of years worked at that rank (Altbach 2000). As such, salaries do not necessarily factor in academics' choices of employment. There is no flexibility to negotiate the base salary. There is also additional pay for transportation, food and vacations, and supplements based on the length of employment. Based on their rank and length of service, academics are categorised into different pay-scale grades. There is some flexibility in terms of bonuses for performance [dodatek za delovno uspešnost] but not much, and the issue of merit pay is somewhat controversial. The application of merit pay differs according to the individual institution's own regulations and practices. As mentioned above, in addition to a regular salary and

5 <http://www.sindikat-vss.si/>

6 http://www.sviz.si/Vse_o_SVIZ_o_sindikatu/index2.php

performance bonuses, academics can receive additional payments (e.g. for additional workload, teaching part-time and PhD students, research and development projects, consultations, etc.).

Salaries tend to be heavily taxed, although social welfare arrangements ensure that expenses such as health care, superannuation, schooling for children and paid vacations are covered by the state. Employees are entitled to full social security support and have fairly robust guarantees with regard to job protection and dismissal. In general, overall academic salaries (including base salary and bonuses) for full-time faculty are still fairly comparable to salaries of higher-ranking professionals in other sectors. However, this trend might be changing with increasing salaries for top-tier managers, lawyers and medical doctors. Still, academics in titled positions are not financially pressured to seek additional employment, although they often do so - as there is opportunity for additional income.

The professoriate in Slovenia enjoys a relatively high social status and tends to be respected by the public. Hence, they are frequently invited to serve in ministerial and other governmental positions, on board of companies, etc. With the emergence of new private higher education institutions, there are also new teaching opportunities at these institutions. However, the competition clause, which most public universities apply, requests that academics seek the permission of the Rector or Dean to teach at another Slovenian institution.

According to legal requirements, all academic vacancies have to be publicised externally on relevant national online platforms, and there is a fairly open and transparent selection process: institutions publish the selection criteria together, a job advert and the composition of the selection panel. However, in practice, this does not mean that there is a high level of mobility of academic staff across the country. On the contrary, academic inbreeding - the employment policy of hiring PhD holders at the department or faculty from which they graduated - is a recognisable feature of the Slovenian higher education system (Klemenčič & Zgaga 2015).

2.5 Academic Employment Policies

According to Zgaga (2017, 4), '[w]ith few exceptions (e.g., art academies), a holder of a doctoral degree is required to obtain a further qualification, named habilitation, in order to become eligible for a professorial position; promotion to professorial ranks depends more on research findings than teaching. Compulsory teacher training for newly hired academic staff is not required, but the University of Ljubljana is regularly organizing voluntary workshops for teaching staff. Students evaluate academic staff and these evaluations are taken into account for promotions. Over the past 20 years, a mandatory stay in institutions abroad (3 months at least) has also been required for promotion to a higher rank. This measure is aimed primarily against the once very high degree of academic inbreeding (Klemenčič & Zgaga 2015). Foreign teachers are still rare, as the language of tuition is Slovenian, and courses taught in foreign languages are still fairly rare (mainly at graduate level).'

Slovenian employment legislation in general has been worker-friendly, aimed at safeguarding employment relationships and workers' rights (though recent legislative amendments bring significant challenges). This is reflected in and enhanced by the employment practices of public higher education institutions, which account for the majority of academics employed in the country. Academic staff at public higher education institutions enjoy high levels of social security. In recent years, the number of those who teach part-time or on a contractual basis has been growing. These individuals do not enjoy the same level of job security and civil servant benefits as academic staff that hold academic titles (SURS 2013).

The Employment Relationships Act (for the public sector) constitutes the body of legislation that influences academic employment. One of the key conditions it stipulates is that details of all job vacancies at higher education institutions are required to be made available externally; more specifically, in the database of the Employment Service of Slovenia,⁷ on the hiring institutions' websites, and in daily local or national newspapers. One of the limitations on the inward mobility of academic staff lies in the legal condition which stipulates that academics in Slovenia are expected to be able to teach in Slovenian, which significantly restricts the pool of potential candidates for academic vacancies (Klemenčič & Zgaga 2015). Article 8 of the Higher Education Act specifies that the language of instruction at higher education institutions in Slovenia is Slovenian. The law does allow for exceptions to this rule. Instruction in a foreign language is permitted for study programmes of foreign languages and in parts of other study programmes that are conducted by foreign lecturers (typically visiting lecturers through the Erasmus scheme) or that enrol a large number of foreign students (in practice, usually Erasmus exchange students). Furthermore, study programmes which are already offered in Slovenian may also be offered in parallel in foreign languages. Such instances are very rare – only “mass” courses like, for example, economics or management - because institutions otherwise find it difficult to fund such courses (Klemenčič & Flander 2013a, b).

Article 62 of the Higher Education Act stipulates that higher education institutions may, for a limited period of time, invite a visiting lecturer to conduct part of a study programme, regardless of what the conditions are regarding the requisite academic rank for teaching at a Slovenian higher education institution—provided that the course leader holds an academic appointment at that institution.

2.6 Academic career path

There is no one single path of recruitment into an academic career in Slovenia. The most expected and desired path is that professors identify capable undergraduate students. Professors then encourage these students to continue on to graduate study. It depends a great deal on the position of the mentor within the institutional hierarchy and his or her informal power as to whether the student will eventually make it into an academic career at the home institution. Powerful mentors have more leverage to claim instructional needs and know how to negotiate the opening of new positions. They also know how to prepare their students for academic careers in terms of giving them advice on what they need to secure an academic appointment. Such conditions (i.e. the importance of mentors for initial talent identification and early career development) are naturally conducive to inbreeding.

However, the influence of mentors diminishes in the recruitment and selection process for titled academic positions [visokošolski učitelji] (i.e. assistant professor or higher). At this stage, the practice is that deans appoint a search and appointment committee following a fairly open and transparent process. However, informally, expectations and pressure from colleagues and others to hire internal candidates is inevitably strong and cannot always be resisted. Again, those that have been trained at the hiring institution under the mentorship of a well-informed and supportive mentor will be at an advantage, given that the mentor will have prepared his or her protégés for appointment to a titled academic position during the course of their academic training and during time spent in junior positions. Indeed, the impact of having sufficient information and preparation on facing a fairly complex set of appointment requirements should not be underestimated. Also, not to be underestimated is the importance of close social ties in Slovenia's fairly small, tightly knit academic communities.

⁷ See <http://english.ess.gov.si/>

The development of mentor-supervisee relations depends on an individual's route into an academic career. There are four distinct paths. After graduation, the mentor may help the student explore employment opportunities to stay at the same faculty, while he or she pursues postgraduate studies. The first two paths to an academic career stem from this scenario. One path is via employment as a “young researcher” [mladi/mlada raziskovalec/raziskovalka] whilst pursuing a PhD, and the second is via employment as an “assistant” [asistent/asistentka], which is not an appointment on the regular career ladder.

2.6.1 Entry into academic career pathways

Young researcher pathway

First, positions for young researchers have existed since the 1980s in the form of a government scheme to finance postgraduate study and research training. At present, this scheme is administered through the Slovenian Research Agency (ARRS).⁸ Potential mentors are the ones who, in conjunction with their home institutions, apply to the Agency to gain funding for a young researcher position. Those that are successful are then allocated funds to hire young researchers for a fixed term, up to a maximum of three and a half years for a PhD programme. The mentors select postgraduate students, from any institution, who wish to become young researchers. The Slovenian Research Agency imposes only two eligibility requirements for candidates: that their average grade for all examinations and course work at graduate level is at least 8 (out of 10), and that they fulfil the conditions for enrolment in postgraduate studies for a PhD. The selection of young researchers must be conducted by the host institution following an open call and in accordance with the Agency's guidelines on funding, evaluation and monitoring of research activity. Hence, the rules (at least formally) limit academic inbreeding, though they do not necessarily prevent it.

A young researcher is not required to do the work of an assistant (i.e. teaching), but is rather engaged in research work; he or she is paid to work on a PhD thesis, participate as a member of the mentor's research group, and sometimes do a bit of teaching (maximum 3 hours per week, whereas the norm for a professor is 6 to 8 hours and for assistants 10 hours or more). Mentors might engage young researchers in other types of work—for example, lab work or sometimes research administration—but this is still the most comfortable path to enter academia. This avenue has been strengthened in recent decades, although the current austerity measures have brought severe restrictions; in some disciplines (e.g. humanities) this option may have even become marginal. Indeed, the number of young researcher positions has been decreasing due to austerity measures and a significant number of these have gone to STEM disciplines.

Assistant pathway

The second route to an academic career is via employment as an assistant. Assistants belong to the category of higher education staff who do not hold academic titles (together with language preceptors, librarians, sports and special skills teachers, etc.). To be elected to the role of assistant, the following conditions must be met: to have a university degree with high accomplishment (a master's, PhD and/or specialisation); and to show capacity for teaching, research and/or artistic endeavours (as relevant). Unlike young researchers, who can devote substantial amounts of time to working on their theses, assistants have to work 10 to 14 hours or more (up to 18 hours) teaching, working in labs, overseeing student examinations, etc. Furthermore, assistants are hired on a fixed-term contract. It is especially common for assistants to be employed by those faculties that have high student enrolments, and

⁸ <http://www.arrs.gov.si/en/mr/predstavitev.asp>

thus high demands for teaching, and insufficient funds to employ titled academic staff. The hourly teaching rate for assistants is significantly lower than that of staff with academic titles, which allows institutions to cover a greater number of teaching hours with fewer staff. Whether assistants will eventually be hired as titled academic staff depends on two factors: if they succeed in being appointed to the rank of assistant professor [docent]; and if a position becomes vacant for them. It is possible that assistants are promoted to the level of a titled academic staff member but remain employed as assistants if there are no positions available.

PhD holders recruited from outside

The third path into an academic career is trodden by PhD holders that have self-funded their PhD studies, most frequently while working full-time or part-time in another job outside of academia (and perhaps even outside of Slovenia). It can occasionally happen that such candidates are recruited into titled academic positions when candidates with sought-after teaching competences cannot be immediately found at the faculty (or other faculties). Again, the standard procedure would be to publicly advertise the position, although certain individuals may be encouraged to apply. Indeed, the practice tends to be that a particular academic “finds” a suitable candidate, which often implies encouraging his or her former student to apply. The person would also need to qualify for appointment to a position that holds an academic title at the respective university. While candidates from other faculties within the same university would be eligible, those that apply from other universities need to apply and qualify for appointment to a titled academic position at the respective university. In other words, academic rank is not automatically recognised across Slovenian universities. For applicants from universities from abroad, university statutes typically prescribe that the appointment procedure and especially criteria need to be evaluated in order to establish that such candidates meet the requisite standards; however, this applies only to higher ranks and not for entry-level appointments to academic positions. If the time to complete the procedure is an issue, candidates might initially be hired as assistants and then apply for selection into a titled academic position. In the meantime, he or she will conduct lectures at the institution, although formally under the supervision of a “local” professor.

Other professionals working outside academia

The fourth and last path into an academic career concerns the professionals not working in higher education institutions and not necessarily holding a doctorate. Individuals (with a PhD or without, should the teaching relate to specific professional competences) working in companies or government institutions are initially invited to help teach a particular course, on a contractual basis. From this arrangement, a part-time, fixed-term employment relationship can emerge to teach the course (which often equates to 25-33 percent of a full-time position). It is possible that such an individual eventually progresses into full-time employment.

These four career paths have not changed much over the years, but the circumstances within institutions have changed significantly. There were periods (in the 1990s and the first half of the 2000s) when there were many new open positions for young researchers and assistants. Nowadays, however—due to austerity measures—there is much less opportunity. Furthermore, criteria for first election to an academic post have become more stringent.

2.6.2 The appointment processes

The appointment processes related to titled academic positions are managed at the faculty level, both for entry-level ranks and for those candidates that are applying for appointment to a higher rank [*izvolitev v naziv*]. Faculties tend to observe the appointment criteria strictly and discourage candidates from applying for promotion if there are doubts that the applicant may not be successful. These discussions tend to cause some tension between academics and deans and deans' offices [*dekanat*]. Candidates apply directly to the faculty. The faculty leadership appoints three members to an appointment committee, from which one is not employed at the same faculty and often not at the same university. The problem is that, due to the small size of the country, in some cases it is impossible to find peers at other universities. Some disciplines and fields exist at one university only. Increasingly, foreign academics are invited to serve on appointment committees. Having foreign academics as members of appointment committees reflects changes to the academic culture, and also poses a significant challenge in terms of translating the entire opus of candidates' work into a foreign language, unless reviewers are sufficiently fluent in Slovenian.

The members of the academic committee then each prepare a report for the faculty leadership following the guidelines on appointment to academic titles approved by the university senate. The faculty senate obtains these three reports, and also checks all bibliographic and biographic data on the candidate. The senate appoints a chair of the faculty human resources committee to ensure that all criteria in the guidelines are observed. The entire application file then proceeds to the standing university appointments' commission [*habilitacijska komisija*]. This commission has thirteen members, covering all disciplines, and one student representative; however, not all faculties are always represented by the commission's members. The commission discusses each candidate and votes on the appointment. If the candidate obtains a majority of votes in favour, then the file goes back to the faculty senate, which has the final say. It is (in theory) possible that the faculty senate rejects the application, even if the university commission approved it. The exception to this procedure is for appointments to the position of full professor, in which the university senate, and not the faculty senate, has the final vote. This procedure is strict and also serves to protect against any academic abuse. Over the last decade especially, commissions—which are respected bodies within universities—have emphasised the criterion related to the international academic engagement of candidates, and academic success at home is no longer a sufficient reason for promotion.

Prior to the 1990s, due to the particular funding scheme at the time, the earmarked funding for the employment of academic staff was specified by the Ministry for each faculty. That is, since faculties were independent legal entities, such budgetary decisions pertaining to faculties were not made at the level of the university in Slovenia. Deans could discuss budget items with the Ministry, but the ministry ultimately decided on the distribution of funds. In 1999, an amendment in Higher Education Law introduced lump sum funding, which was gradually implemented in the early 2000s. At present, funding within the university is allocated by the rector and the management board according to mutually agreed criteria. So, in practical terms, this means that once the dean gets her or his share of the university cake, he or she then determines how much money is available for teaching. From this sum, the dean needs to account for all of the academic staff members that are already employed and ensure that all instructional needs are covered. This information determines whether and how much funding is available for new positions (or not). For any new position, approval from the rector is also needed: the powers of the rector have been strengthened in this regard in recent years. This change has reduced the power of the individual senior academic staff member in terms of employing young academics.

Given the massive curricular reforms that took place in Slovenian universities following the Bologna recommendations, instructional needs were reconsidered and some new positions (part-time or full-time) emerged as a result. There has been a shift towards a more unambiguously meritocratic approach to hiring. While criteria for academic

appointments have always been transparent, they were more ambiguous and open to interpretation in the past. In the last decade, the criteria for measuring research productivity in particular (as well as teaching) have become strictly defined and quantifiable through bibliometric indicators. New instruments for quality and evaluation have been imposed on institutions through the European Standards and Guidelines for Quality Assurance, adopted as part of the Bologna process framework (ESG 2015). These practices encompass approaches to hiring and promotion and, consequently, academics' research choices and career pathways.

The new quality assurance system imposes on institutions more stringent criteria for measuring academic research productivity and thus prompts institutions to be more mindful of such criteria in their human resources strategies, including academic appointments. Furthermore, the competition for public research funding has become fiercer and a key criterion in the competition for funding is candidates' research productivity. Benchmarking institutions according to scientific publications, citations and international collaboration has become the norm. Bibliometric criteria are adopted by independent government bodies—most importantly the National Quality Assurance and Accreditation Agency (NAKVIS) and the Slovenian Research Agency (ARRS)—and implemented through external quality assurance and reaccreditation procedures, as well as through external research funding schemes.

The same criteria are promoted by the University of Ljubljana, especially, as well as the Rectors' Conference, and directed towards the newly established universities and other higher education institutions. The intention of various institutional and policy actors appears to be to increase the rate of development of scientific activity. Consequently, institutions are imposing uniform criteria on their subunits and on individual academics, which has significantly changed the expectations and choices of deans and academic appointment committees in terms of academic recruitment and selection. The use of bibliometric indicators is not uncontroversial and has been debated in light of the possible effects it has on decisions regarding academic research and the academic profession in general.

3 APIKS Global research consortium and APIKS 2018 survey

3.1 APIKS Global Research Consortium and APIKS Research Memorandum of Understanding

The Changing Academic Profession (CAP) was a global survey, originally carried out by 19 research groups, which spawned several successor projects between 2009 and 2014. CAP produced relevant information, publication channels for scholars, and a platform for implementation of the survey Academic Profession in Knowledge-Based Society (APIKS). For APIKS there have been workshops in Finland (2014), Brazil (2015), Portugal (2015), Korea (2016) and Japan (2017) whose aim was to develop a framework for the new survey, an overview of the country situation in each participating country, and technical co-operation to carry out the survey. From the activities and discussions held during these workshops, the focus of the new research network – the APIKS Global Consortium – has been developed: “to understand how the emergence of the new realities created by the knowledge society affect the way academic work is organized, and the values sustained by academics” (APIKS Research Memorandum of Understanding, 2020). The First APIKS Conference on preliminary results and the research-teaching nexus took place in Hiroshima, Japan in March 2019.

The country teams which carried out the survey will now produce a unique data base for comparative studies. The international data set will include raw and cleaned data, and finalised balanced data for use in comparative research. All members of the APIKS Global Consortium have signed the APIKS Research Memorandum of Understanding (APIKS, 2020).

This memorandum of Understanding stipulates that APIKS Global Consortium is governed by the Core Group comprised of participating country’s team leaders. Slovenian representative in the Core Group is Dr. Alenka Flander. The implementation of the survey is supported by the Advisory Board consisting of Ulrich Teichler (chair), Akira Arimoto, Elisabeth Balbashevsky and William Cummings. The APIKS Global Consortium Coordinators are The Co-ordinator Group members are Timo Aarrevaara (chair) and Monica Marquina.

The partners of APIKS survey have a royalty-free, perpetual right to use the results in its internal non-commercial research and teaching activities subject to confidentiality obligations. These confidentiality obligations stipulate that members hold any confidential information of the other party in confidence and not publish or disclose it to any third party. The Data management team shall, however, have the right to disclose confidential information of the APIKS survey to its affiliates on a need to know basis, for the purpose of performing the Project.

The members of the APIKS Consortium and users of APIKS data have also committed to the ethical code (<http://www.tenk.fi/en/frontpage> and in APIKS Research Memorandum of Understanding, 2020):

‘The research follows the principles that are endorsed by the research community, that is, integrity, meticulousness, and accuracy in conducting research, and in recording, presenting, and evaluating the research results. The methods applied for data acquisition as well as for research and evaluation, conform to scientific criteria and are ethically sustainable. When publishing the research results, the results are communicated in an open and responsible fashion that is intrinsic to the dissemination of scientific knowledge.

The researcher takes due account of the work and achievements of other researchers by respecting their work, citing their publications appropriately, and by giving their achievements the credit and weight they deserve in carrying out the researcher’s own research and publishing its results.

The researcher complies with the standards set for scientific knowledge in planning and conducting the research, in reporting the research results and in recording the data obtained during the research.

The necessary research permits have been acquired and the preliminary ethical review that is required for certain fields of research has been conducted.

Before beginning the research or recruiting the researchers, all parties within the research project or team (the employer, the principal investigator, and the team members) agree on the researchers’ rights, responsibilities, and obligations, principles concerning authorship, and questions concerning archiving and accessing the data.

Sources of financing, conflicts of interest or other commitments relevant to the conduct of research are announced to all members of the research project and reported when publishing the research results.

Researchers refrain from all research-related evaluation and decision-making situations, when there is reason to suspect a conflict of interest.

The research organization adheres to good personnel and financial administration practice, and takes into account the data protection legislation.’

The 2018 APIKS survey is guided by questions that explore the relationships between higher education and knowledge society and the implications these have on the conditions of academic work. The survey is placed within the broader framework of “the triple helix model” of the relations between universities, enterprises and governments (Etzkowitz & Leydesdorff 2000; Etzkowitz 2008) and the new social contract between the academy and the society as discussed by Maassen and Olsen (2007). In the case of Slovenia, we are not only looking at the present situation in academic profession, but also explore changes in the last five years by comparing the data from the 2013 survey and 2018 survey.

3.2 Areas of investigation in APIKS Survey

The survey explores the causal relationship between the knowledge society (as independent variable) and conditions of academic work (as dependent variable). It is broadly concerned with the investigation of the effects of the knowledge society on the organization and conditions of academic work, and the values upheld by the academic staff. The international comparative perspective adds the possibilities for exploring the national characteristics and idiosyncrasies of national higher education systems against similarities and common trends across countries. Through the international data comparisons, the APIKS Consortium collectively investigates convergence trends across countries within a region (or a group of countries), a continent or globally, as well as persisting varieties in academic profession and conditions of academic work.

The scholarship on academic profession has recorded several “waves” of changes in academic profession since 1970s (Teichler 2017):

- in 1970s and 1980s, the expansion of academic profession reflected the massification of higher education demand and student enrolments resulting in the loss of “exclusiveness” of academic profession (social status of an academic), changing – deteriorating – academic employment and work situation and changing – decreasing – academic power (*vis-à-vis* managerial or student) within higher education governance;
- in late 1990s and first decade after 2000, there is an emergence of knowledge society paradigm with stronger emphasis on research and knowledge transfer (triple-helix concept), further deterioration of academic employment conditions, rise of managerialism (and lowering of academic power in governance), growing internationalization in higher education and international collaboration, and growing expectations of relevance and economic or social impact of research (outputs and outcomes).

APIKS survey seeks to investigate the present “wave” in academic profession, the influences of contemporary policies and the new social “contract” between higher education and society on academic profession: Is entering academic career becoming more difficult? Are demands on academic staff changing and if so in what way? What are academic staffs’ perceptions of their working conditions? How satisfied are academics with conditions of academic work?

All countries which participated in this research have followed a share survey methodology with a common questionnaire and a set of agreed sampling procedures. The questionnaire was developed based on CAP and EUROAC surveys with some improvements. Each participating country has an option to add country-specific questions.

Major themes of the questionnaire include:

- Socio-demographic information and career
- Employment conditions and income
- Time spent on various academic activities
- Preferences for teaching and research
- Working conditions
- Teaching approaches and activities
- Research approaches and activities
- Academic productivity
- International mobility and international activities
- Governance and management: Conditions and activities
- Overall satisfaction and stress

These themes have been organized into 7 distinct areas of investigation, combining inquiries into self-reported satisfaction, behaviour, orientation and perceptions:

General conditions of academic work

- Satisfaction with current employment (job)
- Satisfaction with current work situation (amount of work, work conditions)
- Satisfaction with overall professional environment
- Perceptions regarding academic profession: stress, conditions to start academic job, would they choose academic profession again
- Sense of belonging to discipline, department, faculty, university

Academic career

- Country of obtained academic degrees
- Characteristics of doctoral training

Academic activities and preferences on teaching and research

- Time spent on academic activities
- Preferences for teaching and research
- Academic service
- Other engagements

Teaching

- Different teaching-related activities
- Perceptions on teaching
- Research-teaching nexus
- Institutional rules on teaching

Research

- Research collaboration
- Types of research
- Self-reported research publications (research productivity)
- Funding of research

External activities

- Reported external activities
- Relationship between external activities and teaching and research
- Impact of external activities

Governance and management

- Perceptions of influence on decision-making
- Perceptions on governance and management
- Perceptions on practices followed by the institution
- Evaluations of academic work

Internationalisation and international cooperation (section added by Slovenia)

- Perceptions on outcomes of internationalisation
- Institutional support for internationalisation
- Language of instruction

Academics in formative years

- Capabilities of junior academics and importance they attribute to these capabilities
- Perceptions on inclusion and social relations
- Expectations and preferences to stay in academic job
- Satisfaction with academic work
- Importance attributed to various factors influencing academic work
- Time spent on academic activities

Socio-demographic background

- Age
- Family situation
- Citizenship
- Parents' highest education level

In this report, we present overall system data, data according to academic rank and gender, and for selected questions also comparisons to data from 2013. Our dataset also captures data according to discipline, which we do not present in this report. We did not collect data according to institutional type.

The expected time to answer the questionnaire was close to one hour, which makes this questionnaire highly time intensive and also demanding in terms of information retrieval.

3.3 APIKS survey methodology and scope in Slovenia

APIKS 2018 online data collection in Slovenia took place between June 14th and July 22nd 2018, for a total duration of 6 weeks with up to 4 reminders. Data was collected online using Qualtrics software.

No sampling was implemented. We targeted the entire academic population with paid employment at the following types of Slovenian higher education institutions: 3 comprehensive public universities, 1 private university, 48 other independent higher education institutions. No academic staff from vocational colleges was included in the defined population. Furthermore, we have followed the APIKS Consortium's definition of the APIKS survey core population as the academic staff meeting all of the following four conditions:

Regularly employed in ongoing or fixed-term contracts

The contract type may be more restricted, but not broader. For example, countries may choose to sample only staff employed in ongoing contracts. In this case, the exclusion of fixed-term contract staff should be noted and justified. Where possible, the implications for generalizations to the national population should be explained, such as the % of all academics employed in limited term contracts if such staff are excluded. If countries choose a broader definition, such as including doctoral students or unpaid, adjunct, honorary or casual staff on hourly contracts, these should be reported separately as part of the APIKS extended population.

Holding contracts of at least a 25% fulltime equivalent basis (i.e. more than one day per week)

The contract working hours may be more restricted, but not broader. For example, countries may choose to sample only staff employed for at least two or three days per week. In this case, the exclusion of shorter working hours contracts should be noted and justified. Where possible, countries should explain any implications there may be for generalizations, such as the % of all academics employed on contracts with shorter hours. If countries choose a broader definition, such as including adjunct, honorary or casual staff on hourly contracts, these should be reported separately as part of the APIKS extended population.

Employed in higher education institutions awarding at least a bachelor's degree

The institutional definition may be more restricted. For example, countries may choose to sample only doctoral granting universities, comprehensive universities or public universities. In this case, the exclusion of bachelor-granting institutions, private institutions or otherwise should be noted and justified. Where possible, countries should explain any implications there may be for generalizations, such as the % of all academics employed in these types of institutions or the % of students taught in excluded institutions.

Employed in an academic function involving primarily teaching and/or research

Generally, this means employed in academic ranks involving teaching or research for a majority of the paid employment. This does not include lab technicians, teaching assistants, doctoral students or others employed in support roles. If these are included, they form part of the APIKS extended population.

For the purpose of this report, we also included academics of between 20% and 24% fulltime equivalent basis, i.e. including those working for one day per week as well. They represented about 5% of the whole final sample.

Since there is no national register of academic staff, we have collected e-mail addresses from the publicly available websites of higher education institutions, their faculties and departments. Through this method we have collected addresses of 7859 academics to whom invitations to respond to the survey were sent. A total of 463 emails returned as bounced. Out of all respondents who entered the questionnaire, 179 were not professionally active at a higher education institution and were, therefore, excluded from the sample. We also removed respondents with more than 50% of item non-response and those who were part-time employed for less than one day a week (<20%). Since addresses were canvassed from publicly accessible webpages this has resulted in over capture of the entire population and capture also support staff and former academics (retired, no longer active as researchers or teachers).. The total number of academic staff employed in higher education institutions (in research and teaching capacity) amounted in 2018 to 4,889 people (SURS 2018). At the same time, not all email addresses for all academics were listed on particular HEI websites as they were not regularly updated, which resulted in some under-capture.

The final number of respondents was 1035, including 7% partial interviews and 5% (=49) of those with between 20% and less than 25% part-time employment at a higher education institution. Thus, we comply with the APIKS core population target sample size which was set at 1,000 respondents.

Majority of our respondents held full-time employment at the time of taking the survey (88%) (see Table 1 below). We have a balanced representation of respondents according to gender and rank (see Tables 2 and 3 below). Representation of respondents according to the academic field reflects the most populous fields (social and behavioural sciences and engineering) albeit arts and humanities tend to be overrepresented in the sample (see Table 4 below). Response rate (AAPOR RR2) for this survey is 16,4% (which complies with the required 15% set by the APIKS Consortium).

Table 1 Respondents by employment (2013: n=607, 2018: n=1035)

Employment situation in the current academic year	2013	2018
Full-time	87%	88,3%
Part-time	13%	11,7%

Table 2 Respondents by gender (2013: n=621, 2018: n=955)

Respondents by gender	2013	2018
Male	54%	49,5%
Female	46%	50,5%

Table 3 Respondents by rank (2013: n=614, 2018: n=1016)

Respondents by rank	APIKS 2018	Admin data 2015 estimate	APIKS 2018 distribution by gender		Admin data 2015 distribution by gender estimate	
			Male	Female	Male	Female
Full professor	20,1%	19,6%	57,1%	42,9%	71,1%	28,9%
Associate professor	19,7%	14,2%	54,5%	45,5%	64,7%	35,3%
Assistant professor	25,3%	20,2%	47,1%	52,9%	56,6%	43,4%
Junior/Assistant lecturer	20,6%	30,8%	50,0%	50,0%	53,5%	46,5%
Other	14,3%	15,2%	35,6%	64,4%	42,8%	57,2%
Total	100%	100%	49,5%	50,5%	57,5%	42,5%

Table 4 Responses according to disciplines (n=954)

Respondents by academic discipline or field (2018)	Total	Male	Female
1 Teacher training and education science	4,6%	34,1%	65,9%
2 Humanities and arts	18,5%	39,6%	60,4%
3 Social and behavioural sciences	12,6%	37,6%	62,4%
4 Business and administration, economics	5,1%	55,3%	44,7%
5 Law	2,0%	52,6%	47,4%
6 Life sciences	11,1%	42,9%	57,1%
7 Physical sciences, mathematics	5,7%	76,8%	23,2%
8 Computer sciences	3,4%	76,5%	23,5%
9 Engineering, manufacturing and construction, architecture	16,3%	75,2%	24,8%
10 Agriculture, forestry	5,3%	43,1%	56,9%
11 Medical sciences, health related sciences	9,2%	37,2%	62,8%
12 Social work and services	0,6%	16,7%	83,3%
13 Personal services, transport services, security services	1,1%	66,7%	33,3%
14 Other	4,4%	34,9%	65,1%

Majority of academics are permanently employed (80.4%), 11.8% have fixed-term employment with continuous employment prospects and 4.5% fixed-term employment without future employment prospects. 1.9% of respondents are working on hourly contracts.

Figure 1 The duration of current employment contracts (n=1032)

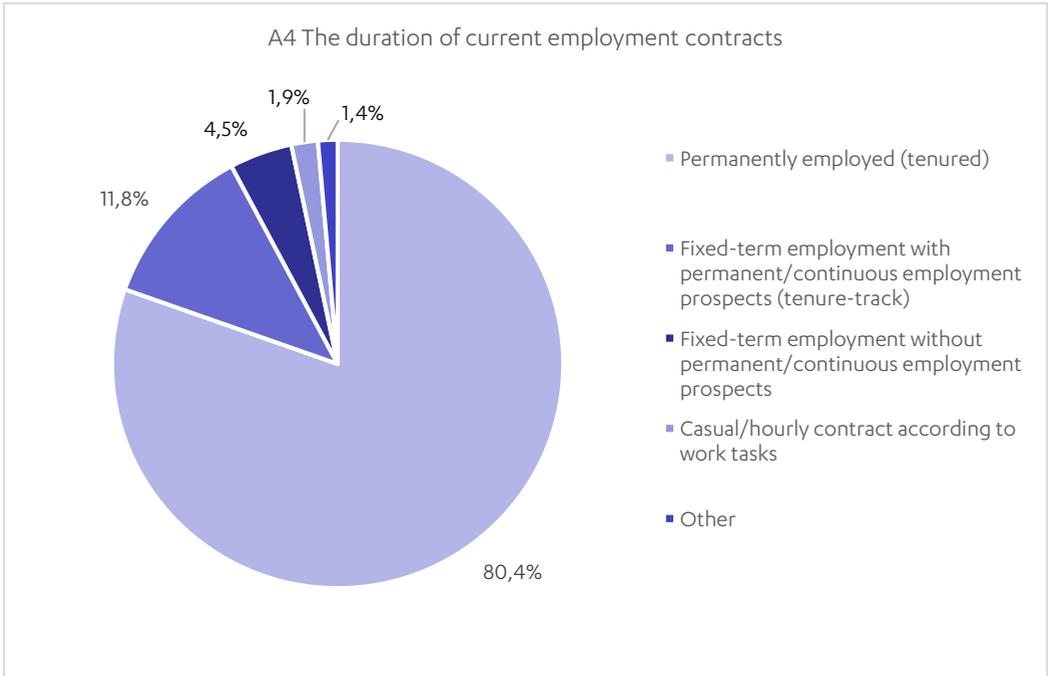
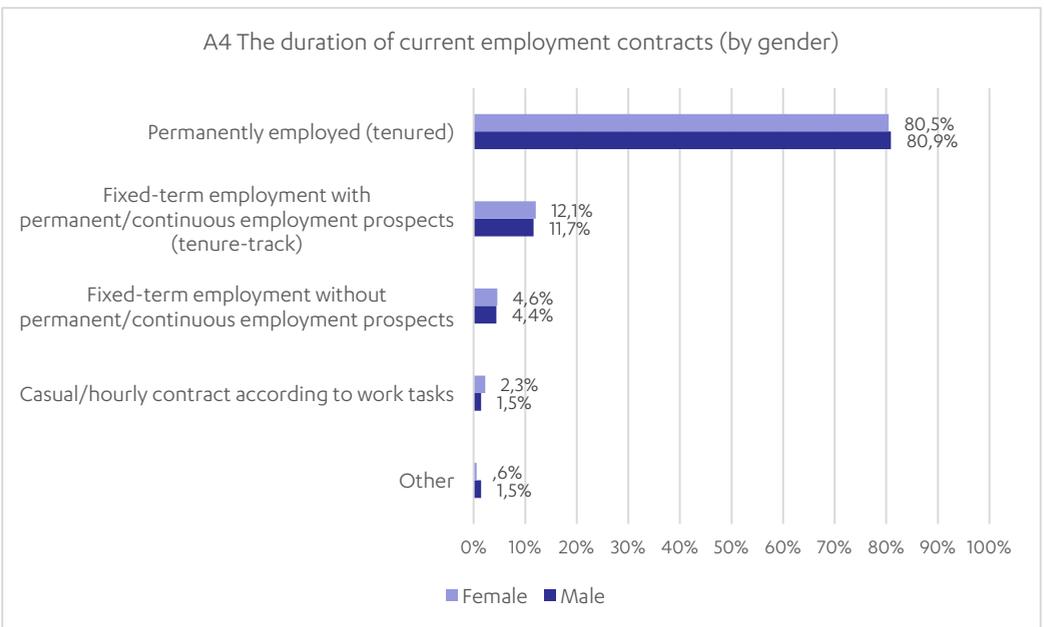
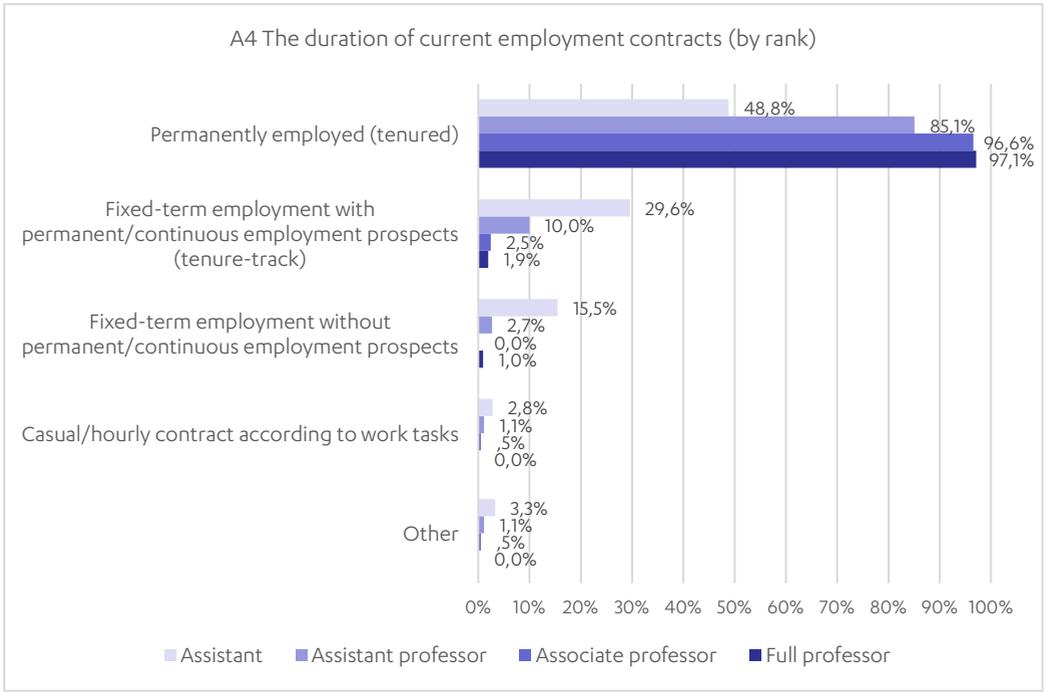


Figure 2 The duration of current employment contracts (by rank and gender) (n=953)



4 Findings from the APIKS 2018 Survey

This chapter presents the key findings from 2018 APIKS Survey for the following question areas:

1. General conditions of academic work;
2. Academic career;
3. Academic activities and preferences for teaching and research;
4. Teaching;
5. Research;
6. External activities – contribution to society;
7. Governance and management;
8. Internationalisation and international cooperation;
9. Academics in formative years;
10. Socio-demographic background and family situation.

4.1 General conditions of academic work

4.1.1 General satisfaction with current employment, work situation and professional environment

Overall, in 2018 academic staff show most satisfaction with their employment situation, less with their work situation and least with their professional environment. There are notable differences according to rank and gender. The reported overall satisfaction improved considerably compared to 2013.

Satisfaction with their current employment (e.g., your contract status, salary):

In 2018, academic staff are overall more satisfied with their employment (i.e., their current job) than in 2013: in 2018, 49% of respondents reported to be very satisfied or satisfied with their current employment situation compared to 36% in 2013. However, there are notable differences according to rank. Satisfaction with job decreases as we move downwards in the academic rank: the lower the academic rank less satisfied are the academic staff with their employment. Compared to 2013, the satisfaction with current employment improved for all ranks, but mostly for full and associate professors and other academic staff. Male academics reported slightly higher satisfaction with their current employment than female (51% of male academics rated satisfaction as very high or high compared to 49.4% female), but also higher dissatisfaction (22.2% male compared to 20.4% female reported low satisfaction).

Satisfaction with current work situation (e.g., work load, work environment):

In 2018, 43.5% of respondents reported to be very satisfied or satisfied with their current work situation and 28.3% very dissatisfied or dissatisfied. There are notable differences according to rank: satisfaction is highest among full professors (49% expressed very high or high satisfaction with their work situation), then assistants (42.7%) and then assistant and associate professors (38.7%). Male academics reported notably higher satisfaction with their current work situation (47.6% of male academics rated satisfaction as very high or high compared to 40.4% female), whereas dissatisfaction was comparable for both genders – just under a third.

Satisfaction with the overall professional environment:

In 2018, 38% of respondents reported to be very satisfied or satisfied with their overall professional environment and 27.9% expressed dissatisfaction or high dissatisfaction. Satisfaction with professional environment also varies according to academic rank: it is highest among full professors (40.6% expressed very high or high satisfaction with overall professional environment), then assistants (32.7%) and then assistant and associate professors (31%). Female academics reported especially low satisfaction with professional environment (30% of female academics are very dissatisfied or dissatisfied as compared to 28.3% females who expressed to be satisfied (but 0% very satisfied) and compared to male academics (25.2% males reported very low or low satisfaction and 39.1% satisfaction or high satisfaction).

Figure 3 How do you rate your satisfaction with your current employment situation? (2018: n=1033, 2013: n=629)

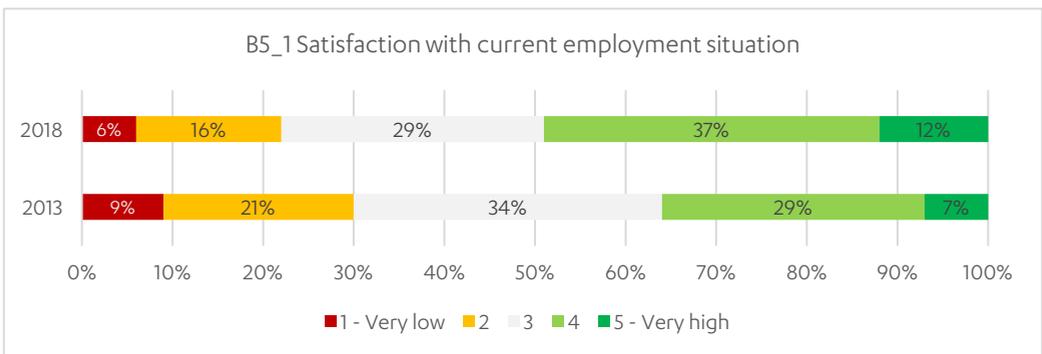


Figure 4 How do you rate your satisfaction with your current employment situation? (by rank) (2018: n=1031, 2013: n=621)

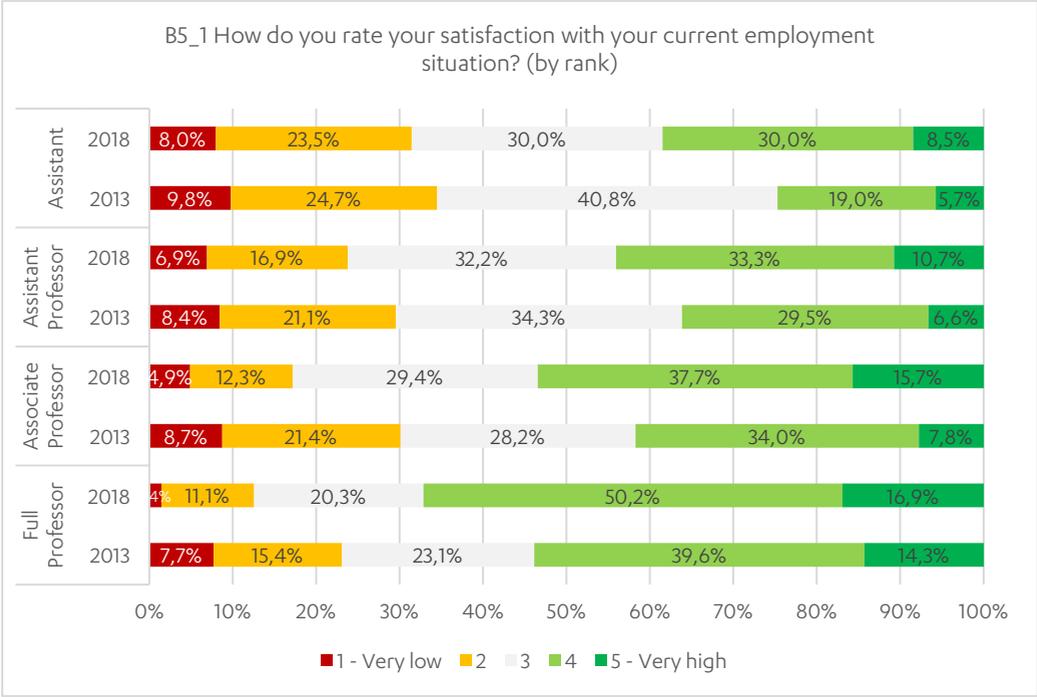


Figure 5 How do you rate your satisfaction with your current employment situation? (by gender) (2018: n=953, 2013: n=621)

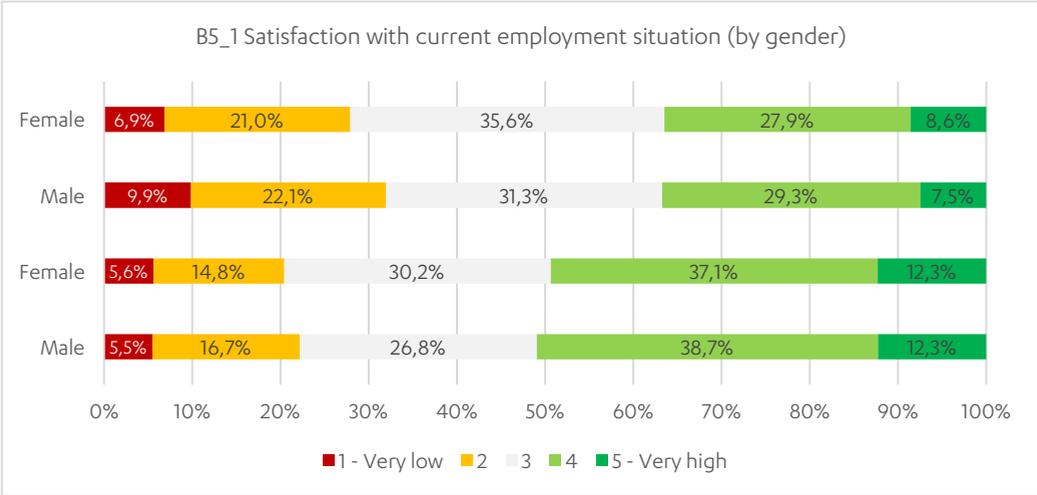


Figure 6 How do you rate your satisfaction with your current work situation? (2018) (n=1032)

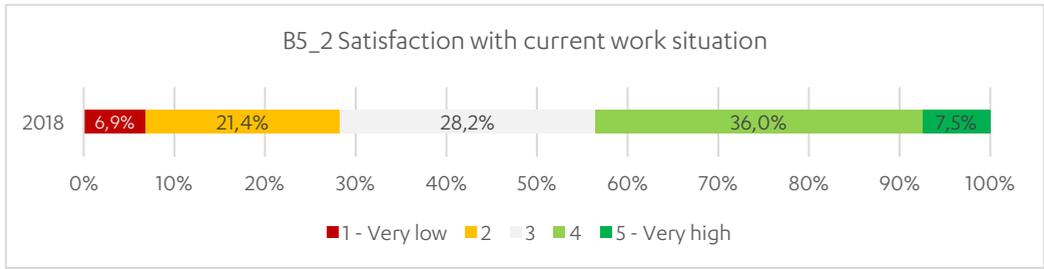


Figure 7 How do you rate your satisfaction with your current work situation? (By rank) (n=1032)

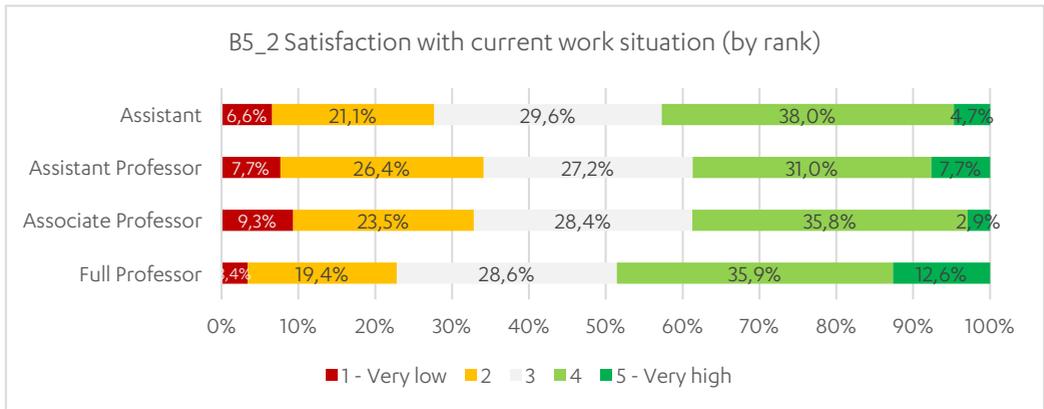


Figure 8 How do you rate your satisfaction with your current work situation? (By gender) (n=953)

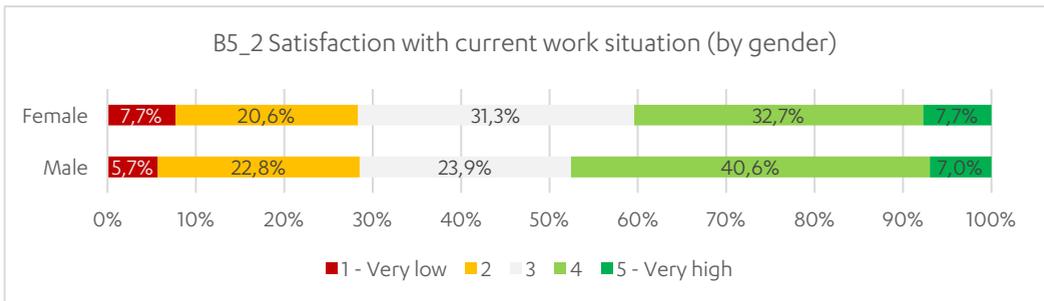


Figure 9 How do you rate your satisfaction with your overall professional environment (2018) (n=1033)

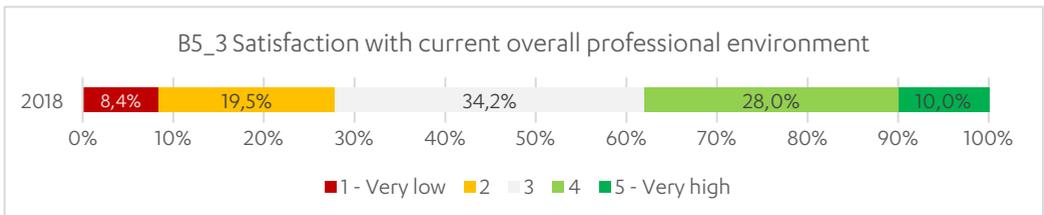


Figure 10 How do you rate your satisfaction with your overall professional environment (by rank)? (n=1033)

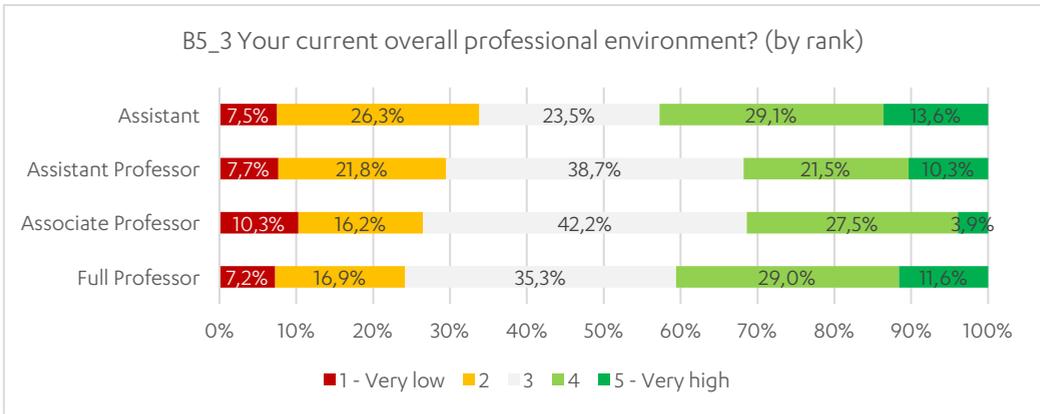
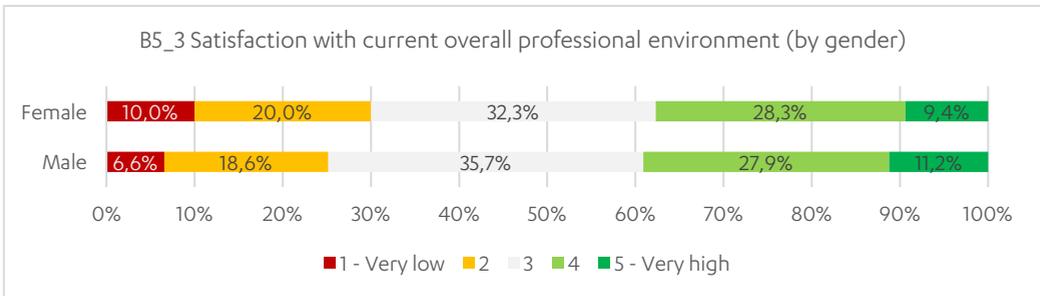


Figure 11 How do you rate your satisfaction with your overall professional environment (by gender)? (n=953)



4.1.2 Perceptions regarding academic profession

Majority of academics find their job to be a considerable source of personal strain (76.9%). Yet, if they could choose again, only 21% would not become academics. Majority of academics (59.4%) still believe that this is a difficult time for young people to start academic career; however, this view improved from 2013 when 85.3% agreed with this statement.

Academic job as a source of stress:

Majority of academics find their job to be a considerable source of stress (76.9%). Associate professors (83.8%) followed by assistant professors (78.9%) are the groups that most strongly agreed with the statement that their job is a source of personal strain. Compared to 2013, when 84.7% indicated that their job was a source of considerable personal strain, in 2018 slightly fewer yet still a majority agreed with this statement (76.9%). Female academics (78.3%) report express slightly higher agreement with this statement than male academics (75.3%)

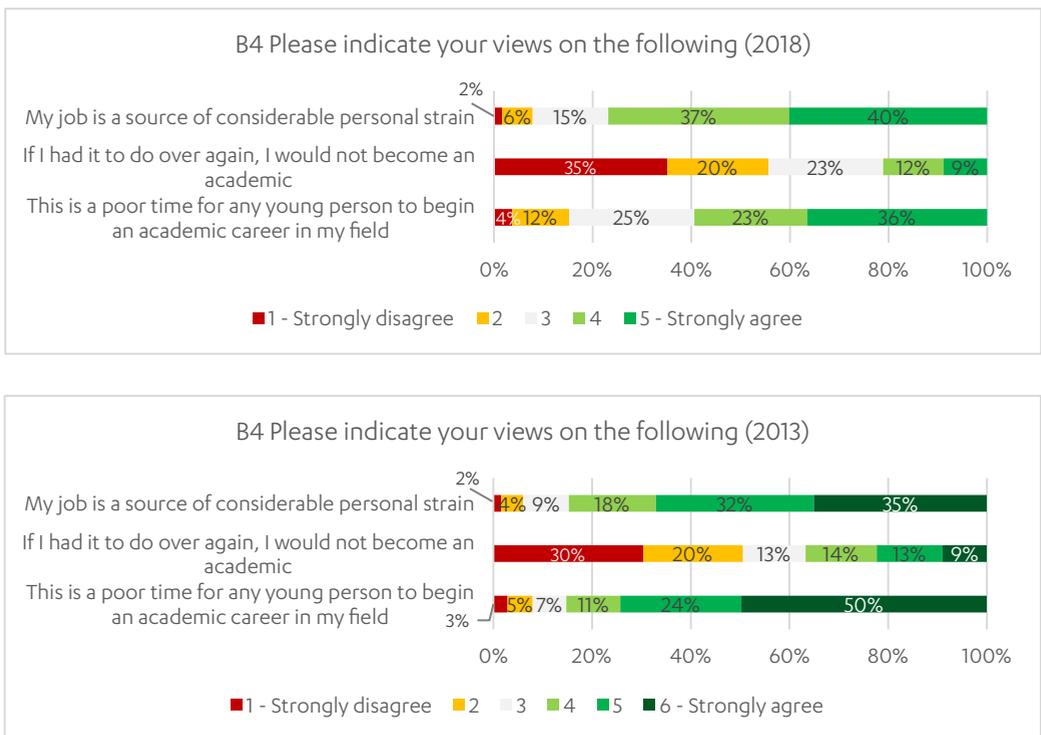
Choosing academic profession if one could do it all over again:

If they could choose again, most would choose academic profession (only 21% agree or strongly agree that they would not choose again to become academics). The responses somewhat improved compared to 2013 when 36.7% would not choose again to become academics. Full professors are most likely to have chosen the same profession again. The expressed intent to become academic if they could start over again decreases with the rank. There are no statistically significant gender differences.

Time to start academic career for young people:

In 2018, 59.4% believe that this is a difficult time for a young person to begin an academic career in their field; whereas in 2013, 85.3% agreed with this statement. Junior/associate lecturers (64.8%) and assistant professors (64.2%) are the groups that reports most strongly that this is a difficult time for a young person to start academic career. There are no statistically significant gender differences.

Figure 12 Please indicate your views on the following (2018: n=1030, 2013: n=623)^a



^a In 2013 the scale was 1 - Strongly disagree to 6 - Strongly agree; in 2018 the scale was 1 - Strongly disagree to 5 - Strongly agree, so the data are presented in separate Figures.

Figure 13 Please indicate your views on the following (By rank) (2018: n=1030, 2013: n=623)

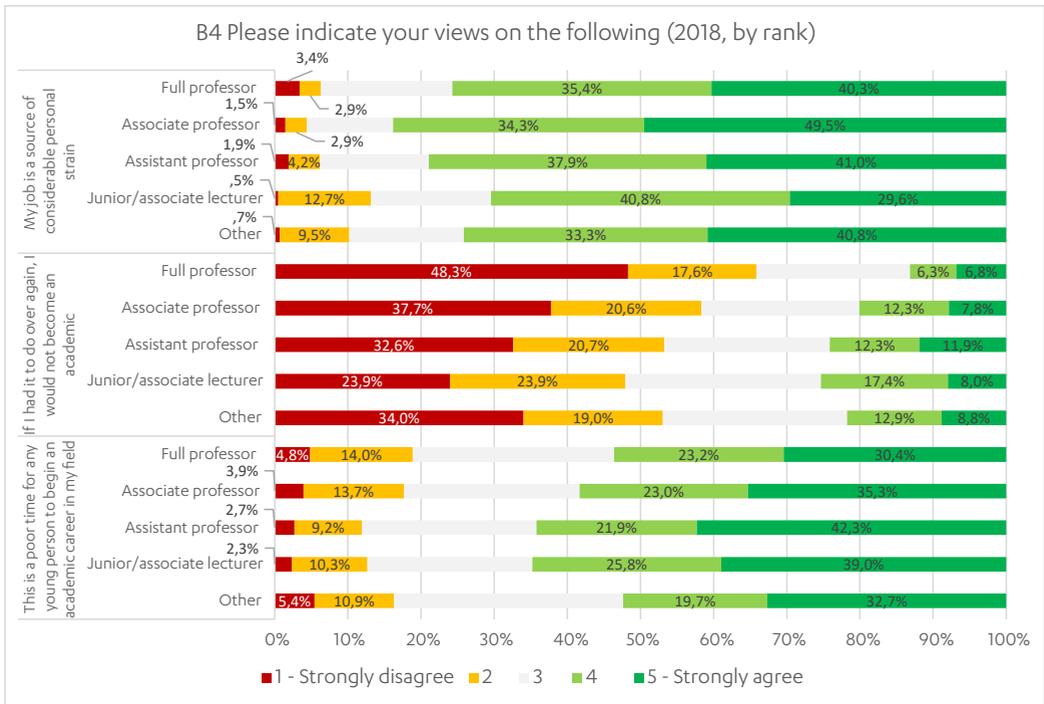
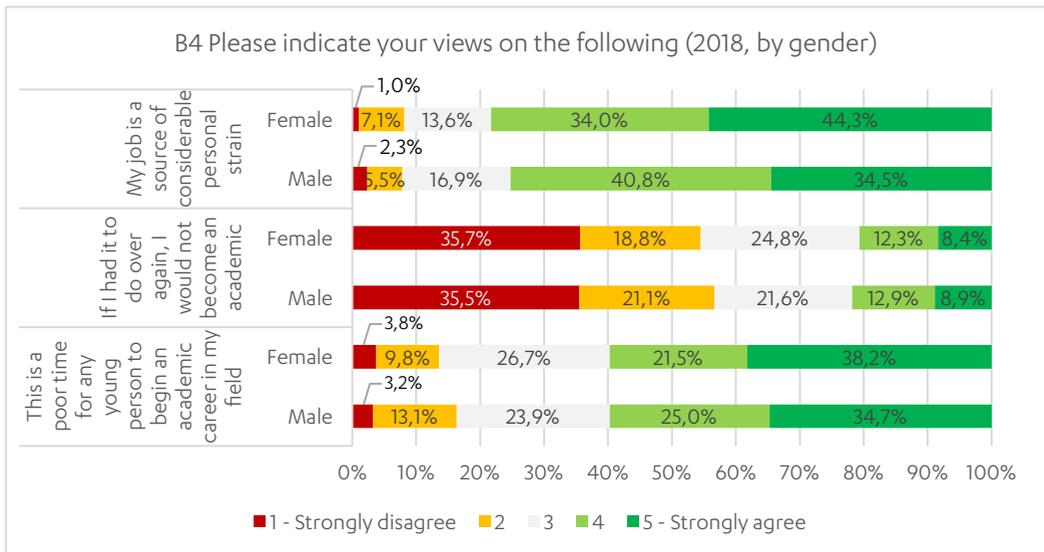


Figure 14 Please indicate your views on the following (By gender) (2018: n=952, 2013: n=614)



4.1.3 Sense of belonging – expressed importance of affiliation to discipline, department, faculty/school, university

Overall, academic staff attributed most importance affiliating to their academic discipline or field (87% stated that discipline was important or very important to them), then to their department (74% stated that affiliation to their department was important or very important to them), then faculty (69% stated that affiliation to their faculty was important or very important to them) and then to their university or school (60% stated that affiliation to their university was important or very important to them).

Compared to 2013, in 2018 academic staff express slightly higher importance affiliating to their department, faculty and university. Reported importance affiliating to discipline increased most compared to 2013 (from 82% in 2013 to 87% in 2013).

Comparing 2013 and 2018 survey results, associate and assistant professors in 2018 report lower importance of the affiliation to their faculty than in 2013; and full and assistant professor report lower importance of affiliation to university.

Female academic staff overall report higher importance of affiliation to discipline, department, faculty and university than their male counterparts, but their reported importance of affiliation to their department and university is lower in 2018 compared to 2013.

Figure 15 Importance of the affiliations for academics (2018: n=1024, 2013: n=624)

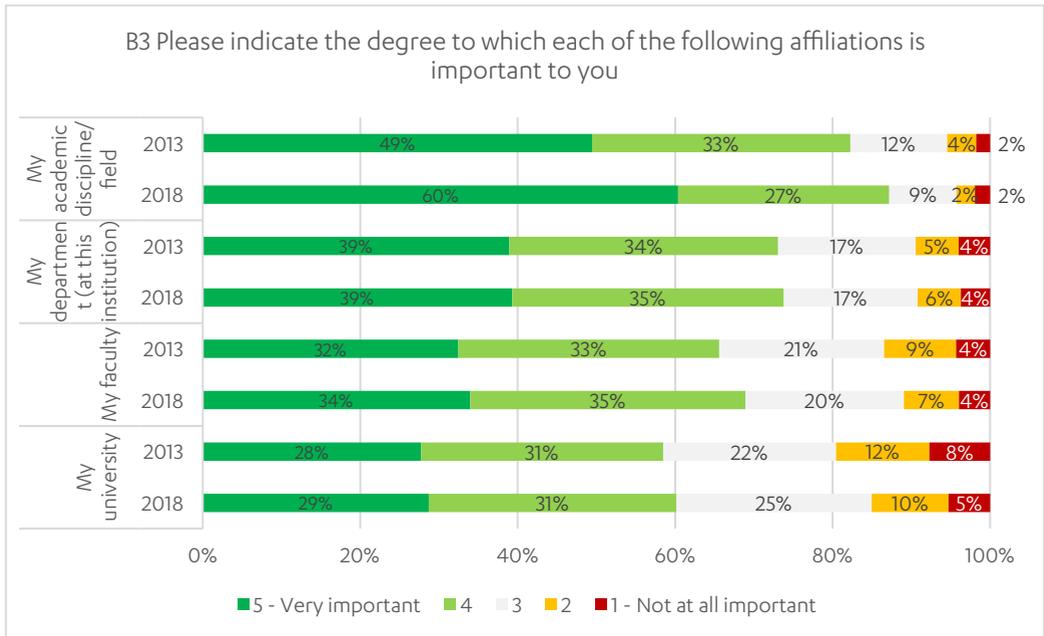


Figure 16 Importance of the affiliations for academics, by rank (2018: n=1006, 2013: n=608)

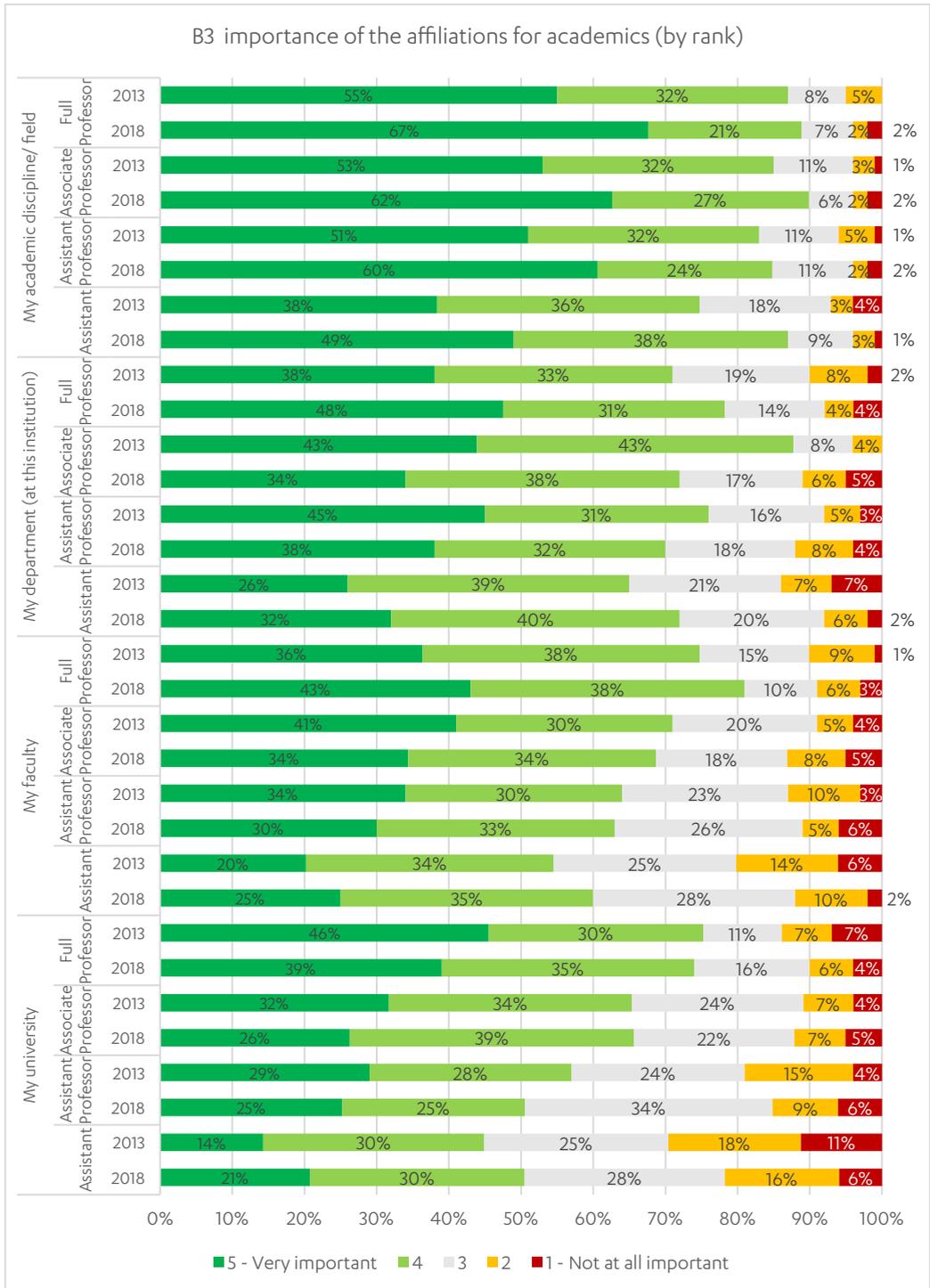
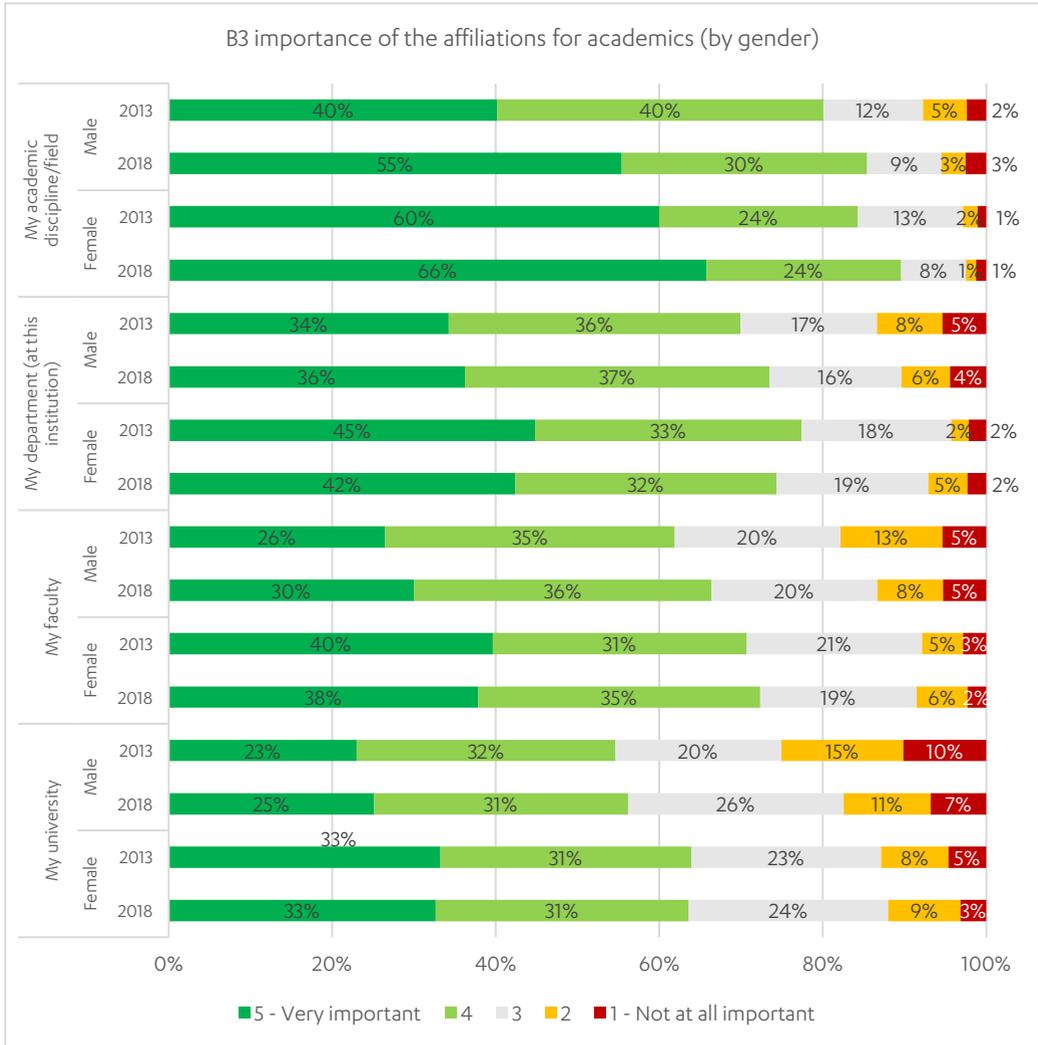


Figure 17 Importance of the affiliations for academics, by gender (2018: n=945, 2013: n=608)



4.2 Academic career

4.2.1 Country where obtained academic degree

Among the 2018 survey respondents, most academic staff obtained their academic degrees in Slovenia. Those that obtained their degrees abroad most did so for their second (Masters) degree (18%) and doctoral degree (14%). Overall the share of those who obtained their degrees abroad is higher in 2018 compared to 2013 and ranges from 9% for first (Bachelor), 14% for doctoral and 18% for second (Masters) degree.

Fewer female than male academics report to have obtained degrees abroad. The share of those who have obtained degrees abroad increased for both genders in 2018 compared to 2013. Gaining Bachelors' degree abroad is fairly evenly spread across academic ranks. Assistants professors are the group with the highest share of Masters' degrees abroad (23%). The share of those who obtained doctoral degree abroad increases with the academic rank (18% of full professors reported having earned doctoral degree abroad).

Figure 18 Percentage of academics with degree earned in Slovenia (country of current employment) (2018: n=938, 2013: n= 575)

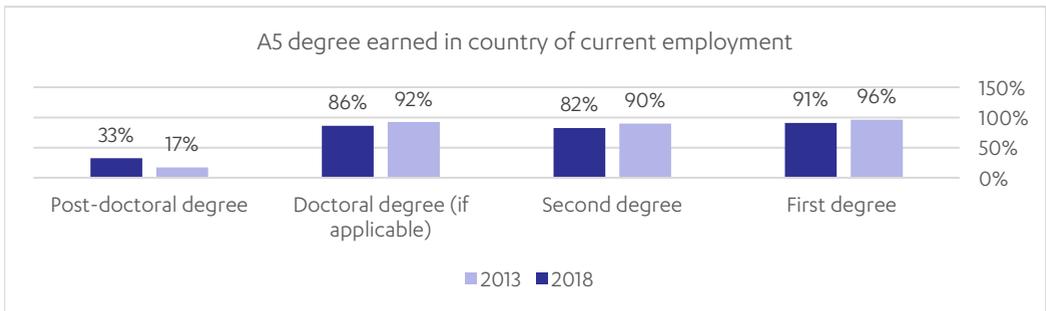


Figure 19 Percentage of academics with doctoral degree earned in Slovenia (country of current employment) by gender (2018: n=871, 2013: n= 572)

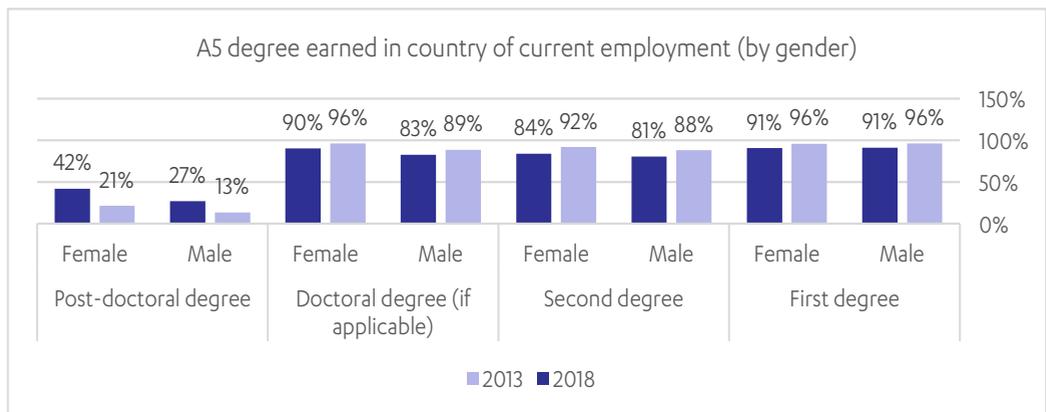
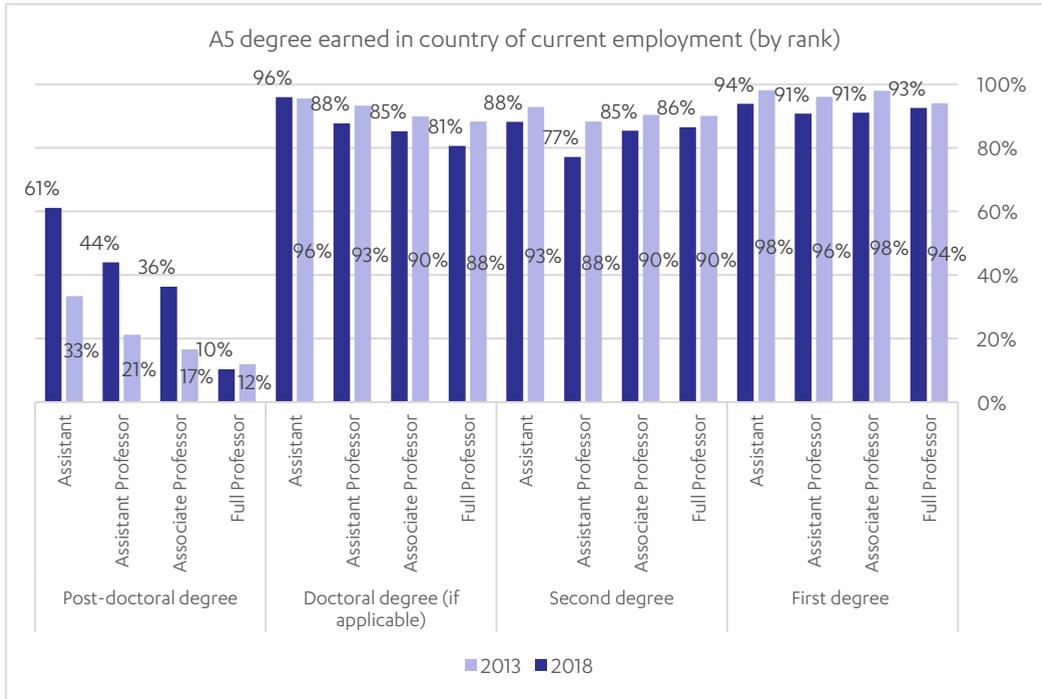


Figure 20 Percentage of academics with doctoral degree earned in Slovenia (country of current employment) by academic rank. (2018: n=921, 2013: n= 564)



4.2.2 Characteristics of doctoral training

Among the respondents:

- 51.6% were required to take a prescribed set of courses
- 93.6% were required to write a thesis or dissertation
- 37.3% reported to have received intensive faculty guidance for their research
- 65.6% choose their own research topic
- 40.8% received a scholarship or fellowship
- 60.1% received an employment contract during their studies (for teaching or research)
- 52.5% were employed at a research institution
- 11.6% were employed outside academia
- 16.3% funded their doctoral training by themselves and/or with family support
- 14.5% received training in instructional skills or learned about teaching methods
- 46.2% were involved in research projects with faculty or senior researchers
- 46.4% their doctoral thesis in a form of a monograph
- 16.6% had their doctoral thesis consisting (partially or completely) of book chapters and/or journal articles.

Figure 21 Characteristics of doctoral training (general [n=812] and by gender [n=749])

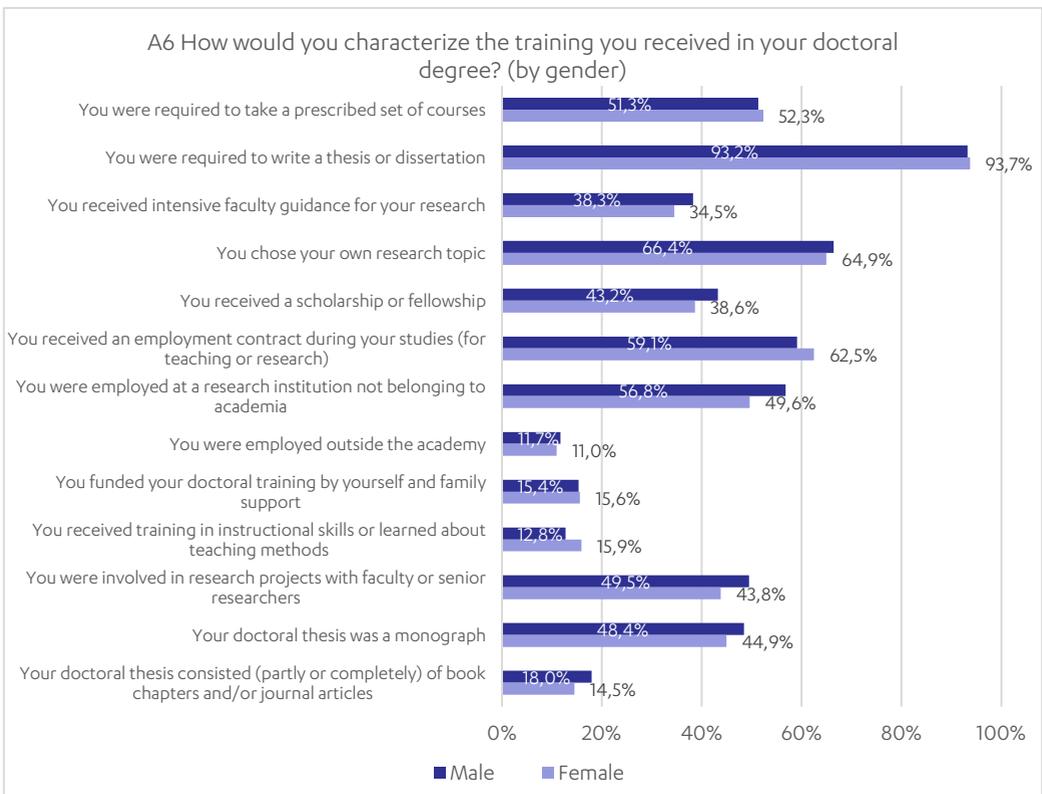
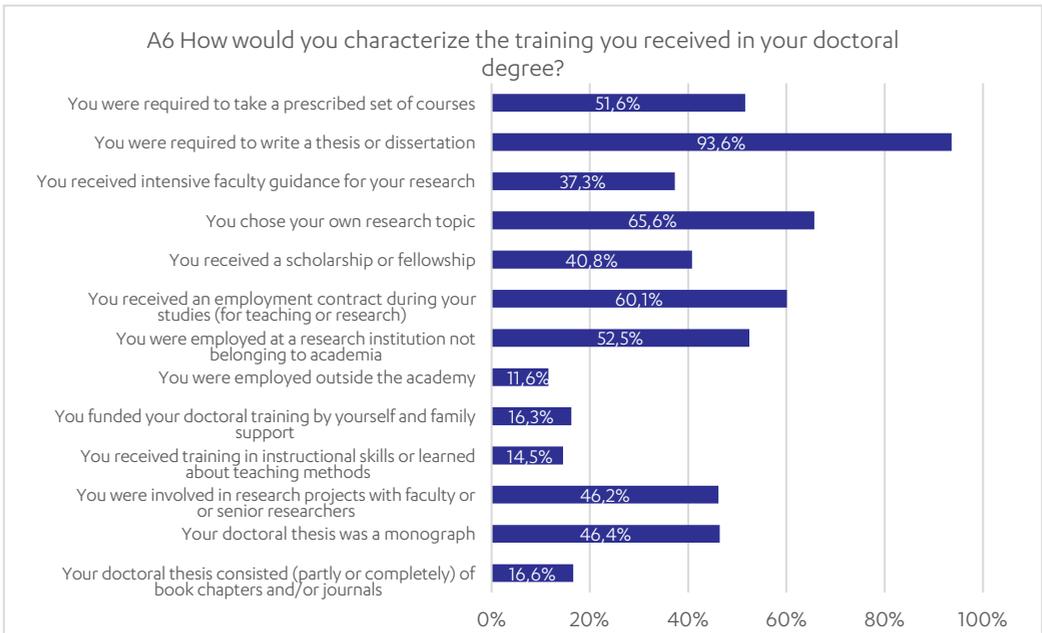
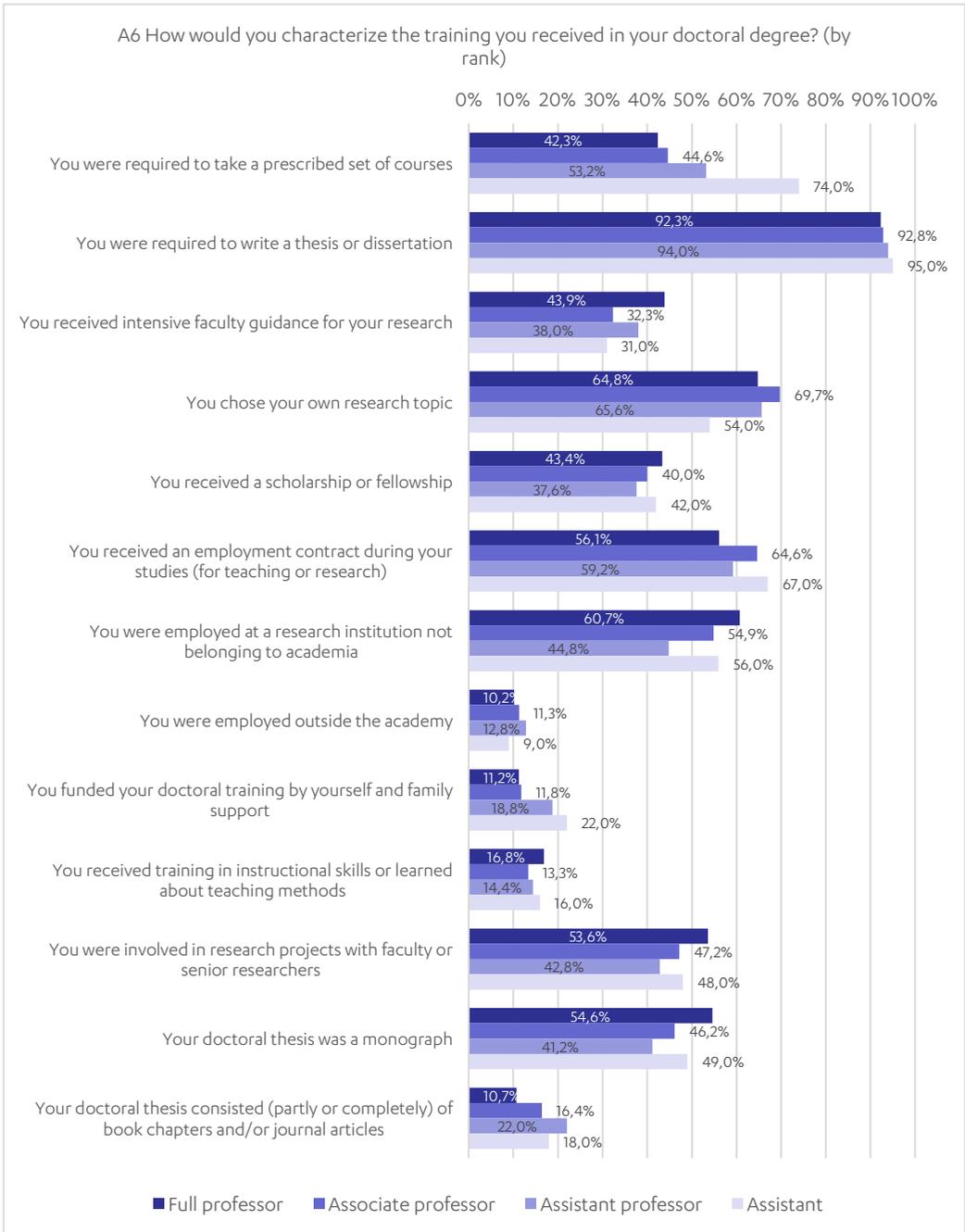


Figure 22 Characteristics of doctoral training (by rank) (n=812)



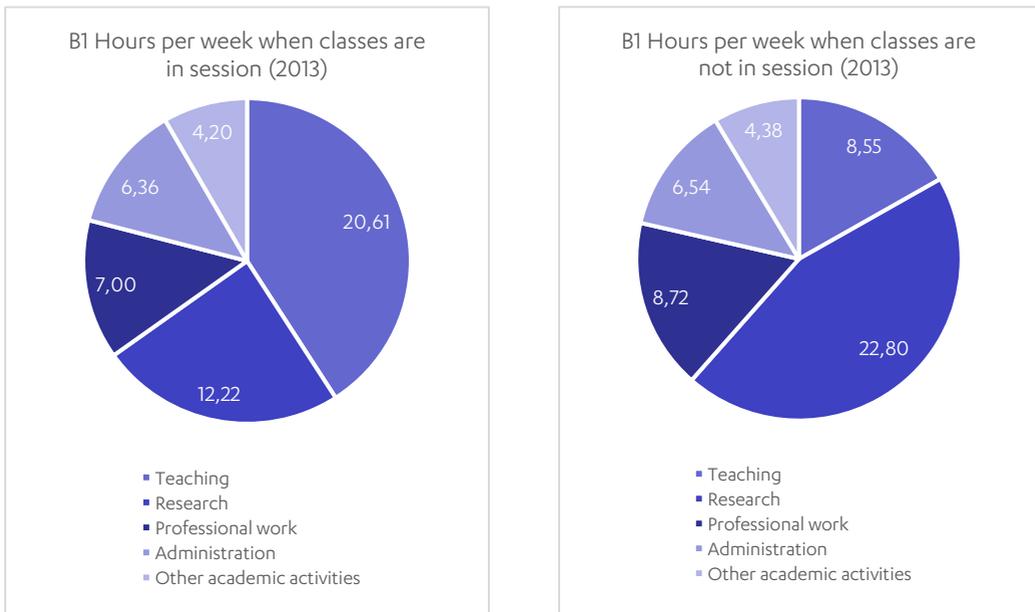
4.3 Academic activities and preferences on teaching and research

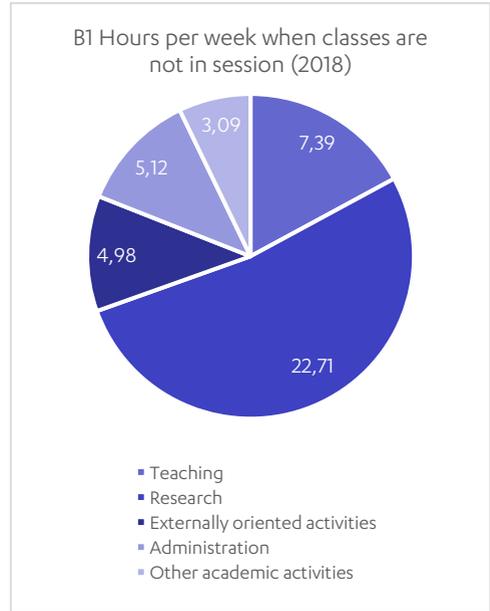
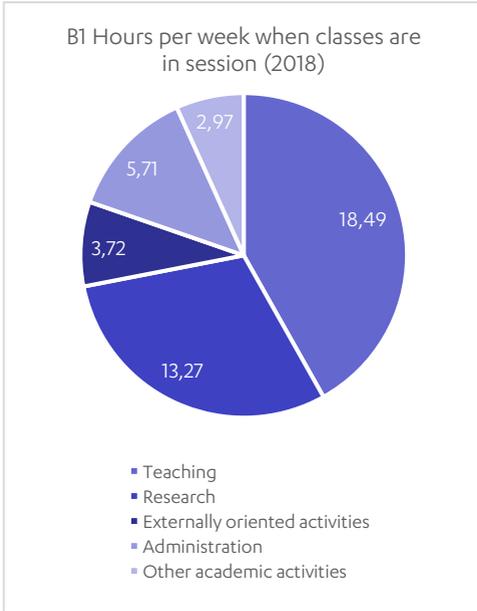
4.3.1 Time spent on academic activities

When classes are in session, the academic staff devotes most time to teaching and teaching-related activities (e.g., preparation of instructional materials and lesson plans, classroom instruction, advising students, reading and evaluating student work, etc.) as well as to research (e.g., reading literature, writing, conducting experiments, fieldwork, etc.). When classes are not in session, by far the most time is devoted research. Compared to 2013, academic staff reported overall less hours devoted to academic activities than in 2013. This reduction is visible across all categories of academic activities with the only exception of research when classes are in session (where there is a slight increase in 2018 in the reported time spent on research when classes are in session).

In 2018, the working week of academic staff at Slovenian universities when classes are in session lasts on average 41.9 compared to 50.4 hours reported in 2013 which is a significant decrease in reported time. When classes are not in session, the average working lasts 36.8 compared to 51 hours in 2013 which too represents a significant decrease in reported time. The difference in reported time devoted weekly to academic activities when classes are in session and when classes are not in session is about 5 hours.

Figure 23 Hours spent on each activity (teaching, research, externally oriented, administration) when classes are and when classes are not in session (valid answers: 2018: n= between 848 [other] and 946 [teaching]), 2013: n=between 416 [other] and 589 [teaching])





When classes are in session, most time is, as expected devoted to teaching and teaching-related activities: 42% and 30% to research and research-related activities.

When classes are not in session, 52% are devoted to research and 17% to teaching.

Time devoted to teaching:

Overall, data shows that reported time devoted to teaching activities both when classes are in session and when they are not is shorter in 2018 compared to 2013. However, our data shows that compared to 2013, in 2018 academic staff spend on average 3 hours less in teaching-related activities during teaching term and 2.3 hours less when classes are not in session. Also, the difference between ranks are not significant for when classes are in session. When classes are not in session, junior and associate lecturers tend to spend less time on teaching-related activities than those of higher academic rank. There are no statistically significant differences between genders regarding time devoted to teaching.

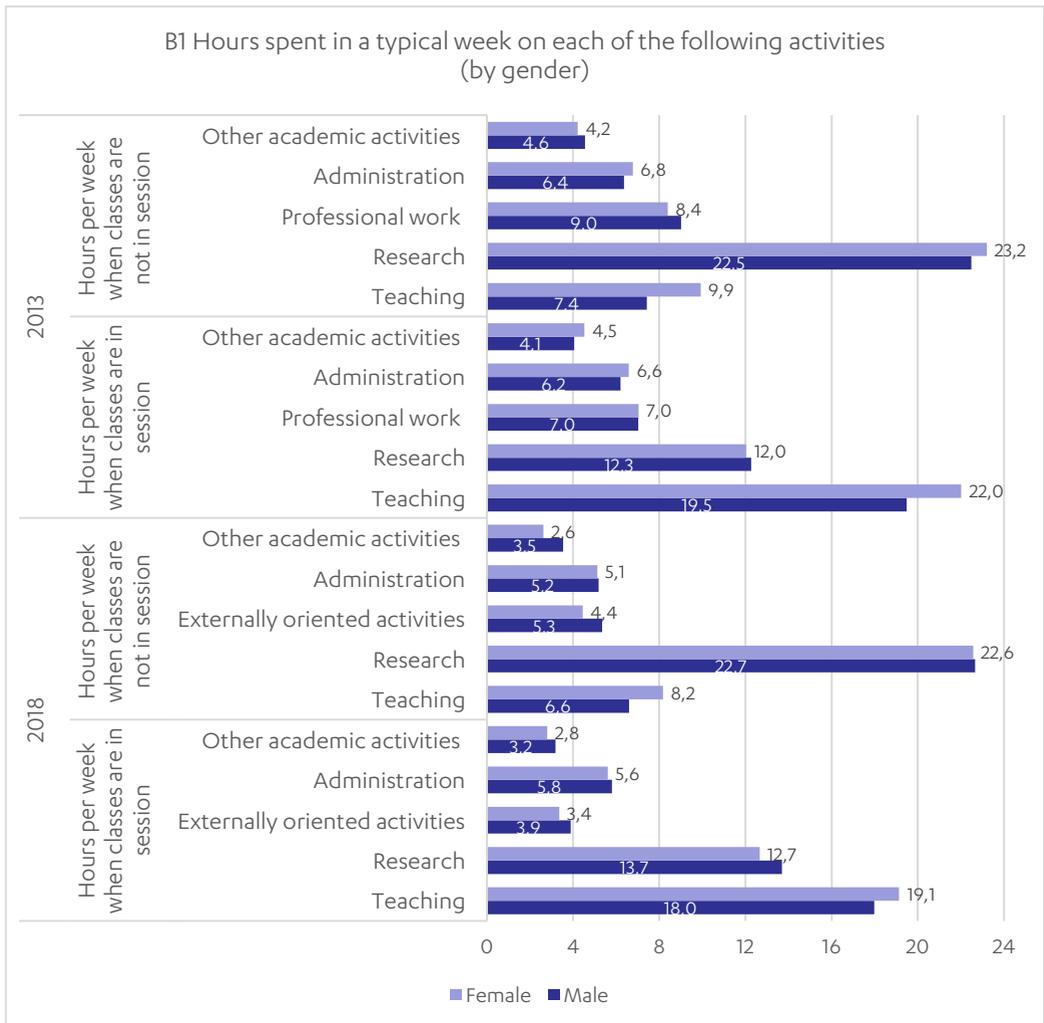
Time devoted to research:

When classes are not in session, reported time spent on research is 3.5 hours shorter in 2018 compared to 2013, and there is a slight increase in time devoted to research (0.2 hours weekly more time to research) when classes are in session. When classes are in session, associate lecturers and other junior academic staff as well as associate professors devote less time to research than other ranks (assistant professor and full professors). There are no statistically significant differences between genders.

Time devoted to other academic activities:

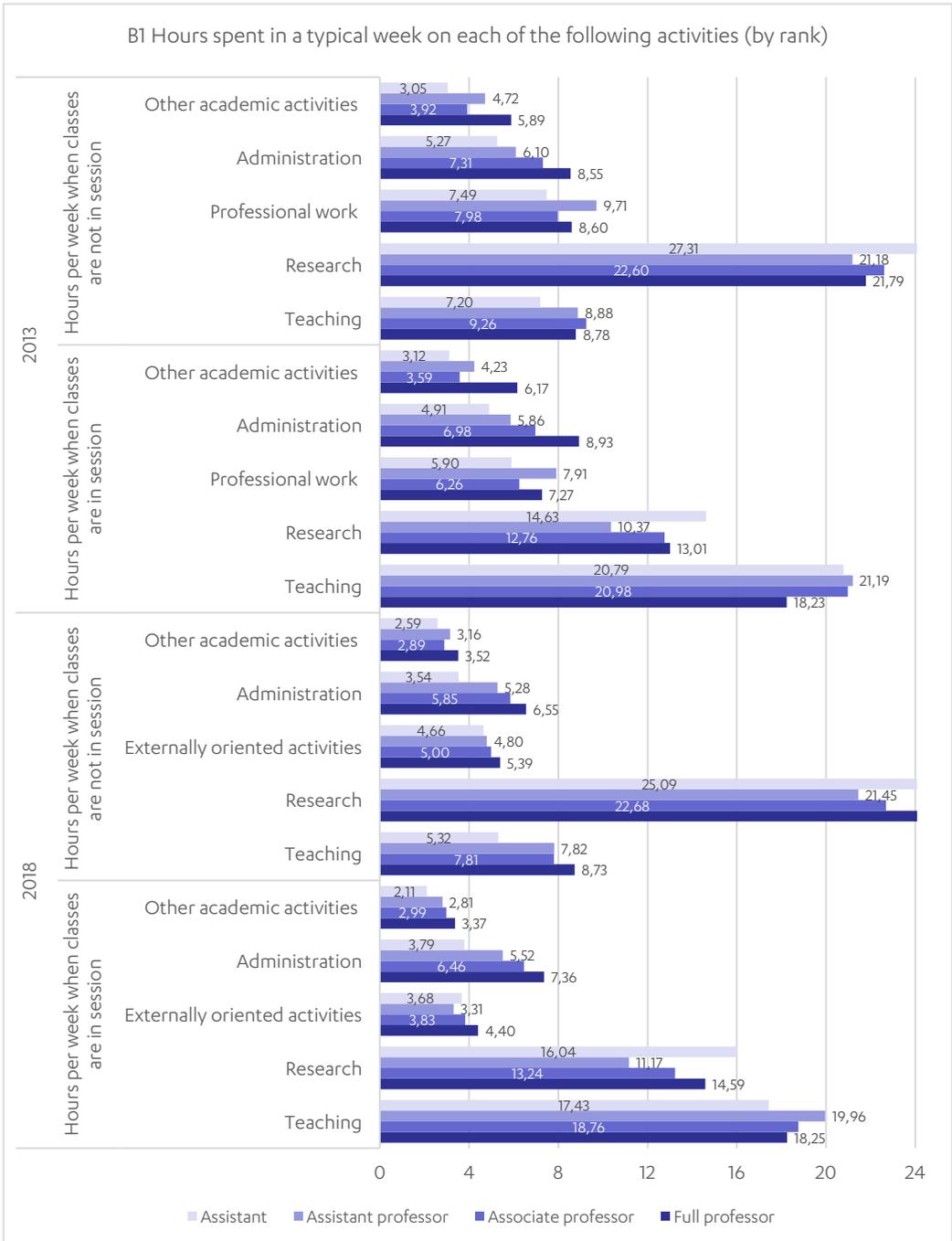
Other activities are fairly comparable in both periods with the exception of the externally oriented activities (e.g., services to clients and/or patients, unpaid consulting, public or voluntary services, etc.), to which academic staff report to devote almost an hour more when classes are not in session. On average throughout the year, in 2018 academic staff reports around 1 hour less time spent on administration and services within academia (e.g., committee work, paper work, activities in academic associations, reviews, etc.) compared to 2013¹⁰, and significantly less time (about 3 hours less) to externally oriented service activities.

Figure 24 Hours spent on each activity (teaching, research, externally oriented, administration) when classes are and when classes are not in session, by gender (valid answers: 2018: n= between 795 [other] and 981 [teaching]), 2013: n=between 411 [other] and 581 [teaching]).



¹⁰ It has to be noted, that for 2013 the question related to external activities was »Professional work (services to clients and/or patients, unpaid consulting, public or voluntary services)» and for 2018 »Externally oriented activities (services to clients and/or patients, unpaid consulting, public or voluntary services)».

Figure 25 Hours spent on each activity (teaching, research, externally oriented, administration) when classes are and when classes are not in session, by rank (valid answers: 2018: n= between 834 [other] and 932 [teaching]), 2013: n=between 405 [other] and 575 [teaching])



4.3.2 Preferences for teaching versus research

In 2018, more respondents expressed preference for teaching and research but leaning towards the research (52%) compared to 37% that expressed preference for both but leaning towards teaching. Compared to 2013, the balance shifted somewhat towards leaning to research: in 2013, 47% expressed preference for both teaching and research, but leaning towards research.

The group that expresses highest preference for both but leaning towards research are full professors (64%) with the preferences decreasing with the rank. Compared to 2013, associate professors in 2018 express more preference for both but leaning towards teaching (and correspondingly less preference leaning towards research). The preferences primarily for research or teaching remain marginal among the respondents.

According to gender, higher percentage of male professors (58%) express preference for both but leaning towards research than female (46%), but for both genders reported preference for both leaning towards research increased compared to 2013. Correspondingly, a higher percentage of female academics (42%) report preference for both but leaning towards teaching than male academics (32%) and reported preference leaning towards teaching decreased for both compared to 2013.

Figure 26 Preferences for teaching or research (2018: n=1029, 2013: n=624)

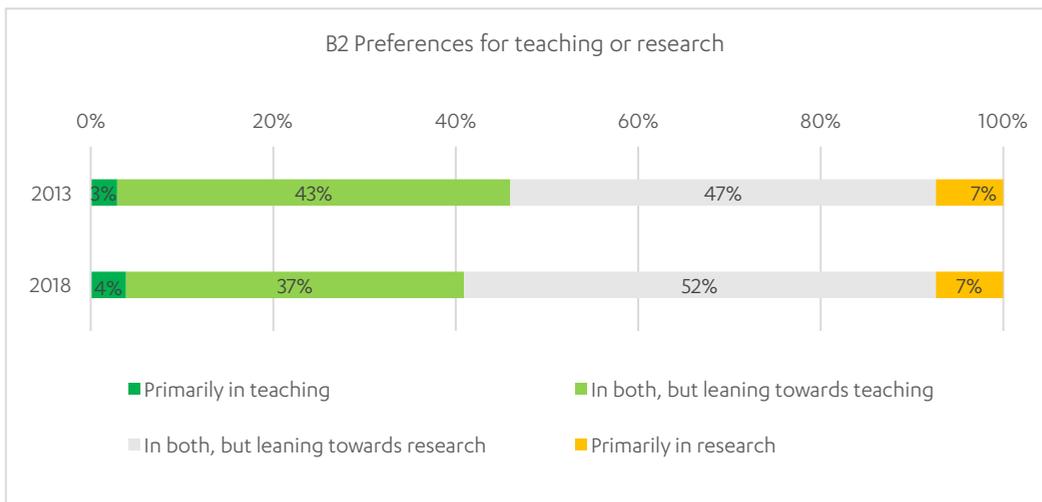


Figure 27 Preferences for teaching or research, by rank (2018: n=1011, 2013: n=608)

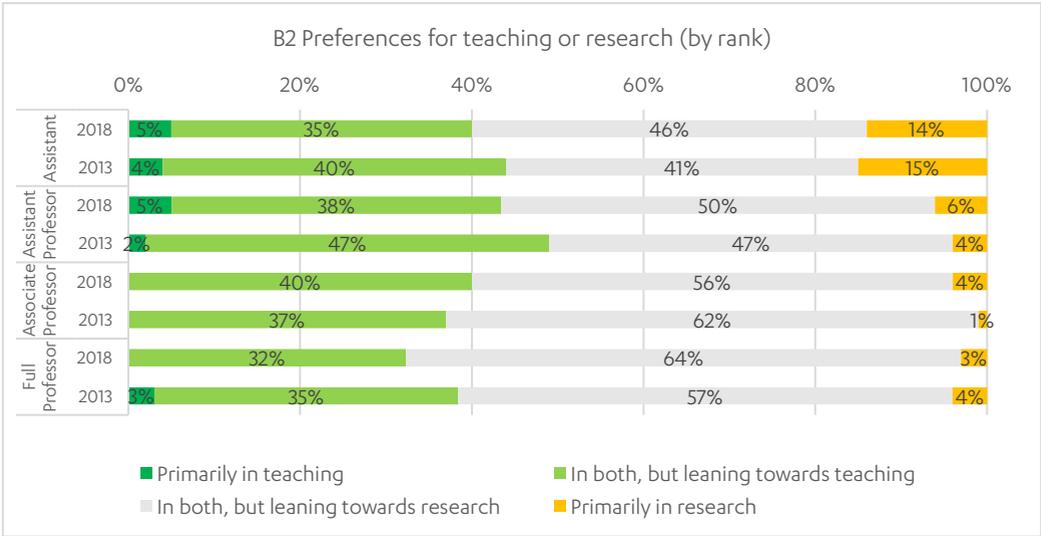
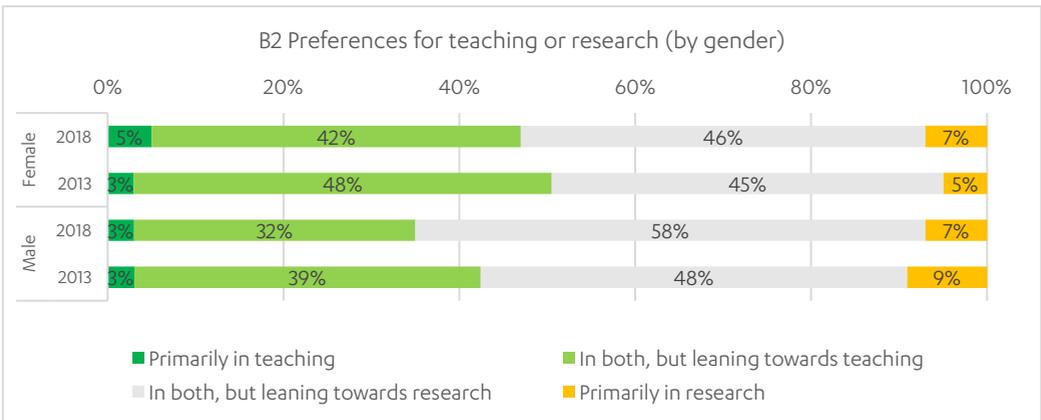


Figure 28 Preferences for teaching or research, by gender (2018: n=949, 2013: n=615)



4.3.3 Academic service

Overall, academic staff in 2018 reports more engagement in all listed academic service roles than in 2013. The largest share of respondents responded that in the current or previous year, they conducted peer-review (76%), or served as members of national scientific committees/boards/bodies (60%).

Reported academic service increases with rank. The only exception is serving as peer reviewer which slightly more associate professors than full professors reported.

Reported academic service is fairly evenly spread between female and male academic staff, with slightly more male academic staff report academic service than female (the difference is between 2%-7%). The only exception is editorship of national journals and book series which 2% more female academics reported than male.

Figure 29 Academic service (2018: n=1030, 2013: n=630)

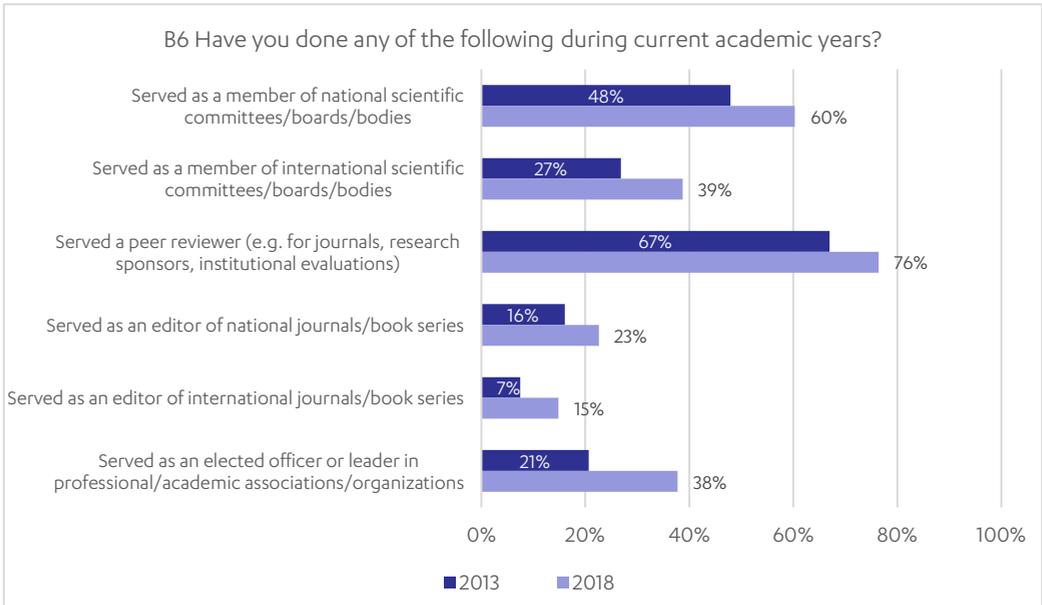


Figure 30 Academic service, by gender (2018: n=1030, 2013: n=630)

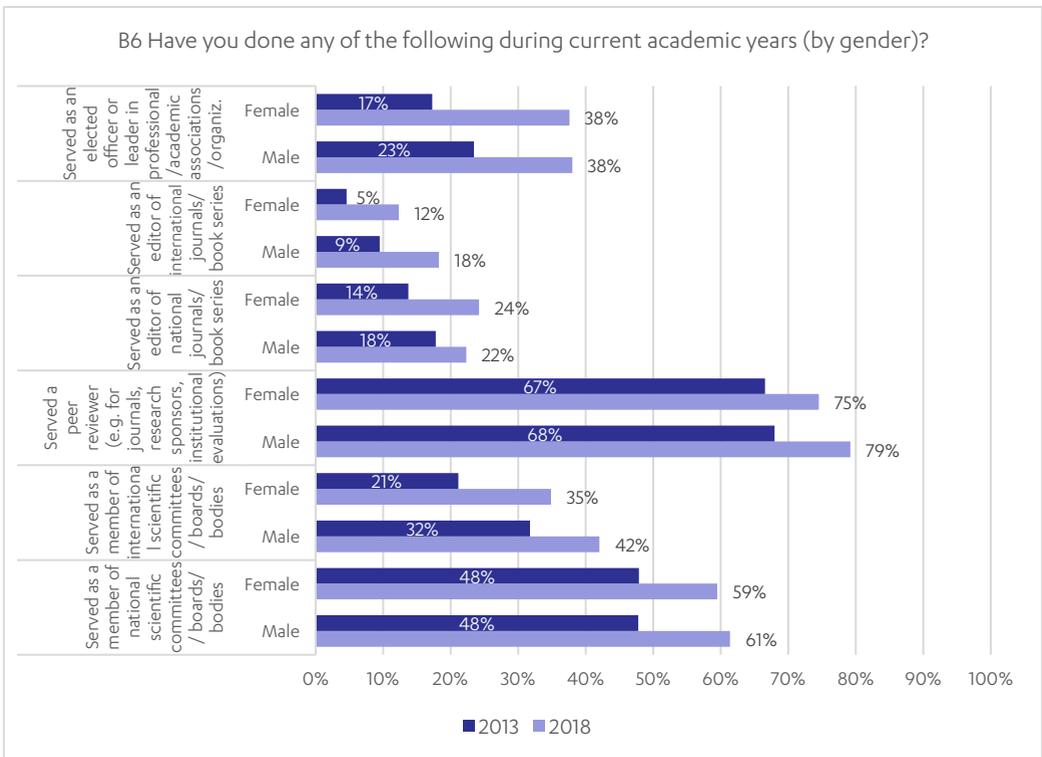
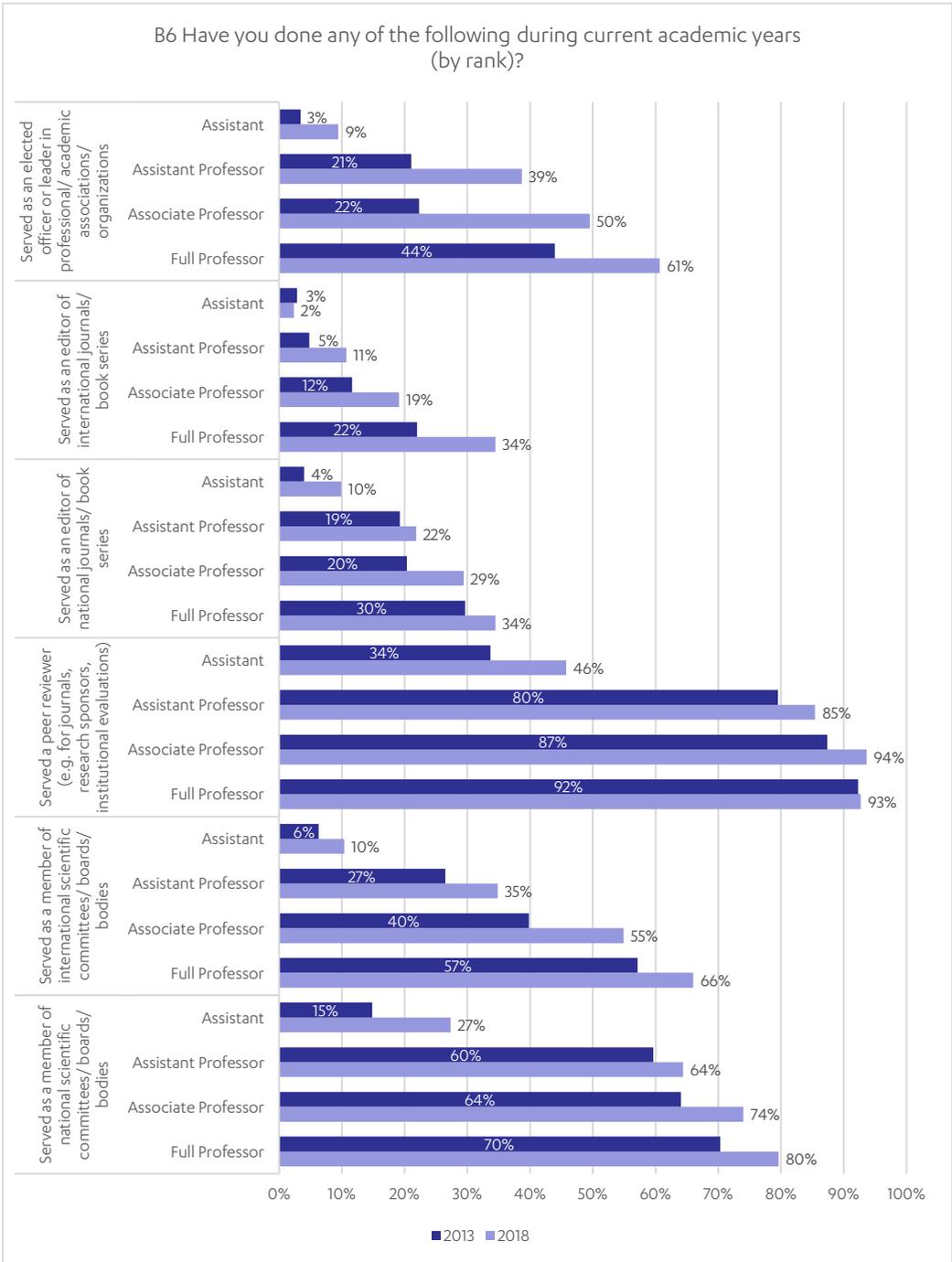


Figure 31 Academic service, by rank (2018 n=1012, 2013: n=613)



4.3.4 Other engagements

Among other engagements, 3.5% of academics served as an elected officer or leader of unions and 8.4% have been substantially involved in local, national or international politics. The participation is gender balanced. Junior academic staff (assistants) are in these activities involved the least (about half as much as other ranks).

Figure 32 Other engagements of academics (n=1030)

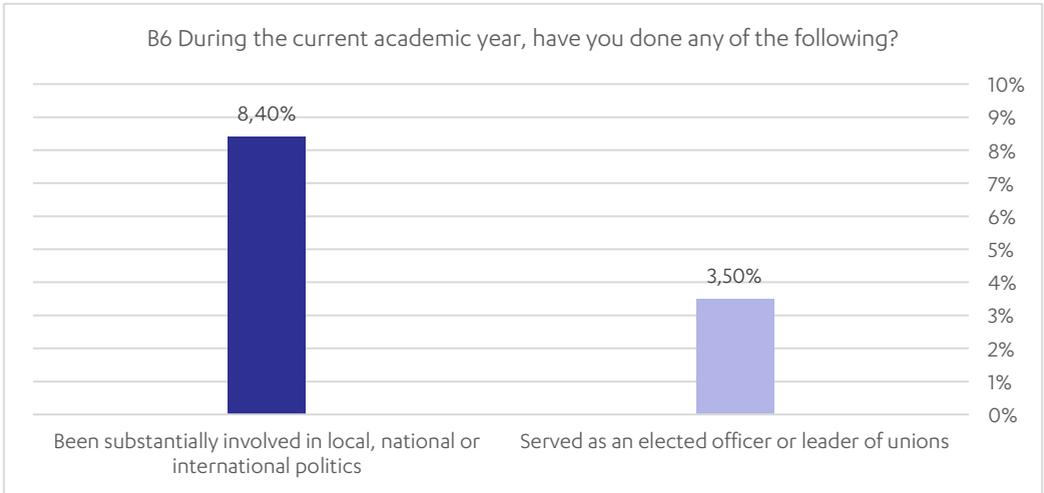
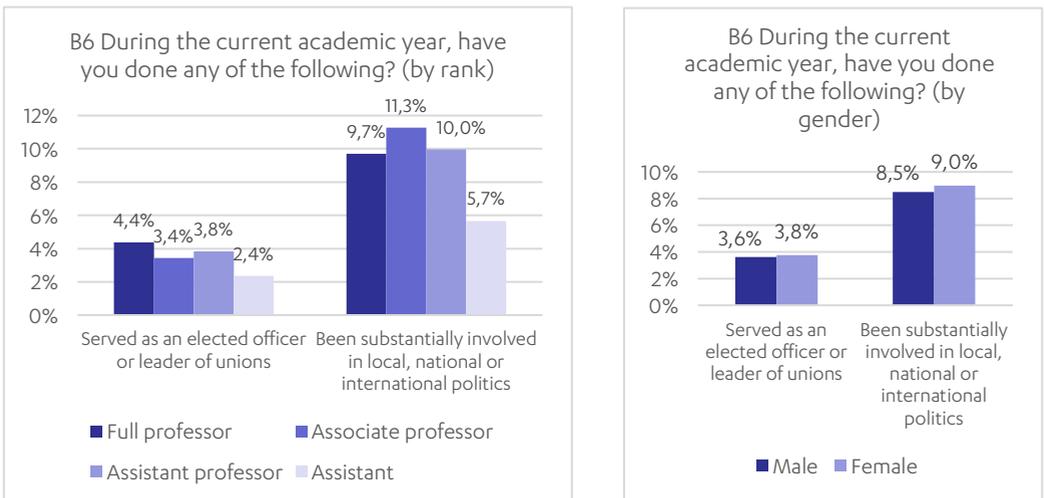


Figure 33 Other engagements of academics (gender: n=950, academic title: n=1030)



4.4 Teaching

4.4.1 Different teaching-related activities and teaching approaches

In 2018, the most common teaching approach or teaching-related activity reported by 94% of all academic staff is classroom instruction/lecturing followed by face-to-face interactions with students outside class (79%), curriculum/program development (79%) and practice instruction and laboratory work (54%).

Teaching approaches:

Reports of individualised instruction decreased significantly compared to 2013: from 84% in 2013 to 48% in 2018. Another teaching approach that is less frequently reported in 2018 compared is ICT-based learning and computer-assisted learning which dropped from 64% of academic staff reporting it in 2013 to 30% in 2018.

On the contrary, compared to 2013, more academic staff in 2018 reports using practice instruction and laboratory work as part of teaching approaches (54% in 2018). Learning in projects/project groups was reported by 40% of respondents (an increase from 2013 when 32% respondents reported it). Distance education remains marginal education mode and even smaller (12%) compared to 2013 (14%).

Reports of individualised instruction and using projects/project groups decreases with academic rank. In contrast, the reports of using practice instruction and laboratory work increases as we move towards lower academic ranks. Using ICT and computer-based teaching approaches is more widely reported among associate professors and lower academic ranks and least used by full professors (24%).

There are no significant differences according to gender in their reported teaching approaches.

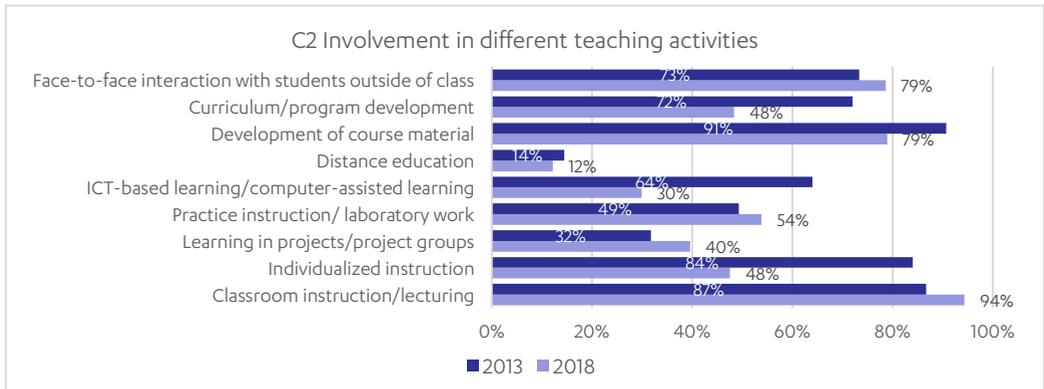
Teaching-related activities:

Among teaching-related activities, majority of academic staff report development of course materials (79%). More academic staff (79%) report face-to-face interactions outside of class. Less than half (48%) report being involved in curriculum/program development.

Developing course materials is evenly reported among full, associate and assistant professors and least among assistants. A larger share of full and associate professors report involvement in curriculum and program development than their colleagues in junior ranks. Slightly more full professors (85%) than academic staff from other ranks reported face-to-face interactions with students outside of class.

There are no significant differences according to gender in their reported teaching-related activities.

Figure 34 Involvement in different teaching activities (2018: n=953, 2013: n=630)



The figure shows the share of those who answered that they carry out the relevant activities.

Figure 35 Involvement in different teaching activities, by gender (2018: n=942, 2013: n=614)

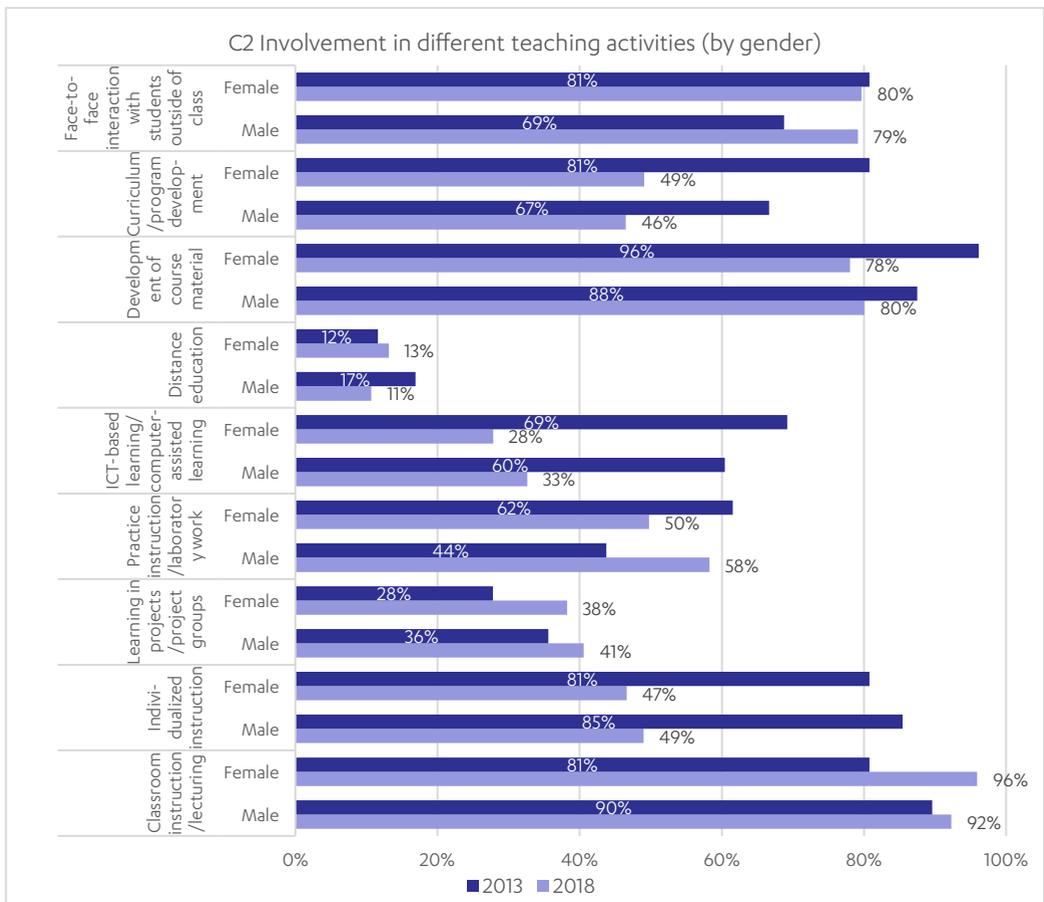
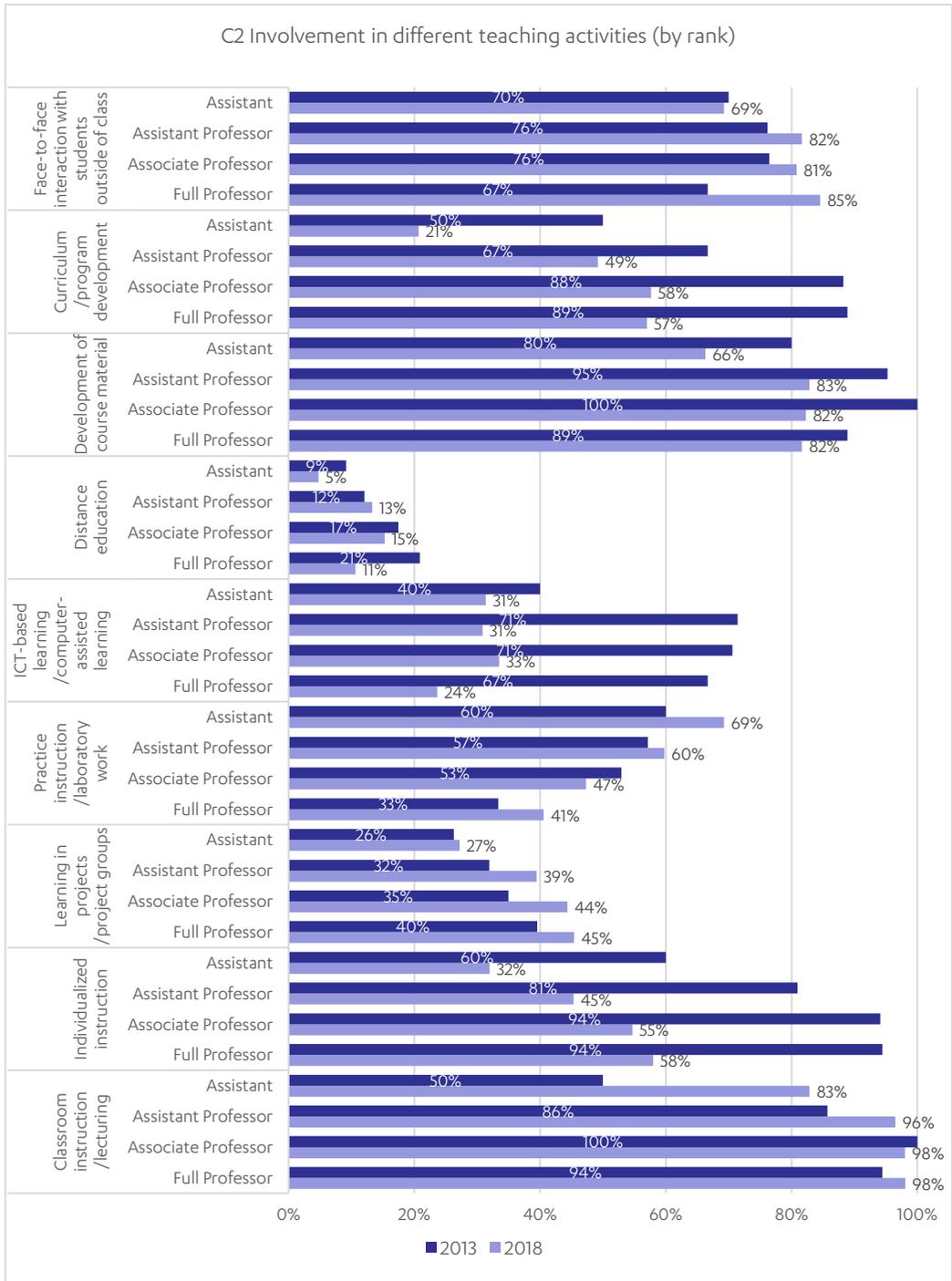


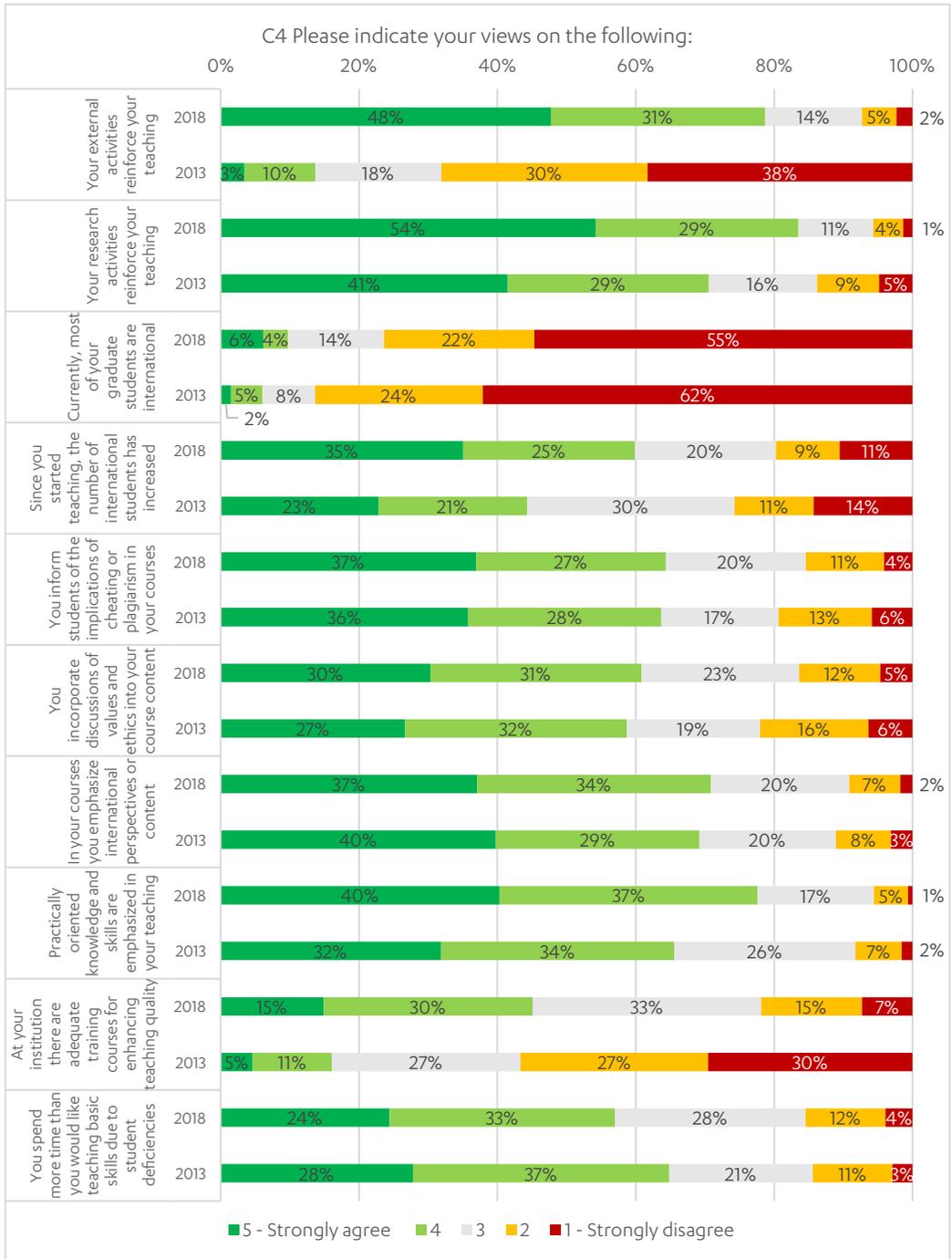
Figure 36 Involvement in different teaching activities, by rank (2018: n=883, 2013: n=621)



4.4.2 Perceptions on teaching

- Perceptions of student's lack of preparedness – deficiencies in basic knowledge – have decreased between 2013 and 2018 (less academics report that they have to teach more basic skills due to deficiencies in student preparedness); however, the number of those who report having to do so is still more than half (57%). This perception is held strongest among associate and assistant professors.
- Training opportunities to improve teaching have notably increased between 2013 and 2018 (in 2018, 45% reported adequate training opportunities to enhance teaching quality compared to 16% in 2013). In 2018, 15% still disagree and 7% strongly disagree that they have adequate training opportunities. Fewer assistant professors and assistants (39% and 40%) report adequate training opportunities than associate (51%) and full professors (50%). More females (25%) than males (19%) report lack of adequate training to enhance teaching quality.
- In 2018, majority of academics (77%) perceive that practically oriented knowledge and skills are emphasized in teaching, which is significantly more than in 2013 when 66% reported this. In 2018, more junior academics than senior academics and more women than men perceive this.
- Slightly more academic staff in 2018 (71%) than in 2013 (69%) report emphasizing international issues and contents in their teaching. Most full professors reported to do, so and the reports decrease with academic rank.
- There is a slight increase in academic staff reporting to incorporate discussions of ethics and values into their course contents in 2018 (61%) compared to 2013 (59%). These were reported more frequently by senior academics and significantly higher by female (68%) than male (54%) academics.
- Majority of academic staff report to informing students of the implications of cheating or plagiarism in their course (64%), which is about the same to 2013. Female academic (69%) more than male academics (60%) report to inform students about implications of plagiarism and cheating. More associate professors (71%) reported to do so than other academic ranks.
- There is a perception of increase of international students since they started teaching (60% academic staff in 2018 report this compared to 44% in 2013). Academic staff of different rank have different perceptions on the increase of international students since they started teaching. Full professors (with the longest time span since they started teaching) most frequently report such an increase. The share of those who report to have international graduate students increased from 7% in 2013 to 10% in 2018.
- Teaching-research nexus: Majority of academic staff (83%) agree that research reinforces their teaching (2018), more than in 2013 (71%). Perceptions of research reinforcing teaching increases with rank. Slightly more female than male academics report that research reinforces their teaching.
- Majority of academic staff (79%) agree that external activities reinforce their teaching. The share of those that reported that their external activities reinforce their teaching increased between 2013 (68%) and 2018 (79%). The agreement with proposition that external activities reinforce their teaching decrease with rank. Slightly fewer female academics than male academics report that external activities inform teaching.

Figure 37 Academics' views on teaching (2018: n=945, 2013: n=577¹¹)



11 For 2013 the question «Since you started teaching, the number of international students has increased» has only 70 responses and the question «Currently, most of your graduate students are international» only 66 responses.

Figure 38 Academics' views on teaching, by gender (2018: n=876, 2013: n=568)

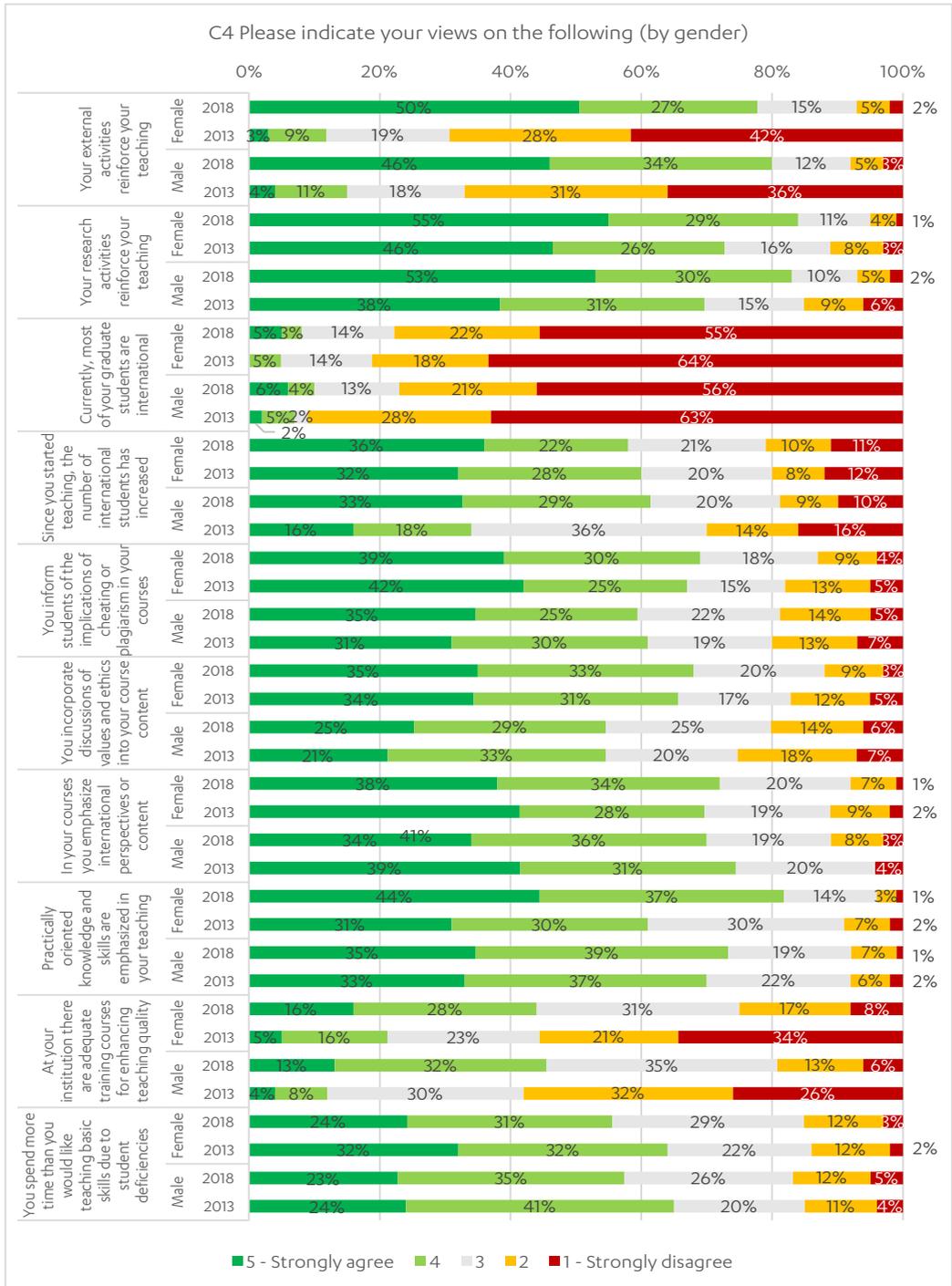


Figure 39 Academics' views on teaching, by rank – part 1 (2018: n=934, 2013: n=563)

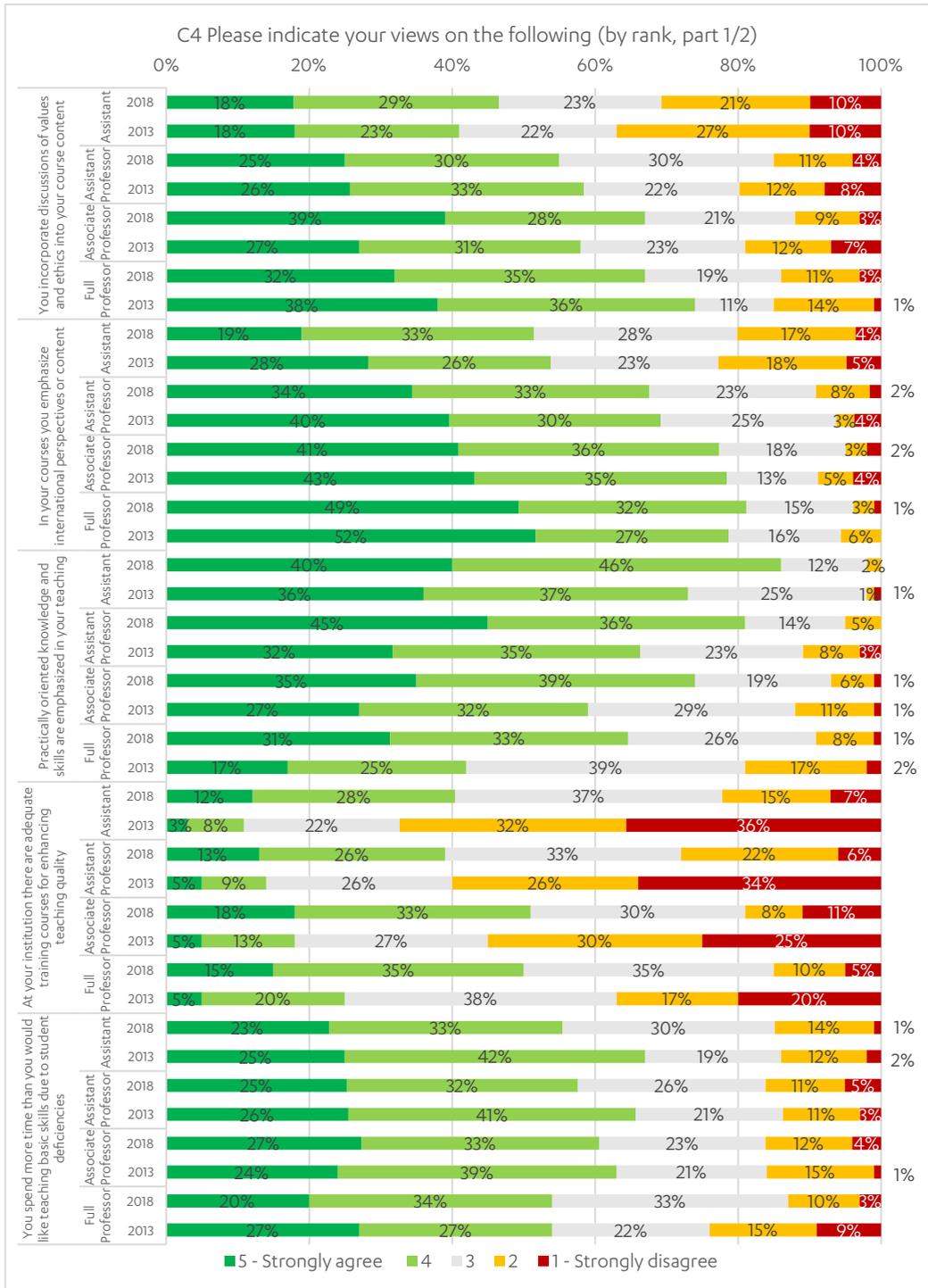
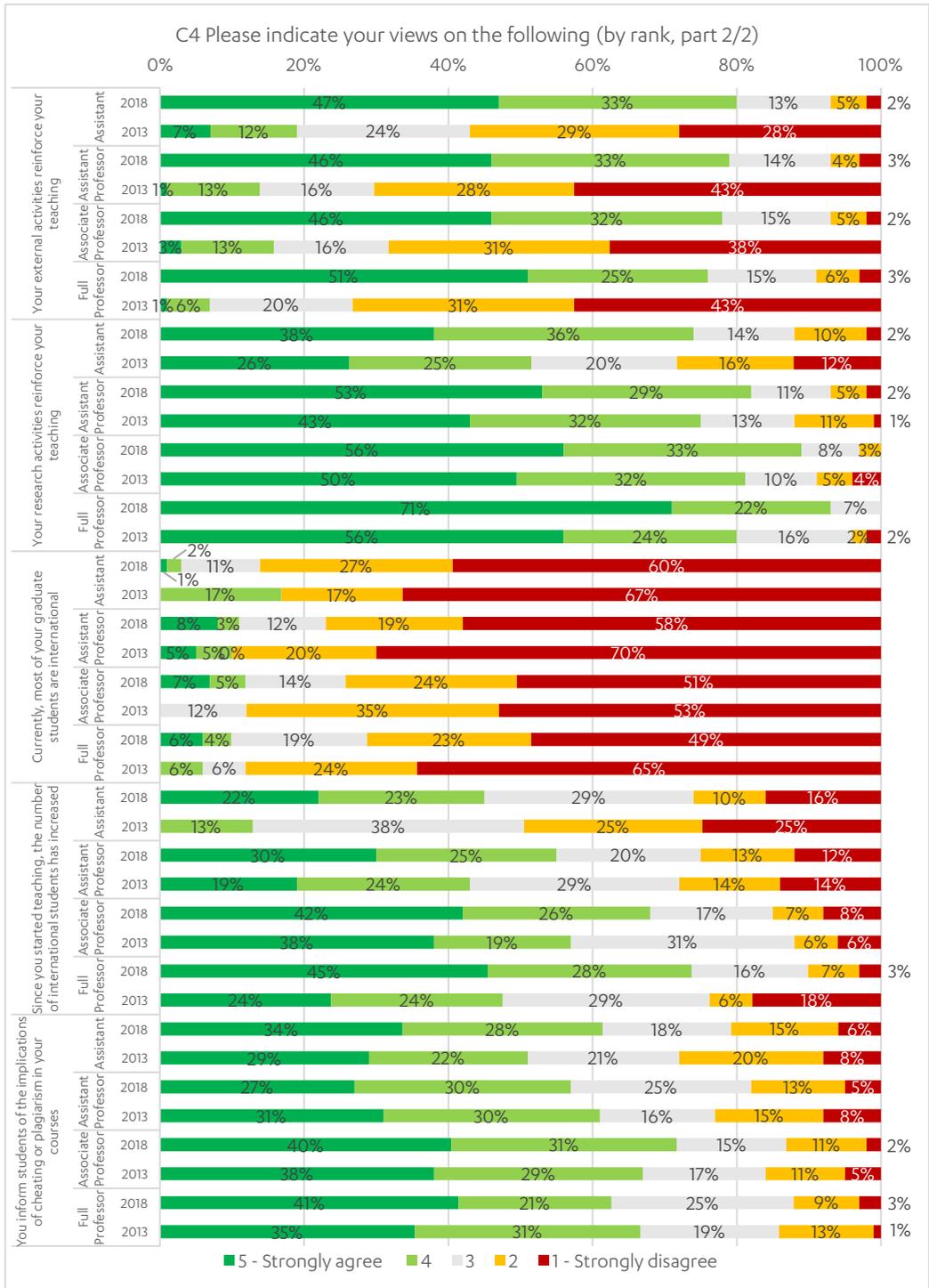


Figure 40 Academics' views on teaching, by rank – part 2 (2018: n=934, 2013: n=563)



4.4.3 Research-teaching compatibility

Most academics (65%) disagree or strongly disagree that teaching and research are not (or are hardly) compatible with each other. Such disagreement is strongest among senior academics and falls with rank: 85% of full professors see research and teaching as compatible and 50% of assistants see teaching and research as compatible. Fewer female academics (64%) than male academics (68%) perceive research and teaching as compatible.

Figure 41 Compatibility of teaching and research (n=1029)

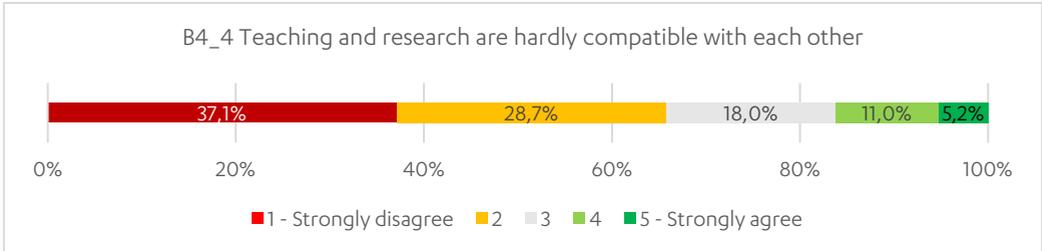


Figure 42 Compatibility of teaching and research (by rank) (n=1010)

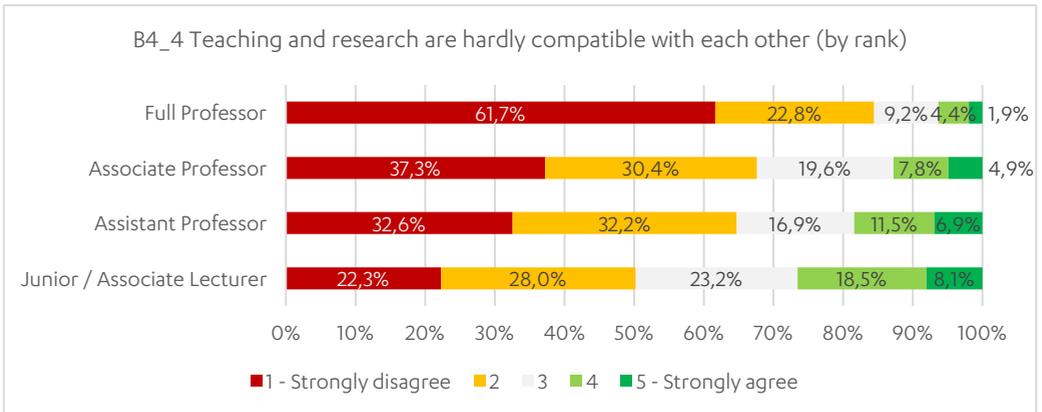
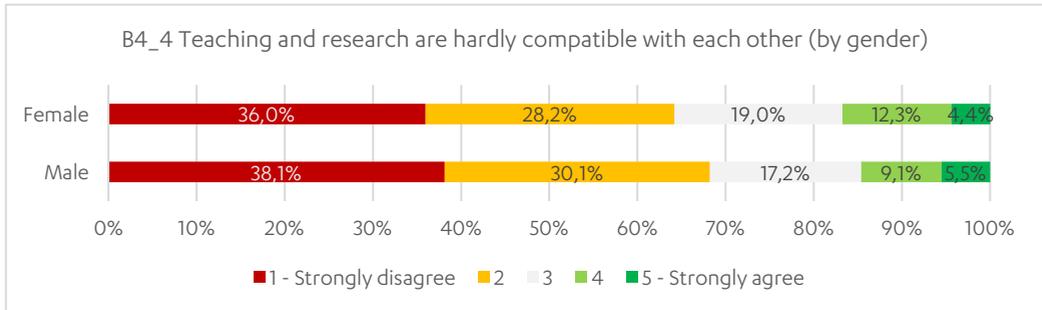


Figure 43 Compatibility of teaching and research (by gender) (n=950)



4.4.4 Institutional rules on teaching

The respondents reported that their institutions set quantitative load targets or regulatory expectations for the following categories:

- Number of hours in the classroom
- Number of students in classes
- Number of master's students supervised
- Number of doctoral students supervised
- Time for student consultation
- Hours to be present at the institution.

In majority, the quantitative load targets or regulatory expectations for individual faculty on teaching are the number of hours in the classroom (82.6%), and number of students in classes (59.2%). There are no major differences in the gender distribution. Within ranks, there are differences in the higher shares of senior academics reporting on institutional rules on teaching in regard to the student consultations and number of doctoral students, compared to junior ranks.

Figure 44 Institutional rules on teaching (general [n=953] and by gender [n=883])

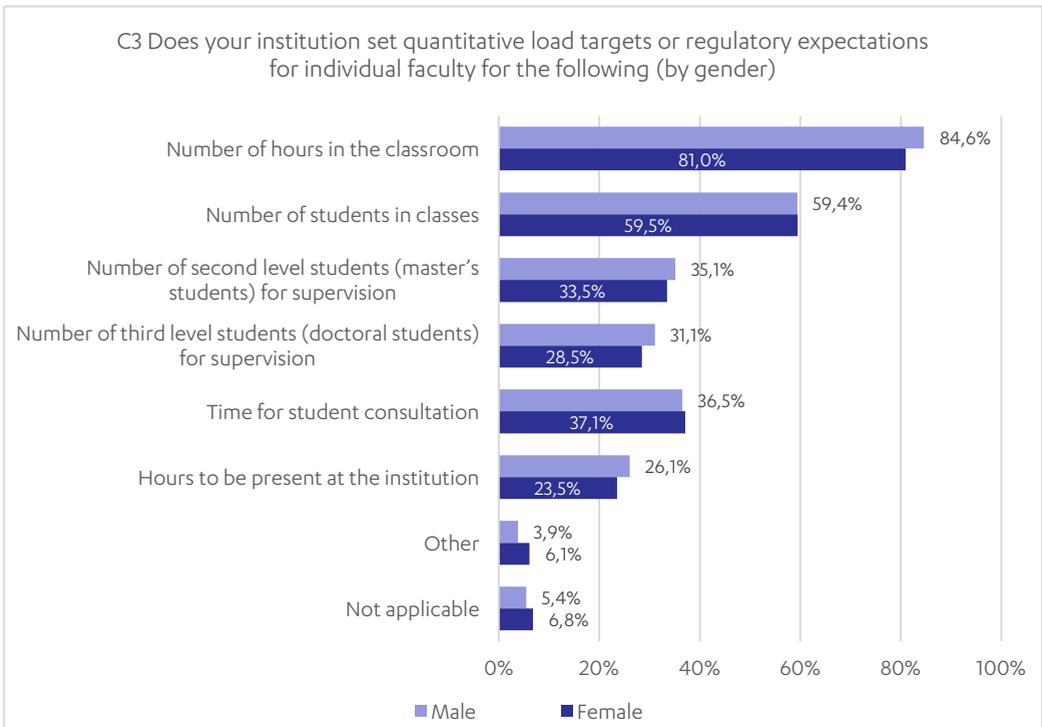
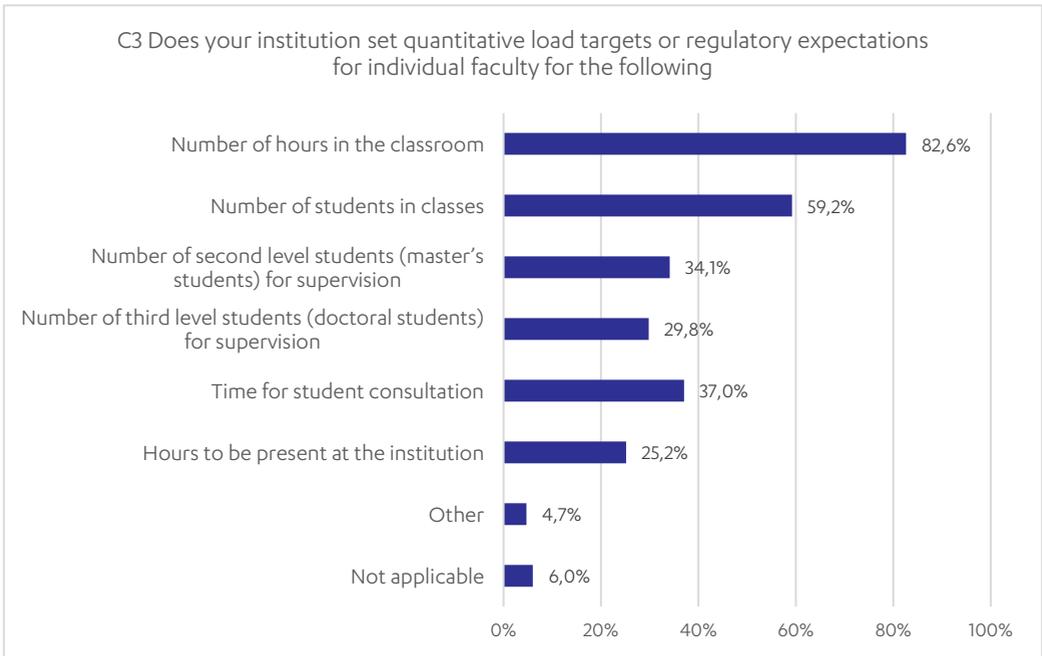
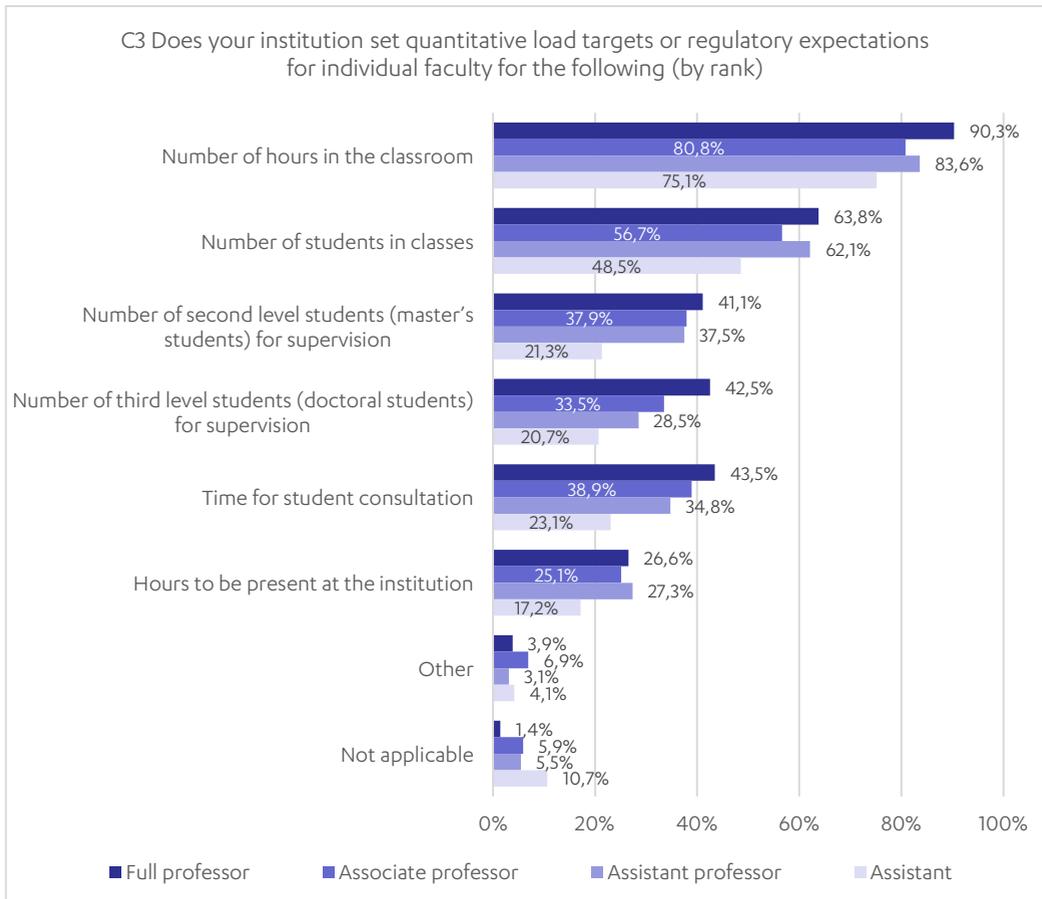


Figure 45 Institutional rules on teaching (by rank) (n=953)



4.5 Research

4.5.1 Research collaboration

Majority of academic staff report to collaborate with scholars/researchers at other institutions in Slovenia (79%) which is slightly more than in 2013 (74%). Even more, 83% report collaborating with scholars/researchers abroad. Both, the reported collaborations with colleagues in Slovenia and abroad are slightly higher in 2018 compared to 2013. Collaboration with colleagues abroad decreases with rank. Fewer female academics (80%) than male academics (86%) report collaboration with colleagues abroad. Female academics report slightly more collaboration with Slovenian colleagues and assistant professors are the groups that reports most collaboration with Slovenian colleagues (85%).

Figure 46 Characteristics of research collaboration (within country, internationally) (2018: n=969, 2013: n=564)

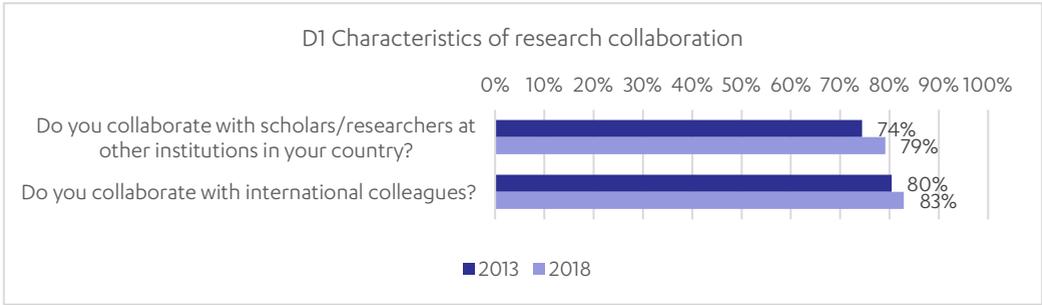


Figure 47 Characteristics of research collaboration (within country, internationally), by rank (2018: n=951, 2013: n=550)

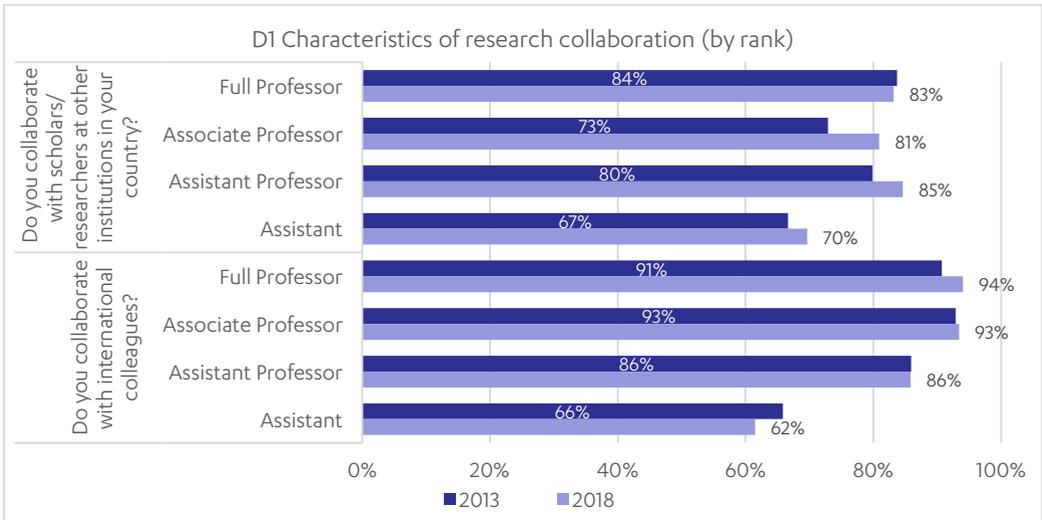
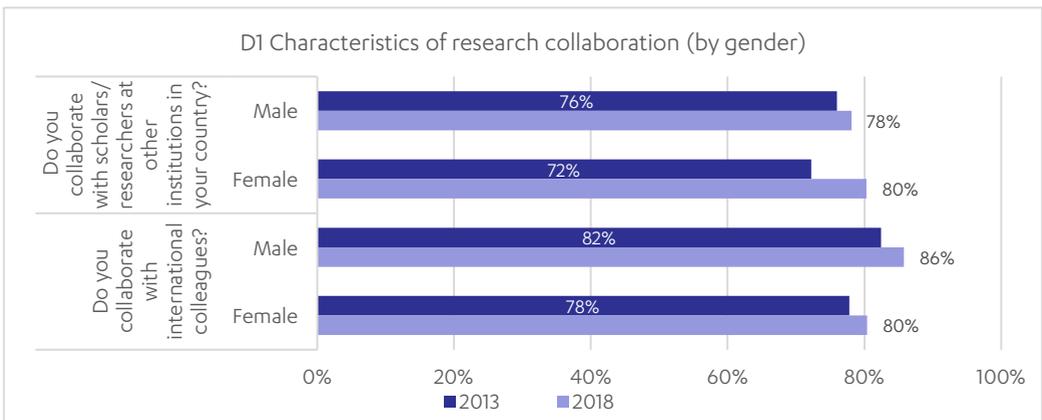


Figure 48 Characteristics of research collaboration (within country, internationally), by gender (2018: n=895, 2013: n=556)



94% of academics have collaborators in all their research projects and 90% collaborate also with other scholars and researchers at their institutions. Only 66% report that they also collaborate with junior academics, this share is higher for male (71.7%) than female (60.2%) academics and much higher among senior ranks. There are difference also in research collaboration with colleagues outside their disciplines among senior and junior ranks (87.6% for full professors, 83.8% for associate professors, 83.4% assistant professors, 64.9% assistants).

Figure 49 Other characteristics of research collaboration (general [n=967] and by gender [n=893])

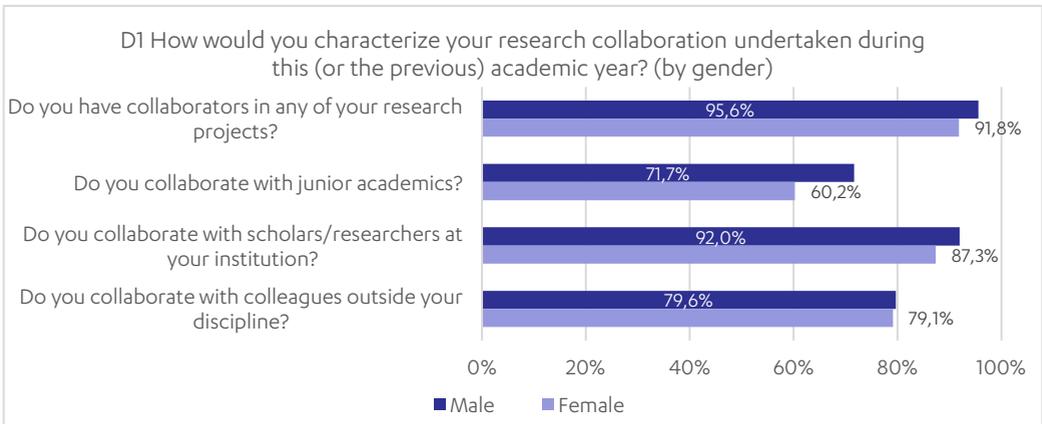
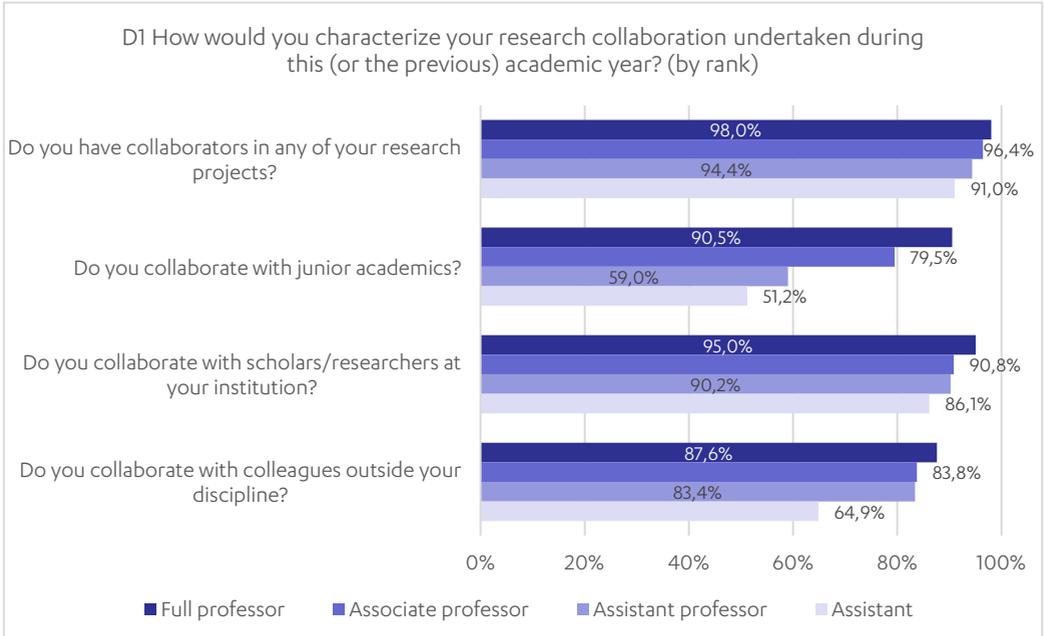


Figure 50 Other characteristics of research collaboration, by rank (n=967)



4.5.2 Types of research

Majority of academic staff report to conduct multidisciplinary research (64%) and applied or practically oriented (66%). 60% report that their research is international in scope or orientation. 48% academics report conducting socially oriented research, 40% basic research, 18% commercially oriented (technology transfer) research, and 29% research based in one discipline. Compared to 2013, more academics report conducting applied/practically oriented research (63% in 2013 and 66% in 2018), and research with intended social impact (40% in 2013 and 48% in 2018), and less report conducting research that is basic/theoretical (44% in 2013 and 40% in 2018).

Reports of basic, international, socially oriented and multidisciplinary research tend to decrease with lower ranks whereas applied and commercial are evenly spread according to ranks. Only research in one discipline is reported by a larger share of associate and assistant professors compared to other ranks.

Types of research are fairly balanced according to gender with the exception of commercially oriented research which was reported by greater share of male academics (21% and female 14%) and socially oriented research which more female academics reported (53% and male 45%).

Figure 51 Types of research (2018: n=946, 2013: n=500)

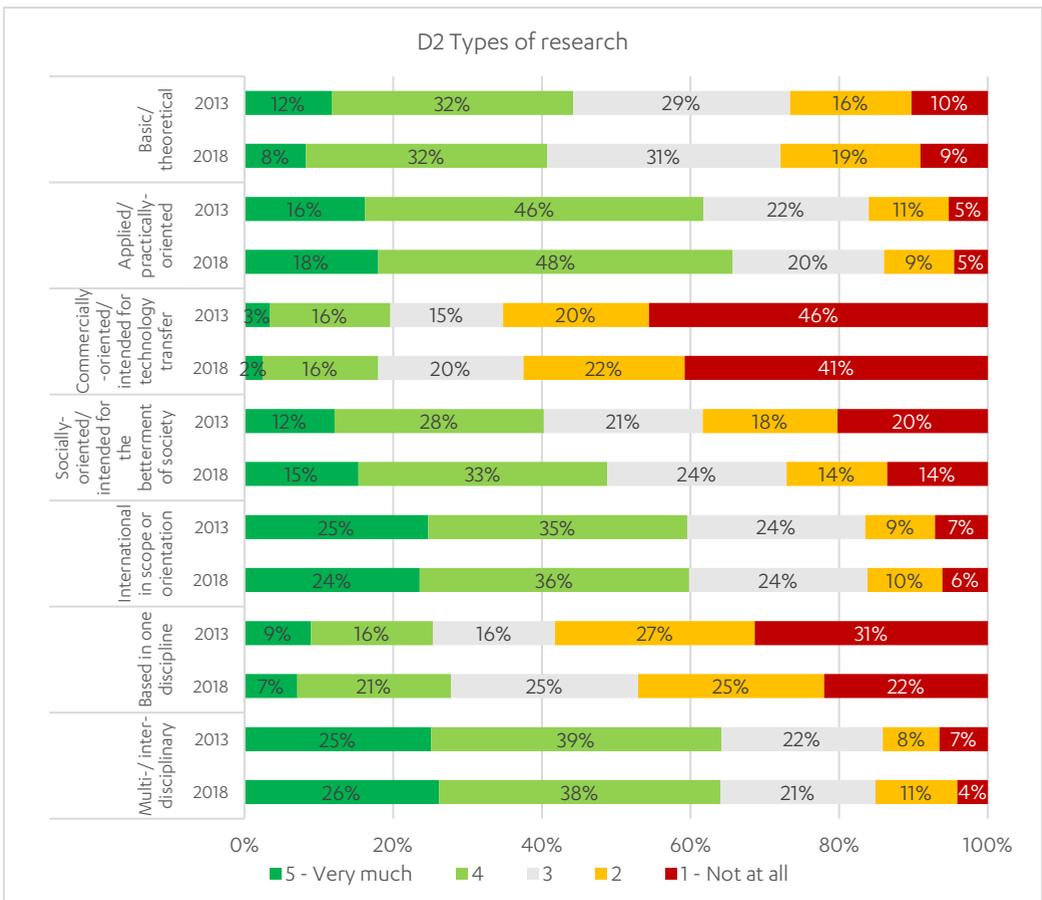


Figure 52 Types of research, by gender (2018: n=878, 2013: n=493)

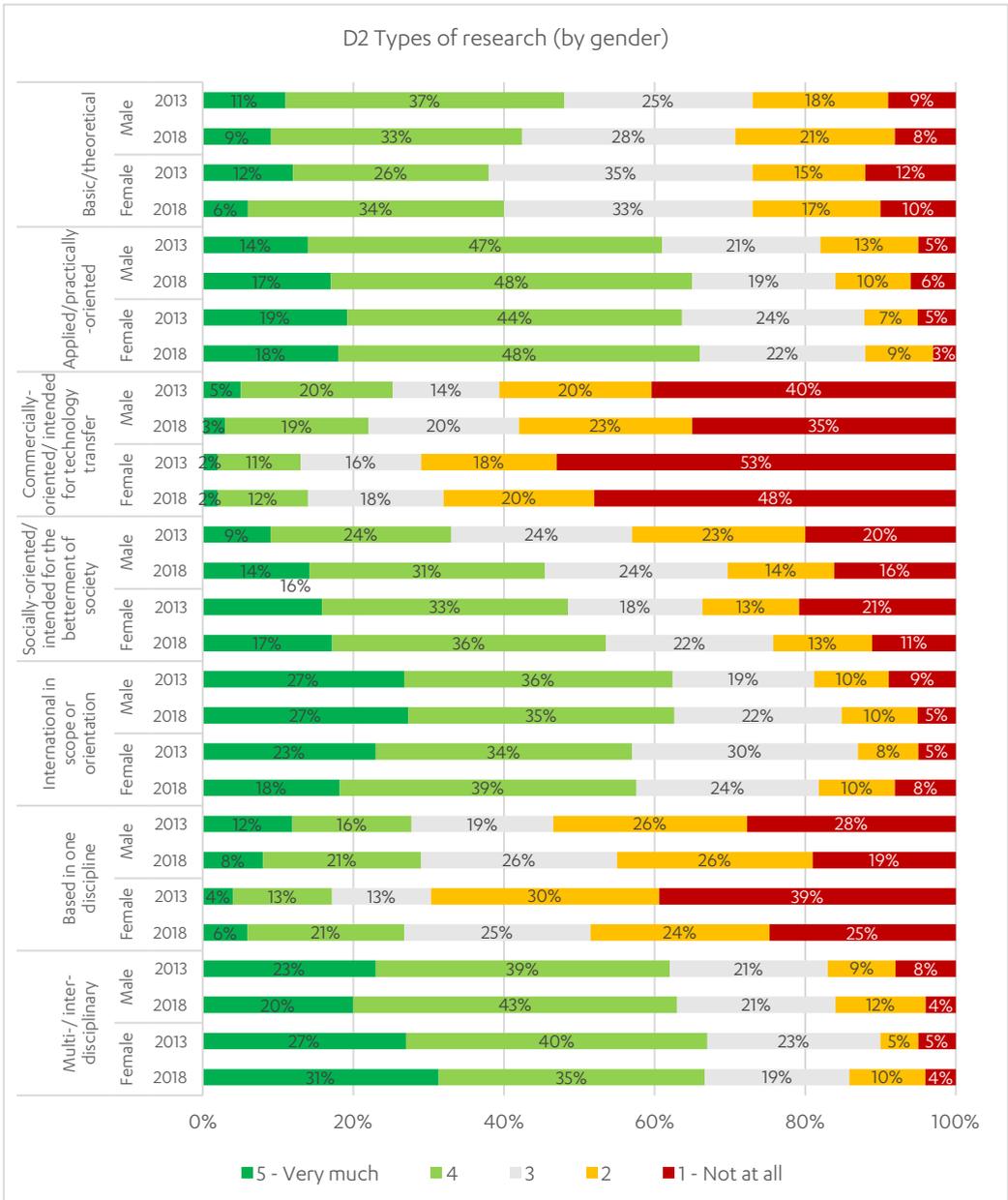
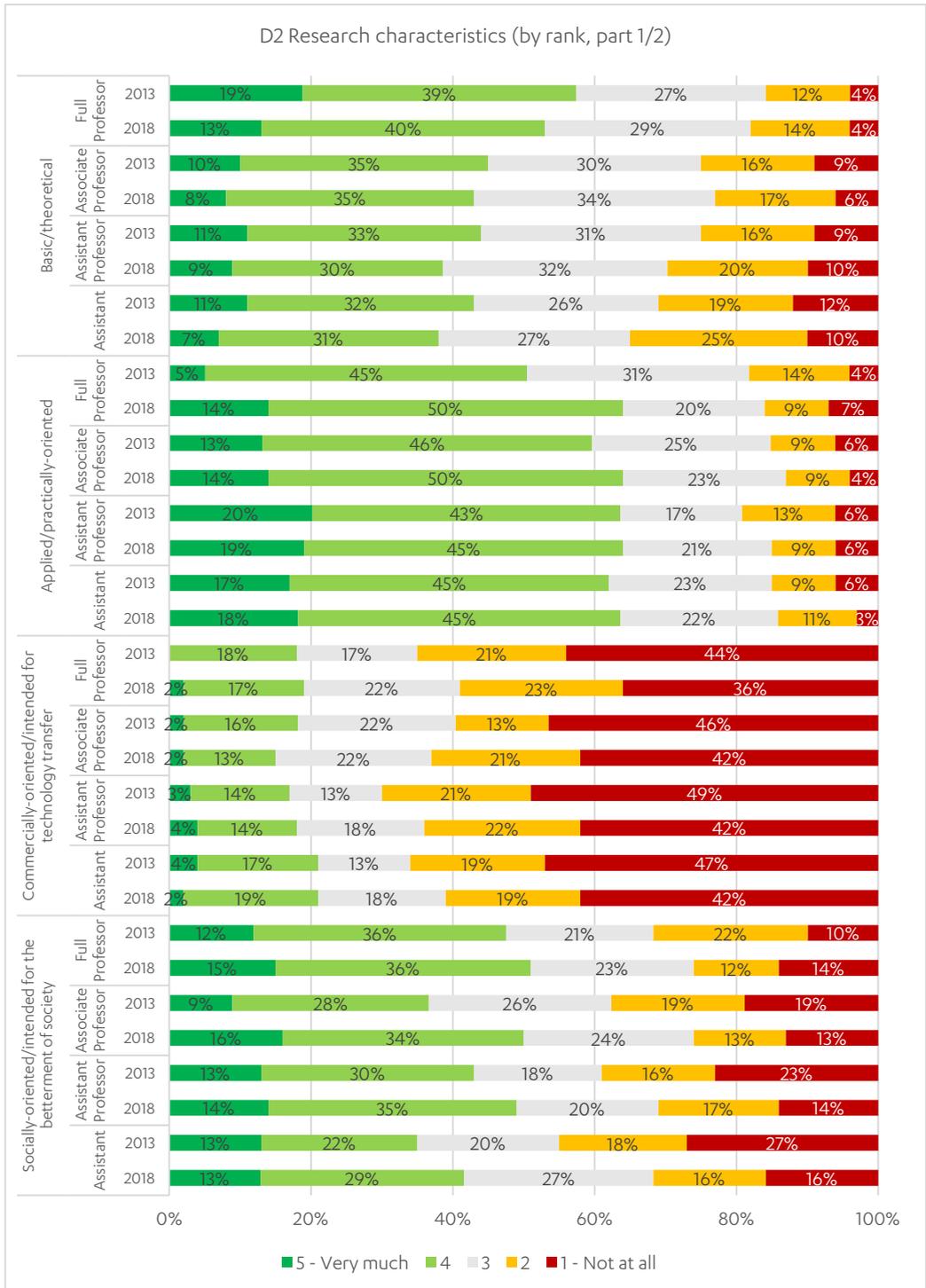
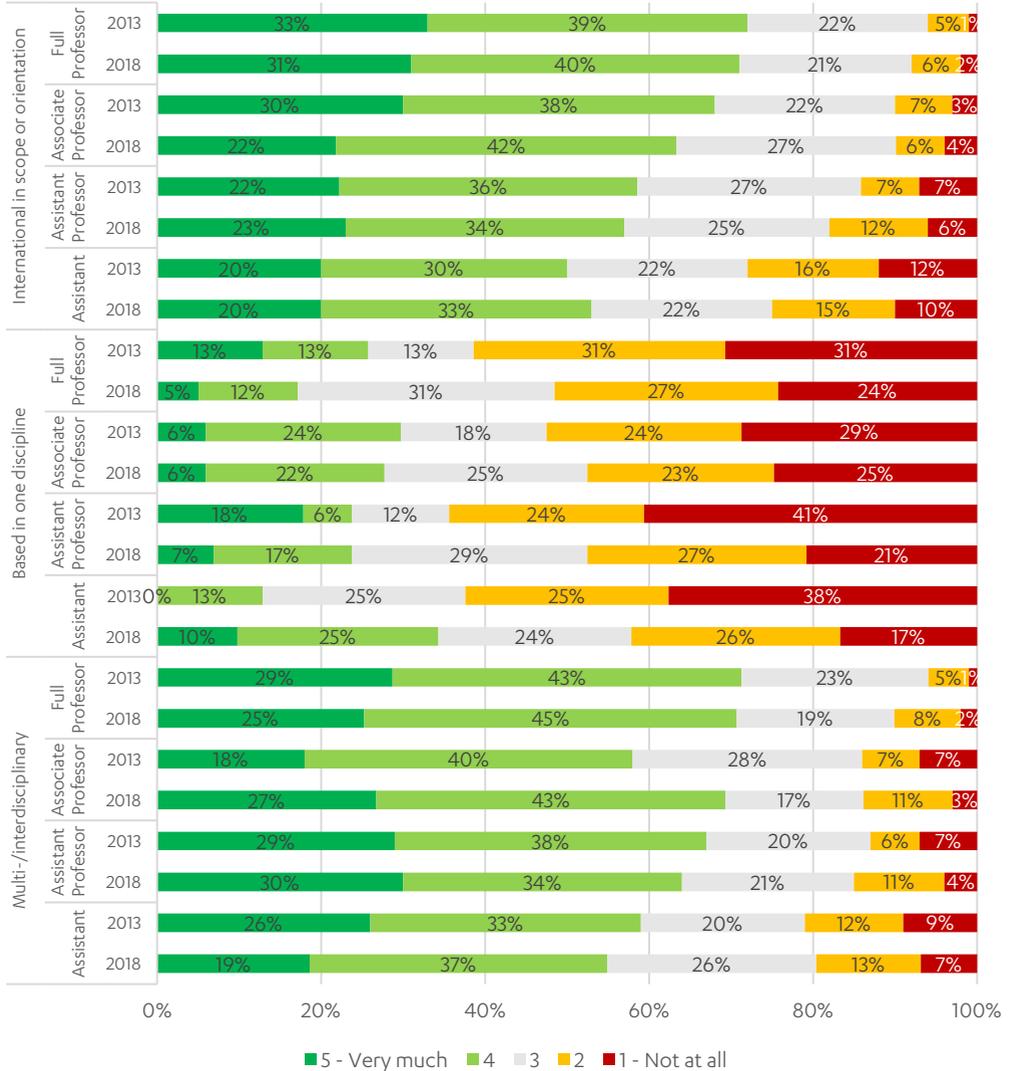


Figure 53 Types of research, by rank (2018: n=928, 2013: n=488)



D2 Research characteristics (by rank, part 2/2)



4.5.3 Self-reported scholarly publications

In this question we have asked respondents to report how many scholarly contributions of different type they completed in the past three years. Most respondents (93%) reported publishing a chapter in an academic book or an article in a journal. Responses in this category increased notably compared to 2013 (77%). Next largest category are authored or co-authored scholarly books (36%) followed by edited or co-edited scholarly books (22%). Patents and licenses and computer programs written for public use remain marginal among reported scholarly publications.

Reports of authored/co-authored books and edited/co-edited books decrease with lower academic ranks. Reports of published articles and chapters are balanced across ranked with the exception of assistants. More assistants than other ranks report publishing computer programs and more full professors than others report publishing patents/licenses.

Except computer programs which are reported by more male academics than female, there do not exist notable differences between genders regarding self-reported scholarly contributions.

The figure shows the share of those who answered that they carry out the relevant activities.

Figure 54 Share of types of the scholarly contributions made in the past three years? (2013 and 2018) (2018: n=944, 2013: n=494)

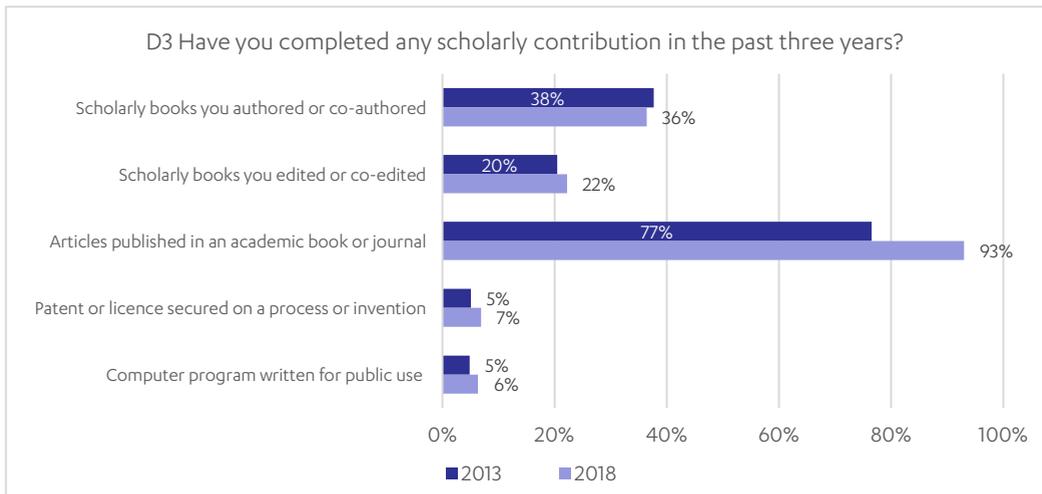


Figure 55 Share of types of the scholarly contributions made in the past three years, by rank (2018: n=872, 2013: n=486)

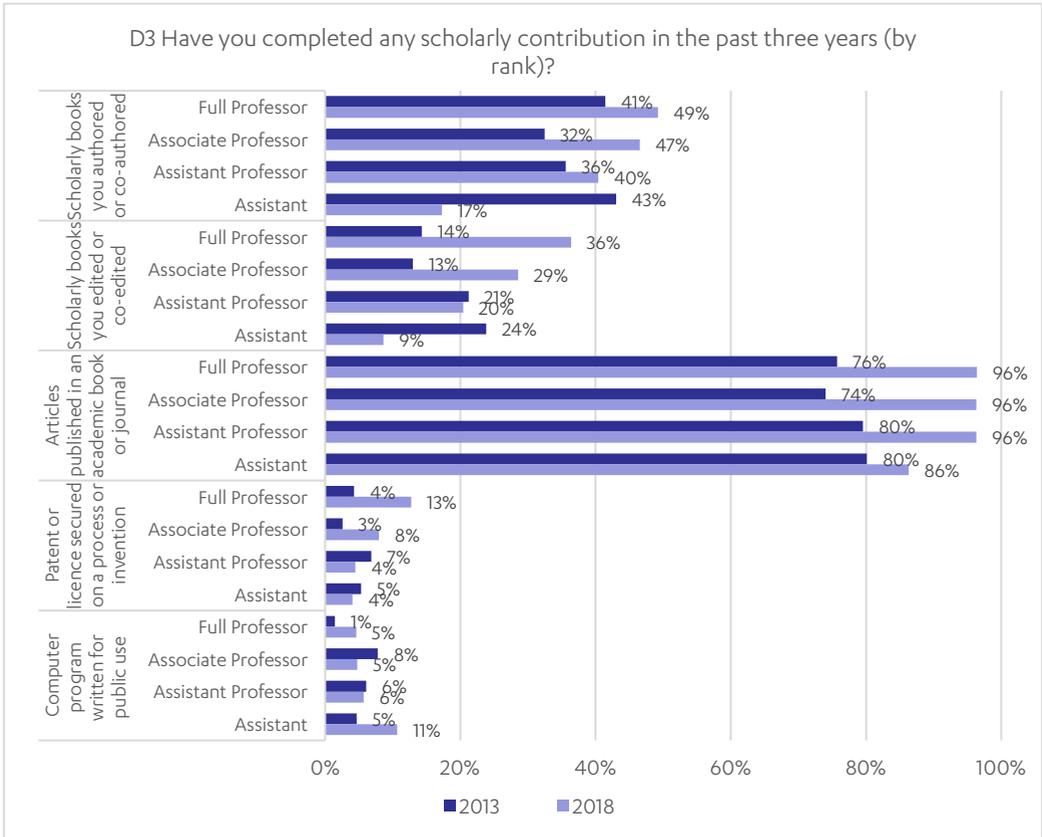
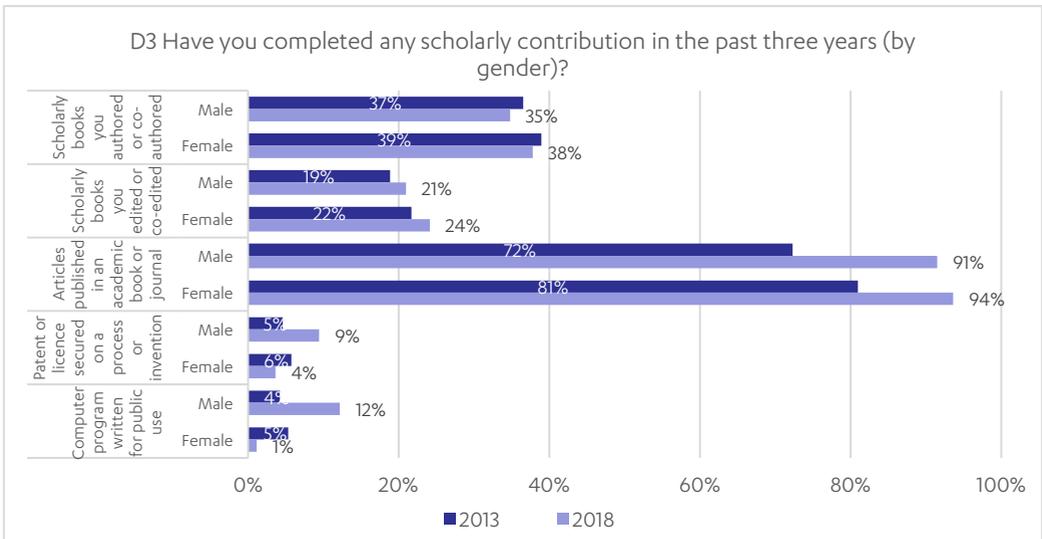


Figure 56 Share of types of the scholarly contributions made in the past three years, by gender (2018: n=929, 2013: n=486)

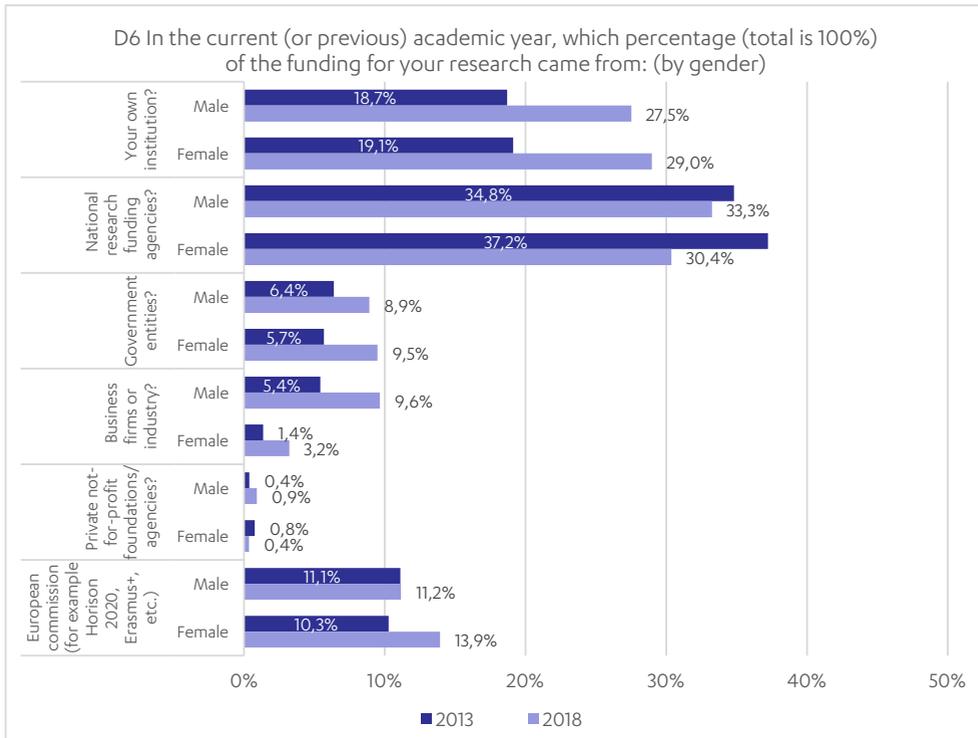


4.5.4 Funding of research

Among the various sources of research funding, most respondents report obtaining research funding from national research funding agencies (31.3%), but this share decreased slightly compared to 2013 (35.8%). 28.3% reported obtaining research funding from their own institution (which is a greater share than in 2013 when 19% reported this). International funding from EU sources and other sources was reported by 12.9% of respondents which is slightly more than in 2013 (10.8%). Funding from government entities (from 6% in 2013 to 9% in 2018) and business firms (from 3.5% in 2013 to 6.4% in 2018) are the least reported sources of research funding, and both increased compared to 2013.

The share of funds from their own institutions was higher in 2018 compared to 2013 and in regards to funds from National research funding agency the situation was opposite (higher share of research funding from research agency was in 2013). There are no major gender differences in the sources of funding for research, except for research funds from business firms and industry, where the share of male academics being funded from such sources is higher for 2018 (9.6% male; 3.2% female) and 2013 (5.4% male, 1.4% female). The share of academics being funded from their institutional funds drops by senior ranks; whereas the share of funds from National research agency gets higher with senior ranks.

Figure 57 Funding for research (general [2018: n=959, 2013: n=511] and by gender [2018: n=908, 2013: n=503])



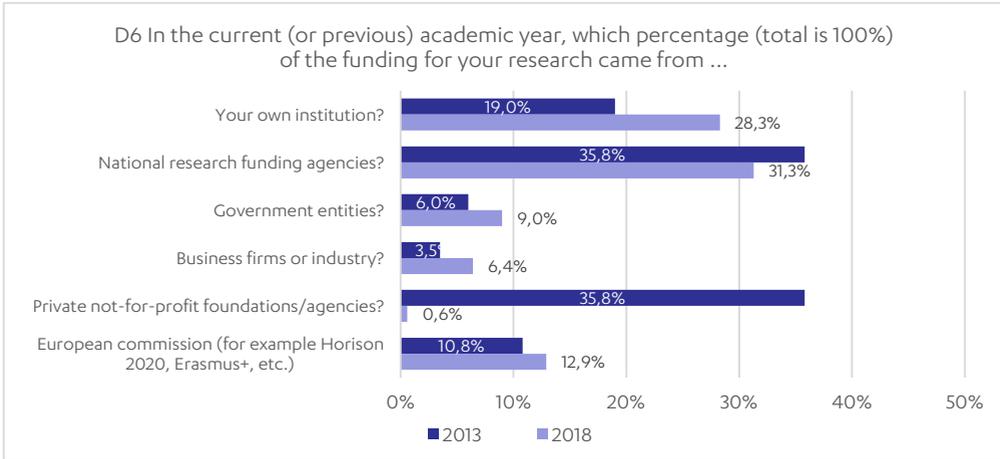
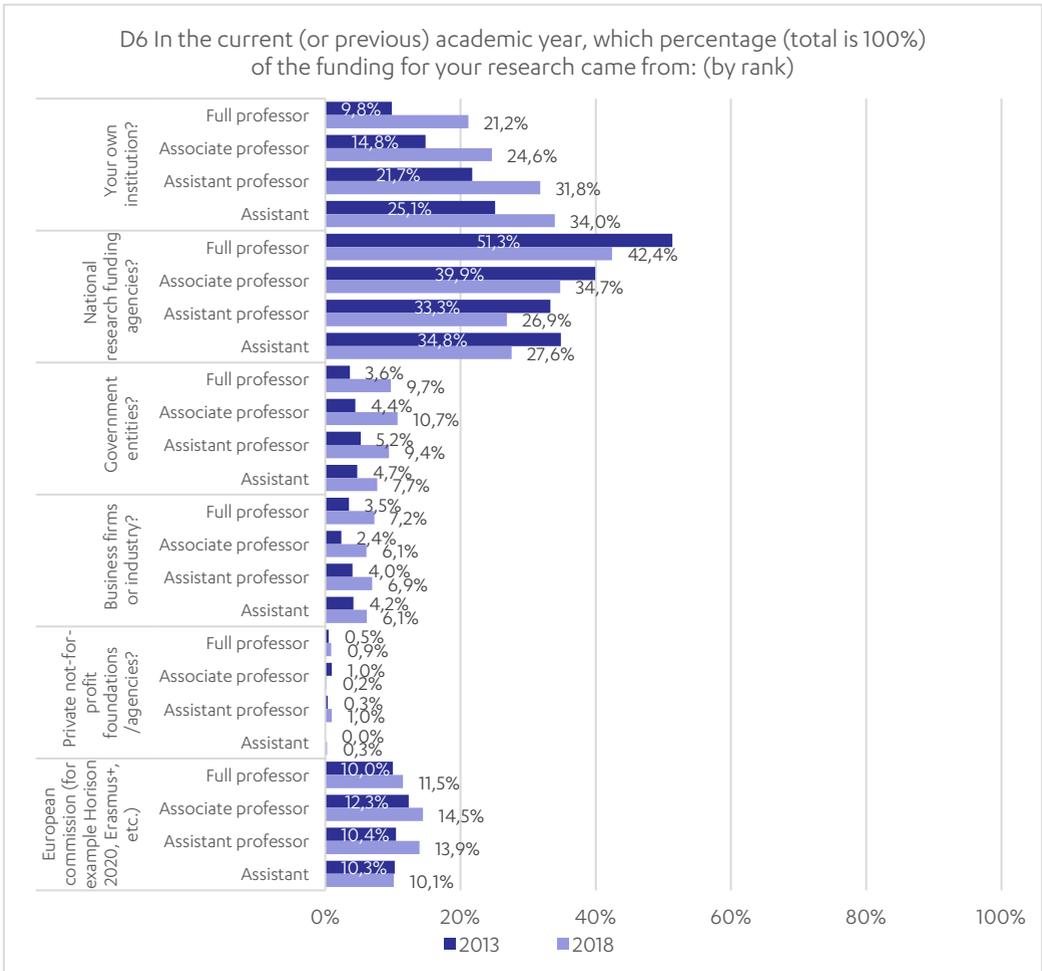


Figure 58 Funding for research (by rank) (2018: n=941, 2013: n=497)



4.6 External activities – contribution to society

4.6.1 Reported involvement in external activities

Research and research-based activities:

Among the research and research-based activities with external partners (such as industry, government, museums and schools), our respondents report involvement in:

- Patenting and licensing
- Creation of spin-off/start-up company
- Joint research and publications
- Joint research and publications with researchers from former Yugoslavia
- Evaluation (of policies and developments of companies, governments, regions, countries, etc.)
- Contract research
- Consultancy
- Use of infrastructure and (technical) equipment (e.g. measuring equipment of a company)
- Test and construct prototypes
- Work in a research laboratory, science incubator organization (e.g., think tank organization), and/or a science park

Teaching and teaching-based activities:

Among the teaching and teaching-based activities with external entities, our respondents report involvement in:

- Curriculum development for external agencies
- Supervision of student internships and/or student work placements
- Joint supervision with industry of bachelor, master and/or doctoral thesis
- Volunteer-based work/consultancy in an honorary capacity (e.g., for community groups; in cultural, educational, political and social institutions, etc.)
- Public lectures and speeches
- Executive, contract tailor-made programs and courses

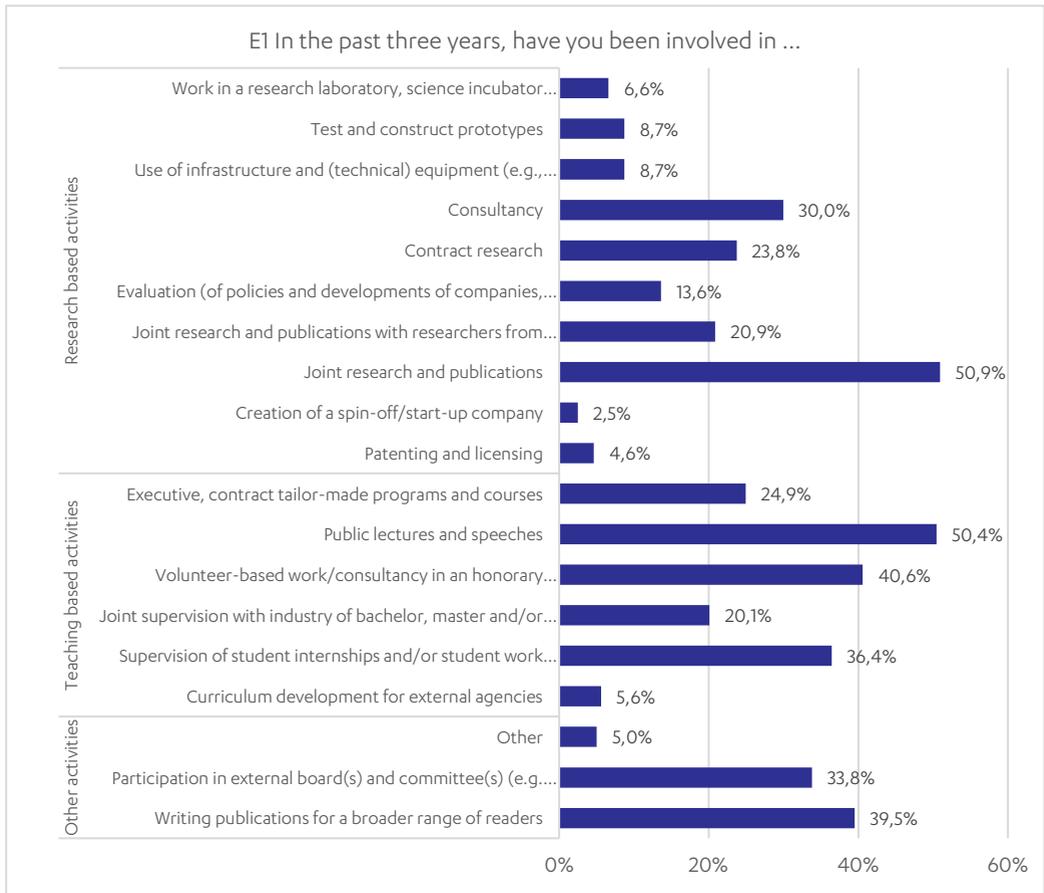
Other activities:

Among other activities with external entities, our respondents report involvement in:

- Writing publications for a broader range of readers
- Participation in external board(s) and committee(s) (e.g. expert council, board of directors, board of trustees).
- Personnel mobility (e.g., secondments to companies or public organizations).
- Volunteer-based work/consultancy in an honorary capacity (e.g. for community groups).
- Other

Academics were mostly involved in joint research and publications (50.9%), public lectures and speeches (50.4%), volunteer-based work/consultancy in an honorary capacity (40.6%) and writing publications for a broader range of readers (39.5%). For all the involvement drops with ranks. Higher share of male academics than female are involved in consultancy (37.8% male; 24.3% female) and contract research (29.2% male, 19.3% female).

Figure 59 External activities – contribution to society (general [n=1035] and by gender [n=955])



E1 In the past three years, have you been involved in ... (by gender)

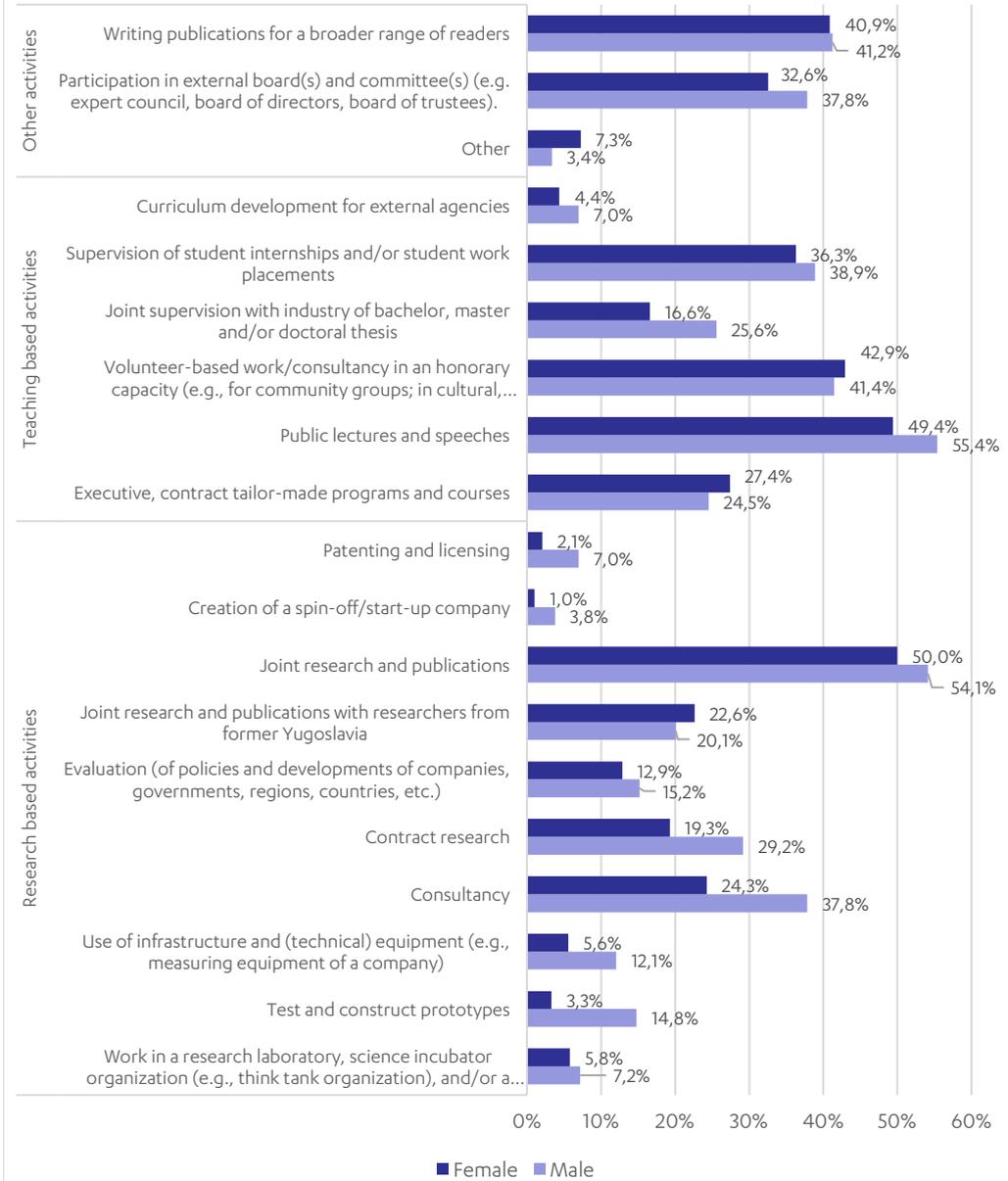
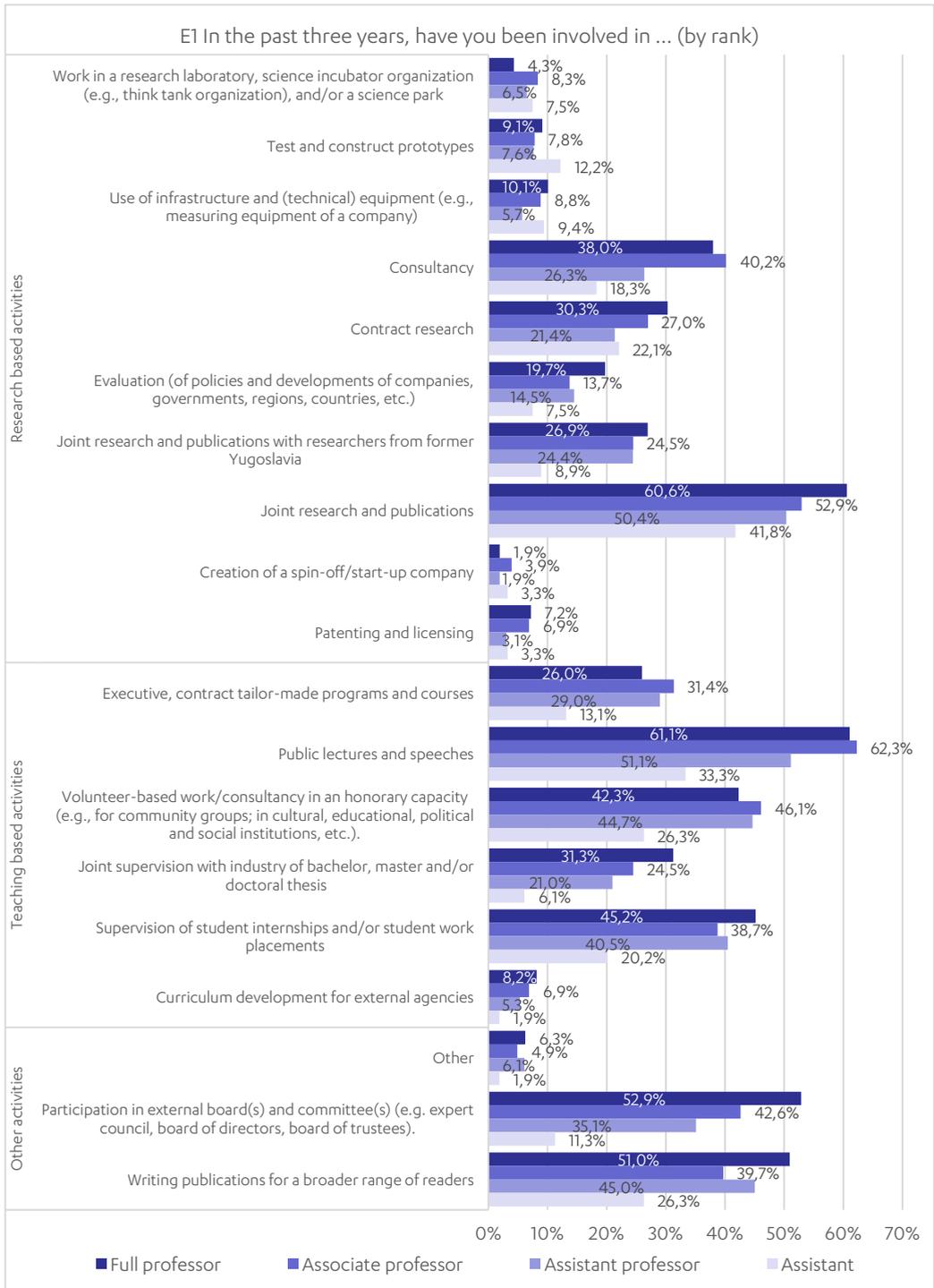


Figure 60 External activities – contribution to society (by rank) (n=1035)



4.6.2 Relationship between external activities and teaching and research

Deriving from research or teaching to do external activities:

- 59 % of respondents reported that they derive much or very much from research to do external activities, and 22.1 % reported not at all or very little connection to research.
- 41.6 % of respondents reported that they derive much or very much from their teaching to do external activities, and 22.1% reported not at all or very little connection to their teach.

The share of those that much or very much derive their external activities from their research is higher among male academics; and from teaching engagements among females. By rank, the share of those who very much or much agree that their external activities derive from teaching drops with rank. For research, those reporting that their external activities are very much or much derived from research, the share is the lowest for assistant professors (52.9%) and is lower than for assistants (59%).

Figure 61 Relationship between external activities and teaching and research (n=855)

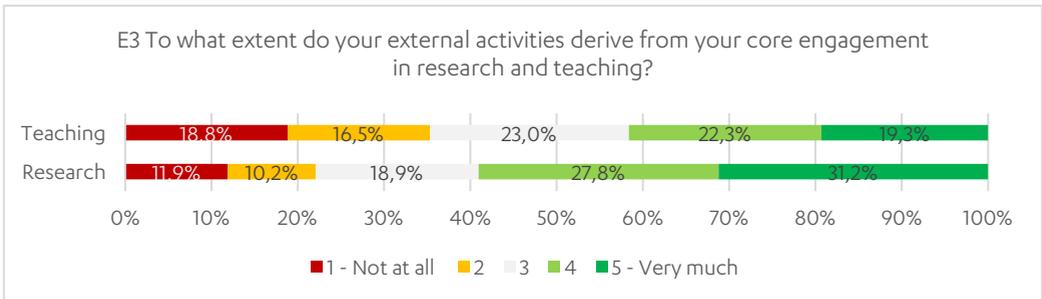


Figure 62 Relationship between external activities and teaching and research (by gender) (n=815)

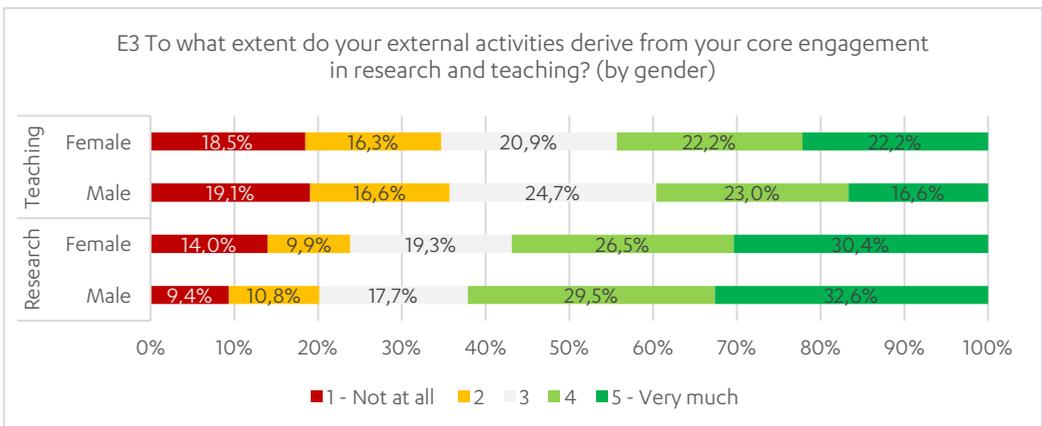
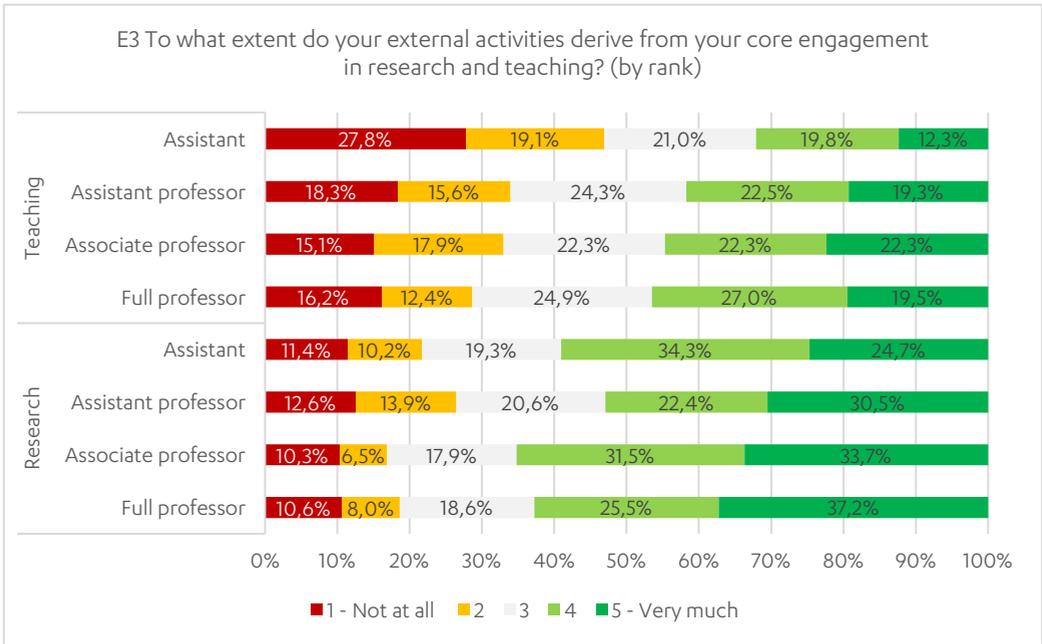


Figure 63 Relationship between external activities and teaching and research (by rank) (n=855)



4.6.3 Impact of external activities

Respondents perceived the contribution of their external activities on:

- their local community
- industry
- society at the national level and
- society at the international level.

Most respondents agreed that they contribute to society at national level (58.5%) and the local community (55.1%), and the least to industry (29.9%). On the question of their external activities contributing to industry, the share of male academics (39.2%) is much higher than for female academics (19.9%). The impact on society on international level is the highest for full professors and drops with ranks. That their external activities contribute much and very much to local community and society at national level is highest among assistant professors.

Figure 64 Impact of external activities (n=820)

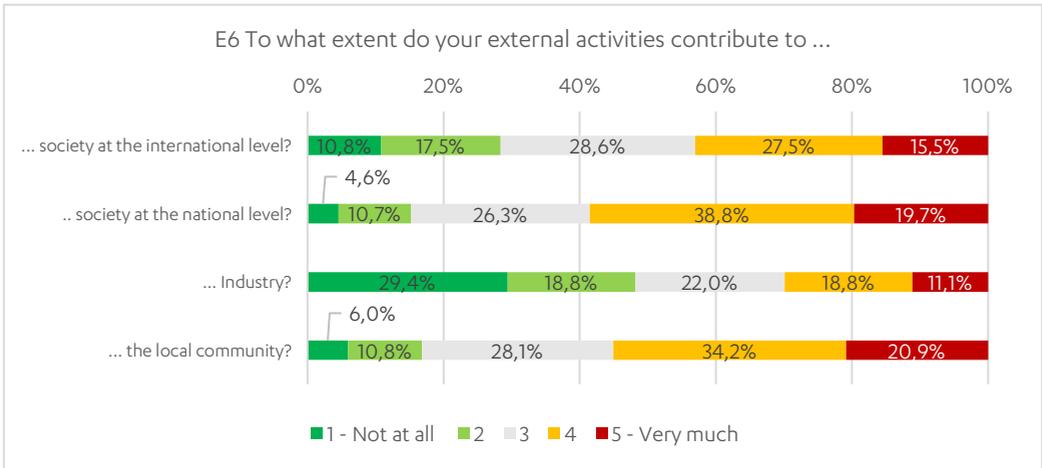


Figure 65 Impact of external activities (by gender) (n=791)

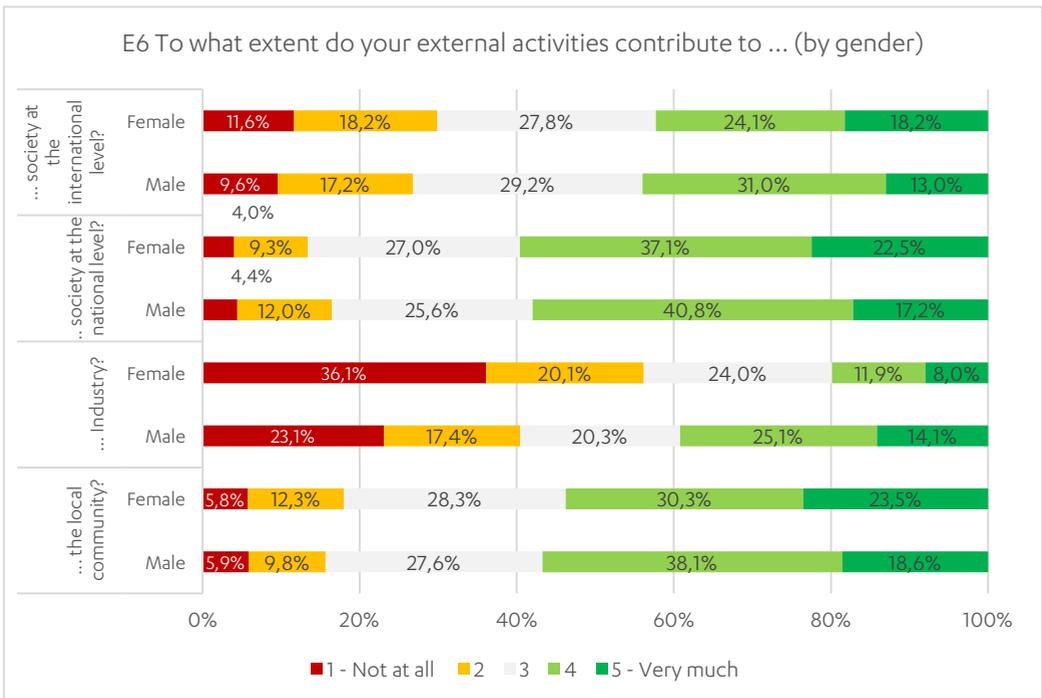
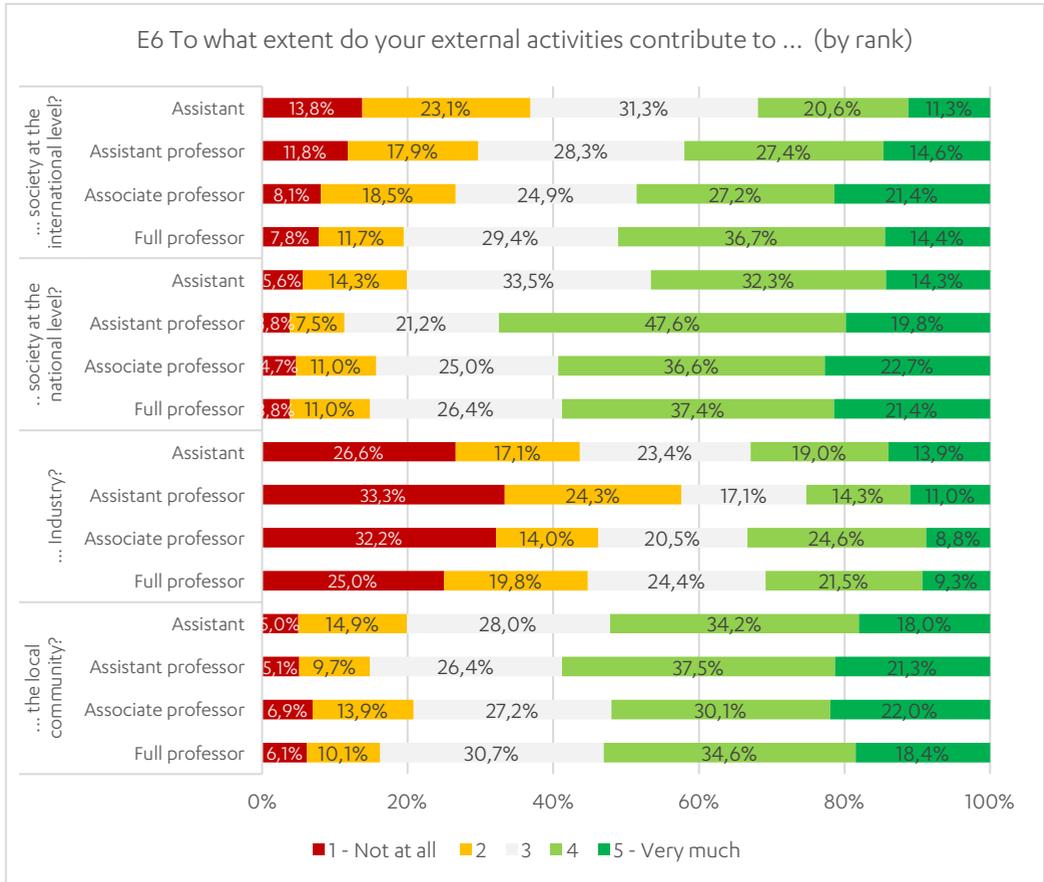


Figure 66 Impact of external activities (by rank) (n=820)



4.7 Governance and management

4.7.1 Perceptions of influence on decision-making

Majority of academics perceive to have influence at the departmental level (69%), but the perceptions of influence decrease as we move from departmental to faculty/school or similar unit (46%) and to the institutional (university/central) level (18%). In all cases, the perceptions of influence on decision-making in 2018 improved compared to 2013.

Reported perceptions of influence at all levels decrease with lower academic ranks.

Male academic report notably higher influence than female academics at all levels and especially at departmental level (71% male vs 65% female) and faculty level (48% male vs 43% female).

Figure 67 Influence of academics to shape key academic policies (2018: n=947, 2013: n=620)

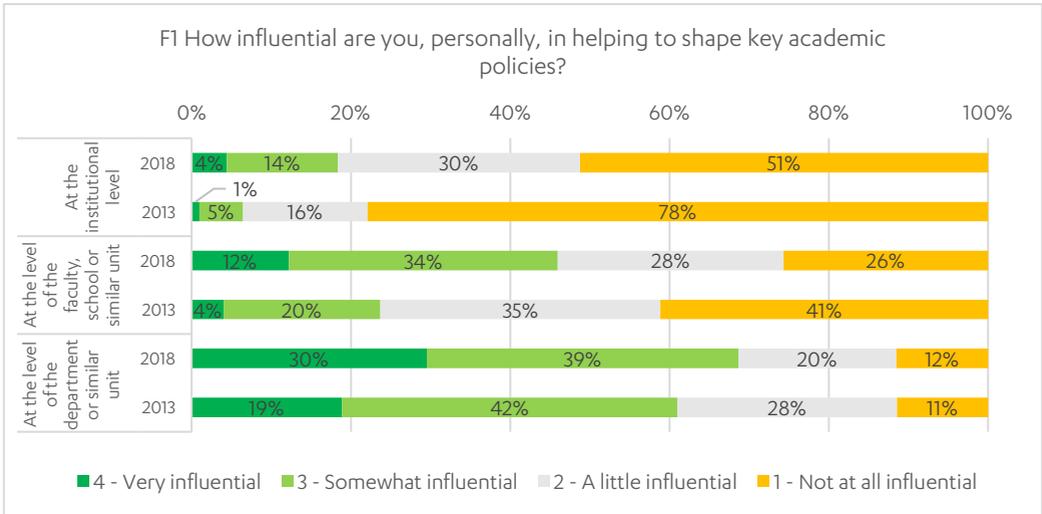


Figure 68 Influence of academics to shape key academic policies, by gender (2018: n=923, 2013: n=612)

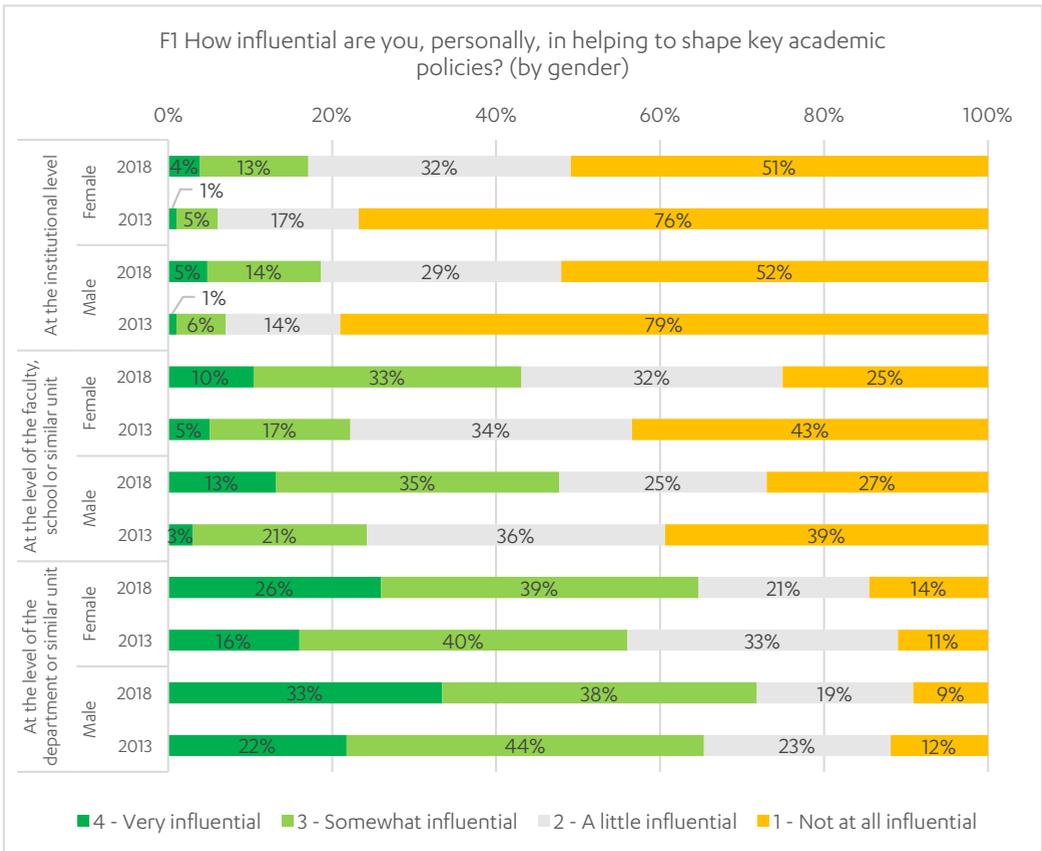
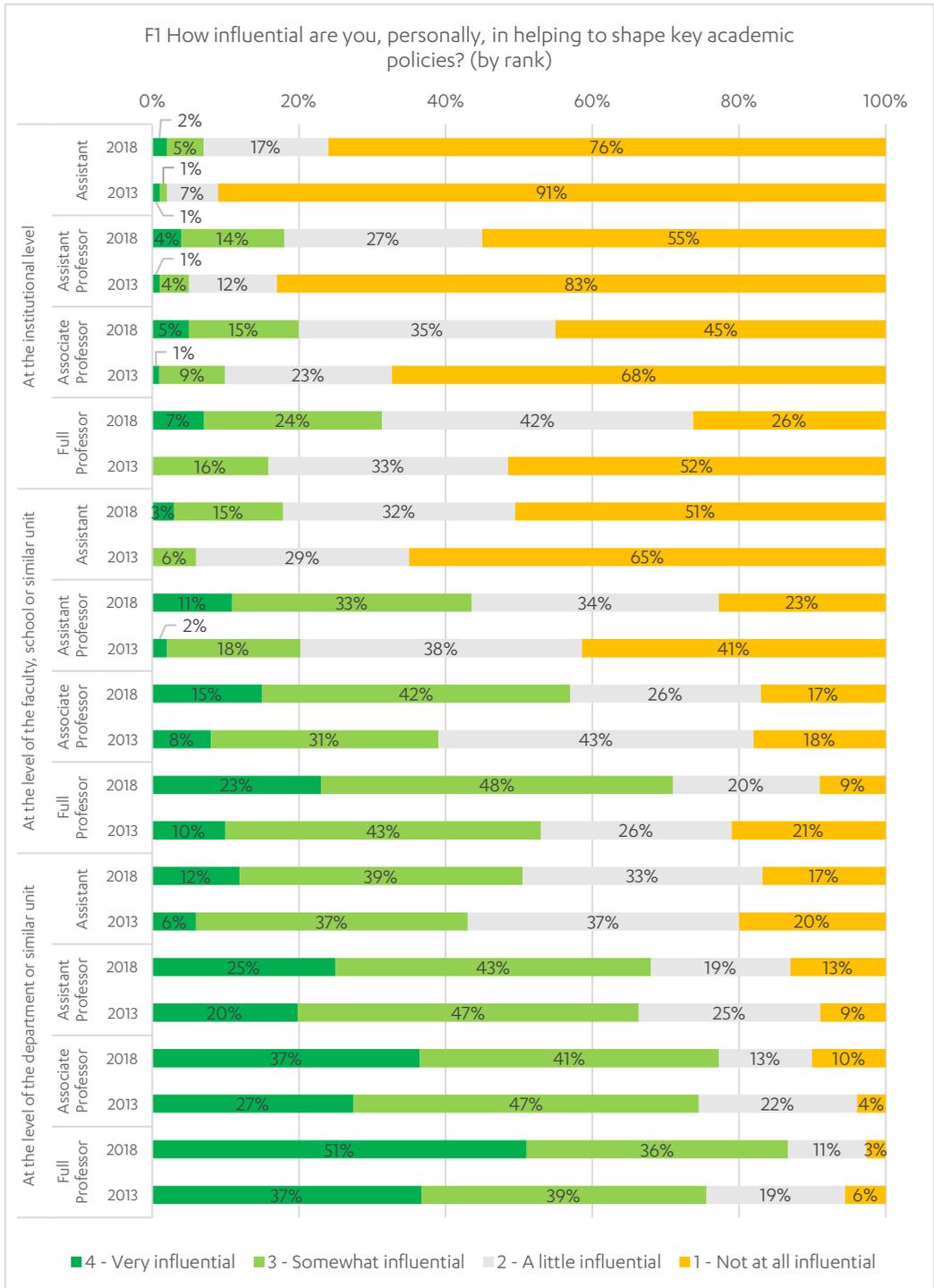


Figure 69 Influence of academics to shape key academic policies, by rank (2018: n=930, 2013: n=605)



4.7.2 Perceptions on governance and management

Among the respondents:

- 53% agree or strongly agree with the statement that there is a competent leadership at their institution, which is more than in 2013 when 32% agreed or strongly agreed with this statement and 41% disagreed or strongly disagreed with this statement.
- 41% agree or strongly agree with the statement that there is a good communication between management and academics, which is more than in 2013 when 21% agreed and 54% disagreed or strongly disagreed with this statement.
- 47% agree or strongly agree with the statement that there is a top-down management style (19% disagreed or strongly disagreed); which is about the same as in 2013 when 48% agreed with this statement and 28% disagreed or strongly disagreed with this statement.
- 63 % agree or strongly agree with the statement that the leadership supports academic freedom, which is more than in 2013 when 52% agreed or strongly agreed with this statement and 20% disagreed or strongly disagreed with this statement.
- 37% agree or strongly agree with the statement that lack of interest and engagement of academics hinders the improvement of institutional quality, which is much less than in 2013 when 57% agreed or strongly agreed with this statement and only 18% disagreed or strongly disagreed with this statement (compared to 33% in 2018).

Figure 70 Perceptions regarding governance and management (2018: n=949, 2013: n=607²)

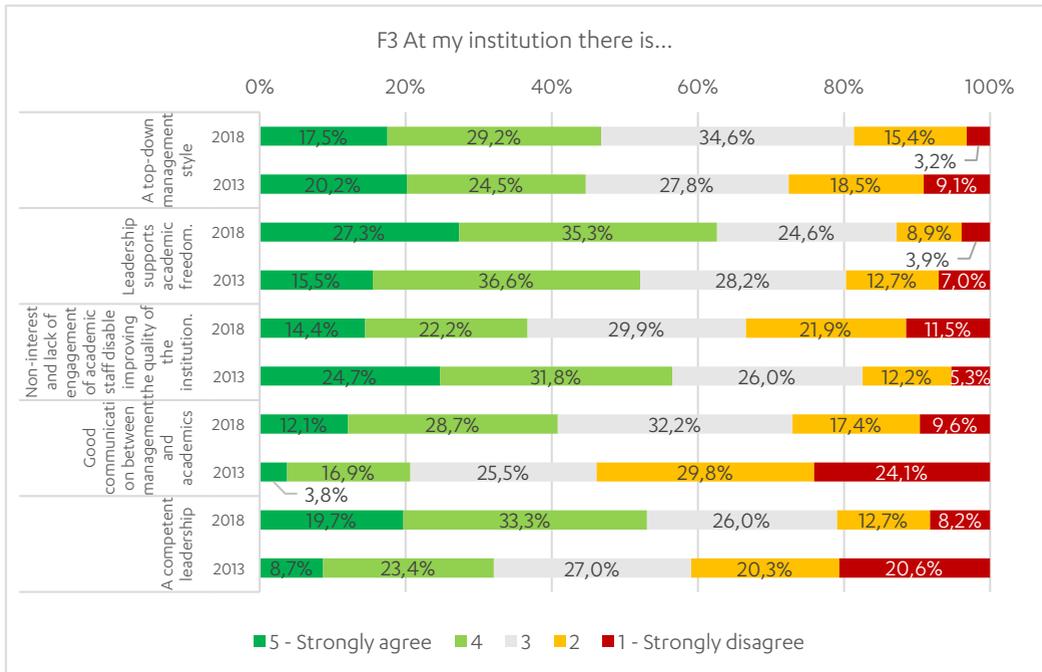


Figure 71 Perceptions regarding governance and management, by gender (2018: n=924, 2013: n=600)

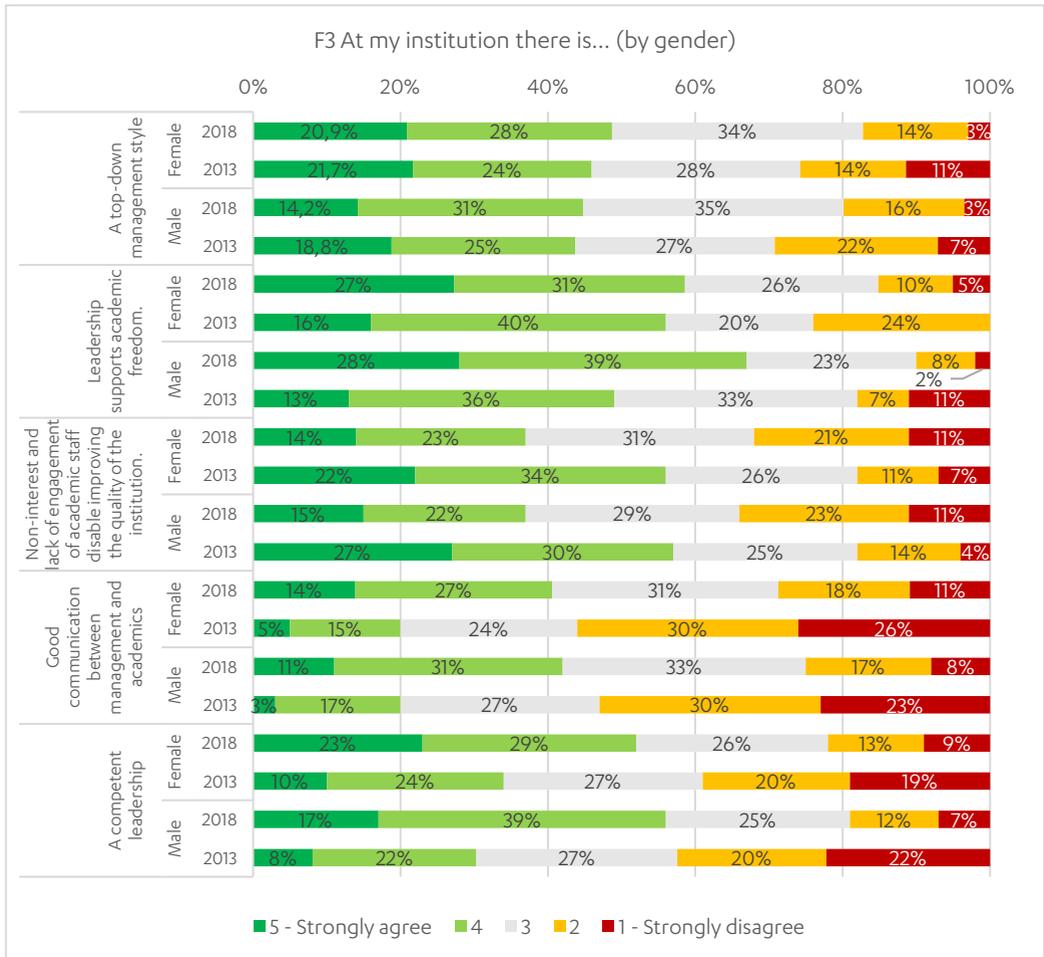
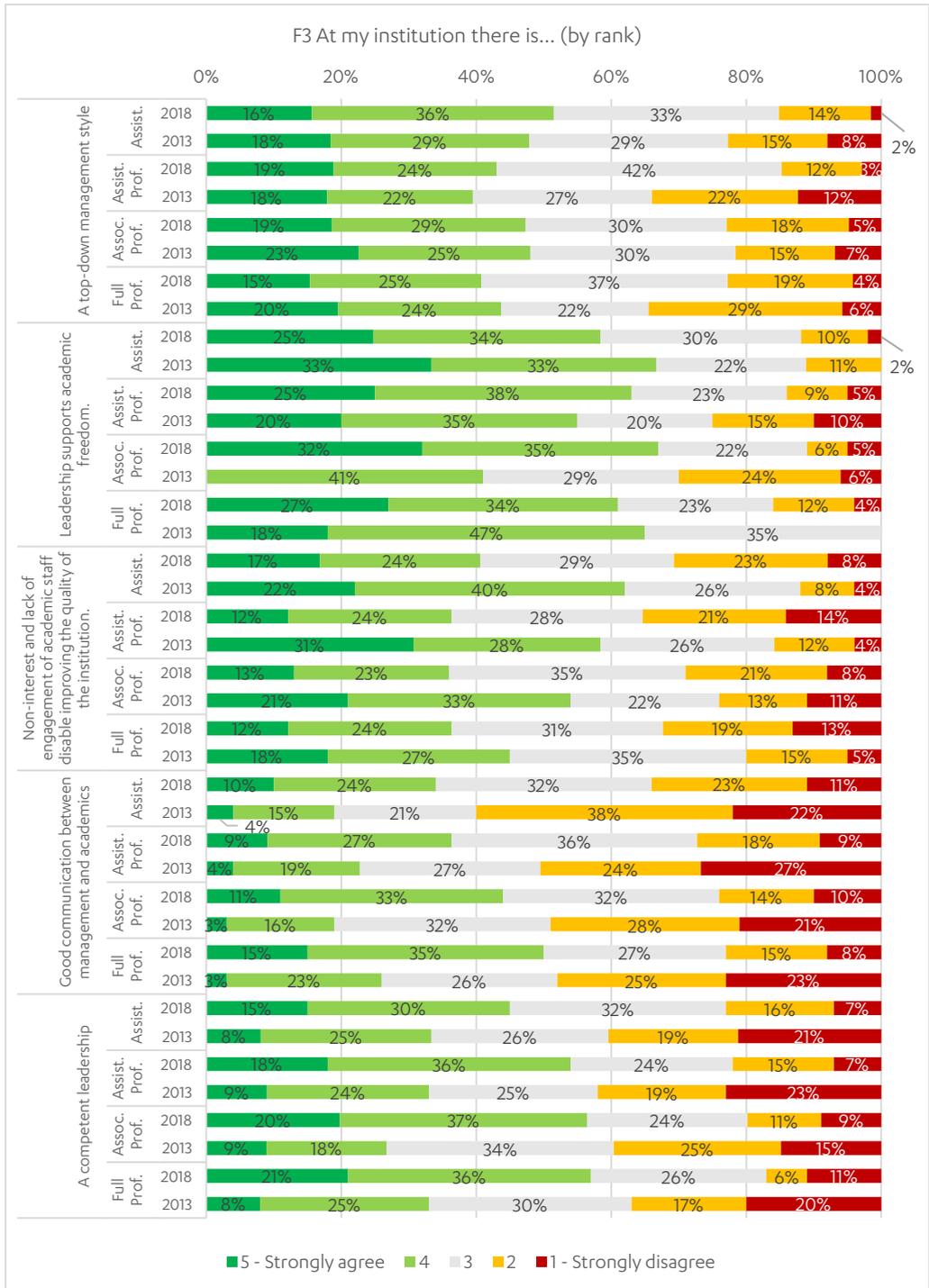


Figure 72 Perceptions regarding governance and management, by rank (2018: n=933, 2013: n=592)



4.7.3 Perception of practices followed by the institution

Among the respondents:

- 21.9% agree or strongly agree with the statement that there is performance-based allocation of resources to academic units, which is more than in 2013 when 12.7% agreed or strongly agreed with this statement and 67.9% disagreed or strongly disagreed with this statement.
- 39.9% agree or strongly agree with the statement that funding of departments is substantially based on numbers of students, which is practically the same as in 2013 when 40.7% agreed or strongly agreed with this statement and 28.3% disagreed or strongly disagreed with this statement.
- 54.7% agree or strongly agree with the statement that research quality is considered in personnel decisions (hiring/promotion), which is more than in 2013 when 42% agreed or strongly agreed with this statement and 37% disagreed or strongly disagreed with this statement.
- 24.3% agree or strongly agree with the statement that teaching quality is considered in personnel decisions (hiring/promotion) and 45.1% disagree or strongly disagree, which is more than in 2013 when 15% agreed or strongly agreed with this statement and 62% disagreed or strongly disagreed with this statement.
- 11% agree or strongly agree with the statement that practical relevance/applicability of work is considered in personnel decisions, which is more than in 2013 when 5.2% agreed or strongly agreed with this statement and 71% disagreed or strongly disagreed with this statement.
- 16.6% agree or strongly agree with the statement that there is recruiting faculty who have work experience outside of academia, which is more than in 2013 when 13.2% agreed or strongly agreed with this statement and 43.9% disagreed or strongly disagreed with this statement.

The perceptions of considerations of quality of teaching and of research both increased in 2018 compared to 2013. However, in 2018 only 24.3% of academics perceive that teaching quality is considered in personnel decisions (and 45% do not see this practiced), whereas 54.7% perceive that research quality is considered in hiring.

Figure 73 Perceptions regarding personnel decisions (2018: n=904, 2013: n=597)

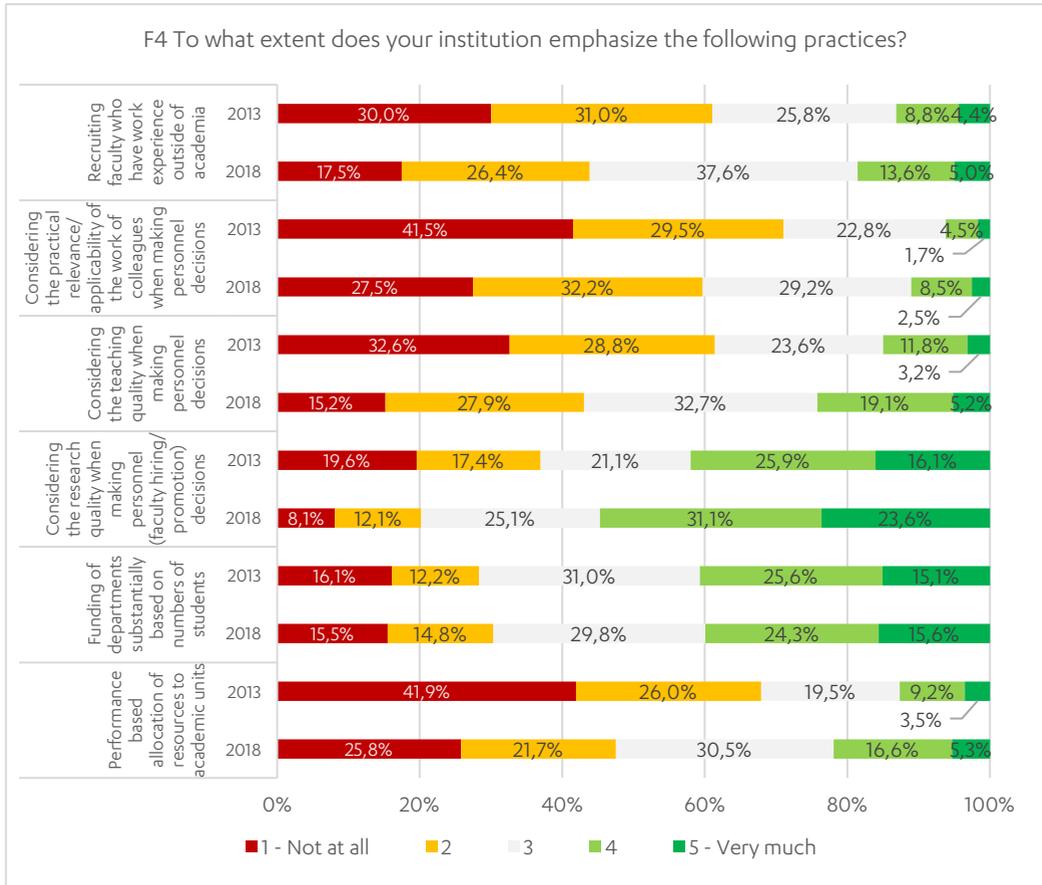


Figure 74 Perceptions regarding personnel decisions, by gender (2018: n=893, 2013: n=585)

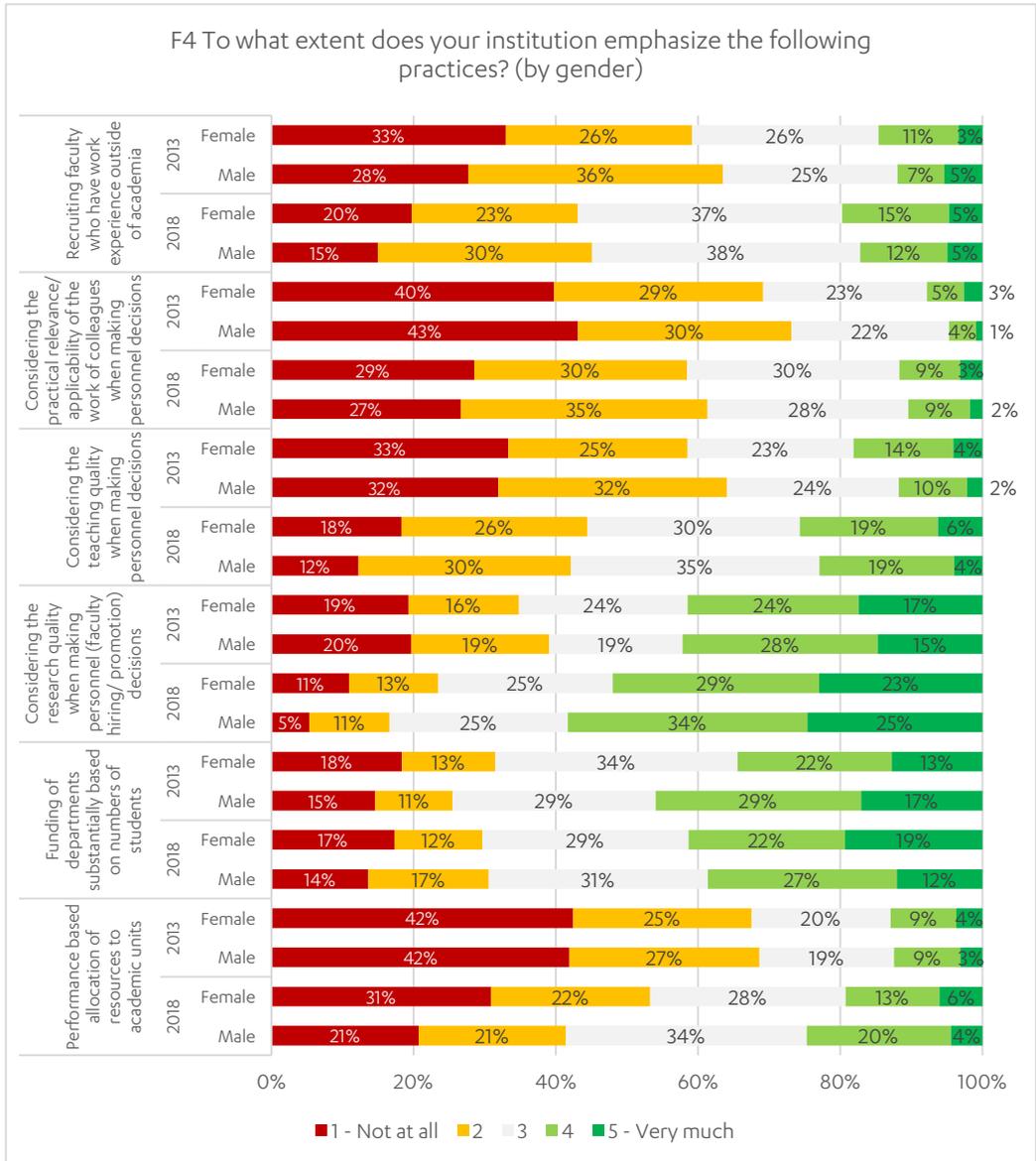
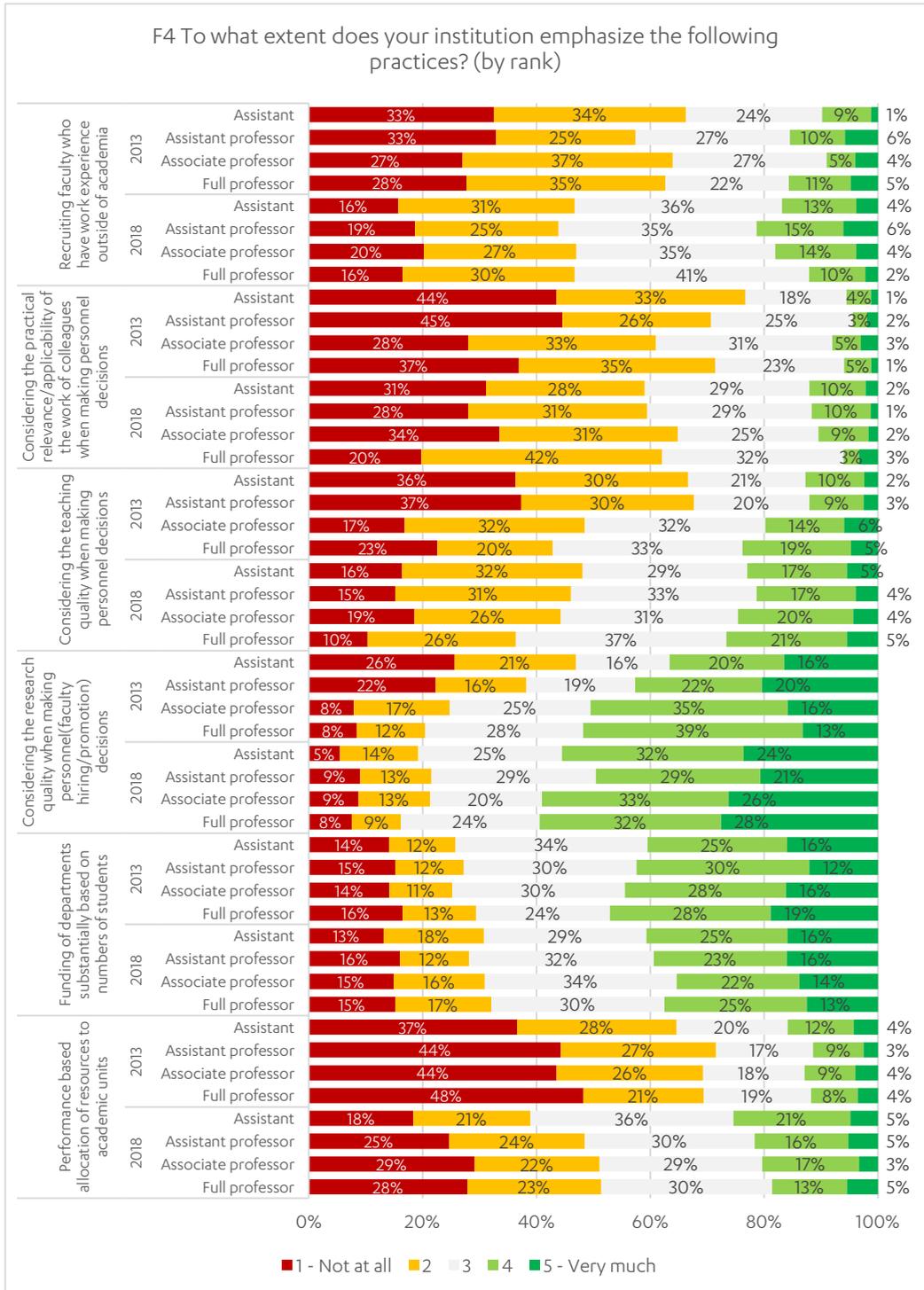


Figure 75 Perceptions regarding personnel decisions, by rank (2018: n=890, 2013: n=574)



4.7.4 Evaluations of academic work

Evaluations of teaching:

Academic staff report that their teaching is regularly evaluated mainly by: students (82.9%), head of the department (68.1%), in a form of self-assessment (58.1%) or peers in the department or unit (49.7%).

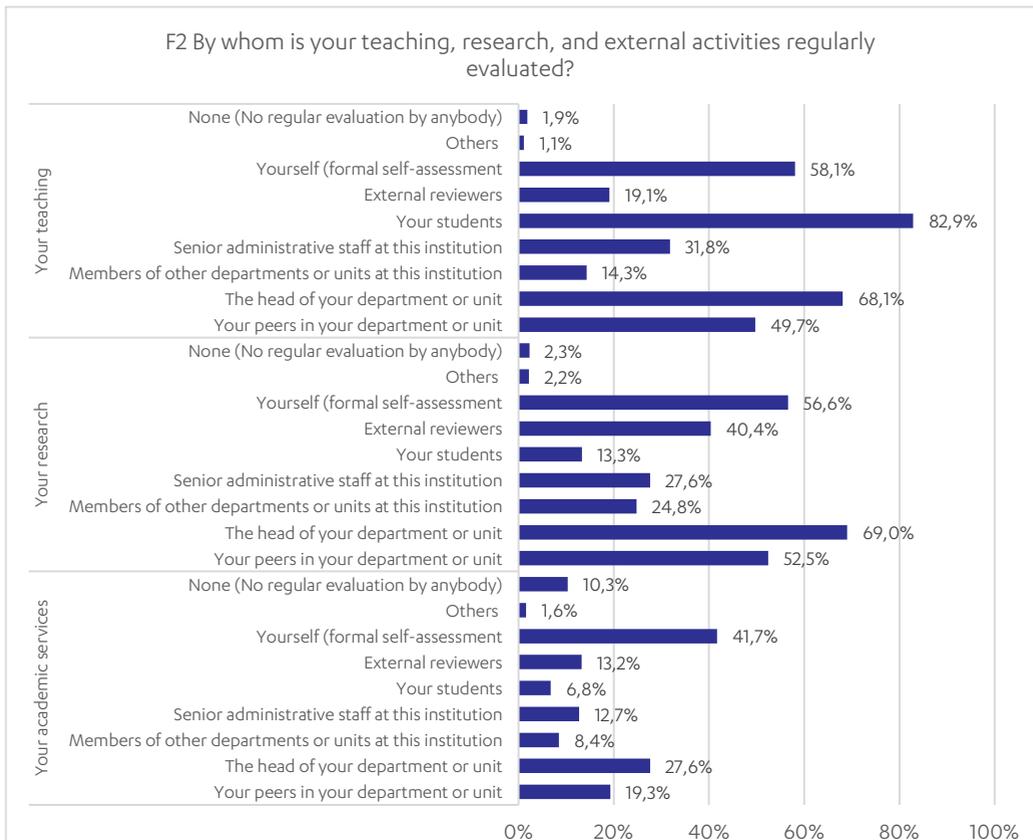
Evaluations of research:

Academic staff report that their research is regularly evaluated by: the head of the department (69%), self-assessed (56.6%), by peers in their departments (52.5%) and external reviewers 40.4%.

Evaluations of external activities:

Academic staff report that their external activities are regularly evaluated by: academics themselves (41.7%), the head (27.6%) or peers (19.3%) from the departments.

Figure 76 Evaluations of academic work (general [n=959] and by gender [n=933])



F2 By whom is your teaching, research, and external activities regularly evaluated? (by gender)

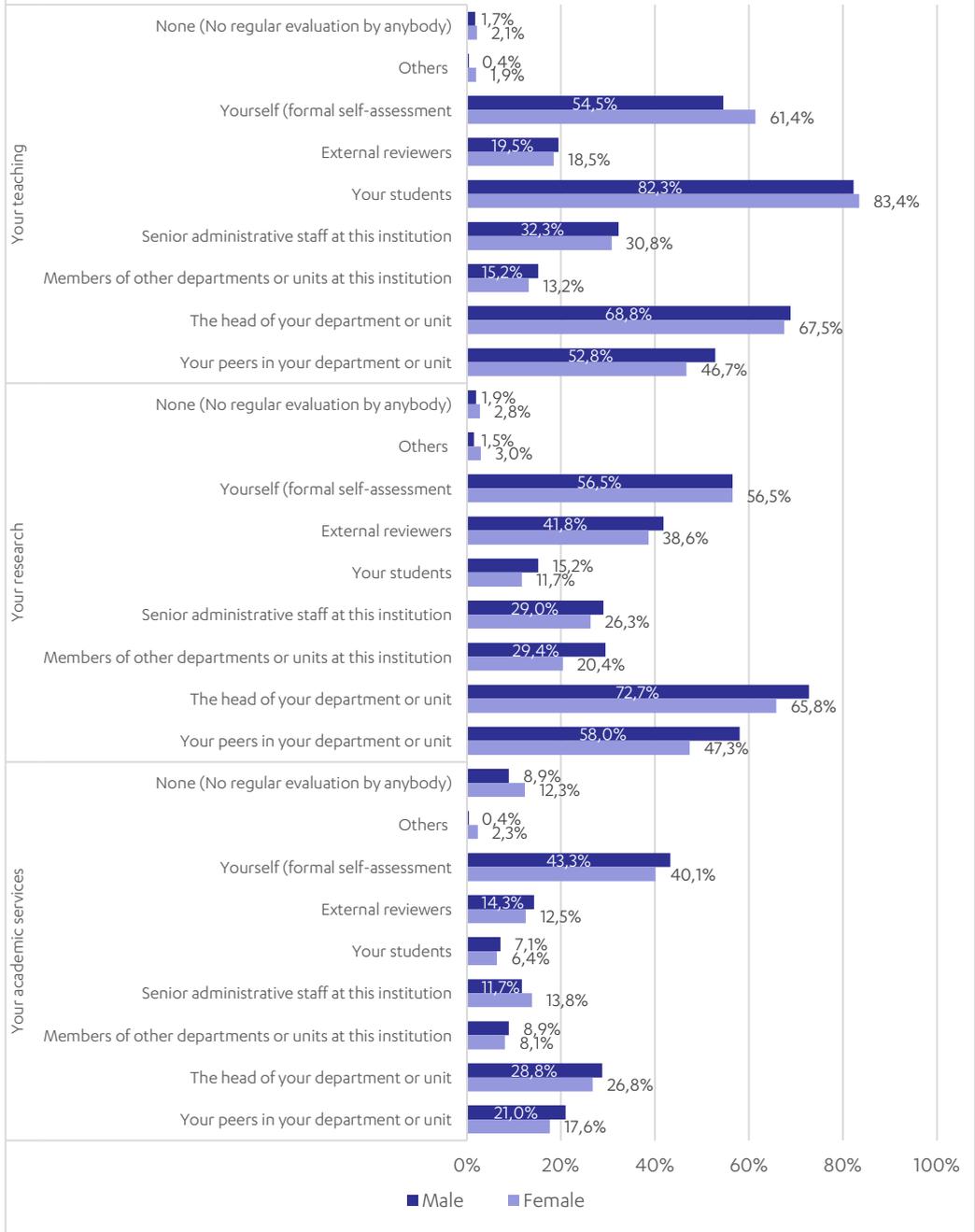
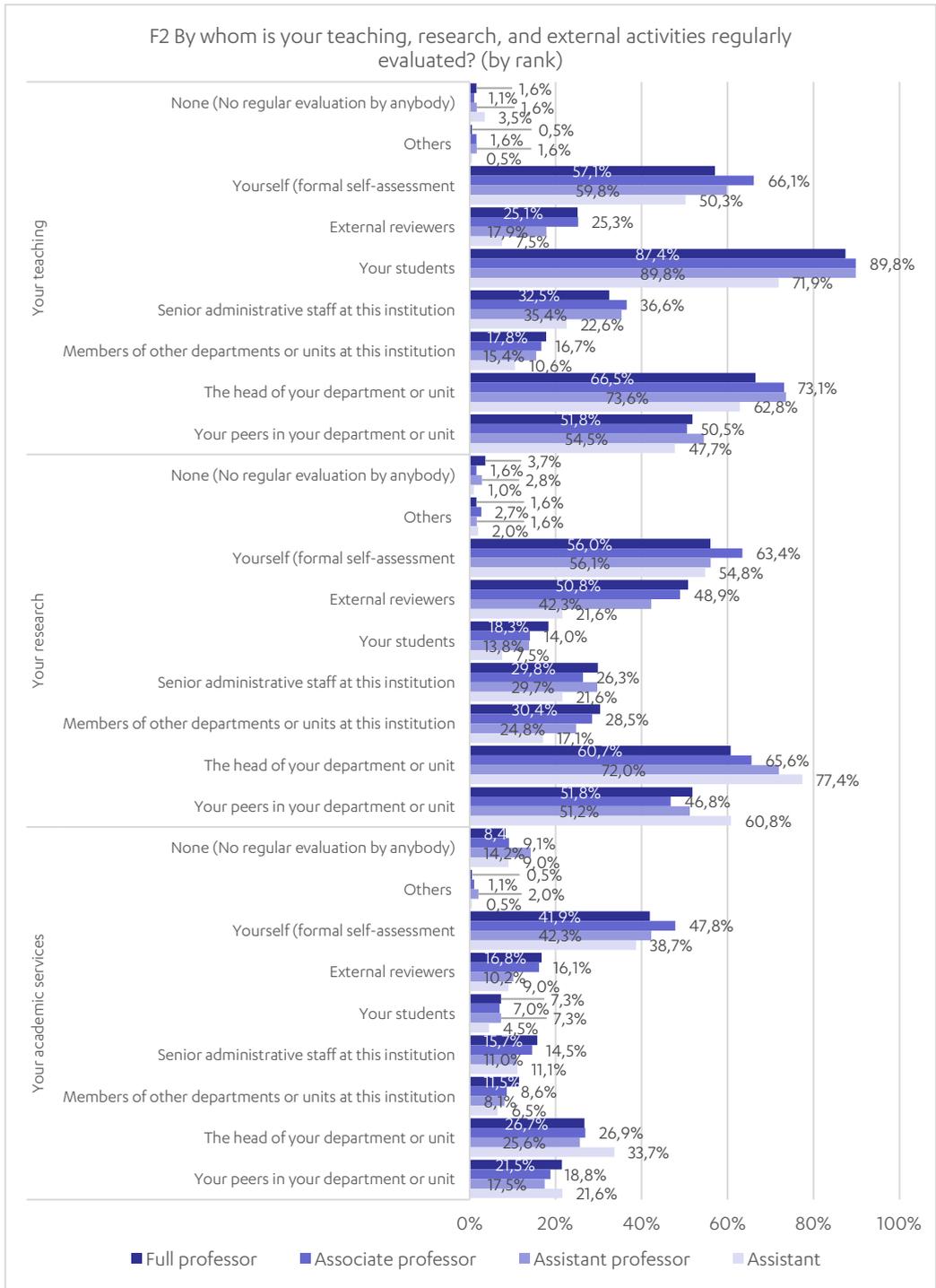


Figure 77 Evaluations of academic work (by rank) (n=959)



4.8 Internationalisation and international cooperation

4.8.1 Perceptions on outcomes of internationalisation

The effects of internationalisation are perceived by academic staff most strongly in increased student (72%) and faculty (61%) mobility, cooperation in research projects (63%), enhanced research networks (57%) and lectures by foreign lecturers at home institution (58%). Excessive commercialisation (51%), weakening cultural identity (68%) and increased revenue (58%) are by majority of respondents not perceived as an outcome of internationalisation.

The views differ by rank. Full professors see more impact of internationalisation on prestige and enhanced research networks than other ranks. Associate professors see more effects of internationalisation on increased mobility of students and faculty. Female academics observe increased mobility of faculty and foreign lectures at their institutions in much higher share than their male colleagues. Prestige is seen as an outcome of internationalization by more male than female respondents.

Figure 78 Perceptions on outcomes of internationalization (n=898)

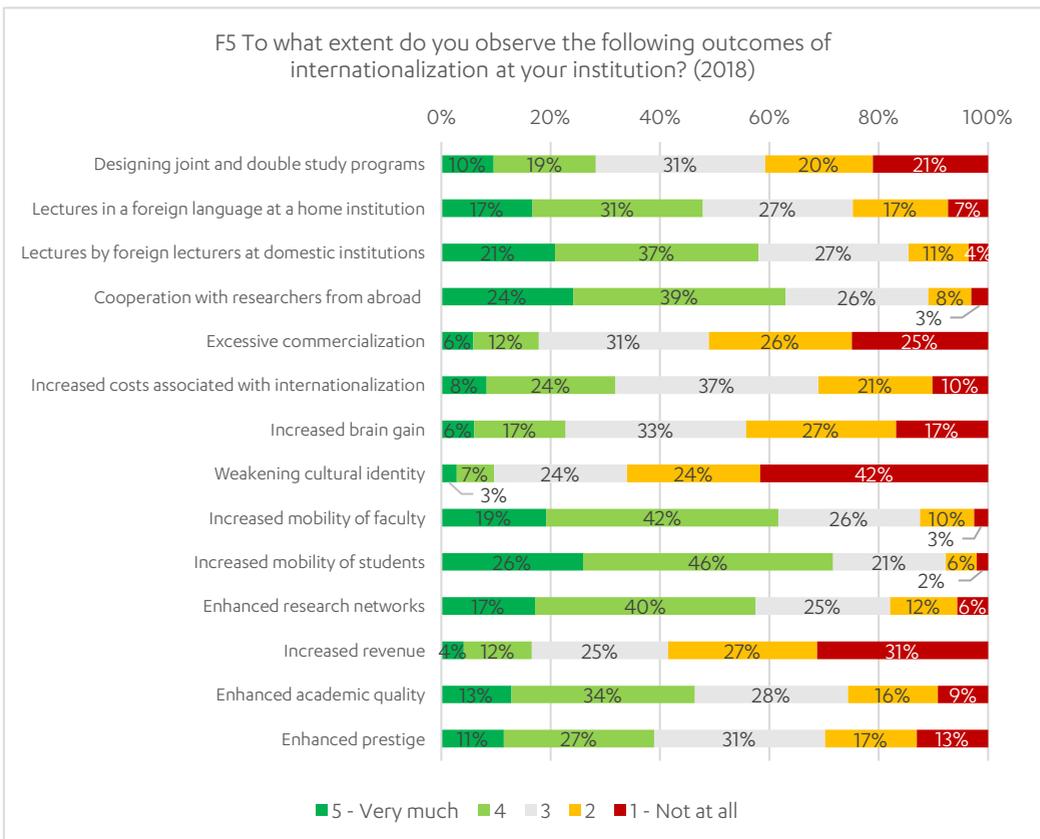


Figure 79 Perceptions on outcomes of internationalisation (By rank) (n=896)

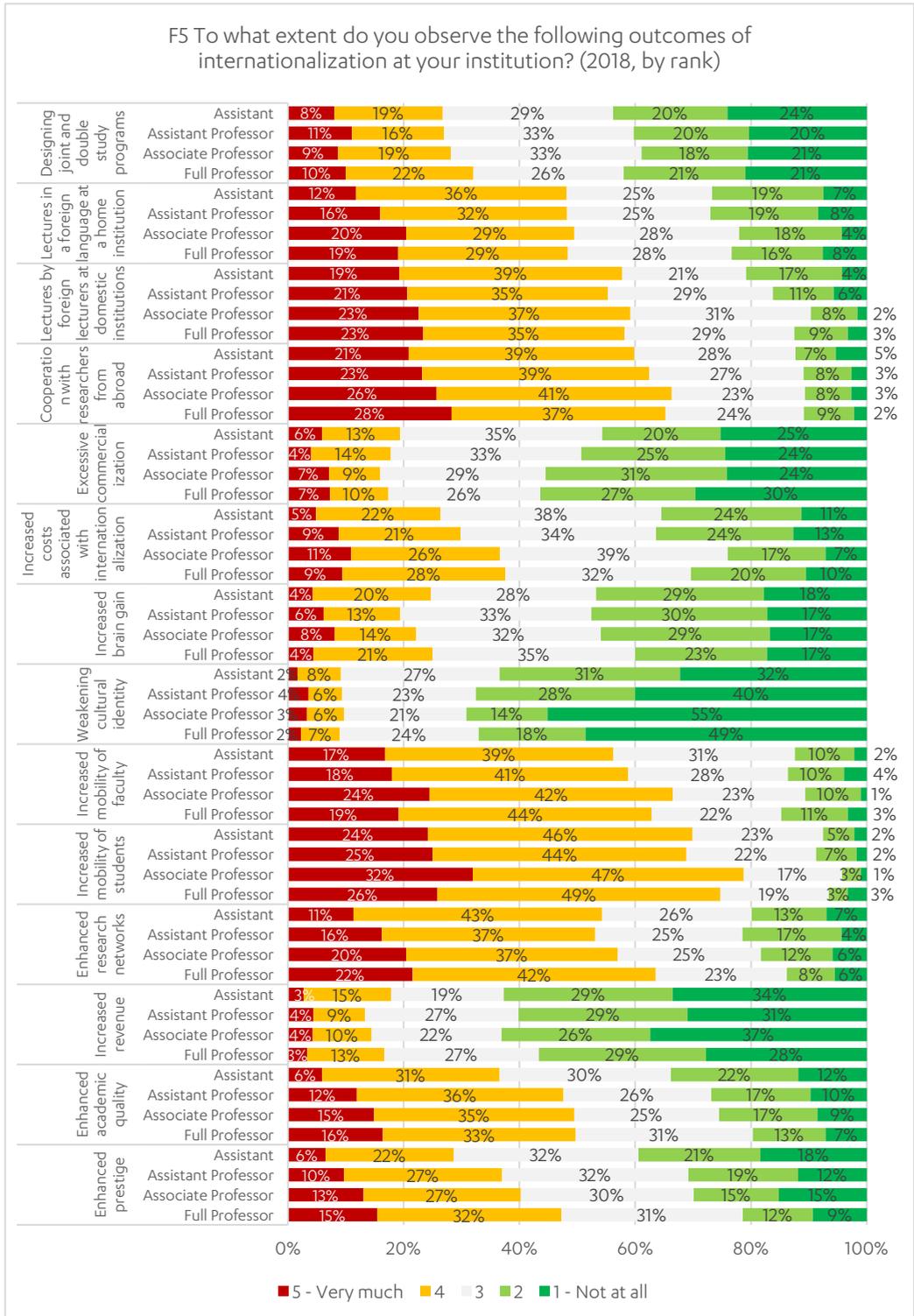
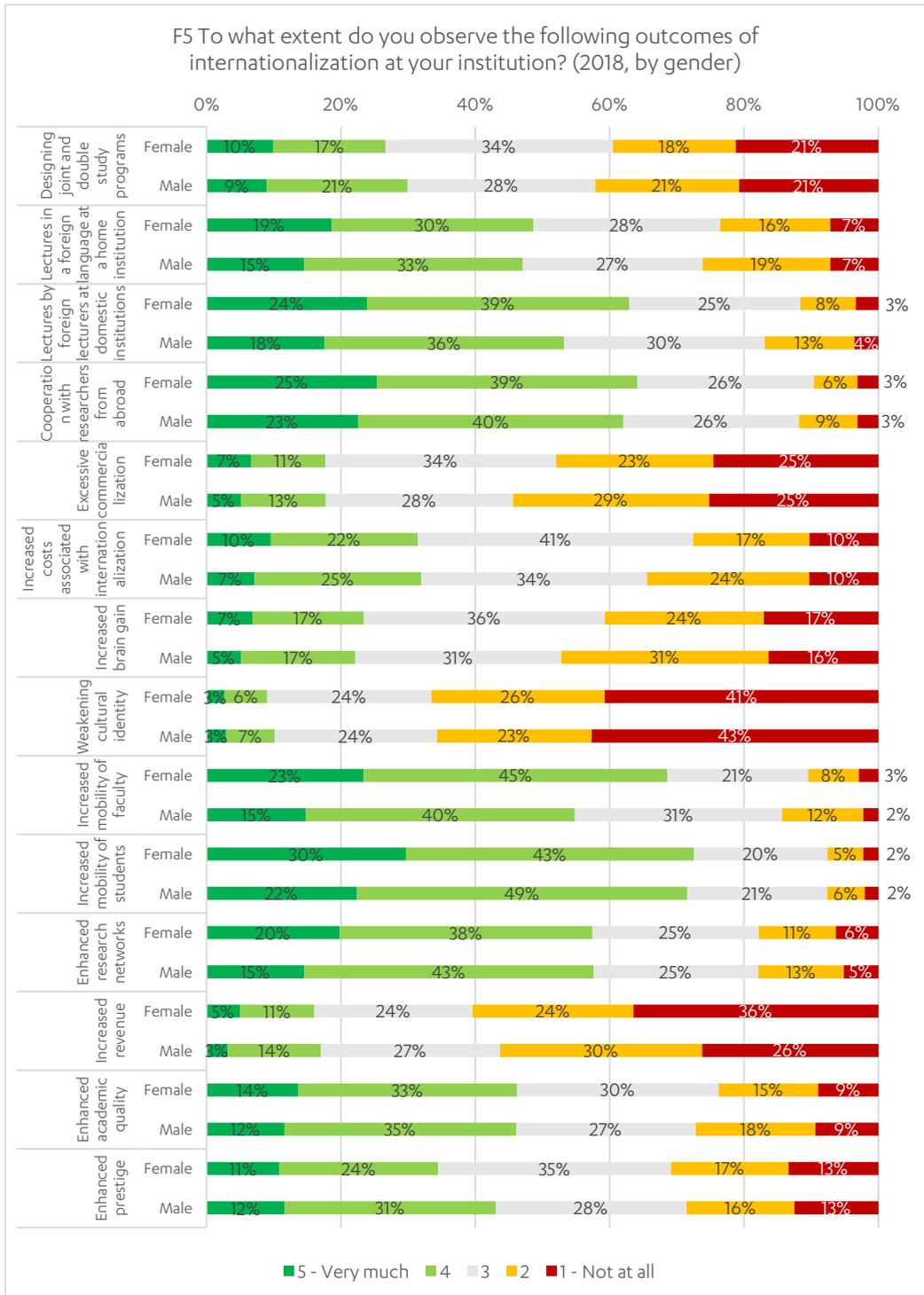


Figure 80 Perceptions on outcomes of internationalisation (By gender) (n=881)



4.8.2 Institutional support for internationalisation

Less than half of respondents agrees or strongly agrees with statements that refer to various forms of institutional support for internationalisation. The only exception is the statement that their institution encourages faculty members to publish internationally which 71% of respondent agree or strongly agree with.

Figure 81 Academics views on internationalization (n=899)

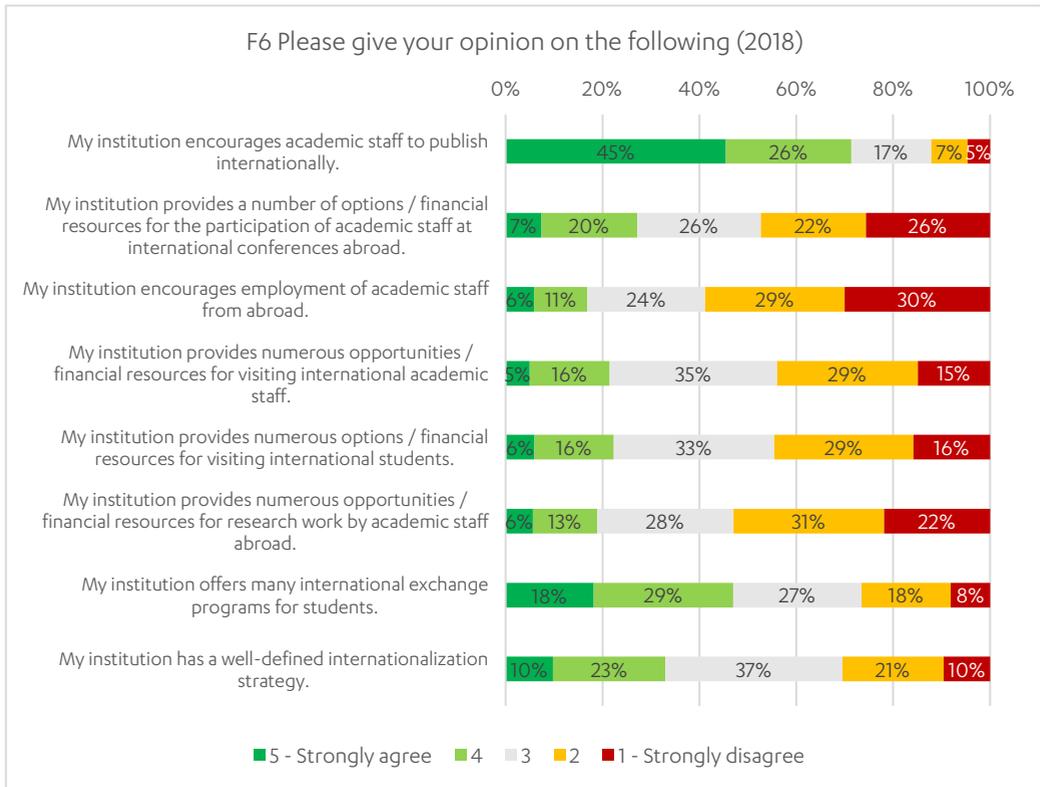


Figure 82 Academics views on internationalisation (By gender) (n=888)

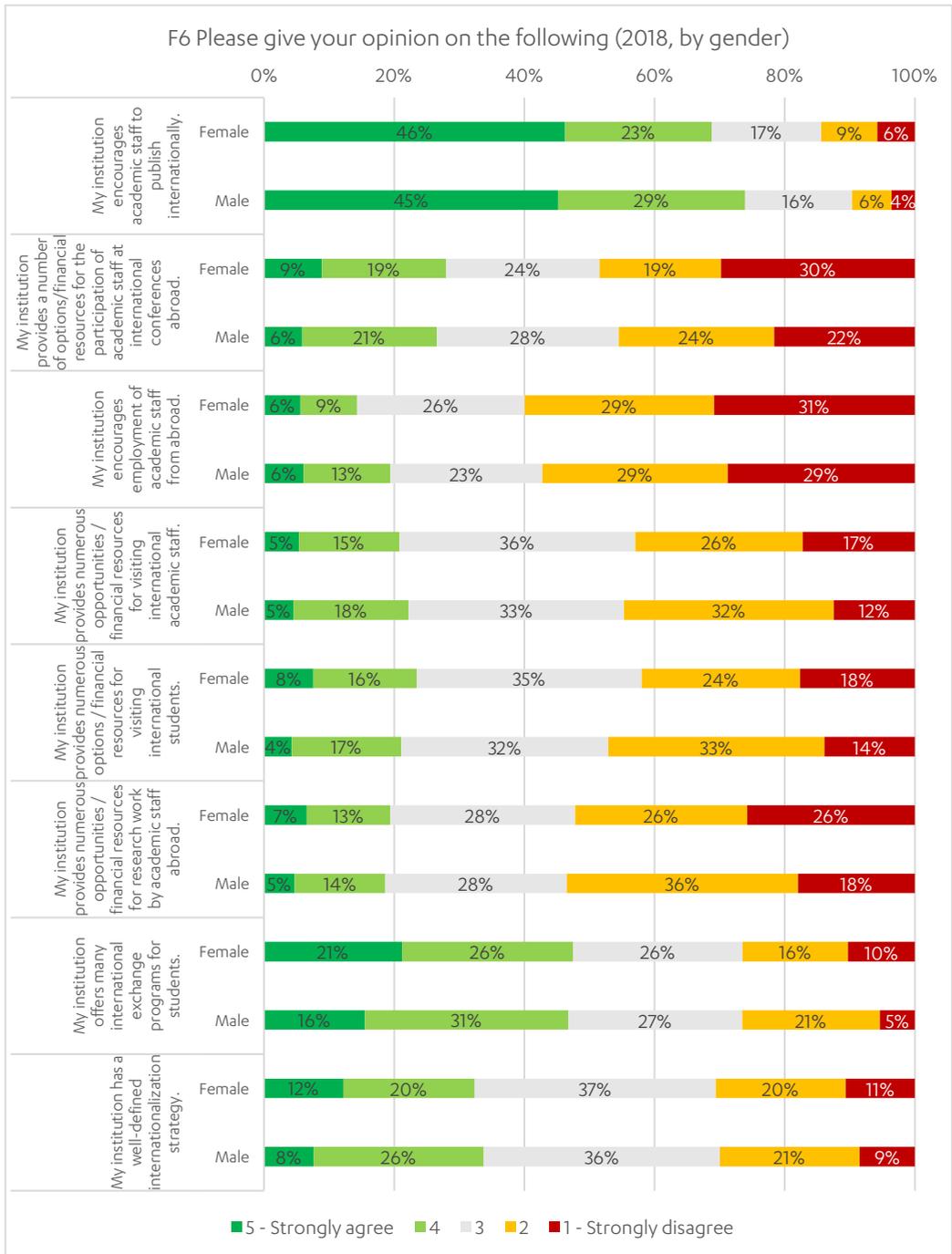
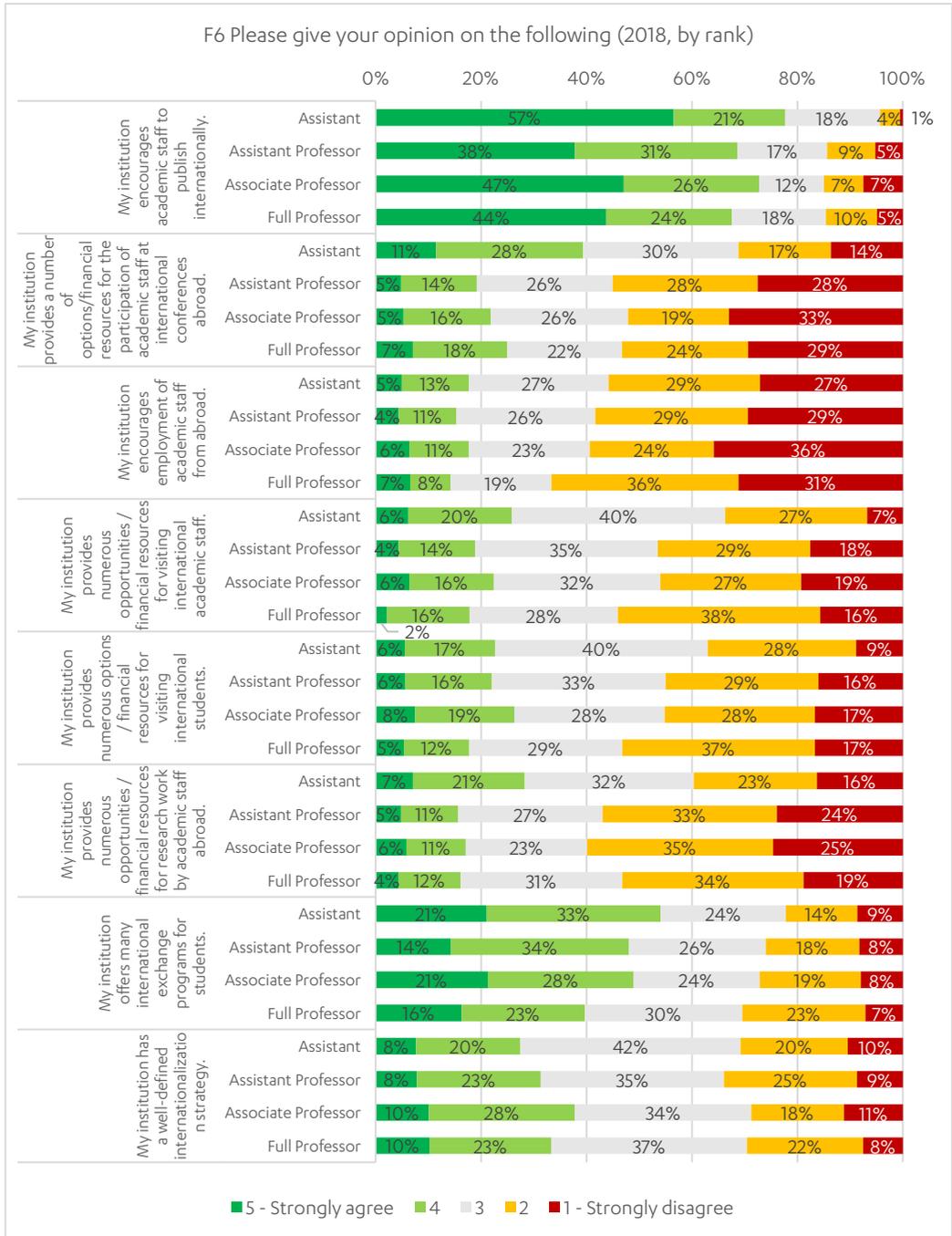


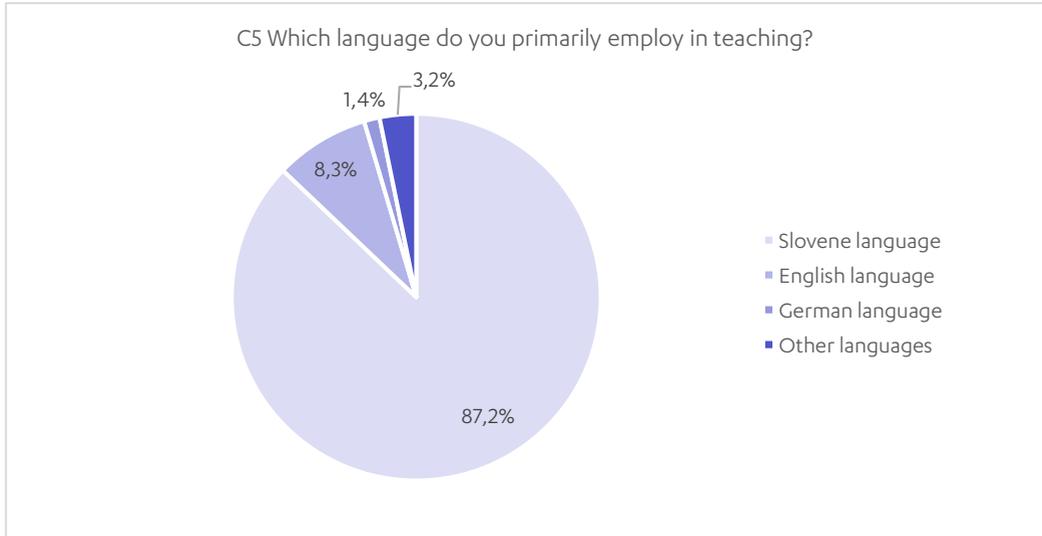
Figure 83 Academics views on internationalisation (By rank) (n=899)



4.8.3 Language of instruction

Majority of respondents' report that they teach primarily in Slovenian language (87.2%). Among teaching in foreign languages, most report teaching in English (8.3%) and German language (1.4%).

Figure 84 Language of instruction (n=952)



4.9 Academics in Formative Career Stages

4.9.1 Capabilities of junior academics and importance they attribute to these capabilities

Most junior academics report high capabilities in working independently and taking responsibility for their actions and in working constructively with colleagues; and least junior academics report high capabilities in developing, maintaining and using academic networks or collaborations and in ability to obtain external funding (33% report not being able to obtain external funding). There are notable gender differences in reports of high capabilities in developing new ideas, processes or products, which are rooted in research, which more male academics report and in developing, maintaining and using academic networks or collaborations which more female academics report.

Junior academics attribute most importance for their job in working constructively with colleagues and in working independently and taking responsibility for their actions, and less importance to developing new ideas, processes or products, which are rooted in research (but still 56% give this factor high importance). In general, more female academics attribute high importance to all factors than male with the exception of developing new ideas, processes or products, which are rooted in research, which slightly more male academics attribute high importance.

Reported capabilities of junior academics:

Among junior academics (assistant professors or assistants):

- 52% report having capabilities for developing new ideas, processes or products, which are rooted in research; with significant differences between reported capabilities of male academics (61% reporting having capabilities) and female academics (41%).
- 94% report having capabilities to working independently and taking responsibility for their actions;
- 38% report having capabilities for developing, maintaining and using academic networks or collaborations; with some difference between genders: 31% of male academics report having capabilities and 40% female academics.
- 67% report having capabilities to effectively planning, managing and delivering projects in good time;
- 87% report having capabilities to working constructively with colleagues;
- 38% report having ability to obtain external funding and 33% report not being able to obtain external funding.

Figure 85 Capabilities of junior academics (n=613)

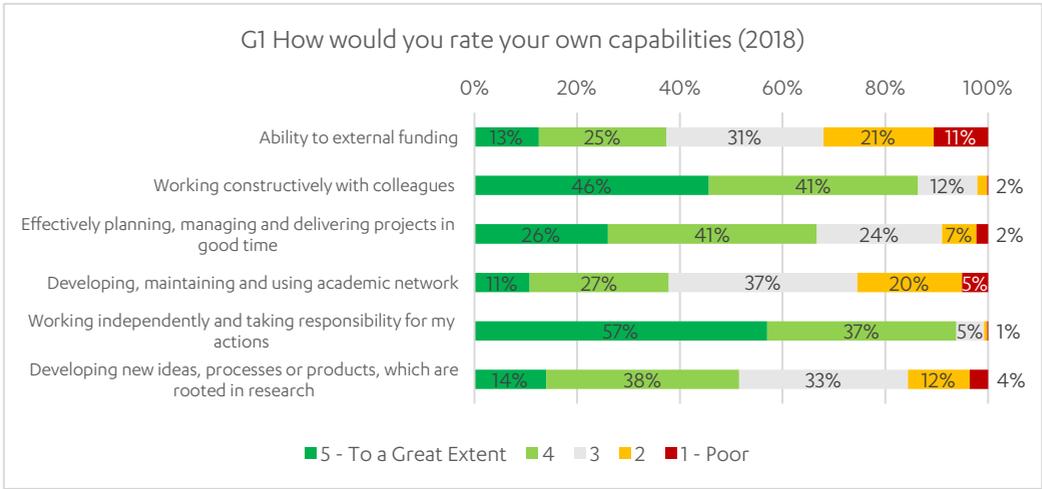


Figure 86 Capabilities of junior academics, by gender (n=566)

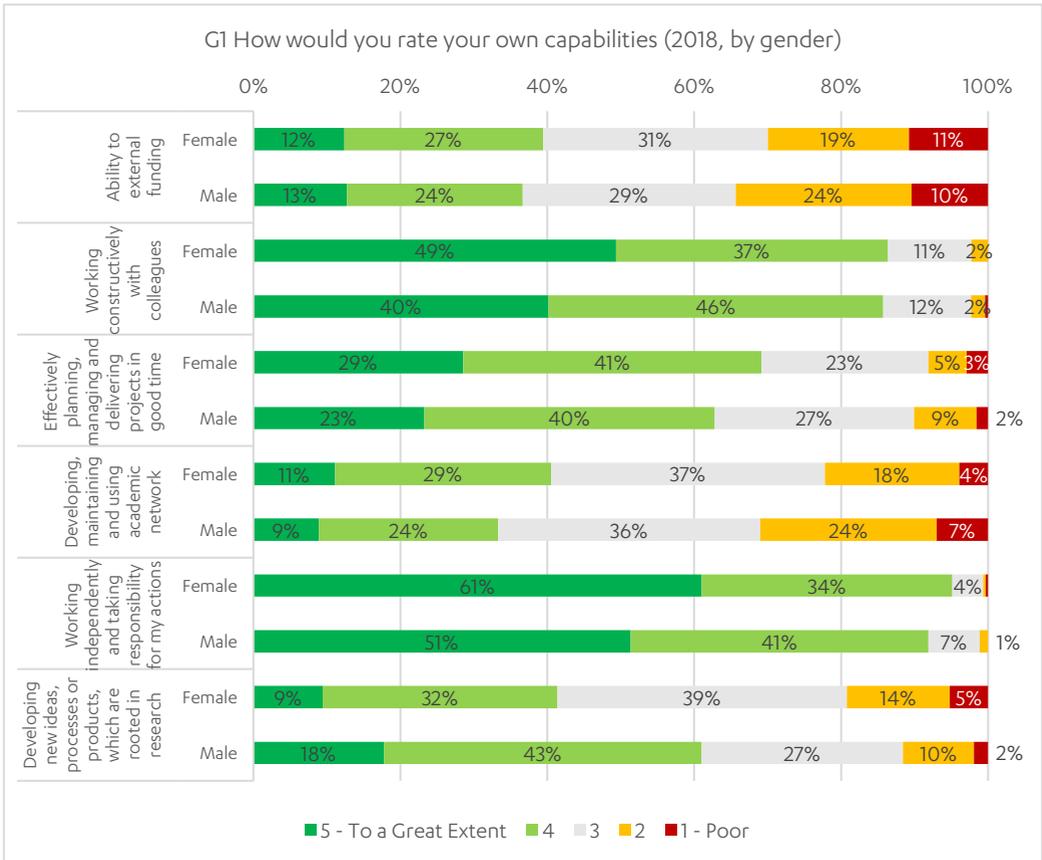
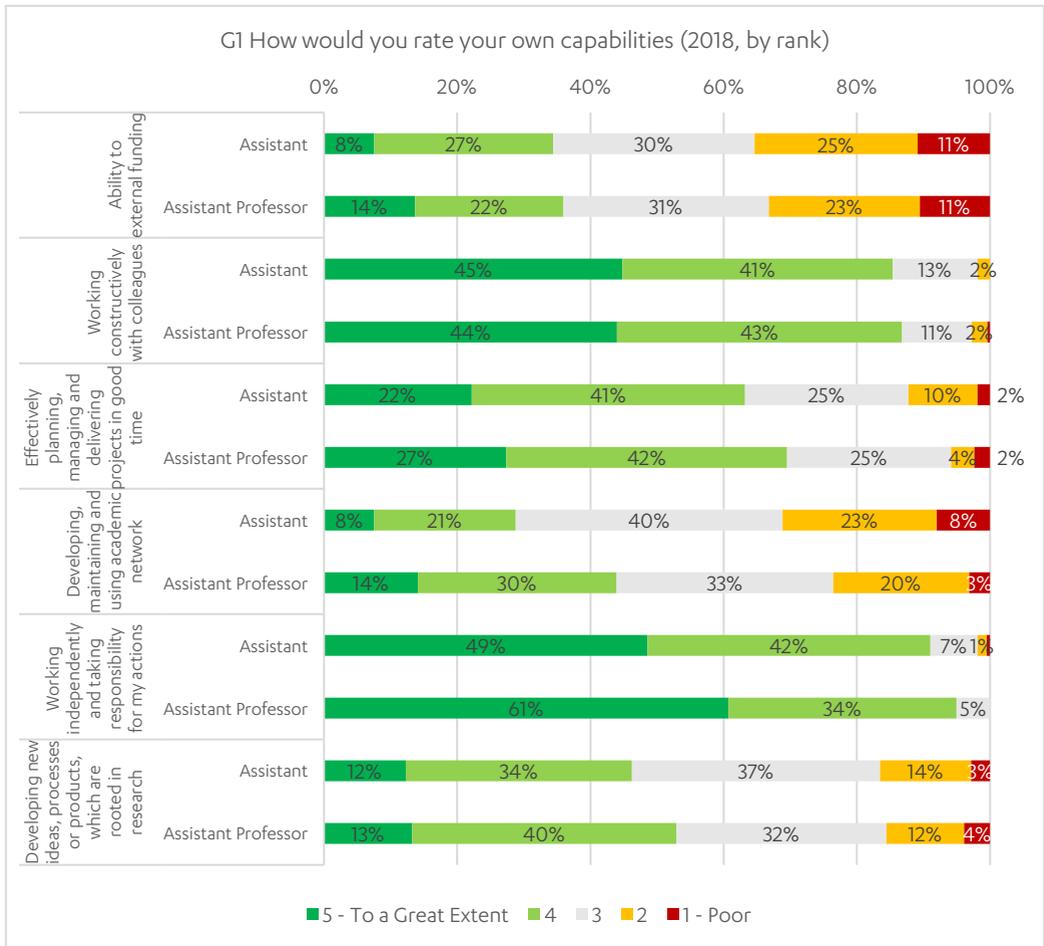


Figure 87 Capabilities of junior academics, by rank (n=613)



Importance of capabilities of junior academics for their job

The junior academics attribute following importance to different capabilities:

- 56% report high importance for their job in developing new ideas, processes or products, which are rooted in research.
- 87% report high importance for their job in working independently and taking responsibility for their actions; with more female academics attributing high importance (91%) to this than male academics (84%).
- 62% report high importance for their job in developing, maintaining and using academic networks or collaborations; with more female academics attributing high importance (69%) to this than male academics (55%).
- 75% report high importance for their job in effectively planning, managing and delivering projects in good time;
- 94% report high importance for their job in working constructively with colleagues;
- 67% report high importance for their job in having ability to obtain external funding.

In general, more female academics attribute high importance to all factors than male with the exception of developing new ideas, processes or products, which are rooted in research, which slightly more male academics attribute high importance.

Figure 88 Importance of capabilities of junior academics for their job (n=601)

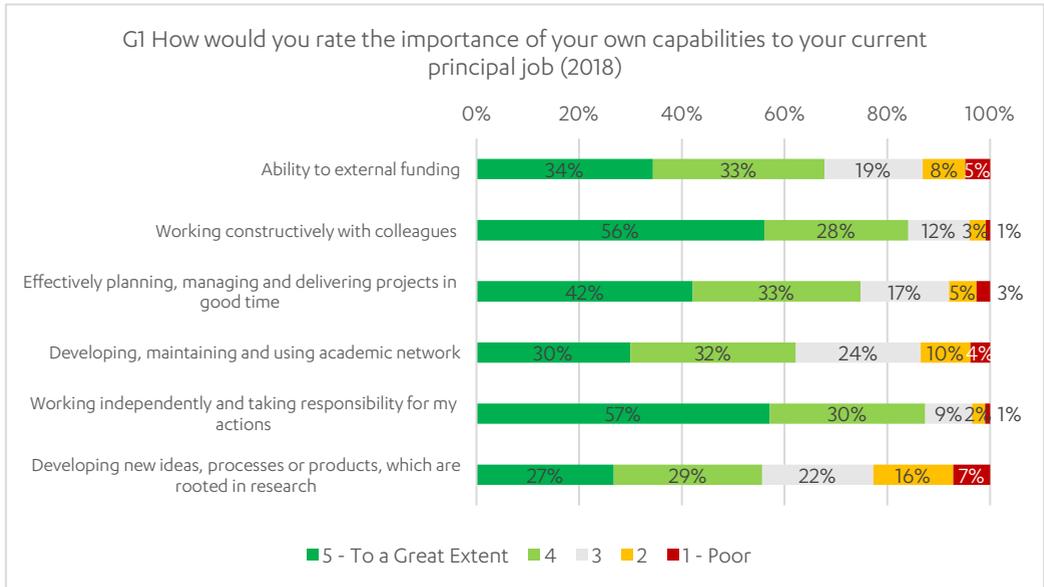


Figure 89 Importance of capabilities of junior academics for their job, by gender (n=555)

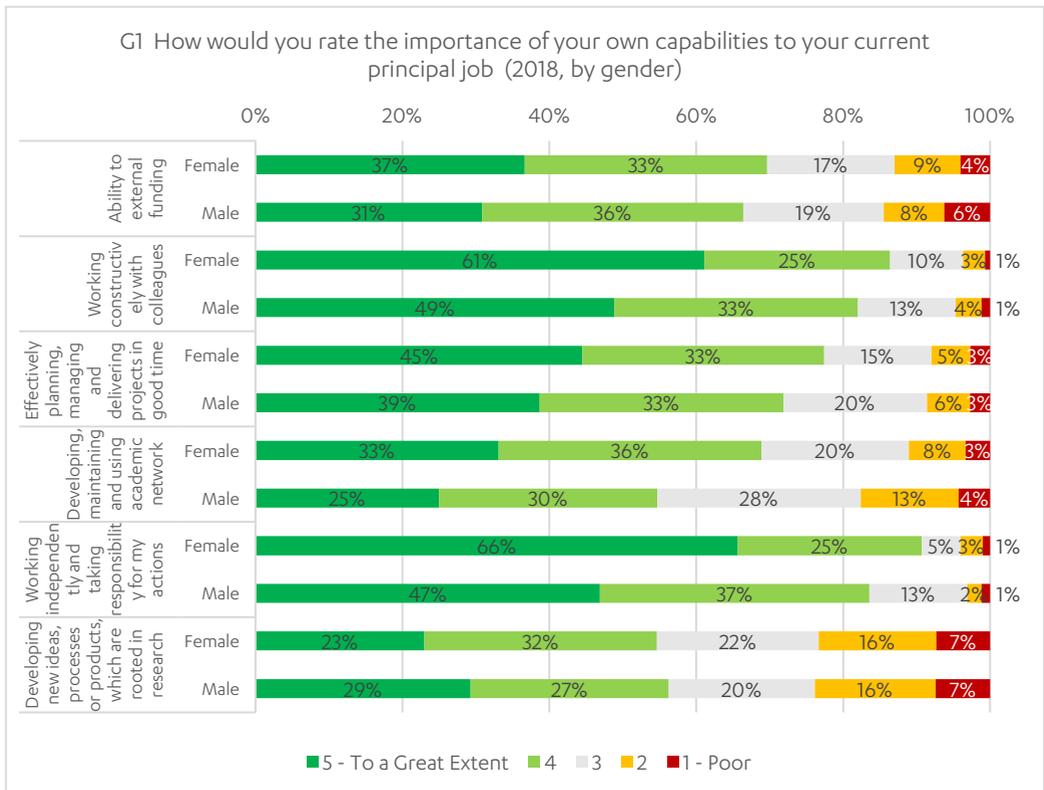
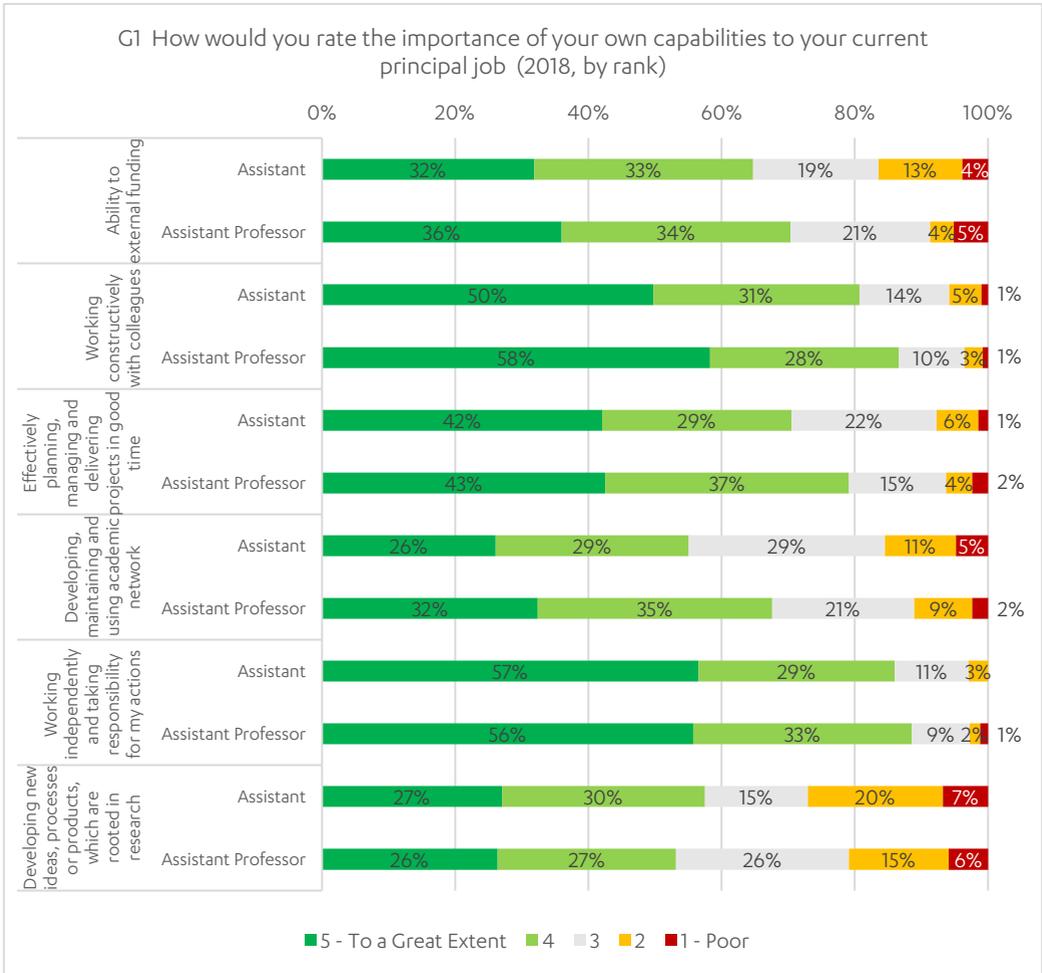


Figure 90 Importance of capabilities of junior academics for their job, by rank (n=601)



4.9.2 Perceptions on inclusion and social relations

Less than half of junior academics agree that they are well integrated into academic unit (48%), have good opportunities for social contact and networking in academic unit (47%). Only about a third feel well supported in their career development (31%) and has mentoring available when needed (38%). More male academics than female agree or strongly agree with each of these statements. Accordingly, more female academics disagree or strongly disagree to having mentoring available when needed, are well supported in career development, have good opportunities for social contact and that are well integrated in their academic unit.

Figure 91 Junior academics perceptions on inclusion and social relations (n=616)

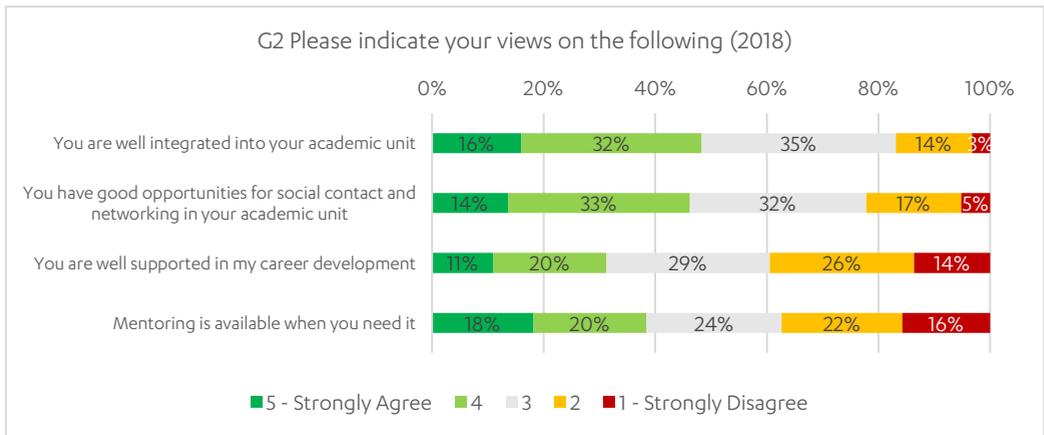


Figure 92 Junior academics perceptions on inclusion and social relations, by gender (n=567)

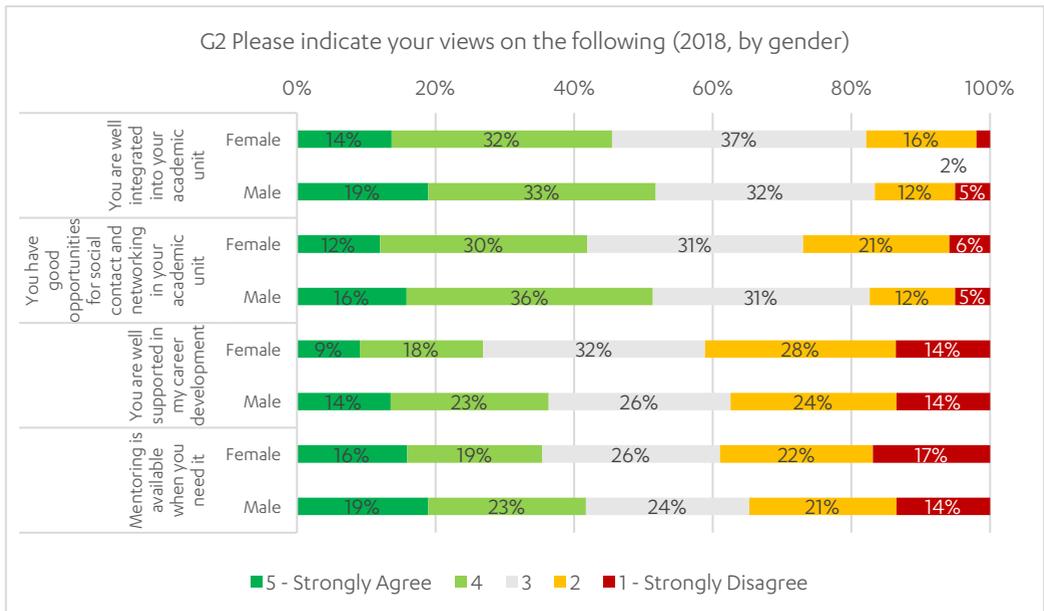
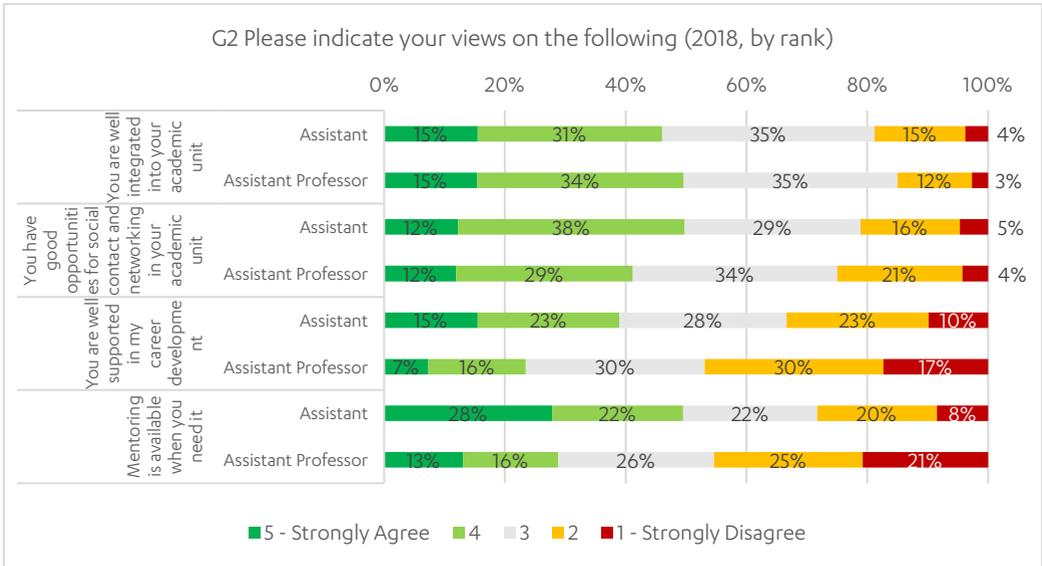


Figure 93 Junior academics perceptions on inclusion and social relations, by rank (n=616)



4.9.3 Expectations and preferences to stay in the academic job

Expectations and preferences for type of academic position:

In five years’ time, 79% of junior academics expect to be in teaching and research position, 6% in teaching-only position, 7% in research-only position and 9% do not expect to remain in academic employment. 76% would like to be in teaching and research position, 8% would like to be in teaching-only position, 10% in research-only position and 6% would not wish to remain in academic employment.

Figure 94 Expectations and preferences of junior academics to stay in the academic job (n=588)

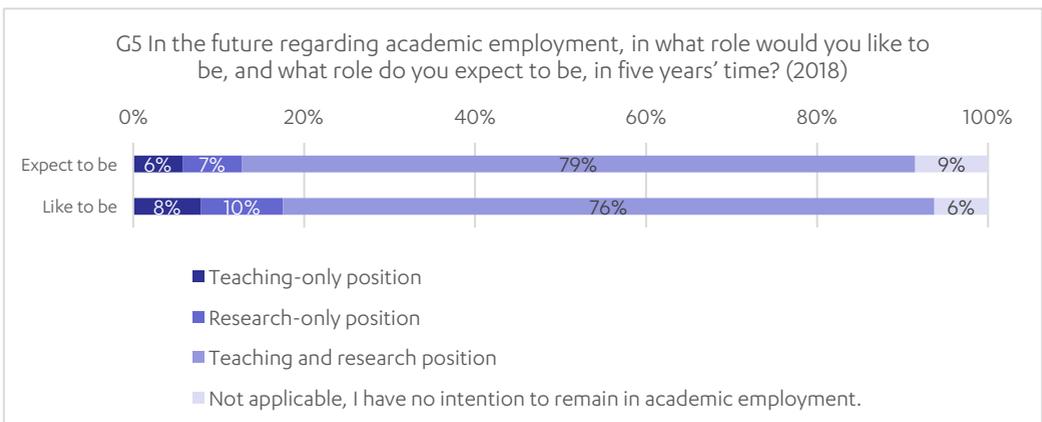


Figure 95 Intention of junior academics to stay in the academic job, by gender (n=544)

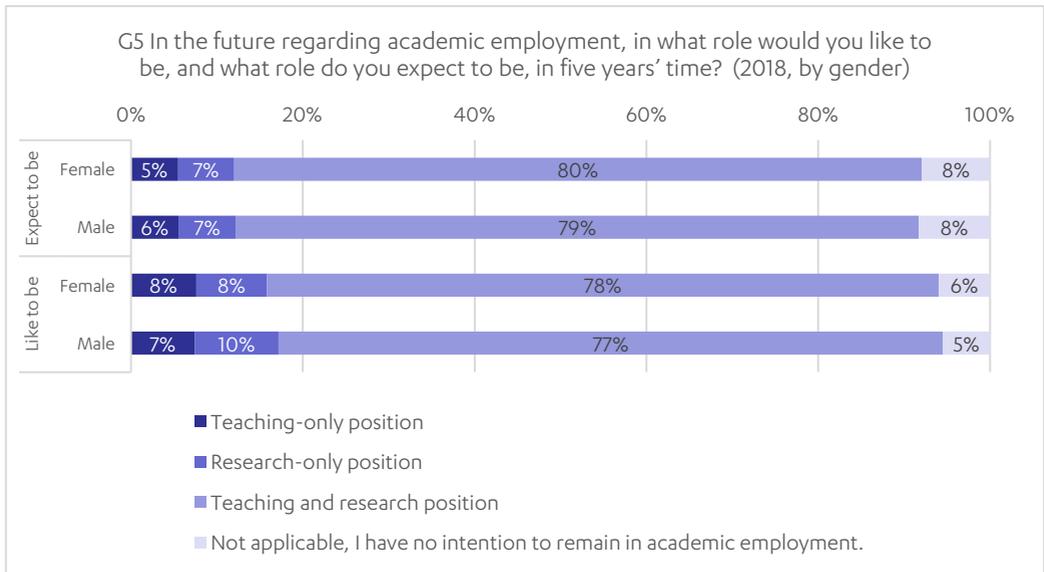
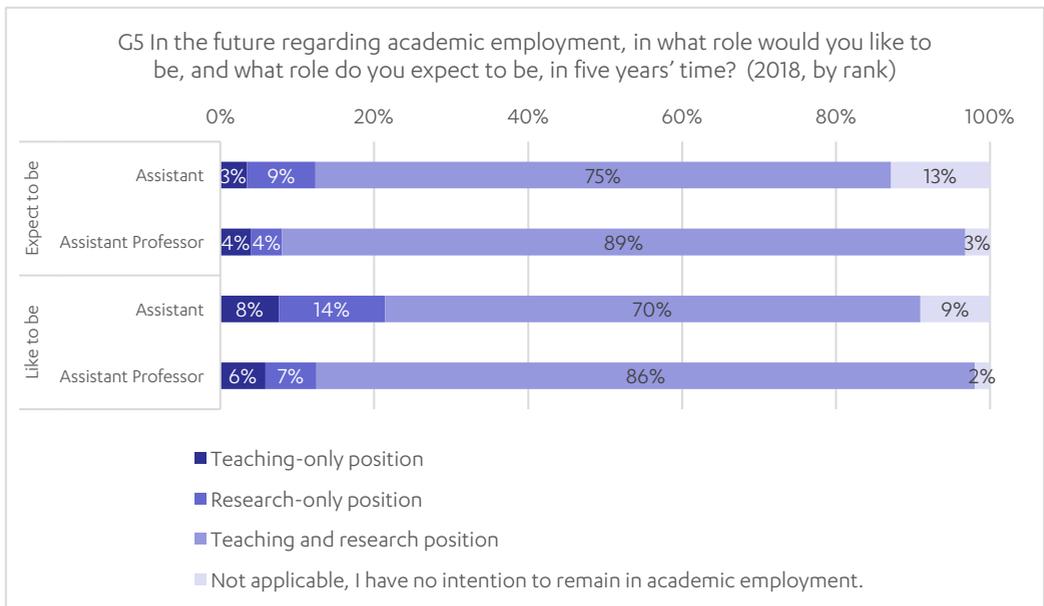


Figure 96 Intention of junior academics to stay in the academic job, by rank (n=588)



Expectations and preferences for academic institution:

Majority of all academics responded that they would like to be (62.7%) and expect to be (70.2%) academics at their current institution. The shares are in both cases higher for assistant professors. There is no difference among genders. Slightly more than 10% would like and expect to be in a non-academic function outside academia, with much higher shares of these academics among assistants.

Figure 97 Expectations and desire of future academic careers (n=590)

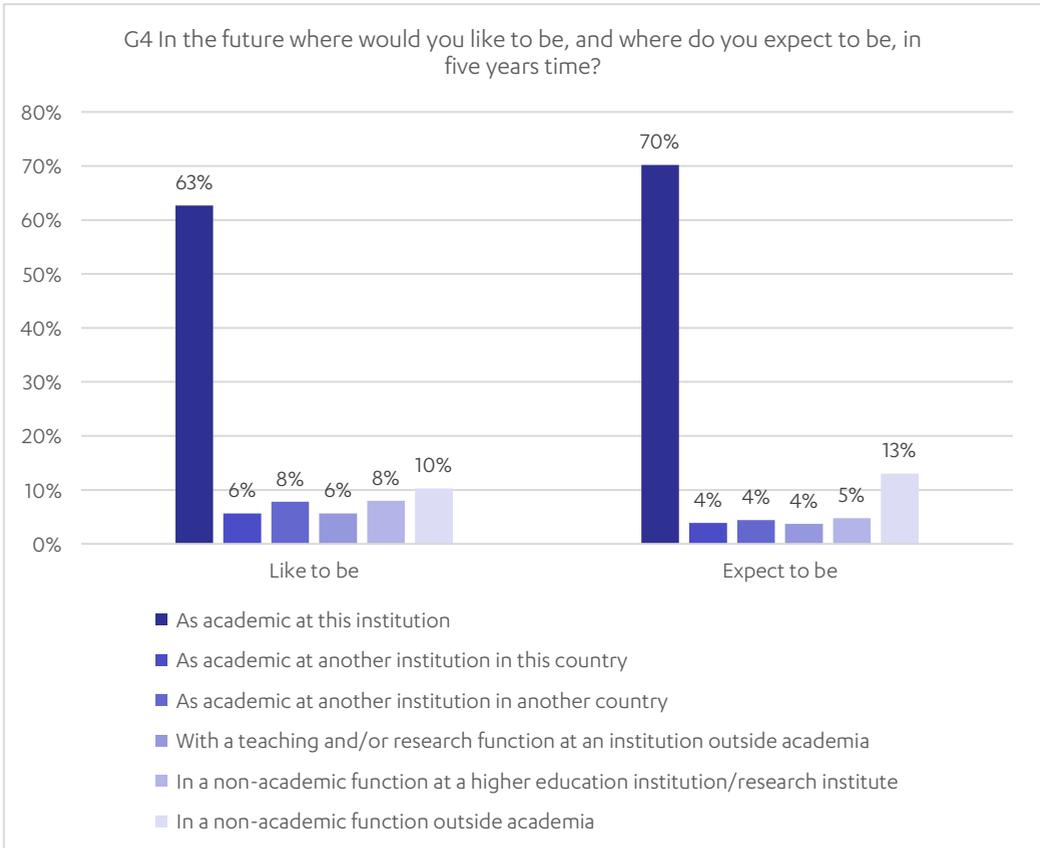


Figure 98 Expectations and desire of future academic careers (by rank) (n=590)

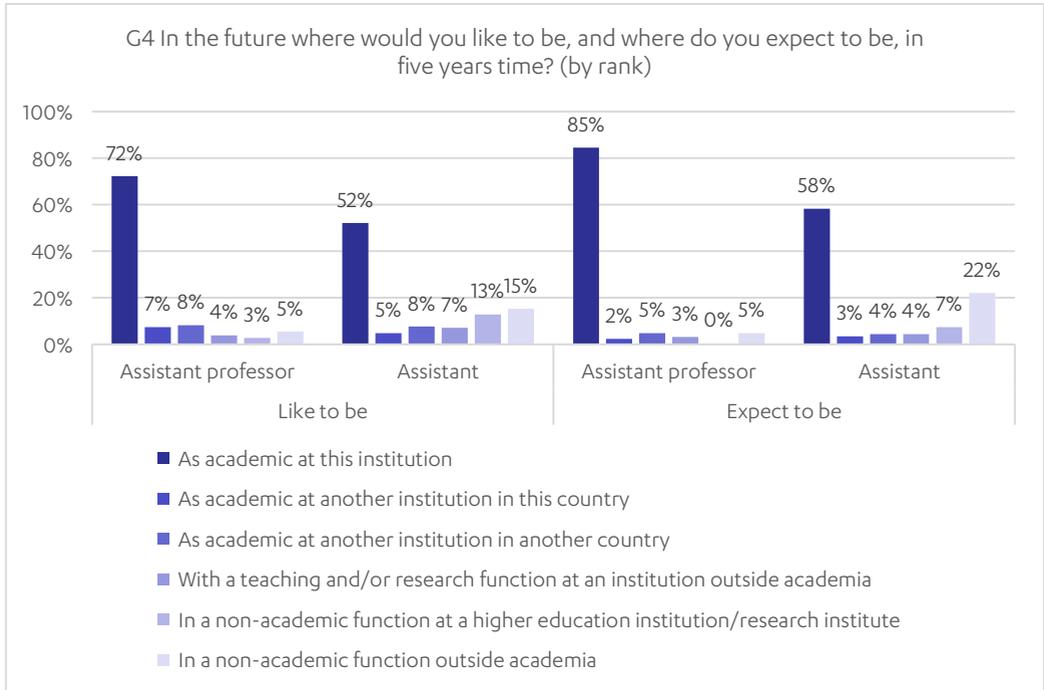
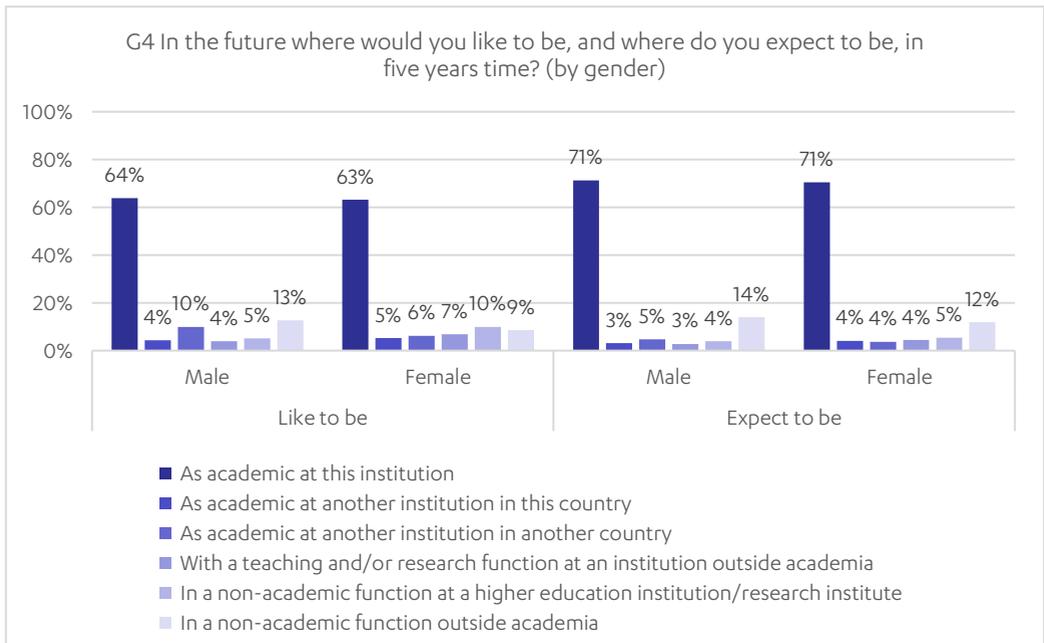


Figure 99 Expectations and desire of future academic careers (by gender) (n=546)



4.9.4 Satisfaction with work situation

Following is the assessment of junior academics regarding their current work situation (with some notable gender differences):

- 31% find their salary as good or excellent and 34% as poor;
- 55% find their job security as good or excellent and 22% as poor; 59% of male academics report this and 53% of female;
- 37% find their career opportunities as good or excellent and 39% as poor;
- 34% find the prestige of their institutions as good or excellent and 26% as poor; 30% of male academics report this and 37% of female;
- 46% see their opportunities to learn and enhance competences as good or excellent and 17% as poor;
- 73% see their personal independence in teaching as good or excellent and 11% as poor;
- 70% see their personal independence in research as good or excellent and 11% as poor; 77% male academics report this and 66% female
- 79% see the conditions for interesting work as good or excellent and 4% as poor; 77% male academics report this and 82% female.

Figure 100 Work satisfaction of junior academics (n=607)

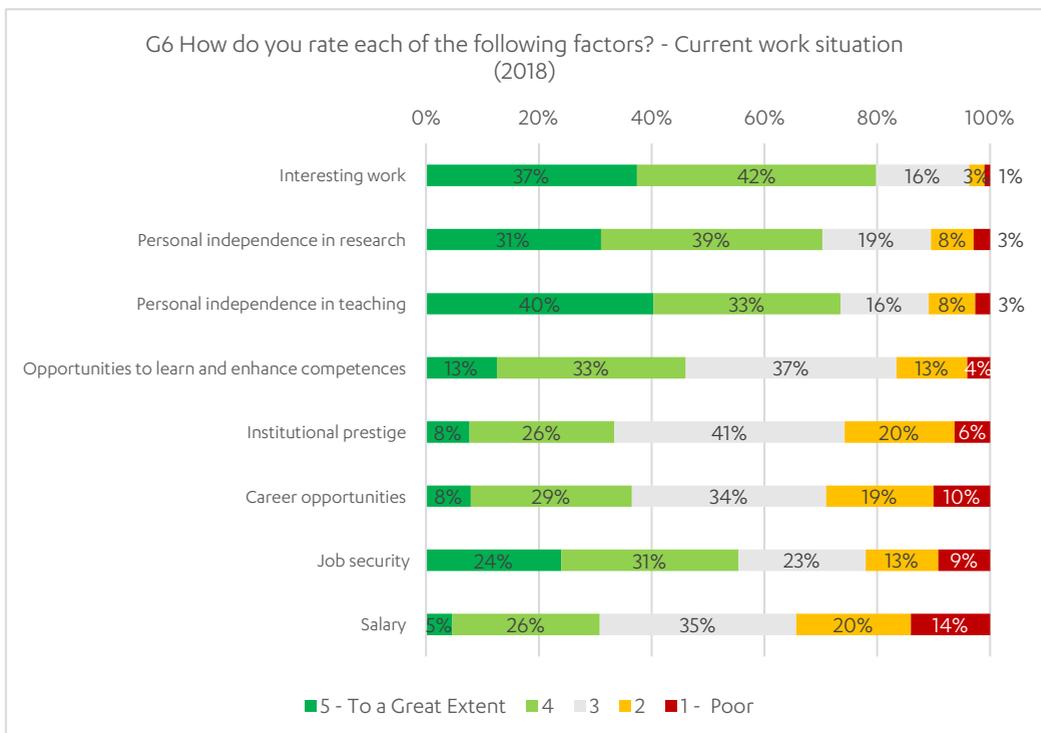


Figure 101 Work satisfaction of junior academics, by gender (n=557)

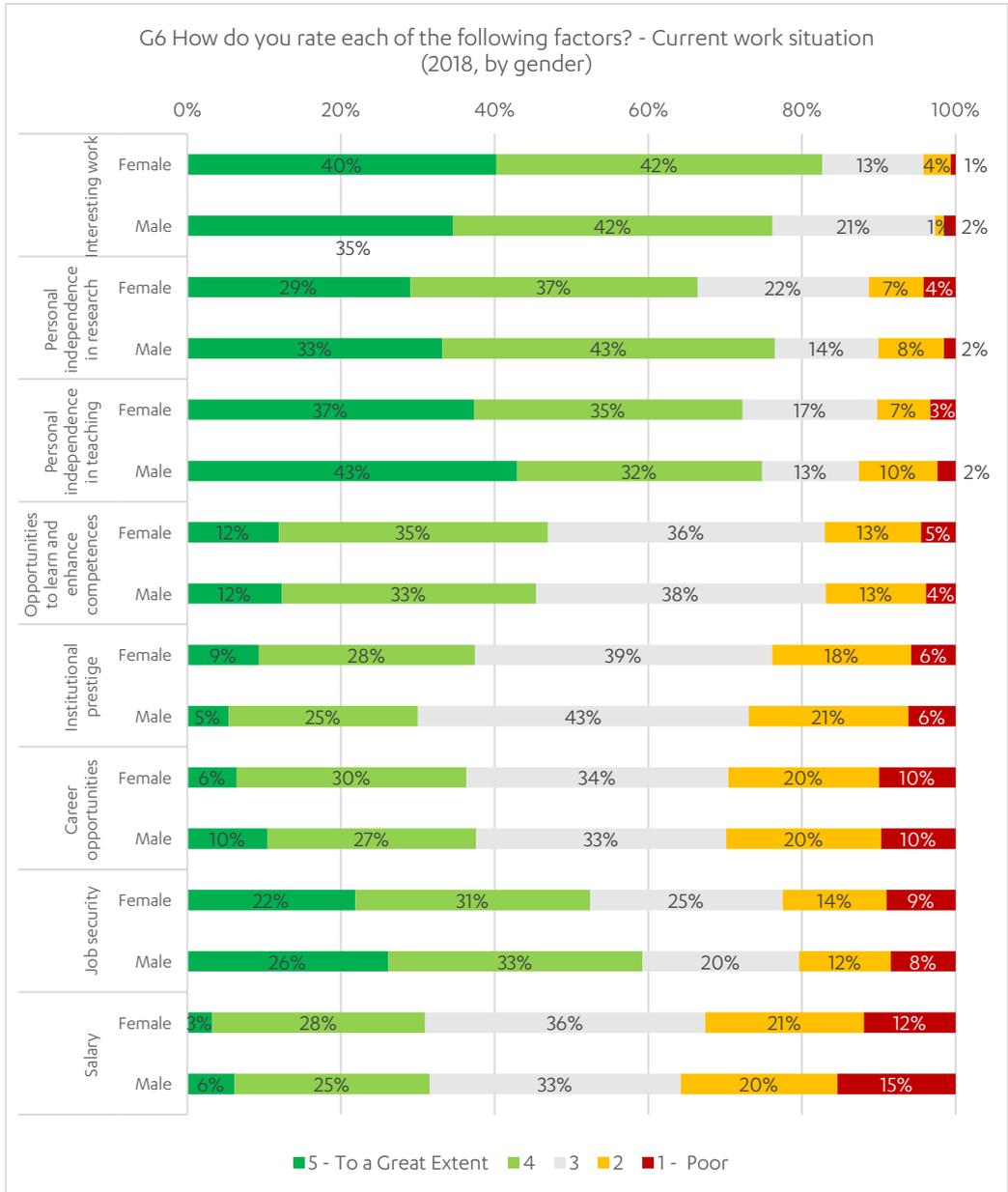
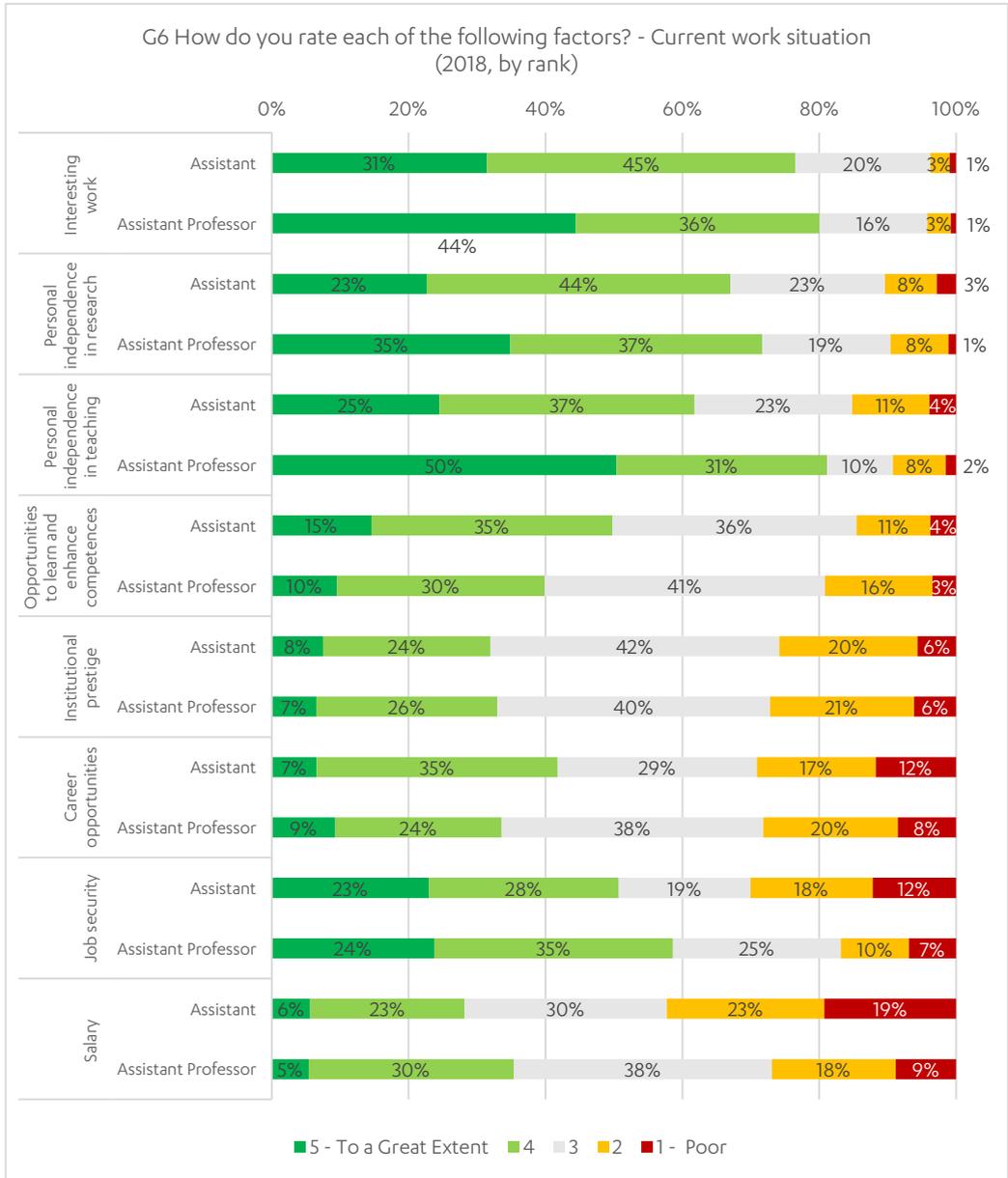


Figure 102 Work satisfaction of junior academics, by rank (n=607)



4.9.5 Importance attributed to various factors influencing academic work

Following is the importance that junior academics attribute to different factors influencing academic work (with some differences across gender):

- 63% attribute high importance to their salary;
- 81% attribute high importance to their job security; 78% of male academics reported this and 86% female;
- 79% attribute high importance to their career opportunities;
- 49% attribute high importance to the prestige of their institutions; 43% of male academics reported this and 55% female;
- 87% attribute high importance to their opportunities to learn and enhance competences;
- 87% attribute high importance to their personal independence in teaching;
- 91% attribute high importance to their personal independence in research;
- 96% attribute high importance to the conditions for interesting work.

Figure 103 Importance of work life of junior academics – part 1 (n=611)

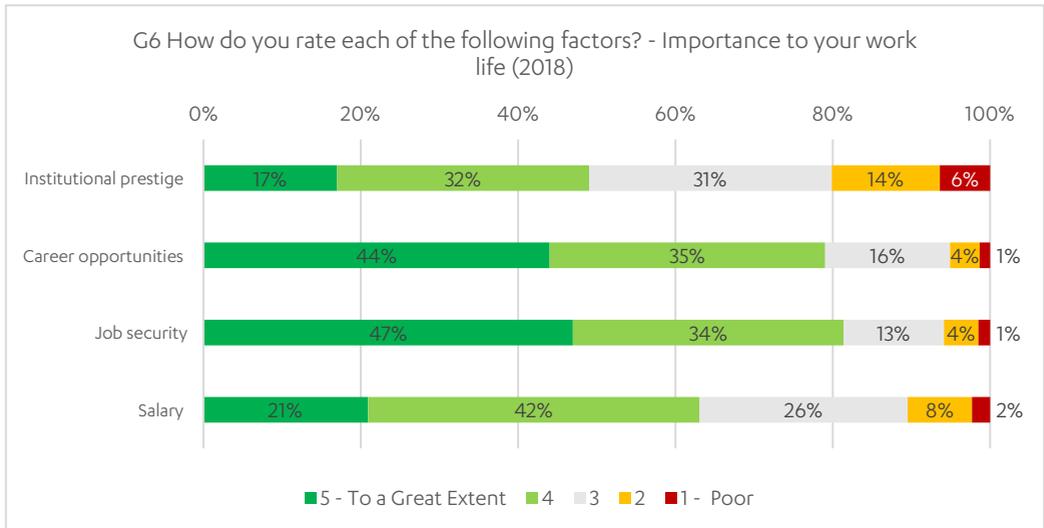


Figure 104 Importance of work life of junior academics – part 1, by gender (n=563)

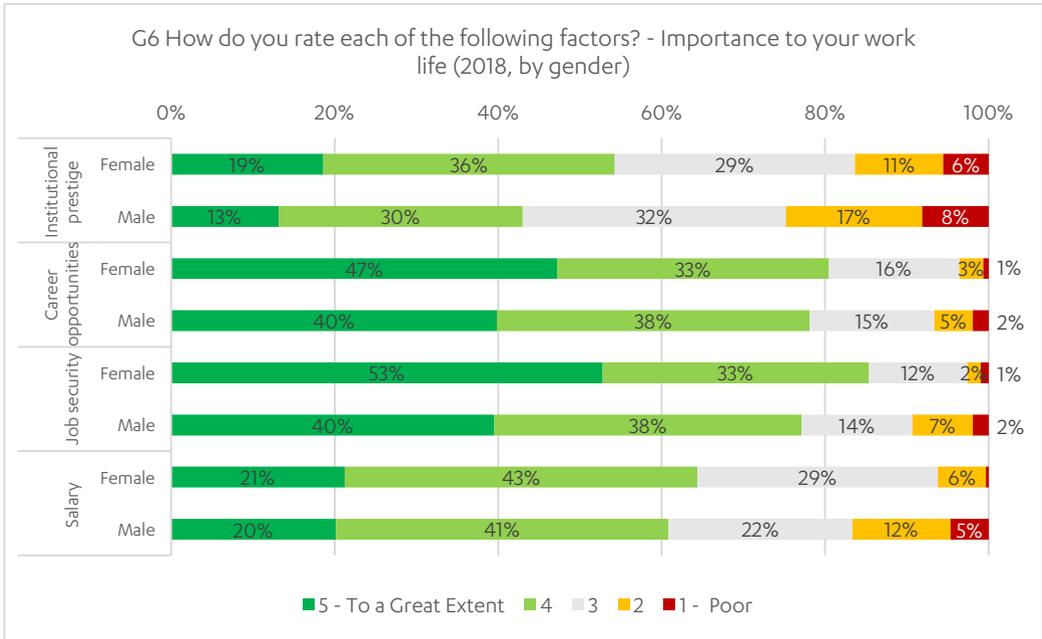


Figure 105 Importance of work life of junior academics – part 1, by rank (n=611)

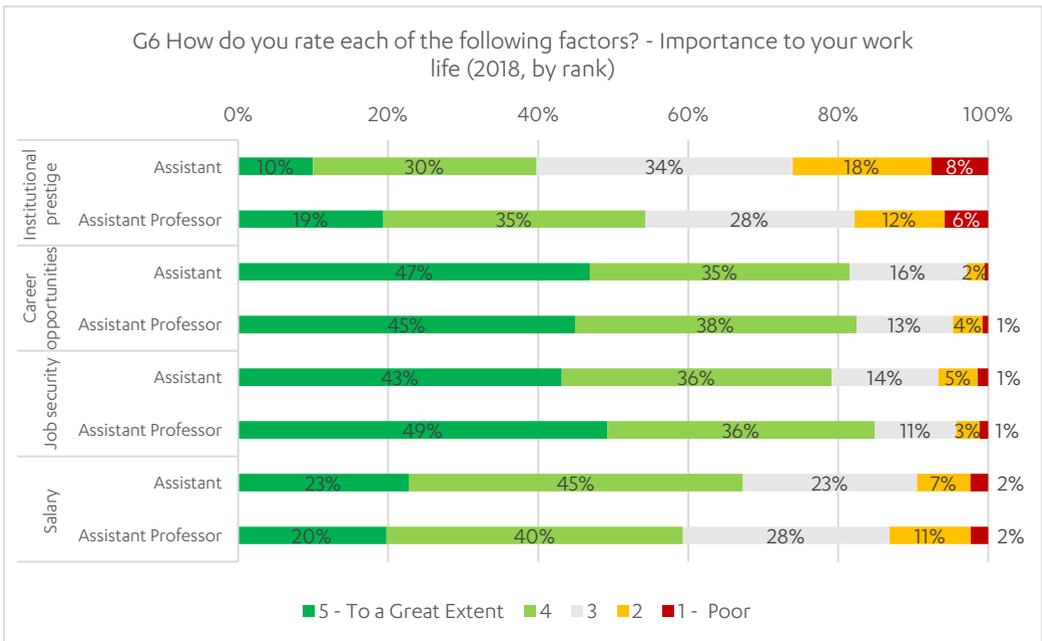


Figure 106 Importance of work life of junior academics – part 2 (n=601)

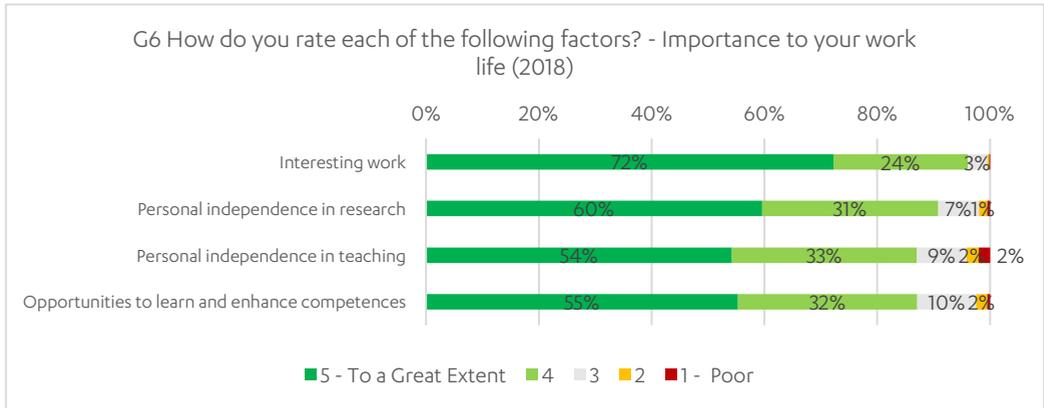


Figure 107 Importance of work life of junior academics – part 2, by gender (n=553)

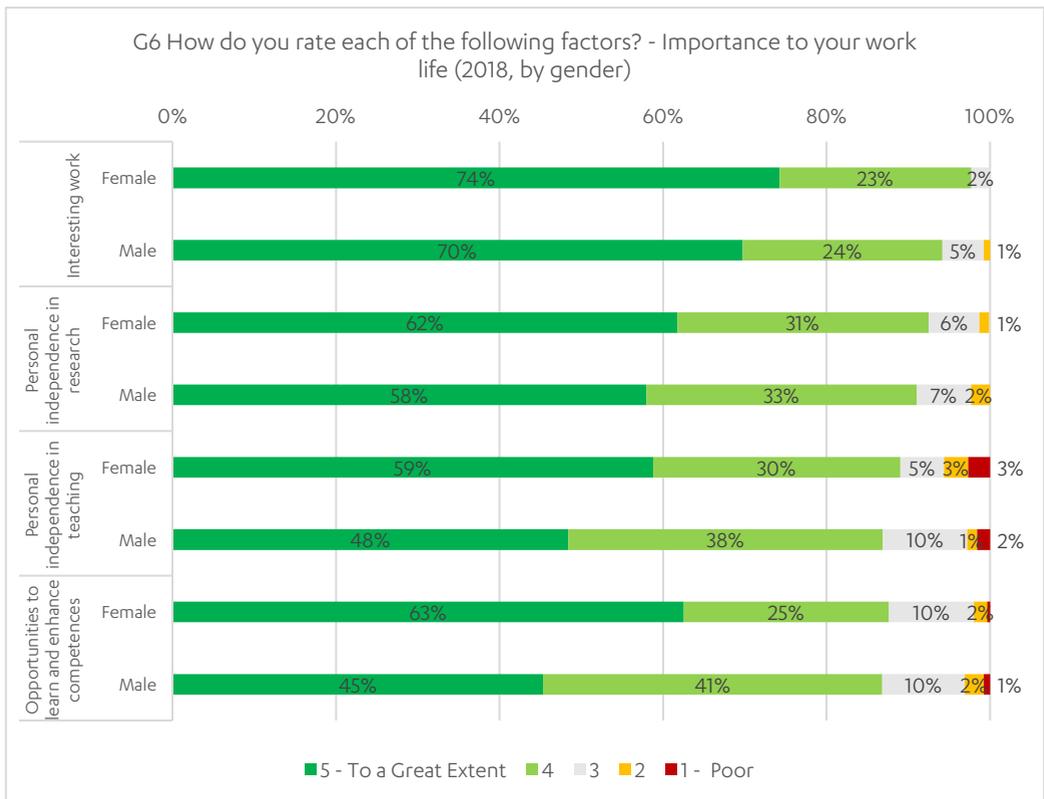
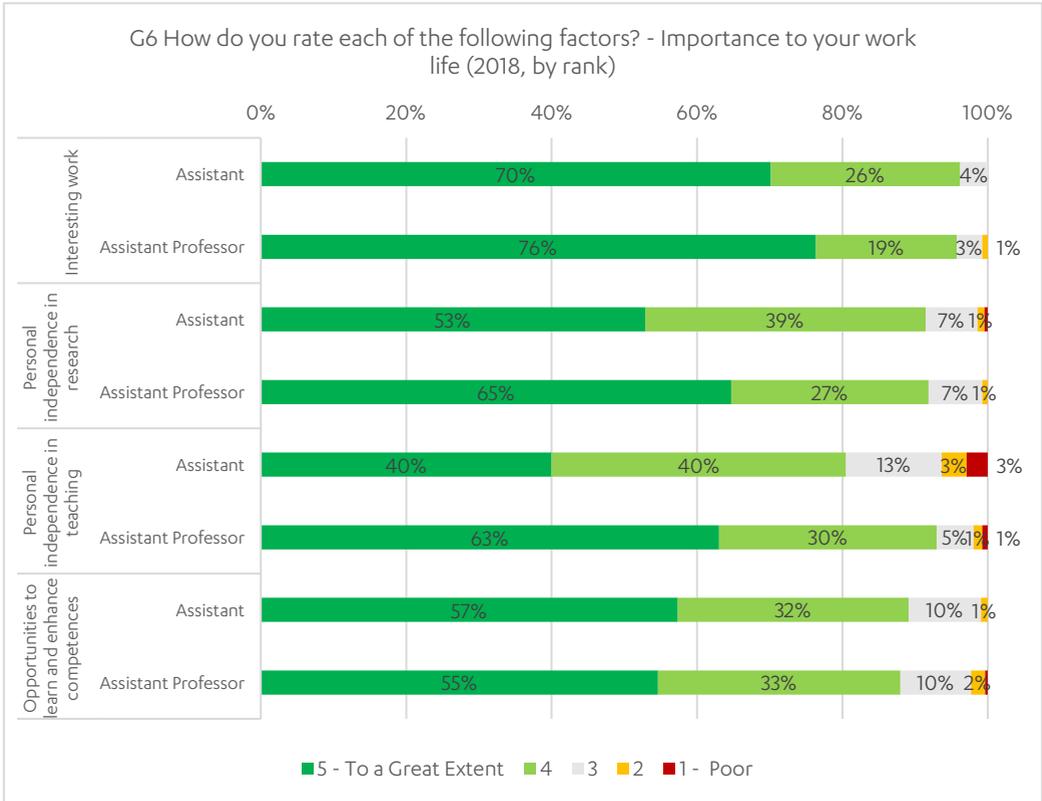


Figure 108 Importance of work life of junior academics – part 2, by rank (n=601)



4.9.6 Time spent on academic activities

55% of reported time that is spent on academic and related activities our respondents characterised as routine daily academic work and 37% as professional development. Gender differences were not significant.

Figure 109 Share of time junior academics spent on academic and related activities (n=598)

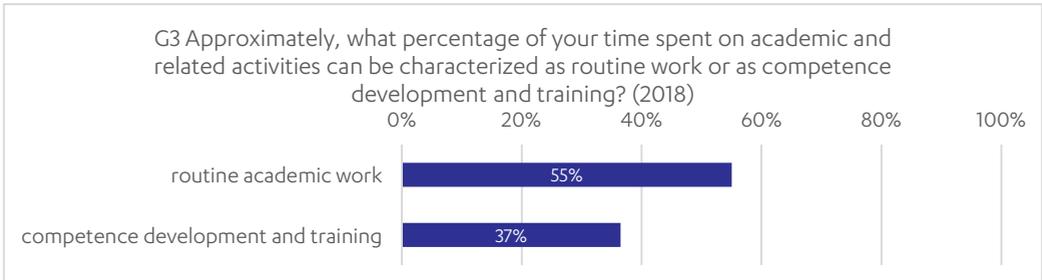


Figure 110 Share of time junior academics spent on academic and related activities, by gender (n=552)

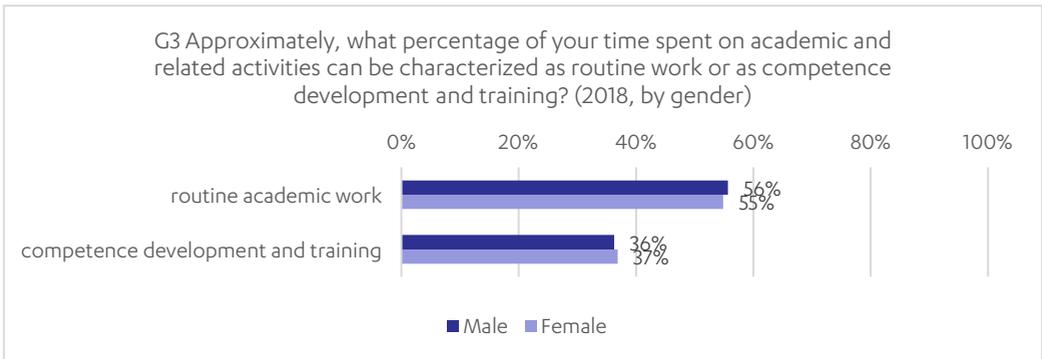
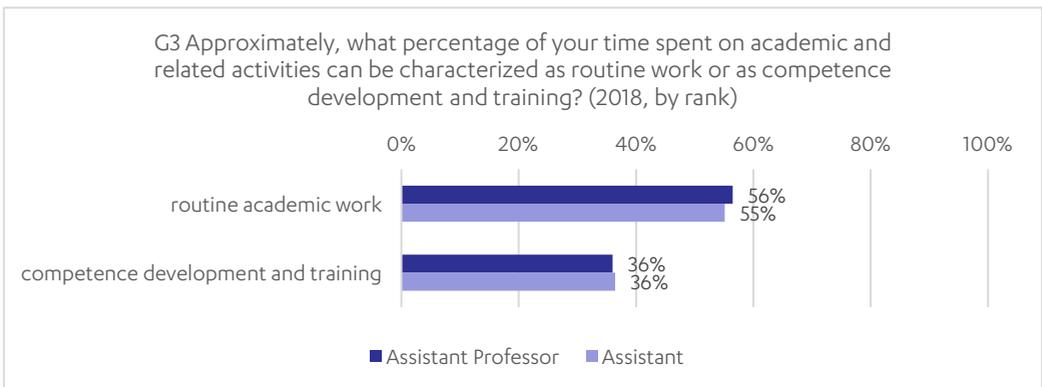


Figure 111 Share of time junior academics spent on academic and related activities, by rank (n=598)



4.10 Socio-demographic background and family situation

4.10.1 Age

Majority of academics participating in the APIKS survey were between 35 and 54 years old (60.2%). 15.7% were younger than 35 years, 20.8% were between 55 and 64 years old.

Figure 112 Age of academics (n=941)

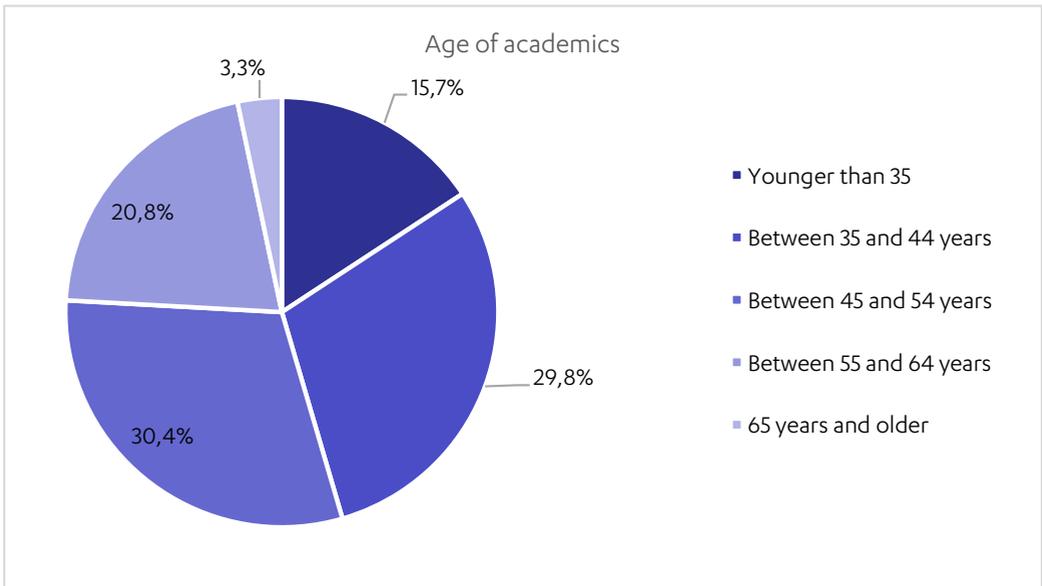


Figure 113 Age of academics (by gender) (n=933)

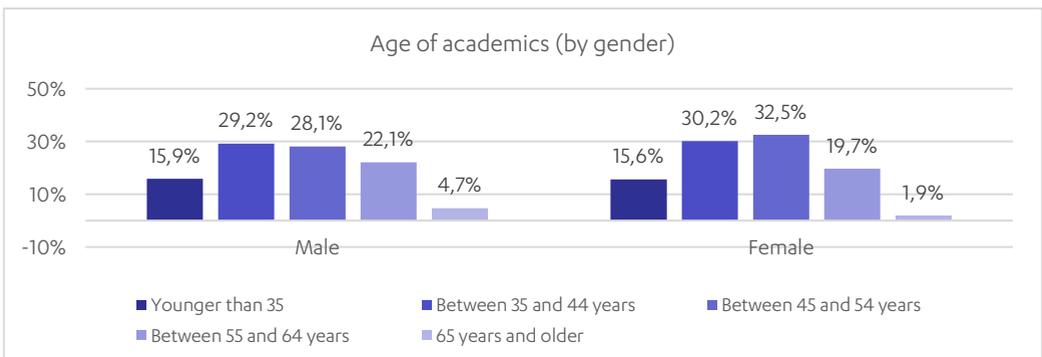
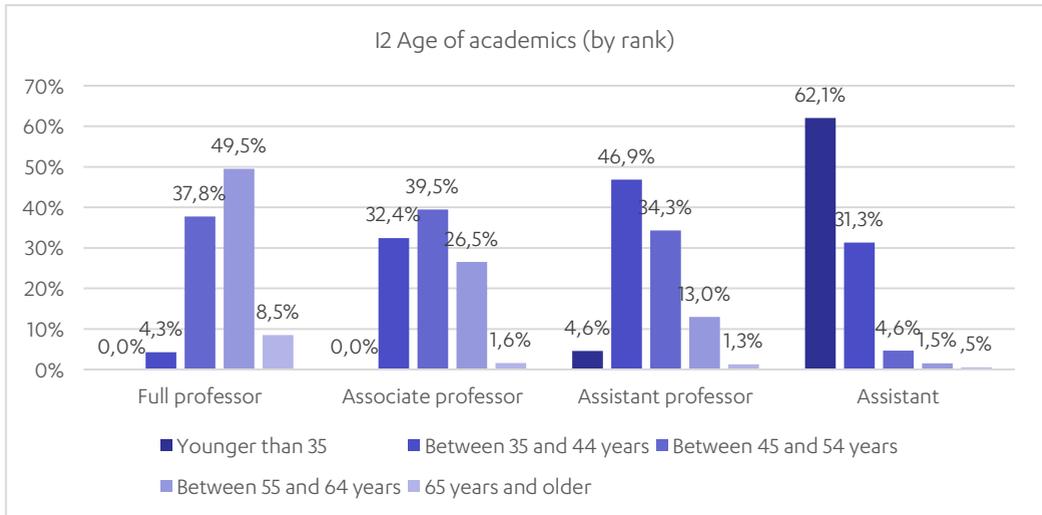


Figure 114 Age of academics (by rank) (n=941)



4.10.2 Family situation

55.3% of academics report that they have dependent children and 6% that other dependent persons are living with them. There is even distribution among genders on the age groups of dependent children. Within ranks, the highest share of those without dependent children are expectedly for assistants and full professors. Associate professors have the highest shares of children living with them from the age groups between 6 to 17 years.

Figure 115 Family situation of academics (n=943)

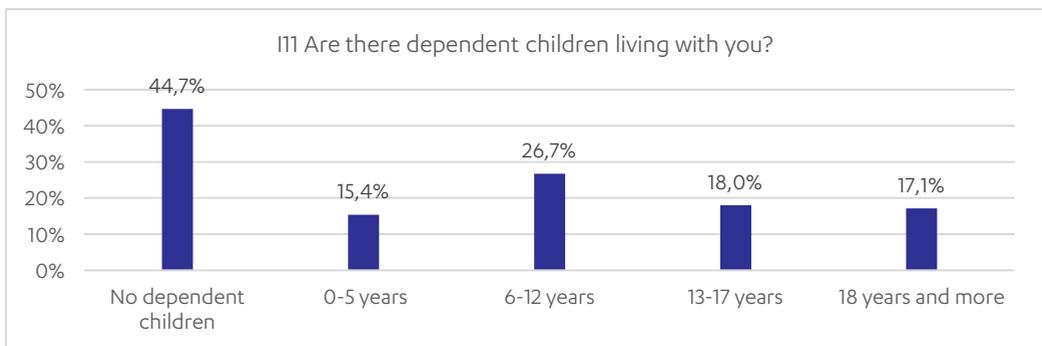


Figure 116 Family situation of academics, by gender (n=935)

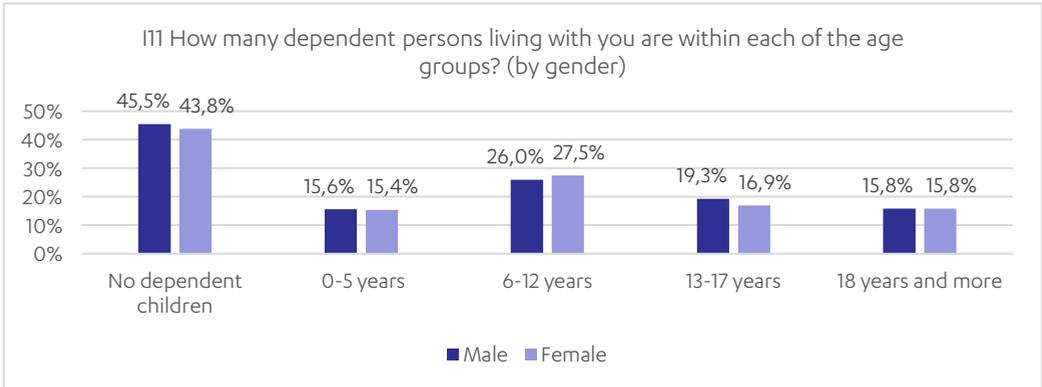
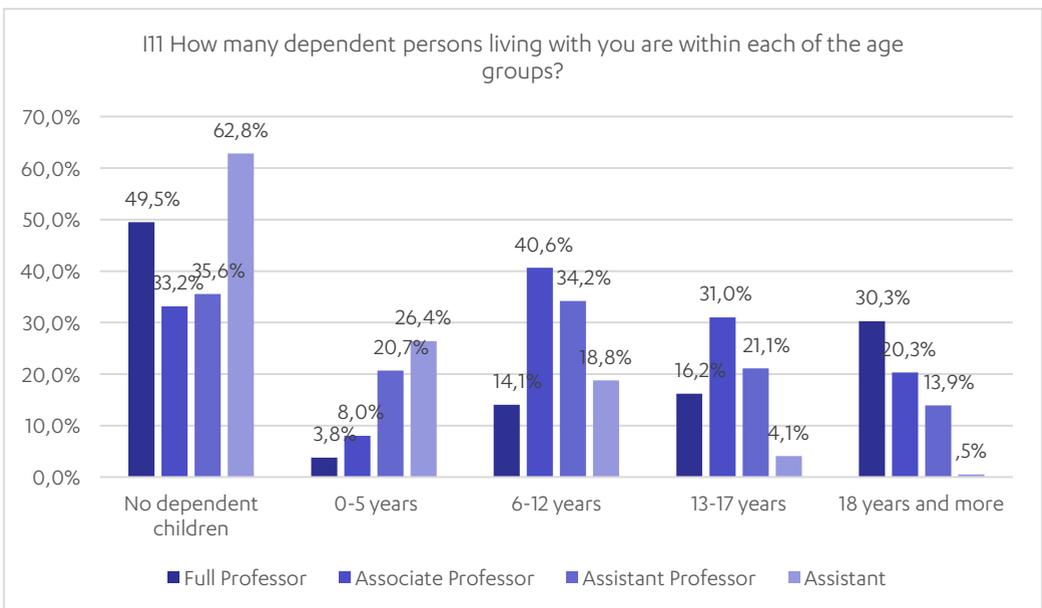
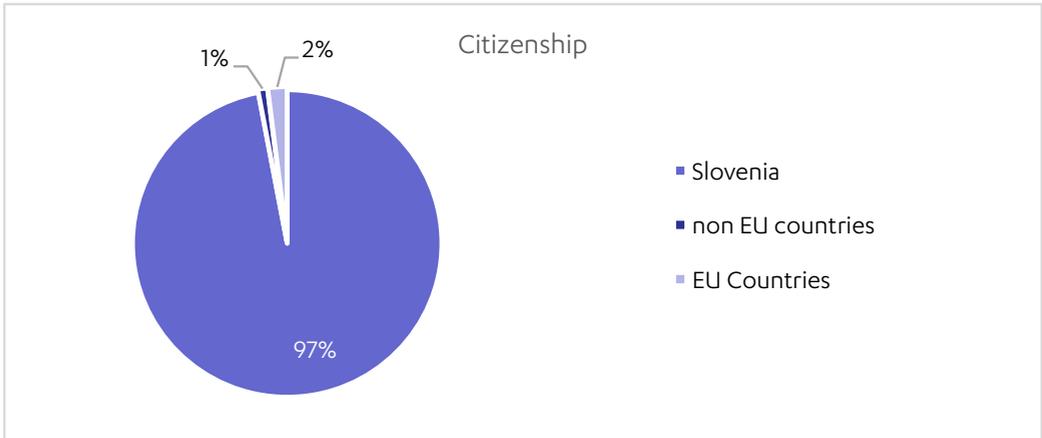


Figure 117 Family situation of academics, by rank (n=943)



4.10.3 Citizenship

Almost all academics participating in APIKS survey are of Slovene citizenship (97%), the rest are academics with citizenships from EU countries (2%) and 1% from non-EU countries.



4.10.4 Parents' highest education level

Majority of parents of academics have secondary or higher educational degree. Within ranks, the share of mothers, having a higher education degree is much higher than for other ranks and for fathers it is higher for assistant professors.

8% of fathers and 2% of mothers are with primary education or lower. The share with low educated parents is higher for senior ranks, and higher for mothers.

Figure 118 Academics parents' highest education level (n=946)

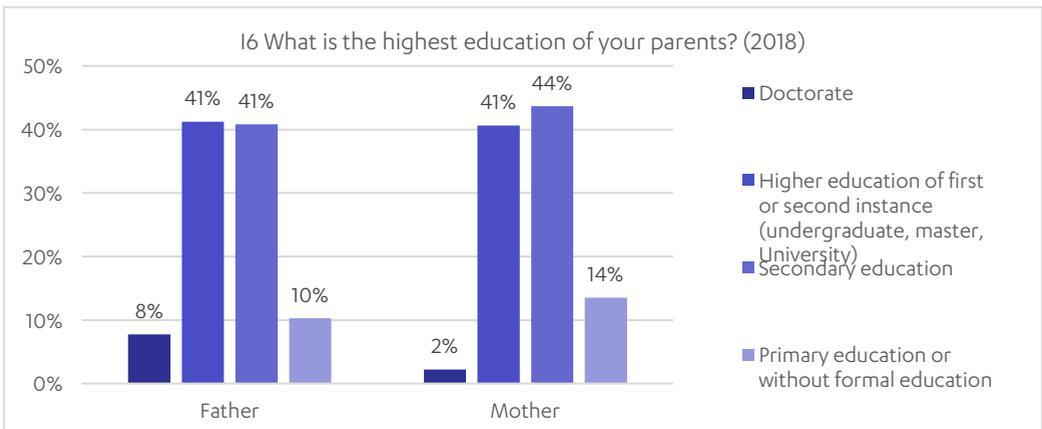


Figure 119 Academics parents' highest education level, by gender (n=937)

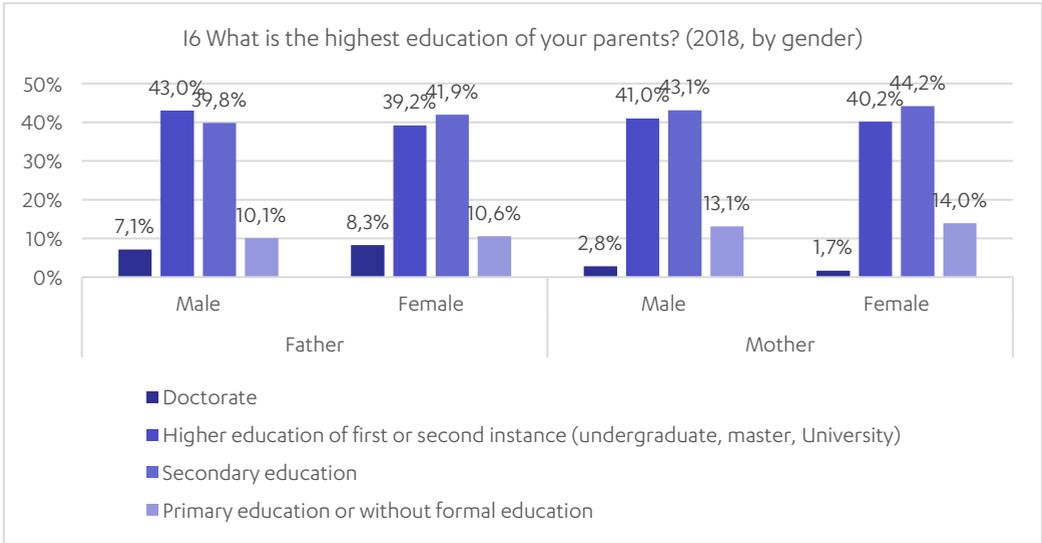
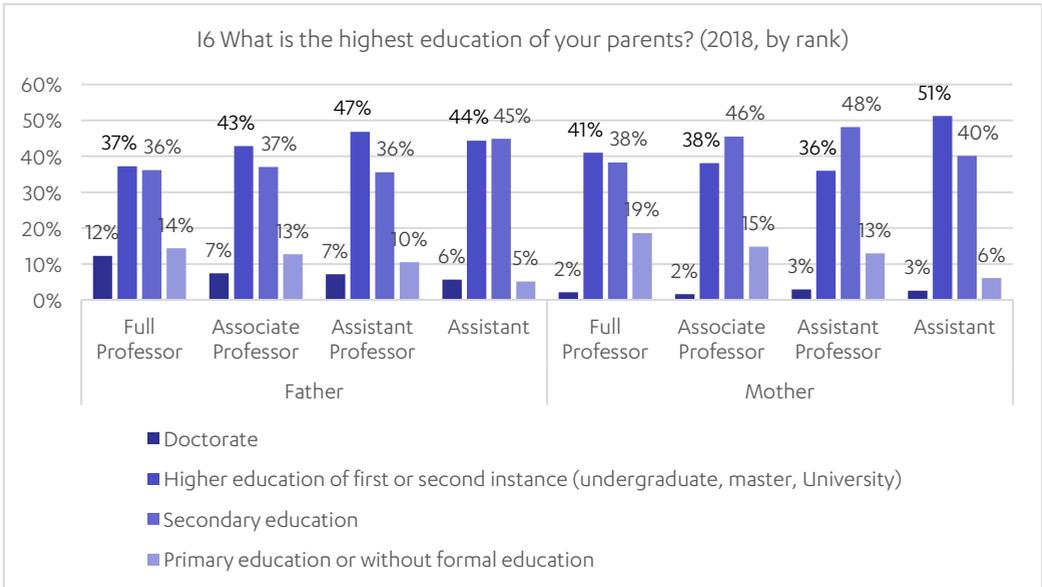


Figure 120 Academics parents' highest education level, by rank (n=946)

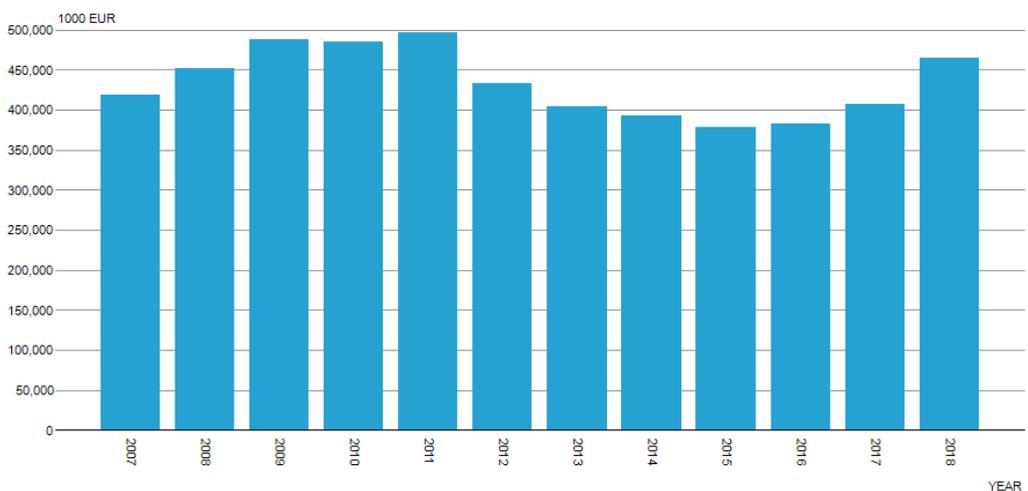


5 Conclusion

This study captures the behaviour, perceptions and satisfaction of academic staff in Slovenia with academic profession and conditions of academic work. The data was collected in 2018 based on a survey instrument developed jointly within the global research network APIKS – Academic Profession in Knowledge Societies of which our research team is part of. We were hoping to include the international comparative data to this report but since it has not yet become available, we did not delay the publication of this report any further. For most question, we offer longitudinal comparisons to data collected in Slovenia in 2013.

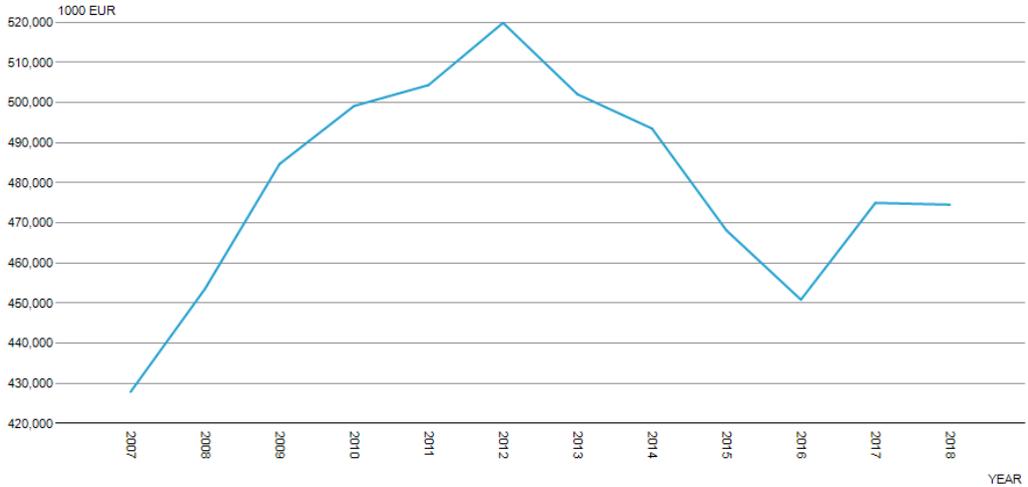
Here we discuss some broader higher education developments that could help us interpret some of the changes in the reported conditions of academic work and academics' satisfaction with their profession. The changes in general satisfaction of academic staff - in 2018 academic staff are more satisfied with their employment and work conditions than in 2013 – may be understood as a reflection of changes in public funding of higher education. There was a major decrease in total expenditure on education between 2011 and 2012 – by 13%, which resulted in severe austerity measures across public higher education institutions. In 2013 when we conducted the first survey, the public funding of higher education was still decreasing (reaching lowest point in 2015). In 2018, public spending was on notable increasing trend even if it had not yet reached the 2011 total amount. Accordingly, expenditures in higher education institutions were also on downward trend after 2012 and started increasing again after 2016.

Public expenditure for formal education (1000 EUR) by YEAR. Purpose of expenditure - TOTAL, Tertiary education.



Source: Statistical Office of the Republic of Slovenia

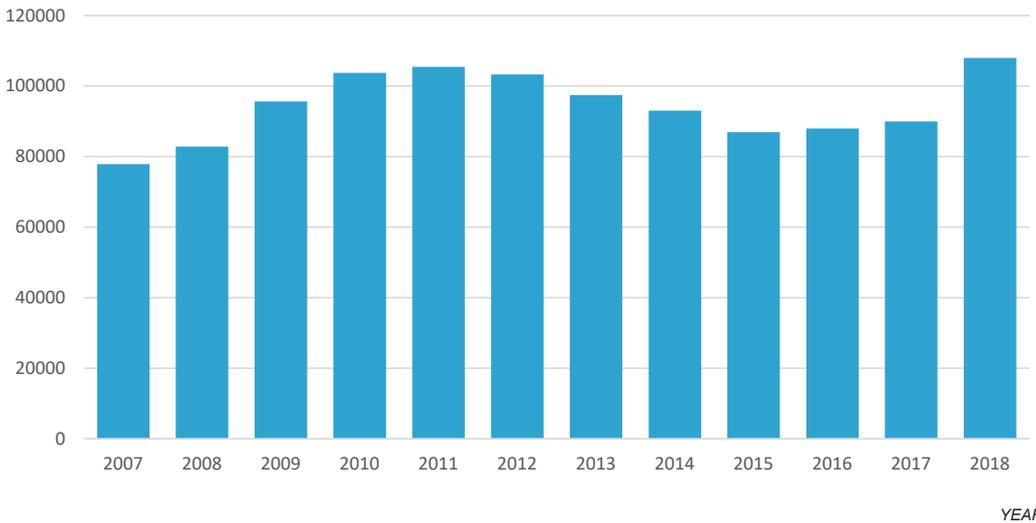
Expenditure in educational institutions (1000 EUR) by YEAR. Purpose of consumption - TOTAL, Tertiary education.



Source: Statistical Office of the Republic of Slovenia

Similarly, GDP spending for research and development in higher education sector also decreased from 2011 on, reflecting also in the lower funds of the Slovenian Research Agency available for research funding. The latter reached the lowest point in 2015 and have been growing since then reaching similar level as in its peak in 2011.

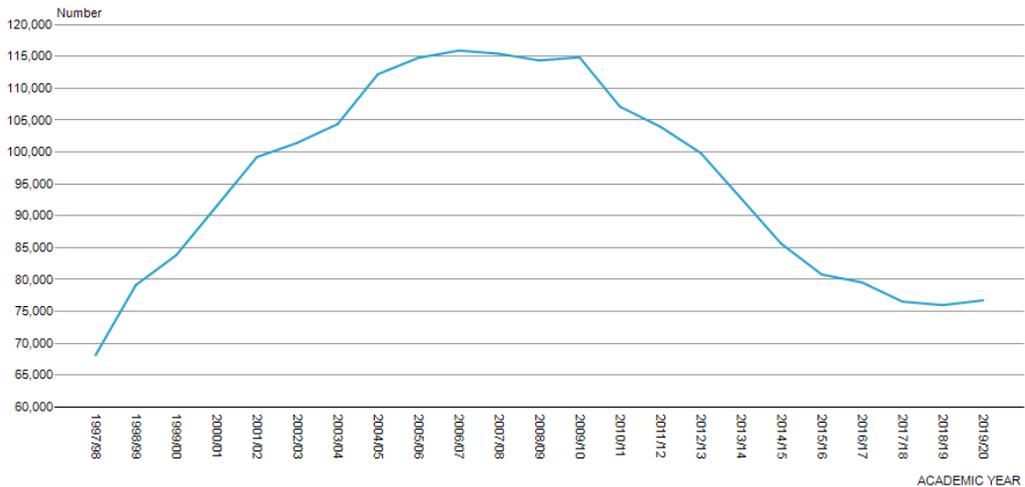
Gross domestic expenditure on R&D by YEAR. Higher education sector, Sources of funds - TOTAL



Source: Statistical Office of the Republic of Slovenia

Given the demographic decline, there has been a steady decline in the enrolments in tertiary education hence lessening the burden of overcrowded higher education institutions.

Students in tertiary education by ACADEMIC YEAR. Type of education - TOTAL, Mode of Study - TOTAL.



Source: Statistical Office of the Republic of Slovenia

The higher education system has been working under the Resolution on the National Program for Higher Education (NPVŠ 2011-2020) since 2011 with reportedly limited implementation of its key objectives. Two most notable moves in policy and regulation in higher education have been the Strategy of internationalisation of higher education (2016-2020) which supports the internationalisation activities and international cooperation, as well as a new financial instrument for supporting innovation in teaching and learning. For the latter, the first call for proposals was released in June 2018 (Uradni list RS, št. 43/18 z dne 22. 6. 2018 and št. 57/18 z dne 24. 8. 2018) financed partially by the EU funding (from European Social Fund). The purpose of the call was to finance professional development of higher education instructors and other staff to use new and innovative teaching methods. The ministry approved and co-funded a development of a Consortium (total value of 3.288.106,00 EUR) to serve as a platform for professional development, exchange of best practice, research into innovative teaching and establish multipliers of good practices. Furthermore, there were a few smaller, but favourable changes as to the pay scale, anniversary bonus, pay-out at retirement in the collective agreement for education in the Republic of Slovenia (The Annex to the collective agreement, 7. 12. 2018, Ur. l. RS, št. 80/18).

The effects of internationalisation strategy remain visible among academic staff most in increased student and staff mobility cooperation in research projects, enhanced research networks and lectures by foreign lecturers at home institution. Excessive commercialisation, weakening cultural identity and increased revenue are by majority of respondents not perceived as an outcome of internationalisation. Yet, less than half of respondents perceives support for internationalisation at their higher education institutions. However, the majority of academic staff perceive the encouragement of their institutions to publish internationally.

The survey data demonstrates that academic staff perceive training opportunities to improve teaching more widely available which corresponds with the factual data about the new government programs supporting advancement of teaching. Yet these opportunities are reported to be unequally accessible according to rank (lower ranks perceive lesser opportunities than senior ranks). In teaching, the low use of information technology will prove especially disadvantageous in times of COVID-19 pandemic when higher education institutions across the world, and including in Slovenia, closed their residential operations and moved to teaching and learning remotely. While asynchronous methods of teaching and learning can work in such situation, many institutions utilize Zoom technology or similar to enable synchronous teaching and learning that more closely replicates residential education processes.

The national research system has been following the [Resolution on Research and Innovation Strategy of Slovenia 2011-2020](#) and the [Research Infrastructure Roadmap 2011-2020, Revision 2016](#), for both of which initial discussion on new policy document only just started in 2018. Likely, the policy document with most direct impact on academic staff have been the [Slovenian strategy for strengthening the European Research Area 2016-2020 \(ERA Roadmap\)](#), Strategy for internationalisation of research and science (2018-2030) and the Program by the Ministry for Education, Science and Sport for strengthening research and development in area of science 2016-2020. Another new policy in this period was National strategy for open access to scientific publications and research data in Slovenia 2015-2020 which is not an aspect reflected in our survey.

Research collaboration remains a strong feature of the Slovenian higher education system both nationally and even more with researchers abroad. Reported research funding from national research agency decreased slightly compared to 2013 but remains the most widely reported source. This data does not match the information from the Slovenian Research Agency which reported slight increase in both institutional and competitive research funding in 2018 (164.205.145 EUR total budget, out of which 98.340.838 EUR for institutional financing and 51.901.452 EUR for competitive financing) compared to 2013 (144.685.788 EUR total Agency budget out of which 80.070.026 EUR for institutional financing and 51.784.336 EUR for competitive financing) (ARRS 2019). Sources obtained for research from own institution and from EU and other international sources increased slightly compared to 2013. Furthermore, there is a notable increase in reported publications (a chapter in an academic book or an article in a journal) compared to 2013.

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APIKS
ACADEMIC PROFESSION
IN THE KNOWLEDGE - BASED SOCIETY
Apr 15th 2017

A. Career and Professional Situation

This section asks your views on your degrees, career path and current work situation. We ask you to answer this section if you work at a higher education institution (also with dual employment). If you work in other institution (e.g. government research institute, hospitals or in an industry), please move to Section D []

A1 What is your academic rank (If you work in a research institutions with ranks differing from those at higher education institutions, please choose the rank most closely corresponding to yours)?

- 1 ___ 1 Full Professor
- 2 ___ 2 Associate Professor
- 3 ___ 3 Assistant Professor
- 4 ___ 4 Senior Lecturer
- 5 ___ 5 Lecturer
- 6 ___ 6 Language Instructor
- 7 ___ 7 Research Counsellor
- 8 ___ 8 Senior Research Fellow
- 9 ___ 9 Research Fellow
- 10 ___ 10 Junior Expert
- 11 ___ 11 Assistants and Junior Researchers
- 12 ___ 12 Other (please specify)

A2 Please, identify the academic discipline or field.

- 1 ___ Teacher training and education science
- 2 ___ Humanities and arts
- 3 ___ Social and behavioural sciences
- 4 ___ Business and administration, economics
- 5 ___ Law
- 6 ___ Life sciences
- 7 ___ Physical sciences, mathematics
- 8 ___ Computer sciences
- 9 ___ Engineering, manufacturing and construction, architecture
- 10 ___ Agriculture, forestry
- 11 ___ Medical sciences, health related sciences
- 12 ___ Social work and services
- 13 ___ Personal services, transport services, security services
- 14 ___ Other: (please specify).....
- 15 ___ Not applicable

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A3 How is your employment situation in the current academic year at your higher education institution? (Check only one)

- 1 ___ Full-time employed
- 2 ___ Part-time employed, _____ % of full-time
- 3 ___ Part-time with payment according to work tasks
- 4 ___ Other (please specify).....

A4 What is the duration of your current employment contract at your higher education institution? (Check only one)

- 1 ___ Permanently employed (tenured)
- 2 ___ Continuously employed (no preset term, but no guarantee of permanence)
- 3 ___ Fixed-term employment *with* permanent/continuous employment prospects (tenure-track)
- 4 ___ Fixed-term employment *without* permanent/continuous employment prospects
- 5 ___ Casual/hourly contract according to work tasks
- 6 ___ Other:.....
(please specify)

A5 For each of your degrees, please indicate the year of completion and the country in which you obtained it.

Degree	Year	Earned in country of current employment	If no, please specify country
First degree [NATCAT]	_____	Yes ___ No ___
Second degree (if applicable) [NATCAT]	_____	Yes ___ No ___
Doctoral degree (if applicable) [NATCAT]	_____	Yes ___ No ___
Post-doctoral degree (if applicable) [NATCAT]	_____	Yes ___ No ___

A6 How would you characterize the training you received in your doctoral degree? (If you do not hold a doctoral degree: Please go to question A7) Check all that apply.

- 1 ___ You were required to take a prescribed set of courses
- 2 ___ You were required to write a thesis or dissertation
- 3 ___ You received intensive faculty guidance for your research
- 4 ___ You chose your own research topic
- 5 ___ You received a scholarship or fellowship
- 6 ___ You received an employment contract during your studies (for teaching or research)
- 7 ___ You were employed at a research institution not belonging to academia
- 8 ___ You were employed outside the academy
- 9 ___ You funded your doctoral training by yourself and family support
- 10 ___ You received training in instructional skills or learned about teaching methods
- 11 ___ You were involved in research projects with faculty or senior researchers

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- 12 ___ You served on an institutional or departmental (unit) committee
- 13 ___ Your doctoral thesis was a monograph
- 14 ___ Your doctoral thesis consisted (partly or completely) of book chapters and/or journal articles

A7 Since your first degree, how many years have you been employed in the following? [If "0," so indicate]

Full time	Part time	
_____	_____	Public higher education institutions
_____	_____	Private higher education institutions
_____	_____	Research institutes (outside higher education)
_____	_____	(Other) Government or public sector institutions
_____	_____	(Other) Industry or private sector institutions
_____	_____	Self-employed

A8 Please indicate the following

- _____ Year of your first regular full-time or part-time appointment in the higher education/research sector (beyond research and teaching assistant)
- _____ Year of your first appointment to your current institution (beyond research and teaching assistant)
- _____ Year of your appointment/promotion to your current rank at your current institution

B. General Work Situation and Activities

B1 Considering all your professional work, how many hours do you spend in a typical week on each of the following activities? [If you are not teaching during the current academic year, please reply to the second column only.]

Hours per week when classes are in session	Hours per week when classes are not in session	
_____	_____	Teaching (preparation of instructional materials and lesson plans, classroom instruction, advising students, reading and evaluating student work)
_____	_____	Research (reading literature, writing, conducting experiments, fieldwork)
_____	_____	Externally oriented activities (services to clients and/or patients, unpaid consulting, public or voluntary services)
_____	_____	Administration and services within academia (committee work, paper work, activities in academic associations, reviews, etc.)
_____	_____	Other academic activities (professional activities not clearly attributable to any of the categories above)

B2 Regarding your own preferences, do your interests lie *primarily* in teaching or in research? (Check only one)

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- 1 ___ Primarily in teaching
2 ___ In both, but leaning towards teaching
3 ___ In both, but leaning towards research
4 ___ Primarily in research

B3 Please indicate the degree to which each of the following affiliations is important to you.

- | | Not at all
important | | | | Very
important | |
|---|-------------------------|-----|-----|-----|-------------------|-------------------------------------|
| | 1 | 2 | 3 | 4 | 5 | |
| 1 | ___ | ___ | ___ | ___ | ___ | My academic discipline/field |
| 2 | ___ | ___ | ___ | ___ | ___ | My department (at this institution) |
| 3 | ___ | ___ | ___ | ___ | ___ | My faculty |
| 4 | ___ | ___ | ___ | ___ | ___ | My university |

B4 Please indicate your views on the following

- | | Strongly
disagree | | | | Strongly
agree | |
|---|----------------------|-----|-----|-----|-------------------|--|
| | 1 | 2 | 3 | 4 | 5 | |
| 1 | ___ | ___ | ___ | ___ | ___ | This is a poor time for any young person to begin an academic career in my field |
| 2 | ___ | ___ | ___ | ___ | ___ | If I had it to do over again, I would not become an academic |
| 3 | ___ | ___ | ___ | ___ | ___ | My job is a source of considerable personal strain |
| 4 | ___ | ___ | ___ | ___ | ___ | Teaching and research are hardly compatible with each other |

B5 How do you rate your satisfaction with

- | | Very low | | | | Very high | |
|---|----------|-----|-----|-----|-----------|--|
| | 1 | 2 | 3 | 4 | 5 | |
| 1 | ___ | ___ | ___ | ___ | ___ | Your current employment situation? |
| 1 | ___ | ___ | ___ | ___ | ___ | Your current work situation? |
| 1 | ___ | ___ | ___ | ___ | ___ | Your current overall professional environment? |

B6 During the current academic year, have you done any of the following? (Check all that apply)

- 1 ___ Served as a member of national scientific committees/boards/bodies
- 2 ___ Served as a member of international scientific committees/boards/bodies
- 3 ___ Served a peer reviewer (e.g. for journals, research sponsors, institutional evaluations)
- 4 ___ Served as an editor of national journals/book series
- 5 ___ Served as an editor of international journals/book series
- 6 ___ Served as an elected officer or leader in professional/academic associations/organizations
- 7 ___ Served as an elected officer or leader of unions

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- 8 ___ Been substantially involved in local, national or international politics
- 9 ___ None of the above

C. Teaching (Refer to the current academic year or the previous academic year (if you do not teach in this academic year). If you do not/did not teach in this or the previous academic year please tick here [] and go to section D.

C1 Please indicate the proportion of your teaching related activities (preparation of instructional materials and lesson plans, classroom instruction, advising students, reading and evaluating student work, curriculum development, etc.) during the current academic year that are devoted to instruction at each level below.

Percent of instruction time

- _____ [NATCAT] Teaching leading to bachelor degree or equivalent
- _____ [NATCAT] Teaching leading to master degree or equivalent
- _____ [NATCAT] Teaching/training doctoral students
- _____ [NATCAT] Continuing education programs
- _____ Others: _____
(please specify)

C2 During the current (or previous) academic year, have you been involved in any of the following teaching activities? (Check all that apply)

- 1 ___ Classroom instruction/lecturing
- 2 ___ Individualized instruction
- 3 ___ Learning in projects/project groups
- 4 ___ Practice instruction/ laboratory work
- 5 ___ ICT-based learning/computer-assisted learning
- 6 ___ Distance education
- 7 ___ Development of course material
- 8 ___ Curriculum/program development
- 9 ___ Face-to-face interaction with students outside of class

C3 Does your institution set quantitative load targets or regulatory expectations for individual faculty for the following (Check all that apply):

- 1 ___ Number of hours in the classroom
- 2 ___ Number of students in classes
- 3 ___ Number of second level students (master's students) for supervision
- 4 ___ Number of third level students (doctoral students) for supervision

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- 5 ___ Time for student consultation
- 6 ___ Number of days to be present at the institution
- 7 ___ Not applicable

C4 Please indicate your views on the following:

Strongly disagree	1	2	3	4	5	Strongly agree	
1	___	___	___	___	___		You spend more time than you would like teaching basic skills due to student deficiencies
2	___	___	___	___	___		You are encouraged to improve your instructional skills in response to teaching evaluations
3	___	___	___	___	___		At your institution there are adequate training courses for enhancing teaching quality
4	___	___	___	___	___		Practically oriented knowledge and skills are emphasized in your teaching
5	___	___	___	___	___		In your courses you emphasize international perspectives or content
6	___	___	___	___	___		You incorporate discussions of values and ethics into your course content
7	___	___	___	___	___		You inform students of the implications of cheating or plagiarism in your courses
8	___	___	___	___	___		Grades in your courses strictly reflect levels of student achievement
9	___	___	___	___	___		Since you started teaching, the number of international students has increased
10	___	___	___	___	___		Currently, most of your graduate students are international
11	___	___	___	___	___		Your research activities reinforce your teaching
12	___	___	___	___	___		Your external activities reinforce your teaching

C5 Which language do you primarily employ in teaching?

.....
(please specify)

D. Research (Refer to the current academic year or the previous academic year (if you are not active in research in this academic year). If you are not/were not active in research in this or the previous academic year please tick here [] and go to section E.)

D1 How would you characterize your research collaboration undertaken during this (or the previous) academic year?

- | Yes | No | |
|-------|-------|---|
| 1 ___ | 1 ___ | Are you working individually/without any other scholars? |
| 2 ___ | 2 ___ | Do you have collaborators in any of your research projects? |
| 3 ___ | 3 ___ | Do you collaborate with junior academics? |
| 4 ___ | 4 ___ | Do you collaborate with scholars/researchers at your institution? |
| 5 ___ | 5 ___ | Do you collaborate with scholars/researchers at other institutions in your country? |
| 6 ___ | 6 ___ | Do you collaborate with international colleagues? |
| 7 ___ | 7 ___ | Do you collaborate with colleagues outside your discipline? |

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D2 How would you characterize the emphasis of your primary research this (or the previous) academic year?

	Not at all		Very much			
	1	2	3	4	5	
1	___	___	___	___	___	Basic/theoretical
2	___	___	___	___	___	Applied/practically-oriented
3	___	___	___	___	___	Commercially-oriented/intended for technology transfer
4	___	___	___	___	___	Socially-oriented/intended for the betterment of society
5	___	___	___	___	___	International in scope or orientation
6	___	___	___	___	___	Based in one discipline
7	___	___	___	___	___	Multi-/interdisciplinary

D3 How many of the following scholarly contributions have you completed in the past three years?

(Number completed in the past three years)

- _____ National scholarly books you authored or co-authored
- _____ International scholarly books you authored or co-authored
- _____ National scholarly books you edited or co-edited
- _____ International scholarly books you edited or co-edited
- _____ Articles published in an academic book or journal
- _____ Discussion paper, report/monograph written for a funded project
- _____ Paper presented at a scholarly conference
- _____ Completed doctoral dissertations supervised
- _____ Patent or licence secured on a process or invention
- _____ Computer program written for public use
- _____ Artistic work performed or exhibited, incl. video or film produced
- _____ Others:.....
(please specify)

D4 What percentage of your publications in the last three years were

- _____ Solo authored?
- _____ Published in a foreign country?
- _____ Co-authored with colleagues located in the country of your current employment?
- _____ Co-authored with colleagues located in other (foreign) countries?
- _____ Peer-reviewed?

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_____ Published abroad or in international journals and books

D5 To what extent do you consider yourself to be exposed to the following expectations by your institution?

	Not at all					To a very high extent
	1	2	3	4	5	
1	___	___	___	___	___	Raising substantial amounts of external funds?
2	___	___	___	___	___	Focus on academic quality irrespective of social relevance?
3	___	___	___	___	___	Conducting applied (and possibly commercially oriented) research?
4	___	___	___	___	___	Complying to guidelines for research set by research funders?
5	___	___	___	___	___	Restrict public publication in tune with research funders' expectation?
6	___	___	___	___	___	Yielding high 'research productivity' even if it is challenging the quality of dissemination?
7	___	___	___	___	___	Being active in carrying the research results beyond typical publications (technology transfer, dissemination in various media, etc.)?

D6 In the current (or previous) academic year, which percentage (total is 100%) of the funding for your research came from

- _____ Your own institution?
- _____ National research funding agencies?
- _____ Government entities?
- _____ Business firms or industry?
- _____ Private not-for-profit foundations/agencies?
- _____ European Commission (for example Horizon 2020, Erasmus+, itd.)
- _____ International funding agencies?
- _____ Others (please, specify):

E. External activities. This section asks your views on how your activities external to your institution contribute to society.

If you are not/were not active in societal interaction with society in this or the previous academic year tick here [] and go to section F

E1 In the past three years, have you been involved in any of the following activities with 'external' partners (e.g. industry, government, museums and schools)? (Check all that apply)

E1-1. Research based activities:

- 1 ___ Patenting and licensing
- 2 ___ Creation of a spin-off/start-up company
- 3 ___ Joint research and publications with researchers from other countries

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- 4 ___ Joint research and publications with researchers from countries of the former Yugoslavia
- 5 ___ Innovative research applications in the classroom
- 6 ___ Evaluation (of policies and developments of companies, governments, regions, countries, etc.)
- 7 ___ Contract research
- 8 ___ Consultancy
- 9 ___ Use of infrastructure and (technical) equipment (e.g., measuring equipment of a company)
- 10 ___ Test and construct prototypes
- 11 ___ Work in a research laboratory, science incubator organization (e.g., think tank organization), and/or a science park

E1-2. Teaching based activities:

- 11 ___ Curriculum development for external agencies
- 12 ___ Supervision of student internships and/or student work placements
- 13 ___ Joint supervision with industry of bachelor, master and/or doctoral thesis
- 14 ___ Volunteer-based work/consultancy in an honorary capacity (e.g., for community groups; in cultural, educational, political and social institutions, etc.).
- 15 ___ Public lectures and speeches
- 16 ___ Executive, contract tailor-made programs and courses

E1-3. Other activities:

- 17 ___ Writing publications for a broader range of readers
- 18 ___ Participation in external board(s) and committee(s) (e.g. expert council, board of directors, board of trustees).
- 19 ___ Personnel mobility (e.g., secondments to companies or public organizations).
- 20 ___ Volunteer-based work/consultancy in an honorary capacity (e.g. for community groups).
- 21 ___ Other (please, specify):

E2 What partners were/are included in your external activities? (Check all that apply)

- 1 ___ Other Higher Education Institutions?
- 2 ___ Public research centers?
- 3 ___ Private research centers?
- 4 ___ Government?
- 5 ___ Business firms and industry?
- 6 ___ Not-for-profit organizations (e.g. trade union and UNESCO)?
- 7 ___ Other (Please specify) :

E3 To what extent do your external activities derive from your core engagement in research and teaching?

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	Not at all				Very much	
	1	2	3	4	5	
1	___	___	___	___	___	Research
2	___	___	___	___	___	Teaching

E4 What was/is the funding source for your external activities in the last three years? (Check all that apply)

- 1 ___ Your own Higher Education Institution (e.g. your salary)?
- 2 ___ Other Higher Education Institutions?
- 3 ___ Public funding agencies?
- 4 ___ Private not-for-profit funding agencies?
- 5 ___ Government entities?
- 6 ___ Business firms and industry?
- 7 ___ Other (please specify):.....
- 8 ___ No additional funding was provided

E6 Generally, how important are external activities for

	Not important				Very important	
	1	2	3	4	5	
1	___	___	___	___	___	your research topics?
2	___	___	___	___	___	your teaching assignments?
3	___	___	___	___	___	your academic reputation?
4	___	___	___	___	___	your career advancement?
5	___	___	___	___	___	your academic field or discipline?
6	___	___	___	___	___	the mission of your university?

E7 To what extent do your external activities contribute to

	Not at all				Very much	
	1	2	3	4	5	
1	___	___	___	___	___	the local community?
2	___	___	___	___	___	Industry?
3	___	___	___	___	___	society at the national level?
4	___	___	___	___	___	society at the international level?

F. Governance and Management

F1 How influential are you, personally, in helping to shape key academic policies?

	Not at all influential	A little influential	Somewhat influential	Very influential	Not applicable	
1	___	___	___	___	___	At the level of the department or similar unit

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- 2 At the level of the faculty, school or similar unit
- 3 At the institutional level

F2 By whom is your teaching, research, and external activities regularly evaluated? (Check all that apply)

- | Your teaching | Your research | Your academic services | |
|----------------------------|----------------------------|----------------------------|---|
| 1 <input type="checkbox"/> | 1 <input type="checkbox"/> | 1 <input type="checkbox"/> | Your peers in your department or unit |
| 2 <input type="checkbox"/> | 2 <input type="checkbox"/> | 2 <input type="checkbox"/> | The head of your department or unit |
| 3 <input type="checkbox"/> | 3 <input type="checkbox"/> | 3 <input type="checkbox"/> | Members of other departments or units at this institution |
| 4 <input type="checkbox"/> | 4 <input type="checkbox"/> | 4 <input type="checkbox"/> | Senior administrative staff at this institution |
| 5 <input type="checkbox"/> | 5 <input type="checkbox"/> | 5 <input type="checkbox"/> | Your students |
| 6 <input type="checkbox"/> | 6 <input type="checkbox"/> | 6 <input type="checkbox"/> | External reviewers |
| 7 <input type="checkbox"/> | 7 <input type="checkbox"/> | 7 <input type="checkbox"/> | Yourself (formal self-assessment) |
| 6 <input type="checkbox"/> | 6 <input type="checkbox"/> | 6 <input type="checkbox"/> | Others, please specify? _____ |
| 7 <input type="checkbox"/> | 7 <input type="checkbox"/> | 7 <input type="checkbox"/> | None (No regular evaluation by anybody) |

F3 At my institution there is...

- | Strongly disagree | | | | Strongly agree | |
|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| 1 | 2 | 3 | 4 | 5 | |
| 1 <input type="checkbox"/> | A competent leadership |
| 1 <input type="checkbox"/> | A strong emphasis on the institution's mission |
| 2 <input type="checkbox"/> | Good communication between management and academics |
| 3 <input type="checkbox"/> | A top-down management style |
| 4 <input type="checkbox"/> | Collegiality in decision-making processes |
| 5 <input type="checkbox"/> | A strong teaching performance orientation |
| 6 <input type="checkbox"/> | A strong research performance orientation |
| 7 <input type="checkbox"/> | A cumbersome administrative process |
| 8 <input type="checkbox"/> | The lack of interest and initiative of academic staff prevent improvement of the institution's quality. |
| 9 <input type="checkbox"/> | The administration of my institution supports academic freedom. |

F4 To what extent does your institution emphasize the following practices?

- | Not at all | | | | Very much | |
|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--|
| 1 | 2 | 3 | 4 | 5 | |
| 1 <input type="checkbox"/> | Performance based allocation of resources to academic units |
| 2 <input type="checkbox"/> | Funding of departments substantially based on numbers of students |
| 3 <input type="checkbox"/> | Considering the research quality when making personnel(faculty hiring/promotion) decisions |

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- 4 Considering the teaching quality when making personnel decisions
- 5 Considering the practical relevance/applicability of the work of colleagues when making personnel decisions
- 6 Recruiting faculty who have work experience outside of academia

F5 To what extent do you observe the following outcomes of internationalization at your institution?

	Not at all		Very much			
	1	2	3	4	5	
1	<input type="checkbox"/>	Enhanced prestige				
2	<input type="checkbox"/>	Enhanced academic quality				
3	<input type="checkbox"/>	Increased revenue				
4	<input type="checkbox"/>	Enhanced research networks				
5	<input type="checkbox"/>	Increased mobility of students Increased mobility of faculty				
6	<input type="checkbox"/>	Weakening cultural identity				
7	<input type="checkbox"/>	Increased brain gain				
8	<input type="checkbox"/>	Increased costs associated with internationalization				
	<input type="checkbox"/>	Excessive commercialization				
	<input type="checkbox"/>	Cooperation with researchers from abroad in research projects				
	<input type="checkbox"/>	Lectures of foreign lecturers on my home institution				
	<input type="checkbox"/>	Lectures in foreign languages on home institutions				
	<input type="checkbox"/>	Joint and double study programmes				

G1 Please indicate your views on the following:

	Strongly disagree		Strongly agree			
	1	2	3	4	5	
1	<input type="checkbox"/>	My institution has a clear strategy for internationalization				
3	<input type="checkbox"/>	My institution provides various international exchange programs for students				
4	<input type="checkbox"/>	My institution provides various opportunities/funding for faculty members to undertake research abroad				
5	<input type="checkbox"/>	My institution provides various opportunities/funding for visiting international students				
6	<input type="checkbox"/>	My institution provides various opportunities/funding for visiting international scholars				
7	<input type="checkbox"/>	My institution encourages the recruitment of faculty members from foreign countries				
8	<input type="checkbox"/>	My institution provides various opportunities/funding for faculty members to attend international conferences abroad				
9	<input type="checkbox"/>	My institution encourages faculty members to publish internationally				

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G. Academics in Formative Career Stages. Respondents in positions of full professor, associate professor or similarly, please go to question H4 []

G1 How would you rate your own competencies and their importance to your current principal job:

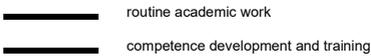
Your competencies					Importance to current job					
Poor		Excellent								
1	2	3	4	5						
					Not at all		To a Great Extent			
					1	2	3	4	5	
1	—	—	—	—	Developing new ideas, processes or products, which are rooted in research					1
2	—	—	—	—	I experience mentoring and advisory activities					3
3	—	—	—	—	I can count on less mentoring and advisory activities than I would like to					5
4	—	—	—	—	Working independently and taking responsibility for my actions					6
5	—	—	—	—	Developing, maintaining and using networks or collaborations					7
6	—	—	—	—	Effectively planning, managing and delivering projects in good time					8
7	—	—	—	—	Working constructively with colleagues					9
8	—	—	—	—	Ability to external funding					12

G2 Please indicate your views on the following

Strongly Disagree		Strongly Agree							
1	2	3	4	5					
1	—	—	—	—	Mentoring is available when you need it				
2	—	—	—	—	You are well supported in my career development				
3	—	—	—	—	You have good opportunities for social contact and networking in your academic unit				
4	—	—	—	—	You are well integrated into your academic unit				
5	—	—	—	—	There is institutionalized support for your career development				

G3 Approximately, what percentage of your time spent on academic and related activities can be characterized as routine work or as competence development and training?

Percent



G4 In the future where would you like to be, and where do you expect to be, in five years time?

Like to be		Expect to be							
1	2	3	4	5					
1	—	—	—	—	As academic at this institution				
2	—	—	—	—	As academic at another institution in this country				
3	—	—	—	—	As academic at another institution in another country				
4	—	—	—	—	With a teaching and/or research function at an institution outside academia				
5	—	—	—	—	In a non-academic function at a higher education institution/research institute				
6	—	—	—	—	In a non-academic function outside academia				

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G5 In the future regarding academic employment, in what role would you like to be, and what role do you expect to be, in five years' time?

	Like to be	Expect to be	
1	___	___	Teaching-only position
2	___	___	Research-only position
3	___	___	Teaching and research position
4	___	___	Not applicable, I have no intention to remain in academic employment.

G6 How do you rate each of the following factors?

Current work situation						Importance to your work life						
Poor		Excellent				Not at all		To a Great Extent				
1	2	3	4	5		1	2	3	4	5		
1	___	___	___	___	___	Salary	___	___	___	___	___	1
2	___	___	___	___	___	Job security	___	___	___	___	___	3
3	___	___	___	___	___	Career opportunities	___	___	___	___	___	5
4	___	___	___	___	___	Institutional prestige	___	___	___	___	___	6
5	___	___	___	___	___	Opportunities to learn and enhance competences	___	___	___	___	___	7
6	___	___	___	___	___	Personal independence in teaching	___	___	___	___	___	8
7	___	___	___	___	___	Personal independence in research	___	___	___	___	___	9
8	___	___	___	___	___	Interesting work	___	___	___	___	___	12

H. Personal Background

H1 What is your gender?

- 1 ___ Male
- 2 ___ Female

H2 Year of birth

_____ Year

H3 Do you have any dependent person living with you? (tick all situations that apply to you)

- 1 ___ Yes, I have dependent children living with me
- 2 ___ Yes, I have another dependent person living with me
- 3 ___ No

H4 If you have a dependent person living with you, how many hours per week, in average, you compromise with the caring of this (these) person(s)?

1 _____ Hours per week

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2 Not applicable

H5 Did you ever interrupt your employment in order to provide child or elder care in the home?

1 Yes

2 No

If yes, for how many months?

H6 What is your parents' highest education level?

Father	Mother	
1 <input type="checkbox"/>	1 <input type="checkbox"/>	Doctoral training or equivalent
2 <input type="checkbox"/>	2 <input type="checkbox"/>	Higher education, including first and second level degree (Bachelor, Master, undergraduate, postgraduate)
3 <input type="checkbox"/>	3 <input type="checkbox"/>	secondary education
4 <input type="checkbox"/>	4 <input type="checkbox"/>	Primary education or no formal education

H7 What is your current citizenship?

1 Country [Nat. Cat.]

2 Other (please, specify):



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