



Alumni survey 2018 – doctoral education and the entry into the labour market

Board of Doctoral Education, Karolinska Institutet

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Alumni survey 2018 – doctoral education and the entry into the labour market

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Executive summary

This report illuminates doctoral graduates in 2010 or 2014 and their experience of the education at KI and their entry to the labour market.

Among the doctoral graduates, 92 percent had permanent or temporary employment, 4 percent were self-employed and the remainder were either on leave, retired, actively looking for work, or did something else during the measurement week (5 March – 11 March 2018).

Amongst those who worked or were employed, 45 percent were employed in universities and university colleges, of which 87 percent reported that research was part of their work duties and tasks and the most prevailing current field of research was preclinical/experimental research. Twenty percent worked within the county council and one quarter worked in the private sector.

Three-quarters of the graduates had permanent employment and 22 percent had temporary or time-limited employments.

Among the graduated researchers, 77 percent had a job that corresponded with the research field of their doctoral education and 23 percent worked within another field of research.

Eighteen percent of the graduates reported that they had been unemployed at some point in time since completing their doctoral education.

Twenty-two percent of doctoral graduates with employment or who were self-employed had secondary occupations in addition to their main job.

More than 50 percent of the participants had been awarded research grants as main or co-applicant ensuing doctoral education and more than half had been employed as post-doc or had a postdoctoral scholarship.

Ninety percent were satisfied with their doctoral education and concurred that the doctoral education had made a significant contribution to their personal development.

More than eight out of ten stayed in contact with KI at the present day and about half of the respondents stayed in contact with the university through friends at KI.

Introduction

In the spring of 2018, the Evaluation Unit conducted a survey on behalf of the Board of Doctoral Education, Karolinska Institutet (KI). The survey was aimed at persons who had obtained a doctoral degree from KI during the academic years of 2010 or 2014.

In the assignment commissioned by the Board of Doctoral Education, the analysis was to contrast accumulated data (designated KI-2018) with data that were collected for the previous alumni survey performed in 2011. The results of this study can be retrieved in a report from Statistics Sweden¹, hereinafter referred to as KI-2011.

The purpose of the survey was to evaluate KI's doctoral education as perceived by graduates retrospectively and to describe the graduates' entry into the labour market.

Approach

Potential respondents in the target population were identified through the search for their e-mail addresses. This was done by means of:

- KIMKAT (KIs system for managing identities and credentials for those still within KI)
- Alumni database (KI Alumni and Friends)
- Nailing list ("spikningslista") which is used in conjunction with a doctoral student thesis nailing and the e-mail address used for the Exit poll-survey²
- Contacting supervisors
- Probing through social networks such as LinkedIn.

During these two points in time, 2010 and 2014, 712 doctoral students successfully defended their thesis. E-mail addresses were identified for 658 (92 percent) presumptive respondents (licentiates were not included in the survey).

An electronic web-based anonymous survey (see Appendix) was used consisting of 48 questions (in this report the term "question" is used to denote both statements and questions used in the survey). Three kinds of response options were used: multiple choice, statements with 4-point Likert response and free text answers³. Certain questions in the survey were formulated in such a way that the respondents had to confine the answer to a certain period, the measurement week, and this was defined as 5 March – 11 March 2018.

Out of the 658 presumptive respondents with identified e-mail addresses and who received the survey, 282 responded, resulting in a response rate of 43 percent.

In this report the terms participants, respondents, graduates and doctoral graduates are used interchangeably throughout the text.

¹ Forskareexaminerade vid Karolinska Institutet - om utbildningen och inträdet på arbetsmarknaden" (Dnr: 5828/2012-501).

² Nailing list was only obtainable for the cohort in 2014.

³ Free text answers have not been analyzed and presented in this report.

Characteristics of respondents

Among the participants, 130 (46 percent) had defended their doctoral thesis in 2010, and 151 (54 percent) in 2014. Fifty-nine percent of the respondents were women and 40 percent were men. The mean age was 45.5 years (SD 8.9) and 51 percent were 40 years of age or younger; 27 percent were 41-50, and 22 percent were 51 years or older. Nearly two-thirds (64 percent) had completed their undergraduate degree in Sweden; the most prevailing areas outside Sweden were Europe excluding the Nordic countries and Asia (13 percent and 14 percent, respectively). The respondents' degree subject during undergraduate level is shown in Figure 1.

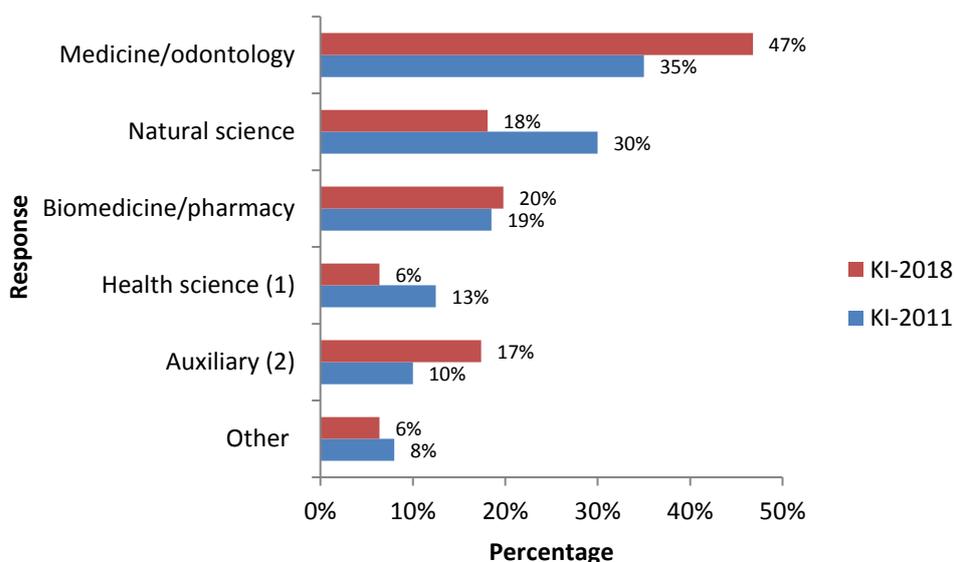


Figure 1. Respondents' undergraduate degree subject among KI-2011 (n = 423) and KI-2018 (n = 282). For this question respondents were able chose more than one alternative in the survey.

(1) Including Nursing, Physiotherapy, Occupational therapy and Speech therapy.

(2) Including Psychology, Engineering, Economics, Mathematics/Statistics and Social science /Behavioral science.

The doctoral education

Sixty percent of the respondents (KI-2018) completed the doctoral education full-time (with higher frequency among women, 65 percent) and these data are very similar to KI-2011 (61 percent, also with a greater proportion of women than men). Three out of ten were funded by one of KI's funding programs and approximately 75 percent of these were KID-grants. The second most prevailing type of KI funding (8 percent) was the MD/PhD- or MD-OD/PhD-program, now called Clinical Scientist Training Program (CSTP). One-third of the respondents were funded by stipends/scholarships (with at least 50 percent study financing).

Forty-six percent of the thesis subjects were directed towards preclinical/experimental research (Table 1). In contrast to KI-2011, there was a larger proportion of women than men in KI-2018. Sixty-eight percent of the youngest group (40 years or younger) compared with 10 percent in the oldest group had preclinical/experimental research as the subject (data are comparable between KI-2011 and KI-2018).

Table 1. Thesis subjects presented as frequency and relative frequency (percentage).

Response ^a	Frequency (%)					
	Total	KI-2011 Women	Men	Total	KI-2018 Women	Men
Preclinical/experimental research	226 (54)	128 (44)	98 (53)	130 (46)	78 (47)	49 (44)
Clinical/patient-oriented research	113 (27)	68 (24)	45 (24)	105 (37)	53 (32)	49 (44)
Public health/epidemiology	65 (15)	43 (15)	22 (12)	52 (18)	30 (18)	21 (19)
Health science	32 (8)	29 (10)	3 (2)	18 (6)	11(7)	7 (6)
Other	38 (9)	21 (7)	17 (9)	14 (5)	10 (6)	4 (4)
Number of answers	474	289	185	319	182	130

^a Respondents were able chose more than one alternative in the survey, therefore, the statistics do not sum up to 100%.

Employment

Employee work was the most common form of employment among doctoral graduates (Table 2). Ninety-two percent (87 percent in 2011) had work during the measurement week (5 March – 11 March 2018). There were no proportional differences between men and women that had an employment. Among graduates 4 percent were self-employed. Around 1 percent of the respondents were on leave of absence or on parental leave during the measurement week, with greater proportion of women than men. There was no major difference in employment between participants with undergraduate degree from Sweden or with undergraduate degree from outside Sweden.

Table 2. Primary type of employment presented as frequency and relative frequency (percentage).

Response	Frequency (%)	
	KI-2011	KI-2018
Employee (permanent or temporary)	365 (87)	257 (92)
Self-employment	8 (2)	11 (4)
Student	4 (1)	1 (^a)
Pension (old-age, early retirement, sickness or disability pension)	9 (2)	2 (1)
Long-term sick leave	1 (^a)	-
Leave of absence or parental leave	14 (3)	1 (^a)
Actively looking for work or in a labour market programme	7 (2)	3 (1)
Working in the home, taking care of the household	2 (^a)	2 (1)
Other	11 (3)	1 (^a)
Number of answers	422	281

^a Less than 1%.

More than nine out of ten, compared with 84 percent in 2011, of the participants who were 40 years or younger had work as their main employment. The corresponding proportion in the age group 41-50 years was 91 percent (93 percent in 2011) and 88 percent (83 percent in 2011) of the group older than 50 years.

In correspondence with the data from 2011, the proportions of different kinds of primary type of employment were comparable between respondents with different undergraduate education (as those listed in Figure 1).

In comparison between different thesis subject areas, the highest proportion of employee work as main employment (or self-employed) was found among individuals who had had a research area focused on health science, or an alternative/other research area (other than preclinical, clinical, public health or health science research), both accounting for 100 percent (84 percent respective 87 percent in 2011). In 2011, working or being self-employed was more common among those with public health/epidemiology focus of their research (97 percent). During the measurement week the apical proportion of self-employment, 8 percent, was among respondents with pre-clinical/experimental research as thesis subject area.

Sector of employment

After doctoral graduation, 45 percent among those who were employed or self-employed worked in universities and university colleges, 20 percent worked within the county council and one quarter worked in the private sector. A small part worked at other government sectors. Comparisons with data from 2011 are depicted in Table 3.

Table 3. Type of employment sector as frequency and relative frequency (percentage).

Response	Frequency (%)					
	Total	KI-2011 Women	Men	Total	KI-2018 Women	Men
University/university college	162 (42)	109 (46)	53 (35)	120 (45)	74 (48)	45 (42)
Other government sector	37 (10)	21 (9)	16 (11)	22 (8)	14 (9)	8 (7)
Local government (“kommun”)	3 (1)	3 (1)	-	-	-	-
County council (“landsting”)	105 (27)	62 (26)	43 (29)	55 (21)	28 (18)	27 (25)
Private	76 (20)	38 (16)	38 (25)	67 (25)	36 (23)	27 (25)
Don't know	2 (1)	2 (a)	-	4 (2)	3 (2)	1 (a)
Number of answers	385	235	150	268	155	108

^a Less than 1%.

Women worked to a somewhat greater extent within a university than men (48 percent and 42 percent, respectively) and this was also apparent in 2011, while men worked to a greater extent than women in a county council (25 percent vs. 18 percent).

Approximately 45 percent of those in each of the three age clusters (40 years or younger, 41-50 years and 51 years or older) worked in a university. Comparison with data from 2011 displayed rather similar frequencies except that among the cluster of 51 years or older in 2011, it was more common to work in a county council than in a university.

Forty-four percent (48 percent in 2011) of the participants had, after completing their doctoral education at KI, moved to another university or university college.

Work tasks within academic employment

Of the 45 percent who worked within a university or university colleges, 87 percent (94 percent in 2011) of the respondents replied that research was part of their work tasks during the measurement week. Other issues related to their duties were reported as teaching by 53 percent (56 percent in 2011), administration by 42 percent (44 percent in 2011), clinical work by 28 percent (27 percent in 2011) and other by 14 percent (18 percent in 2011). Table 4 exhibits a breakdown by hours with regard to work tasks.

Table 4. Partitioned work tasks within academic employment presented as frequency and relative frequency (percentage).

Response	Frequency (%)									
	Research		Teaching		Administration		Clinical work		Other	
	KI-2011	KI-2018	KI-2011	KI-2018	KI-2011	KI-2018	KI-2011	KI-2018	KI-2011	KI-2018
0-20%	24 (16)	25 (24)	49 (54)	27 (42)	41 (57)	29 (58)	7 (16)	10 (30)	7 (23)	12 (71)
21-40%	25 (17)	18 (17)	15 (17)	12 (19)	10 (14)	12 (24)	10 (23)	8 (24)	3 (10)	2 (12)
41-60%	24 (16)	14 (13)	12 (13)	12 (19)	11 (15)	3 (6)	5 (11)	6 (18)	7 (23)	
61-80%	22 (15)	10 (10)	9 (10)	9 (14)	3 (4)	3 (6)	6 (14)	3 (9)	4 (13)	2 (12)
81-100%	53 (36)	37 (36)	5 (6)	4 (6)	7 (10)	3 (6)	16 (36)	6 (18)	9 (30)	1 (6)
Number of answers	148	104	90	64	72	50	44	33	30	17

Among those who worked in research within a university or university colleges during the measurement week, the most prevailing field of research (36 percent) was preclinical/experimental research. This research area was also the most recurrent in 2011. Other areas of research are shown in Table 5.

Table 5. Area of research presented as frequency and relative frequency (percentage).

Response	Frequency (%)	
	KI-2011 ^a	KI-2018
Preclinical/experimental research	71 (45)	42 (36)
Clinical/patient-oriented research	35 (22)	28 (24)
Public health/epidemiology research	33 (21)	22 (19)
Health science research	20 (13)	9 (8)
Other type of research	9 (6)	4 (3)
Didn't work in research	17 (11)	11 (10)
Number of answers	158	116

^a In 2011 data were collected as separate variables, consequently, the statistics do not sum up to 100%.

Preclinical/experimental research was more common among women than men (39 percent vs. 32 percent), whereas clinical/patient-oriented research was more frequent among men than women (30 percent vs. 21 percent). Research that was preclinical and/or experimental in nature was more common (55 percent) among graduated researchers 40 years or younger (55 percent) compared to those aged 41-50 (19 percent) and 51 years or older (9 percent). Preclinical/experimental research was also more recurrent among participants with an undergraduate degree from outside Sweden (46 percent) compared to those with a degree from Sweden (27 percent).

Sector of work

The most common sector for the organization or company that the doctoral graduates worked for during the measurement week belonged to health and medical care (41 percent vs. 34 percent in 2011). However, in 2011 the most prevailing sector was within education/research within universities, 36 percent (28 percent in 2018). See Table 6 for further break down.

Table 6. Work sector of organization or company presented as frequency and relative frequency (percentage).

Response	Frequency (%)					
	Total	KI-2011 Women	Men	Total	KI-2018 Women	Men
Pharmaceutical industry	40 (11)	22 (10)	18 (13)	31 (12)	17 (12)	12 (12)
Other manufacturing industry	6 (2)	2 ^(a)	4 (3)	4 (2)	3 (2)	1 ^(a)
Financial services	3 (1)	-	3 (2)	1 ^(a)	-	1 ^(a)
Research institution (not university or university college)	11 (3)	7 (3)	4 (3)	15 (6)	9 (6)	6 (6)
Public administration (including armed forces)	24 (7)	16 (7)	8 (6)	9 (4)	6 (4)	3 (3)
Health and medical care	127 (34)	74 (33)	53 (37)	103 (41)	51 (36)	50 (49)
Education/research (within university/university college)	133 (36)	91 (40)	42 (29)	71 (28)	45 (32)	26 (25)
Other industry/sector	26 (7)	14 (6)	12 (8)	16 (6)	11 (8)	4 (4)
Number of answers	370	226	144	250	142	103

^a Less than 1%.

In the sample and in agreement with data from 2011 there were more men than women working in the health and medical care sector. It was also more common to work in the health and medical care sector among respondents aged 41-50 (57 percent) and 51 years or older (52 percent). However, 20 percent among those aged 40 years or younger worked in the pharmaceutical industry sector whereas the frequency was 4 percent in the two other age groups. It was more prevalent among respondents with an undergraduate degree from Sweden (47 percent) to work in the health and medical care sector compared to those with a degree from outside Sweden (30 percent). Thirty-nine percent of the participants with an undergraduate degree from outside Sweden worked with education/research within universities, contrasted to 23 percent of those with a Swedish education.

Type of employment

Around 75 percent of the graduates had permanent employment (Figure 2). It was more widespread with a permanent employment among the cohort from 2010 than among those who were examined in 2014 (79 percent compared with 70 percent). It was also more common with a permanent employment with increasing age, with 91 percent among those over 50 years compared to 63 percent in the youngest group (40 years or younger). Twenty-two percent of the KI graduates had temporary or time-limited employments and a small group was self-employed or had a different type of employment (4 percent). It was also more common with a permanent employment among

respondents with a Swedish undergraduate degree than those with a non-Swedish undergraduate degree, 77 percent and 69 percent respectively.

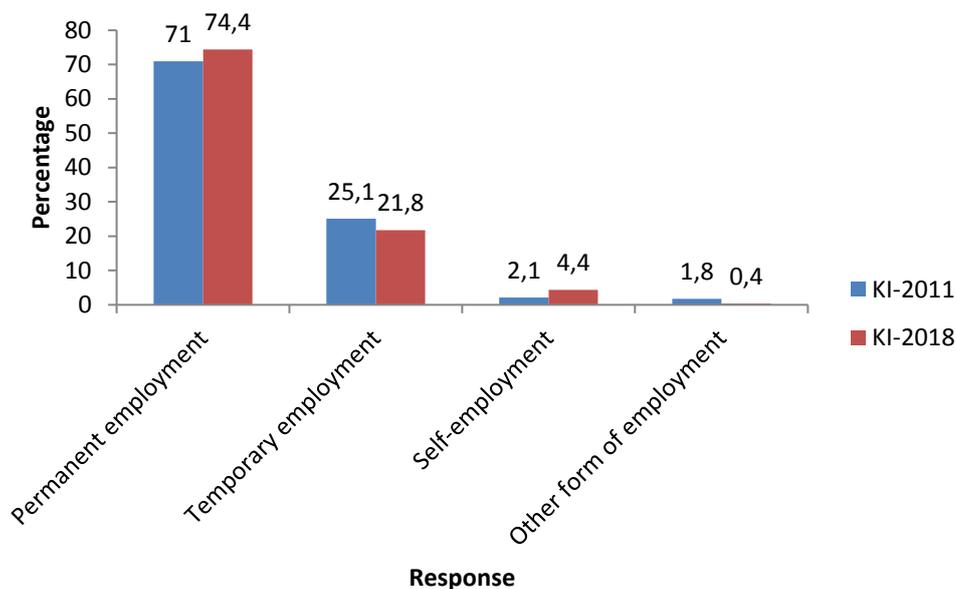


Figure 2. Type of employment among KI-2011 (n = 383) and KI-2018 (n = 266).

Working hours

Roughly one quarter (29 percent in 2011) of the doctoral graduates worked more than 50 hours during a normal working week⁴ (see Figure 3). In concordance with data from 2011, a higher proportion of men than women worked more than 50 hours, and this workload was more common among those over 50 years compared to the younger age groups.

Participants with undergraduate education in medicine had the longest working week, where one third worked more than 50 hours a week and these figures are similar when comparing with data from 2011. Forty-eight percent of all respondents worked between 40 and 50 hours a week. A quarter worked between 35 and 40 hours a week and two percent worked part time, *i.e.* less than 35 hours a week. No major differences could be detected regarding working hours and whether having a Swedish or non-Swedish undergraduate degree.

⁴ A normal working week includes unpaid working hours, overtime and time for other work or second job.

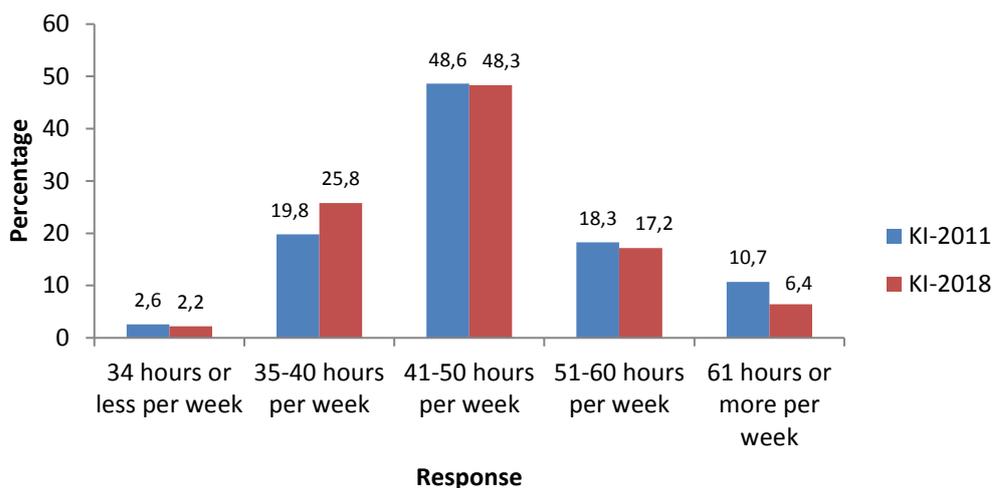


Figure 3. Number of working hours among KI-2011 (n = 383) and KI-2018 (n = 267).

Academic position

Among the doctoral graduates who had employment (or were self-employed), 64 percent had an academic position, of whom three percent (7 respondents) were appointed professors (see Figure 4).

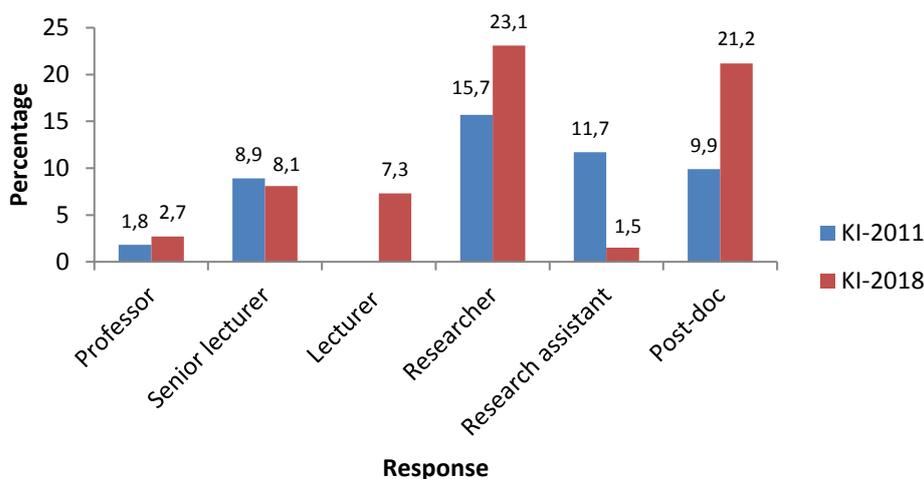


Figure 4. Academic position among KI-2011 (n = 383) and KI-2018 (n = 260). Respondents were able to choose more than one alternative in the survey (the response option “lecturer” was not available in 2011).

The work's compliance with doctoral education

Among the respondents, 77 percent had a job that corresponded with the research field⁵ of their doctoral education and 23 percent worked within another field of research (Figure 5). Concurring with the 2011 data there were no major differences between women and men. For different age groups, the proportion was lowest among participants aged 40 years or younger, and this is in contrast to 2011 when this proportion was lowest among those aged 51 years or older.

⁵ Question 18 in the survey - To what extent did the work you had during the week 5 March – 11 March 2018 correspond with the research field in which you completed your doctoral education?

The perceived correspondence between work and research field during doctoral education was slightly more prevailing among participants with an undergraduate degree from outside Sweden (82 percent) compared to those with a degree from Sweden (74 percent).

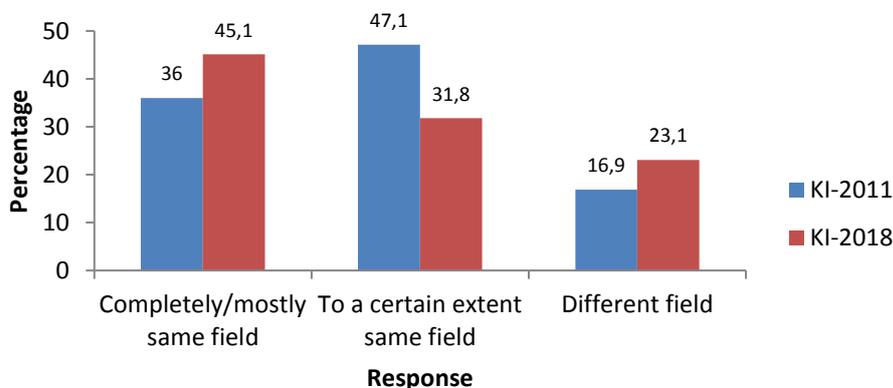


Figure 5. Correspondence with work and research field during doctoral education among KI-2011 (n = 378) and KI-2018 (n = 264). Response categories were collapsed in 2018 to facilitate comparisons with data from 2011.

Unemployment

Eighteen percent (22 percent in 2011) of the graduates reported that they had been unemployed at least at some point in time since completing their doctoral education. No differences between genders or country of undergraduate degree were noticeable.

In the youngest age group (40 years or younger), one quarter reported having been unemployed after their doctoral education. In the other two age groups, it was not as common, 12 percent among 41-50 year olds and 7 percent in the age group over 50 years.

With regard to undergraduate education, the highest proportion (44 percent) that reported to have been unemployed after completing their doctoral education was found among those with a background in natural sciences, followed by three out of ten among those with a background in biomedicine or other type of undergraduate studies. Among those with an undergraduate education in medicine this amount was 12 percent, and among those with undergraduate studies in odontology or health care nearly no one had been unemployed (Figure 6).

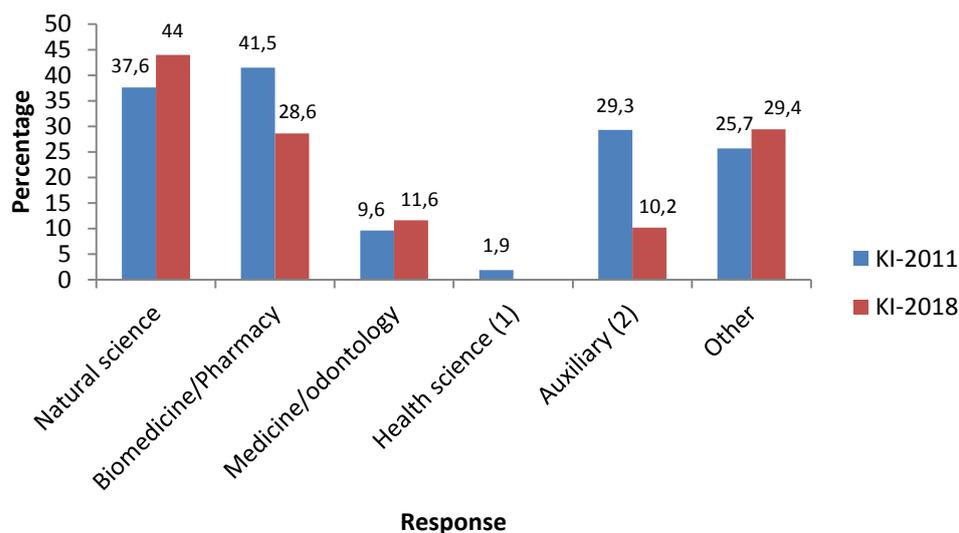


Figure 6. Clustering of type of undergraduate education degree among those who were unemployed in KI-2011 (n =115) and KI-2018 (n = 63). Respondents were able chose more than one alternative in the survey

(1) Including Nursing, Physiotherapy, Occupational therapy and Speech therapy.

(2) Including Psychology, Engineering, Economics, Mathematics/statistics and Social science/behavioral science.

Among the respondents that had been unemployed, 21/53 (58 percent) had been unemployed for 1-6 months, which was slightly lower than for KI-2011 where the frequency amounted to 66 percent. Few doctoral graduates had been unemployed long-term.⁶ Table 7 depicts the occurrence of unemployment of various lengths for the respondents of KI-2011 and KI-2018.

Table 7. Length of unemployment presented as frequency and relative frequency (percentage).

Response	Frequency (%)					
	Total	KI-2011		Total	KI-2018	
		Women	Men		Women	Men
1-3 months	35 (40)	22 (37)	13 (43)	14 (26)	7 (21)	7 (37)
4-6 months	23 (26)	18 (31)	5 (17)	17 (32)	12 (36)	5 (26)
7-9 months	13 (15)	8 (14)	5 (17)	5 (9)	5 (15)	-
10-12 months	11 (12)	7 (12)	4 (13)	7 (13)	2 (6)	4 (21)
13 months-2 years	7 (8)	3 (5)	2 (7)	7 (13)	5 (15)	-
> 2 years	-	1 (2)	1 (3)	3 (6)	2 (6)	3 (16)
Number of answers	89	59	30	53	33	19

⁶ In this report long-term unemployment is defined as being without work for more than 12 months.

Educational requirement and extent of work tasks

More than 70 percent (two thirds in 2011) of all doctoral graduates with employment, or who were self-employed, considered that a doctoral degree was necessary for the work, tasks and duties they had during the measurement week (Figure7).

One out of four estimated that 4-5 years of higher education (equivalent of “magister” or master's degree) were sufficient for the work they executed, and 3 percent felt that a licentiate degree was required. A small proportion considered it necessary with a three-year degree (equivalent of a Swedish bachelor's), or no higher education at all, for the work tasks they performed. A higher proportion of respondents with a non-Swedish undergraduate degree compared to those with a Swedish degree considered a doctoral degree necessary for the work, 78 percent and 67 percent respectively. There were no major differences between genders.

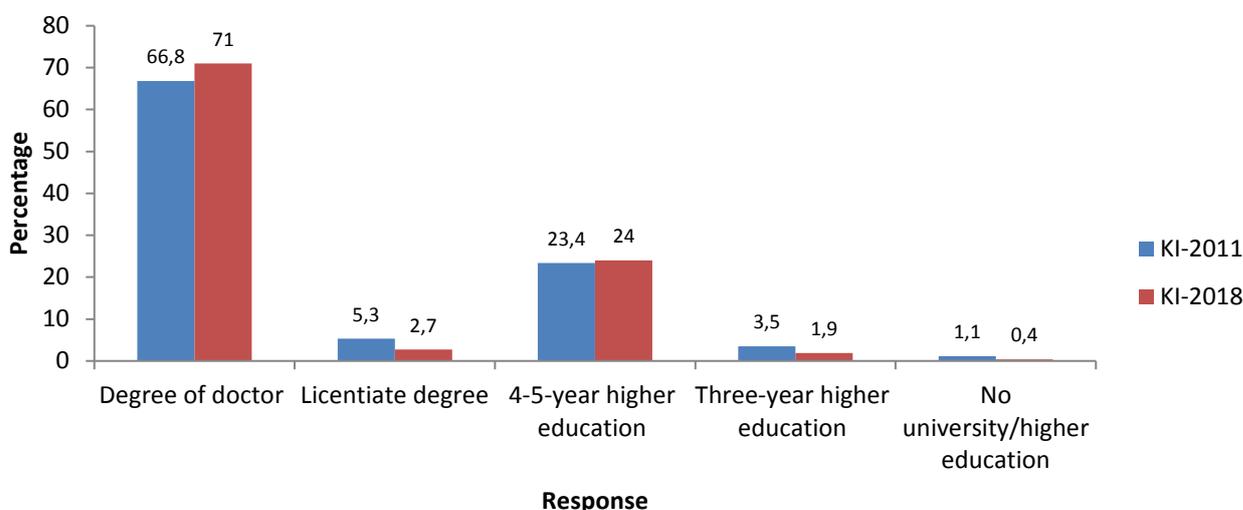


Figure 7. Education/degree perceived necessary for the work performed among KI-2011 (n = 376) and KI-2018 (n = 282).

On the question of what level of education/degree that was formally required for the work tasks during the measurement week, two thirds answered that a doctoral degree was required (67 percent in 2011). There was no difference between genders, age categories or geographical location of the undergraduate degree. One in four stated that the work assignments they were currently performing had formally required only 4-5 years of higher education.

Eight out of ten perceived that the doctoral education had provided sufficient knowledge (response options “To quite a high degree” or “To a very high degree/completely”) to perform the work they had during the measurement week. No major demographic differences were detected.

Those who had an employment or who were self-employed during the measurement week were also asked questions regarding to what degree their work duties required particular knowledge and skills related to seven predefined areas (Figure 8).

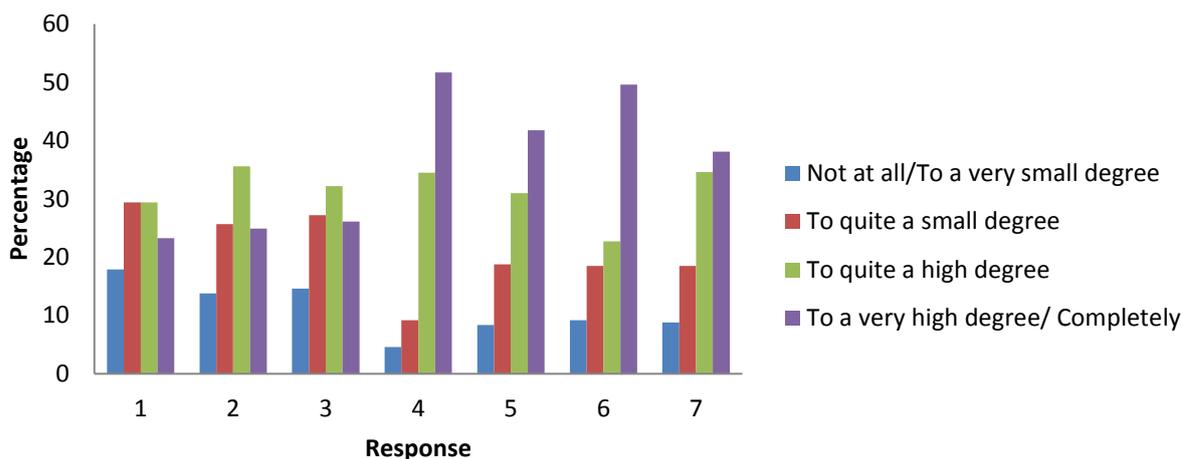


Figure 8. Requirement of specific knowledge or skill among KI-2018 n ≈ 261 (as data was collected as separate variables n is an approximation) to perform their work duties. **1** = Specialist knowledge in thesis subject area, **2** = Knowledge in thesis subject area, **3** = Knowledge of relevant research findings, **4** = Critical scientific thinking, **5** = Written presentations, **6** = Communication in English, **7** = Leadership/project management.

Doctoral graduates considered that their duties mainly required critical scientific thinking (86 percent responded “quite a high degree” or “very high degree/completely”). In contrast, the respondents considered that the work duties did not place high demands on specialist knowledge in the area of their doctoral thesis (almost half responded “quite a small degree” or “very small degree/not at all”). The answers from 2018 did not differ substantially from 2011.

Secondary occupations

Twenty-two percent (17 percent in 2011) of doctoral graduates with employment or who were self-employed had secondary occupations (“bisysslor”) in addition to their main job. No differences were detected between men and women (in contrast to 2011 when this was more frequent among men). However, secondary occupations were more common among the older age group - 51 years or older - (30 percent) compared with the younger age groups - 40 years or younger and 41-50 years - (18 percent and 23 percent, respectively). It was also more common among respondents with a Swedish undergraduate degree (26 percent) compared to those with a non-Swedish undergraduate degree (16 percent).

Salary

Approximately half (one third in 2011) of all doctoral graduates with an employment had a monthly income of 45,000 SEK or more per month.⁷ Sixty-three percent (43 percent in 2011) men and 39 percent (26 percent in 2011) women were found in this group. Among the respondents one in ten earned less than 25 000 SEK per month, and one quarter earned 65 000 SEK or more per month. The proportion of high income workers was highest among doctoral graduates with an undergraduate education in medicine (“läkare”) or odontology (“tandläkare”) where 56 percent (54 percent in 2011) earned 65 000 SEK or more per month.

⁷ Monthly income before tax, excluding overtime remuneration. If the monthly income was in a currency other than Swedish kronor the respondents were requested to convert to Swedish currency.

Sixty-one percent (63 percent in 2011) of the respondents indicated that they had a raise in salary as a consequence of their doctoral education. This was more predominant among those with a Swedish undergraduate degree (67 percent) compared to those with a non-Swedish undergraduate degree (51 percent). Furthermore, this trend was also more apparent among those 40 years or younger (56 percent) compared to the group of 51 years or older (72 percent).

Desired sector of labour market

When respondents were asked about which sector of the labour market they would like to work in if they could choose freely, more than half (34 percent in 2011) expressed that they wanted to work within a university or a university college, and three out of ten disclosed that they would prefer to work in the private sector (32 percent in 2011). See Figure 9.

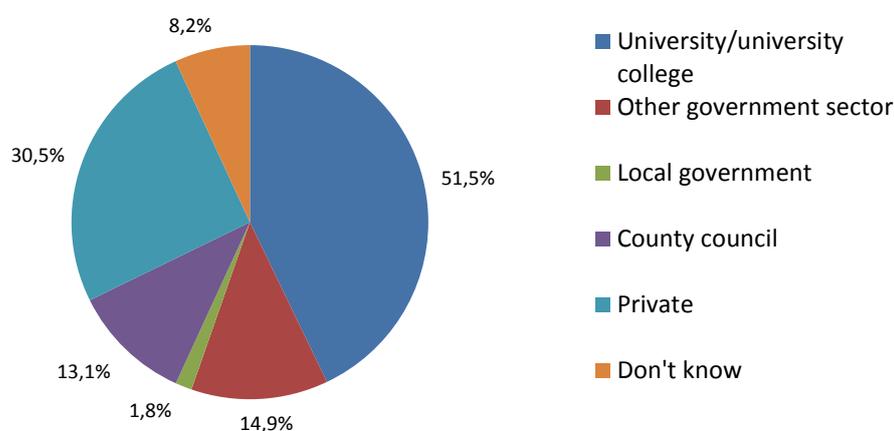


Figure 9. Preferred sector of labour market among KI-2018 (n = 282).

In reciprocity with data from 2011 there were no major differences in gender among the two doctoral graduate cohorts included in the KI-2018 survey (i.e. from 2010 and 2014). However, respondents aged 40 years or younger reported a desire to work in the private sector to a larger extent (42 percent) than those aged 41-50 (20 percent) and 51 or older (17 percent).

Research grants

More than 50 percent (40 percent in 2011⁸) of the respondents had been awarded research grants as main or co-applicant ensuing doctoral education (see Figure 10). The remaining half of the participants had not received (27 percent) or not applied for (21 percent) any research funding.

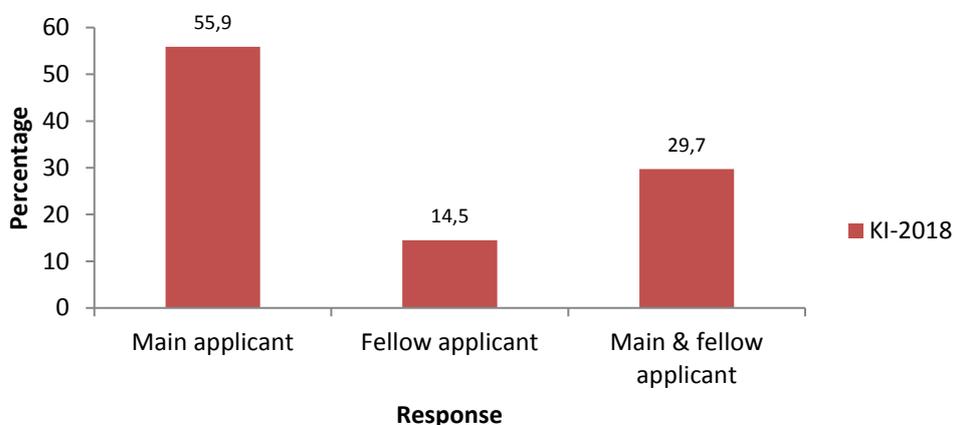


Figure 10. Applicants that had obtained research grants among KI-2018 (n = 145).

A higher proportion of men compared to women had been receiving research grants, 56 percent and 49 percent respectively. There were no proportional differences regarding gender among those who had applied for but not received any research grants. Further, there were no major differences among those that had received research grants when comparing undergraduate education from within or outside Sweden, 51 percent vs. 53 percent. However, there was a higher percentage of respondents that had received research grants among those who had defended their doctoral thesis in 2010 (63 percent) compared to those who had defended in 2014 (41 percent).

Among the respondents who had obtained research grants, 20 percent (16 percent in 2011) received the grant from the Swedish Research Council. However, the highest frequency was detected in the group “Other”, with 65 percent (79 percent in 2011) receiving research grants from a range of financial funders (Table 8).

⁸ In the 2011 survey the response category only included “main applicant”, hence the option “fellow applicant” (co-applicant) was added in 2018.

Table 8. Assorted research funders presented as frequency and relative frequency (percentage).

Response	Frequency (%) ^a	
	KI-2011	KI-2018
Swedish Research Council	26 (16)	28 (20)
Foundation for Strategic Research	3 (2)	2 (1)
FORTE (earlier FAS)	11 (7)	10 (7)
FORMAS	1 (1)	1 (1)
STINT	2 (1)	0
ALF	^b	29 (21)
Swedish Cancer Society	11 (7)	5 (4)
Swedish Childhood Cancer Foundation	6 (4)	6 (4)
Swedish Heart and Lung Foundation	8 (5)	7 (5)
Wallenberg foundations	^b	2 (1)
VINNOVA	4 (2)	3 (2)
European Union	7 (4)	9 (7)
European Science Foundation	1 (1)	0
National Institutes of Health	2 (1)	6 (4)
National Science Foundation	0	1 (81)
Other ^c	131 (79)	89 (65)
Number of answers	166	137

^a Respondents were able to choose more than one alternative in the survey, therefore the statistics do not sum up to 100%.

^b Response category was not listed in survey 2011.

^c The most prevailing grant funders in this group were Swedish Medical Research Foundation, Swedish Brain Foundation, KI foundations and funds and other local university/university college funds.

In the survey the respondents were asked how much they had received in research grants as main and co-applicant in the last three years (see Table 9).

Table 9. Amount of received research grants presented as frequency and relative frequency (percentage).

Response	Frequency (%)	
	Main applicant	Fellow applicant
Less than 500 000 SEK	54 (45)	19 (31)
500 0000 - 1 999 999 SEK	39 (33)	19 (31)
2 000 000 - 3 999 999 SEK	16 (13)	10 (16)
4 000 000 - 5 999 999 SEK	1 (1)	3 (5)
6 000 000 - 7 999 999 SEK	5 (4)	1 (2)
8 000 000 - 9 999 999 SEK	-	1 (2)
More than 10 000 000 SEK	5 (4)	8 (13)
Number of answers	120	61

Research and research supervision experience

Fifty-three percent (55 percent in 2011) of the respondents had been employed as a post-doc or had a post-doc scholarship after doctoral graduation (see Table 10). This type of employment/scholarship was more common among participants aged 40 or younger (64 percent) and 41-50 (59 percent) compared to those of 51 years or older (19 percent). No other main demographic differences were identified.

Table 10. Post-doc employment or post-doc scholarship presented as frequency and relative frequency (percentage).

Response	Frequency (%)					
	Total	KI-2011 Women	Men	Total	KI-2018 Women	Men
Sweden	154 (66)	103 (74)	51 (55)	94 (64) ^a	53 (62)	39 (64)
Nordic country other than Sweden	6 (3)	1 (^b)	5 (5)	4 (3)	2 (2)	2 (3)
Europe excl. the Nordic countries	25 (11)	12 (9)	13 (14)	15 (10)	12 (14)	3 (5)
North America	38 (26)	22 (16)	16 (17)	26 (18)	13 (15)	13 (21)
Another part of the world	9 (4)	2 (1)	7 (8)	9 (6)	5 (6)	4 (7)
Number of answers	232	140	92	148	85	61

^a 79/148 (53%) were employed as post-doc or had a post-doc scholarship at KI and 15/148 (5%) at another university in Sweden.
^b Less than 1%.

Figure 11 depicts the proportion of respondents who that reported to have conducted any research and/or teaching abroad after their doctoral degree. It was most common to have performed this type of scholarly activities in Europe or North America.

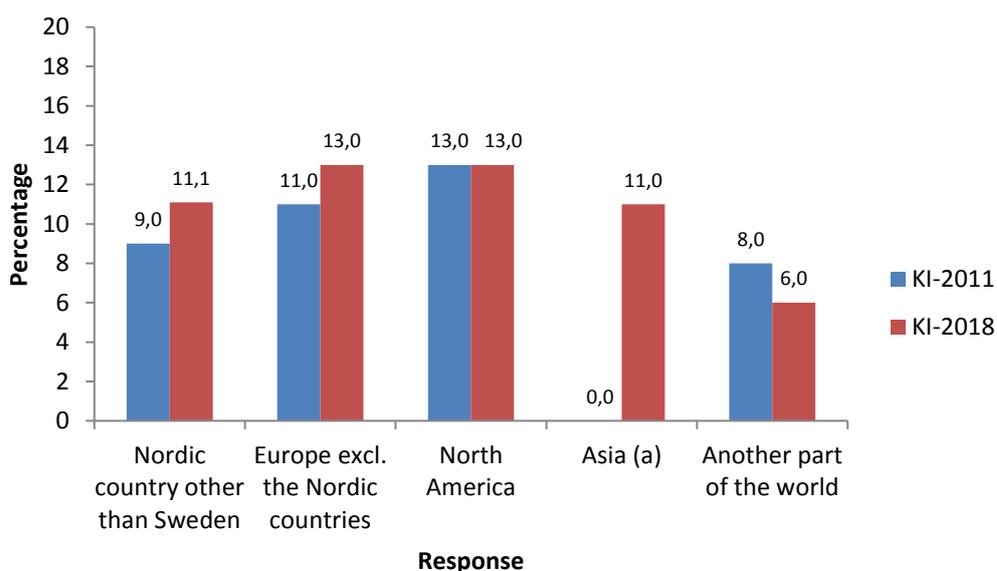


Figure 11. Conducted research and/or teaching abroad among KI-2011 (n = 316) and KI-2018 (n = 279). In 2011, Asia was not included as response option in the survey.

Karolinska Institutet – Alumni survey 2018

Nearly three out of ten (18 percent in 2011) had received an externally funded employment as researchers in competition with other applicants. This was more prevailing among men (32 percent) compared to women (23 percent) and also more common among those aged 40 or younger (31 percent) and 41-50 (31 percent) compared to those of 51 years or older (13 percent). In contrast to the 2011 data no discrepancies were detected among respondents having a Swedish versus a non-Swedish undergraduate degree.

Seven percent (5 percent in 2011) of the participants indicated that they were associate professors. Among the respondents, 16 percent were currently main supervisor for doctoral students with seven out of ten having 1-2 students and five percent reported having previously been main supervisor for a doctoral student that had graduated.⁹

⁹ No comparison could be made with data from 2011 due to data clustering discrepancies.

Perceptions of different aspects of doctoral education

Nine out of ten (same in 2011) agreed that the doctoral education had made a significant contribution to their personal development. In congruency with 2011 years data, a higher proportion of men than women responded "very well" to statements regarding their doctoral education (see Figure 12 below). Younger respondents were also generally more positive about the different aspects of the doctoral education compared with older respondents. There was no major difference between the answers between respondents with a Swedish undergraduate degree compared to those with a non-Swedish undergraduate degree. Figure 12 depicts six distinct facets of the doctoral education and comparisons with data from 2011.

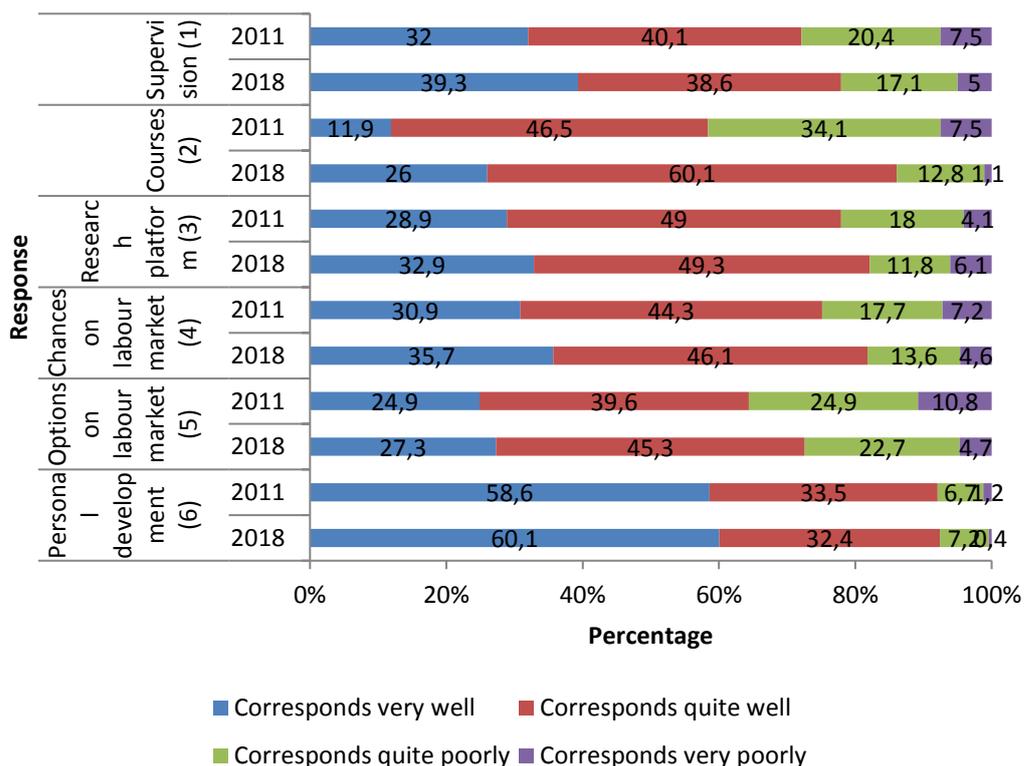


Figure 12. Perceptions of different aspects of the doctoral education outcome among KI-2011 (n = 423) and KI-2018 (n = 282). The survey statements were: 1 = "I received good supervision during my doctoral education", 2 = "It was generally a high quality in the courses during my doctoral education", 3 = "My doctoral education has given me a platform from which I can conduct my own research", 4 = "My doctoral education has improved my chances of being successful on the labour market"; 5 = "My doctoral education has widened my options on the labour market", 6 = "My doctoral education has made a significant contribution to my personal development".

Figure 13 depicts data that have been extracted to facilitate comparison between the two cohorts in the KI-2018 sample, *i.e.* graduates from 2010 and 2014, respectively.

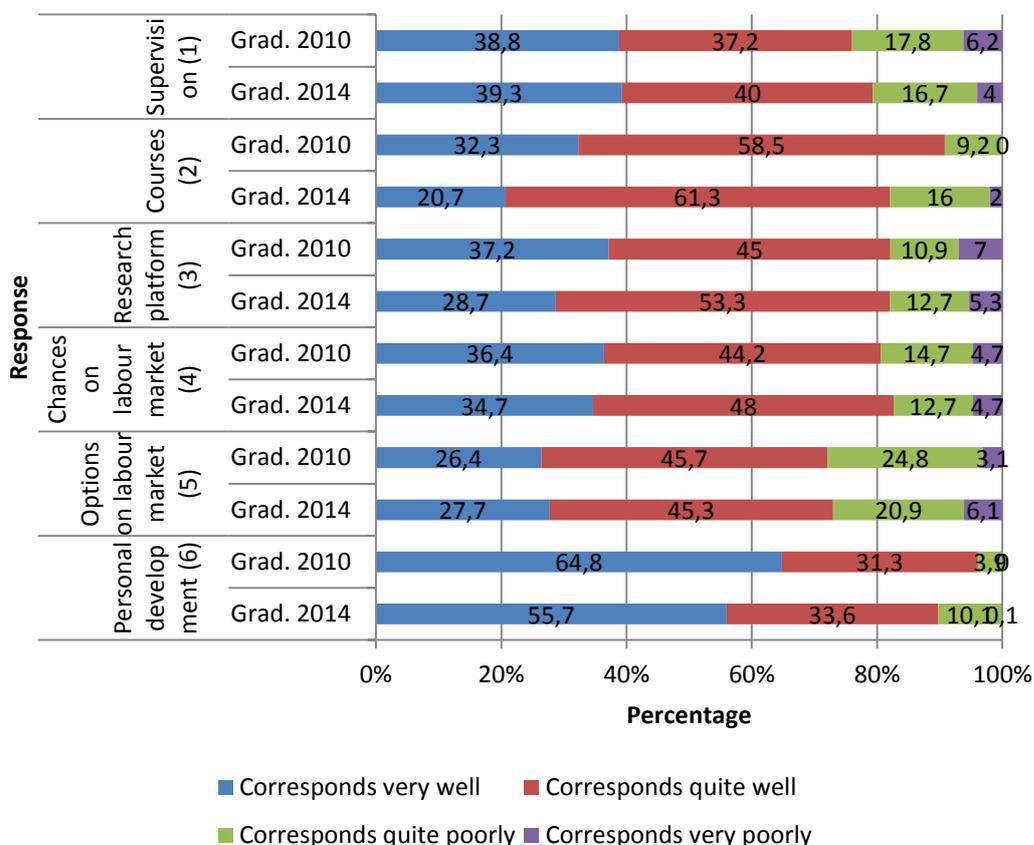


Figure 13. Perceptions of different aspects of the doctoral education outcome when contrasting the two cohorts in the KI-2018 sample, thus graduates (grad.) from 2010 (n = 130) and from 2014 (n = 151). The survey statements were: 1 = “I received good supervision during my doctoral education”, 2 = “It was generally a high quality in the courses during my doctoral education”, 3 = “My doctoral education has given me a platform from which I can conduct my own research”, 4 = “My doctoral education has improved my chances of being successful on the labour market”; 5 = “My doctoral education has widened my options on the labour market”, 6 = “My doctoral education has made a significant contribution to my personal development”.

The existing coherent quality system employed at KI is aimed to contribute to the continuous quality assurance and quality development of the core activities at the university.¹⁰ In order to align with this system, two key items - serving as quality indicators - deriving from the Exit poll survey¹¹ launched by the Board of Doctoral Education, were incorporated in this survey. The two key items addressed the overall satisfaction of the doctoral education and whether one would recommend KI to prospective students. Data are shown in Tables 11 and 12.

¹⁰ Slutrapport - Sammanhållet kvalitetssystem (Dnr: 1-777/2016)

¹¹ Exit Poll for Doctoral Students 2013-2016 (Dnr: 1-449/2017)

Table 11. Key item - *Overall, I am satisfied with my doctoral education at KI* - presented as frequency and relative frequency (percentage).

Response	Frequency (%)	
	KI-2018	Exit poll 2013-2016 ^a
Disagree	7 (3)	31 (3)
Somewhat disagree	27 (10)	71 (6)
Somewhat agree	75 (27)	369 (31)
Agree	173 (61)	709 (60)
Number of answers	282	1180

Table 12. Key item - *I would recommend KI to prospective doctoral students* - presented as frequency and relative frequency (percentage).

Response	Frequency (%)	
	KI-2018	Exit poll 2013-2016 ^a
Disagree	7 (3)	27 (2)
Somewhat disagree	21 (7)	58 (5)
Somewhat agree	78 (28)	307 (26)
Agree	176 (62)	788 (67)
Number of answers	282	1180

Career

planning

In response to the question of whether the respondents had received information from the university about future possible areas of work (career planning), one third (46 percent in 2011) responded “not at all/ to a very small degree” and forty-four percent (39 percent in 2011) responded “to quite a small degree”. See Figure 14.

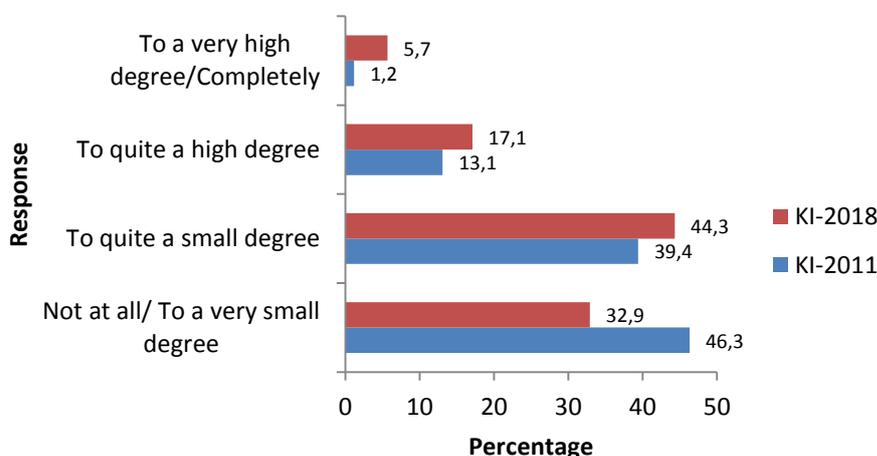


Figure 14. Degree of information received about career planning in KI-2018. KI-2011 (n = 419) and KI-2018 (n = 280).

The proportion of graduates that had responded “not at all/ to a very small degree” among those who defended their doctoral thesis in 2010 was 37 percent compared to 29 percent of those who defended their thesis in 2014. There were no major dissimilarities between women and men.

Contact with KI

Among the survey participants more than eight out of ten stayed in contact with KI at present day¹² (see Figure 15). Approximately half of the respondents stayed in contact with the university through friends at KI and more than four out of ten stayed in contact with KI through their former research group.

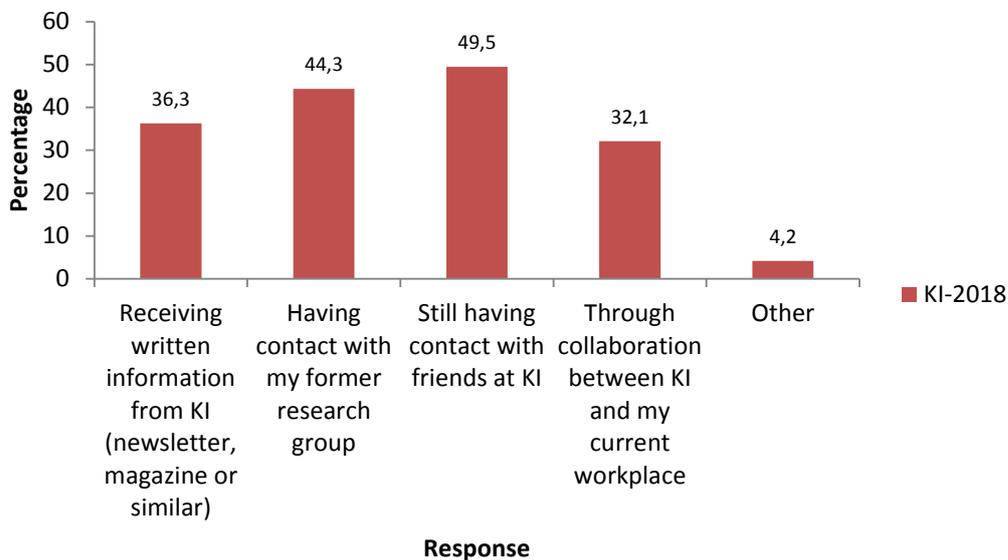


Figure 15. Different ways of staying in contact with KI in the KI-2018 survey (n = 212). Respondents were able to choose more than one alternative in the survey.

Slightly more than 70 percent of the respondents knew about the existing KI alumni network (Figure 16). This was more common among respondents with a Swedish (77 percent) vs. a non-Swedish (65 percent) undergraduate degree, and also more typical among those aged 40 or younger (74 percent) and 41-50 years (75 percent) compared to those of 51 years or older (63 percent).

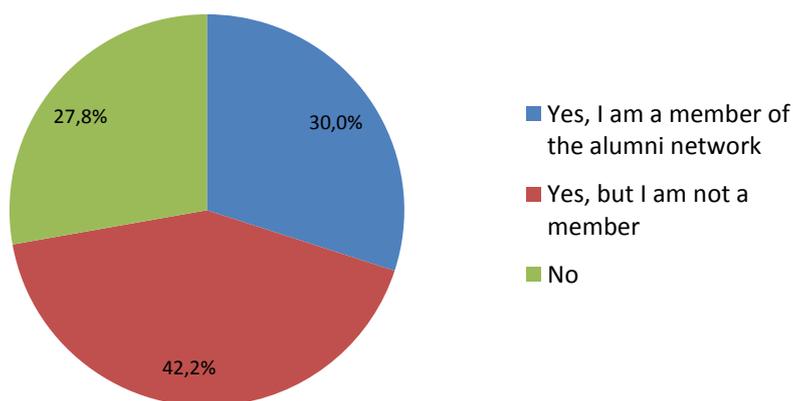


Figure 16. Knowledge regarding KI alumni network among KI-2018 (n = 277).

¹² 212/282 (75%) responded to the question “If you are not presently at KI, how do you stay in contact with KI today?”, however, data does not exclude responders who presently are at KI.

Reflections and recommendations

Some reflections and recommendations based on the preparation, dissemination and analysis of this survey, are listed below.

- In this kind of survey a response rate of 43% must be considered as satisfactory. However, the response rate in 2011 was higher, with 66 % of the targeted sample responding to the survey. A major restriction with alumni surveys in general is the difficulty to reach the alumni and in particular those who have moved abroad directly after their doctoral graduation.
- There are many congruencies in the data collected in this survey with data collected in 2011, including the frequency of doctoral graduates with employment, the proportion of unemployment, the frequency of working in similar sectors of employment and the percentage of doctoral graduates with a post-doc employment or scholarship.
- By offering the retrospective perspective of doctoral graduates, the survey revealed some valuable and interesting findings that could contribute to a deeper understanding of the doctoral education at KI. The findings may provide useful data to be incorporated and scaffolded in the university's coherent quality assurance system. Specific findings such as the frequency of doctoral graduates leaving academia, the proportion of excessive working hours, the relatively high frequency of unemployment, the augmentation of secondary occupations and the scarcity of guidance in career planning, can all serve as food for thought for the university as an educational provider.
- The conformance with other data sources such as the Exit poll survey that provides perceptions of other dimensions of doctoral education, and specific quality indicators to be followed over time must be seen as strength of the survey. The preponderance of positive responses to statements regarding two key items addressing the overall satisfaction of KI's doctoral education and whether one would recommend KI, could be regarded as quality benchmarks and indicative of providing educational stability.
- For future similar surveys, data collection strategies should be revised and alternative ways of assembling data should be considered in order to maximize the responses from the target population and thereby increasing generalizability of the data.
- In the present report no calibration was performed in order to reduce potential distortive effects of missing data or non-responses. However, missing values in questionnaires should in general not be subject to imputation as the respondent has chosen not to answer. Subsequently, data are not missing since empty cells signify "no response" rather than "missing data".
- As this kind of survey requires much preparatory work with difficulty of identifying respondents and disseminating the questionnaire, it would be beneficial to perform this type of alumni investigations as conjoint efforts with other universities with standardized time intervals between graduation and survey and utilizing similar questions and response categories in order to permit local, regional and national comparisons.

Appendix 1

Your education	
1	Within which subject did you study at undergraduate level? <i>You may choose more than one alternative.</i>
<input type="checkbox"/> Natural science	<input type="checkbox"/> Pharmacy/pharmaceutical chemistry
<input type="checkbox"/> Biomedicine	<input type="checkbox"/> Psychology
<input type="checkbox"/> Odontology/dentistry	<input type="checkbox"/> Engineering
<input type="checkbox"/> Medicine	<input type="checkbox"/> Economics
<input type="checkbox"/> Health science/nursing	<input type="checkbox"/> Mathematics/statistics
<input type="checkbox"/> Health science/physiotherapy	<input type="checkbox"/> Social science/behavioural science
<input type="checkbox"/> Health science/occupational therapy	<input type="checkbox"/> Other degree, please specify
<input type="checkbox"/> Health science/speech therapy	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
2	Where did you study for your undergraduate degree?
<input type="checkbox"/> At KI	<input type="checkbox"/> South America
<input type="checkbox"/> At a university in Sweden other than KI	<input type="checkbox"/> Africa
<input type="checkbox"/> Other Nordic country	<input type="checkbox"/> Asia
<input type="checkbox"/> Europe excl. the Nordic countries	<input type="checkbox"/> Oceania
<input type="checkbox"/> North America	

<p>3 In which academic year did you receive your PhD? <i>(Year of public defence)</i></p>	<p><input type="checkbox"/> 2010 <input type="checkbox"/> 2014 <input type="checkbox"/> Other, please specify</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>4 Did you perform your doctoral education full-time or part-time?</p>	<p><input type="checkbox"/> Full-time <input type="checkbox"/> Part-time</p>
<p>5 Was your postgraduate education, in whole or in part, funded by any of KI's funding programs for PhD students?</p> <p>If yes, state which one!</p>	<p><input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Don't know</p> <p><input type="checkbox"/> KID-funding <input type="checkbox"/> Researcher-internship (Forskar-AT) <input type="checkbox"/> MD/PhD or MD-OD/PhD (now called CSTP) <input type="checkbox"/> Doctoral school in health care sciences (Forskarskolan i vård och omsorg eller Forskarskolan i vårdvetenskap)</p>
<p>6 Was your doctoral education funded by stipends/scholarships (with at least 50% of your study financing)?</p>	<p><input type="checkbox"/> No <input type="checkbox"/> Yes</p>

7 What was the subject of your PhD thesis?

You may choose more than one alternative.

- Preclinical/experimental research
- Clinical/patient-oriented research
- Public health/epidemiology
- Health science
- Other, please specify

Your employment

8 What was your primary type of employment during the week 5 March – 11 March 2018?

- Employee (permanent or temporary)
- Self-employment
- Student → *Go to Question x*
- Was on a pension (old-age, early retirement, sickness or disability pension) → *Go to Question x*
- Long-term sick leave → *Go to Question 31 (more than 3 months) x*
- Leave of absence or parental leave → *Go to Question x*
- Actively looking for work or in a labour market programme → *Go to Question x*
- Working in the home, taking care of the household → *Go to Question x*
- Other, please specify

9 What occupation/position did you have during the week 5 March – 11 March 2018?

You may chose more than one alternative.

- | | |
|--|---|
| <input type="checkbox"/> Professor | <input type="checkbox"/> Dentist |
| <input type="checkbox"/> Senior lecturer | <input type="checkbox"/> Nurse |
| <input type="checkbox"/> Lecturer | <input type="checkbox"/> Physiotherapist |
| <input type="checkbox"/> Researcher | <input type="checkbox"/> Occupational therapist |
| <input type="checkbox"/> Research assistant | <input type="checkbox"/> Speech therapist |
| <input type="checkbox"/> Post-doc | <input type="checkbox"/> Pharmacist |
| <input type="checkbox"/> Head of Unit | <input type="checkbox"/> Teacher within university/university college |
| <input type="checkbox"/> Head of Division (Avdelningschef) | <input type="checkbox"/> Teacher NOT within university/university college |
| <input type="checkbox"/> Project manager | <input type="checkbox"/> Other, please specify |
| <input type="checkbox"/> Administrative employment | |
| <input type="checkbox"/> Physician | |

10 In which sector did you work during the week 5 March – 11 March 2018?

If you had more than one job, please base your answer on your main job.

- University/university college
- Other government sector → Go to Question x
- Local government (kommun) → Go to Question x
- County council (landsting) → Go to Question x
- Private → Go to Question x
- Don't know → Go to Question x

11 After completing your doctoral education, have you moved to another university/university college?

- Yes
- No

12 What tasks were included in your work during the week 5 March – 11 March 2018?

Please specify as a percentage (%). The total must be 100 percent.

Research

--	--	--

 percent

Teaching

--	--	--

 percent

Administration

--	--	--

 percent

Clinical work

--	--	--

 percent

Other

--	--	--

 percent

TOTAL

1	0	0
---	---	---

 percent

13 What was your research area if you worked in research during the week 5 March – 11 March 2018?

If you had more than one research area answer for your main field.

- Preclinical/experimental research
- Clinical/patient-oriented research
- Public health/epidemiology
- Health science
- Other, please specify

- Didn't work in research

14 To which industry/sector does the company/organisation you were working for during the week 5 March – 11 March 2018 belong?

If you had more than one job, please base your answer on your main job.

- Pharmaceutical industry
- Other manufacturing industry
- Transport industry
- Data processing, post and telecommunications
- Financial services
- Research institution (not university or university college)
- Public administration (including armed forces)
- Health and medical care
- Education/research (within university/university college)
- Other industry/sector
- If you cannot decide, please specify the company's business area here

15 What was your main form of employment during the week 5 March – 11 March 2018?

- Permanent employment
- Temporary/fixed-term employment (e.g. substituting for someone else, project work)
- Self-employed
- Other? Please specify

16 What was the extent of your employment?

- 76-100 percent
- 51-75 percent
- 26-50 percent
- 25 percent or less

17 How many hours do you work in total during a normal working week?

Please include unpaid working hours, overtime and time for other work or second job.

- 34 hours or less per week
- 35-40 hours per week
- 41-50 hours per week
- 51-60 hours per week
- 61 hours or more per week

<p>18 To what extent did the work you had during the week 5 March – 11 March 2018 correspond with the research field in which you completed your doctoral education?</p> <p><i>If you had more than one job, please base your answer on your main job.</i></p>	<p><input type="checkbox"/> The work was completely within the same research field as my doctoral education</p> <p><input type="checkbox"/> The work was mostly within the same research field as my doctoral education</p> <p><input type="checkbox"/> The work was to a certain extent within the same research field as my doctoral education</p> <p><input type="checkbox"/> The work was in a different research field to the one I concentrated on in my doctoral education</p>																																								
<p>19 To what degree did your work during the week 5 March – 11 March 2018 require ...</p> <p><i>If you had more than one job, please base your answer on your main job.</i></p>	<table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: center;">Not at all/ To a very small degree</th> <th style="width: 10%; text-align: center;">To quite a small degree</th> <th style="width: 10%; text-align: center;">To quite a high degree</th> <th style="width: 10%; text-align: center;">To a very high degree/ Completely</th> </tr> </thead> <tbody> <tr> <td>... specialist knowledge in the area of your doctoral thesis?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>... knowledge in the subject/scientific area of your doctoral thesis?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>... knowledge of relevant research findings?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>... critical scientific thinking?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>... written presentations?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>... communication in English?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>... leadership/project management?</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </tbody> </table>		Not at all/ To a very small degree	To quite a small degree	To quite a high degree	To a very high degree/ Completely	... specialist knowledge in the area of your doctoral thesis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	... knowledge in the subject/scientific area of your doctoral thesis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	... knowledge of relevant research findings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	... critical scientific thinking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	... written presentations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	... communication in English?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	... leadership/project management?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<p>20 What level of education/degree was formally required for the work you had during the week 5 March – 11 March 2018?</p> <p><i>If you had more than one job, please base your answer on your main job.</i></p>	<p><input type="checkbox"/> Degree of doctor (PhD)</p> <p><input type="checkbox"/> Licentiate degree</p> <p><input type="checkbox"/> 4-5-year higher education (equivalent to “magister” or master's degree)</p> <p><input type="checkbox"/> Three-year higher education (equivalent to a Swedish bachelor's degree)</p> <p><input type="checkbox"/> No university/higher education</p>																																								

21 What level of education/degree do you deem to be necessary for the work you did during the week 5 March – 11 March 2018?

If you had more than one job, please base your answer on your main job.

- Doctor of Philosophy (PhD)
- Licentiate
- 4-5 years of higher education (equivalent to master's and bachelor's degree)
- Three-year higher education (equivalent to a bachelor's degree)
- No university/higher education

22 To what degree do you feel that your doctoral education has given you sufficient knowledge to do the work you had during the week 5 March – 11 March 2018?

If you had more than one job, please base your answer on your main job.

- Not at all/To a very small degree
- To quite a small degree
- To quite a high degree
- To a very high degree/Completely

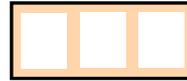
Your work circumstances	
23	<p>Do you have any other work or paid second job in addition to the main job you specified in Question 9?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → Go to Question 25</p>
24	<p>Is your other work or second job as an employee or self-employed?</p> <p><input type="checkbox"/> Employee</p> <p><input type="checkbox"/> Self-employed</p>
25	<p>How much was your gross monthly salary for the job/s you had during the week 5 March – 11 March 2018?</p> <p><i>Please do not count overtime remuneration.</i></p> <p><i>If you received your salary in a different currency, please convert the amount to Swedish kronor.</i></p> <p><input type="checkbox"/> Less than 20 000 SEK per month</p> <p><input type="checkbox"/> 20 000 – 24 999 SEK per month</p> <p><input type="checkbox"/> 25 000 – 29 999 SEK per month</p> <p><input type="checkbox"/> 30 000 – 34 999 SEK per month</p> <p><input type="checkbox"/> 35 000 – 39 999 SEK per month</p> <p><input type="checkbox"/> 40 000 – 44 999 SEK per month</p> <p><input type="checkbox"/> 45 000 – 49 999 SEK per month</p> <p><input type="checkbox"/> 50 000 – 54 999 SEK per month</p> <p><input type="checkbox"/> 55 000 – 59 999 SEK per month</p> <p><input type="checkbox"/> 60 000 – 64 999 SEK per month</p> <p><input type="checkbox"/> 65 000 SEK or more per month</p>
26	<p>Have you received a higher salary because of your PhD?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Don't know</p>
27	<p>If you could choose, which sector of the labour market would you prefer to work in?</p> <p><input type="checkbox"/> University/university college</p> <p><input type="checkbox"/> Other government sector</p> <p><input type="checkbox"/> Local government</p> <p><input type="checkbox"/> County council</p> <p><input type="checkbox"/> Private</p> <p><input type="checkbox"/> Don't know</p>

28 Have you been unemployed at any time since you finished your doctoral education?

Yes

No → Go to Question x

29 How many months in total have you been unemployed after your doctoral education?

A horizontal bar with a black border and a light orange fill. Inside the bar, there are two vertical orange lines that divide the bar into three sections. The first section is the largest, followed by a smaller second section, and a smaller third section.

months

Less than a month counts as one month.

Being in a labour market policy programme does not count as being unemployed.

Research/research funding	
30	Have you, as a main applicant OR co-applicant, received research funding since you gained your PhD?
	<input type="checkbox"/> Yes
	<input type="checkbox"/> No
	<input type="checkbox"/> No, I have not applied for funding → <i>Go to Question x</i>
	If yes, as what?
	<input type="checkbox"/> Main applicant
	<input type="checkbox"/> Co-applicant
	<input type="checkbox"/> Both
31	From which of the following funding organisations have you received funding as a main or co-applicant?
<input type="checkbox"/>	Swedish Research Council (Vetenskapsrådet)
<input type="checkbox"/>	Foundation for Strategic Research
<input type="checkbox"/>	FORTE (earlier FAS)
<input type="checkbox"/>	FORMAS
<input type="checkbox"/>	Swedish Foundation for International Cooperation in Research and Higher Education (STINT)
<input type="checkbox"/>	ALF
<input type="checkbox"/>	Swedish Cancer Society
<input type="checkbox"/>	Swedish Childhood Cancer Foundation
<input type="checkbox"/>	Swedish Heart and Lung Foundation
<input type="checkbox"/>	Wallenberg foundations
<input type="checkbox"/>	VINNOVA
<input type="checkbox"/>	EU (European Union)
<input type="checkbox"/>	ESF (European Science Foundation)
<input type="checkbox"/>	NIH (National Institutes of Health)
<input type="checkbox"/>	NSF (National Science Foundation)
<input type="checkbox"/>	Other, please specify
	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>

32 How much have you received in research grants as main applicant in the last three years?

Please state the amount in Swedish kronor.

- Less than 500 000 SEK
- 500 0000 - 1 999 999 SEK
- 2 000 000 - 3 999 999 SEK
- 4 000 000 - 5 999 999 SEK
- 6 000 000 - 7 999 999 SEK
- 8 000 000 - 9 999 999 SEK
- More than 10 000 000 SEK

33 How much have you received in research grants as co-applicant in the last three years?

Please state the amount in Swedish kronor.

- Less than 500 000 SEK
- 500 0000 - 1 999 999 SEK
- 2 000 000 - 3 999 999 SEK
- 4 000 000 - 5 999 999 SEK
- 6 000 000 - 7 999 999 SEK
- 8 000 000 - 9 999 999 kr
- More than 10 000 000 SEK

34 Have you been employed as a post-doc or had a post-doc scholarship since you gained your PhD?

If you have been post-doc in several places, answer for where you had spent most of your post-doc time.

- Yes, at KI
- Yes, at another university in Sweden
- Yes, in a Nordic country other than Sweden
- Yes, in Europe excl. the Nordic countries
- Yes, in North America
- Yes, in South America
- Yes, in Afrika
- Yes, in Asia
- Yes, in Oceania
- No

35 After gaining your PhD, have you conducted any research and/or done any teaching abroad?

You may chose more than one alternative.

- Yes, in another Nordic country
- Yes, in Europe excl. the Nordic countries
- Yes, in North America
- Yes, in South America
- Yes, in Africa
- Yes, in Asia
- Yes, in Oceania
- No

36	Have you obtained an externally funded research position in competition with other applicants?	<input type="checkbox"/>	Yes
		<input type="checkbox"/>	No
		<input type="checkbox"/>	No, I have not applied
37	Are you an associate professor (docent)?	<input type="checkbox"/>	Yes
		<input type="checkbox"/>	No
38	Are you currently the main supervisor for any PhD students?	<input type="checkbox"/>	Yes, for
			<input type="text"/>
			students
		<input type="checkbox"/>	No
39	Have you previously been the main supervisor for a PhD-student that has graduated?	<input type="checkbox"/>	Yes, for
			<input type="text"/>
			students
		<input type="checkbox"/>	No

Your views on your doctoral education					
40	To what extent do the following statements correspond with your opinion of your doctoral education?	Corresponds very poorly	Corresponds quite poorly	Corresponds quite well	Corresponds very well
	I am satisfied with my doctoral education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	I received good supervision during my doctoral education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	It was generally a high quality in the courses during my doctoral education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	My doctoral education has given me a platform from which I can conduct my own research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	My doctoral education has improved my chances of being successful on the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	My doctoral education has widened my options on the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	My doctoral education has made a significant contribution to my personal development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41	To what extent do you feel that during your doctoral education you received information from the university about potential future areas of work (career advice)?				
		<input type="checkbox"/>	Not at all/ To a very small degree		
		<input type="checkbox"/>	To quite a small degree		
		<input type="checkbox"/>	To quite a high degree		
		<input type="checkbox"/>	To a very high degree/Completely		
42	Overall, I am satisfied with my doctoral education at KI.				
		<input type="checkbox"/>	Disagree		
		<input type="checkbox"/>	Somewhat disagree		
		<input type="checkbox"/>	Somewhat agree		
		<input type="checkbox"/>	Agree		

- 43 I would recommend KI to prospective doctoral students.**
- Disagree
- Somewhat disagree
- Somewhat agree
- Agree

Your contact with KI

- 44 If you are not presently at KI, how do you stay in contact with KI today?**
- You may chose more than one alternative.*
- Receiving written information from KI (newsletter, magazine or similar)
- Having contact with my former research group
- Having contact with friends at KI
- Through collaboration between KI and my current workplace
- Other, please specify
-
- I have no contact with KI today

- 45 Did you know that KI has an alumni network?**
- If you are not a member of "KI Alumni & Friends", you can sign up here:*
- <https://ki.se/en/collaboration/membership-in-ki-alumni-friends>
- Yes, I am a member of the alumni network
- Yes, but I am not a member
- No

Other comments

46 Please feel free to make any further comments.

Background questions

47 Which gender are you?

(By gender we mean gender identity)

- Woman
- Man
- Other
- Do not want to answer

48 Which year were you born?

Year:

1	9		
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Thank you very much for your participation!