

Štatistický úrad Slovenskej republiky

Číslo: 510 - 0088/2008

Kód: 100308
Okruh: Veda a technika
Dátum: Máj 2008

Results of the pilot statistical surveys on careers of doctorate holders in the SR (CDH 2006)

Sekcia odvetvových štatistík
Generálny riaditeľ sekcie: Ivan Škultéty
Odbor produkčných štatistík
Kontaktná osoba: Edita Novotná
tel.: 02/50 23 62 71

CONTENTS

	Page
<i>Introduction</i>	4
<i>Basic characteristics of doctorate holders sets</i>	5
<i>Demographic characteristics</i>	5
<i>Professional characteristics</i>	7
<i>Employment characteristics</i>	10
<i>Transfer of knowledge</i>	12
<i>Recent graduates</i>	16
<i>Post-Doc programmes</i>	17
<i>Mobility of doctorate holders</i>	18
<i>Results of science-research activity</i>	22
<i>Comparison with the Czech Republic</i>	23
<i>Conclusion</i>	25
<i>Acknowledgements</i>	
<i>Extractions from opinions of respondents</i>	
<i>National methodology brief description of statistics on the careers of doctorate holders</i>	27
<i>Table annex</i>	29-61
Tab. P1. <i>Number of doctorate holders by sex and age class</i>	
Tab. P2.1. <i>Number of doctorate holders by country of birth, type of citizenship and residential status</i>	
Tab. P2.2. <i>Number of doctorate holders by citizenship/residential status</i>	
Tab. P3. <i>Number of doctorate holders by sex and country of citizenship</i>	
Tab. P4. <i>Number of doctorate holders by citizenship/residential status and age class</i>	
Tab. P5. <i>Number of doctorate holders by citizenships/residential status and field of doctorate degree</i>	
Tab. P6. <i>Number of doctorate holders by sex and country of birth</i>	
Tab. P7. <i>Number of doctorate holders by place of birth/residential status and age class</i>	
Tab. P8. <i>Number of doctorate holders by place of birth/residential status and field of doctorate degree</i>	
Tab. ED1. <i>Number of doctorate holders by citizenship/residential status and country of doctorate award</i>	
Tab. ED2. <i>Number of doctorate holders by place of birth/residential status and country of doctorate award</i>	
Tab. ED3. <i>Number of doctorate holders by country of doctorate award and of prior education</i>	

- Tab. ED4. Recent doctorate recipients: Age at graduation and time to completion by main field of doctorate degree
- Tab. ED5. Number of doctorate holders by primary source of funding during completion of doctorate
- Tab. EMP1. Number of doctorate holders by employment status and year of doctorate award
- Tab. EMP2. Number of doctorate holders by employment status, field of doctorate degree and age
- Tab. EMP3. Number of recent doctorate recipients by primary source of funding during completion of doctorate and employment status
- Tab. EMP4. Occupations of employed doctorate holders by field of doctorate degree
- Tab. EMP5. Number of doctorate holders employed as researchers by field of doctorate degree
- Tab. EMP6. Median gross annual earnings of employed doctorate holders (national currency)
- Tab. EMP7. Gross annual earnings of employed recent doctorate recipients by source of funding during completion of doctorate
- Tab. EMP8. Job to job mobility: Length of stay with the same employer
- Tab. PERC1. Perception of doctorate holders regarding their job qualification
- Tab. PERC2. Satisfaction of doctorate holders with their employment situation
- Tab. IMOB1. Number of doctorate holders by citizenship/residential status and length of stay in the country
- Tab. IMOB2. Number of doctorate holders by citizenship/residential status and previous country of residence
- Tab. IMOB3. Reasons for moving into the country for doctorate holders having entered the country in the last ten years
- Tab. OMOB1. Intentions to move out of the country in the next year by country of intended destination
- Tab. OMOB2. Reasons for intentions to move out of the country in the next year
- Tab. OMOB3. Number of doctorate holders having left the country in the last ten years by citizenship/residential status and country of destination
- Tab. OMOB4. Reasons for moving out of the country in the last ten years
- Tab. OUTP1. Average output of doctorate holders working as researchers in the last three years (by field of doctorate degree and by age)
- Tab. OUTP2. Average output of doctorate holders working as researchers in the last three years (by sex and citizenship/residential status)

Results of the pilot statistical survey on careers of doctorate holders in the SR*)

Introduction

The Statistical Office of the SR took part in joint project of OECD, European Commission and UNESCO for the first time and conducted survey on career advancement of persons with doctoral education, holders of academic, research-teaching degrees and research degrees. This international project was realized in 40 countries of the world in order to acquire data on basic statistical characteristics of highest educated part of population and to produce internationally comparable indicators on career advancement of their holders. Considering the determined objective, it was acted according to methodological documents of OECD and Eurostat. But recommended international questionnaire was adjusted to domestic environment. National customs, legislation, classifications and the like were taken into account to create methodological directions for questionnaire fulfilment. The survey was formed on voluntary basis and conducted in the whole population of holders of mentioned degrees in the SR. It related to degree holders **PhD., ArtD., CSc., Dr., ThD., DrSc., associated professor and professor** who worked and lived in the territory of the SR to the 31 December 2006.

Foundations

Considering that a register or a database of persons held mentioned degrees is not available in the SR, we addressed respondents through their employers. The source for identification of employers was statistical reports of production branches (Roč 1-01, Roč 2-01 and Roč 3-99) and mostly statistical report on science and research (VV P 6-01) for 2006. Size of target group was estimated on the base of available miscellaneous information (results of sample survey on human resources in science and technique for 2006, results of census of population and housing in 2001, number of graduates of doctoral studies for 2002-2006 from the of Institute of Information and Prognoses of Education) to 17 450 persons, who could actively worked. Totally 14 500 doctorate holders, who were addressed and requested for cooperation by the SO SR, were identified (addressee of employer) from this number.

Distribution was realized by personal letter of the President of the SO SR to rectors of higher education institutions, directors of research institutes of the Slovak Academy of Sciences (SAS), to ministries and representatives of central bodies. Directors of enterprises and other institutions that marked in statistical reports they employed peoples with relevant degrees were also addressed. This way was relatively lengthy and phone urgencies were needed. Only one higher education institution did not react on request for cooperation (St. Elizabeth University of Health and Social Sciences in Bratislava).

Possibility to fulfil a questionnaire in electronic form was also offered to respondents. Electronic questionnaire was displayed at the SO SR's portal (including methodological instructions and information on progress of survey). Only 120 respondents used this way of fulfilment.

2 660 doctorate holders fulfilled a questionnaire, of which 22 questionnaires could not be use because of incompleteness and inconsistency of responses, non-identification of field of science, intentional depreciation and the like. The return rate by employers (questionnaires were delivered through employers) was broadly differentiated. The lowest return rate was in the higher education sector. Information was not obtained from a quarter of higher education institutions (one university was not involved, none questionnaire was returned from seven universities). The return rate was under 10 % from six universities, in the range of 10-20 % from eleven universities and over 20 % only from seven universities (of which at most 39,92 % of questionnaires was returned from the Technical University in Zvolen). The average return rate was 18,3 %.

*) Results of survey were not imputed because verified support of selection is not available

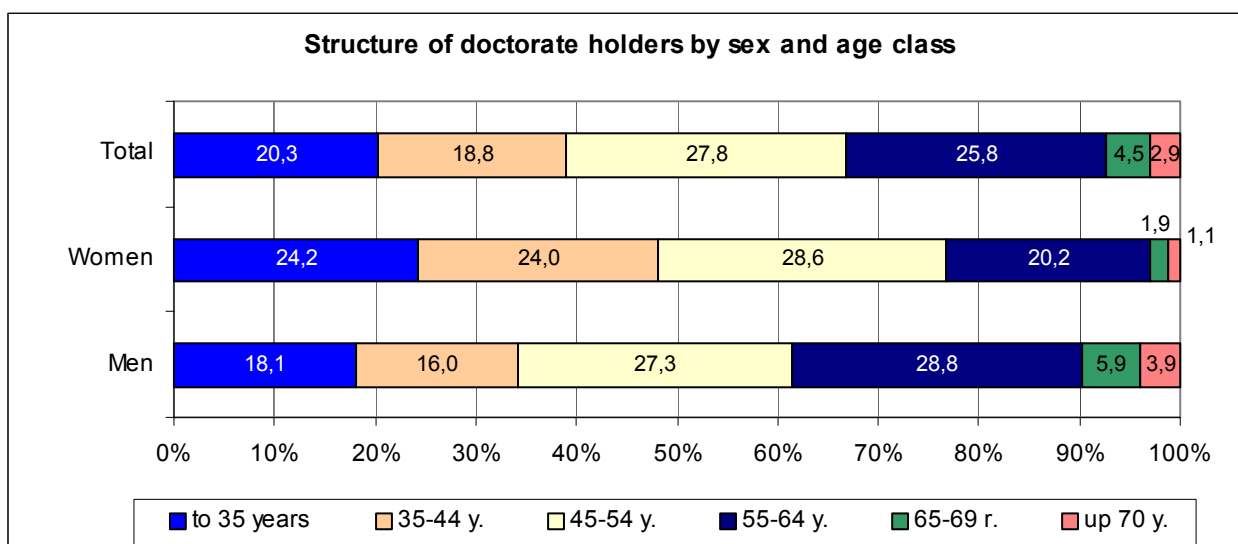
Return of questionnaires CDH 2006

Employers	Number of furnished questionnaires	Number of returned questionnaires	Return in %
Universities	9 700	1 534	15,81
The Slovak Academy of Science	1 842	310	16,83
Central organs (incl.directly controlled organis.)	887	275	31,00
Business sphere	2 071	399	16,53
Electronic questionnaire		120	
Reject of inapplicable questionnaires		22	
Total	14 500	2 660	18,34

Basic characteristics of scientific and pedagogical degree holders

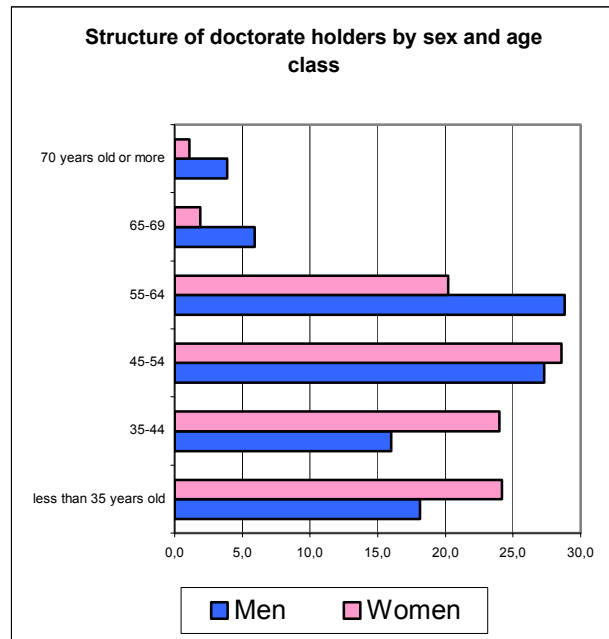
Demographic characteristics

Men (64,7 %) prevailed in the structure of doctorate holders and academic degree holders in the SR. Considering age classes; the survey showed that 61 % of doctorate holders are over 45 years old a third is 55 years old and older (of which 7,4 % over 65 years old). Doctorate holders younger than 35 years represent only slightly over a fifth (20,3 %) and doctorate holders between 35 and 44 years old represent 18,8 %.



Share of women doctorate holders represents on average 35,3 %, but the survey indicates that the percentage of women is increasing towards younger age groups. Their earlier going into retirement, or lower professional activity in this age in relation to men also influences lower percentage of women in older age groups certainly. Women represent only 14,4 % of participated in the age over 65 years in the survey.

Age	Structure in v %		Share of women in %
	Men	Women	
To 35 y.	18,15	24,19	42,06
35-44 y.	15,98	23,98	44,96
45-54 y.	27,34	28,60	36,29
55-64 y.	28,81	20,22	27,65
65-69 y.	5,85	1,94	15,25
Up 70 y.	3,86	1,08	13,16
Total	100,00	100,00	35,25

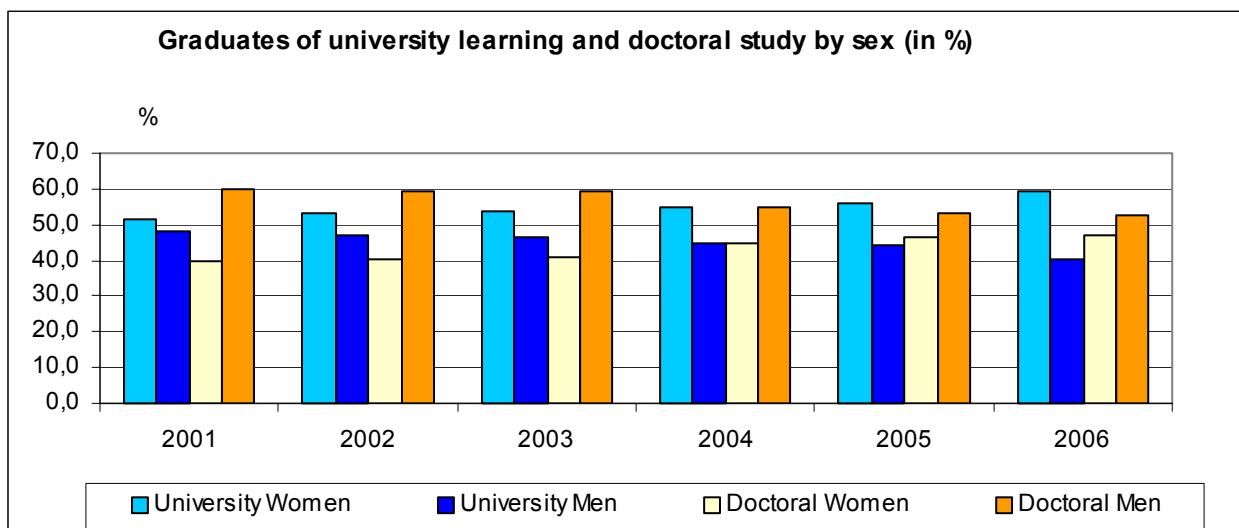


Higher percentage of women in younger age groups in comparison with older ones is closely connected with continuing more significant change in the structure of university graduates. While the number of men graduates of higher education studies increased 25,6 %, the number of women university graduates rose 63,1 % over the last 5 years. This trend was also reflected in growing number of women with doctorate degree in younger age groups. It can relate (except generally increasing interest of graduated university students in doctoral studies over last years) also to higher interest of women in research, or teaching career, but also to solving a problem of obtaining a job (up to approximately 2 % of respondents reported they have no other possibility to employ quickly, or to bring maternity into accord with career at university). It can reflect higher number of admitted students to university studies in last years as well as totally growing number of women at the number of graduates of university studies (it reached 59,5 % in 2006). Higher interest in doctoral studies is presented in the following table.

Year	Number of graduates of doctoral study	Of which women	Number of graduates of universities	Of which women	Share of graduates of doctoral study / graduates of universities	Interyearly growth of number in %	
						Graduates of doctoral study	Graduates of universities
2001	532	212	23818	12289	2,23	124,0	118,3
2002	734	298	24896	13223	2,95	138,0	105,5
2003	726	295	27546	14787	2,64	98,9	110,6
2004	854	384	29908	16430	2,86	117,6	108,6
2005	1022	476	31602	17643	3,23	119,7	105,7
2006	1218	576	36234	21572	3,36	119,2	114,7

Source: ÚIPS

The number of graduates of doctoral study is increasing according to the Institute of Information and Prognoses of Education in last years after stagnation in 2003. The number of graduates of doctoral study was higher about 66 % in comparison with 2002, while the number of graduates of all types of universities increased 45,5 % in relevant period.



In terms of nationality, up to 99,2 % of the survey participants were nationals of the SR. 95 % of this group acquired Slovak citizenship by birth and 5 % by naturalization (of which citizens of the SR born in the Czech Republic represent two thirds). 5,7 % doctorate holders was born abroad by place of birth. Prevalled part of them come from the Czech Republic (64,9 %), Ukraine (7,3 %), Hungary (5,3 %), Russia (3,3 %). 5,3 % come from African countries and 4 % of doctorate holders from Asian countries.

Prevalled majority of doctorate holders was married (73,6 %), or lived in a marriage-like relationship (1,7 %). 15,5 % was single and 9,2 % of doctorate holders were divorced or widowed. Regarding gender, considerably more men is married or lived in a marriage-like relationship (82,1 %) than women (62,9 %); more women are divorced or single (10,4 % or 22,9 %) than men (4,8 % or 11,5 %).

More than 55 % of doctorate holders stated they have at least one person dependent on their incomes. 11,9 % of doctorate holders have dependents to 5 years or younger, 22,5 % between 6 and 18 years and 29,8 % 18 years or older.

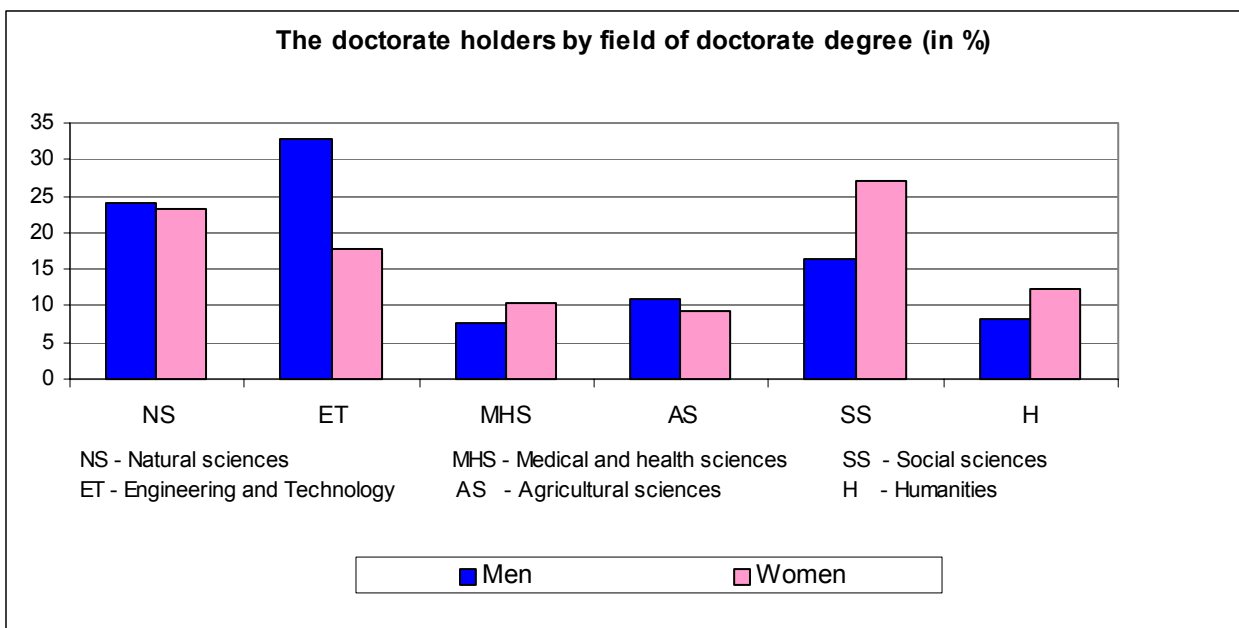
Professional characteristics

93,2 % of doctorate holders was awarded in Slovakia and 6,8 % of doctorate holders was awarded abroad. Prevalled part of doctorates granted in Slovakia was awarded by universities (at most at UC Bratislava, STU Bratislava, TU Košice), and SAS, or other education institution awarded 6,6 % of degrees.

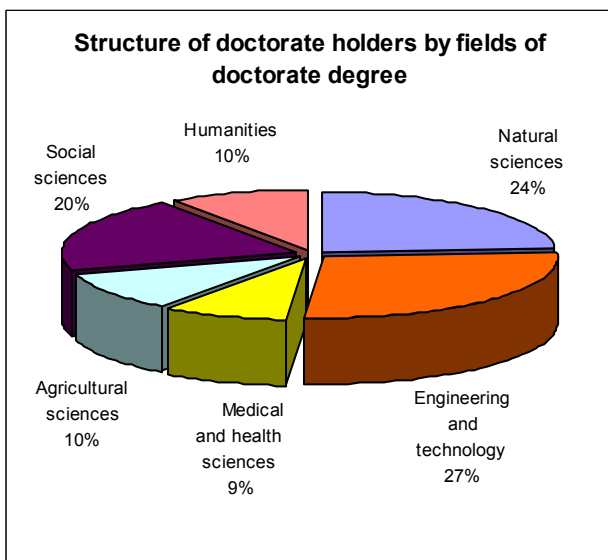
Field of science	Structure in %		Share of women in %
	Men	Women	
Natural science	24,1	23,2	34,45
Engineering and technology	32,9	17,8	22,80
Medical sciences	7,7	10,3	42,29
Agricultural sciences	10,9	9,2	31,62
Social sciences	16,3	27,1	47,46
Humanities	8,1	12,3	45,06
Total	100,0	100,0	35,25

By field of science of doctorate, engineering and technology prevailed, where 27,6 % of doctorate holders worked, followed by natural (23,8 %) and social sciences (20,1 %). Least doctorate holders worked in medical (8,6 %) sciences and humanities (9,6 %).

Women in comparison with men were awarded higher percentage of doctorates in social sciences, humanities and also medical sciences, even if they nearly reach a half of granted doctorates. Social sciences are near to this limit (47,5 %). Women in engineering and technologies (22,8 %) reached traditionally the lowest percentage.

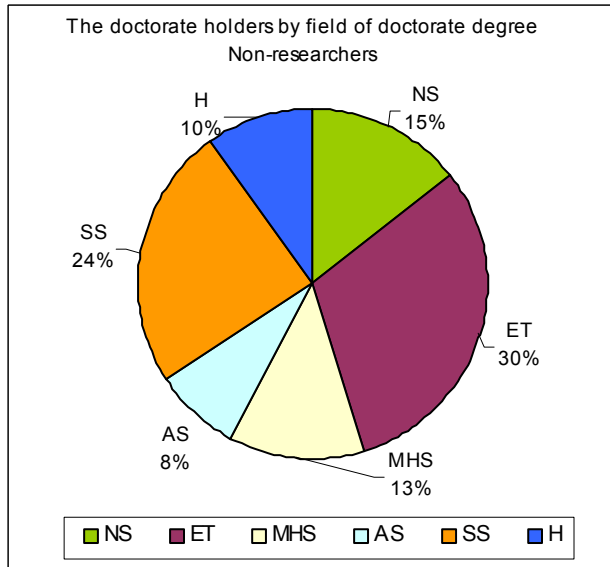
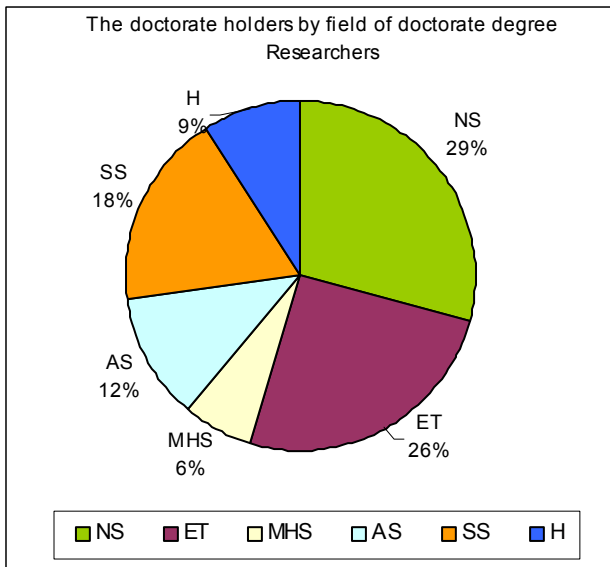


In surveyed file of doctorate holders, 63,6 % of them worked as a researcher. Men represented 63,4 % and women 36,6 %. The highest percentage of men researchers was awarded degree in engineering and technologies (30,7 %) and natural sciences (29,6 %), at least in medical sciences (5 %).



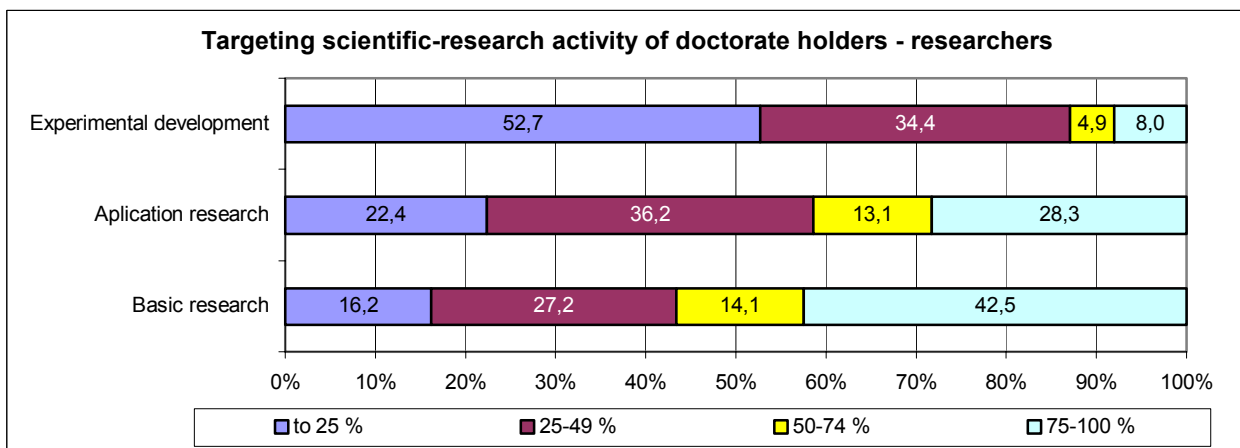
Concerning men – researchers, young people to 35 years old represent a fifth (to 44 years old about 37 %), while more than a tenth is 65 years old and more. Majority of women researchers was granted scientific degree in natural (28,2 %) and social sciences (24,1 %).

Women researchers are almost equally divided into individual age groups, but almost a half of doctorate holders is in younger age groups (to 44 years old) in comparison with men. Only 2,6 % of women with doctorate working in research is over 65 years old. The survey showed that up to 82 % of researchers perform within its occupation also teaching activity, but its percentage in the total activity of employee was slightly over 50 %.

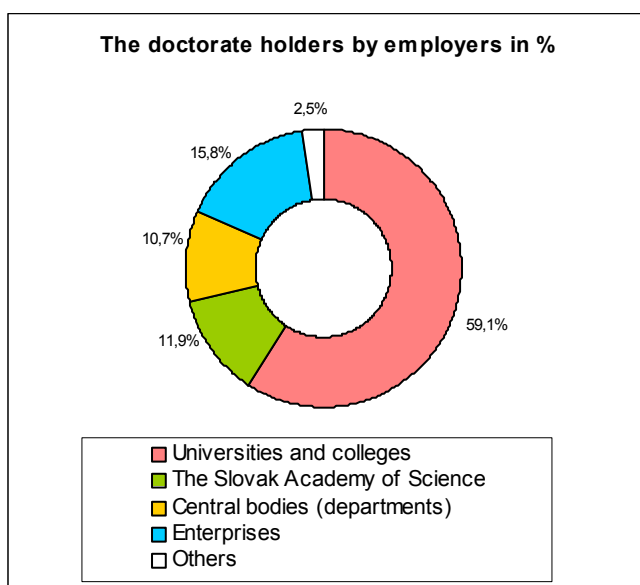


Women represent 32,9 % in the group of doctorate holders – non-researchers. Almost 31 % of doctorate holders that does not work in research was granted doctorate in engineering and technologies (of which almost men represent 80 %) and more than 24% in social sciences (of which almost women represent 45 %). 14,5 % have degree in natural sciences, 12,5 % in medical, 10,1 % in humanities and 7,9 % of respondents that does not work in research in agriculture sciences. Almost three quarters of university teachers are not included into researchers, but their research activity exceeds a half of working time in 60 % of cases.

In terms of specification of scientific and research activity, more than a half of doctorate holders dedicates to primary research in range of more than 50 % of working time. Almost 60 % of doctorate holders dedicating to application research dealt with these activities less than 50 % of working dedicate to this activity only a quarter of working time.



Employment characteristics



Concerning the total number of responses received from respondents 2638, up to 99,5 % of doctorate holders actively worked. To reference data, already inactive doctorate holders represent 0,4 % and unemployed 0,1 %.

More than 70 % of surveyed sample worked in research or education institutions (universities, SAS). Others worked in central bodies, or their directly managed sections (10,7 %), the rest in organizations of business spheres and other institutions.

40 % of doctorate holders were awarded degree in surveyed sample in 2000 – 2006. Unemployed doctorate holders are included in this group. Almost 36 % of the survey participants was granted doctorate to 1989. All already inactive doctorate holders are included in this group (there is only one exception).

97,9 % of active doctorate holders were employed and 1,6 % were self-employed. More than a half of doctorate holders worked as a permanent employee (fixed-term contract 46,7 %). Prevalled majority worked as a full-time employee, only 4 % worked as a part-time employee. In terms of age, almost three quarters of 35 years or older and two thirds of 65 years and older worked under a fixed-term contract. But almost a third of doctorate holders with part-time employment were concentrated in age groups 65 years and more.

Average gross monthly earnings were surveyed as interval value; therefore the results have to be considering as orientational. 60,1 % of doctorate holders in the survey stated that their gross monthly earnings was 25 thousand SKK or less, but prevailed majority of them (almost 57 %) is in the range between 20 and 25 thousand SKK. More than one fifth of all doctorate holders are in lowest wage range (20 thousand SKK and less), almost 12 % of degree holders (in the group of researchers only 9,4 % and non-researchers 15,4 %) is in the range 40 thousand SKK and more monthly.

Concerning sectors of employment, the highest percentage of low earnings evaluation (20 thousand or less) is in other education sector (about 60 %) and in higher education sector (25 %). The highest percentage of earnings 40 thousand SKK and more is in business sector (more than one third), in non-profit sector (over 19 %) and in government sector (almost 16 %).

By age groups, absolute majority (57,6 %) of young doctorate holders up to 35 years old has less than 20 thousand SKK earnings in spite of high qualification and 69,1 % of them has up to 25 thous. SKK monthly earnings. Up to 45,8 % of young scientists has earnings in the range between 15 and 20 thous. SKK monthly and only 9 % of them has earnings 35 thous. SKK or more. 40 % of doctorate holders are also in age group between 35 and 44 years in the wage range between 20 and 25 thousand SKK, while only 13,3 % in intervals 35 thousand or more. Division of number in wage range was logically moved to higher evaluation as a result of a growing age, an increase in qualification and a development of scientific and pedagogic career in

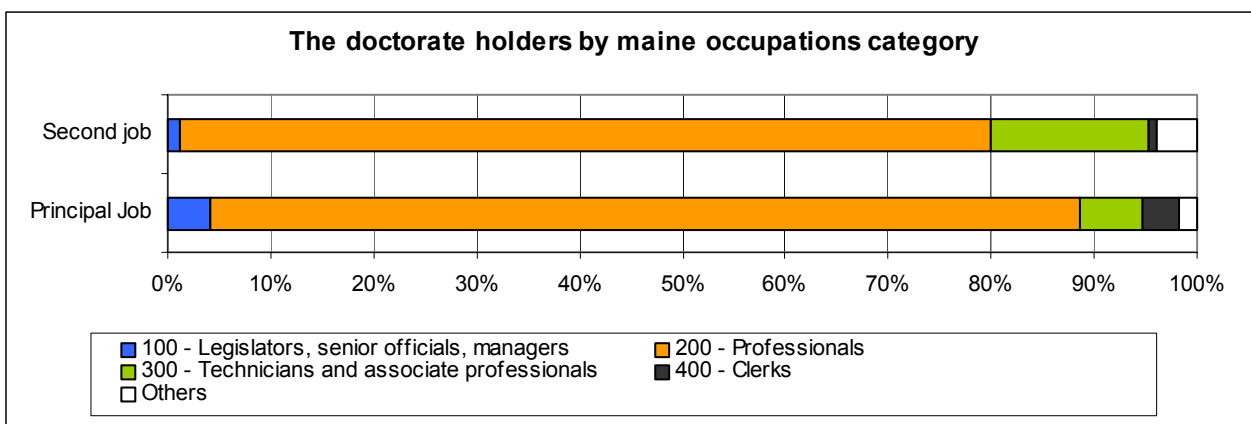
age groups between 45 and 54 and between 55 and 64 years. There is 8,9 %, or 4,7 % of persons in wage intervals 20 thousand SKK or less in this group of respondents. Majority of them was declared into medium earnings positions, when 69 %, or 71,3 % of doctorate holders were in interval between 20 and 35 thousand SKK. The percentage of doctorate holders who better earned (35 thousand SKK and more monthly) also increased to 21 % (in the group between 45 and 54 years old), or to 23,3 % (in group between 55 and 64 years old). Most of doctorate holders in highest age groups are concentrated on medium or even lower intervals (respondents in the age 70 years or older) and the influence was also recorded in part-time employments and gradual decrease of activity of these persons.

Concerning gender, the survey showed that differences also continued in the most well-educated class of qualified labour force in earnings evaluation of men and women. The percentage of women and also men is almost coincident and oscillates about 60 % in medium wage range. But the percentage of women reached up to 29,5 %, while men represent 17,4 % in low wage range (20 thousand or less monthly). On the contrary, earnings of only 8,1 % of women was 35 thousand SKK and more, while men who were evaluated equally represented up to 22,3 %.

Concerning the age, differences are evident in earnings evaluation mostly by women researchers in young and younger age. While up to 64,5 % of young women researchers 35 years or younger gets earnings 20 thousand SKK or less (men 52,6 %), only 4,45 % of young women researchers gets earnings 35 thousand or more (men 12,25 %). It comes to some decrease in differences in earnings evaluation of men and women in the age group 45 years and older, i.e. only mostly in medium wage range. The percentage of higher evaluated women is about twofold lower (is about a third) than the percentage of men, mostly in the age 44 years and younger. There is reflected some “postponement” of career progress of women in connection with maternity and family. Position of women is slightly bettered between 45 and 64 years – the share of better-evaluated men exceeds the share of women only in one case.

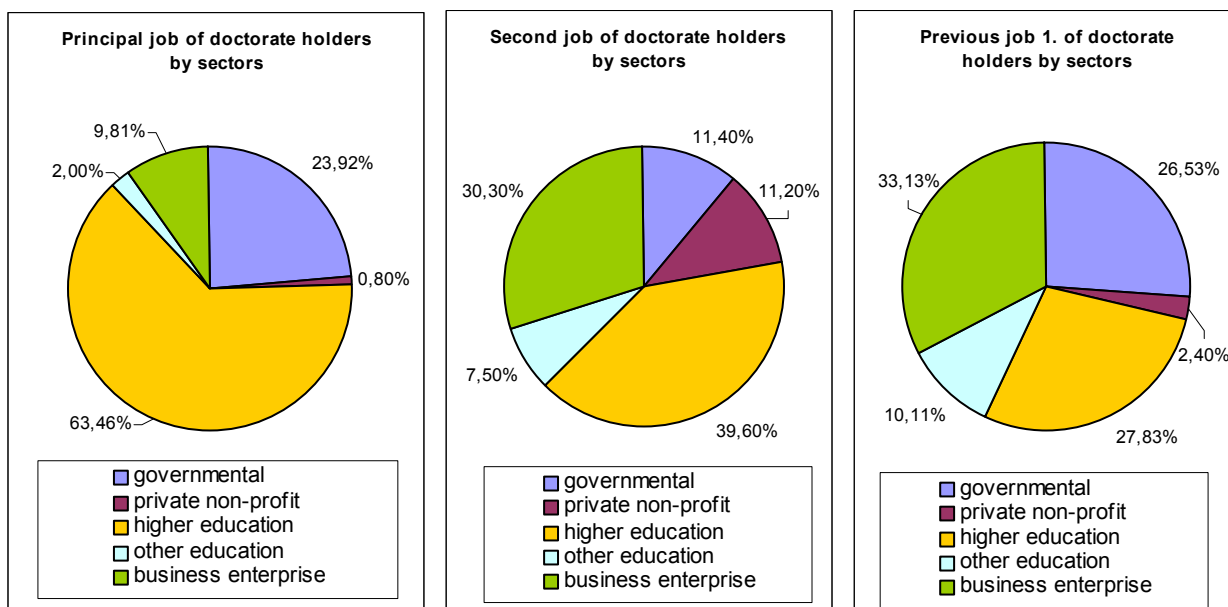
Median of gross monthly earnings of doctorate holders – researcher represented SKK 22 500. Doctorate holders in private non-profit sector (median SKK 37 500) and in business sector (median SKK 32 500) reached the highest gross monthly earnings reached. Median of gross monthly earnings in higher education sector was SKK 22 500. Average monthly earnings of participants of Post-Doc programmes within this sector were lower (median SKK 20 000). Median of gross monthly earnings of doctorate holders – non-researcher was SKK 27 500, but degree holders in government and business sector reached the highest level (SKK 32 500).

Results of survey showed that 32,1 % of respondents had besides its main employment also part-time employment to the reference date.



Regarding occupations of degree holders, professionals prevailed (84,5 %). Lower percentage (4,2 %) of doctorate holders is employed as legislators, senior officials and managers and 12,2 % are employed as other professionals.

Physical, mathematical sciences and engineering science professionals represent 16,7 %, biologists, health and related professionals 13,1 %, other professionals 8,3 % of the group of professionals. Teaching professionals (almost 62 %) have the highest percentage in this group, of which scientific and pedagogic employees and university teachers up to 98 %. Teachers of secondary or primary schools represent the rest. Majority of teaching professionals worked in the higher education sector (97,5 %), in other education 2 % and the rest in government sector.



Almost 60 % of scientific and pedagogic employees and teachers of universities is 45 years and older and 7,4 % is 65 years and older. 22,5 % is in age group 35 years or younger. The percentage of women in the total number of scientific and pedagogic employees and teachers of universities reached 36,4 %. The percentage of women is higher in younger age groups (in the age between 35 and 44 years is 50 %), it decrease towards higher age groups. Women represent only 12 % in age group 65 years or older. 34 % of teachers of universities in part-time employment are employed in this age group, but majority of them are men (over 90 %).

Transfer of knowledge

Transfer of knowledge and results of work was reflected in joining to education, instructing or other professional activities characterised the professional activity of the most educated class of population in population of degree holders.

78,8 % of doctorate holders dedicates to both, research activity and teaching activity. A quarter of them dedicates to teaching activities 25 % of working time and less and 19,2 % between 25 and 50 % of working time, on average. Up to a third of doctorate holders dedicates to teaching between 50 and 75 % of working time and 22,2 % of them 75 % of working time and more. 21,2 % of holders of scientific degrees does not work in pedagogic process (of which researchers represent 54,5 % and non-researchers 45,5 %).

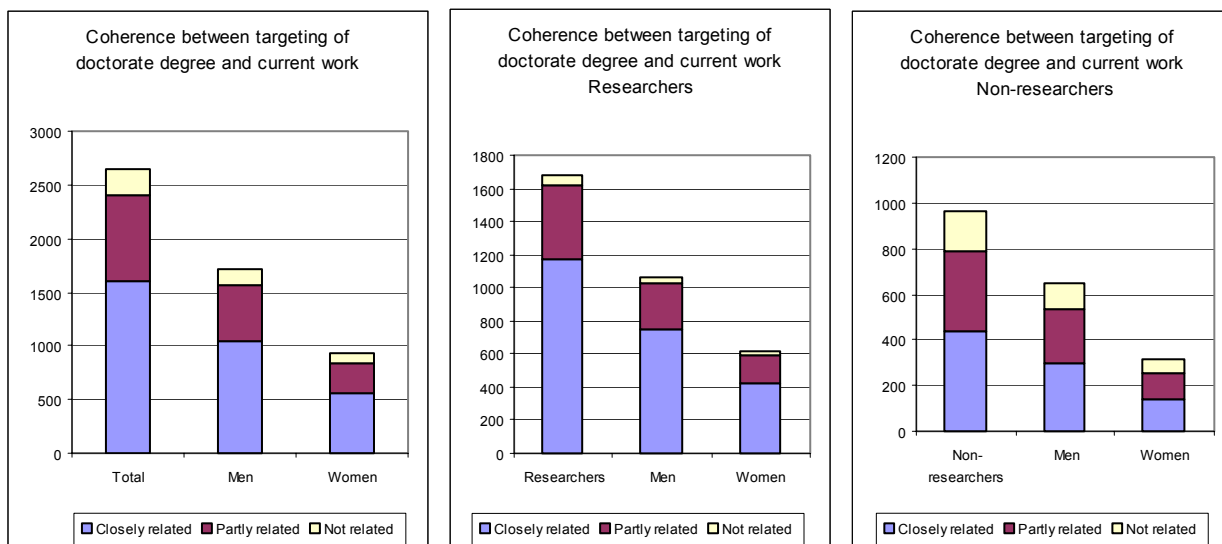
62,2 % of acquired sample of respondents was invited to scientific lectures and 70,8 % took part in international conferences. 46,2 % of respondents was directly included into work of international research group (or into cooperation) and 39,6 % of respondents conducted instructing or training programmes. 55 % of doctorate holders were supervisors of dissertations and 31,5 % of doctorate holders were supervisors of thesis.

50,9 % of the total number of respondents was in work classification of scientific and pedagogic employee and teacher of university. Majority of them worked in the higher education sector (only

0,5 % in the government sector). Every fourth respondents from this group of employees of university on average did not answer questions on research activities. Almost two thirds of scientific and pedagogic employees and teachers of university (11,4 % did not attend them) were invited to scientific lectures. Three quarters took part in professional international conferences and 45,9 % of respondents reported cooperation with international research group (28,2 % did not cooperate in international research). 44,4 % of university teachers conducted instructing and training programmes (29 % did not conduct them). 66,6 % were supervisors of students in drawing up dissertations and 36,9 % of this group of employees educated inceptors and guided them at the beginning of scientific and research career. 9,4 %, or 37,3 % of university teachers did not perform relevant tasks (supervisor of thesis, supervisor of doctorate thesis). Women and men participated in these activities roughly equally and the percentage of women answers their representation in the whole population of doctorate holders. Men prevailed more significantly among supervisors of thesis (74,6 %), it relates to lower percentage of women with scientific degree of higher level (it gives conditions to education of inceptors).

The survey showed that 61 % of doctorate holders perform work that closely relates to subject of doctorate thesis, continues in developing of scientific and research qualification and dedicates to chosen specialization. The percentage of closely related working activity to subject of doctorate thesis is slightly higher by men (61,5 %) than by women (60 %). This percentage is slightly higher in humanities and social sciences (66,4 %, or 63,3 %), while the lowest one is in engineering and technologies and natural sciences (56,9 %, or 60,8 %). Slightly over 30 % of holders of scientific degrees worked in the field that partially relates to subject of doctorate thesis, but this fact is more often among women (31,1 %) than among men (29,7 %). Doctorate holders in the field of medical sciences and engineering and technologies (34,4 %, or 32,7 %) have the highest percentage of partial concurrency of performed working activity and subject of doctorate thesis and doctorate holders of humanities and natural sciences (27,7 %, or 28,2 %) have the lowest percentage. 8,8 % of respondents (8,7 % of men and 8,9 % of women) worked in other field than subject of doctorate, where awarded scientific and research qualification remains no used. Up to 11 % of doctorate holders in natural sciences performs this working activity and 10,4 % doctorate holders in engineering and technologies. This fact was more rare in medical sciences (4,4 %) and humanities (5,9 %).

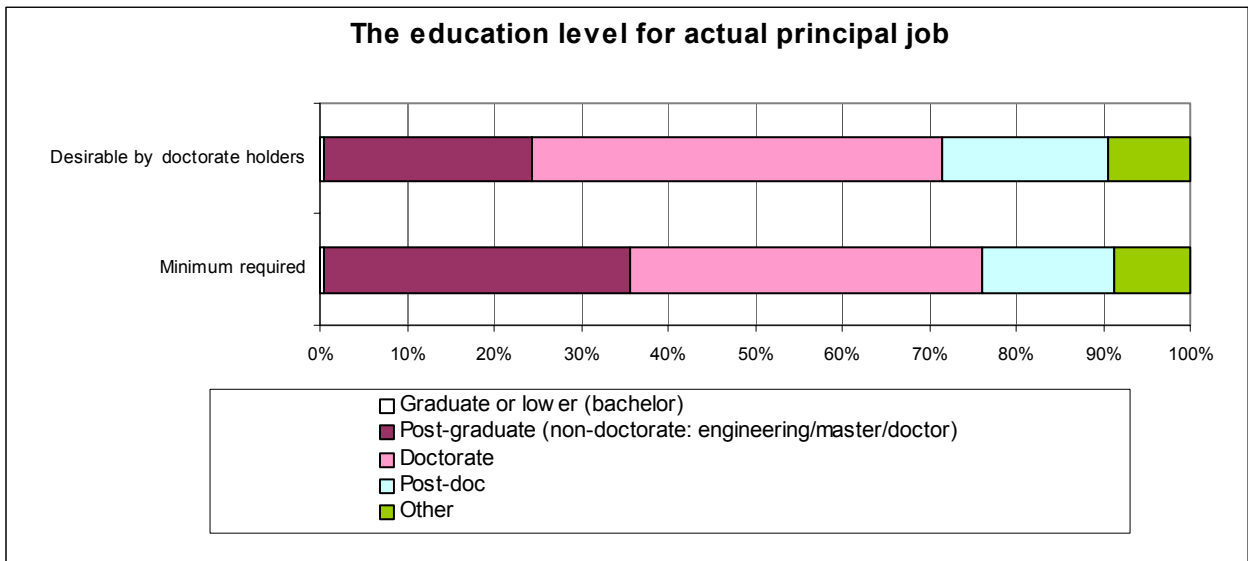
Concerning the occupation, in the group of professionals, 65,7 % of respondents marked that their work closely relates to subject of doctorate, while the percentage of them, those work do not relate to doctorate is 5,3 %. The percentage of work related to doctorate is 51 % and the percentage of work no related to dissertation 15,5 % in the group of engineering, medical and teaching professionals. 40 % works in the field related to doctorate and 24,5 % worked in the field no related to doctorate in the group of senior officials and managers. Only 11,6 % of respondents works in the field related to doctorate and 36,8 % in the field no related to doctorate in the group of officials. Majority of doctorate holders works in the field no related to subject of doctorate (46,7 %) and only 28,3 % works in the field closely related to its qualification in the group of other professionals.



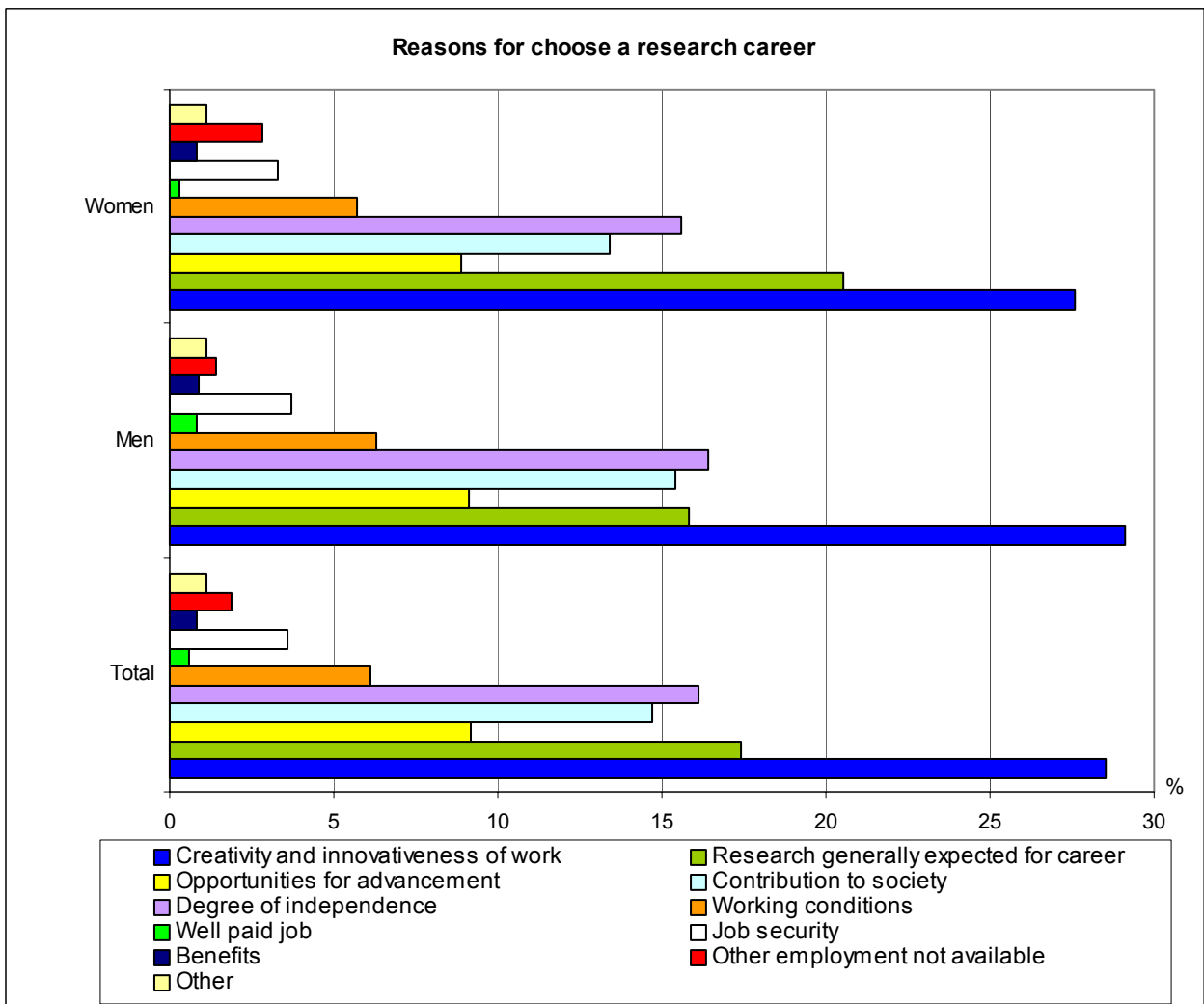
Participants of the survey expressed own opinion of employment and its attributes. Men are the most satisfied with job location, intellectual challenge, level of responsibility, degree of independence and contribution to society in the field of satisfaction of doctorate holders with their employment. They are less satisfied with job security, opportunities for advancement, level of responsibility, benefits and degree of independence. The most significant dissatisfaction was rated in items salary and benefits; somewhat dissatisfaction was also with salaries, benefits and job security. Women doctorate holders are very satisfied with job location, contribution to society, intellectual challenge, level of responsibility and degree of independence. They are somewhat satisfied with salary, opportunities for advancement, level of responsibility and contribution to society. They are very dissatisfied with benefits, salary and opportunities for advancement; they are somewhat dissatisfied with benefits, salary, and opportunities for advancement and job security.

Respondents also expressed themselves to required minimal level of education at positions, where they worked to the reference date. More than 35 % of working positions occupied by doctorate holders require higher education only (engineering, master, doctor), or only bachelor education (0,5 %). Only 23,9 % of them considers this defined degree of education for relevant position to be answerable. By their outlook, it was required higher degree of education than answered their work performed and on the contrary in some cases. 47,1 %, or 19,1 % of respondents considered it to be answerable at positions, where is defined minimally doctoral and post-doc education (40,4 %, or 15,3 %).

The survey showed as well as that almost a quarter (24,4 %) of doctorate holders works at positions requiring lower education and their qualification is probably not used sufficiently.

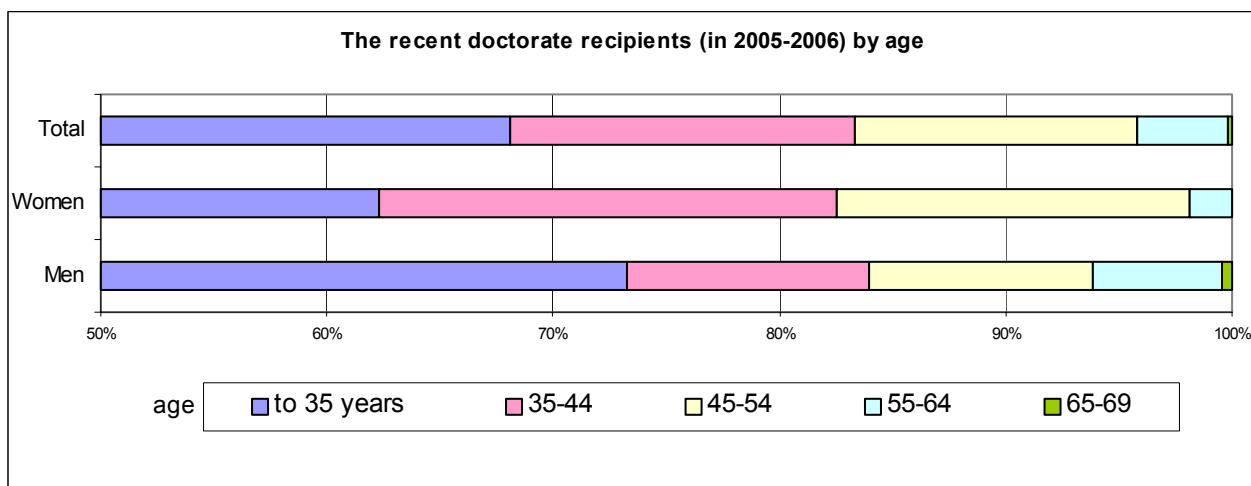


The main reason for which scientists and researchers (current and also former) choose a research career was creativeness and innovativeness of work (28,5 %), research generally expected for career (17,4 %), degree of independence (16,1 %) and contribution to society (14,7 %). Opportunities for advancement (9,2 %) and working conditions (6,1 %) follow then.



Recent graduates (graduates of doctoral education in years 2005-2006)

Graduates of doctoral education in years 2005 and 2006 represent 17,2 % of the sample of doctorate holders. There prevailed men, even if the percentage of women is higher (46,6 %). Totally, 26 % of graduates were awarded doctorate in social sciences, 24,4 % in engineering and technologies and 20,2 % in natural sciences. 12,3 % have awarded doctorate in humanities, 9 % in medical sciences and 8,1 % in agricultural sciences. Markedly men represent higher percentage of doctorates in the field engineering and technologies (almost a third of all) and women in the field of social sciences (almost equally a third).



Concerning subject of theses, 43,3 % of recent graduates addressed a fundamental problem, 23,5 % made an improvement in methodology, 29,9 % made an improvement in a process and 3,3 % dedicated to other problems.

50,3 % graduated doctoral studies by daily form and 49,7 % of doctorate holders by external form. Men preferred (52,7 %) daily form of study, women external form of study (52,4 %). The percentage of women in groups of recent graduates was 46,6 % (44,1 % in daily form, 49,1 % in external form).

Graduates of doctoral studies were on average 34 years old when awarding doctorate (median = 31 years). Graduates in medical sciences were the oldest on average (40 years) and graduates in natural sciences were the youngest (32 years).

Scientists 35 years old and younger (of which women represent 42,6 %) represent prevailed part (68,1 %) of recent graduates. 83,3 % of recent graduates (of which women represent 46,2 %) were 44 years old and younger. 16,7 % of recent graduates were 45 years old and older and 4,2 % 55 years old and older.

Length of studies (until a degree was awarded) was an average 63 months (median = 57 months). These characteristics were almost coincident by men and women. 12,5 % of recent graduates stopped out studies (14,6 % of women, 10,7 % of men). Stop-out of study lasted an average 17,5 months (men: 14,4 months, women: 20,2 months).

More than one fifth (22 %) of recent graduates attended the doctoral studies abroad, but men represented up to 62 % of them. Average length of study abroad was 9,5 months (men: 10,6 months, women: 7,6 months).

98 % of doctorate holders graduated in the years 2005 and 2006 were paid employees, 1,1 % were self-employed, 0,7 % unemployed and 0,2 % inactive. Senior officials and managers represented 1,3 % of participants of the survey who performed their occupation to the reference

date, 2 % other professionals (in trade and services, armed forces), 2,2 % officials and 5,6 % engineering, health and teaching and related professionals. Professionals represented majority (up to 88,9 %), of which more than two thirds were scientific and pedagogic employees and university teachers.

By occupation sector, 73,4 % of recent graduates worked in higher education sector, 15,7 % in government sector, 0,7 % in private non-profit sector and 2,9 % in other education sector. 7,3 % of recent graduates of doctoral studies in 2005 – 2006 are employed in business sector.

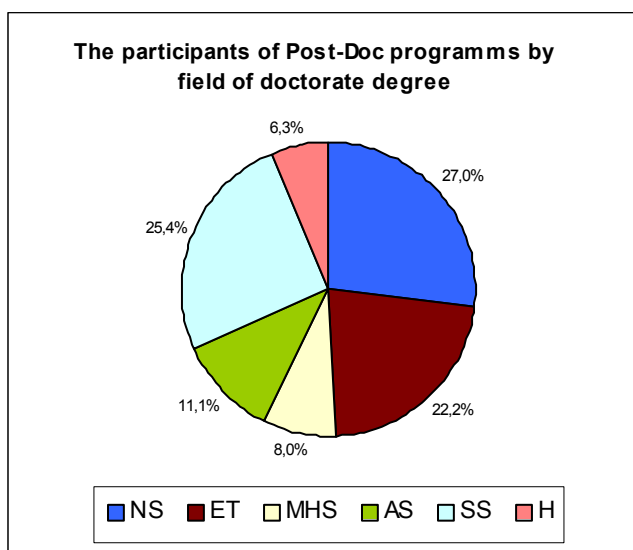
41,6 % of recent graduates marked fellowship or scholarship from an institution in Slovakia as primary financial source during doctoral studies. 15,4 % received financial sources through teaching and/or research assistantship, 14,5 % from other occupation, 10,1 % of recent graduates as employer reimbursement or assistance. 16,9 % of graduates of doctoral studies marked personal savings, loans and other sources. 1,5 % of doctorate holders used for financing doctoral studies fellowship, scholarship from abroad.

By the survey, 12,2 % of recent graduates of doctoral studies has gross monthly earnings 15 thous. SKK or less and 55,9 % 20 thous. SKK or less. 23,6 % has earnings between 20 and 25 thous. and 8,2 % of respondents have between 25 and 30 thousand SKK. 12,3 % of recent graduates of degrees was included into range 30 thous. SKK or more monthly.

Post – Doc programmes

We surveyed participation of young scientists in Post-Doc programmes. Since the age threshold for a participant of Post-Doc programme is changeful (depends on kind of programme – project, field of science, financing institution), the age 35 years old and younger was set for purposes of survey.

2,4 % of doctorate holders from addressed sample of doctorate holders actively worked to the reference date took part in Post-Doc programmes. Men represented 58,7 % of them. Respondents participating in Post-Doc programmes held largely (79,4 %) a degree at first stage of research qualification (PhD., CSc., Dr.). Holders of scientific and pedagogic degrees of higher stage (DrSc., associate professor, professor) represented 20,6 % of participants of Post-Doc programmes (of which women represented 48 %), but almost two thirds of them were from the field of natural sciences and engineering and technologies. Structure of participants by field of science in Post-Doc programmes in total was the following: from natural sciences (27 %), social sciences (25,4 %), engineering and technology (22,2 %), agricultural sciences (11,1 %), medical sciences (8 %) and humanities (6,3 %).



Holders of scientific degrees took part in Post-Doc programmes that were realized in the field of science: natural sciences (27 %), social sciences (25,4 %), engineering and technologies (19,1 %), agricultural sciences (12,7 %), medical sciences (9,5 %) and humanities (6,3 %).

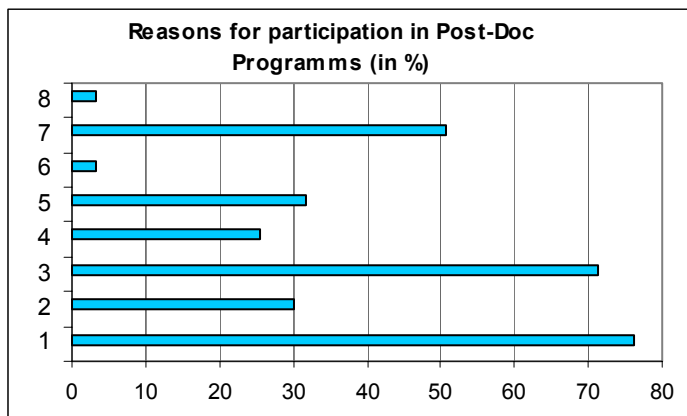
In terms of length, prevailed part of Post-Doc programmes (60,3 %) lasted more than 2 years, 23,8 % lasted 1 year or less and 15,9 % between 1 and 2 years.

Respondents participating in Post-Doc projects were all in employment, mostly included in wage range 15-20 thous. SKK (41,3 %) and 20-25 thous. (25,4 %). 7,9 % of participants of development programmes earned 15 thous. SKK or less monthly. 4,8 % of respondents were included into higher wage class (25-30 thous. SKK) and 20,6 % of respondents earned 30 thous. SKK and more. None woman was included in class 30 thous. SKK and more (gross monthly earnings).

In term of occupation (occupation classification), professionals represented up to 88,9 % of participants of Post-Doc programmes (9,5 % were engineers, health, teaching and related professionals), of which scientific and pedagogic professionals and university teachers represented more than 55 %, physical, mathematical and engineering science professionals 19,6 %, biological, health and related professionals 16,1 % and other professionals 8,9 %.

Doctorate holders participating in Post-Doc programmes worked mostly in higher education sector (74,6 %) and in government sector (22,2 %). All participants of Post-Doc programmes dedicated to research and teaching activity, but of different range. Almost one third of participants of Post-Doc projects dedicated to research activities more than 75 % of working time, 12,7 % of doctorate holders dedicated to research activities 51-75 % of working time and 42,9 % of doctorate holders 25-50 % of working time. Almost three quarters of participants of programmes dedicated to teaching activities, at most 25-50 % of working time (38 % of participants of programmes). Participants of Post-Doc programmes dedicated to other activities mostly less than 25 % of working time.

76,2 %, or 71,4 % of respondents participating in Post-Doc projects marked additional training in doctorate field and carrying out research independently as prevailed reason for participation in the programme. It follows then „post-doc generally expected for career in this field „ (50,8 %), „carrying out and support teaching activities“ (31,7 %), „training in an area outside of doctorate field“ (30,2 %) and „work with a specific person or in a specific place“ (25,4 %). Only 3,2 % of respondents marked least often, „other employment not available“ or „other reasons“ as reasons for participation in Post-Doc programmes.



- 1 Additional training in doctorate field
- 2 Training in an area outside of doctorate field
- 3 Carry out research independently
- 4 Work with a specific person or in a specific place
- 5 Carry out and support teaching activities
- 6 Other employment not available
- 7 Post-doc generally expected for career in this field
- 8 Other reasons

The main source of financial support of participant of Post-Doc project come from government / public sector agency/contributory (55,7 %) and faculty/university (31,2 %). Private foundation and non-profit organization gave financial support equally for 1,6 % of participants of Post-Doc programmes and 9,9 % of respondents marked other source (external organization, budgetary organization). Financial support from private company was not occurred in the survey.

Mobility of doctorate holders

Mobility of most educated class of labour force is a natural phenomenon. To develop own capacity, high-qualified labour force search of course better conditions for performance of its

occupation and moved out for this reason. It can be work on international projects in research institutions, or universities or just more stimulating environment for research. It gives feedback on quality of research, or teaching and moves forward a development of knowledge.

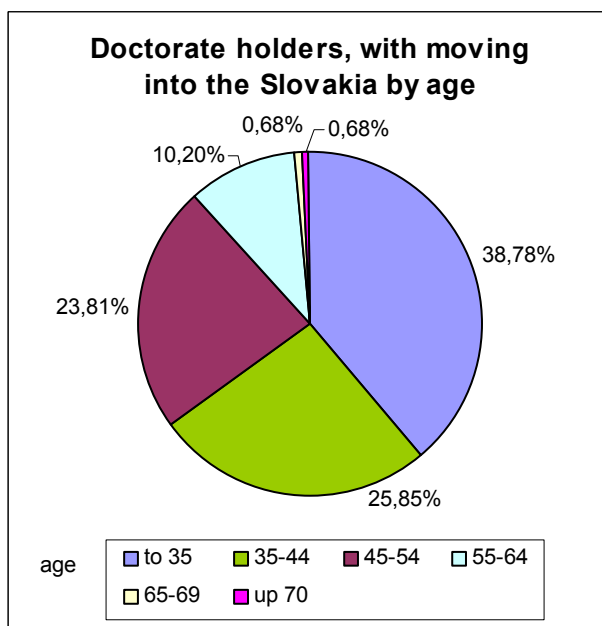
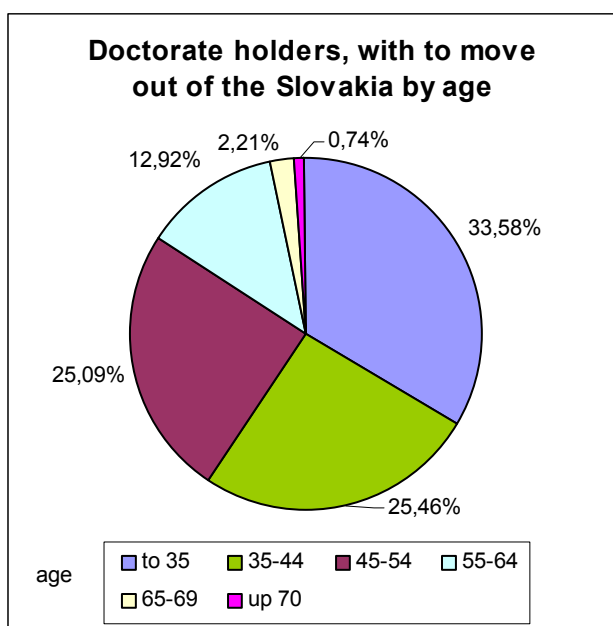
But information from sample in the SR does not document high international mobility of doctorate holders until now. Foreign state citizen represented only 0,8 % of doctorate holders of the total number of participants in the survey employed in Slovakia. 99,2 % of respondents have Slovak citizenship, 94,3 % of respondents was born in Slovakia. 5,7 % of doctorate holders come from other country (residents born in Czech represent almost 65 % of them, but with Slovak citizenship as well as). Men (90 %) represented majority of foreigners employed in Slovakia with permanent resident in the SR. Only every fourth foreigner with doctorate degree stayed temporary in Slovakia.

Since realized survey was aimed at doctorate holders that lived and worked at the territory of Slovakia to the reference date, persons that because of different reasons leaved the SR and have not come back until now were not showed in the survey.

271 doctorate holders (of which women represented 27 %) worked abroad in the last 10 years. *By field of science*, most persons were from natural sciences, engineering and technology, i.e. 69 persons in age class 35-44 years and 68 persons in age class 45-54 years.

By occupation, professionals (229), of which more than one half was represented by scientific and pedagogic professionals and university teachers (115), physicists, chemists, mathematical and computing professionals (51), biological and related professionals (33) and others (architects, health and veterinary professionals, nursing and midwifery professionals and other professionals; engineering science, health, teaching professionals and officials represented about 10 %.

Almost each eighth respondent (11,7 %) reported in the survey that he/she lived out of the territory of the SR in the long-term over the last 10 years. Prevalled part of them (72,4 %) lived in Europe, 18,5 % in America, 7,5 % in Asia. Sought-after destinations were: USA (14,9 % of all who lived out of the SR), Germany (14 %), Czech (6,8 %), France (6,5 %), Austria (5,8 %) and Great Britain (4,9 %).



Young prevailed among them who lived abroad (one third of the total number are 35 years old or younger) and younger scientists (60 % are 44 years old and younger). Women represent almost one quarter of the total number those who lived abroad.

36,5 % of short-term residents abroad have doctorate in natural science, 20 % in engineering and technology, 18 % in social sciences and 12,5 % in humanities. 6,3 %, or 6,6 % of respondents who lived at least one year abroad over the last ten years have doctorate in medical and agricultural science.

Majority of doctorate holders who lived abroad were professionals (84,5 %). Physical, mathematical and computing professionals comprised almost one quarter of them and biological, health and veterinary professionals 17 %. Scientific and pedagogic professionals and university teachers represented more than one half of doctorate holders who worked abroad. Prevailed reasons for moving out of Slovakia were job related factors (e.g. sent abroad by employer, better job offer, participation in post-doc programme and the like) and academic factors (better access to publishing, possibility of own research, continuity of thesis work, underdevelopment of research in the SR and the like). Personal factors were prevailed reasons of return to Slovakia (family, home, health, cultural reasons).

Reasons	Reasons for moving out of SR in %	Reasons for moving into SR in %
Completion of doctorate	10,0	13,2
End of POSTDOC or job contract	9,4	12,1
Other job related factors (sent by employer, offer or better chances for a job, better paid job...)	38,1	21,8
Academics factors (publishing, creation of own research, continuity of thesis work...)	25,6	15,5
Personal, economic or political factors	8,9	28,7
Other factors	8,1	8,6
Total	100,0	100,0

147 of doctorate holders (women represent 31 %) returned back from abroad to Slovakia over the last ten years. 57 persons with doctorate arrived in the age 35 years or younger, 38 persons in the age 35-44 years and 17 persons in the age 55 years and older. Their field of science was: natural sciences, engineering and technology, social, agricultural sciences, humanities and medical sciences. Doctorate holders employed as officials, engineering, health and teaching professionals also returned from abroad.

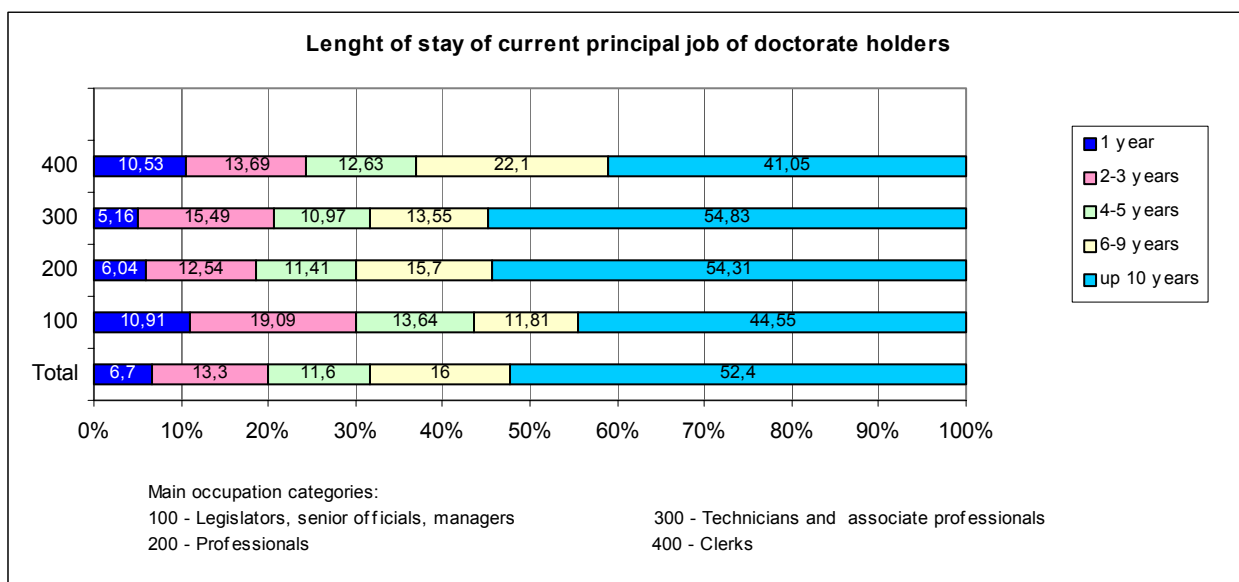
Also 5,6 % of participants of the survey (men represent 70 % of them, mostly 44 years old and younger) returned to Slovakia over the last 10 years. By field of science of doctorate, doctorate holders in natural sciences (41,5 %), in engineering and technology (20,4 %) and in social sciences (15,6 %) prevailed. By occupation, professionals (up to 82,3 %), officials (8,2 %) and senior officials and managers (4,1 %) represent prevailed part of those who returned to Slovakia over the last ten years.

Almost every tenth respondent was interested in moving out of the country in next year, but more than a half of them did not decide in which country they would lived. Almost 12 % of those who decided to leave country want to move out of the country permanently. Up to 76,8 % of them who plans to move out of the country want to stay in Europe (most of than want to live in Germany, Czech, Great Britain, Ireland and Austria) and 16,1 % choose North America (most of them USA: 12,5 %). The main reasons (almost 40 % reported them) of planned departure from country are job related factors, e.g. new contacts and cooperation, working environment, dynamically developing work, no adequate position of science in Slovakia, shortage of finances for research, mediocrity at universities etc. 50 % of respondents marked academic and personal reasons (better chances/self-realization, higher evaluation of work, financial motivation and advancement, securing family).

More than 31 % of doctorate holders in preparation to planned departure from country learned a foreign language, 25 % used existing contacts to look for work, 15,4 % browsed and looked for job advertisements and 14,4 % contacted a potential employer. Doctorate holders also taken further steps in preparation of departure abroad: acquiring a grant from EU, or research scholarship, participation in interview, long-term science cooperation and etc.

Employment mobility of doctorate holders is not very significant. It can relates to scientific specialization, or to doctorate field, choosing of career (research, teaching), loyalty to own „alma mater“, or to very similar situation by employer in the field. Up to 44,8 % of the total sample of population of holders of scientific degrees had only one (current) employer during the career. An average 12,81 of the year (median = 10 years) worked at current post.

More than one half of respondents (an average 52 %), researchers or employed out of research are at current employment over 10 years. Holders of scientific degrees consider their activity, both in research or teaching process to be a mission, they are satisfied with a work and consider a work to be interesting. 31 % of participants of the survey are at current employment less than 5 years and 16 % of respondents 6-10 years.



55 % of respondents of the total number of doctorate holders had one employment, but 34,1 % of them remained more than 10 years in previous employment and 35,1 % less than 3 years. Previous employment of most doctorate holders was in business sector (33,1 %), in higher education sector (27,9 %), in government sector (26,5 %) and in other education sector (10,1 %). Least doctorate holders were employed in private non-profit sector (2,4 %).

Almost a quarter of participants of the survey had at least two previous employments. By length of staying, 38 % of doctorate holders worked 3 years or less and about 30 % more than 10 years in previous second employment. 32,3 % of doctorate holders worked in business sector, 29,8 % in higher education sector and 25,7 % in government sector in the second previous employment. 10,1 % worked in other education sector and 2,2 % of doctorate holders in private non-profit sector.

Results of science and research activity/productivity

The survey was aimed at results of science and research publication activity over the past three years. Science and publication activity of doctorate holders is expressed by following numbers over the past 3 years: 24 967 articles and 3 935 books. Respondents in the age group 45-64 years published the highest number of articles (more than one half) and issued the highest number of books (2195 from 3935 books were issued in this group). The number of respondents who issued one book at least was 989 (including 616 with degrees CSc., PhD., 222 with degree associated professor, 112 with degree professor).

Doctorate holders employed as researchers published almost an average 15 articles / person in professional journals. Professionals of medical sciences and humanities (21 articles) and of agricultural sciences (19 articles) published at most. Professionals of natural sciences published least articles in professional journals (11).

Participants of the survey issued as authors, or co-authors 2,35 publications on average (book, monographs) per person. Authors with doctorate in the field of social sciences (3,8 books) issued at most books and authors in the field of natural sciences (1,6 books) and engineering and technology (1,7 books) issued at least books.

104 persons (researchers) submitted patent applications (of which 57 in engineering and technology, 29 in natural sciences, 15 in agricultural sciences, 2 in medical sciences and 1 in social sciences), patents were granted to 72 persons (35 in engineering and technology, 25 in natural sciences, 8 in agricultural and 2 persons in medical and also in social sciences). Totally 33 respondents used commercially granted patents (products, processes, licenses) and 36 persons started up own companies. 0,11 of patent application is apportioned to a person (a researcher) on average, 0,24 of patent application to a professional with doctorate of engineering and technology on average. The average number of granted patents was 0,08 per person; the average number of granted patents was double higher (0,16 patent per a researcher) as for scientist and researchers of engineering and technology. The average number of commercialized products or processes, or licensed patents represented only a half of granted patents (0,04 product/person). Approximately every forty-sixth scientist (researcher) started up own company with research-related activity over the past three-month period. Every 31st doctorate holder in the field of engineering and technology and every 37th in the field of social sciences started up such company.

By age structure, doctorate holders in age groups 65-69 years (19 articles), 45-54 and 55-64 (17 articles) published the highest number of articles per person. The number of issued books (publications, monographs, book chapters) is logically higher among doctorate holders with longer research and teaching career and higher science degree achieved. Doctorate holders in middle and higher age groups who published results of lifelong learning and research work were the most active in publishing. An average 5,5 book/person were issued in age 65-69 years over the past three years, 6,4 books in age 70 years and older. Younger researchers 35 years or younger issued an average 0,9 book per person.

Similar tendency can be identify also in the number of patent applications, even if researchers 45-64 years are the most intentional in this field. Researchers in the age group 35-44 years submitted lower number of patent applications approximately by a half. It represented totally more than four fifth percentages of patent application and of granted patents over the past three years. Up to two thirds of doctorate holders who were able to commercialize products and processes or licence their patents were in the age group 45-64 years.

Only 2,1 % of persons who participated in the survey started up the company with, activity of which related to research career. One third of them is in age group 55-64 and almost 60 % is 55 years old and younger.

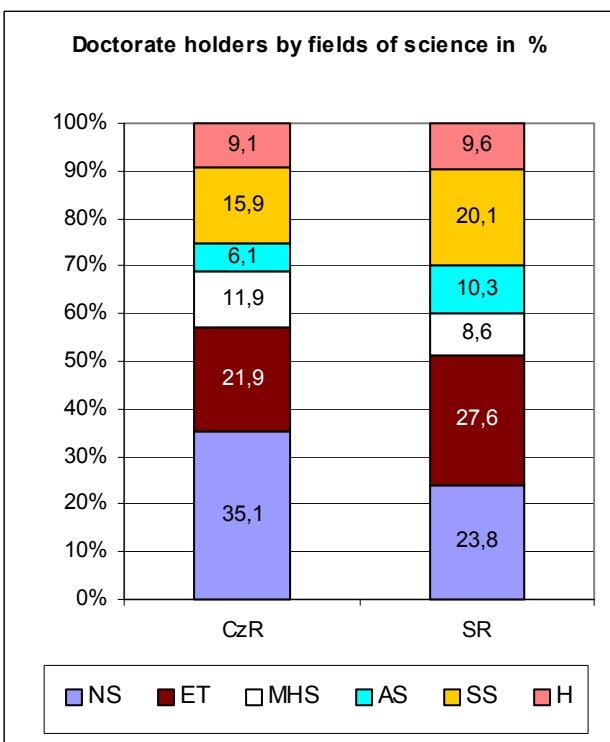
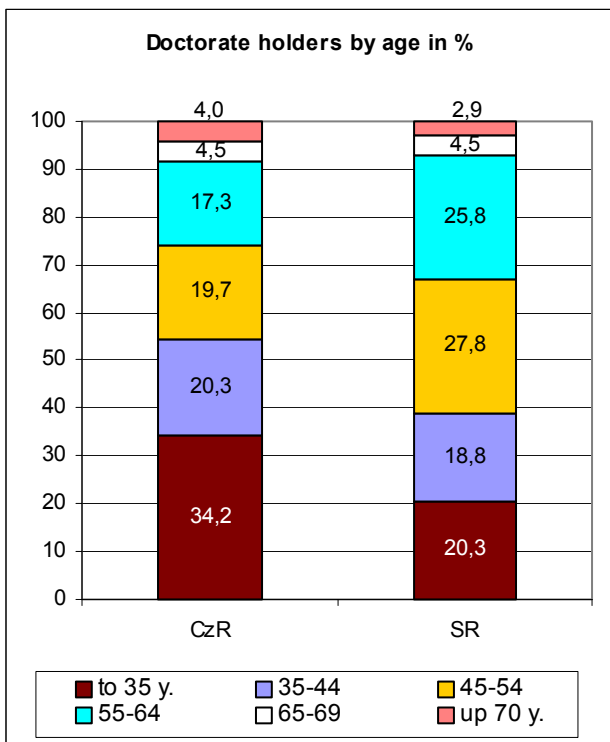
In terms of gender, men have higher activity in the field of presentation of results of research and publication activity than women.

Comparison with the Czech Republic

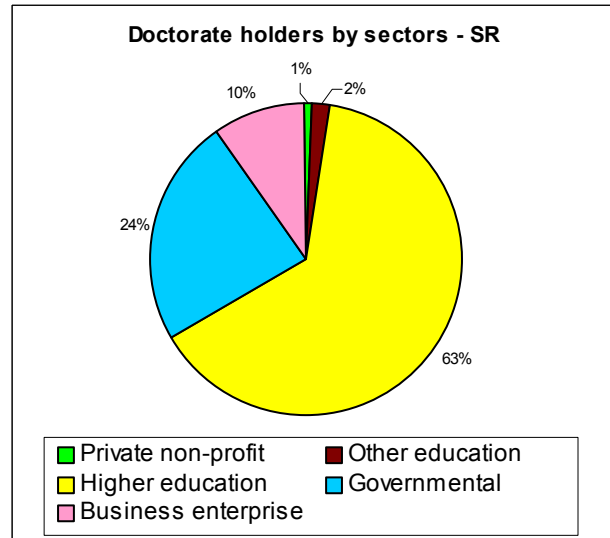
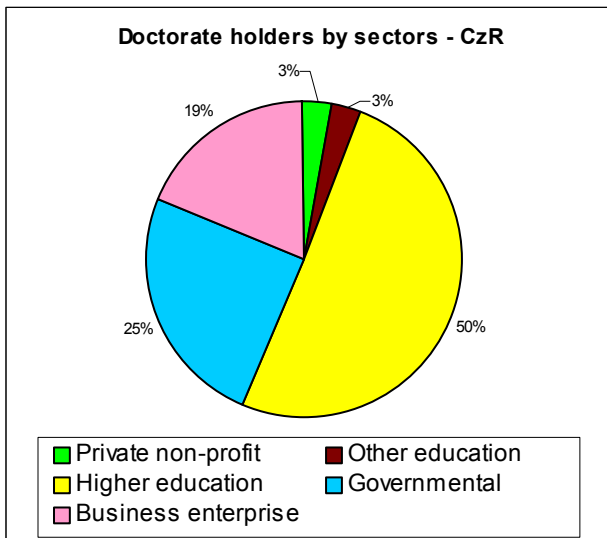
Although the survey on career of doctorate holders was conducted in 2006-2007 in about 40 countries, more detailed results of this pilot survey are not currently processed. Conditions for survey, basic sources of information as well as implementation of methodological procedures of OECD, Eurostat and UIS were considerably different in countries and task of the supranational institution will be to evaluate and interpret them.

Basic results of the survey in the Czech Republic were taken from publicly available source (the Czech Statistical Office, Survey of career development of doctorate holders 2007). Šetření profesního růstu držitelů doktorských titulů, 2007).

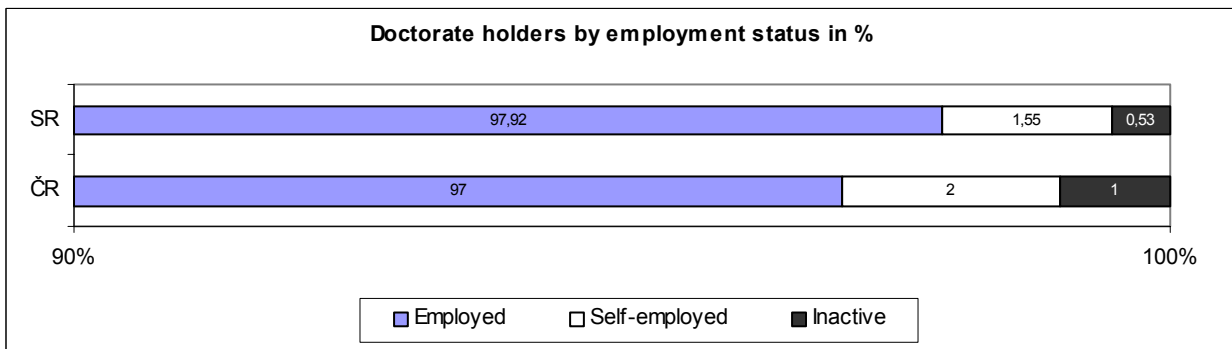
In spite of great similarity of results in both countries, some differences occurred in structures. Higher percentage of women (35,3 %) in sample of doctorate holders was founded out (31 % in CR). On the contrary, higher percentage of doctorate holders up to 35 years (34,2 %) in the CR was recorded in relation to Slovakia (20,3 %). Concerning field of science, the highest share of doctorate holders in the CR is in natural sciences, while in the SR in engineering and technology.



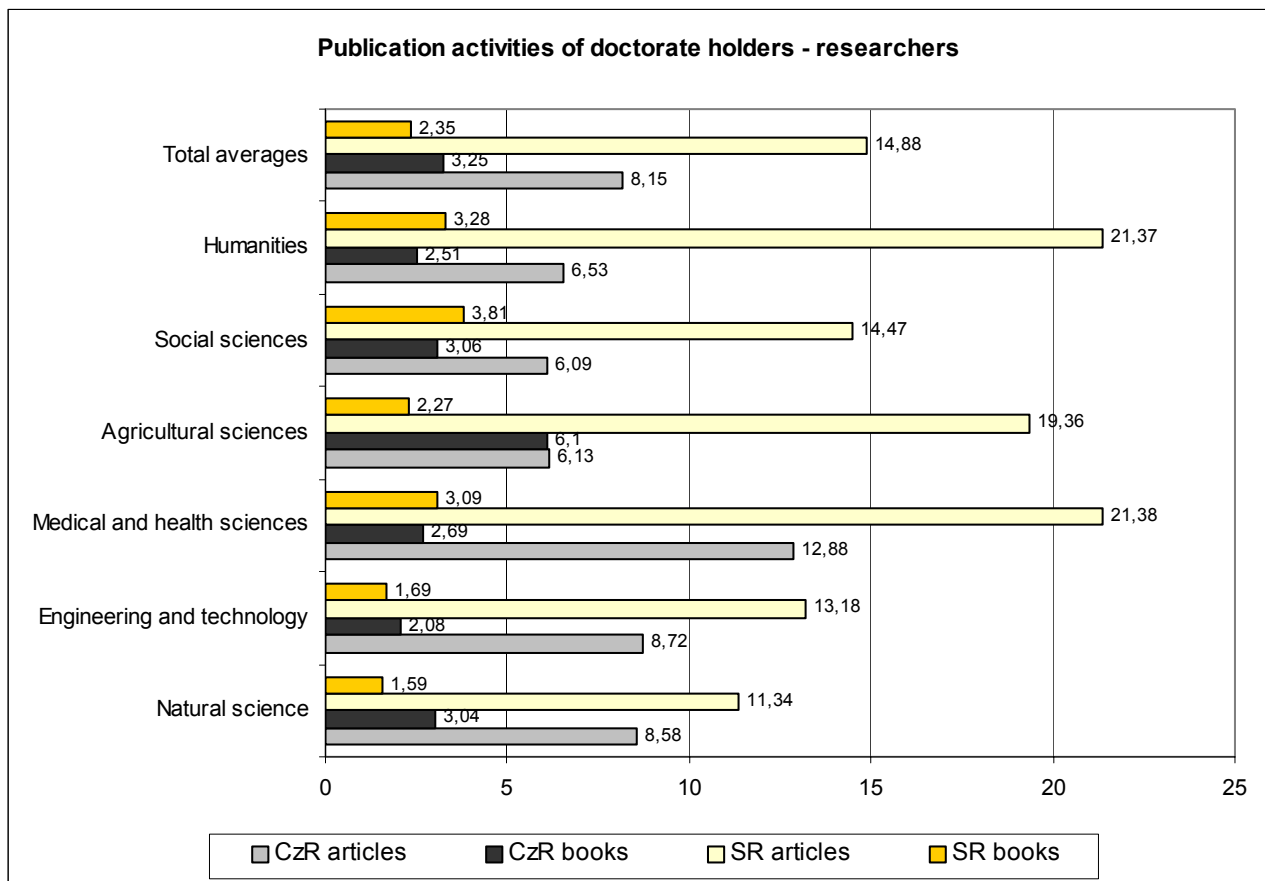
By sectors, more significant difference is among doctorate holders in business sector, where the percentage in the SR (10 %) is almost by a half lower than in the CR (19 %), while the percentage of doctorate holders in higher education sector is higher more significantly in Slovakia than in Czech.



Results of survey of employment status of high-qualified class of labour force in both countries are very similar. 2,9 % took part in Post-Doc projects in Czech and 2,4 % of respondents in surveys in Slovakia.



Results of publication and scientific-research activity of doctorate holders are interesting. While doctorate holders - researchers in CR published an average 8,15 of professional articles and issued 3,25 monographs, researches in Slovakia published 14,88 professional articles, and 2,35 books/person. Doctorate holders of medical sciences published the highest number of articles in both countries and doctorate holders of social sciences issued the highest number of books.



Conclusion

The survey showed different opinions of participants on current situation in science and research. Many positive and friendly responses, but also some very negative reactions were acquired. Many respondents expressed a considerable level of scepticisms in connection with realization and importance of such surveys not only because of objective but also subjective reasons. Respondents mistook the survey for other special statistics (number of citations, career advancement of teachers and salaries in education) in their comments. On the other hand, many doctorate holders expressed expectations that our action can help to revise current situation in science and research. Majority of participants of the survey gave correctly information requested in questionnaire. Respondents very often expressed their outlook to performed occupation in their comments. They consider research work to be a mission, where the motivation is interest in research, new knowledge, internal conviction and the like. No-named young researcher-women wrote: „We do not work because of money, but because of internal motivation, conviction. It is my hobby, not occupation“.

Some part of respondents also showed interest in providing results and participation in next survey (47,4 of respondents). Basis of respondent register will be created of them and will be added and updated from sources of the Ministry of Education of the SR.

Acknowledgements

Organizers of the survey would like express thanks to all degree holders participating in the survey that showed willingness and helpfulness and provided information about career path as well as personal information to the SO SR. We are appreciative for opinions and outlooks to situation in science, research and education process, which many of them expressed in order to be an advantage in this area. We also thank for comments to content, range and form of both version of questionnaire (printing and electronic).

Extractions from opinions of respondents

Creativity and innovativeness is very insufficiently supported at universities. Corrupted system of compilation and fulfilment of criterion, which objectivity is doubtful, continued. There is weak laboratory and instrument equipment, not all issued publication and thesis have serious support in research.

The state contributes minimally to development of science and grants insufficient scholarship/fellowship for doctoral studies; school equipment is poor including doctorate holders. It is not possible to acquire needed research results because of insufficient equipment of workplaces where works are done.

Only system changes (without politically motivated interferences) can change a situation in science, research and education.

Not only university, but also research qualification is appreciated in the SR.

Educated people are not appreciated fully in the SR. We cannot wonder that so many numbers moved out abroad and they do not want to come back to Slovakia. Studies last 22-25 years and than he/she perform a function of normal worker and is appreciated very low. Why should we study?

Doctoral study do not contribute both to career advancement mostly and to adequate financial evaluation.

Woman with PhD. 35 years old and older and with children is not perspective and deprecated for relevant position. Young graduates with PhD. (mostly without commitments and children) occupied these positions.

Work in science/research is very demanding especially for women, if she wants to be average mother and very good researcher. Social position of researcher is certainly not a motivation for women in order to dedicate to science/research. I have nothing others than a feeling of good performed work.

It is not important required degree of education in the field of development. Creative and quickly advanced people are successful. Scientific degree is not a condition. Graduated education gives indirectly preconditions that such person has qualities of this kind.

Brief description of national methodology of statistics on career of doctorate holders (CDH 2006)

The main source of data used for compilation of CDH statistics

1. List of used statistical surveys

- Career advancement of doctorate holders to the 31st December 2006 (CDH 2006)
- Annual report of production branches Roč 1-01 for 2006
- Annual report of production branches in small enterprises Roč 2-01 for 2006
- Survey on physical persons non-registered in Business Register Roč 3-99 for 2006
- Annual report in enterprises on research and development VV P6-01 for 2006
- Labour force sample survey in 2007 (HRST – Human resources in the field of science and technology)

2. List of used administrative data sources

- List of universities and higher education institutions in the SR (employers of DH)
- List of SAS institutions (employers of DH)
- List of central bodies in the SR (including their directly managed units) – employers of DH
- List of applied research institutions and other business sector organizations dealing with research and development – register of statistical units employing doctorate holders

Definitions of the main variables and used classifications

Doctorate holder – a person who graduated education at the level ISCED6, awarded anywhere in the world, who lived (permanently or temporary) at the territory of the SR.

ISCED6 – the highest level of tertiary – higher education leading to advancement of research qualification.

Doctorate is an academic degree of the highest level, awarded after graduating of science and research study and after submission of thesis or dissertation of publishable quality, which is the product of original research and represents a significant contribution to knowledge.

We surveyed persons with degrees

- at first stage of research qualification (PhD., or CSc., ArtD., Dr.) ,
- at second stage of research qualification (DrSc.) and scientific-pedagogical degree (docent, professor).

Classification: International Standard Classification of Education 1997 (ISCED-1997)

Time period of preparation for doctorate from beginning of doctoral studies to awarding a degree in months.

Recent graduates of doctorate – a person who received her/his doctorate degree at any time between January 2005 and December 2006

Post-doc - Post-doc project is determined to persons 35 years old or younger with completed doctorate education, whose research activity is financed from grant resources during 3 maximally 6 years

Researcher – a professional engaged in the conception or creation of new knowledge, products, processes, methods and systems and also in the management of the project concerned

Gross annual earnings – Considering the national customs, indicator gross average monthly earnings in 2006 was included into questionnaire.

Gross monthly earnings cover remuneration in SKK (or in kind paid), which is received monthly in 2006 on average before income tax deduction and social security and health contributions

Data on average monthly earnings were recalculated to annual earnings.

Indicator was surveyed by marking relevant interval.

Employee – a person who during the reference period performed some work for a wage or salary (in cash or in kind), in temporary or permanent employment, in full-time or part-time employment, or participated in Post-Doc project

Self-employee – a person who during the reference period performed some work for profit in own name and responsibility

Unemployed – a person who during the reference period was without work, that is, was not in paid employment or self-employment, but actively seeking work

Inactive – a person not in the labour force and is in retirement (because of age, disability or invalidity)

Permanent employment (no fixed term) – work contract without end-date

Temporary employment (fixed term) – fixed-term work contract

Employment (full-time/part-time) – a person usually working less than 30 hours a week is considered as part-timers

Sector of employment

- Business sector – firms, organizations and institutions whose primary activity is the market production of goods and services to gain the profit; profit-making research and development institutions, non-profit institutions mainly serving the business sector;
- Government sector – bodies and institutions, which provide common services, which can not be economically provided by other organizations controlled by government and non-profit institutions, controlled and mainly financed by government, i.e. budgetary organizations (ministries, offices and institutions, public research workplaces);
- Private non-profit sector – non-market, non-profit institutions serving households (professional, learned societies and charities) and non-profit private persons (self-employed-physical persons);
- Higher education sector – higher education institutions, universities and other organizations providing tertiary education whatever their source of finance or legal status (including research and development institutions, experimental stations and clinics under the direct control of or administered by higher education institutions);
- Other education sector – primary, secondary, special schools

Citizenship – legal bond between an individual and his/her State, acquired by birth or naturalization, declaration, marriage, option, or other means according to the national legislation

Resident – a person who lives in the territory of the SR (permanently or temporary) with the SR citizenship or with a citizenship of other country

Resident with the SR citizenship (acquired by birth or naturalizations) and with permanent residence in the SR

Resident without the SR citizenship (a citizen of other country) – with permanent residence in the SR, or with temporary residence in the SR

Refugee – a person who lives in the SR with a status of refugee (without of the SR citizenship, without residence permit)

Other definitions and used classifications

Reference date - 31. 12. 2006

Reference period – period related to relevant part, or a question in questionnaire

Age range – was not limited

Geographic coverage – territory of the SR

Classifications

Classification of Field of Science and Technology (Source: New Fields of Science and Technology – Frascati Manual 2002)

Classification of Field of Study (Source: International Standard Classification of Education – ISCED-1997)

Classification of occupations (Source: Classification of occupations)

Classification of branches (Source: Branch Classification by economic activities)

List of countries

Statistical units

Statistical unit is an individual person with official education at the level of ISCED6 (awarded doctorate), which is a resident (permanent or temporary) in the SR to the relevant reference period.

Table P1. NUMBER OF DOCTORATE HOLDERS BY SEX AND AGE CLASS

	Year 2006		
	Men	Women	Total
Less than 35 years old	310	225	535
35-44 years old	273	223	496
45-54 years old	467	266	733
55-64 years old	492	188	680
65-69 years old	100	18	118
70 years old or more	66	10	76
TOTAL	1708	930	2638

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table P2.1. NUMBER OF DOCTORATE HOLDERS BY COUNTRY OF BIRTH, TYPE OF CITIZENSHIP AND RESIDENTIAL STATUS

YEAR(S) OF REFERENCE: 2006

	Citizens		Non citizens		<i>of which: citizens from EU countries (requested from EU countries)</i>	
Natives	Native and citizen by birth	2487	Native and non citizen	0	Native and non citizen	0
	Native and citizen by naturalisation	0				
Foreign born	Foreign born and citizen by birth	0	Foreign born, non citizen and resident	20	Foreign born, non citizen and resident	11
	Foreign born and citizen by naturalisation	131	Foreign born, non citizen and non resident	0	Foreign born, non citizen and non resident	0

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table P2.2. NUMBER OF DOCTORATE HOLDERS BY CITIZENSHIP/RESIDENTIAL STATUS (optional)

YEAR(S) OF REFERENCE: 2006

	Year 2006			
	Citizens of the Slovak Republic	Foreign citizens		Total
		Permanent residents	Non-permanent residents	
Total number of doctorate holders	2618	15	5	2638
Of which: College, university and higher education teaching professionals (ISCO 231)	1334	6	3	1343

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table P3. NUMBER OF DOCTORATE HOLDERS BY SEX AND COUNTRY OF CITIZENSHIP

	Year 2006		
	Men	Women	Total
GRAND TOTAL	1708	930	2638
Citizens of the Slovak Republic	1690	928	2618
<i>of which:</i>			
by birth	1594	893	2487
by naturalisation	96	35	131
Foreign citizens	18	2	20
<i>of which:</i>			
permanent residents in the Slovak Republic	14	1	15
non-permanent residents in the Slovak Republic	4	1	5
Region of citizenship:			
Total European Union	1701	928	2629
Total OECD	1702	928	2630
Total non OECD	6	2	8
Region of citizenship:			
Total Africa	0	1	1
Total America	1	0	1
Total North America (Canada, Mexico, United States)	1	0	1
Total Central and South America	0	0	0
Total Asia	2	0	2
Total Europe	1705	929	2634
Total Oceania	0	0	0
Country of citizenship:			
Afghanistan	1	0	1
Algeria	0	1	1
Belarus	1	0	1
Czech Republic	9	0	9
Finland	1	0	1
France	1	0	1
Lebanon	1	0	1
Russian Federation	0	1	1
Slovak Republic	1690	928	2618
Ukraine	3	0	3
United States	1	0	1

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table P4. NUMBER OF DOCTORATE HOLDERS BY CITIZENSHIP/RESIDENTIAL STATUS AND AGE CLASS

	Year 2006			
	Citizens of the Slovak Republic	Foreign citizens		Total
		Permanent residents	Non-permanent residents	
Less than 35 years old	534	0	1	535
35-44 years old	493	3	0	496
45-54 years old	725	7	1	733
55-64 years old	675	2	3	680
65-69 years old	115	3	0	118
70 years old or more	76	0	0	76
TOTAL	2618	15	5	2638

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table P5. NUMBER OF DOCTORATE HOLDERS BY CITIZENSHIP/RESIDENTIAL STATUS AND FIELD OF DOCTORATE DEGREE

New OECD FOS classification	Year 2006			
	Citizens of the Slovak Republic	Foreign citizens		Total
		Permanent residents	Non-permanent residents	
1 NATURAL SCIENCES	622	4	1	627
1.1 Mathematics	73	0	0	73
1.2 Computer and information sciences (excluding hardware development and social aspect)	56	1	0	57
1.3 Physical sciences	89	1	0	90
1.4 Chemical sciences	153	1	1	155
1.5 Earth and environmental sciences	105	1	0	106
1.6 Biological sciences (excluding medical and agricultural sciences)	114	0	0	114
1.7 Other natural sciences	32	0	0	32
2 ENGINEERING AND TECHNOLOGY	724	4	0	728
2.1 Civil engineering	121	0	0	121
2.2 Electrical engineering, electronic engineering, information engineering	102	1	0	103
2.3 Mechanical engineering	204	2	0	206
2.4 Chemical engineering	44	0	0	44
2.5 Materials engineering	69	1	0	70
2.6 Medical engineering	3	0	0	3
2.7 Environmental engineering	17	0	0	17
2.8 Environmental biotechnology	3	0	0	3
2.9 Industrial biotechnology	5	0	0	5
2,10 Nanotechnology	3	0	0	3
2,11 Other engineering and technologies (food, beverages and other)	153	0	0	153
3 MEDICAL AND HEALTH SCIENCES	226	1	0	227
3.1 Basic medicine	50	0	0	50
3.2 Clinical medicine	127	1	0	128
3.3 Health sciences	18	0	0	18
3.4 Medical biotechnology	1	0	0	1
3.5 Other medical sciences (forensic and other medical sciences)	30	0	0	30
4 AGRICULTURAL SCIENCES	269	3	0	272
4.1 Agriculture, forestry and fisheries	141	3	0	144
4.2 Animal and dairy science	20	0	0	20
4,3 Veterinary science	64	0	0	64
4,4 Agricultural biotechnology	8	0	0	8
4,5 Other agricultural sciences	36	0	0	36
5 SOCIAL SCIENCES	526	1	4	531
5.1 Psychology	43	0	0	43
5.2 Economics and business	225	1	0	226
5.3 Educational sciences	115	0	1	116
5.4 Sociology	16	0	0	16
5.5 Law	41	0	2	43
5.6 Political science	14	0	0	14
5.7 Social and economic geography	4	0	0	4
5.8 Media and communications	5	0	0	5
5.9 Other social sciences	63	0	1	64
6 HUMANITIES	251	2	0	253
6.1 History and Archaeology	49	1	0	50
6.2 Languages and literature	73	1	0	74
6.3 Philosophy, ethics and religion	54	0	0	54
6.4 Arts (arts, history of arts, performing arts, music)	43	0	0	43
6.5 Other humanities	32	0	0	32
TOTAL	2618	15	5	2638

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table P6. NUMBER OF DOCTORATE HOLDERS BY SEX AND COUNTRY OF BIRTH

	Year 2006		
	Men	Women	Total
GRAND TOTAL	1708	930	2638
Born in the Slovak Republic	1594	893	2487
Foreign born	114	37	151
<i>of which:</i>			
permanent residents in the Slovak Republic	110	36	146
non-permanent residents in the Slovak Republic	4	1	5
Region of birth:			
Total European Union	1683	919	2602
Total OECD	1683	919	2602
Total non OECD	25	11	36
Region of birth:			
Total Africa	5	3	8
Total America	1	0	1
Total North America (Canada, Mexico, United States)	1	0	1
Total Central and South America	0	0	0
Total Asia	5	1	6
Total Europe	1697	926	2623
Total Oceania	0	0	0
Country of birth:			
Afghanistan	2	0	2
Algeria	1	1	2
Angola	1	0	1
Armenia	0	1	1
Austria	1	0	1
Belarus	1	0	1
Czech Republic	75	23	98
Denmark	1	0	1
Ethiopia	2	0	2
Finland	1	0	1
France	3	0	3
Hungary	5	3	8
Kenya	0	2	2
Lebanon	1	0	1
Mali	1	0	1
Poland	2	0	2
Romania	1	0	1
Russian Federation	1	4	5
Slovak Republic	1594	893	2487
Serbia	2	1	3
Syrian Arab Republic	2	0	2
Ukraine	10	1	11
United States	1	0	1
Uzbekistan	0	1	1

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table P7. NUMBER OF DOCTORATE HOLDERS BY PLACE OF BIRTH/RESIDENTIAL STATUS AND AGE CLASS

	Year 2006			
	Born in the Slovak Republic	Foreign born		Total
		Permanent residents	Non-permanent residents	
Less than 35 years old	524	10	1	535
35-44 years old	471	25	0	496
45-54 years old	690	42	1	733
55-64 years old	632	45	3	680
65-69 years old	106	12	0	118
70 years old or more	64	12	0	76
TOTAL	2487	146	5	2638

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table P8. NUMBER OF DOCTORATE HOLDERS BY PLACE OF BIRTH/RESIDENTIAL STATUS AND FIELD OF DOCTORATE DEGREE

New OECD FOS classification	Year 2006				Total
	Born in the Slovak Republic	Foreign born			
		Permanent residents	Non-permanent residents		
1 NATURAL SCIENCES	590	36	1		627
1.1 Mathematics	69	4	0		73
1.2 Computer and information sciences (excluding hardware development and social aspect)	53	4	0		57
1.3 Physical sciences	86	4	0		90
1.4 Chemical sciences	146	8	1		155
1.5 Earth and environmental sciences	101	5	0		106
1.6 Biological sciences (excluding medical and agricultural sciences)	106	8	0		114
1.7 Other natural sciences	29	3	0		32
2 ENGINEERING AND TECHNOLOGY	684	44	0		728
2.1 Civil engineering	116	5	0		121
2.2 Electrical engineering, electronic engineering, information engineering	95	8	0		103
2.3 Mechanical engineering	197	9	0		206
2.4 Chemical engineering	42	2	0		44
2.5 Materials engineering	68	2	0		70
2.6 Medical engineering	3	0	0		3
2.7 Environmental engineering	17	0	0		17
2.8 Environmental biotechnology	3	0	0		3
2.9 Industrial biotechnology	4	1	0		5
2,10 Nanotechnology	3	0	0		3
2,11 Other engineering and technologies (food, beverages and other)	136	17	0		153
3 MEDICAL AND HEALTH SCIENCES	215	12	0		227
3.1 Basic medicine	47	3	0		50
3.2 Clinical medicine	123	5	0		128
3.3 Health sciences	17	1	0		18
3.4 Medical biotechnology	1	0	0		1
3,5 Other medical sciences (forensic and other medical sciences)	27	3	0		30
4 AGRICULTURAL SCIENCES	259	13	0		272
4.1 Agriculture, forestry and fisheries	136	8	0		144
4.2 Animal and dairy science	19	1	0		20
4,3 Veterinary science	61	3	0		64
4,4 Agricultural biotechnology	8	0	0		8
4,5 Other agricultural sciences	35	1	0		36
5 SOCIAL SCIENCES	499	28	4		531
5.1 Psychology	39	4	0		43
5.2 Economics and business	211	15	0		226
5.3 Educational sciences	112	3	1		116
5.4 Sociology	16	0	0		16
5.5 Law	40	1	2		43
5,6 Political science	14	0	0		14
5,7 Social and economic geography	3	1	0		4
5,8 Media and communications	5	0	0		5
5,9 Other social sciences	59	4	1		64
6 HUMANITIES	240	13	0		253
6.1 History and Archaeology	47	3	0		50
6.2 Languages and literature	69	5	0		74
6.3 Philosophy, ethics and religion	51	3	0		54
6.4 Arts (arts, history of arts, performing arts, music)	41	2	0		43
6.5 Other humanities	32	0	0		32
TOTAL	2487	146	5		2638

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table ED1. NUMBER OF DOCTORATE HOLDERS BY CITIZENSHIP/RESIDENTIAL STATUS AND COUNTRY OF DOCTORATE AWARD

YEAR(S) OF REFERENCE: 2006

	Citizens of the Slovak Republic	Foreign citizens		Total
		Permanent residents	Non-permanent residents	
GRAND TOTAL	2618	15	5	2638
Number who received their doctorate degree in the Slovak Republic	2446	10	4	2460
Number who received their doctorate degree in a foreign country	172	5	1	178
Region of doctorate award:				
Total European Union	2561	11	5	2577
Total OECD	2566	12	5	2583
Total non OECD	52	3	0	55
Region of doctorate award:				
Total Africa	0	0	0	0
Total America	3	1	0	4
Total North America (Canada, Mexico, United States)	3	1	0	4
Total Central and South America	0	0	0	0
Total Asia	3	0	0	3
Total Europe	2612	14	5	2631
Total Oceania	0	0	0	0
Country of doctorate award:				
Austria	5	0	0	5
Belarus	0	1	0	1
Canada	1	0	0	1
Czech Republic	86	0	1	87
Estonia	1	0	0	1
Finland	0	1	0	1
France	2	0	0	2
Germany	7	0	0	7
Hungary	5	0	0	5
Italy	2	0	0	2
Japan	3	0	0	3
Latvia	1	0	0	1
Netherlands	1	0	0	1
Poland	3	0	0	3
Russian Federation	40	2	0	42
Slovak Republic	2446	10	4	2460
Sweden	1	0	0	1
Switzerland	1	0	0	1
Ukraine	10	0	0	10
United Kingdom	1	0	0	1
United States	2	1	0	3

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table ED2. NUMBER OF DOCTORATE HOLDERS BY PLACE OF BIRTH/RESIDENTIAL STATUS AND COUNTRY OF DOCTORATE AWARD

YEAR(S) OF REFERENCE: 2006

	Born in the Slovak Republic	Foreign born		Total
		Permanent residents	Non-permanent residents	
GRAND TOTAL	2487	146	5	2638
Number who received their doctorate degree in the Slovak Republic	2332	124	4	2460
Number who received their doctorate degree in a foreign country	155	22	1	178
Region of doctorate award:				
Total European Union	2437	135	5	2577
Total OECD	2442	136	5	2583
Total non OECD	45	10	0	55
Region of doctorate award:				
Total Africa	0	0	0	0
Total America	3	1	0	4
Total North America (Canada, Mexico, United States)	3	1	0	4
Total Central and South America	0	0	0	0
Total Asia	3	0	0	3
Total Europe	2481	145	5	2631
Total Oceania	0	0	0	0
Country of doctorate award:				
Austria	5	0	0	5
Belarus	0	1	0	1
Canada	1	0	0	1
Czech Republic	78	8	1	87
Estonia	1	0	0	1
Finland	0	1	0	1
France	2	0	0	2
Germany	7	0	0	7
Hungary	4	1	0	5
Italy	2	0	0	2
Japan	3	0	0	3
Latvia	1	0	0	1
Netherlands	1	0	0	1
Poland	3	0	0	3
Russian Federation	34	8	0	42
Slovak Republic	2332	124	4	2460
Sweden	1	0	0	1
Switzerland	1	0	0	1
Ukraine	9	1	0	10
United Kingdom	0	1	0	1
United States	2	1	0	3

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table ED3. NUMBER OF DOCTORATE HOLDERS BY COUNTRY OF DOCTORATE AWARD AND OF PRIOR EDUCATION

YEAR(S) OF REFERENCE: 2006

Place of prior education	Place of doctoral degree award		
	In the Slovak Republic	In another country	Total
Previous degree in the Slovak Republic	2325	106	2431
Previous degree not in the Slovak Republic	135	72	207
<i>of which: in the same country as the doctorate</i>		61	61
TOTAL	2460	178	2638

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table ED4. RECENT DOCTORATE RECIPIENTS: AGE AT GRADUATION AND TIME TO COMPLETION BY MAIN FIELD OF DOCTORATE DEGREE

YEAR(S) OF REFERENCE: 2006

	Number of recent doctorate recipients	Age at graduation (in years)		Time to completion (in months)	
		average	median	average	median
Total					
Natural sciences	92	32	31	68	58
Engineering and technology	111	35	30	58	53
Medical sciences	41	40	37	69	65
Agricultural sciences	37	34	31	81	62
Social sciences	118	34	30	57	56
Humanities	56	35	32	61	51
TOTAL	455	34	31	63	57

	Number of recent doctorate recipients	Age at graduation (in years)		Time to completion (in months)	
		average	median	average	median
Men					
Natural sciences	41	32	31	73	66
Engineering and technology	79	35	30	58	54
Medical sciences	19	39	34	59	62
Agricultural sciences	21	34	29	91	61
Social sciences	52	33	29	57	57
Humanities	31	33	31	53	49
TOTAL	243	34	31	63	57

	Number of recent doctorate recipients	Age at graduation (in years)		Time to completion (in months)	
		average	median	average	median
Women					
Natural sciences	51	32	29	64	50
Engineering and technology	32	33	30	59	50
Medical sciences	22	40	40	77	71
Agricultural sciences	16	35	33	69	67
Social sciences	66	34	30	58	56
Humanities	25	37	34	72	59
TOTAL	212	34	31	64	56

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table ED5. NUMBER OF DOCTORATE HOLDERS BY PRIMARY SOURCE OF FUNDING DURING COMPLETION OF DOCTORATE

YEAR(S) OF REFERENCE: 2006

	Natural sciences	Engineering and technology	Medical sciences	Agricultural sciences	Social sciences	Humanities	TOTAL
Primary source of funding							
Fellowship, scholarship from an institution in the country	271	220	40	96	132	90	849
Fellowship, scholarship from abroad	17	13	0	4	5	9	48
Teaching and/or research assistantship	123	192	47	64	112	45	583
Other occupation	78	114	39	30	113	36	410
Employer's reimbursement/assistance	87	108	36	55	68	23	377
Loan, personal savings, spouse's, partner's or family support	26	46	49	10	64	41	236
Other	24	31	13	13	34	9	124
Unknown	1	4	3	0	3	0	11
Number of respondents	627	728	227	272	531	253	2638

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table EMP1. NUMBER OF DOCTORATE HOLDERS BY EMPLOYMENT STATUS AND YEAR OF DOCTORATE AWARD

YEAR(S) OF REFERENCE: 2006

Total	Employed						Unemployed	Inactive	Total
	Year of doctorate award	Paid employment	Self-employed	Permanent employment	Temporary employment	Full-time employment			
1960-1970	46	1	11	36	28	19	0	1	48
1971-1980	246	6	150	102	229	23	0	6	258
1981-1990	690	12	458	244	680	22	0	2	704
1991	60	1	40	21	59	2	0	0	61
1992	56	0	32	24	54	2	0	0	56
1993	71	1	47	25	67	5	0	0	72
1994	55	3	36	22	57	1	0	0	58
1995	62	2	42	22	63	1	0	0	64
1996	48	0	22	26	46	2	0	0	48
1997	53	0	34	19	53	0	0	0	53
1998	79	0	45	34	77	2	0	0	79
1999	80	2	46	36	82	0	0	0	82
2000	98	1	54	45	98	1	0	0	99
2001	99	2	54	47	101	0	0	0	101
2002	115	2	54	63	113	4	0	0	117
2003	133	1	53	81	130	4	1	0	135
2004	146	2	61	87	146	2	0	0	148
2005	174	3	66	111	169	8	0	0	177
2006	272	2	93	181	267	7	3	1	278
All years	2583	41	1398	1226	2519	105	4	10	2638

Men	Employed						Unemployed	Inactive	Total
	Year of doctorate award	Paid employment	Self-employed	Permanent employment	Temporary employment	Full-time employment			
1960-1970	38	1	9	30	23	16	0	1	40
1971-1980	202	6	123	85	188	20	0	4	212
1981-1990	485	10	324	171	480	15	0	1	496
1991	41	0	26	15	39	2	0	0	41
1992	41	0	23	18	40	1	0	0	41
1993	46	1	30	17	42	5	0	0	47
1994	42	3	30	15	45	0	0	0	45
1995	36	2	24	14	37	1	0	0	38
1996	32	0	12	20	30	2	0	0	32
1997	33	0	21	12	33	0	0	0	33
1998	49	0	31	18	48	1	0	0	49
1999	50	1	29	22	51	0	0	0	51
2000	52	1	30	23	52	1	0	0	53
2001	58	2	32	28	60	0	0	0	60
2002	75	1	35	41	74	2	0	0	76
2003	78	1	28	51	76	3	0	0	79
2004	72	0	35	37	71	1	0	0	72
2005	92	1	39	54	90	3	0	0	93
2006	147	2	48	101	142	7	0	1	150
All years	1669	32	929	772	1621	80	0	7	1708

Women	Employed						Unemployed	Inactive	Total
	Year of doctorate award	Paid employment	Self-employed	Permanent employment	Temporary employment	Full-time employment			
1967-1970	8	0	2	6	5	3	0	0	8
1971-1980	44	0	27	17	41	3	0	2	46
1981-1990	205	2	134	73	200	7	0	1	208
1991	19	1	14	6	20	0	0	0	20
1992	15	0	9	6	14	1	0	0	15
1993	25	0	17	8	25	0	0	0	25
1994	13	0	6	7	12	1	0	0	13
1995	26	0	18	8	26	0	0	0	26
1996	16	0	10	6	16	0	0	0	16
1997	20	0	13	7	20	0	0	0	20
1998	30	0	14	16	29	1	0	0	30
1999	30	1	17	14	31	0	0	0	31
2000	46	0	24	22	46	0	0	0	46
2001	41	0	22	19	41	0	0	0	41
2002	40	1	19	22	39	2	0	0	41
2003	55	0	25	30	54	1	1	0	56
2004	74	2	26	50	75	1	0	0	76
2005	82	2	27	57	79	5	0	0	84
2006	125	0	45	80	125	0	3	0	128
All years	914	9	469	454	898	25	4	3	930

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table EMP2. NUMBER OF DOCTORATE HOLDERS BY EMPLOYMENT STATUS, FIELD OF DOCTORATE DEGREE AND AGE

YEAR(S) OF REFERENCE: 2006

Field of doctorate degree	Employed						Unemployed	Inactive	Total
	Paid employment	Self-employed	Permanent employment	Temporary employment	Full-time employment	Part-time employment			
Natural sciences	615	6	335	286	595	26	1	5	627
Engineering and technology	705	18	336	387	694	29	0	5	728
Medical sciences	225	2	149	78	213	14	0	0	227
Agricultural sciences	267	4	176	95	267	4	1	0	272
Social sciences	522	9	275	256	509	22	0	0	531
Humanities	249	2	127	124	241	10	2	0	253
TOTAL	2583	41	1398	1226	2519	105	4	10	2638

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Age	Employed						Unemployed	Inactive	Total
	Paid employment	Self-employed	Permanent employment	Temporary employment	Full-time employment	Part-time employment			
Less than 35 years old	525	6	144	387	518	13	4	0	535
35-44 years old	488	8	275	221	487	9	0	0	496
45-54 years old	720	13	460	273	722	11	0	0	733
55-64 years old	666	11	463	214	662	15	0	3	680
65-69 years old	112	3	40	75	97	18	0	3	118
70 years old or more	72	0	16	56	33	39	0	4	76
TOTAL	2583	41	1398	1226	2519	105	4	10	2638

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table EMP3. NUMBER OF RECENT DOCTORATE RECIPIENTS BY PRIMARY SOURCE OF FUNDING DURING COMPLETION OF DOCTORATE AND EMPLOYMENT STATUS

YEAR(S) OF REFERENCE: 2006

Primary source of funding	Employed						Unemployed	Inactive	Total
	Paid employment	Self-employed	Permanent employment	Temporary employment	Full-time employment	Part-time employment			
Fellowship, scholarship from an institution in the country	186	1	45	142	180	7	2	0	189
Fellowship, scholarship from abroad	7	0	0	7	7	0	0	0	7
Teaching and/or research assistantship	69	1	23	47	68	2	0	0	70
Other occupation	62	3	35	30	63	2	0	1	66
Employer's reimbursement/assistance	46	0	19	27	45	1	0	0	46
Loan, personal savings, spouse's, partner's or family support	60	0	29	31	57	3	0	0	60
Other	14	0	7	7	14	0	1	0	15
Unknown	2	0	1	1	2	0	0	0	2
Number of respondents	446	5	159	292	436	15	3	1	455

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table EMP4. OCCUPATIONS OF EMPLOYED DOCTORATE HOLDERS BY FIELD OF DOCTORATE DEGREE

YEAR(S) OF REFERENCE: 2006

ISCO-88 code	ISCO-88 title	Natural sciences	Engineering and technology	Medical sciences	Agricultural sciences	Social sciences	Humanities	TOTAL
1	LEGISLATORS, SENIOR OFFICIALS AND MANAGERS	20	35	7	11	28	9	110
2	PROFESSIONALS	557	586	207	225	429	213	2217
21	Physical, mathematical and engineering science professionals	195	155	1	8	11	1	371
211	Physicists, chemists and related professionals	154	63	1	7	2	0	227
212	Mathematicians, statisticians and related professionals	18	1	0	0	6	0	25
213	Computing professionals	19	9	0	1	2	0	31
214	Architects, engineers and related professionals	4	82	0	0	1	1	88
22	Life science and health professionals	102	5	102	74	6	1	290
221	Life science professionals	95	4	11	69	2	1	182
222	Health professionals (except nursing)	7	0	86	5	4	0	102
223	Nursing and midwifery professionals	0	1	5	0	0	0	6
23	Teaching professionals	252	412	101	139	317	150	1371
231	College, university and higher education teaching professionals	248	406	100	136	310	143	1343
232	Secondary education teaching professionals	4	5	1	3	5	6	24
233 to 235	Other teaching professionals	0	1	0	0	2	1	4
24	Other professionals	8	14	3	4	95	61	185
241	Business professionals	6	11	3	3	26	1	50
242	Legal professionals	0	0	0	0	14	0	14
243	Archivists, librarians and related information professionals	1	1	0	0	2	11	15
244	Social science and related professionals	1	1	0	0	50	47	99
245	Writers and creative or performing artists	0	1	0	0	2	0	3
246	Religious professionals	0	0	0	1	1	2	4
Other	Other ISCO-88 groups	44	102	13	35	74	29	297
TOTAL	Total	621	723	227	271	531	251	2624

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table EMP5. NUMBER OF DOCTORATE HOLDERS EMPLOYED AS RESEARCHERS BY FIELD OF DOCTORATE DEGREE

YEAR(S) OF REFERENCE: 2006

Total

Field of doctorate degree	Total	Sector of employment				of which: postdocs
		Business enterprise sector	Government sector	Higher education sector	Private non-profit sector	
Natural sciences	488	32	166	286	4	16
Engineering and technology	431	45	62	321	3	13
Medical sciences	107	4	17	84	2	4
Agricultural sciences	196	13	56	127	0	6
Social sciences	300	11	57	231	1	10
Humanities	156	4	53	99	0	3
TOTAL	1678	109	411	1148	10	52

Men

Field of doctorate degree	Total	Sector of employment				of which: postdocs
		Business enterprise sector	Government sector	Higher education sector	Private non-profit sector	
Natural sciences	315	22	95	194	4	6
Engineering and technology	327	35	50	240	2	12
Medical sciences	53	4	7	40	2	3
Agricultural sciences	132	12	36	84	0	4
Social sciences	152	7	35	110	0	4
Humanities	85	2	27	56	0	2
TOTAL	1064	82	250	724	8	31

Women

Field of doctorate degree	Total	Sector of employment				of which: postdocs
		Business enterprise sector	Government sector	Higher education sector	Private non-profit sector	
Natural sciences	173	10	71	92	0	10
Engineering and technology	104	10	12	81	1	1
Medical sciences	54	0	10	44	0	1
Agricultural sciences	64	1	20	43	0	2
Social sciences	148	4	22	121	1	6
Humanities	71	2	26	43	0	1
TOTAL	614	27	161	424	2	21

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table EMP6. MEDIAN GROSS ANNUAL EARNINGS OF EMPLOYED DOCTORATE HOLDERS (national currency)

YEAR(S) OF REFERENCE: 2006

Total

Field of doctorate degree	Employed as researcher						Not employed as researcher					
	TOTAL	Sector of employment				of which: postdocs	TOTAL	Sector of employment				
		Business enterprise sector	Government sector	Higher education sector	Private non-profit sector			Business enterprise sector	Government sector	Higher education sector	Other education	Private non-profit sector
Natural sciences	270000	330000	270000	270000	360000	210000	330000	390000	390000	270000	210000	360000
Engineering and technology	330000	450000	330000	330000	450000	270000	330000	450000	390000	270000	240000	150000
Medical sciences	270000	390000	330000	270000	450000	240000	330000	390000	390000	330000	390000	390000
Agricultural sciences	270000	330000	270000	270000	.	180000	270000	270000	270000	270000	270000	.
Social sciences	270000	450000	330000	270000	720000	300000	330000	585000	450000	270000	210000	330000
Humanities	270000	270000	270000	270000	.	210000	270000	360000	330000	270000	210000	.
TOTAL	270000	390000	270000	270000	450000	240000	330000	390000	390000	270000	210000	330000

Men

Field of doctorate degree	Employed as researcher						Not employed as researcher					
	TOTAL	Sector of employment				of which: postdocs	TOTAL	Sector of employment				
		Business enterprise sector	Government sector	Higher education sector	Private non-profit sector			Business enterprise sector	Government sector	Higher education sector	Other education	Private non-profit sector
Natural sciences	330000	330000	270000	330000	360000	270000	330000	450000	450000	330000	210000	390000
Engineering and technology	330000	585000	330000	330000	585000	270000	330000	450000	390000	270000	270000	.
Medical sciences	330000	390000	330000	330000	450000	270000	390000	720000	390000	330000	420000	360000
Agricultural sciences	300000	330000	270000	270000	.	240000	300000	270000	330000	330000	330000	.
Social sciences	330000	450000	330000	270000	.	420000	390000	720000	450000	270000	300000	.
Humanities	270000	240000	270000	270000	.	210000	270000	330000	360000	270000	180000	.
TOTAL	330000	390000	330000	330000	450000	270000	330000	420000	390000	330000	270000	390000

Women

Field of doctorate degree	Employed as researcher						Not employed as researcher					
	TOTAL	Sector of employment				of which: postdocs	TOTAL	Sector of employment				
		Business enterprise sector	Government sector	Higher education sector	Private non-profit sector			Business enterprise sector	Government sector	Higher education sector	Other education	Private non-profit sector
Natural sciences	270000	360000	270000	270000	.	210000	270000	270000	270000	270000	240000	330000
Engineering and technology	270000	390000	270000	270000	210000	210000	270000	360000	300000	270000	150000	150000
Medical sciences	270000	.	330000	270000	.	210000	330000	390000	270000	270000	390000	390000
Agricultural sciences	270000	270000	270000	270000	.	150000	270000	270000	270000	210000	240000	.
Social sciences	270000	270000	390000	270000	720000	210000	270000	450000	450000	270000	210000	330000
Humanities	270000	270000	270000	270000	.	210000	270000	720000	270000	270000	210000	.
TOTAL	270000	330000	270000	270000	465000	210000	270000	390000	270000	270000	210000	330000

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table EMP7. GROSS ANNUAL EARNINGS OF EMPLOYED RECENT DOCTORATE RECIPIENTS BY SOURCE OF FUNDING DURING COMPLETION OF DOCTORATE (optional)

YEAR(S) OF REFERENCE: 2006

Primary source of funding	Average gross annual earnings (national currency)			Median gross annual earnings (national currency)		
	Total	Employed as researcher	Not employed as researcher	Total	Employed as researcher	Not employed as researcher
Fellowship, scholarship from an institution in the country	237594	233111	249231	210000	210000	210000
Fellowship, scholarship from abroad	227143	222000	240000	210000	210000	240000
Teaching and/or research assistantship	274714	271250	282273	270000	240000	270000
Other occupation	298125	303529	292000	240000	270000	210000
Employer's reimbursement/assistance	288913	257813	360000	270000	210000	300000
Loan, personal savings, spouse's, partner's or family support	292881	251250	321429	270000	210000	270000
Other	276429	260000	288750	240000	270000	210000
Unknown	465000	210000	720000	465000	210000	720000
Number of respondents	455	285	170	455	285	170

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table EMP8. JOB TO JOB MOBILITY: LENGTH OF STAY WITH THE SAME EMPLOYER

YEAR(S) OF REFERENCE: 2006

<i>Current activity</i>	Not employed as researcher	Employed as researcher					Total
		Total research	Business enterprise sector	Government sector	Higher education sector	Private non-profit sector	
<i>With the same employer for:</i>							
Less than 1 year	63	110	3	25	80	2	173
1 to < 2 years	61	113	7	29	76	1	174
2 to < 3 years	70	104	5	34	65	0	174
3 to < 4 years	48	107	4	27	76	0	155
4 to < 5 years	54	92	6	19	67	0	146
5 to < 10 years	157	258	19	52	182	5	415
10 years or more	485	879	65	221	591	2	1364
Unknown	8	15	0	4	11	0	23
TOTAL	946	1678	109	411	1148	10	2624

Notes: Indicator is derived from the length of employment in current position.

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table PERC1. PERCEPTION OF DOCTORATE HOLDERS REGARDING THEIR JOB QUALIFICATION

YEAR(S) OF REFERENCE: 2006

Year of doctorate award	Job related to the doctoral degree			Job partly related to the doctoral degree			Job not related to the doctoral degree		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
1960-1970	29	7	36	8	1	9	2	0	2
1971-1980	124	27	151	65	11	76	19	6	25
1981-1990	283	121	404	151	63	214	61	23	84
1991	32	10	42	7	6	13	2	4	6
1992	30	9	39	7	3	10	4	3	7
1993	30	17	47	14	7	21	3	1	4
1994	24	5	29	18	7	25	3	1	4
1995	21	14	35	13	8	21	4	4	8
1996	17	10	27	12	5	17	3	1	4
1997	23	10	33	8	6	14	2	4	6
1998	34	20	54	12	10	22	3	0	3
1999	34	19	53	13	12	25	4	0	4
2000	36	26	62	12	19	31	5	1	6
2001	38	27	65	19	11	30	3	3	6
2002	48	21	69	25	15	40	3	5	8
2003	51	33	84	24	19	43	4	3	7
2004	39	50	89	24	23	47	9	3	12
2005	58	57	115	30	22	52	5	5	10
2006	100	75	175	46	41	87	3	9	12
All years	1051	558	1609	508	289	797	142	76	218

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table PERC2. SATISFACTION OF DOCTORATE HOLDERS WITH THEIR EMPLOYMENT SITUATION

YEAR(S) OF REFERENCE: 2006

Criteria	Very satisfied			Somewhat satisfied			Somewhat dissatisfied			Very dissatisfied		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Salary	218	73	291	774	408	1182	346	175	521	346	248	594
Benefits	221	83	304	622	282	904	456	231	687	358	298	656
Job security	570	276	846	678	356	1034	264	155	419	157	115	272
Location	1150	668	1818	377	169	546	95	43	138	45	21	66
Working conditions	829	389	1218	607	372	979	181	104	285	64	42	106
Opportunities for advancement	650	336	986	664	366	1030	226	121	347	120	76	196
Intellectual challenge	817	438	1255	597	325	922	178	95	273	79	44	123
Level of responsibility	782	430	1212	692	366	1058	162	82	244	35	22	57
Degree of independence	770	414	1184	607	330	937	231	111	342	68	47	115
Contribution to society	809	452	1261	701	362	1063	137	64	201	28	23	51
Social status	447	264	711	674	320	994	348	166	514	207	149	356

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table IMOB1. NUMBER OF DOCTORATE HOLDERS BY CITIZENSHIP/RESIDENTIAL STATUS AND LENGTH OF STAY IN THE COUNTRY

YEAR(S) OF REFERENCE: 2006

Length of stay in the Slovak Republic	Citizens of the Slovak Republic	Foreign citizens		Total
		Permanent residents	Non-permanent residents	
Less than 1 year	0	1	0	1
1 to < 2 years	0	0	0	0
2 to < 3 years	0	1	0	1
3 to < 4 years	0	1	0	1
4 to < 5 years	0	1	1	2
5 to < 10 years	0	6	0	6
10 years or more	2 618	5	4	2627
TOTAL	2 618	15	5	2638

Notes: In the case of foreigners, length of the stay in the country is defined as the length of employment in the current position.

In the case of citizens, length of the stay in the country is considered as "more than 10 years".

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table IMOB2. NUMBER OF DOCTORATE HOLDERS BY CITIZENSHIP/RESIDENTIAL STATUS AND PREVIOUS COUNTRY OF RESIDENCE

YEAR(S) OF REFERENCE: 2006

Previous country of residence	Citizens of the Slovak Republic	Foreign citizens		Total
		Permanent residents	Non-permanent residents	
TOTAL NUMBER OF DOCTORATE HOLDERS	2631	3	4	2638
Previous region of residence:				
Total European Union	2543	1	3	2547
Total OECD	2604	1	3	2608
Total non OECD	27	2	1	30
Previous region of residence:				
Total Africa	2	0	1	3
Total America	48	0	0	48
Total North America (Canada, Mexico, United States)	48	0	0	48
Total Central and South America	0	0	0	0
Total Asia	17	0	0	17
Total Europe	2563	3	3	2569
Total Oceania	1	0	0	1
Previous country of residence:				
Algeria	0	0	1	1
Austria	15	0	0	15
Australia	1	0	0	1
Belarus	0	1	0	1
Belgium	13	0	0	13
Bulgaria	1	0	0	1
Canada	9	0	0	9
China	1	0	0	1
Czech Republic	16	0	3	19
Denmark	6	0	0	6
Egypt	1	0	0	1
Finland	1	0	0	1
France	16	0	0	16
Germany	37	1	0	38
Greece	1	0	0	1
Iraq	1	0	0	1
Israel	1	0	0	1
Italy	9	0	0	9
Japan	12	0	0	12
Kazakhstan	2	0	0	2
Latvia	3	0	0	3
Lithuania	3	0	0	3
Luxembourg	1	0	0	1
Mexico	1	0	0	1
Netherlands	5	0	0	5
Nigeria	1	0	0	1
Norway	4	0	0	4
Poland	3	0	0	3
Romania	1	0	0	1
Russian Federation	7	1	0	8
Serbia	3	0	0	3
Slovak Republic	2393	0	0	2393
Spain	5	0	0	5
Sweden	4	0	0	4
Switzerland	4	0	0	4
Ukraine	2	0	0	2
United Kingdom	10	0	0	10
United States	38	0	0	38

Notes: In the case of foreigners, the country of birth is considered as "previous country of residence".

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table IMOB3. REASONS FOR MOVING INTO THE COUNTRY FOR DOCTORATE HOLDERS HAVING ENTERED THE COUNTRY IN THE LAST TEN YEARS

YEAR(S) OF REFERENCE: 2006

<i>Entered the country in the last ten years</i>	Citizens of the Slovak Republic	Foreign citizens		Total
		Permanent residents	Non-permanent residents	
<i>(Multiple answers possible)</i>				
Completion of doctorate	22	0	1	23
End of postdoc or job contract	21	0	0	21
Other job related factors ¹	36	1	1	38
Academic factors ²	27	0	0	27
Personal, economic or political reasons ³	49	1	0	50
Other reason	14	1	0	15
Number of respondents	169	3	2	174

1. Other job related factors: sent by employer, job or postdoc offer, better paid job or postdoc, job search, guarantee or ease to find job;

2. Academic factors: better access to publishing, development or continuity of thesis work, work in a specific area not existent in the country, possibility of creation of own research team or new research area;

3. Includes refugees, end of residence permit or visa.

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table OMOB1. INTENTIONS TO MOVE OUT OF THE COUNTRY IN THE NEXT YEAR BY COUNTRY OF INTENDED DESTINATION (optional)

YEAR(S) OF REFERENCE: 2006

	Citizens of the Slovak Republic	Foreign citizens		Total
		Permanent residents	Non-permanent residents	
No intention to move out of the country	2385	14	2	2401
Intention to move out of the country	233	1	3	237
Region of destination:				
To a European Union country	74	1	2	77
To an OECD country	225	1	3	229
To a non OECD country	8	0	0	8
Region of destination:				
To Africa	1	0	0	1
To America	18	0	0	18
Total North America (Canada, Mexico, United States)	18	0	0	18
Total Central and South America	0	0	0	0
To Asia	3	0	0	3
To Europe	83	1	2	86
To Oceania	4	0	0	4
Country of destination:				
Austria	2	0	0	2
Australia	6	0	0	6
Belarus	1	0	0	1
Belgium	4	0	0	4
Canada	4	0	0	4
Cyprus	2	0	0	2
Czech Republic	13	0	2	15
Denmark	1	0	0	1
Egypt	1	0	0	1
Finland	1	0	0	1
France	4	0	0	4
Germany	15	1	0	16
Greece	1	0	0	1
Ireland	6	0	0	6
Italy	5	0	0	5
Japan	2	0	0	2
Kazakhstan	1	0	0	1
Latvia	1	0	0	1
Luxembourg	2	0	0	2
Netherlands	1	0	0	1
New Zealand	2	0	0	2
Norway	1	0	0	1
Poland	1	0	0	1
Portugal	1	0	0	1
Slovenia	1	0	0	1
Spain	1	0	0	1
Sweden	1	0	0	1
Switzerland	2	0	0	2
Ukraine	1	0	0	1
United Kingdom	11	0	0	11
United States	14	0	0	14
Not known	124	0	1	125

Notes: The national questionnaire contains an additional option "not known yet" in the question MOB7. Subtotals for "region of destination" do not include this category. The respective figure for this category could be included in "to an OECD country".

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table OMOB2. REASONS FOR INTENTIONS TO MOVE OUT OF THE COUNTRY IN THE NEXT YEAR (optional)

YEAR(S) OF REFERENCE: 2006

	Citizens of the Slovak Republic	Foreign citizens		Total
		Permanent residents	Non-permanent residents	
<i>(Multiple answers possible)</i>				
Completion of doctorate	8	0	0	8
End of postdoc or job contract	9	0	0	9
Other job related factors ¹	128	0	1	129
Academic factors ²	88	1	0	89
Personal, economic or political reasons ³	84	0	0	84
Other reason	16	0	1	17
Number of respondents	333	1	2	336

1. Other job related factors: sent by employer, job or postdoc offer, better paid job or postdoc, job search, guarantee or ease to find job;

2. Academic factors: better access to publishing, development or continuity of thesis work, work in a specific area not existent in the country, possibility of creation of own research team or new research area;

3. Includes refugees, end of residence permit or visa.

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table OMOB3. NUMBER OF DOCTORATE HOLDERS HAVING LEFT THE COUNTRY IN THE LAST TEN YEARS BY CITIZENSHIP/RESIDENT STATUS AND COUNTRY OF DESTINATION (optional)

YEAR(S) OF REFERENCE: 2006

<i>Left in the last ten years</i>	Citizens of the Slovak Republic	Foreign citizens		Total
		Permanent residents	Non-permanent residents	
TOTAL HAVING LEFT	300	4	4	308
Region of destination:				
To a European Union country	188	2	3	193
To an OECD country	264	2	3	269
To a non OECD country	36	2	1	39
Region of destination:				
To Africa	2	0	1	3
To America	57	0	0	57
Total North America (Canada, Mexico, United States)	57	0	0	57
Total Central and South America	0	0	0	0
To Asia	23	0	0	23
To Europe	216	4	3	223
To Oceania	2	0	0	2
Country of destination:				
Algeria	0	0	1	1
Austria	18	0	0	18
Australia	2	0	0	2
Belarus	0	1	0	1
Belgium	16	0	0	16
Bosnia and Herzegovina	1	0	0	1
Bulgaria	2	0	0	2
Canada	10	0	0	10
China	1	0	0	1
Cyprus	1	0	0	1
Czech Republic	18	0	3	21
Denmark	6	0	0	6
Egypt	1	0	0	1
Finland	2	1	0	3
France	20	0	0	20
Germany	42	1	0	43
Greece	2	0	0	2
Hungary	1	0	0	1
Iraq	1	0	0	1
Ireland	1	0	0	1
Israel	2	0	0	2
Italy	10	0	0	10
Japan	12	0	0	12
Kazakhstan	2	0	0	2
Korea	1	0	0	1
Latvia	3	0	0	3
Lithuania	3	0	0	3
Luxembourg	1	0	0	1
Mexico	1	0	0	1
Nigeria	1	0	0	1
Netherlands	8	0	0	8
Norway	6	0	0	6
Pakistan	1	0	0	1
Poland	4	0	0	4
Portugal	1	0	0	1
Romania	1	0	0	1
Russian Federation	8	1	0	9
Serbia	3	0	0	3
Slovenia	1	0	0	1
Spain	7	0	0	7
Sweden	5	0	0	5
Switzerland	8	0	0	8
Thailand	1	0	0	1
Turkey	1	0	0	1
Ukraine	2	0	0	2
United Kingdom	15	0	0	15
United States	46	0	0	46
Uzbekistan	1	0	0	1

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table OMOB4. REASONS FOR MOVING OUT OF THE COUNTRY IN THE LAST TEN YEARS (optional)

YEAR(S) OF REFERENCE: 2006

<i>Left in the last ten years</i>	Citizens of the Slovak Republic	Foreign citizens		Total
		Permanent residents	Non-permanent residents	
<i>(Multiple answers possible)</i>				
Completion of doctorate	36	0	0	36
End of postdoc or job contract	34	0	0	34
Other job related factors ¹	137	0	0	137
Academic factors ²	91	1	0	92
Personal, economic or political reasons ³	32	0	0	32
Other reason	28	1	0	29
Number of respondents	358	2	0	360

1. Other job related factors: sent by employer, job or postdoc offer, better paid job or postdoc, job search, guarantee or ease to find job;
2. Academic factors: better access to publishing, development or continuity of thesis work, work in a specific area not existent in the country, possibility of creation of own research team or new research area;
3. Includes refugees, end of residence permit or visa.

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table OUTP1. AVERAGE OUTPUT OF DOCTORATE HOLDERS WORKING AS RESEARCHERS IN THE LAST THREE YEARS (BY FIELD OF DOCTORATE DEGREE AND BY AGE)

YEAR(S) OF REFERENCE: 2006

	Number of doctorate holders working as researchers	Articles	Books	Named as inventors in patents	Patents granted	Commercialised products or processes or patents licensed	Start-up companies
Field of doctorate degree	<i>Average number in the last three years:</i>						
Natural sciences	488	11,34	1,59	0,12	0,09	0,05	0,02
Engineering and technology	431	13,18	1,69	0,24	0,16	0,06	0,03
Medical sciences	107	21,38	3,09	0,03	0,03	0,02	0,02
Agricultural sciences	196	19,36	2,27	0,13	0,05	0,04	0,02
Social sciences	300	14,47	3,81	0,00	0,01	0,00	0,03
Humanities	156	21,37	3,28	0,00	0,00	0,00	0,00
TOTAL	1678	14,88	2,35	0,11	0,08	0,04	0,02

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

	Number of doctorate holders working as researchers	Articles	Books	Named as inventors in patents	Patents granted	Commercialised products or processes or patents licensed	Start-up companies
Age	<i>Average number in the last three years:</i>						
Less than 35 years old	372	11,23	0,90	0,02	0,01	0,00	0,02
35-44 years old	321	12,44	1,64	0,10	0,07	0,03	0,02
45-54 years old	453	17,14	2,33	0,16	0,12	0,05	0,02
55-64 years old	404	17,16	3,14	0,14	0,09	0,04	0,03
65-69 years old	79	19,38	5,48	0,13	0,09	0,11	0,01
70 years old or more	49	11,61	6,43	0,20	0,14	0,02	0,04
TOTAL	1678	14,88	2,35	0,11	0,08	0,04	0,02

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

Table OUTP2. AVERAGE OUTPUT OF DOCTORATE HOLDERS WORKING AS RESEARCHERS IN THE LAST THREE YEARS (BY SEX AND CITIZENSHIP/RESIDENTIAL STATUS)

YEAR(S) OF REFERENCE: 2006

	Number of doctorate holders working as researchers	Articles	Books	Named as inventors in patents	Patents granted	Commercialised products or processes or patents licensed	Start-up companies
		<i>Average number in the last three years:</i>					
Men	1064	15,42	2,59	0,15	0,10	0,05	0,03
Women	614	13,94	1,93	0,04	0,03	0,01	0,01
Total	1678	14,88	2,35	0,11	0,08	0,04	0,02

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006

	Number of doctorate holders working as researchers	Articles	Books	Named as inventors in patents	Patents granted	Commercialised products or processes or patents licensed	Start-up companies
		<i>Average number in the last three years:</i>					
Citizens of the Slovak Republic	1667	14,89	2,32	0,11	0,08	0,04	0,02
Foreign citizens who are permanent residents	8	11,50	4,00	0,13	0,00	0,00	0,00
Foreign citizens who are non-permanent residents	3	18,00	12,67	0,00	0,00	0,00	0,00
Total	1678	14,88	2,35	0,11	0,08	0,04	0,02

Notes:

Source of data: Statistical survey on careers of doctorate holders in Slovak Republic CDH 2006