

The Situation of Post-doctoral Political Scientists in Swiss Universities and Research Institutes

A Study Conducted by the Swiss Political Science Association

Report by Jasmine Lorenzini

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ACKNOWLEDGMENT	2
FOREWORD BY THE STEERING COMMITTEE OF THE SWISS POLITICAL SCIENCE ASSOCIATION	4
<u>THE SITUATION OF POST-DOCTORAL POLITICAL SCIENTISTS IN SWISS UNIVERSITIES AND RESEARCH INSTITUTES</u>	5
INTRODUCTION	5
PRESENTATION OF THE SURVEY	7
THE POST-DOC SURVEY	7
COMPLEMENTING THE POST-DOC SURVEY	8
RESPONDENTS' SOCIO-DEMOGRAPHIC PROFILES	8
INSTITUTIONAL AFFILIATIONS	12
DOCTORAL CAREERS	14
EMPLOYMENT SITUATION DURING THE PH.D.	14
DOCTORAL TRAINING	15
NATIONAL AND INTERNATIONAL NETWORKS DURING THE PH.D.	16
ACADEMIC AND NON-ACADEMIC WORKING LIFE	18
POST-DOCTORAL CAREERS	22
DURATION OF POST-DOCTORAL CAREERS.....	22
POSITIONS HELD AS A POST-DOCTORAL RESEARCHER	23
WORK-TIME ALLOCATION	24
WAGES ACROSS DIFFERENT POST-DOCTORAL POSITIONS	25
PARTICIPATION IN ACADEMIC NETWORKS.....	25
DEPARTMENT/RESEARCH GROUP AND WORK ENVIRONMENT	30
PERCEPTION OF THE DEPARTMENT'S VALUES	30
PERCEPTIONS OF WORK ENVIRONMENT.....	32
SATISFACTION WITH EMPLOYMENT INSIDE AND OUTSIDE OF ACADEMIA	36
SUPPORT RECEIVED DURING POST-DOCTORAL CAREER	38
INFRASTRUCTURE FOR CHILDCARE	47
PUBLICATIONS	49
TYPE OF DOCTORAL THESIS	49
PUBLICATIONS.....	49
PEER-REVIEWED ARTICLES	50
COLLABORATIONS FOR PUBLICATIONS.....	53
SATISFACTION WITH QUANTITY AND QUALITY OF PUBLICATIONS	56
MAIN OBSTACLES TO PUBLISHING	59
SUGGESTIONS TO IMPROVE THE LEVEL OF PUBLICATIONS	60
DISCUSSION OF MAIN FINDINGS	62
MAIN FINDINGS	62
IMPLICATIONS	63
MEASURES PROPOSED TO IMPROVE THE SITUATION OF POST-DOCTORAL RESEARCHERS	66
VISIBILITY AND PREDICTABILITY IN POST-DOCTORAL AND ACADEMIC CAREERS	67
STABILITY AND CONTINUITY IN THE CONTRACTUAL AND FINANCIAL SITUATION.....	68
SUPPORT AND INCENTIVES FOR POST-DOCTORAL WOMEN AND ACADEMIC CAREER	69
CLEAR AND TRANSPARENT CRITERIA OF EVALUATION.....	70
ACCEPTANCE OF PARENTHOOD AND RECOGNITION OF CARE OBLIGATIONS	72
CONCLUSION	75
REFERENCES	78
APPENDIX 1: QUESTIONNAIRE	81
APPENDIX 2: OFS DATA – PH.D. SOCIO-DEMOGRAPHIC PROFILES	94
APPENDIX 3: WAGES AT DIFFERENT POST-DOCTORAL POSITIONS	95
APPENDIX 3A: UNIVERSITÉ DE LAUSANNE.....	95
APPENDIX 3B: UNIVERSITÄT ZÜRICH.....	96
APPENDIX 4: SUPPLEMENTARY TABLES FOR ACADEMIC SUPPORT	100
APPENDIX 5: SUPPLEMENTARY TABLES FOR INCENTIVES FOR PUBLICATIONS AND NETWORKING	102

Foreword by the Steering Committee of the Swiss Political Science Association

Today's working conditions for young political scientists at Swiss universities are decisive for the quality of Swiss political science tomorrow.

Several developments have changed the circumstances for young academic careers in recent years. The introduction of new funding mechanisms and the diversification of post-doctoral positions have led to a differentiation of occupational forms. Next to doing research, post-docs frequently contribute extensively to teaching and academic self-governance in universities. At the same time, short-term contracts and precarious working conditions have proliferated. In order to safeguard the legitimate concerns of the persons in these situations and to foster the long-term quality of our discipline it is paramount that we keep monitoring and, whenever possible, improving the working conditions of the young scholars working in our universities. This report, based on a survey conducted with post-docs in political science in Switzerland, is a first step in this direction.

In the name of the Steering Committee of the Swiss Political Science Association
Sandra Lavenex (President)

The Situation of Post-doctoral Political Scientists in Swiss Universities and Research Institutes

Introduction

In 2010, the Swiss Political Science Association decided to implement a survey on post-doctoral researchers working in Swiss universities and research institutions in order to assess the situation of young scholars in Switzerland. The study aims at comparing both employment and working conditions across regions; the situation of women and men at the post-doctoral level in Switzerland; and differences that may appear between post-doctoral researchers in the first years after they defend their doctoral research or later on. This is a first step in understanding the opportunities and conditions offered to young scholars pursuing an academic career in political science in the Swiss context. Furthermore, this study contributes to a broader reflection on the discipline and how to build processes of evaluation and quality assessment within the discipline.

Understanding the conditions and motivations of young Ph.D. researchers to pursue an academic career is of utmost importance for the success of the field. A broad concern for young scientists is now evident in science as reflected by the position paper commissioned by the state secretariat for education (CSST 2013; Joye-Cagnard and Vencato 2011) and the State Secretariat report to Parliament (SEFRI 2014), as well as in society at large, as can be seen in media discussion of these issues (Chollet 2012; Hirschi 2011; Hug 2012; Rice 2012). Many disciplines are now concerned for the future of the next generations of academics, since they represent the core of their workforce and occupy a central position in research, innovation, and more generally for the future of the discipline (Alberts et al. 2014; Alleva 2006)¹. Young scholars are themselves highly preoccupied by these questions, and are organizing forums to discuss these issues: in Switzerland, *les Etats généraux de la recherche* took place in 2012, and similar events have been organized in other European countries, for instance in Germany and France².

In this report, we present findings based on the survey conducted by the Swiss Political Science Association on post-doctoral political scientists working in Swiss universities and

¹ See Olivier P. Gosselain's invited contribution on Paul Jorion's blog: "*Slow science: la désexcellence*" for an overview of the slow science movement over time and across disciplines. Available at: <http://www.pauljorion.com/blog/?p=27864>

² See for instance the website of the *Etats généraux de la recherche*, which includes links to events in other countries. Available at: <http://www3.unil.ch/wpmu/acidul/etats-generaux-de-la-recherche>

research institutes. Based on descriptions of their working conditions and employment situations, we draw conclusions regarding the research institutions and propose measures to improve the situation of post-doctoral researchers in political science. The measures we propose aim at improving the situation of post-doctoral researchers and increasing the attractiveness of academic careers by improving the contractual and the financial stability of post-doctoral researchers, by promoting gender equality, and by ensuring the possibilities of dual careers and the conciliation of professional and private life.

We start with an introduction to the survey design and a presentation of the respondents' socio-demographic profiles and affiliations. We continue with a discussion of doctoral and post-doctoral careers to present past and current experiences. We then move on to an assessment of employment conditions and satisfaction with the working environment. Lastly, we present analyses related to publications, the types and number of publications, as well as the self-assessment of quantity and quality of these publications. Moreover, using open-ended questions, we discuss suggestions for alternative publication strategies proposed by post-doctoral researchers. We conclude the report with a discussion of the main findings of the study. Furthermore, we draw implications from these findings to propose measures to improve the situation of post-doctoral political scientists.

Presentation of the survey

The post-doctoral survey was initiated by the Swiss Political Science Association in order to assess and compare the situations of post-doctoral researchers working in Swiss universities and research institutions. For the purpose of this study, post-doctoral researchers were defined as all young scholars holding a Ph.D. who were, at the time of the interview, not hired in a stable position.

The post-doc survey

As a first step, we sent invitations to take part in the survey to all post-doctoral political scientists working in Swiss universities or research institutions in 2012, which represented, at the time of the fieldwork, 92 post-doctoral researchers. This allowed us to constitute a list of post-doctoral researchers based on the answers given by the representatives of the different universities. Moreover, we cross-checked this first list with the information available on the universities' websites. We ultimately achieved a sample of 73 post-doctoral researchers from the initial 92 who received the invitation to take part in the survey³: the response rate was thus high, at 79 percent. However, among these respondents not all completed the survey: 59 were complete, while 14 were incomplete.

The questionnaire is structured in 6 parts⁴. The first part focuses on some general background information concerning the respondents. The next section deals with the post-doctoral situation of the respondent. Part three asks questions regarding the respondent's doctoral studies. Research projects and patterns of cooperation are at the center of section four. The fifth part deals with the person's work environment and its features. The last section is aimed at gathering information on publications.

This structure and the related questions were developed in different stages. A first draft of the questionnaire was elaborated based on the article by Bernauer and Gilardi (2010) and a similar type of survey conducted in Germany (see Plümper and Schimmelfennig 2007). This draft was then submitted to experts to receive feedbacks on the structure and the content of the questionnaire. The final version was pre-tested before submission to the post-doctoral researchers through an on-line survey device.

The fieldwork took place during the summer of 2012, from June to August, and the survey was administered through an on-line questionnaire.

³ Two reminders were sent to the respondents.

⁴ The questionnaire is presented in Appendix 1.

Complementing the post-doc survey

In addition to the data from this on-line survey conducted by the Swiss Political Science Association, we use data from a survey on persons who graduated in 2001 conducted by the Swiss Statistics Office (OFS)⁵. The study includes individuals who graduated at the Bachelor, Master, and Doctoral levels in Swiss universities or higher education schools. The study was done through an on-line questionnaire between October 2011 and January 2012. It is part of a panel study, which started in 2007 and included individuals who obtained a diploma in 2006 (Bachelor, Master, Ph.D.). We only use the second wave and focus on respondents who obtained a Ph.D. in political science in 2010.

The OFS dataset on doctors includes 41 political scientists, of which 9 hold a Ph.D. from the University of Zurich, 4 from other universities in the German-speaking region, and 28 from universities based in the French-speaking region. Surprisingly, this sample includes more young political scientists from the French-speaking part, and in particular from the University of Geneva, with 24 who hold a Ph.D. from this university. The OFS recommends to always use weighting when analyzing this dataset. Hence, we use a weighted sample of 97 respondents (18 from Zurich, 7 from German-speaking, and 72 from French-speaking universities).

We only use the OFS data on selected questions. Thus, unless stated otherwise the analyses presented below are based on the post-doctoral survey conducted by the ASSP. We include the OFS data on Swiss university graduates in order to compare young post-doctoral researchers (that is, recently-graduated doctors who still worked in academia at the time of the interview) to young political scientists who work outside of academia.

Respondents' socio-demographic profiles

First, it is important to present who are the post-doctoral researchers in terms of sex, age, and family situation. In table 1 we present an overview of socio-demographic characteristics of the post-doctoral researchers we interviewed.

Among the interviewed post-doctoral researchers 59.4 percent are men and 40.6 percent are women. Although this gap is not large, we already see that men are more numerous at the post-doctoral level, despite women holding 52 percent of Ph.Ds. in the humanities and social sciences in 2011 (Dubach, Graf and Stutz 2013: 56; see also: Koller and Meffre 2010). Looking more specifically at political science, using the OFS data on recently graduated

⁵ « La première enquête 2011 auprès des personnes diplômées des hautes écoles », l'enquête est réalisée sous mandat du Conseil fédéral par l'Office fédéral de la statistique, en collaboration avec le Secrétariat d'Etat à laformation, à la recherche et à l'innovation.

political scientists, we find that among doctors who obtained their titles in 2010, 50 percent were women⁶. Thus, the drop-out rate of women would appear to be around 10 percent already at this first stage in the academic career.

Table 1: Respondents' socio-demographic profiles (percentages)

Sex (N=73)	Female	40.6
	Male	59.4
Age (N=73)	26-30	7.6
	31-35	51.5
	36-40	28.8
	41-45	12.1
	Mean age = 35.08; sd=3.68	
Family situation (N=73)	Have children	39.0
	No children	61.0

In terms of age, post-doctoral researchers are aged between 26 and 45. The largest group, in terms of age, is composed of individuals aged 31 to 35. This group represents half of our sample (51.5). Indeed, the mean age of respondents is 35.08. The second largest group includes individuals aged 36 to 40, with 28.8 percent. A minority of post-doctoral researchers is younger, with 7.6 percent who are aged 26 to 30, and another small group is older (12.1).

Lastly, considering family situation, we see that most of the post-doctoral researchers do not have children. The childless represent 61 percent of our sample, while only 39 percent do have children.

Next, we look at the socio-demographic profiles of researchers by sex of the respondent and across regions. We find no statistically significant differences by sex, although some variations appear. Interestingly, we see a significant share of female post-doctoral researchers in universities based in the French-speaking region, and a significant share of young post-doctoral researchers in Zurich. We discuss below specific findings by sex and region of employment.

⁶ See Appendix 2 for details and other information on the sociodemographic profiles of doctors included in the OFS study.

Table 1a: Respondents' socio-demographic profiles by sex of the respondents (percentages)

	Female	Male
Age (N=63)		
26-30	-	13.2
31-35	64.0	44.7
36-40	28.0	26.3
41-45	8.0	15.8
Mean age ¹	35.28	34.76
(std dev.)	(3.14)	(4.04)
Academic age (N=57)		
- First 3 years	60.9	73.5
- More than 3 years	39.1	26.5
Family situation (N=57)		
- Have children	52.2	32.4
- No children	47.8	67.6

Note:

Bold to highlight adjusted residuals above +/- 1.96

¹ T-test shows no statistically significant differences across groups

Table 1a shows first that in our sample post-doctoral women are mostly aged between 31 and 40. In fact, we have no post-doctoral women aged 26 to 30 and very few who are older than 40 (only 8 percent), whereas among men, 13.2 percent are younger than 30 and 15.8 percent are older than 40. Moreover, we see that a larger share of post-doctoral women completed their Ph.D. more than three years ago. Although the difference is not statistically significant (as can be seen through the adjusted residuals⁷), two-thirds of women have been post-doctoral researchers for more than three years (39.1), compared with only a quarter of men (26.5 percent). Thus, it would appear that women tend to remain in post-doctoral status for a longer period, a finding which can be further related to the low percentage of women who become professors. In the social sciences, 26.5 percent of professors are women. This share of female professors is the highest to be found in the different scientific disciplines (Dubach, Graf and Stutz 2013). However, the objectives of the federal program on gender equality aim at 40 percent of women recruited as professors, in order to reach a proportion of one professor in four being female (i.e. not equality yet). However, the nomination rate of women remained at 23 percent during the third phase of the program from 2008 to 2012 (Dubach, Graf and Stutz 2013).

⁷ When comparing the distribution across groups, adjusted residuals can be used to identify cells that have an unexpectedly high or low number of cases. This high or low number of cases points at a different distribution in one of the groups and, therefore, at statistically significant differences across the groups that are being compared. Adjusted residuals that are bigger or smaller than 2.0 (1.96) indicate cells with fewer or more cases than expected.

In the second part of table 1a, we look at differences in terms of parental obligations for women and men. We see that a higher percentage of women have children – 52.2 percent, compared to 32.4 percent of men. This may be related to the fact that they are older. It is important to note here that the difference is not statistically significant, and that the difficulties that post-doctoral women face in becoming professors should not be unequivocally related to motherhood. First, not all post-doctoral women have children, and second, some of the difficulties they face in the academic environment are unrelated to family obligations (see Valian 1998 for a discussion of discrimination of women in academic careers).

Table 1b: Respondents' socio-demographic profiles by regions (percentages)

	Zurich	German Speaking	French speaking
Sex (N=53)			
- Female	37.5	42.9	53.3
- Male	62.5	57.1	46.7
Age (N=54)			
26-30	11.5	7.1	7.1
31-35	57.7	50.0	57.1
36-40	23.1	21.4	28.6
41-45	7.7	21.4	7.1
Mean age ¹	34.31	35.36	34.92
(std. dev)	(3.85)	(4.14)	(3.17)
Academic age (N=54)			
- First 3 years	76.0	57.1	42.9
- More than 3 years	24.0	42.9	42.9
Family situation (N=53)			
- Have children	48.0	35.7	28.6
- No children	52.0	64.3	71.4

Note:

Bold to highlight adjusted residuals above +/- 1.96

¹ T-test shows no statistically significant differences across groups

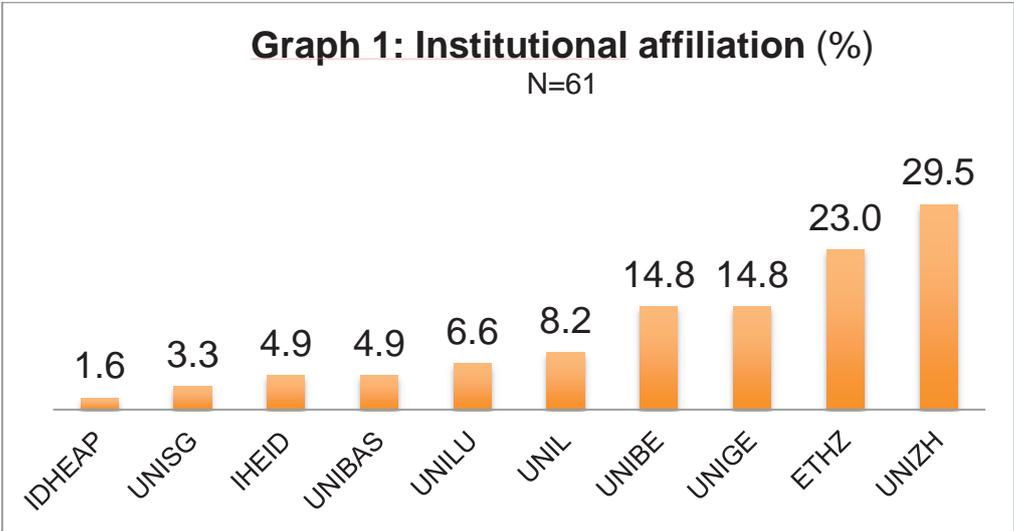
Next, we turn to differences across working institutions. Due to the small size of our sample we group post-doctoral researchers in three 'regional' groups, comparing those working in universities and research institutions based in Zurich (the largest sample), to those based in other German-speaking cities, and those based in the French-speaking region. In table 1b regarding the presence of women among post-doctoral researchers we see that both in universities based in Zurich, as well as in the rest of the German-speaking region, less than 50 percent of post-doctoral researchers are women. We find, respectively, 37.5 and 42.9 percent of post-doctoral researchers in these regions are women. However, in universities based in the French-speaking region, women represent slightly more than half of post-doctoral researchers (53.3). In terms of age, the most striking difference appears in the

percentage of post-doctoral researchers who are more than 40 years old in German-speaking universities (excluding Zurich), 21.4 percent are older than 40, and although the sample is small (and we should thus be careful not to over interpret it, since this represents three post-doctoral researchers) it is nonetheless the same number as those aged 36 to 40. Together, these two categories comprise almost as many as the younger cohort (eight post-doctoral researchers are aged below 35).

In Zurich, post-doctoral researchers tend to be in an earlier stage of their academic career than in the other two regions. In fact, 76 percent of post-doctoral researchers in Zurich are in the first three years after their Ph.D., whereas in other German-speaking institutions the figure is 57.1 percent, and this drops to 42.9 percent in institutions based in the French-speaking part of the country. However, none of these differences is statistically significant. Further, although the share of younger post-doctoral researchers is higher in Zurich, higher percentages also have children (48 percent, compared to 35.7 percent in other German-speaking universities and 28.6 percent, the lowest percentage, in the French speaking ones).

Institutional affiliations

The respondents we interviewed work in ten different universities or research institutions including political science sections.



Graph 1 shows that half of the respondents are based in Zürich, with 29.5 percent at the University of Zürich and 23.0 percent at the ETHZ. Next, we see that one sixth of the post-doctoral researchers work at the University of Geneva (14.8) and another sixth at the University of Bern (14.6). The final third of post-doctoral researchers are based in six different universities and research institutions: 8.2 percent at the University of Lausanne; 6.6

percent at the University of Lucerne; 4.9 percent at the University of Basel; 4.9 percent at the IHEID in Geneva; 3.3 percent at the University of St-Gallen; and finally 1.6 percent at the IDHEAP in Lausanne.

Doctoral careers

Having introduced the study and the post-doctoral researchers who took part in the survey, we now move to the core of the report. We start with a presentation of the doctoral careers of respondents. This allows us to gain information on their employment situation while completing their Ph.D., on their training, and on their national and international networks.

Employment situation during the Ph.D.

During their doctoral studies respondents were employed under varying conditions. Among respondents the two most common employment situations during the Ph.D. were either working on a research project, or working as a teaching assistant. Respectively, 31.6 percent worked on a research project and 35.1 worked as a teaching assistant. A quarter worked only on the Ph.D., since they were involved on a full-time basis in a doctoral program (26.3), while less than 10 percent wrote their dissertation while working outside of academia (7.0). While writing their thesis, on average half of respondents' time was dedicated to their doctoral research. The rest of their time was dedicated either to research not related to the Ph.D. (19.5), or to teaching (18.8).

Table 2: Employment situation and allocation of working time during doctoral studies (percentages and means)

Employment situation during Ph.D.	%		
Working on a research project (thesis on the project)	21.1		
Working on a research project (thesis not on the project)	10.5		
Working as teaching assistant	35.1		
Full time on a Ph.D. program	26.3		
Working outside of academia	7.0		
Total	100		(N=57)

Distribution of working time per task	Mean	S.D.	
Doctoral work	50.76	20.01	(N=59)
Research not related to the dissertation	19.49	16.98	(N=59)
Teaching	18.81	15.07	(N=59)
Services to the department/university	6.61	7.51	(N=59)
Non academic job	2.97	8.15	(N=59)
Other	1.36	5.48	(N=59)

Doctoral training

In addition to conducting research and teaching, post-doctoral researchers also attended doctoral and summer schools while doing their Ph.D. Table 3 shows training during the Ph.D.: we see that 39 percent of respondents attended a doctoral school and 62.5 percent participated in one or more summer schools.

Table 3: Doctoral training (percentages)

Attendance of doctoral school

Participated in a doctoral school 39.0 (N=59)

Attendance of summer schools

Participated in one or more summer school 62.5 (N=56)

Attendance at a doctoral school varies both by region and by career stage. In tables 3a and 3b below we see that in Zurich fewer of the post-doctoral researchers attended a doctoral school, and 28 percent only attended one. By contrast, in other German-speaking universities, as well as in French-speaking ones, half of respondents had attended a doctoral school. In addition, we see that those who are more junior in terms of career stage are more likely to have attended a doctoral school, with 48.7 percent of those who have been a post-doctoral researcher for three years or fewer having attended, while among those who have been a post-doctoral researcher for more than three years, only 20 percent have attended a doctoral school.

Table 3a: Doctoral training by regions (percentages)

	Zurich	German speaking	French speaking	Total
Attendance of doctoral school				
Participated in a doctoral school	28.0	50.0	50.0	(N=53)
Attendance of summer schools				
Participated in one or more summer school	65.2	61.5	50.0	(N=50)

Regarding attendance of summer schools we see that differences across regions are not as marked; nonetheless, post-doctoral researchers at French-speaking universities are slightly

less likely to have attended a summer school (50 percent, compared to 65.2 percent of post-doctoral researchers in Zurich, and 61.5 percent in other German-speaking universities). However, when comparing attendance of summer schools depending on career stage⁸, we see that those who obtained their Ph.D. within the last 3 years are more likely to have attended a summer school. In fact, 70.3 percent of those who have been post-doctoral researchers for 3 years or fewer have attended one, compared with 47.4 percent of those who have been post-doctoral researchers for more than 3 years.

Table 3b: Doctoral training by career stage (percentages)

	First 3 years	More than 3 years	Total
Attendance of doctoral school			
Participated in a doctoral school	48.7	20.0	(N=59)
Attendance of summer schools			
Participated in one or more summer school	70.3	47.4	(N=56)

Regarding these differences in terms of attendance of both doctoral schools and summer schools regarding career stage of post-doctoral political scientists, they may reveal changes in both practices and expectations related to doctoral training - in particular the introduction of doctoral schools and greater encouragement to participate in summer schools.

National and international networks during the Ph.D.

In this section, we present the national and international networks of doctoral students through their affiliation, where they completed their Ph.D., and also through academic stays abroad and participation in conferences.

First, table 4 reveals that slightly more than half of the respondents obtained their Ph.D. in Switzerland (52.5). Post-doctoral researchers who carried out their doctoral studies in other European countries constitute the second most important group (39.0). By contrast, post-doctoral researchers who completed their Ph.D. in non-European countries represent less than 10 percent, of which 6.8 percent did their Ph.D. in North America and 1.7 percent somewhere else.

⁸ Academic age and the respective categories of comparison – “first 3 years after the Ph.D.” vs “more than 3 years after the Ph.D.” – are always calculated based on the time since the respondent has obtained his or her Ph.D.

Table 4: National and international networks during Ph.D. (percentages)

Country where the Ph.D. was completed		
Switzerland	52.5	
Europe	39.0	
North America	6.8	
Other countries	1.7	
Total	100	(N=73)
Visiting scholarship		
Experience in other institutions during Ph.D.	62.7	(N=59)
Country of destination		
Switzerland	5.6	
Europe	47.2	
North America	44.4	
Other countries	2.8	
Total	100	(N=36)
Duration of academic stay		
1 to 3 months	16.2	
6 months	32.4	
7 to 12 months	43.2	
2 or 3 years	8.1	
Total	100	(N=37)
Number of conferences		
0	3.4	
1	20.3	
2	39.0	
3	20.3	
4	13.6	
8	3.4	
Total	100	(N=73)

Among post-doctoral researchers currently working in political science in Switzerland, 62.7 percent had been visiting scholars in other institutions during their Ph.D. The most common destinations were Europe and North America, which appear to be of similar popularity, with respectively 47.2 and 44.4 percent. Few post-doctoral researchers have completed a visiting scholarship in Switzerland (5.6) or in non-European/non-North American destinations (2.8). The duration of the academic stay abroad varies, but most frequently lasts for 6 months or more. Indeed, short academic stays represent 16.2 percent, whereas 32.4 percent of

academic stays lasted for 6 months, and 43.2 percent lasted 7 to 12 months. Longer academic stays are less common, with only 8.1 percent of respondents conducting a 2 to 3 year academic stay.

Lastly, in table 4 we present participation in conferences. Most of the post-doctoral researchers have participated in conferences, and only 3.4 percent had not attended any conferences at the time of the survey. In general, post-doctoral researchers have participated in 1 to 4 conferences. Participation in more than 4 conferences is not common.

Table 4a: Conference attendance during Ph.D. by academic age (means)

	First 3 years	More than 3 years	Total
Mean	2.64	1.95	2.40
s.d.	1.55	1.23	1.47
N	39	20	59

Note: T-test is not statistically significant

In table 4a, we see that some variations appear related to career stage, however they are not statistically significant, so we interpret them with caution. Post-doctoral researchers in the three years following the completion of their thesis also have a higher mean attendance of conferences during the Ph.D. As noted above regarding attendance of doctoral and summer schools, this may be related to a generational change, with younger academics encouraged to go to conferences earlier in their academic career, particularly during their Ph.D.

Academic and non-academic working life

In the next table we see the percentage of political scientists who obtained their Ph.D. in 2010 and who were working in academia at the time of the survey (in 2011-2012). These frequencies are derived from the OFS data on graduates from Swiss universities. We also use the OFS data to look at positions held, type and duration of contracts.

In table 5 we see that those who are currently working in academia represent 45.5 percent of the OFS sample. Among those who work in academia, only 21.1 percent have a permanent contract, while among those who work outside of academia and hold a Ph.D. obtained in the same period (percentages not shown in table) 61.9 percent have a permanent contract. This difference is not only striking, but is also statistically significant despite the small sample.

Looking at the duration of fixed-term contracts, we see that roughly 55 percent of those who work in academia have a contract that lasts for a year or less.

Table 5: Ph.D. following an academic career and employment situation for those in academia (percentages)

Academic career (N=97)	Currently, working in academia	45.5
Position held (N=43)	Professor	14.4
	Lecturer ¹	13.6
	Scientific collaborator with Ph.D.	60.1
	Scientific collaborator no Ph.D.	5.3
	Administrative collaborator	6.6
Contract type (N=38)	Permanent contract	21.1
Duration of the contract (N=30)	Less than one year	16.1
	One year	39.6
	Two years	7.7
	Four years	28.9
	Six years	7.7
Country of work (N=37)	Working in Switzerland	94.6

DATA Source: OFS

Note

¹ Lecturer stands for *chargé·e de cours*.

Although they obtained their Ph.D. recently, nonetheless this is a rather precarious situation and it is the one in which half of young doctors in political science find themselves. This finding is consistent with that highlighted by the SEFRI in the report to the National Parliament, where they note that a large majority of researchers (not taking into account professors), are hired on a fixed-term basis with a mean contract duration of two years. Half have a contract shorter or equal to one year (SEFRI 2014). For the other half, the situation is better, with 28.9 percent having a contract for four years and 7.7 percent having one for six years. In this first step of the academic career most young scholars remain in Switzerland, with 94.6 percent remaining in the country. Surprisingly, this percentage is much higher than among those who do not stay in academia, with only 48.9 percent of these remaining in Switzerland (percentages not shown in table).

Table 6: Career goals and motivations when starting the Ph.D. (percentages)

	Working in academia	Not working in academia
<i>Career goals...</i>		
... Professorship as a goal	71.4 (N=35)	15.6 (N=45)
... Research position as goal	80.6 (N=36)	24.4 (N=45)
<i>Motivations to do a Ph.D. ...</i>		
... Pursue an academic career	62.9 (N=35)	22.2 (N=45)
... A job was offered	39.5 (N=38)	44.4 (N=45)

DATA Source: OFS

Note: Bold to highlight adjusted residuals above +/- 1.96

In table 6, we see that most young doctors would like to remain in academia, but not necessarily become a professor. While 80.6 percent aim at a research position, 10 percent less (71.4) aim at becoming a professor. This discrepancy, particularly in light of the fact that in Switzerland there are no researcher positions, is quite interesting. On the one hand, it shows a gap between the aspirations of the individuals working in the field and its structural configuration. On the other hand, it probably reflects the low hopes that young scholars have of becoming professors. Additionally, it is important to note here that this discrepancy also reflects the position of young scholars (reported by the CSST and the SEFRI) in demanding the creation of intermediary stable positions (CSST 2013; SEFRI 2014). Moreover, looking at the distribution among those who are not working in academia at the moment, we find that 15.6 percent still aim at becoming professors and 24.5 percent aim at working in research. This also reveals a structural problem, with doctors in the discipline who would like to remain in academia, but have no jobs in the field.

Table 7: Publications of the Ph.D. who are working in academia and who are not (percentages)

	Working in academia	Not working in academia
Published Ph.D.	60.0 (N=35)	46.7 (N=45)
Peer-reviewed articles	60.5	48.8
Non peer-reviewed articles	44.7	41.9
Book chapters	63.2 (N=38)	34.9 (N=43)

DATA Source: OFS

Note: Bold to highlight adjusted residuals above +/- 1.96

Lastly, in table 7 we compare the publications of those recent graduates who continue to work in academia and those who work outside of academia. In terms of publications, we see that differences between those who pursue an academic career and those who do not are not striking. Nonetheless, the percentage of those who published their thesis as a monograph is larger among those who still work in academia, with 60 percent compared to 46.7 percent among those who are currently not working in academia. The largest difference appears in terms of book chapters published, with 63.2 percent of those who are still working in academia having published book chapters, in contrast to only 34.9 percent among those who do not work in academia. This may be related to insertion in academic networks, as published book chapters often result from demands by colleagues to contribute to edited volumes – often the supervisor or senior colleagues on research projects.

Post-doctoral careers

Moving on to post-doctoral careers, we present first the number of years since completion of the doctoral research and as a post-doctoral researcher. Then, we move on to a presentation of positions held immediately after completing the Ph.D., as well as the current position.

Duration of post-doctoral careers

First, in table 8 we see that one third of post-doctoral researchers have recently completed their Ph.D. and have been post-doctoral researchers for a year or less. Indeed, 30.5 percent are in their first year as a post-doctoral researcher. In table 3 we also see that around one fifth are in their second year as a post-doctoral researcher (20.3) and another fifth in their third year (20.3). The percentages then drop for the fourth (5.1) and fifth year (6.8). Lastly, respondents who have been post-doctoral researchers for more than six years and up to eight years or more represent an important share of the sample, with 16.9 percent. By merging the corresponding percentages for number of years after the Ph.D. we see that the percentage is slightly higher (18.7), which means that some did not start as post-doctoral researchers immediately after completing their doctoral research. Overall, when comparing the percentages for number of years after the Ph.D. and number of years as a post-doctoral researcher, we see that tendencies are very similar.

Table 8: Number of years after Ph.D.,
Respectively as post-doctoral researcher

Number of years...	...after Ph.D.	...as post-doc
0	3.4	5.1
1	27.1	25.4
2	15.3	20.3
3	20.3	20.3
4	6.8	5.1
5	8.5	6.8
6	1.7	5.1
7	6.8	8.5
8 >	10.2	3.4
Total	100%	100%
N	59	59
Mean	3.27	2.88
Std dev.	2.39	1.82

Positions held as a post-doctoral researcher

Turning to table 9, we see the positions held by respondents both after the Ph.D. and currently. Importantly, one third of post-doctoral researchers began as *first assistant (Oberassistent-in / Maître-assistant-e)*, and represent the largest group, with 30.5 percent. A slightly larger share is currently still first assistant (35.6). Two other positions that are occupied by recently graduated doctors in political science are research collaborator (18.6) and post-doctoral fellow (16.9). In their current position, a similar percentage of respondents are hired as post-doctoral fellows (15.3), but less are research collaborators (8.5) or lecturers (8.5). The same appears for teaching assistants: 11.9 percent immediately after completing the Ph.D., falling to only half this percentage currently hired as teaching assistants (5.1). Thus, the positions of teaching assistant and research assistant appear as the first opportunities for work for post-docs, while post-doctoral fellow and first assistant are longer terms positions.

Table 9: Positions held after Ph.D. and currently (percentages)

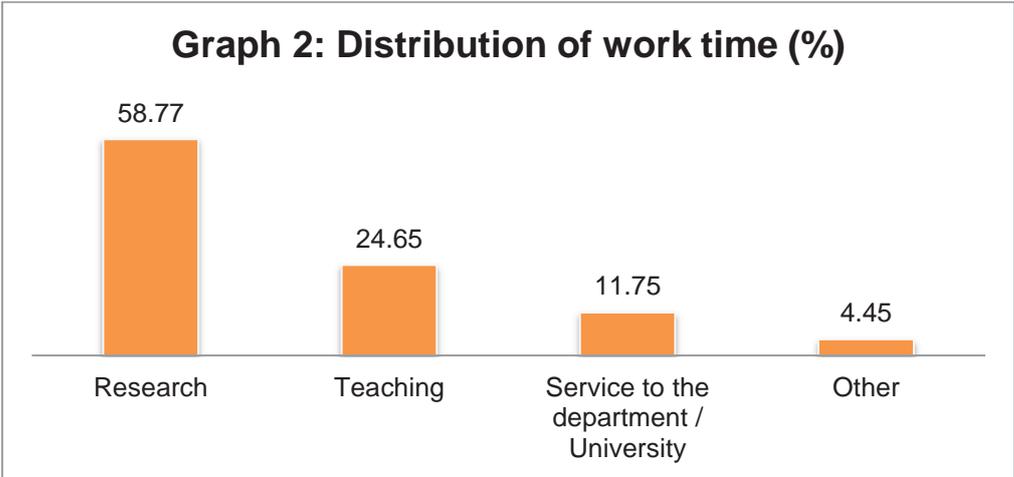
Position...	... after Ph.D.	... current
First assistant	30.5	35.6
Research collaborator	18.6	8.5
Post-doctoral fellow	16.9	15.3
Teaching assistant	11.9	5.1
Lecturer	8.5	6.8
Assistant professor with tenure track	3.4	3.4
Assistant professor without tenure track	-	8.5
Research assistant	3.4	6.8
Other	6.8	10.2
Total	100.0	100

Only a small percentage of post-doctoral researchers occupy a potentially stable position, such as assistant professor with tenure track (3.4). Interestingly, a larger percentage appears to be hired as assistant professor without tenure track (8.5). This can be related to the Swiss National Fund opportunities for gaining funding for a Professorship (*Professeur-e boursier-e*), but with no means for stabilizing post-doctoral researchers. However, an assessment of the employment prospects of the first seven waves of beneficiaries of these professorship (2000-2006) nonetheless found that 90 percent had been nominated professor at the term of their funding period (SEFRI 2014).

Regarding the employment of post-doctoral researchers, 27.9 percent hold more than one position, while 65.5 percent hold a full-time position. Although this number *per se* does not reveal whether this reflects a personal choice to work part-time or forced part-time work in the absence of full-time positions, taken together they nonetheless demonstrate the precariousness of employment conditions at the post-doctoral level.

Work-time allocation

Different institutions have different traditions regarding how post-doctoral researchers are hired. Thus, we also asked respondents what were the main tasks they performed, and in particular the distribution of workload between research and teaching, and also other activities such as administrative tasks and services to the university. In graph 2 we present the distribution of working time across these types of activities. We see that the most time-consuming task is research, with 58.7 percent, followed by teaching, whose share is half of that dedicated to research (24.6). An important portion of post-doctoral researchers' time is also dedicated to services to the university (11.75).



The graph does not enable us to relate workload to the position held by the respondent. Thus, the large share of time dedicated to research may result from a high percentage of respondents hired on research contracts; however, it is not possible to confirm this hypothesis, or indeed to compare the distribution of work across employment statuses, due to the variety of statuses included within the sample.

Wages across different post-doctoral positions

The multiple and varying employment statuses of post-doctoral researchers do not only imply different allocations of working time between research and teaching, but also high variations in the income among post-doctoral researchers. In the questionnaire we did not include questions about post-doctoral researchers' salaries. However, we found documents regarding the wages of post-doctoral researchers for two Swiss universities – the University of Lausanne and the University of Zurich⁹. At the University of Lausanne the wage for a *Premier·e Assistant·e* starts at 75'811 CHF, while that of a senior FNS researcher starts at 82'558 CHF and that of a *Maître-Assistant·e* 101'497 CHF. The differences in salary offered by the university depending on the position at which one is hired are already striking, although we give here only some examples. The situation is comparable at the University of Zurich, although the differences are smaller between positions. For instance, post-doctoral assistants are in class 17, with wages starting at 58'210 CHF, while the *Oberassistent·in* are in classes ranging from 19 to 21, with wages falling between 59'537 and 60'864 CHF depending on the specific class.

These two examples are illustrative of the high variation in terms of income both across universities and within universities. Post-doctoral researchers may receive incomes that are more or less attractive depending upon their employment status and position. The two examples given are intended to reflect the broader situation in the Swiss post-doctoral academic market, and we do not wish draw specific attention to either of these universities. Moreover, we only consider defined positions and full-time contracts. We do not include in the discussion on-call work – for instance, teaching positions that are offered only for one semester or one year – or the part-time working contracts which are sometimes offered. In its report, SEFRI also highlights both the precariousness of working contracts for post-doctoral researchers – with an average duration of two years, and with 50 percent of fixed-terms contract lasting one year or less – as well as the low remuneration at the start of an academic career (SEFRI 2014).

Participation in academic networks

In this section we turn to participation in research projects and conferences. This allows us to see whether young researchers are involved in research projects and whether they present their work in conferences. Moreover, we compare involvement in research projects and conference attendance according to sex, career stage, and regional location.

⁹ Official documents retrieved from the websites of the Universities of Lausanne and Zurich are presented in Appendix 3a and Appendix 3b.

First, in table 10 we see that a majority of post-doctoral researchers is involved in research projects. Indeed 71.4 percent have been involved in a research project, and most in more than one project. In fact, 16.1 percent are involved or have been involved in two projects, 19.6 percent are involved or have been involved in three, and a further 19.6 percent are involved or have been involved in four or more projects. Moreover, one third of post-doctoral researchers are or have been leaders in one or more of these projects (35 percent) and 72.5 percent are or have been co-leaders. We also see that 60 percent are or have been employed on these research projects. Since most post-doctoral researchers have worked on more than one project, we present percentages as summing up to 100 percent for each position, thus comparing those who have held a given position within a project to those who have not held that position.

Table 10: Participation in research projects (percentages)		
Involvement in research projects		
Has been involved in research projects	71.4	(N=56)
Number of projects		
0	28.6	
1	16.1	
2	16.1	
3	19.6	
4 or more	19.6	
	100%	(N=56)
Role in the projects		
Leader	35.0	(N=40)
Co-leader	72.5	(N=40)
Employee	60.0	(N=40)
Other	20.0	(N=40)

Note: Role is constructed based on the different projects the respondent is involved in. Ex. Leader=1 (yes) when leader on one of the projects.

Looking more specifically at participation in research projects by sex of respondent and career stage, we see differences not only in participation, but also in the roles held in research projects depending on social and structural characteristics. In table 10a, we compare post-doctoral women and men. We see that, although a higher percentage of women have been involved in research projects (respectively 81.8 percent, compared with 62.5 percent of men), the mean number of projects in which they are involved is very similar, at slightly over 2 (2.09 and 2.06). However, more variation appears among men, with a standard error of 2.69 compared to that of women (1.30). The most important difference,

however, regards the contrasting roles of women and men in these research projects. While only 16.7 percent of women are or have been leaders on these projects, 50 percent of men did so. This difference is not only large, but is also statistically significant, as highlighted by the adjusted residuals. Furthermore, we see that this cannot be linked to the fact that women are more often co-leaders than men, since the data show this is not the case. In fact, 72.2 percent of post-doctoral women are or have been co-leaders - the same percentage as men (70 percent). Post-doctoral men are or have been employed in a smaller percentage in research projects, with 50 percent compared to 72.2 percent for women. However, this difference is not statistically significant. It is important to note here this difference in the leadership role in projects between women and men, since it could lead to significant disadvantages in the job market.

Table 10a: Participation in research projects by sex of the respondents (percentages)			
	Female	Male	Total
Participated in projects ¹	81.8	62.5	70.4
	N=22	N=32	N=54
Mean number of projects ²	2.09	2.06	2.07
Std dev.	1.30	2.69	2.22
	N=22	N=32	N=54
Role in the projects ¹			
Leader	16.7	50.0	34.2
Co-leader	72.2	70.0	71.1
Employee	72.2	50.0	60.5
Other	22.2	15.0	18.4
	N=18	N=20	N=38

Note:
¹ Bold to highlight adjusted residuals above +/- 1.96
² T-test shows no statistically significant differences across groups

Turning to table 10b, we look at the participation in research projects depending on career stage. Unsurprisingly, we find that the more senior researchers, in terms of career stage, demonstrate a higher degree of project participation, with 90 percent who are or have been involved in research projects, compared to 61.1 percent of post-doctoral researchers in the first three years after the Ph.D. This difference is also statistically significant. Moreover, the mean number of projects in which researchers are involved also differs: more junior researchers, have been involved in 1.69 projects, whereas those who have been post-doctoral researchers for more than three years have been involved in slightly fewer than

three research projects (2.95). Lastly, we find differences in terms of roles within the projects. Post-doctoral researchers who are in their first three years have seldom been leaders (18.2) in these projects. Indeed, there are significantly fewer leaders compared with those who have been post-doctoral researchers for more than three years (of whom 55.6 have been leaders). The difference between the two groups is also demonstrated by the adjusted residuals when we look at co-leader roles. When comparing junior and more senior post-doctoral researchers, we see that among the former 59.1 percent have been co-leaders, compared with 88.9 percent of the latter. Again, this difference is statistically significant. Similar shares of both groups are or have been employees on a research project (respectively 63.6 and 55.6 percent). However, a surprising share of post-doctoral researchers who finished their Ph.D. more than three years ago have held an alternative position on a research project (one third (33.3) of them), and unfortunately we do not know what these positions were.

Table 10b: Participation in research projects by academic age of the respondents (percentages)			
	First 3 years	More than 3 years	Total
Participated in projects¹	61.1	90.0	71.4
	N=36	N=20	N=56
Mean number of projects²	1.69	2.95	2.14
Std dev.	2.12	2.18	2.21
	N=36	N=20	N=56
Role in the projects¹			
Leader	18.2	55.6	35.0
Co-leader	59.1	88.9	72.5
Employee	63.6	55.6	60.0
Other	9.1	33.3	20.0
	N=22	N=18	N=40

Note:
¹ Bold to highlight adjusted residuals above +/- 1.96
² T-test shows no statistically significant differences across groups

Lastly, we look at differences according to the region where post-doctoral researchers are currently conducting their research, where we also find some important differences. In table 10 we see that in terms of participation in research projects, post-doctoral researchers in the French-speaking region are less involved. Indeed, 61.5 percent have participated in research projects, while the percentage rises to 70.8 percent for Zurich and 76.9 for other German-speaking universities and research institutions. While these differences are not statistically

significant, when we turn to the mean number of projects in which post-doctoral researchers are or have been involved, we yet find differences that are statistically significant as highlighted by a t-test.

	Zurich	German speaking	French speaking	Total
Participated in projects¹	70.8	76.9	61.5	70.0
	N=24	N=13	N=13	N=50
Mean number of projects²	2.79	2.00	1.30	2.20
Std dev.	2.85	1.63	1.37	2.31
	N=24	N=13	N=13	N=50
Role in the projects¹				
Leader	47.1	30.0	37.5	40.0
Co-leader	82.4	70.0	62.5	74.3
Employee	64.7	60.0	50.0	60.0
Other	23.5	40.0	-	22.9
	N=17	N=10	N=8	N=35

Note:

¹ Bold to highlight adjusted residuals above +/- 1.96

² T-test shows that the number of project in which post-doctoral researchers are involved is significantly lower in the French speaking region (at a 10% percent level)

In universities in the French-speaking region, post-doctoral researchers are on average involved in 1.30 projects. This mean is the lowest of the three regions we compare: in Zurich it is 2.79, and in other German-speaking universities it is 2.00. Not surprisingly (since they are less involved in research projects), post-doctoral researchers based in French-speaking universities report lower percentages as leaders (but only compared to Zurich), as co-leaders, and as employees on research projects. Regarding project leadership, the lower percentage of post-doctoral researchers in French-speaking universities who are project leaders may be related to the fact that there are more post-doctoral women in French-speaking universities, and as we have seen above they are less likely to be leaders in research projects. Moreover, it is interesting to note here the difference between French-speaking and German-speaking institutions (excluding Zurich), since post-doctoral researchers in French-speaking universities are less involved in projects overall, yet are more likely to be project leaders than their peers in German-speaking universities. This could be related to the fact that the academic structure is even more centered around the “chair” (and hence hierarchical) in the German-speaking part of the country, and thus closer to the traditional German academic structure (see SEFRI 2014 for a discussion of the academic structure in Switzerland).

Department/Research group and Work environment

In the next section, we discuss post-doctoral researchers' perceptions of their departments' values and of their work environment. On the departments' values we analyze the importance given to different tasks such as publication, teaching, and the supervision of students. Regarding the work environment, we focus on the description of their work environment as friendly, supportive, and competitive¹⁰. We first present comparisons based on the sex of respondents, and then across regions.

Perception of the department's values

What is valued in the departments where post-doctoral political scientists work? First, in table 11 we see that publications are considered as being very important in their departments. Overall, 75 percent of post-doctoral researchers say so. Yet some important differences appear between the three regions that we compare. In the universities based in Zurich and in the French-speaking part, respectively 83.3 and 85.7 percent mention that publications are considered very important. But in the other German-speaking universities only 50 percent say it is considered very important, and this percentage is significantly lower than in the other two regions.

In turn, teaching is mentioned as being considered very important in their department by 21.4 percent of post-doctoral researchers in the German-speaking universities. This is the highest percentage, whereas in Zurich only 4.3 percent say it is considered very important in their department, and in the French-speaking region 14.3 percent say so. When including those who say teaching is considered as being (somewhat) important in their department, we reach around 50 percent in both Zurich and the French-speaking regions, but here again in the other German-speaking universities the cumulative percentage is higher, with 71.4 percent.

In terms of students' supervision, the differences between regions are smaller - although again in the German-speaking universities we find a higher percentage who say it is considered very important in their department (with 21.4 percent, compared to 4.3 in Zurich and 8.3 percent in the French-speaking region). In Zurich, students' supervision appears to be less valued in the departments where post-doctoral researchers work, with as low as 4.3 percent who say it is very important. However, when we add those who say it is considered (somewhat) important, we reach 47.3 percent, which is similar to the assessment of the importance of student supervision in the French-speaking universities (50 percent), but

¹⁰ Question wording: How would you describe the general atmosphere in your department / research group?

nonetheless still below that of the other German-speaking universities, with a cumulative 64.2 percent who say it is either very important or important.

Table 11: Values held by the departments in which the respondents work (percentages)

		Zurich	German speaking	French speaking	Total
Publications (in peer-reviewed journals)	Very important	83.3	50.0	85.7	75.0
	Important	16.7	35.7	14.3	21.2
	Not important	-	7.1	-	1.9
	Not important at all	-	7.1	-	1.9
		N=24	N=14	N=14	N=52
Teaching	Very important	4.3	21.4	14.3	11.8
	Important	52.2	50.0	35.7	47.1
	Not important	26.1	21.4	42.9	29.4
	Not important at all	17.4	7.1	7.1	11.8
		N=23	N=14	N=14	N=51
Supervision of students	Very important	4.3	7.1	8.3	6.1
	Important	43.5	57.1	41.7	46.9
	Not important	30.4	28.6	41.7	32.7
	Not important at all	21.7	7.1	8.3	14.3
		N=23	N=14	N=12	N=49
Media intervention	Very important	-	21.4	-	5.8
	Important	41.7	42.9	21.4	36.5
	Not important	58.3	28.6	71.4	53.8
	Not important at all	-	7.1	7.1	3.8
		N=24	N=14	N=14	N=52
Service to department	Very important	9.1	35.7	8.3	16.7
	Important	50.0	28.6	50.0	43.8
	Not important	31.8	28.6	33.3	31.3
	Not important at all	9.1	7.1	8.3	8.3
		N=22	N=14	N=12	N=48

Note: Bold to highlight adjusted residuals above +/- 1.96

In German-speaking universities and research institutions media intervention is seen as considered very important by 21.4 percent of post-doctoral researchers based there. This percentage stands out as very different from the two other regions, where none of the post-doctoral researchers answered that it is considered very important. Moreover the difference remains when we also include the “important” category, since 41.7 percent say it is considered important by their department in Zurich, 42.9 percent in other German-speaking

universities, and only 21.4 percent in the French-speaking ones. Here, the French-speaking universities stand out as the institutions in which media intervention is considered as not important (71.4) or not important at all (7.1) - much higher proportions than in the other two regions.

Lastly, German-speaking universities seem to value services to the department more than the other two settings. In fact, 35.7 percent of post-doctoral researchers based in the German-speaking universities mention that it is very important to their department. This percentage is significantly higher than that of Zurich (9.1) and the French-speaking universities (8.1). But in this case, the differences narrow when we include those who say it is considered important: the cumulative percentage for important and very important is around 60 percent in all three regions.

This analysis has revealed different working environments in terms of the importance that is given to the different tasks post-doctoral researchers are asked to complete. Not only is teaching and student supervision perceived differently in the three settings, but also the importance of other tasks such as media intervention and services to the departments. In the German-speaking universities and research institutions these last two tasks are much more valued. This may be due to the fact that the departments are smaller, and hence require researchers to take up these duties already at the post-doctoral stage.

Perceptions of work environment

In table 11a, we first see that most respondents find their work environment friendly, with over 90 percent of both women and men who agree or strongly agree with this statement. Yet, important differences appear in the distribution between the two degrees of satisfaction. While a majority of women agree with the statement (63.6), an even larger majority of men strongly agree with it (69.7). Thus, we see that women tend to be less emphatic about the fact that their work environment is friendly, and importantly this difference is statistically significant even within a rather small sample. To add a slight nuance to this finding, only men disagree with the statement. In fact, 9.1 percent of men disagree with the statement that their work environment is friendly. However, the differences among percentages of respondents who disagree with the statement are not statistically significant.

More variations appear when we look at the evaluation of supportive and competitive dimensions. While 90 percent of post-doctoral men find their working environment to be supportive, the percentage drops to around 50 percent among post-doctoral women. In fact, we find that 36.4 and 13.6 percent of women respectively disagree and strongly disagree

with the idea that their work environment is supportive. In the case of men, only 9.7 percent disagree with the statement, and none strongly disagree with it. It is important to stress, here again, that these differences are statistically significant as denoted by the chi-square test and the adjusted residuals. We see that, apart from those who strongly agree that their work environment is supportive, all the other categories display significant differences. This denotes a gender gap in the perception of the supportiveness of the work environment, and may be related to the very small number of women who hold professorships in Swiss universities, thus resulting in the absence of “role-models” for women - that is, women who support and encourage young female scholars.

Table 11a: Perception of work environment by sex (percentages)

Work environment is...		Female	Male	Total
... Friendly (<i>Ch-sq.</i> =13.194**)	Strongly agree	31.8	69.7	54.5
	Agree	63.6	21.2	38.2
	Disagree	-	9.1	5.5
	Strongly disagree	4.5	-	1.8
		N=22	N=33	N=55
... Supportive (<i>Chi-sq.</i> =11.750**)	Strongly agree	22.7	32.3	28.3
	Agree	27.3	58.1	45.3
	Disagree	36.4	9.7	20.8
	Strongly disagree	13.6	-	5.7
		N=22	N=31	N=53
... Competitive (<i>Chi-sq.</i> =4.936)	Strongly agree	20.0	10.0	14.0
	Agree	45.0	23.3	32.0
	Disagree	30.0	53.3	44.0
	Strongly disagree	5.0	13.3	10.0
		N=20	N=30	N=50

Note: Bold to highlight adjusted residuals above +/- 1.96

On the third item, competitiveness, we find again that women and men tend to perceive their work environment differently. In the last part of table 11a, we see that 65 percent of women either agree or strongly agree with the statement that their working environment is competitive, whereas only 33.3 percent of men support the same statement. The percentage of men who find their work environment competitive is therefore half that of women. However, in the case of competitiveness, the differences that appear in the percentages of women and men who agree or disagree are not statistically significant.

Next, in table 11b, we compare the same statements regarding work environment according to the career stage of the respondents. It is important to stress here that in these cases none of the differences presented below were statistically significant, and indeed these differences tend to be very small. Post-doctoral researchers in their first three years after the Ph.D. tend to evaluate their work environment in terms of friendliness, supportiveness, and competitiveness very similarly to post-doctoral researchers of more than three years' standing.

Table 11b: Perception of work environment by academic age (percentages)

Work environment is...		First 3 years	More than 3 years	Total
... Friendly (<i>Chi-sq.</i> =13.194**)	Strongly agree	55.3	52.6	54.4
	Agree	36.8	42.2	38.6
	Disagree	7.9	-	5.3
	Strongly disagree	-	5.3	1.8
		N=38	N=19	N=57
... Supportive (<i>Chi-sq.</i> =11.750**)	Strongly agree	31.4	25.9	29.1
	Agree	45.7	45.0	45.5
	Disagree	17.1	25.0	20.0
	Strongly disagree	5.7	5.0	5.5
		N=35	N=20	N=55
... Competitive (<i>Chi-sq.</i> =4.936)	Strongly agree	14.7	11.1	13.5
	Agree	38.2	22.2	32.7
	Disagree	35.3	61.1	44.2
	Strongly disagree	11.8	5.6	9.6
		N=34	N=18	N=52

Note: Bold to highlight adjusted residuals above +/- 1.96

Turning to table 11c, we compare the same statements regarding work environment across regions. Although we find different evaluations of their work environment by post-doctoral researchers working in institutions based in the different regions, these are not statistically significant. This may be related to the small sample once it has been split into three groups – Zurich, other German-speaking universities, and French-speaking universities.

The overall percentage of respondents who find their work environment friendly remains the same, with more than 90 percent who agree or strongly agree that it is friendly. However, we find that it is only in Zurich and in institutions based in the German-speaking region that post-

doctoral researchers disagree, 4.3 percent in Zurich and 7.1 percent in other German-speaking institutions. Moreover, a further 7.1 percent in Zurich strongly disagree with the statement that their work environment is friendly. In the French-speaking part of the country we find fewer post-doctoral researchers who strongly agree with the statement (only 35.7 percent, compared to 60.9 percent for Zurich and 57.1 percent for other German-speaking universities). On the other hand, none of the post-doctoral researchers based in the French-speaking universities disagree with the statement.

Table 11c: Perception of work environment by regions (percentages)

		Zurich	German speaking	French speaking	Total
Work environment is					
... Friendly (<i>Chi-sq.=7.262</i>)	Strongly agree	60.9	57.1	35.7	52.9
	Agree	34.8	28.6	64.3	41.2
	Disagree	4.3	7.1	-	3.9
	Strongly disagree	-	7.1	-	2.0
		N=23	N=14	N=14	N=51
... Supportive (<i>Chi-sq.=8.044</i>)	Strongly agree	33.3	41.7	7.7	28.6
	Agree	50.0	25	53.8	44.9
	Disagree	16.7	25	23.1	20.4
	Strongly disagree	-	8.3	15.4	6.1
		N=24	N=12	N=13	N=49
... Competitive (<i>Chi-sq.=7.356</i>)	Strongly agree	8.3	30.8	-	12.8
	Agree	37.5	15.4	50.0	34.0
	Disagree	41.7	46.2	40.0	42.6
	Strongly disagree	12.5	7.7	10.0	10.6
		N=24	N=13	N=10	N=49

Note: Bold to highlight adjusted residuals above +/- 1.96

Turning to the second statement - whether the respondent's work environment is supportive - we see that considerable differences appear across regions. The lowest percentages of agreement with this statement are found in the French-speaking area, where only 61.5 percent of post-doctoral researchers find their work environment supportive. By contrast, in the German-speaking region this percentage rises to 76.7, and in Zurich to 83.3. Further, in the French-speaking region 15.4 percent strongly disagree with the statement, while in Zurich none do so, and in the other German-speaking institutions 8.3 percent do so.

Regarding competitiveness, regional differences are not as strong. While 45.8 percent of post-doctoral researchers based in Zurich agree with the statement that their work environment is competitive, 46.2 percent do so in other German-speaking universities, and 50 percent do so among those based in French-speaking universities. Nonetheless, some differences appear. In particular, in the French-speaking region none of the post-doctoral researchers strongly agree with the statement, whereas 30.8 percent do so in the German-speaking region. Post-doctoral researchers based in Zurich appear to stand, in this case, closer to those who are based in the French-speaking universities, with only 8.3 percent who strongly agree with the statement.

Satisfaction with employment inside and outside of academia

An assessment of satisfaction with the working environment can also be achieved by comparing political scientists who work in academia – i.e. post-doctoral researchers – to those (with Ph.Ds.) who work outside of academia. In the next table we again use the OFS data on graduates from Swiss universities. In table 12 we look at their satisfaction in relation to different aspects of their current employment. The possible answers included five categories from ‘not at all’ to ‘to a large extent’. We consider those who answered four or five to be the most satisfied.

First, looking at those working in academia, in table 12, we see that the Ph.Ds. are highly satisfied with their working conditions (94.6), with their work environment (84.2), and with the ambiance at work (78.9). Moreover, regarding these three aspects of their current jobs, those in academia are more satisfied than those who are not working in academia. In particular, the working conditions in academia are appreciated by a significantly higher percentage of doctors working in academia than those who are not. The same trend appears with regard to the work they do in general, as can be seen through the next three items: to the task performed (73.0), responsibility and autonomy (67.7), as well as the matching of their skills with the task they perform (67.6). Again, on all these aspects those working in academia are more satisfied than those who are not working in academia, significantly so in terms of satisfaction with responsibility and autonomy. The lower level of satisfaction with working conditions and level of responsibility for those working outside of academia may be related to the fact that doctoral students trained in Swiss universities - especially in the social sciences - are poorly prepared for the labor market outside of academia. This is an important issue that goes beyond the scope of this report, but relates in part to the post-doctoral career, since it is important not only to prepare doctoral candidates for an academic career, but also to orient them towards alternative options. On work-life balance, a large percentage of

Ph.Ds. tend also to be satisfied, (61.1 percent of those in academia and 73.0 percent of those outside of academia¹¹). Concerning workload, 60 percent are satisfied, again representing a larger share than those working outside of academia.

Table 12: Satisfaction with regards to various aspects of their current employment of the Ph.Ds. who are working in academia and who are not (percentages)

	Working in academia	Not working in academia
Satisfied with...		
... working conditions	94.6	77.8
... work environment	84.2	66.7
... ambiance at work	78.9	72.2
... tasks performed	73.0	56.8
... responsibility and autonomy	67.6	43.2
... match with skills	67.6	48.6
... work life balance	61.1	73.0
... workload	60.5	45.9
... professional status	55.3	75.7
... stability of the job	40.5	64.9
... income	31.6	52.8
... career advancement opportunities	29.7	28.9
	(N=38)	(N=36)

DATA Source: OFS

Note: Bold to highlight adjusted residuals above +/- 1.96

However, on the last four items which tackle status, income, and working prospects the picture changes. Although 55.3 percent of those who work in academia say they are satisfied with their professional status, this percentage is lower than among those working outside of academia (75.7) and the difference in the percentages of satisfied among both groups is statistically significant. Moreover, on the satisfaction related to the stability of their job and income, the percentages drop below 50 percent. On these two items, 40.5 percent are satisfied with the stability of their job and only 31.6 percent with the income. In these regards, they are much less satisfied than those working outside of academia among whom the percentages are, respectively, 64.9 and 52.8 percent. In terms of job stability, the difference is again statistically significant (in terms of income it does not quite reach conventional levels of statistical significance, but falls only marginally short). Thus, these two differences are important ones.

Lastly, regarding prospects for career advancement, both groups tend to be little satisfied, with percentages of satisfaction below 30 percent. A third of young doctors in political science, be they working in academia or not, are satisfied with their career prospects. This

¹¹ For this item, trends are reversed when calculated with the weight. In the analysis without weight those working in academia display a higher percentage of satisfaction with work-life balance than those outside academia.

percentage is strikingly low for individuals who have achieved tertiary education and hold a Ph.D. Sadly, holding a Ph.D. in political science is not perceived as an asset for one’s career by the Ph.D. holders themselves, and this is observed whether they are working in the academic labor market or in the broader job market.

Support received during post-doctoral career

In this section we turn to the discussion of respondents’ reports on receiving concrete support in the form of suggestions or proposals that encourage publications, research in general, and the pursuit of an academic career. We first look at the overall situation and then turn to comparisons by sex, career stage, and region where the post-doctoral researcher is based.

Table 13: Academic support including only those respondents who marked two items (percentage)

The two most important incentives received...	
... Offers to read and comment on work	21.3
... Offers to discuss work	17.0
... Offers to co-author paper	12.8
... Suggestions about readings	10.6
... Suggestions about conferences	8.5
... Offers to contribute to edited volume	6.4
	N=47

In table 13 we present what post-doctoral researchers consider to be the most important incentives they have received within their department¹². The incentive considered as most important by a majority of post-doctoral researchers is to read and comment on her or his work, with 21.3 percent who selecting this. Additionally, 17.0 percent report that offers to discuss work are one of the two most important incentives for them. Next, 12.8 percent consider an important incentive to be the proposal to co-author a paper. This item comes third in terms of the percentage of respondents who marked it. The last three incentives are suggestions either about readings (10.6), conferences (8.5), or proposals to contribute to an edited volume (6.4). Unfortunately, due to the formulation of the question, we do not know whether the respondents consider the different forms more or less important, or alternatively whether they did not receive these forms of support. Thus, the ranking of items based on the percentage of respondents who marked it as one of the two most important may either reflect

¹² Although the question explicitly demanded to mark the two most important incentives, 35.6 percent of the respondents have marked more than two answers. Moreover, it is important to note also that 36.6 percent did not mark any.

forms of support that are considered as being the most important, or those that are most frequently offered. For instance, the offer to co-author a paper is mentioned by 12.8 percent of respondents, yet we cannot rule out the possibility that some post-doctoral researchers did not receive offers to engage in joint publications. In fact, looking at the frequencies of each item among those who marked more than two items, we see that offers to co-author a paper tend to be marked by a lower percentage than other items (see appendix 4 for details) and even more markedly so for offers to contribute to an edited volume, with only 23.1 percent who marked it.

Table 13a: Academic support by sex of the respondent including only those respondents who marked two items (percentage)

	Female	Male	Total
The two most important forms of support ...			
... Offers to read and comment on work	22.2	25.0	23.7
... Offers to co-author paper	5.6	25.0	15.8
... Offers to discuss work	16.7	20.0	18.4
... Suggestions about readings	22.2	5.0	13.2
... Suggestions about conferences	16.7	5.0	10.5
... Offers to contribute to edited volume	5.6	10.0	7.9
	N=18	N=20	N=38

Note: Bold to highlight adjusted residuals above +/- 1.96

In table 13a¹³ we turn to a comparison of the two items selected by post-doctoral women and men in order to see whether we find any differences related to the sex of the respondent, and we do indeed find some variations. When confronting variations in terms of which kind of support is considered the most important by post-doctoral women and men, we see that among post-doctoral women we find a lower percentage of respondents who selected either the option of offering to co-author a paper, or of contributing to an edited volume. While 25.0 percent of post-doctoral men selected the offer to co-author a paper as one of the two most important forms of support they have received, only 5.6 percent of post-doctoral women did so. Considering again the structure of answers of respondents who marked more than two items, we see that post-doctoral women tend to mark less frequently joint publications and

¹³ For the comparisons in table 13a, 13b, and 13c, we restrict again to answers given by respondents who marked not more than two items. In appendix 4a, 4b, and 4c we present also the corresponding frequencies only for those who marked more than two items. Furthermore, it is important to note that some variations appear across groups with regards to marking more items: males are more likely to have done so than females (by 16.6 percent); with regards to career stage, more junior researchers are more likely to have marked more than two items than more senior ones (by 44 percent), and this difference is statistically significant (adjusted residuals +3.2); in the French-speaking region, respondents are less likely to have marked more than two items (33.8 percent less than in Zurich and 30 percent less than in other universities based in the German-speaking region). Here again the difference is statistically significant (adjusted residuals -2.2).

invitations to contribute to an edited book (see appendix 4a). This points toward a bias in the very concrete incentives to publish received by women and men, which may disfavor post-doctoral women’s careers.

Table 13b: Academic support by academic age including only those respondents who marked two items (percentage)

The two most important forms of support ...	First 3 years	More than 3 years	Total
... Offers to read and comment on work	25.0	35.3	30.3
... Offers to discuss work	18.8	29.4	24.2
... Offers to co-author paper	6.3	24.4	18.2
... Suggestions about readings	12.5	17.6	15.2
... Suggestions about conferences	18.8	5.9	12.1
... Offers to contribute to edited volume	6.3	11.8	9.1
	N=16	N=17	N=33

Note: Bold to highlight adjusted residuals above +/- 1.96

Turning to table 13b, we compare junior and more established post-doctoral researchers. Surprisingly, the more established post-doctoral researchers receive more support in terms of offers to read (35.3) and comment or to discuss work (29.4), as well as suggestions about readings (17.6) than the less established. In fact, the percentages of post-doctoral researchers in their first three years after the thesis who marked these items is systematically lower with, respectively, 25, 18.8, and 12.5 percent. Again, we do not know whether these differences reflect the fact that they did not receive such support, or rather that they do not consider it important. But considered from the perspective that it reflects in part the fact that they did not receive such support, it is surprising that more junior post-doctoral researchers gain fewer comments on their work, although this could reflect the fact that more advanced post-doctoral researchers may be more established in networks, and thus receive more comments on their work. Reflecting also, perhaps, their more limited inclusion in networks, post-doctoral researchers in their first three years after the thesis are less likely to have selected offers to co-author a paper or to contribute to an edited volume, with only one doing so in each case (6.3 percent). Yet it may also be that at this early stage of their post-doctoral career they place less value in joint publications, as we find that for offers to co-author a paper percentages are very similar across both groups among those who marked more than two items (see appendix 4b). Lastly, those who are in the first three years after the Ph.D. marked more frequently the item “suggestions about conferences”, 18.8 percent compared to

5.9 percent. It makes sense that post-doctoral researchers in their first three years of their post-doctoral academic careers will receive more advice on where to present their work.

Table 13c: Academic support by region including only those respondents who marked two items (percentage)

	Zurich	German speaking	French speaking	Total
The two most important forms of support ...				
... Offers to read and comment on work	33.3	28.6	16.7	25.8
... Offers to discuss work	33.3	28.6	8.3	22.6
... Offers to co-author paper	25.0	14.3	16.7	19.4
... Suggestions about readings	16.7	14.3	16.7	16.1
... Suggestions about conferences	16.1	14.3	-	9.7
... Offers to contribute to edited volume	-	-	16.7	6.5
	N=12	N=7	N=12	N=31

Note: Bold to highlight adjusted residuals above +/- 1.96

Lastly, we look at regional differences in terms of support received. Table 13c shows that post-doctoral researchers working in universities based in the French-speaking region are less likely to consider support in the form of comments on their work as among the two most important incentives, with 16.7 percent selecting offers to read and comment on their work, and 8.3 percent selecting offers to discuss work. By contrast, in Zurich and in other German-speaking institutions, the percentage of post-doctoral researchers who consider these items among the two most important incentives is around 30 percent. This difference may be related to the value attributed to receiving comments, rather than their availability, although it is hard to tell. While in the groups of respondents who marked more than two items we find that all of them marked receiving comments on their work in the French-speaking region, these nonetheless comprise only three respondents (see appendix 4c). Post-doctoral researchers based in the German-speaking region (excluding Zurich) selected less frequently incentives in terms of joint publications – articles or book chapters – whether we look at those who chose only two items or at those who selected more (see again appendix 4c). Thus, in this case we may argue that in the German-speaking universities post-doctoral researchers receive fewer incentives directly linked to publication – rather than that they do not consider such incentives to be important.

Table 14: Incentives for publication and networking including only those respondents who marked two items (percentage)

Most useful incentives (2 most important) ...	
... Reimbursement of conference expenses	48.8
... Faculty research colloquium	20.9
... Opportunity to take a sabbatical leave	7.0
... Funds to buy books	7.0
... Possibility to invite researchers for a research stay	4.7
... Work / research groups	4.7
... Organization of workshops	4.7
... Support groups	2.3
	N=43

Next, we consider incentives for publication and networking, and again we look at those two items that post-doctoral researchers considered to be the most useful among a list of eight incentives¹⁴. In table 14 the first incentive - mentioned by almost 50 percent of the post-doctoral researchers who marked only two items (48.8) - is the reimbursement of conference expenses. The next most-valued incentive is related to research discussion forums, and is, more specifically, the faculty research colloquium (20.9). Then comes the opportunity to take a sabbatical leave, which however is only mentioned by 7 percent of post-doctoral researchers, and this low percentage of respondents may be due, in part, to the fact that the university where they work does not offer the possibility to take a sabbatical leave, or that the position they hold does not allow it. In any case, the low percentage of respondents who marked this item (and others) should not be interpreted as meaning that the incentive is not useful. Thus, we highlight that those which are most often selected may either reflect the fact that they are the most important incentives or the most widely available.

¹⁴ As was the case with support, an important share of respondents chose more than two items. For this set of items, those who marked more than two options represent 41.1 percent of our sample. Thus, we again present the frequencies for those who selected only two, and present in the appendix additional tables with frequencies for those who marked more than two items. Again, 26 percent did not mark any proposed item.

Table 14a: Incentives for publication and networking by sex of the respondent including only those respondents who marked two items (percentage)

	Female	Male	Total
Most useful incentives (2 most important) ...			
... Reimbursement of conference expenses	64.3	54.5	58.3
... Faculty research colloquium	14.3	31.8	25.0
... Opportunity to take a sabbatical leave	21.4	-	8.3
... Funds to buy books	14.3	4.5	8.3
... Possibility to invite researchers for a research stay	-	9.1	5.6
... Work / research groups	7.1	4.5	5.6
... Organization of workshops	-	9.1	5.6
... Support groups	-	4.5	2.8
	N=14	N=22	N=36

Note: Bold to highlight adjusted residuals above +/- 1.96

In the case of incentives for publication and networking, we also find some differences between post-doctoral women and men, as can be seen in table 14a. While women and men share the most commonly mentioned useful incentive - which is reimbursement of conference expenses with, respectively 64.3 and 54.5 percent who selected it - they nonetheless differ with regards to the second item that is most often selected. For post-doctoral women it is the opportunity to take a sabbatical leave (21.4), and for post-doctoral men it is the faculty research colloquium (31.8). Some differences appear also when we consider the next item mentioned by women - funds to buy books, which was rated among the two most important incentives by 14.3 percent of women, but only 4.5 percent of men. The remaining four items are seldom selected when respondents follow the guidelines and mark only two items. Yet, when respondents think that they can mark as many relevant items as they wish, a large share of respondents marks many items (see appendix 5a). Interestingly, when having to select fewer incentives women are more likely to consider the opportunity to take a sabbatical leave important. But when we consider the table presented in appendix with respondents who marked more than two, we see a larger percentage of men who mention the opportunity to take a sabbatical.

Next, table 14b presents a comparison of junior and more senioryounger and older post-doctoral researchers, where we find fewer differences. The only one relates to work or research groups, with post-doctoral researchers in their first three years tending to find this an important incentive, with 11.1 percent who marked it as one of the two most useful incentives, while in the older group none considered it among the two most useful incentives. This difference is statistically significant, as highlighted by the adjusted residuals. When

comparing groups related to career stage, we see that in the group of respondents who marked more than two items, presented in appendix 5b, differences across groups are more important than in the table presented here. When respondents select more items, giving less importance to weighting them against each other, differences appear that may reflect career stage. Early in the post-doctoral career, internal resources such as those that can be provided by a research or a work group are very useful, whereas later in the post-doctoral career, opportunities to arrange an academic visit, to work and network in other research units, and to have time dedicated only to publications are more valued.

Table 14b: Incentives for publication and networking by academic age including only those respondents who marked two items (percentage)

	First 3 years	More than 3 years	Total
Most useful incentives (2 most important)			
... Reimbursement of conference expenses	72.2	72.7	72.4
... Faculty research colloquium	27.8	36.4	31.0
... Opportunity to take a sabbatical leave	11.1	9.1	10.3
... Funds to buy books	11.1	9.1	10.3
... Possibility to invite researchers for a research stay	5.6	9.1	6.9
... Work / research groups	11.1	-	6.9
... Organization of workshops	5.6	9.1	6.9
... Support groups	5.6	-	3.4
	N=18	N=11	N=29

Note: Bold to highlight adjusted residuals above +/- 1.96

Again, when turning to a regional comparison, in table 14c we see some differences in particular emerge with regards to the item that is ranked second. The first item is always the reimbursement of conference expenses. It is selected by a high percentage of post-doctoral researchers in all three regions, from 50 percent in Zurich up to 80 percent in the French-speaking region. Regarding the second most frequently mentioned, we find the faculty research colloquium in the French-speaking region, chosen by 50 percent of respondents. By contrast, this item is much less often selected in Zurich (20.0) and in the German-speaking region (14.3). Perhaps such research colloquiums do not exist in institutions based in Zurich or in the broader German-speaking region. In the latter, another 14.3 percent mention the opportunity to take a sabbatical leave, while no other item was selected, whereas in Zurich the picture is more fragmented. There, 20 percent also selected the opportunity to take a sabbatical. It is interesting to note here that none selected this option in the French-speaking region, perhaps because this incentive is not offered there. Moreover, in Zurich another 20 percent selected the possibility to invite researchers for a stay, and another 20 percent that of organizing workshops. This outcome may also be related to the fact, mentioned above,

that researchers are more junior in Zurich. Thus, it is not surprising to find (as above when comparing groups based on career stage) that in Zurich less established researchers are more likely to mention the organization of workshops as an important incentive.

Table 14c: Incentives for publication and networking by region including only those respondents who marked two items (percentage)

	Zurich	German speaking	French speaking	Total
Most useful incentives (2 most important)				
... Reimbursement of conference expenses	50.0	71.4	80.0	66.7
... Faculty research colloquium	20.0	14.3	50.0	29.6
... Opportunity to take a sabbatical leave	20.0	14.3	-	11.1
... Funds to buy books	10.0	-	20.0	11.1
... Possibility to invite researchers for a research stay	20.0	-	-	7.4
... Work / research groups	-	-	10.0	3.7
... Organization of workshops	20.0	-	-	7.4
... Support groups	3.8	-	6.7	3.6
	N=10	N=7	N=10	N=27

Note: Bold to highlight adjusted residuals above +/- 1.96

Lastly, we turn to discussion about work, which can also be considered an important form of support. Do post-doctoral researchers find people with whom to discuss their work within their own department, or do they turn to colleagues in other universities, or even outside of academia, to family members and friends? In table 15 we see that most of post-doctoral researchers discuss their work with colleagues based locally, in the same department or in the same research group (42.1 percent). Surprisingly, we see that post-doctoral researchers seldom discuss their work with colleagues based elsewhere in Switzerland, with only 8.8 percent doing so, while 47.4 percent discuss work with colleagues abroad. This finding may reflect the limited collaborations and perhaps mobility of (post-doctoral) researchers within Swiss universities and research institutions. Whereas researchers are encouraged to become international and experience academic stays abroad that enlarge their networks, they seldom do so within Switzerland, as reflected by this question. Colleagues abroad may either be former colleagues from the department or research group who are on a visiting fellowship abroad, or former colleagues from when the respondent stayed abroad.

Table 15: Discuss work (percentage)

With whom do you discuss your work most ...	
... Colleagues in department / research group	42.1
... Colleagues in Switzerland	8.8
... Colleagues abroad	47.4
... Family or friends	1.8
	N=73

Looking at table 15a, when we compare women and men we see a great deal of similarity in the structure of answers. Again, the two most important groups for discussing their work are colleagues in the department and colleagues abroad. Few discuss their work with colleagues elsewhere in Switzerland. But small differences appear between women and men. Post-doctoral women are more likely to discuss with colleagues within their department, 47.8 percent compared to 37.5 for men, while men are more likely to discuss with colleagues abroad, 50 percent compared to 43.5 percent. However, these differences are not statistically significant.

Table 15a: Discuss work by sex of respondents (percentage)

	Female	Male	Total
With whom do you discuss your work most ...			
... Colleagues in department / research group	47.8	37.5	41.8
... Colleagues in Switzerland	8.7	9.4	9.1
... Colleagues abroad	43.5	50.0	47.3
... Family or friends	-	3.1	1.8
	N=23	N=32	N=55

Note: Bold to highlight adjusted residuals above +/- 1.96

In table 15b we find a similar pattern with few differences. However, as post-doctoral researchers are more established, they seem to know more colleagues in other Swiss universities, since we find a sharp increase in the number of post-doctoral researchers who mention they most often discuss with colleagues based somewhere else in Switzerland (15.8). The broadening of networks is also visible in the comparison of colleagues from the same department or from abroad. Post-doctoral researchers in their first three years after the Ph.D. display a higher percentage who mention colleagues in the department (47.4 percent compared to 31.6) and display a slightly lower percentage who mention colleagues abroad (44.7 percent compared to 52.6).

Table 15b: Discuss work by academic age (percentage)

	First 3 years	More than 3 years	Total
With whom do you discuss your work most ...			
... Colleagues in department / research group	47.4	31.6	42.1
... Colleagues in Switzerland	5.3	15.8	8.8
... Colleagues abroad	44.7	52.6	47.4
... Family or friends	2.6	-	1.8
	N=38	N=19	N=57

Note: Bold to highlight adjusted residuals above +/- 1.96

Lastly, turning to table 15c, we compare regions. Interestingly, we see that post-doctoral researchers based in universities in the French-speaking region are less likely to discuss with colleagues from their department or research group, with only 28.6 percent saying so, compared to 52 percent in Zurich and 30.8 percent in other German-speaking universities. This may be due to a higher mobility of post-doctoral researchers in the French-speaking universities¹⁵. In fact, the share who mention colleagues abroad is higher than in Zurich, 64.3 percent compared to 40 percent, but in the other German-speaking universities post-doctoral researchers display a similar percentage who mention colleagues abroad (61.5).

Table 15c: Discuss work by regions (percentage)

	Zurich	German speaking	French speaking	Total
With whom do you discuss your work most ...				
... Colleagues in department / research group	52.0	30.8	28.6	40.4
... Colleagues in Switzerland	8.0	7.7	7.1	7.7
... Colleagues abroad	40.0	61.5	64.3	51.9
... Family or friends	-	-	-	-
	N=25	N=13	N=14	N=52

Note: Bold to highlight adjusted residuals above +/- 1.96

Infrastructure for childcare

We have seen that 31.5 percent of respondents have children (23), of whom 39.1 percent have one, 43.5 percent have two, and 17.4 have three. Thus, we also consider the infrastructure available for childcare. Among those who have children, 44.4 percent say there

¹⁵ During their doctoral studies, we find that post-doctoral researchers now based in the French-speaking universities display the highest percentage of stays abroad, with 78.6 percent. Zurich is close with 64 percent, but the other German-speaking universities lag behind with 42.9 percent of post-doctoral researchers who have experienced an academic stay abroad during their studies. However, to have a fuller picture we should also know how many doctors move abroad to pursue an academic career, since contacts with colleagues abroad may also reflect the mobility of colleagues.

are childcare facilities in their institutions and 55.6 say there are not, but only 18 of the 23 respondents who have children answered this question. Lastly, regarding the usage of these facilities, 25 percent use them. However, here again many respondents did not answer, and the percentage is based only on 8 respondents who answered the question.

Publications

In terms of publications, we raise two important issues. One is the quantity of publications; the other is the quality of publications. In the academic system, the quantity of publications is often emphasized. However, the importance of quality also appears in particular in relation to the classification of journals in different categories and to a lesser extent to peer assessment of work. In this section we present first the quantity of publications, and we then discuss post-doctoral researchers' level of satisfaction with both the quantity and the quality of their publications.

Type of doctoral thesis

First, we propose looking at the form of doctoral research. In fact, writing one's Ph.D. in the form of a monograph or alternatively as an article-based thesis leads to different types of first publication. Interestingly, in table 16 we see that most of the post-doctoral researchers we interviewed wrote their doctoral research in the form of a monograph (86.4 percent), with only 13.6 percent writing a cumulative doctoral thesis based on articles.

Monograph	86.4	
Article-based	13.6	
Total	100	(N=59)

We tested to see whether differences appear related to the place where the Ph.D. was obtained, to see if this is due to the recent introduction of article-based thesis in Switzerland, and we find that among post-doctoral researchers in the French-speaking universities all have written their thesis in the form of a monograph. This is not the case in the other two settings: in Zurich, 24 percent of post-doctoral researchers have produced an article-based dissertation, while 14.3 percent did so in other German-speaking universities.

Publications

We shall now turn to the types of publication that post-doctoral researchers have published, in which we consider peer-reviewed articles, books, and edited books or special issues. Moreover, we will again compare the publications of women and men, junior and more established post-doctoral researchers, and the three regions.

First, in table 17 we see the mean number of articles that post-doctoral researchers have published. This mean number of peer-reviewed articles is close to 6, but with a rather large

standard deviation of 4.42, which denotes great variations in the number of publications of post-doctoral researchers. This is not surprising, since they vary greatly in terms of career stage. Post-doctoral researchers also have on average two articles that are under review, and here again the variation is rather large - from almost zero to four. Considering next the number of books, the mean is one, with a variation of plus or minus one. This could reflect the fact that not all have written their thesis in the form of a monograph, or not all have published their thesis as a book yet. Lastly, considering edited books or special issues, the mean is even lower, at 0.61.

Table 17: Types of publications of the respondent

	Mean	Std. dev.	N
Mean number of peer-reviewed articles	5.87	(4.42)	55
Of which mean number submitted to ...			
... Swiss journals	.62	(.95)	55
... International journals	5.09	(3.71)	55
Mean number of articles under review	2.02	(1.88)	57
Mean number of books published	.92	(1.03)	57
Mean number of edited books/ special issues	.61	(.99)	55

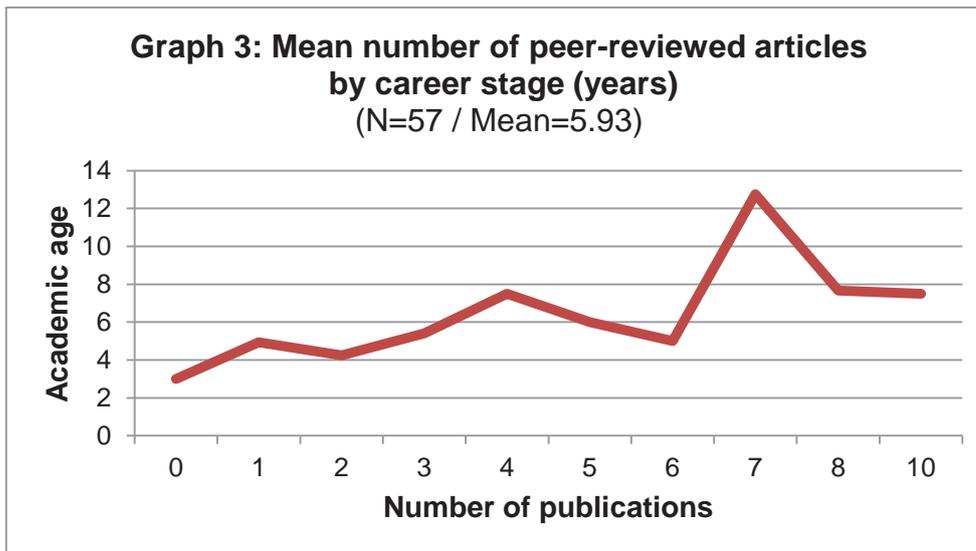
Regarding the language in which post-doctoral researchers publish, in table 18 we see that English comes first, and is uncontested at 91.2 percent. A very small percentage of publications is produced in French (5.3) or German (3.5).

Table 18: Language of publication

English	91.2	
French	5.3	
German	3.5	
Total	100	N=57

Peer-reviewed articles

We will now focus on peer-reviewed articles published by the post-doctoral researchers whom we interviewed. The mean number of publications of post-doctoral researchers is 5.93. Considering that the average number of years after the Ph.D. is 3.29, this average number of publications is quite high. Moreover, graph 3 shows the increase over time, and we see that the peak is seven years after the Ph.D., close to the mean. Below, we compare the number of publications by sex and by regions.



Note: The most senior respondent not shown in Graph (16 after Ph.D.; number of publication 61).

First, with regard to sex-based differences that we find in terms of publications, table 19a shows that variations between women and men mainly appear at the lowest and highest ends of our scale. We see that 13.6 percent of women who hold post-doctoral positions have zero or one peer-reviewed article, while this is the case for only 6.1 percent of men. At the top range of our scale we also find a sex divide, with 9.1 percent of women who have 11 or more publications, compared with 21.2 percent of men in the same situation. These differences cannot be related to career stage, since as we have seen women tend to be more senior in this regard. However, they do reflect inclusion in networks, collaborations for publications, and support received in their institutions, as we will see below when discussing these issues in more detail.

Table 19a: Amount of publications by sex of the respondent

	Female	Male	Total
Number of peer-reviewed articles			
0-1	13.6	6.1	9.1
2-4	45.5	42.4	43.6
5-7	18.2	15.2	16.4
8-10	13.6	13.6	15.2
11 and more	9.1	21.2	16.4
	N=22	N=33	N=55
Mean	5.09	6.39	5.87
s.d.	3.91	4.71	4.42
	N=22	N=33	N=55

Note: Means are calculated without an outlier, a male who published 61 peer reviewed articles. T-test shows no statistically significant differences across groups

We now turn to table 19b, which compares post-doctoral researchers in their first three years after the completion of their Ph.D. with those who have held their Ph.D. for more than three years. The differences we find are not surprising: those in the first three years after their Ph.D. are more likely to have 2 to 4 peer-reviewed articles, 55.3 percent compared to 21.1 percent, while those who obtained their Ph.D. more than three years before are more likely to have 11 or more peer-reviewed articles, as highlighted by the adjusted residuals. Those who have been post-doctoral researchers for more than three years and have 11 or more peer-reviewed articles are 31.6 percent, while among those in their first three years only 10.5 percent have as many publications of this kind.

Table 19b: Amount of publications by academic age of the respondent

	First 3 years	More than 3 years	Total
Number of peer-reviewed articles ¹			
0-1	7.9	10.5	8.8
2-4	55.3	21.1	43.9
5-7	15.8	15.8	15.8
8-10	10.5	21.1	14.0
11 and more	10.5	31.6	17.5
	N=38	N=19	N=57
Mean ²			
Std dev.	4.84	8.10	5.92
	3.37	5.41	4.39
	N=38	N=19	N=57

Note:

¹ Bold to highlight adjusted residuals above +/- 1.96

² T-test shows no statistically significant differences across groups

Means are calculated without an outlier, a male who published 61 peer-reviewed articles.

Considering now the differences across regions, we see in table 19c that the main differences appear between the German-speaking universities and research institutions not based in Zurich and the other two groups. The percentages of post-doctoral researchers who have fewer than 4 publications are higher in the German-speaking universities, with 64.3 percent, while in Zurich and in French-speaking universities the percentage is lower, respectively 48 percent and 46.2 percent. Again, at the middle of the scale the percentage of post-doctoral researchers who have between 5 and 7 publications is lower in the German-speaking universities (7.1), while this category includes 24 percent of Zurich-based post-doctoral researchers, and 15.4 percent of French-speaking university-based post-doctoral

researchers. At the top end of the scale, the percentage of post-doctoral researchers who have published 8 or more peer-reviewed articles is similar in Zurich and in the German-speaking universities, but higher in the French-speaking universities, with 38.5 percent of post-doctoral researchers who have published more than 8 articles in peer-reviewed journals.

Table 19c: Amount of publications by region

	Zurich	German speaking	French speaking	Total
Number of peer-reviewed articles				
0-1	4.2	14.3	7.7	7.8
2-4	45.8	50.0	38.5	45.1
5-7	25.0	7.1	15.4	17.6
8-10	4.2	14.3	23.1	11.8
11 and more	20.8	14.3	15.4	17.6
	N=24	N=14	N=13	N=51
Mean	5.83	5.36	6.0	5.75
Std dev.	3.83	4.75	3.76	4.01
	N=24	N=14	N=13	N=51

Note: T-tests show no statistically significant differences across groups
Means are calculated without an outlier, a person from the Zurich region who published 61 peer-reviewed articles.

Collaborations for publications

In addition to the number of publications, we asked with whom post-doctoral researchers collaborate for publications. This is important in order to assess involvement in research networks and opportunities to work jointly on publications. We first look at the overall trend of collaborations for publications, before turning again to comparisons by sex, academic age, and region of employment for the post-doctoral career.

Table 20: Collaborations for publications (percentages)

With whom did you publish the most ...	
... Supervisor	23.3 N=73
... Peers (colleagues at same level)	21.9 N=73
... Colleagues on research projects	17.8 N=73
... Senior colleagues	16.4 N=73
... Alone	9.6 N=73

In table 20 we see that the supervisor is the person with whom a majority of post-doctoral researchers published the most. 23.3 percent of respondents reported that their supervisor is the one with whom they publish the most, while 21.9 percent say it is with peers, (i.e. other post-doctoral researchers). In addition, 17.8 percent published the most with colleagues with whom they worked on research projects, and another 16.4 percent published with senior colleagues. Only a few post-doctoral researchers published the most alone (9.6).

Looking at table 20a, we compare collaborations for publications between post-doctoral women and men. First, it is important to note that none of the differences is statistically significant. Nonetheless, some small differences appear. Overall male and female post-doctoral researchers are not as likely to publish with their supervisor, with peers, or alone. In fact, we see that women tend to publish more with their peers and men more with their supervisors. These two types of colleagues are the most cited as main co-authors. Post-doctoral researchers also mention colleagues on research projects and senior colleagues: both are main co-authors for 19.2 percent of post-doctoral women and 18.4 percent of post-doctoral men. Surprisingly, the percentage of post-doctoral women who say they mainly publish alone is double that of post-doctoral men, respectively 15.4 and 7.9 percent. Thus, post-doctoral women tend to publish less with their supervisor and more alone, which could be an asset in very specific cases, since it shows one’s own capacity to publish independent research, but also very much a disadvantage as well, since the number of publications and insertion in networks is highly valued.

	Female	Male	Total	N
With whom did you publish the most ...				
... Supervisor	23.1	28.9	26.6	64
... Peers (colleagues at same level)	26.9	21.1	23.4	64
... Colleagues on research projects	19.2	18.4	18.8	64
... Senior colleagues	19.2	18.4	18.8	64
... Alone	15.4	7.9	10.9	64
	(N=26)	(N=38)		

Note:
¹ Bold to highlight adjusted residuals above +/- 1.96

Next, in table 20b we see the collaborations for publications at the two categories of career stage which we consider – more or less than three years as a post-doctoral researcher. In this table we see a differentiation in publication networks between junior and more established post-doctoral researchers. Less established researchers are more likely to

publish with their supervisor, 35.9 percent publishing mainly with him or her, while only 15 percent of those who have completed their Ph.D. for more than three years still publish most of their work with their supervisor. Nonetheless, the more experienced post-doctoral researchers continue to publish with more advanced researchers, namely senior colleagues, with 35 percent doing so compared to 12.8 percent among more junior post-doctoral researchers. Thus, collaborations for publication maintain a hierarchical structure. Yet, potential co-authors are to be found not only among supervisors, but also any other senior colleagues. In terms of collaboration with peers and with colleagues on research projects, the differences between post-doctoral researchers at these two different stages of their academic career are narrower.

Table 20b: Collaborations for publications by academic age (percentages)

	First 3 years	More than 3 years	Total	N
With whom did you publish the most ...				
... Supervisor	35.9	15.0	28.8	59
... Peers (colleagues at same level)	25.6	30.0	27.1	59
... Colleagues on research projects	20.5	25.0	22.0	59
... Senior colleagues	12.8	35.0	20.3	59
... Alone	10.3	15.0	11.9	59
	(N=39)	(N=20)		

Note:

¹ Bold to highlight adjusted residuals above +/- 1.96

Lastly, in the regional comparison, in table 20c we see again some important differences. However, these may also reflect difference in the composition of the groups, since in Zurich post-doctoral researchers tend to be more junior and to include a higher percentage who publish mostly with their supervisor - 38.5 percent, compared to 21.4 and 20 in the other two regions.

Table 20c: Collaborations for publications by regions (percentages)

	Zurich	German speaking	French speaking	Total	N
With whom did you publish the most ...					
... Supervisor	38.5	21.4	20.0	29.1	55
... Peers (colleagues at same level)	30.8	28.6	20.0	27.3	55
... Colleagues on research projects	30.8	7.1	13.3	20.0	55
... Senior colleagues	11.5	28.6	20.0	18.2	55
... Alone	3.8	7.1	26.7	10.9	
	(N=26)	(N=14)	(N=15)		

Note:

¹ Bold to highlight adjusted residuals above +/- 1.96

In the French-speaking universities, the striking difference concerns publishing alone. In these universities and research institutions, based in the French-speaking part of the country, we have seen that there are more women among post-doctoral researchers, and we see now that post-doctoral researchers here tend to publish more frequently alone, with 26.7 percent who say they mostly publish alone, while only 3.8 percent do so in Zurich and 7.1 percent in other universities based in the German-speaking region. Other differences concern publication with peers and with colleagues on research projects, with these more often the main co-authors with post-doctoral researchers in Zurich (30.8), whereas the percentages are lower in other German-speaking and in French-speaking universities. In the former, only 7.1 percent publish with colleagues on research projects, while in the latter 13.3 percent do so. Regarding peers, 28.6 percent publish mostly with peers in other German-speaking universities, while 20 percent do so in the French-speaking region.

Satisfaction with quantity and quality of publications

Turning now to the subjective dimensions related to publications, we present the post-doctoral researchers' level of satisfaction with their publications, in terms of both quantity and quality. Again, we compare satisfaction with publications first by sex and second by region.

Table 21a: Satisfaction with publications by sex (percentages)

	Female	Male	Total
Satisfaction with the quantity of publications			
Very satisfied	-	15.6	9.4
Satisfied	57.1	56.3	56.6
Dissatisfied	38.1	28.1	32.1
Very dissatisfied	4.8	-	1.9
	N=21	N=32	N=53
Satisfaction with the quality of publications			
Very satisfied	9.5	15.6	13.2
Satisfied	90.5	71.9	79.2
Dissatisfied	-	9.4	5.7
Very dissatisfied	-	3.1	1.9
	N=21	N=32	N=53

Note: chi-square tests show no statistically significant difference

In table 21a we see that male post-doctoral researchers tend to be more satisfied with their publications in terms of quantity. In particular, the very satisfied represent the biggest difference across sex, with 15.6 percent of post-doctoral men who are very satisfied, while none of the post-doctoral women say so. For the satisfied, the percentages of women and men are very similar, respectively 57.1 and 56.3 percent. Unsurprisingly, at the other end of the scale we find a higher percentage of post-doctoral women who are dissatisfied with the quantity of publications they have (38.1) and some who are very dissatisfied (4.8). In the latter category, we do not find any post-doctoral men and in the dissatisfied category we find 28.1, 10 percent less than among women.

In terms of satisfaction with the quality of publications, the picture is quite different, with all the post-doctoral women being either satisfied or very satisfied with the quality of their publications, while 12.5 percent of post-doctoral men are not.

Table 21b: Satisfaction with publications by academic age (percentages)

	First 3 years	More than 3 years	Total
Satisfaction with the quantity of publications			
Very satisfied	8.3	10.5	9.1
Satisfied	63.9	42.1	56.4
Dissatisfied	27.8	42.1	32.7
Very dissatisfied	-	5.3	1.8
	N=36	N=19	N=55
Satisfaction with the quality of publications			
Very satisfied	14.3	10.0	12.7
Satisfied	74.3	90.0	80.0
Dissatisfied	8.6	-	5.5
Very dissatisfied	2.9	-	1.8
	N=35	N=20	N=55

Note: chi-square tests show no statistically significant difference

Turning to table 21b, we look at satisfaction with publications depending on the career stage of respondents. Post-doctoral researchers who are in the first three years tend to be more satisfied with their publications, with 72 percent who are satisfied or very satisfied, while for those who have been post-doctoral researchers for more than three years the cumulative percentage for these two categories is 65 percent. However, the results differ when we look at satisfaction in terms of the quality of publication, with the senior post-doctoral researchers being more satisfied with the quality of their publications than the more junior ones. In fact, all

post-doctoral researchers of more than three years' standing are either satisfied or very satisfied with the quality of their publications. The percentage is also quite (though not as) high among the other group, at 88 percent. This shift in satisfaction with quantity and quality at the various stages of the post-doctoral phase is not surprising, since post-doctoral researchers of more than three years' standing are more experienced in writing publications, and thus can expect to be more satisfied with their quality, however, they are also likely to feel under more pressure to have a high number of publications in order to obtain a stable position. Thus, they may be less satisfied with this latter aspect due to the high pressure related to the number of publications.

Table 21c: Satisfaction with publications by regions (percentages)

	Zurich	German speaking	French speaking	Total
Satisfaction with the quantity of publications				
Very satisfied	8.7	-	7.7	6.1
Satisfied	69.6	38.5	53.8	57.1
Dissatisfied	21.7	53.8	38.5	34.7
Very dissatisfied	-	7.7	-	2.0
	N=23	N=13	N=13	N=49
Satisfaction with the quality of publications				
Very satisfied	12.0	-	25.0	12.0
Satisfied	80.0	92.3	66.7	80.0
Dissatisfied	4.0	7.7	8.3	6.0
Very dissatisfied	4.0	-	-	2.0
	N=25	N=13	N=12	N=50

Note: chi-square tests show no statistically significant difference

In table 21c we compare satisfaction with the quantity and quality of publications across regions. We see that post-doctoral researchers based in German-speaking universities not including Zurich are less satisfied with the quantity of their publications than is the case in the two other regions. In the German-speaking universities and research institutions 38.5 percent of post-doctoral researchers say they are satisfied with the quantity of publications they have, while none are very satisfied. This mirrors the finding commented above that such researchers tend to have fewer publications. In Zurich and in the French-speaking universities post-doctoral researchers are more satisfied with the quantity of publications they have, respectively 78.3 and 61.5 percent, but while a majority of post-doctoral researchers declare that they are satisfied, only a low percentage are very satisfied (8.7 percent in Zurich and 7.7 percent in French-speaking universities).

As discussed in the comparison of women and men's satisfaction with their publications, satisfaction with quantity and satisfaction with quality are not directly related. In table 21c, we see that 92.3 percent of post-doctoral researchers based in German-speaking universities are satisfied with the quality of their publications, and here the percentages are similar across the three regions we compare. In Zurich, 92 percent of post-doctoral researchers are satisfied with the quality of their publications, while 91.7 percent in French-speaking universities are.

Main obstacles to publishing

We also asked post-doctoral researchers to identify the main obstacles with which they have been confronted in relation to publishing. This is based on an open question asking respondents which are the principle obstacles that have prevented them from publishing more.

The main obstacle identified by the respondents is lack of time. This lack of time for publications results mainly from the importance of other professional activities such as: teaching obligations, administrative tasks or research coordination, and applications for funding. In fact, the post-doctoral situation is often limited in time and obliges researchers to dedicate some time to funding application procedures (for research projects and for scholarships). Moreover, post-doctoral researchers may also be confronted with non-professional obligations such as family duties and childcare. In a study by the equality office, post-doctoral time is presented as "rush hour", where professional and family obligations are at their peak (Dubach, Graf and Stutz 2013; Folbre and Bittman 2004)¹⁶.

Moreover, the peer-review process is also identified as a potential obstacle to publishing. Post-doctoral researchers mention problems of slowness of the process, as well as some experiences with unprofessional journals or editors.

Lastly, some explanations can be related to dimensions of the post-doctoral situation that we have already discussed. In particular, they can be traced back to issues related to the work environment. Some respondents mention a lack of departmental support and a lack of logistical support from universities (for instance in proofreading). Other issues are related to lack of networks and lack of collaboration. In particular, prior findings in this report show that

¹⁶ « Ainsi, nombreux sont les universitaires à fonder une famille à un moment qui représente un tournant pour leur carrière : leurs nouvelles responsabilités de garde des petits enfants augmentent en même temps que la nécessité d'être mobile et de passer du temps au travail. C'est ce que l'on décrit parfois sous le nom d' «heure de pointe» («rush hour») de la vie (Folbre and Bittman 2004) » (Dubach et al. 2013 : 8)

women may suffer from fewer networks: for instance, we have seen that they are less likely to feel that their work environment is supportive (table 11a) and that they are less often invited to co-author an article or to contribute to an edited volume (table 13a).

Suggestions to improve the level of publications

The post-doctoral researchers also formulated suggestions to improve the level of publications. The question asked was the following: What suggestions do you have to improve the level of publications of post-doctoral political scientists in Switzerland? Based on the answers given, these suggestions can be related to four main categories: 1) the publication process; 2) networks; 3) work environment; and 4) the academic system.

First, regarding the publication process post-doctoral researchers highlighted the importance of improving the peer-review process. In particular, they stressed that younger referees are more knowledgeable of contemporary research and contribute to a faster process of article reviewing. Further improvements in terms of publication processes are related to expectations placed on Ph.D. candidates. They propose increasing incentives to publish early during doctoral studies, and to place less emphasis on monographs. Another important suggestion is to place more emphasis on the quality of publications, rather than on quantity.

Second, post-doctoral researchers highlighted the importance of networks for publications. Within networks a number of suggestions were made to increase publications by young scholars. In particular, it is of utmost importance to gain support from one's supervisor and senior researchers, and to start collaborating with senior colleagues for publishing. Thus, co-authorship with professors and senior researchers should be encouraged. Another possibility to support the creation of collaborative networks is to fund workshops, which foster exchanges among scholars. Lastly, post-doctoral researchers suggested increasing the possibilities of exchanges with other departments / with scholars outside Switzerland.

Third, in relation to the work environment, three solutions were proposed. One is to increase the logistical support offered by the university. For instance, it was suggested to support publication through the existence of funds for proofreading or the creation of statistical services. Another idea is to offer the possibility to take a junior sabbatical or to allow exemption from certain tasks for post-doctoral researchers (less teaching, administrative tasks, etc.).

Fourth, some suggestions are related to broader changes in the academic system. Importantly, post-doctoral researchers should be more independent institutionally from

professors. This could be implemented through the creation of more tenure-track or tenured positions. In addition, tenure positions reduce the pressure related to the short-term "publish or perish" logic. Overall, the idea is that more positions with unlimited contracts are needed, as well as more post-doctoral positions focused on research.

Discussion of main findings

In this last section, we highlight the main findings of our research and draw some implications in order to propose some measures that could be taken to improve the situation of post-doctoral researchers in political science in Switzerland.

Main findings

The main findings can be summarized with regard to the qualifications of post-doctoral researchers, their employment and work conditions, as well as some differences across groups or regions. We start with a discussion of the qualifications of post-doctoral researchers.

In presenting the results of our survey, we have seen the qualifications acquired by post-doctoral researchers during their Ph.D., as well as the tasks they perform at the post-doctoral level. This overview has shown that, by the time they have obtained their title, post-doctoral researchers already have experience not only with research and publication, but also in terms of inclusion in international networks. Often they have experienced a visiting period abroad (more than 60 percent did) and most of them have attended conferences to present their work (on average they attended three conferences during the Ph.D.). This means that they have acquired a number of skills and competencies that are valuable and can contribute to the department or research unit in which they work as post-doctoral researchers.

A striking finding of the descriptive analyses relates to the duration of the post-doctoral career. Some of the post-doctoral researchers we interviewed remain in this position for eight years or more, and the selection criteria excluded post-doctoral researchers who had obtained their Ph.D. more than ten years prior to our study. Moreover, what also stands out is the multiplicity of employment status. Post-doctoral researchers face various employment situations, but they also face a high level of precariousness, since only one in eight of the positions identified leads to tenure (assistant professor with tenure track), and only 3.4 percent of post-doctoral researchers are in this position. Among the remaining positions, some depend on research grants gained by established researchers (research assistant and research collaborator, for instance) or personal research grants (Assistant professor without tenure track) – while other positions are financed by the departments (teaching assistant, lecturer, first assistant). These findings about employment conditions and prospects reflect those highlighted by SEFRI, which reports on the overall situation of post-doctoral researchers in Switzerland (SEFRI 2014).

One important finding of this study is the accumulation of disadvantages by post-doctoral women. As pointed out by Virginia Valian (1998: 148) “The importance of the accumulation of advantage and disadvantage [...] is that even small imbalances add up”. We have seen through the descriptive analyses that post-doctoral women face some of what appear to be small disadvantages that add up. First, we saw that they are already fewer in embracing an academic career by entering into the post-doctoral phase. Then, among those who do enter the post-doctoral track, we have seen that they remain longer in this highly unstable position. Moreover, they evaluate their working environment as being slightly less friendly, but more importantly as being less supportive. This latter point makes a difference in the decision to pursue an academic career, in the belief that it is worth the effort and that one has the required competencies to obtain tenure. Lastly, on research and publication, two crucial aspects to obtain the desired tenured position, post-doctoral women also face disadvantages. Fewer among post-doctoral women have been leaders of research projects, and they are more likely to publish alone. Although publishing alone may be an asset for job applications, it also limits the number of publications and may also hinder access to top-ranking journals. These two aspects are given strong leverage in the evaluation of candidates for professorship. This list of what appear to be small disadvantages taken individually, nonetheless seem to add up to the kind of cumulative disadvantages discussed by Virginia Valiant, and which she identifies as a major obstacle for women’s academic careers.

Most of the problems identified and discussed above have been discussed over the last decade in a variety of contexts and fields of research (Chollet 2012; Dillon 2003; Hug 2012; Parker 2002; Rohn 2011). The debates on postdoctoral in this multiple arenas of reflection and our analysis serve as the basis for our reflection and are used to propose some measures that could be implemented to improve the situation of post-doctoral researchers in the Swiss context and in the field of political science.

Implications

In tracing the implications of these findings, we relate the observed tendencies to institutional and structural flaws that hinder the career prospects of post-doctoral political scientists in the Swiss context. In the age of tertiary education, and with such a high value placed on what is called the “knowledge society”, readers may be struck by the fact that post-doctoral researchers are not offered better prospects which would also signal a recognition of their talent, skills, and role in science and society. In particular, stable working conditions and career prospects would contribute towards an increased recognition of post-doctoral

researchers' value. In this section, we discuss the attractiveness of an academic career, and the purpose of a post-doctoral stage within this career.

One pressing question resulting from this overview is “why remain in academia?” and the follow-up question is “who decides to pursue an academic career?” This question is recurrent in discussions about post-doctoral researchers across disciplines, and in particular with regards to the high dropout rate among post-doctoral women (genSET 2011; Rice 2012). Alexandre Afonso (2013) in a blog post shows long-term trends in the academic labor market in the United States, Britain, and Germany. The empirical data he refers to reveals that the academic labor markets tend to move in the direction of “an expanding mass of outsiders and a shrinking core of insiders” (Afonso 2013). The follow-up question is, does the system support the most talented and promising young scholars, or does it produce a selection based on other criteria – perseverance and acceptance of high risk, low prospects, and an unstable future?

One important aspect is the need to define what post-doctoral status is, and what are the aims of this intermediary position – i.e., what roles do post-doctoral researchers fulfill in universities in terms of research and teaching, but also what are the career prospects of these positions¹⁷. This implies defining a time-line for access to stable positions, as well as the skills that ought to be learned at this stage of the career in order to be considered independent researchers in the future. This relates to the issue of lack of time for publication identified by post-doctoral researchers as one of the major impediments for publishing. Time spent on data collection, research supervision, teaching, students' supervision, as well as that dedicated to funding demands should be considered a full part of post-doctoral duties, and recognized as valuable work which post-doctoral researchers perform. The SEFRI reports also highlight the importance of defining more clearly the aims of the post-doctoral phase and its duration, as well as the career advances which may result – be they horizontal, with stable teaching or research positions, or vertical, with assistant professorship with tenure track (SEFRI 2014).

In addition, the question of the status of post-doctoral researchers – what they do in universities and what they learn – is related not only to the tasks performed, but also to the

¹⁷ In the US, the National Post-doctoral Association defines “the elaboration and the inclusion of a definition of what post-doctoral positions are” as one of their recommendations. The specific policy demands can be accessed on the website of the association (NPA, National Postdoctoral Association. “NPA Recommended Policies and Practices.” edited by National Postdoctoral Association. <http://www.nationalpostdoc.org/policy-22/institutional-policies/recommended-practices-for-institutions.”>).

assessment of the intrinsic value of these tasks, and their importance for career prospects within the university, or at other universities. In the report, we have seen important differences across regions in the tasks that post-doctoral researchers see as being considered important by their departments or working units. This does not facilitate either intra- or inter-institutional mobility. Regarding the former, the lack of recognition and importance of some of the tasks performed by post-doctoral researchers is a structural problem that implies that post-doctoral researchers' contributions are systematically undervalued within the department, and which reduces the motivation to stabilize these positions. Regarding this latter point, if particular institutions attribute more or less importance to specific tasks – such as teaching, publication, media contribution – this reduces the chance of mobility of post-doctoral researchers from one institution to another.

Measures proposed to improve the situation of post-doctoral researchers

In this last section of the report, we propose measures that could be implemented within the discipline at the institutional level to improve the situation of post-doctoral political scientists who work in Swiss universities and research institutes. These measures are related to flaws highlighted in the report and intend to correct some shortcomings in the institutional support offered to post-doctoral political scientists. After an overview of the five measures proposed, we discuss them in detail.

The measures we propose below cover 5 aspects of the post-doctoral career:

1. **Visibility and predictability in the post-doctoral and academic career**, the objective of becoming a professor is a remote and highly uncertain goal. Thus, universities and research institutions need to find alternative positions that offer stability, continuity, and that allow the planning of a career in academia.
2. **Stability and continuity in the contractual and financial situation** of post-doctoral researchers. The aim is to create long-term post-doctoral positions in the departments and research institutions – not only related to teaching but also to research. In particular, post-doctoral researchers should have more autonomy to apply for their own research funding within departments and research institutions. Moreover, we should aim at reducing the dependency on third-party project funding and mobility scholarships.
3. **Support and incentives for post-doctoral women and academic career**, although women now comprise more than half of students in political science, half of doctoral students, and half of doctors, they are still a minority in following an academic career. This is changing slowly, but will continue to change slowly as long as few women become professors. Women face specific difficulties that have to be corrected within departments and research institutions.
4. **Clear and transparent criteria of evaluation for scientists at different stages of their career within the discipline**, in particular balancing the different tasks that researchers have to perform and highlighting what is expected at the different stages of an academic career. These different tasks include: research, publication, teaching, supervision of students or younger scholars, funding demands, networking,

administrative tasks for the work unit, and media appearances. These criteria should reflect a broader evaluation criteria used within the discipline at large.

5. **Acceptance of parenthood and recognition of care obligations**, post-doctoral researchers are in a phase of high professional pressure and potentially high family obligations (with young children) - what has been defined as the “rush hour”. This should be considered in the evaluation of candidates, both women and men, in addition to maternity leave (since paternity leave does not exist yet). Moreover, institutions should facilitate access to care solutions for parents of young children.

Visibility and predictability in post-doctoral and academic careers

The first set of measures relate to a need for more visibility and predictability in the academic career. This implies recognizing post-doctoral positions as both a key phase in the academic career and an important contribution to research and teaching in the department. As the post-doctoral phase in the academic career becomes longer, it becomes all the more important to define the specific objectives of that phase. Melin and Janson (2006: 112) highlight that the “unstructured and unformalized character” of the post-doctoral phase are often highlighted as a problem. Institutions should aim at defining what should be learned during the post-doctoral period and what will be the opportunities once this specific experience is acquired.

The first step in this regard is to define what is meant by a post-doctoral position, what can a post-doctoral researcher do, and what remains to be learned in order to become an independent researcher¹⁸. For instance, Melin and Janson (2006) mention that at this stage the young scholar develops skills related to conducting their own research, writing research proposals, obtaining funds, and coordinating or leading a research team. This is also a period during which post-doctoral researchers specialize and establish themselves in a specific field. However, doing so also requires access to specific research instruments and grants. In particular, in the Swiss case it is problematic that, as a result of their status, post-doctoral researchers cannot write and submit applications in their own name (Hug 2012). In addition, defining what post-doctoral researchers are doing and what they should learn also implies recognizing the experience already acquired by post-doctoral researchers. Indeed, post-doctoral researchers have prior experience in terms of both research and teaching.

¹⁸ Among the measures proposed by the SEFRI in the report “Mesures pour encourager la relève scientifique en Suisse: rapport du Conseil fédéral en exécution du postulat CSEC-E (12.3343) is “the issue of defining more clearly the post-doctoral phase in terms of both aims and duration.”

A corollary to this measure is to reduce the hierarchical structure of Swiss universities. Indeed, the highly hierarchical structure of Swiss universities, centered around the chair with very central roles for professors, appears to be a problem, and is connected to the precariousness and lack of autonomy of post-doctoral researchers (Fink et al. 2012; SEFRI 2014). Post-doctoral positions are an important link in the teaching and research chain, they can reduce the gap between students and professors or between teaching/research assistant and professor. Universities benefit greatly from their presence, as they know how to conduct research, often have innovative research ideas, and are already experienced in teaching.

We recommend a reflection within the departments over the functions performed by post-doctoral researchers, as well as a discussion of the tools provided and the opportunities offered to them in order for them to have the possibility to pursue an academic career. This reflection could serve as an evaluation of the institution's relation to post-doctoral researchers, and result in transformations to improve both the formation and recognition of post-doctoral researchers' skills. Lastly, we recommend lobbying to facilitate access for all post-doctoral researchers to research grants in their own name.

Stability and continuity in the contractual and financial situation

Post-doctoral researchers need to be recognized and paid according to their experience and competence. Post-doctoral researchers have acquired research and teaching skills during their doctoral training, they can conduct research and teach independently. They can thus contribute to the university by producing innovative research and by transferring their skills to students and doctoral students. However, post-doctoral researchers are required to survive on scholarships and short-term teaching or research contracts, which is a central flaw in the academic career in general, and in the post-doctoral phase in particular (see also SEFRI 2014 for a discussion of the planning of academic career, short-term contracts, and wages).

The precariousness of this transitory phase contributes to the unattractiveness of academic careers in Switzerland and to the brain drain, in as much as many post-doctoral researchers who want to pursue an academic career will successfully do so in other countries that offer less hierarchical academic systems (see also CSST 2013 for a discussion of the lack of attractivity of academic careers in Switzerland). The more unstable and precarious the post-doctoral phase is, the more the discipline is faced with a policy of promoting the most enduring, following the logic of "survival of the fittest". In this context, the discipline must face the fact that the most talented and motivated post-doctoral researchers may choose to leave

the field or pursue their career in other countries because they cannot afford to live with low salaries and highly unstable career prospects.

We recommend replacing short-term contracts with stable positions and creating long-term post-doctoral positions within departments and research institutions that allow post-doctoral researchers to pursue their research and increase their teaching experience. These measures would also contribute to an increase in the autonomy of post-doctoral researchers, who could then conduct research more independently from professors, in the sense that they could obtain and manage their own research funds, which would in turn contribute to the acquisition of additional skills that are central in academia. The newly created positions should be of at least three years' duration, with the possibility of being renewed once, with wages that recognize the educational attainment of the candidates. Furthermore, as proposed by the CSST (2013) a horizontal career alongside the vertical one could be implemented to offer stability and continuity as well for persons who do not aspire to become professors. The skills required to lead a teaching and research unit are not the same as those that lead to inspired research and teaching, and universities could gain from the combination of these two statuses. The stabilization of researchers through the creation of intermediary positions more oriented towards either teaching or research is also supported by the SEFRI (2014) in its report to the national parliament.

Lastly, we recommend wherever possible - that is, where the size of the department and its current composition allows it - to open all new positions at assistant professor level to favor the stabilization of young scholars in the discipline. Concerning this more vertical career and the access to the rank of professor, the SEFRI (2014) and young scholars (Fink et al. 2012) have recommended and demanded the creation of many assistant professor positions in the coming years to solve the problems related to the very hierarchical (German type) of university organization in Switzerland, and to improve the situation of young scholars.

Support and incentives for post-doctoral women and academic career

Policies aimed at supporting women's academic careers often focus on the nomination of women as professors. Yet some measures should also be taken prior to the professorial stage, since a significant issue is the drop-out rate among women at the post-doctoral phase, and the cumulative disadvantages discussed above - what is sometimes referred to as the "leaky pipeline" (genSET 2011; Leemann and Stutz 2008). Moreover, policies aiming at supporting women tend to focus on the issue of conciliation, which should be kept separate, as it involves both women and men.

Mentoring programs offer support by women in the profession, but often mentors are not from the same discipline. Although mentoring programs are successful in promoting and supporting women's academic careers, informal mentoring within the discipline should complement these. The GenSet Report identifies male informal networking practices as one of the cumulative disadvantages faced by women in academia (genSET 2011). As we have seen, post-doctoral women are less likely to be leaders of research projects and more likely to publish alone. Specific support within the discipline is needed to encourage and support the elaboration of research projects by post-doctoral women and to reinforce joint publication by senior researchers or professors with post-doctoral women in their discipline. The report also highlights that a critical mass of women within a department is required before practices related to hiring and support for women are structurally transformed. In the meantime, male professors should be aware of the problem and encourage their female collaborators to pursue an academic career. In concrete terms, this means changing unconscious practices and offering practical support by encouraging female collaborators to write research projects and funding applications (The Tema Institute 2011).

Clear and transparent criteria of evaluation

Specific measures to increase the transparency of evaluation criteria relate to the importance given to past experience in different tasks when applying for a particular position. Such past experience in terms of the task performed should not focus exclusively and solely on publications. In particular, we should consider the relative importance – in terms of time dedicated - of teaching in the social sciences. In fact, Young et al. (2010: 52) show that in the social sciences (also in law and economics) time dedicated to teaching and student supervision is higher than in the natural or technical sciences. In the social sciences, 42 percent of the time of young scholars (in their approach all those who hold a Ph.D. except Full Professors) is dedicated to teaching and 34 percent to research, whereas in the natural sciences the ratio is 22 percent for teaching and 60 percent for research.

The recommendations that we present below and which aim at clarifying the tasks performed by post-doctoral researchers and their evaluation also contributes to improving the visibility of the academic career path. In its report the SEFRI (2014) highlights that the post-doctoral stage lacks clearly defined stages, and includes some early selection based on the potential to pursue an academic career of the persons who obtain a Ph.D., and then again among those who work as post-doctoral researchers. We believe that clarifying specific tasks and their value, alongside the differentiation of potential positions, would also contribute to better defining the stages of the academic career.

First, we recognize that research is a central task of scientists, and as such it should be valued not only in terms of the outcomes of research, (i.e. publication), but also in terms of the efforts to conduct original research, which often requires data collection. Thus, we recommend a separate evaluation of research and publication – research is much broader than that which is reflected by publication, and includes all the empirical work involved in the construction of research instruments, fieldwork, data collection, data cleaning, etc. This would allow taking into account the time that conducting one's own research requires, in particular when using different research methods and not relying on secondary data. This solution does not permit accounting for all the time dedicated to reading and thinking, but it corrects some of the imbalances deriving from the mere focus on publications.

Second, teaching is also a central task of scientists, in particular in Switzerland, where a specific status of researcher does not exist, nor is recognized by the state. Therefore, we recommend that teaching as a core task of stable university staff be recognized and evaluated as an important function conducted by post-doctoral researchers. This can be done by clarifying the importance given to teaching for recruitment of staff at different levels. Additionally, the supervision of students should be considered separately from teaching: it is not the same to offer an *ex cathedra* class and to supervise the Bachelor or the Master thesis of (numerous) students. Not only are the skills acquired different, but the time dedicated to it is also not the same, since the workload for teaching can be reduced over time, but less so for supervision.

Third, publications are central today in the evaluation of candidates for jobs, for funding, for scholarship, for almost any activity that researchers are engaged in or would like to engage in. However, it is not only the number of publications or the impact factor of the journal that should be evaluated. It is the quality *per se* of the publication and its contribution to the field of research in which it is embedded. Therefore, we recommend an evaluation of publications based on qualitative criteria. Based on the evaluation of a minor number of publications, that can be pre-selected according to quality, the evaluation should consider the innovative and critical dimensions of the publication alongside other criteria of quality such as theoretical strength, research method, research design, etc. This evaluation of the quality of publication by focusing on a selected number of publications also reduces the significance that a career break may have (genSET 2011).

Fourth, the time dedicated to application for funding is often visible only in successful projects. However, success depends not only on the quality of the project, but also on other factors (collaboration with professors, highly quoted topic or field of research, etc.). Thus, we

recommend considering also unsuccessful attempts and rejected funding demands. These also show the engagement of researchers and their motivation to pursue their own research independently. Moreover, the networks in which researchers are involved should be evaluated separately from the funding obtained. Hence, we recommend considering the types of funding demanded, as well as the role in the project (bearing in mind limitations related to the rules of some funding institutions that do not allow post-doctoral researchers to deposit requests in their own name).

Fifth, networking and inclusion in national and international networks requires time and energy. It is an asset for both institutions and individual researchers, thus it should be encouraged and recognized. One flaw however is the limited intra-national networking, while another is the opportunity to plan a stay abroad. On the mobility of young scholars, institutions should also consider and value intra-Switzerland mobility, not only academic stays abroad. Moreover, post-doctoral researchers should be able to plan visiting periods in other institutions or universities also during and within the framework of a stable post-doctoral position. For instance, this could be achieved through the introduction of sabbatical academic leave for young scholars.

Lastly, we recommend also considering other tasks performed within a department or research unit that contribute to its everyday functioning, visibility, and recognition. These include participation and organization of workshops, conferences, and other events proposed by the work unit. Moreover the organization of public events and participation in public debate through media interventions should also be considered as a task that requires time and that is valued.

In general, we recommend publicly accessible criteria for recruitment at the various levels, with specific attribution of weight to the criteria included. How important are publications compared to teaching? What is important in publishing: the quantity, the journals in which they are published, or the contribution to the literature?

Acceptance of parenthood and recognition of care obligations

The acceptance of parenthood and the recognition of care obligations involves both post-doctoral women and men. First, maternity or paternity leave where it exists should be taken into account when evaluating the curricula vitae of applicants to different positions within a department. Second, family obligations do not stop after parental leave and are not limited to women. Both post-doctoral women and men who have children should be evaluated accordingly. As highlighted by our empirical analysis and by the report of the young scholars

to the DFI (Young et al. 2010), roughly one third of post-doctoral women and men have children, and although some differences appear across sex in the time dedicated to children, in general parenthood should be taken into account for both sexes.

The five sets of measures that we propose are highly interconnected, and most measures have consequences that affect different levels and can contribute to solving different dimensions of the problems we have identified. For instance, some measures to increase the predictability of careers in general would also benefit women's careers, for part of the high drop-out rate is related to the high competitiveness-low prospects equation (genSET 2011). However, improving the situation of post-doctoral researchers within their research unit is not likely to reduce some of the most pressing issues concerning academic careers unless a broad shift in the direction of the policies managing higher education and research in Switzerland takes place.

First, the issue of an overcrowded pipeline cannot be solved without addressing the question of doctoral researchers and the number of doctors produced by the discipline. However, this reflection is broad since it involves the issue of funding policies – the funding of research projects that hire either a large share of cheaper labor in the form of doctoral candidates or a more balanced share of doctoral researchers and more experienced, but also more costly, post-doctoral researchers. The multiplication of research grants cannot be accompanied solely by a multiplication of precarious positions at the bottom end of the research career ladder, in the form of more doctoral students that are trained without any prospect of pursuing an academic career, and who have little hope of finding work outside of academia. Young et al. (Young et al. 2010) in their report to the Department of Interior assess the situation of young scholars in Switzerland across disciplines. In their report, we see that the social sciences stand out for young scholars in this discipline in particular seeing few prospects outside of academia – the authors say they are the most pessimistic about their non-academic career chances (61).

Second, on the question of mobility, inter-institutional mobility within Switzerland should be encouraged and reinforced at the post-doctoral level. This includes not only FNS grants, (some of which already encourage mobility within Switzerland, although not all), but also open competition for post-doctoral positions within departments and research units. This would reinforce links between researchers in Switzerland, which the report shows are rather limited – post-doctoral researchers having most contacts abroad or within their department. Promoting not only international mobility, but national mobility as well can facilitate the pursuit of an academic career for less mobile post-doctoral researchers – in particular those

who have a family or those whose partner cannot move (the dual career issue). Moreover, intra-national mobility would reduce some of the difficulties related to international mobility – for instance, partner and family reallocation or lack of contribution to long-term social benefits (for instance pension and unemployment) identified as problematic by the SEFRI (2014).

Conclusion

In concluding this report, we first return to the main empirical findings drawn from the survey of post-doctoral researchers working in Swiss universities and research institutions – their doctoral training, their employment conditions, the support they receive, their involvement in research, and their publications. Then, we highlight two central measures that we propose to improve the situation of young scholars and to increase the attractiveness of academic careers. Lastly, we relate the findings on post-doctoral careers in political science to the broader question of evaluation procedures in the social sciences.

First, the analyses of the data on post-doctoral political scientists collected through an on-line survey revealed that young scholars hold a broad range of skills after having completed their Ph.D., which greatly benefit the discipline through the teaching and research performed by young scholars. They have experience related to previous teaching assignments, research involvement, but also participation in conferences and publications. However, these skills and the contributions of post-doctoral researchers to political science are not recognized entirely by the units in which young scholars work. Therefore, working conditions – both in terms of contractual stability and wages – are unsatisfactory. We have seen that multiple positions are offered to post-doctoral researchers, but also that most of them are short-term and require the fulfillment of multiple tasks, not all of which contribute to the advancement of their own careers. On the one hand, such poor working conditions and low career prospects contribute to the unattractiveness of academic careers. On the other hand, they limit the ability of young scholars to advance their academic profile – they have limited time for publications and often they cannot be leaders on the research project on which they work. Thus, political scientists working in academia evaluate their status, income, and importantly their career prospects much more negatively than political scientists who no longer work in academia. In order to increase the attractiveness of an academic career and to retain in the field the most promising young scholars, the situation of post-doctoral researchers should be improved. We thus proposed measures that could, in our view, contribute to this goal.

Second, regarding the measures that we proposed to improve the employment conditions of young scholars, we would like to highlight the congruence of our findings with broader studies and discussions on post-doctoral careers in Switzerland (CSST 2013; Fink et al. 2012; Joye-Cagnard and Vencato 2011; SEFRI 2014). These reports have already been mentioned in the discussion of the proposed measures. Thus, we will not discuss them in detail again in concluding this report. Nonetheless, some central take home messages will be highlighted again. First, the CSST (2013) proposes the creation of horizontal careers to

stabilize promising post-doctoral researchers. Second, the SEFRI (2014) proposes the creation of assistant professorship positions, alongside measures to promote dual careers and reduce the cost of international mobility. We find these two measures the most useful to address some of the problems and difficulties faced by post-doctoral researchers in political science. Hence, we strongly support them and encourage political science departments and research units to follow these recommendations.

Third, in conclusion, we also offer some reflections that relate to the on-going process of evaluation of the social sciences. Hence, we wish to link this report to broader questions related to the evaluation of our field of research. The report has clear connections to questions regarding how to evaluate political science research and to the definition of the driving criteria for this evaluation. In order to define the criteria for the evaluation of the field one needs to understand and to establish the goals and the priorities of the field itself. Only once the role of the discipline in terms of research and the transmission of knowledge in its different forms (teaching, the public at large, and new generations of scholars) is clarified can one think about the creation of evaluative procedures that reflect these choices. In our view, the evaluation of political science should be multi-dimensional and cross-sectional. We should aim at evaluating in-depth two dimensions of the work conducted in the discipline, and for each of these dimensions consider also the different targets involved, be they established researchers, young scholars, students, or broader society. These two dimensions could be: 1) Research including on-going research projects, publications, advancement of knowledge, contribution to scientific debates, and participation in national, as well as international networks; and 2) Transmission of knowledge through teaching, training of young scholars, conferences, and returns to society, established researchers, young scholars, students, as well as the broader civil society.

In turn these reflections could nurture those in the status of post-doctoral researcher, as knowing what is valued and expected in the field not only allows understanding whether one adheres or not to the core values of the discipline, but also promotes engagement in the various activities that make the core of an academic's work - not only publications, but more broadly research and teaching. Research is at the core of scientists' activities and requires time for thinking and experimenting, taking side roads to find new venues of knowledge. Research at its best is critical and creative, it proposes new understandings of the world we live in and helps us make sense of it. In turn, this knowledge is transmitted to society through teaching and the training of new generations of workers, citizens, and scholars, as well as through public debate. A balance between these activities would benefit not only young scholars, but the discipline at large through increased visibility and recognition. Political

science's capacity for innovation and its role in society can be enhanced by defining both its aims and the criteria for evaluating its performance in reaching them, as well as by improving the situation of post-doctoral researchers who conduct a great share of the research done in political science today.

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Appendix 1: Questionnaire

Survey of post-docs and assistant professors in political science in Switzerland

(Version 5; updated May 2012)

Mail

Mail title: On-line survey on the situation of political science « post-docs » in Switzerland

On behalf of the Swiss Political Science Association, we would like to invite you to take part in a survey on the situation of political science « post-docs » in Switzerland. The survey will give us valuable information on your post-doctoral experience and will help us to think about means to improve "post-docs" situation in Switzerland.

The survey takes about 20 minutes to complete and can be found at the following URL :

All data will be treated anonymously and confidentially. At the end of the project, participants will receive a copy of the research results.

The survey is open till XXXX 2012.

For questions or comments, please don't hesitate to contact Sarah Nicolet at the following address: sarah.nicolet@unige.ch

We thank you in advance for your participation.

Best regards,

Simon Hug, on behalf of the Swiss Political Science Association

Introduction

In this survey, we are interested in collecting information on the professional path and work experience of "post-docs" in Swiss universities and research institutions.

All data will be treated anonymously and confidentially. At the end of the project, participants will receive a copy of the research results.

This survey is divided into six parts. Completing it takes approximately 20 minutes.

If you have any questions or comments, please feel free to contact us at the following address: sarah.nicolet@unige.ch

Conclusion

Thank you for completing this survey!

General information

1. Please indicate your gender: → menu: male / female
2. Year of birth: → menu with years
3. Civil status: → menu: married – domestic partnership / single / divorced / widowed
4. What is your main field (s) of specialization? → menu:
 - Comparative Politics
 - European Studies
 - International Relations
 - Methods
 - Policy Analysis
 - Political Theory
 - Political Behavior
 - Political Economy and Development
 - Public Policy and Public Administration
 - Social Research Methods
 - Swiss Politics
 - Other: Please indicate

Postdoctoral position

5. For how many years have you been in a post-doctoral position (research assistant, teaching assistant, assistant professor, postdoctoral researcher, lecturer, etc.)? → menu with number of years
6. To which institution (s) are you currently affiliated? Please check all that apply → menu with Swiss institutions and category « other » in which the name of the institution can be listed:
 - ETH, Zürich
 - IDHEAP, Lausanne
 - IHEID, Genève
 - Universität Basel
 - Universität Bern
 - Universität Luzern
 - Universität St Gallen
 - Universität Zurich

- Université de Fribourg
- Université de Lausanne
- Université de Genève
- Other: please indicate

7. What position did you hold immediately after you completed your dissertation?

If you held more than one position at the time, please check all that apply.

For each position, indicate your work percentage, the institution to which you were affiliated, and the duration of employment → menu work percentage, institutions, duration: number of years / months for each position checked.

- Teaching assistant
- Lecturer
- Maître-assistant-e
- Oberassistent-in
- Assistant professor on a tenure track
- Assistant professor without tenure track
- Research assistant
- Research collaborator
- Postdoctoral fellow (on a research fellowship)
- Other: please indicate

8. Do you still hold this position?

→ menu yes / no

If no,

9. What position do you currently hold?

For each position, indicate your work percentage, the institution to which you were affiliated, and the duration of employment → menu work percentage, institutions, duration: number of years / months for each position checked.

- Teaching assistant
- Lecturer
- Maître-assistant-e
- Oberassistent-in
- Assistant professor on a tenure track
- Assistant professor without tenure track

- Research assistant
- Research collaborator
- Postdoctoral fellow (on a research fellowship)
- Other : please indicate

10. In the position you currently hold, what percentage of your working time do you on average devote to the following activities?

Please indicate how your work percentage is split among the different activities. The total percentage needs to add to 100% (if your work percentage is less than 100%, please convert the percentages to a full time position).

→ menu with percentage for each item; make sure that the amount cannot exceed 100.

- Research
- Teaching
- Supervising students
- Grading exams
- Service to the department / the University; administrative tasks
- Other: please indicate

11. In the position you currently hold, how many students do you presently supervise?

- For their BA theses:
- For their MA theses:
- For their PhD dissertation
 - o As principal supervisor / co-supervisor
 - o As member of their dissertation committee

Doctoral studies

12. In which institution did you complete your doctorate?

In case of a joint supervision procedure, list the two institutions in which the dissertation was completed

→ open menu

13. In which year did you start your doctorate?

→ menu with years

14. In which year did you complete your doctorate?

→ menu with years

15. Did you change institutional affiliation during your doctoral studies?

16. Did you change supervision during your doctoral studies?

17. What was the form of your dissertation?

- Monograph
- Article-based

For article-based dissertations:

- Total number of articles
- Among which, number of co-authored articles
- Number of articles accepted for publication (at the time of dissertation completion)

18. In which framework did you write your dissertation?

If your situation changed during your doctoral studies, please check all that apply

- I was involved in a research project and the dissertation was part of the research project
- I was involved in a research project but the dissertation was not part of the research project
- I was working as a teaching assistant and wrote the dissertation next to my teaching activities
- I was a student in a full time PhD program / graduate school
- I was working outside of academia and wrote the dissertation next to my professional activities
- Other: please indicate

19. From which sources of financing did you benefit while working on your dissertation?

Please check all that apply

- Fellowship
- Teaching assistantship → if yes
 - On average, how many hours per week did you teach every semester on your own?
- Research assistantship on a project related to the dissertation

- Research assistantship on a project not related to the dissertation
- Other employment within academia
- Employment outside academia
- Other: please indicate

20. During your doctoral studies, what percentage of your working time did you on average devote to the following activities? Please estimate an average over the entire period of your doctoral studies.

→ menu: percentage for each activity; the total needs to amount to 100

- Doctoral work
- Research (not related to the dissertation)
- Teaching
- Service to the department / the University; administrative tasks
- Non academic job
- Other: please indicate

21. During your doctoral studies, did you spend a period of time in an academic institution other than your home institution (e.g. one semester abroad)?

→ menu: yes / no

If yes,

22. For each of your stay, please indicate the country in which the institution was located and the length of your stay

→ possibility to indicate name of institution and length of stay in months

23. What sources of funding did you have to finance your stay? Please check all that apply

- Fellowship from my home institution
- Fellowship from the host institution
- National fellowship from my home country
- National fellowship from the host country
- Other type of fellowship
- Own funding
- Other: please indicate

24. During your doctoral studies, did you attend a "doctoral school" (such as, for instance, CUSO doctoral school, NCCR doctoral school, Gerzensee doctoral courses, etc.)?

→ menu: yes / no

25. During how many years were you involved in the program?

→ menu with number of years

26. During your doctoral studies, did you attend a summer school in methods (such as for instance an ECPR summer school (Essex, Ljubjana), the ICPSR summer school (Ann Arbor) or the Swiss summer school (Lugano)?

→ menu: yes / no

27. How many times did you attend one of these programs?

28. During your doctoral studies, on average, in how many conferences did you take part (i.e. present a paper) in a year?

→ menu with numbers

Research projects and cooperation

29. Since you completed your dissertation, have you been involved in research projects (including a post-doc research fellowship)?

→ menu: yes / no

30. If yes, in how many projects have you been involved (including a post-doc research fellowship)? → menu with numbers

31. For each of the projects, indicate your status in the research project

→ menu: Leader, co-leader, employee, other: please indicate

32. For each of the projects, indicate the source of the funding for the research project

→ menu:

a. National source of funding (SNF, SNIS, etc.)

b. International source of funding (EU, DFG, ANR, etc.)

33. On average, in how many conferences do you take part (i.e. present a paper) in a year?

In Switzerland

In Europe

Outside of Europe

34. Think about the three persons with whom you have collaborated the most over the last three years. For each person, indicate whether they are from:

If the persons have moved, please check the location in which they were at the time of your collaboration.

→ menu for person 1, 2, 3 (with the possibility of selecting only one option)

The same research group / department

The same university

Switzerland

Europe

Outside of Europe

35. For each person, indicate in what kind of collaboration you engaged. Check all that apply

→ menu for person 1, 2, 3

Paper / article co-authoring

Book co-authoring

Book / special issue co-editing

Co-submission / co-leading of a research project

Co-teaching

Co-organization of a conference / panel

Other: Please indicate

36. With whom did you publish the most in the three years following the completion of your dissertation? Check all that apply

→ menu

With my supervisor

With colleagues involved in the same research project as me

With colleagues at the same level as me
With a professor (who wasn't my supervisor)
Other: please indicate

37. With whom do you discuss your work the most?

With colleagues in my department / research group
With colleagues in Switzerland
With colleagues outside of Switzerland
With graduate students
With undergraduate students
With family, friends
Other: Please indicate

Work environment

38. How would you describe the general atmosphere in your department / research group? Please indicate on a scale from 1 to 4 to which extent the following adjectives describe the atmosphere in your department / research group (1 = strongly agree; 2 = agree; 3 = disagree; 4 = strongly disagree).

→ menu with scale for each adjective

Friendly
Supportive
Competitive
Motivating
Depressing
Oppressive

39. What incentives does your current department / research group give you in terms of publishing and further developing your research networks?

From the list below, check the two incentives that were especially helpful in your case.

If you have joined your current position less than a year ago, please answer the question with respect to the previous position you held.

→ menu

- Faculty research colloquium
- Reimbursement of conference expenses
- Possibility of taking a sabbatical leave
- Funds for buying books
- Work / research groups
- Support groups
- Organization of workshops
- Possibility to invite researchers for a research stay
- Other: please indicate

40. What kind of support to publish do you receive from members of your department / research group?

From the list below, check the two incentives that were especially helpful in your case?

If you have joined your current position less than a year ago, please answer the question with respect to the previous position you held.

→ menu

- Suggestions about conferences where you could present your work
- Suggestions of readings that could be useful for your research
- Offers to read and comment on your work
- Offers to discuss your work
- Offers to co-author a paper
- Offers to contribute to an edited volume
- Other: please indicate

41. What other elements do you see as decisive in terms of support for publications?

→ menu: open answer

42. In your opinion, how valued are the following elements in your department / research group?

Please rate their importance on a scale from 1 to 4 (1 = very unimportant; 2 = unimportant; 3 = important; 4 = very important)

- Publications in general
- Publications in peer-reviewed journals
- Contributions in the media
- Teaching
- Supervision of students
- Service to the department / research group

42. Do you have children?

43. If yes, how many?

44. For each child, please indicate their age:

45. Are there facilities provided by your institution with respect to childcare?

→ menu: yes / no

46. Do you make use of them?

→ menu: yes / no

47. If no, why do you not make use of them?

- I would like to but there is no space available for my child
- I can rely on other facilities
- Other: please indicate

Publications

48. As of today, how many peer-reviewed articles have you either published or how many articles have been accepted for publication?

→ menu: Numbers

49. Among which, how many articles have you published / have been accepted for publication in a Swiss journal?

50. Among which, how many articles have you published / have been accepted for publication in an international journal?

51. How many articles do you currently have under review for publication in a peer-reviewed journal?

52. How many books have you published?

53. How many books / special issues have you edited?

54. In which language (s) do you publish the most?

→ scroll down menu: German, French, Italian, English, other: please indicate

55. How satisfied are you with the number of your publications?

→ menu: very satisfied, satisfied, dissatisfied, very dissatisfied

56. If you are unsatisfied with the number of your publications: list the reasons why you are not satisfied.

57. How satisfied are you with the quality of your publications?

→ menu: very satisfied, satisfied, dissatisfied, very dissatisfied

58. If you are unsatisfied with the quality of your publications: list the reasons why you are not satisfied.

59. What are the principle obstacles that prevent you from publishing more?

→ open answer

60. What suggestions do you have to improve the level of publications of post-doctoral political scientists in Switzerland?

→ open answer

Additional information

61. We are also interested in learning more about the employment contracts offered at your institution. Thank you for listing the website addresses where information on this topic can be found.

Appendix 2: OFS data – Ph.D. socio-demographic profiles
(percentages)

Sex (N=97)	Female	51.0
	Male	49.0
Age (N=97)	28-30	18.2
	31-35	49.2
	36-40	14.2
	41-46	18.4
	Mean age = 34.85; sd=4.99	
Family situation (N=97)	Have children	31.0
	No children	65.9

DATA Source: OFS

Appendix 3: Wages at different post-doctoral positions

Appendix 3a: Université de Lausanne

Fonction	Classes	Salaire minimum avec 13e	Salaire maximum avec 13e	Augmentation annuelle avec 13e
Professeur ordinaire	HC5 +1.5%	163'564.90	195'046.60	3'149.25
Professeur associé	HC2	149'728.60	171'380.10	1'967.35
Professeur invité	HC2	139'894.10	171'380.10	1'967.35
Professeur remplaçant	HC1	139'894.10	164'960.25	1'967.35
professeur assistant	29-32	125'250.65	158'783.10	3'791.65
Maître d'enseignement et de recherche type 1	29-32	112'776.10	158'783.10	3'791.65
Maître d'enseignement et de recherche type 2	28-31	101'497.50	152'836.65	3'570.65
Maître assistant	28-31	101'497.50	152'836.65	3'570.65

Source

http://www.unil.ch/webdav/site/srh/shared/Lois_reglements/bare_me_enseignants_2014.pdf

Chercheur FNS senior (avec doctorat)	CHF
1ère année	82'558.00
2e année	84'997.00
3e année	87'435.00
4e année	89'873.00
5e année	92'312.00

Source

http://www.unil.ch/webdav/site/srh/shared/Lois_reglements/bare_me_chercheurs_FNS_2014.pdf

Rémunération

Assistants diplômés				Premiers assistants			
1 ^{ère} année	CHF	58'445.-	F. 1101	1 ^{ère} année	CHF	75'811.-	F. 1106
2 ^{ème} année	CHF	61'105.-	F. 1102	2 ^{ème} année	CHF	78'162.-	F. 1107
3 ^{ème} année	CHF	63'761.-	F. 1103	3 ^{ème} année	CHF	81'567.-	F. 1108
4 ^{ème} année	CHF	68'419.-	F. 1104	4 ^{ème} année	CHF	84'981.-	F. 1109
5 ^{ème} année	CHF	73'072.-	F. 1105	5 ^{ème} année	CHF	88'379.-	F. 1110

Source

http://www.unil.ch/webdav/site/srh/shared/Lois_reglements/Bare_me_assistants_2014.pdf

Appendix 3b: Universität Zürich

Lohnklasse / Lohnstufe	01	02	03	04	05	06	07	08	09	10	11	12	13	14
Lohnstufe 29	66'169	67'048	68'159	69'527	71'186	73'161	75'479	78'166	81'261	84'785	88'777	93'271	97'497	103'086
Lohnstufe 28	65'507	66'374	67'475	68'831	70'473	72'427	74'720	77'380	80'441	83'932	87'881	92'328	96'901	102'036
Lohnstufe 27	64'844	65'700	66'789	68'135	69'758	71'692	73'961	76'594	79'622	83'076	86'985	91'385	96'305	100'985
Lohnstufe 26	64'181	65'030	66'105	67'437	69'041	70'956	73'201	75'808	78'805	82'222	86'089	90'443	95'311	99'933
Lohnstufe 25	63'518	64'358	65'420	66'737	68'325	70'219	72'441	75'020	77'987	81'366	85'195	89'501	94'316	98'882
Lohnstufe 24	62'854	63'686	64'737	66'041	67'611	69'484	71'683	74'233	77'168	80'513	84'299	88'561	93'322	97'831
Lohnstufe 23	62'189	63'013	64'053	65'342	66'898	68'748	70'924	73'446	76'348	79'658	83'404	87'618	92'328	96'779
Lohnstufe 22	61'527	62'340	63'370	64'644	66'183	68'013	70'165	72'661	75'530	78'804	82'508	86'676	91'334	96'125
Lohnstufe 21	60'864	61'668	62'688	63'944	65'469	67'279	69'406	71'875	74'711	77'949	81'612	85'735	90'340	95'471
Lohnstufe 20	60'201	60'995	62'003	63'246	64'753	66'544	68'648	71'087	73'894	77'094	80'717	84'792	89'348	94'421
Lohnstufe 19	59'537	60'322	61'318	62'547	64'037	65'808	67'889	70'298	73'075	76'238	79'821	83'849	88'355	93'371
Lohnstufe 18	58'874	59'650	60'635	61'851	63'321	65'074	67'130	69'512	72'256	75'383	78'926	82'907	87'363	92'320
Lohnstufe 17	58'210	58'977	59'950	61'154	62'606	64'338	66'370	68'726	71'437	74'529	78'029	81'965	86'371	91'270
Lohnstufe 16	57'436	58'193	59'152	60'340	61'774	63'480	65'484	67'809	70'482	73'532	76'984	80'866	85'212	90'043
Lohnstufe 15	56'661	57'408	58'354	59'525	60'940	62'621	64'596	66'892	69'526	72'535	75'939	79'767	84'052	88'816
Lohnstufe 14	55'887	56'624	57'556	58'711	60'106	61'763	63'712	65'973	68'571	71'538	74'894	78'669	82'893	87'591
Lohnstufe 13	55'114	55'838	56'759	57'895	59'270	60'905	62'827	65'056	67'616	70'541	73'848	77'571	81'733	86'365
Lohnstufe 12	54'339	55'055	55'962	57'081	58'438	60'048	61'939	64'137	66'662	69'543	72'804	76'471	80'575	85'139
Lohnstufe 11	53'562	54'271	55'163	56'266	57'604	59'189	61'053	63'219	65'708	68'545	71'760	75'371	79'415	83'912
Lohnstufe 10	52'790	53'485	54'364	55'451	56'770	58'332	60'168	62'301	64'753	67'549	70'713	74'273	78'255	82'686
Lohnstufe 09	52'016	52'699	53'564	54'636	55'935	57'474	59'284	61'384	63'798	66'552	69'667	73'174	77'095	81'459
Lohnstufe 08	51'243	51'915	52'769	53'822	55'101	56'618	58'399	60'466	62'843	65'555	68'623	72'077	75'937	80'234
Lohnstufe 07	50'468	51'129	51'972	53'009	54'266	55'760	57'512	59'546	61'887	64'557	67'580	70'977	74'778	79'008
Lohnstufe 06	49'694	50'346	51'173	52'195	53'431	54'902	56'628	58'630	60'933	63'559	66'535	69'879	73'619	77'782
Lohnstufe 05	48'920	49'563	50'375	51'382	52'596	54'044	55'741	57'713	59'980	62'561	65'489	68'779	72'462	76'556
Lohnstufe 04	48'146	48'778	49'579	50'567	51'762	53'184	54'855	56'795	59'026	61'564	64'443	67'680	71'302	75'330
Lohnstufe 03	47'371	47'994	48'781	49'752	50'927	52'324	53'970	55'876	58'070	60'566	63'396	66'581	70'142	74'104
Lohnstufe 02	46'599	47'210	47'983	48'938	50'093	51'467	53'083	54'960	57'115	59'569	62'352	65'483	68'982	72'878
Lohnstufe 01	45'826	46'425	47'184	48'123	49'259	50'611	52'196	54'043	56'160	58'571	61'307	64'383	67'823	71'651
Anlaufstufe A1	44'226	44'823	45'585	46'493	47'591	48'896	50'427	52'205	54'249	56'579	59'217	62'185	65'504	69'199
Anlaufstufe A2	42'621	43'199	43'932	44'836	45'923	47'180	48'655	50'367	52'338	54'583	57'125	59'988	63'185	66'746

Source

<http://www.pa.uzh.ch/Vorgesetzte/ma2/Lohnbeitraege/Lohnuebersicht2014.pdf>

Richtposition	Lohnklasse/ Lohnstufe	Bedingung für die Einreihung in die einzelnen Klassen
Assistierende / Postdoktorierende	17/03	<p>Allgemein:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Anstellung befristet <input type="checkbox"/> 3 Jahre als Regel <p>Verlängerungsmöglichkeit bis max. 6 Jahre (§ 14 PVO/UZH). Die Jahre als Doktorierende, Assistierende und Postdoktorierende werden addiert, unabhängig von der Finanzierungsquelle.</p> <p>Assistierende: Grundeinreihung mit Hochschulabschluss/Master jedoch ohne Promotion (Doktorat). Als Einstiegssalär gilt immer die Lohnstufe 03, unabhängig von allfälligen Berufsjahren. Für diese Einstufungen werden ab dem 1. Januar 2014 <u>keine Berufsjahre mehr angerechnet.</u></p> <p>Eine Überführung von Kl. 17 in Kl. 18 erfolgt, sobald die Promotionsurkunde (Doktorat) oder eine vorläufige Bescheinigung des Dekanats vorliegt. Die Überführung wird jeweils auf den nächstfolgenden Monat vorgenommen und erfolgt nach dem System plus eine Klasse, minus zwei Stufen. 17 / 03 = 18 / 03 (Ausnahme weil Grundeinreihung) 17 / 04 = 18 / 03 (Ausnahme weil Grundeinreihung) 17 / 05 = 18 / 03 17 / 06 = 18 / 04 etc.</p>
	18/03	<p>Postdoktorierende: Grundeinreihung mit Hochschulabschluss/Master und Promotion (Doktorat).</p> <p>Bei einem Neueintritt gilt als Einstiegssalär immer die Lohnstufe 03, unabhängig von allfälligen Berufsjahren als Assistierende und Postdoktorierende. Für diese Einstufungen werden ab dem 1. Januar 2014 <u>keine Berufsjahre mehr angerechnet.</u></p>

...

Richtposition	Lohnklasse/ Lohnstufe	Bedingung für die Einreihung in die einzelnen Klassen
Oberassistentierende	19/03	Grundeinreihung mit Hochschulabschluss und mit Promotion (Doktorat), eventuell erhöhte Verantwortung, mehr als 2 unterstellte Mitarbeitende, besondere Sachverantwortung oder Aufgaben z.B. Stellvertretung einer oder eines Vorgesetzten oder - als Teilaufgabe - Leitung der Administration.
	20	Vermehrte Verantwortung als Kl. 19, z.B. mehr als 6 unterstellte Mitarbeitende.
	21	<p>Besondere Umstände (Ausnahmeregelung).</p> <p>Allgemein:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Anstellung befristet <input type="checkbox"/> 6 Jahre als Regel <input type="checkbox"/> Verlängerungsmöglichkeit bis max. 9 Jahre (§14 PVO/UZH) für die gesamte OA-Zeit <p>Oberassistentierende in Kl. 19, welche die Habilitation (venia legendi) erhalten, werden in die Kl. 20 überführt (eine Kopie der venia legendi muss vorliegen). Die Überführung wird jeweils auf den nächstfolgenden Monat vorgenommen und erfolgt nach dem System plus eine Klasse, minus zwei Stufen.</p> <p>Bei einem Neueintritt gilt als Einstiegssalär immer die Lohnstufe 03, unabhängig von allfälligen Berufsjahren. Für diese Einstufungen werden ab dem 1. Januar 2014 <u>keine Berufsjahre mehr angerechnet.</u></p>

...

Richtposition	Lohnklasse/ Lohnstufe	Bedingung für die Einreihung in die einzelnen Klassen
Habilitierte Oberassistierende (venia legendi)	20/03	Grundeinreihung mit Habilitation (venia legendi), ev. höhere Verantwortung (mehr als zwei unterstellte Mitarbeitende besondere Sachverantwortung oder Aufgaben, Stellvertretung einer oder eines Vorgesetzten oder - als Teilaufgabe - Leitung der Administration).
	21	Vermehrte Verantwortung als in Kl. 20.
	22	Besondere Umstände (Ausnahmeregelung) Allgemein: <input type="checkbox"/> Anstellung befristet <input type="checkbox"/> 6 Jahre als Regel <input type="checkbox"/> Verlängerungsmöglichkeit bis max. 9 Jahre (§14 PVO/UZH) für die gesamte OA-Zeit Bei einem Neueintritt gilt als Einstiegssalär immer die Lohnstufe 03, unabhängig von allfälligen Berufsjahren. Für diese Einstufungen werden ab dem 1. Januar 2014 keine Berufsjahre mehr angerechnet.
Oberassistierende Ambizione SNF	20/03	
Wissenschaftliche Mitarbeitende (gilt auch für Human-, Zahn- und Veterinärmedizin)	18 - 20	Grundeinreihung nach Hochschulabschluss Kl. 18/03 Eine höhere Einreihung erfolgt anhand der Stellenbeschreibung durch die Abteilung Personal. Allfällige Berufsjahre werden entsprechend angerechnet. Allgemein: <input type="checkbox"/> Anstellung unbefristet
Wissenschaftliche Abteilungsleitungen (gilt auch für Human-, Zahn- und Veterinärmedizin)	21 - 23	Die Einreihung erfolgt anhand der Stellenbeschreibung durch die Abteilung Personal. Allfällige Berufsjahre werden entsprechend angerechnet. Allgemein: <input type="checkbox"/> Anstellung unbefristet

Source

<http://www.pa.uzh.ch/Vorgesetzte/ma2/Lohnbeitraege/EinreihungsrichtlinienwissenschaftlFunktionenAb2014.pdf>

Appendix 4: Supplementary tables for academic support

Appendix 4: Table 13 on academic support including only those respondents who marked more than two items (percentage)

The two most important forms of support ...

... Offers to read and comment on work	76.9
... Offers to discuss work	76.9
... Offers to co-author paper	69.2
... Suggestions about readings	80.8
... Suggestions about conferences	80.8
... Offers to contribute to edited volume	23.1
	N=26

Appendix 4a: Table 13a on academic support by sex of the respondent including only those respondents who marked more than two items (percentage)

	Female	Male	Total
The two most important forms of support ...			
... Offers to read and comment on work	62.5	83.3	76.9
... Offers to discuss work	75.0	77.8	76.9
... Offers to co-author paper	62.5	72.2	69.2
... Suggestions about readings	75.0	83.3	80.8
... Suggestions about conferences	75.0	83.3	80.8
... Offers to contribute to edited volume	12.5	27.8	23.1
	N=8	N=18	N=26

Appendix 4b: Table 13b on academic support by academic age including only those respondents who marked more than two items (percentage)

	First 3 years	More than 3 years	Total
The two most important forms of support ...			
... Offers to read and comment on work	78.3	66.7	76.9
... Offers to discuss work	78.3	66.7	76.9
... Offers to co-author paper	69.6	66.7	69.2
... Suggestions about readings	82.6	66.7	80.8
... Suggestions about conferences	82.6	66.7	80.8
... Offers to contribute to edited volume	21.7	33.3	23.1
	N=23	N=3	N=26

Note: Bold to highlight adjusted residuals above +/- 1.96

Appendix 4c: Table 13c on Academic support by region including only those respondents who marked more than two items (percentage)

	Zurich	German speaking	French speaking	Total
The two most important forms of support ...				
... Offers to read and comment on work	85.7	57.1	100.0	79.2
... Offers to discuss work	78.6	71.4	66.7	75.0
... Offers to co-author paper	78.6	71.4	33.3	70.8
... Suggestions about readings	71.4	100.0	66.7	79.2
... Suggestions about conferences	78.6	71.4	100.0	79.2
... Offers to contribute to edited volume	28.6	14.3	33.3	25.0
	N=14	N=7	N=3	N=27

Note: Bold to highlight adjusted residuals above +/- 1.96

Appendix 5: Supplementary tables for incentives for publications and networking

Appendix 5: Table 14 on incentives for publication and networking including only those respondents who marked more than two items (percentage)

Most useful incentives (2 most important) ...	
... Reimbursement of conference expenses	100
... Faculty research colloquium	66.7
... Opportunity to take a sabbatical leave	26.7
... Funds to buy books	53.3
... Possibility to invite researchers for a research stay	56.7
... Work / research groups	40.0
... Organization of workshops	73.3
... Support groups	3.3
	N=30

Table 14a: Incentives for publication and networking by sex of the respondent including only those respondents who marked more than two items (percentage)

	Female	Male	Total
Most useful incentives (2 most important) ...			
... Reimbursement of conference expenses	100	100	100
... Faculty research colloquium	14.3	31.8	25.0
... Opportunity to take a sabbatical leave	8.3	43.8	28.6
... Funds to buy books	50.0	56.3	53.6
... Possibility to invite researchers for a research stay	50.0	56.3	53.6
... Work / research groups	41.7	43.8	42.9
... Organization of workshops	58.3	81.3	71.4
... Support groups	-	6.3	3.6
	N=12	N=16	N=28

Note: Bold to highlight adjusted residuals above +/- 1.96

Table 14b: Incentives for publication and networking by academic age including only those respondents who marked more than two items (percentage)

	First 3 years	More than 3 years	Total
Most useful incentives (2 most important) ...			
... Reimbursement of conference expenses	100	100	100
... Faculty research colloquium	76.2	44.4	66.7
... Opportunity to take a sabbatical leave	19.0	44.4	26.7
... Funds to buy books	52.4	55.6	53.3
... Possibility to invite researchers for a research stay	52.4	66.7	56.7
... Work / research groups	57.1	-	40.0
... Organization of workshops	85.7	44.4	73.3
... Support groups	4.8	-	3.3
	N=21	N=9	N=30

Note: Bold to highlight adjusted residuals above +/- 1.96

Table 14c: Incentives for publication and networking by region including only those respondents who marked more than two items (percentage)

	Zurich	German speaking	French speaking	Total
Most useful incentives (2 most important) ...				
... Reimbursement of conference expenses	100	100	100	100
... Faculty research colloquium	68.8	85.7	40.0	67.9
... Opportunity to take a sabbatical leave	25.0	28.6	20.0	25.0
... Funds to buy books	50.0	42.9	80.0	53.6
... Possibility to invite researchers for a research stay	56.3	42.9	80.0	57.1
... Work / research groups	31.3	57.1	40.0	39.3
... Organization of workshops	81.3	57.1	60.0	71.4
... Support groups	6.3	-	-	3.6
	N=16	N=7	N=5	N=28

Note: Bold to highlight adjusted residuals above +/- 1.96

