Belgian geographers at work: the occupations of graduates in 1999

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under the auspices of the Belgian National Committee of Geography

ABSTRACT
This article presents the first results of a survey on the occupations of geographers, conducted by the Belgian National Committee of Geography. Among those who graduated in geography from Belgian universities between 1970 and 1998, 47% now teach in secondary or higher education, 47% are employed elsewhere, 5% do not work and are currently not looking for a job and only 1% are registered as unemployed. Recently, the proportion of people employed outside education has strongly increased. Geographical studies lead hardly ever to unemployment.

KEY WORDS: Belgian geographers, Belgian National Committee of Geography, occupations of geographers

RÉSUMÉ
L'article présente les premiers résultats d'une enquête relative à l'emploi des géographes, menée sous les auspices du Comité National Belge de Géographie. Parmi les diplômés en géographie issus des universités belges entre 1970 et 1998, 47% sont aujourd'hui occupés dans l'enseignement secondaire ou supérieur, 47% travaillent dans un autre secteur, 5% n'ont aucune occupation professionnelle et ne recherchent actuellement pas d'emploi et 1% seulement sont inscrits comme demandeurs d'emploi. Ces derniers temps, le nombre de diplômés employés hors enseignement a fortement augmenté. Les études de géographie débouchent rarement sur une situation de chômage.

MOTS-CLÉS: géographes belges, Comité National Belge de Géographie, emplois des géographes

INTRODUCTION

The Belgian National Committee of Geography has conducted a survey to understand the role geographers play in Belgian society. The aim was to know the occupational profile of geography graduates. These few lines of comment present a first and brief outline of the first survey on the professional occupation of geography graduates at the national scale.

At the time of writing, only general information on occupation is available from this survey. However, some universities have held surveys of their own graduates on the topic. The Université Catholique de Louvain (UCL) conducts a survey of its graduates every five years since 1983 (Beguin, 1983, 1988, 1993 and 1997). In 1988, the Katholieke Universiteit Leuven (KULeuven) conducted a survey of all its graduates since 1937 (Depuydt, 1988). Finally, the Vereniging Leraars Aardrijkskunde (Flemish Association of Geography Teachers) made a survey of graduates of all three Flemish universities with a geography curriculum (Leuven, Ghent and Brussels) in 1994. It concerned the graduates since 1980 (Saey & Vandewalle, 1996). These three surveys offer interesting opportunities for comparison.(1)

Inspired by the five-yearly survey by the Geography Department of the UCL, the questionnaire has been kept brief and simple. It has been presented to every graduate in geography (licentiate) from a Belgian university between 1970 and September 1998. The postal questionnaires have been sent to the graduate's last known address in the second half of 1999.

Disparities between response rates for every university are large. Table 1 shows the number of valid responses by number of questionnaires sent. Of the 2,263 questionnaires sent, 1,480 or 65% were filled in and returned. The extreme high score of the UCL (a 97% response rate) can be attributed to the survey tradition established by Beguin (every five years since 1983), as well as to the numerous verifications of the addresses file conducted by the author. Two other universities are notable for their response rate higher than average: the VUB (83%) and the RUG (75%). The first case can be related to the relative small number of students. This can presumably generate a greater attachment to the institution and a higher inclination to answer. The low response rate at the KULeuven is partially due to the late posting of the questionnaires and consequently the limited time to answer. Moreover, there was no time to send a reminder to non-respondents. The poorest rate in the ULg, despite reminders to non-respondents is probably due to the fact that the questionnaire was not sent with a personal letter, but included in the bulletin of the Liège geography alumni.

We will not correct for the different response rates since we don't know anything about the non-responding group at this point. Consequently, the tables only reflect the occupational situation of those who did respond. We can not exclude that the response rate will vary according to the respondent's occupation or gender, and that a certain bias will be observed for subclasses of respondents. Notwithstanding these caveats, we can consider the data as a fairly reliable sample of the geography graduates on two grounds. On the one hand, the total response rate and the absolute number of graduates involved are high and on the other hand, the average results over all universities are generally very similar to those obtained in the previous partial surveys.

University	Number of responses	Number of graduates	Response rate
ULB	128	185	69 %
ULg	185	435	42 %
UCL	302	312	97 %
VUB	116	164	83 %
RUG	410	550	75 %
KULeuven	339	617	55 %
Total	**1,480**	**2,263**	**65 %**

Table 1. Number of responses and response rate by university

Each of the 1,480 respondents gave some general information (year of graduating, gender, university attended) and some specific information on the present occupation (type of occupation codified in 4 categories). Information on additional studies and the orientation (towards physical or social geography) of the licentiate's thesis has not been collected uniformly by all universities. Elaborate information on this topic can be found in the four papers by Beguin for the UCL graduates.

A RAISING MALE RATE AMONG THE STUDENTS

A first observation concerns the raising male/female rate. Nowadays, male students are in the majority, whereas in the seventies, they were just less than the female students. Their share has consequently risen over time (Figure 1), going together with a continuing decrease of employees in the educational sector (see below).

The average over all universities of 52% male graduates conceals great disparities between the six universities. There is a strong representation of men at the Dutch speaking universities as opposed to the French speaking universities. Especially the UCL, and to a lesser extend the ULB, appeared to be female strongholds in the 1970s. Depuydt observed in 1988 a growing percentage of female graduates among the Flemish geographers and a diminishing number in the French community. This trend towards convergence is confirmed by this survey.

A DECLINING DOMINANCE OF EDUCATIONAL OCCUPATIONS

Beguin (1997) observed no significant relationship between gender and type of occupation or orientation of licentiate's thesis at the UCL. Depuydt and Saey did find an over-representation of women in education outside university and of men in other sectors. The numerical preponderance of women in education seemed to be related to an important presence in part-time jobs.

The national survey shows equally a limited preponderance of women in education, while in other sectors, men clearly outnumber women (Table 2). When one takes a closer look at different types of education, women work predominantly in

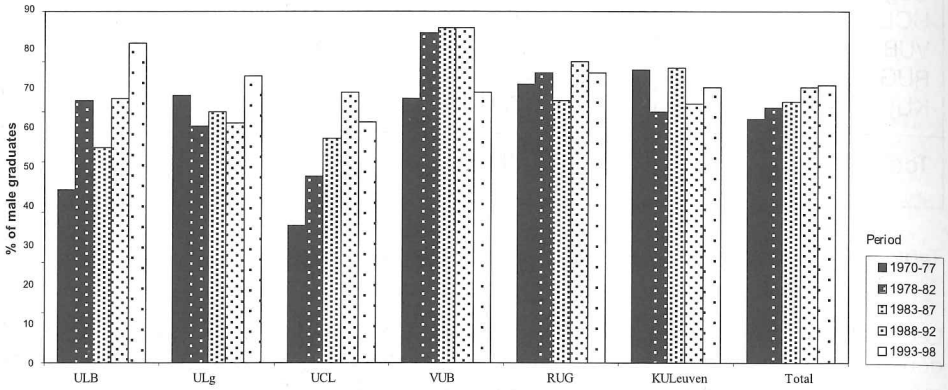

Figure1. Share of male licentiates in geography by year of graduating and university (%).

secondary schools and teachers' training colleges. Men are in the majority in continuous education institutions, higher education and especially universities. Part-time work in secondary education seems to explain this pattern: 21% of the teachers in secondary schools are part-time working women (part-time is here defined as less than 80% of a full-time).

Employment is on the average nearly equally divided between education and 'other sectors'. The disparities between universities are however relatively large. But given the variation in response rate, one has to be careful in the interpretation. Indeed, one could expect teachers to produce a higher response rate, because they tend to maintain their ties with their university through Geography Teachers Associations and regular training programs organised by the university.

Among the graduates working in education, most are teachers in secondary schools. Another 13% teach or work in research at the university. Polytechnics and teachers training colleges employ an equal share of geographers, while con-

	% women	Total
Secondary schools	54.0	72.3
Teachers' training colleges	55.6	6.6
Polytechnics	37.3	6.1
Universities	32.2	13.0
Continuous education	46.7	2.0
Total in education	**50.1**	**100.0**
Total in other sectors	**42.5**	

Table 2. Share of female teachers by school level

tinuous education employs only 2%.
Depuydt and Saey used a further division of occupation. They differentiate jobs in university education, non-university education, academic research, the private sector and the public sector.
In 1988, 60% of the KULeuven graduates were employed in non-university education, 8% were in academic research, 11% worked in the public sector and 21% in the private sector. In the latter category, geographers found more specifically their way to banks and insurance companies, the commercial sector and information technology.
In 1994, 37% of the Flemish geographers graduated since 1980 were working in non-university education, 7% were working at the university, 16% in the public sector and 36% in the private sector. Compared with the former survey, fewer people are employed in education and more people seem to turn to the private and public sector. Interestingly, this survey made clear that employment conditions in education are very differentiated. Thirty-one out of the 85 responding teachers were only doing a part-time job, while only 20 deliberately chose for it. Only 60% were teaching at one and the same school, 30% at two schools, 10% at 3 or 4 schools. A mere 15% was teaching exclusively third grade pupils and less than half of all respondents were exclusively teaching geography.
But the present survey allows a clearer insight in the changes over time. Figure 2 shows the change of occupation type according to the year of graduating for those employed.

Sixty-five percent of the geographers graduated between 1970 and 1976 are working in education, against only 25% of those graduated between 1988 and 1992, or less than half as much.[2] These results correspond with the findings of Beguin for the UCL (1983, 1988, 1993 and 1997) and of Depuydt (1988) and Saey (1994). This shift in occupation is related to the increasing numbers of geography graduates undertaking further studies. Among recently graduated geographers, 36% work in education, a small increase that could be related to the growing demand for teachers.[3] Finally, outside education, 72% of the respondents have a permanent position, 16% have a temporary contract, 11% are self-employed and 1% work as trainees.

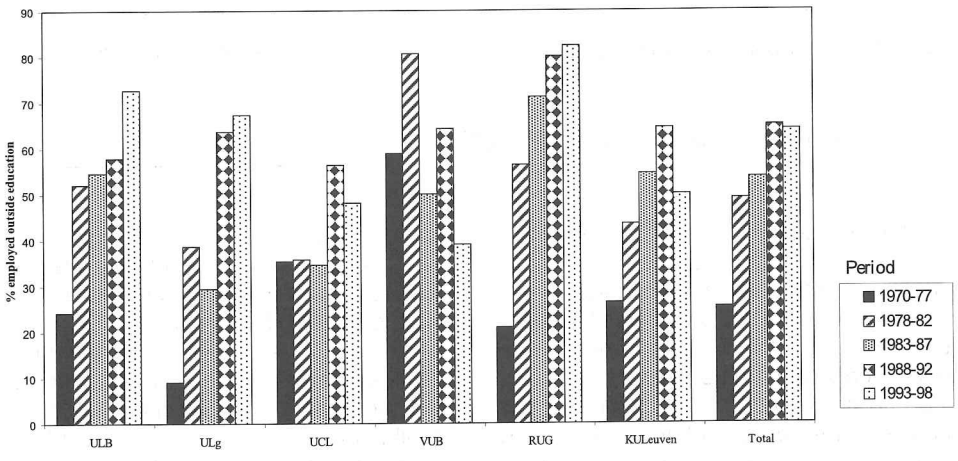

Figure 2. Share of graduates employed outside education by year of graduation and university (in % of employed graduates)

VERY LOW INACTIVITY RATES

Table 3 presents the categories of occupation by university. Only 1.6 % of the respondents are currently looking for a job. Three quarters of them are registered as unemployed. Moreover, less than 5% are not looking for a job. This means that almost 94% of the respondents are employed. One could expect that the unemployed could be less inclined to respond to a questionnaire asking for current occupation, but the case of the UCL, with a 97% response suggests this would not dramatically change the results. The rate of non-working graduates is relatively high for this university, but it can be related to the predominance of female graduates (see Figure 1) and the fact that economic inactivity is related to domestic work. Overall, two thirds of the inactive graduates are female. The rate of jobseekers and non-working graduates is also higher for recent graduates. Nearly half of the jobseekers are young and probably in search of a first job. Six out of ten non-working graduates are also young. The most obvious reason for this situation is further learning. Indeed all graduates in geography were surveyed, not only those who are available on the labour market. The rates of inactivity are generally somewhat higher for the French than for the Dutch speaking universities, reflecting the regional economic disparities between the regions. Nevertheless, and contrary to ideas in public opinion, the unemployment figures are very low. This has also consistently been shown in the previous surveys.

	occupation	jobseeking	non working	Total
ULB	98.4	0.8	0.8	100.0
ULg	91.4	4.9	3.8	100.0
UCL	86.4	2.3	11.3	100.0
VUB	92.2	0.9	6.9	100.0
RUG	94.9	1.5	3.7	100.0
KULeuven	97.9	0.3	1.8	100.0
Total	93.5	1.7	4.8	**100.0**

Table 3. Occupation and unemployment of geography graduates by university

THE SPECIFICITY OF EACH UNIVERSITY

In order to visualise the main results of this survey, a principal correspondence analysis was conducted on a contingency table, where the columns represent respectively male and female occupations in education and the other sectors (jobseeking and non working were eliminated because of the low absolute values), and where the rows represent each university for each considered period. The resulting diagram shows the over- or under-representation of each university in the four gender/job sectors and the changes over time.[4] For the sake of clarity the French and Dutch speaking universities are plotted on separate diagrams.

The centre of the diagrams corresponds to the average profile of all university graduates in terms of gender and job type. Equally, a gender/job category would be projected in the centre if it would draw graduates in the same proportions as all the respondents are distributed among universities and periods. The more a uni-

versity departs from this equal distribution in a certain period, the further it will be placed from the centre. Universities with a similar gender and job type profile of their graduates in a certain period, will be placed close to each other. The same applies to the four gender/job categories. Finally, gender/jobs categories and universities are placed in a same direction relative to the centre of the diagram if they show a joint over-representation.

The results appear to fit in the general knowledge about geographers' employment and can easily be interpreted and explained. However, since the survey did not cover the whole population, these patterns of change in the geographers' employment could be qualified by further research, especially about the non respondents (at least their university, period of graduation and gender can be traced back).

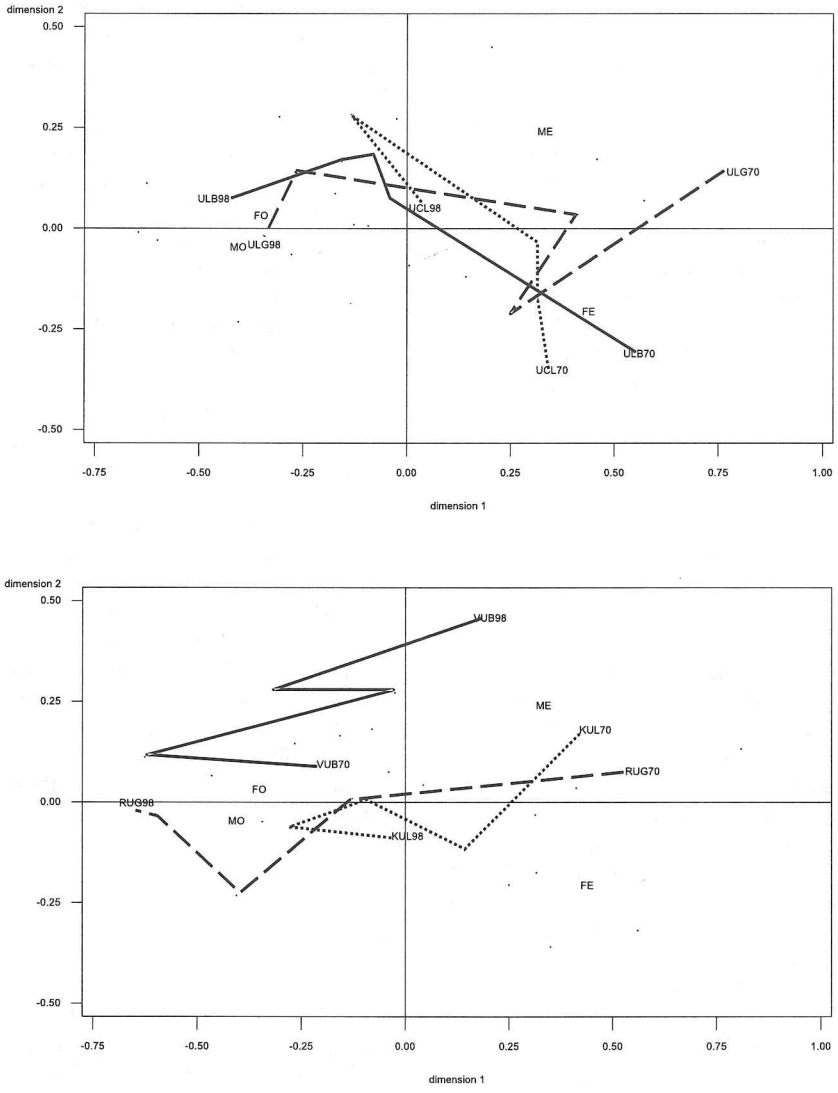

Figure 3. Correspondence analysis: plot diagrams of universities and gender/job categories on the first two dimensions

The first two dimensions visualise 90.4 % of the total inertia of the contingency table, or in other words, most of the divergences between the equal and the actual distribution of graduates over periods/universities and gender/job categories. They are easily interpreted. Indeed, the horizontal axis separates jobs in education (ME for males in education and FE for females in education) form jobs in other sectors (MO and FO). The vertical axis, which accounts for only 13.3% of the inertia, separates men and women in education (ME and FE). The both sexes do not show large profile differences when they work in other jobs.

The lines link the positions of each university in the different periods. They show the general trend towards more occupations outside education. The former dominance of female students in the French universities is also expressed in their path from the lower right to the upper left corner. The ULG had more male graduates in the 1970s. than the others and starts in the upper right corner, but joins a similar path to the ULB one. The UCL, starts the masculinisation movement much later, and returns towards the centre of the graph in the 1990s, reflecting a return to more employment in education. Exactly the same return appears at the KULeuven. This is the result of recent teachers shortage in secondary schools. But it particularly affects both catholic universities for two reasons. Catholic schools are in the majority in both communities and both universities recruit their students from the whole French and Dutch speaking areas of the country, while the others have a more local recruitment area. As a result, both universities are probably more sensitive to the teachers shortage than the others.

But the most striking exception to the general pattern is the VUB. In the 1970s it had a relative over-representation of graduates working outside education, but today it shows the strongest overrepresentation of male teachers. This could be explained by the fact that the VUB is rather a young university and that its graduates didn't enjoy the same advantages in looking for a teachers job as the others. Gradually, however, the VUB graduates made their way in the schools.

Finally the length of the path segments on the diagrams discloses the periods of important shifts in the occupation of geography graduates. In most cases, it concerns the shift towards occupations outside education between the first and the second period (1970-77 and 1978-82). The change is simultaneous with an increase in the total number of geography graduates on the one hand and with the strongest effects of the economic crisis on employment in general and on the stability and the financial conditions of teaching jobs on the other hand. Thus the students who graduated in this period had to make their way in new job market niches and tended to undertake additional studies in other discipline to enhance their qualifications. They paved the way for the younger generations.

Notwithstanding the caveats about the sample, the more general results of the survey can be accepted with some confidence. We can summarise them as follows. We keep in mind (1) a growing share of male graduates in geography, (2) a limited predominance of women in education, and a strong predominance of men in other sectors, (3) the quasi absence of unemployment. Furthermore we showed (4) a strong rise of employment outside education, (5) a strong resemblance in results for this study and the former surveys ad finally, (6) only slight differences between the universities, except for the VUB and the UCL.

NOTE

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[1] Geography is taught in six universities in Belgium. Three are French speaking universities and three are Dutch speaking universities. In each community there is a state university (respectively Université de Liège (ULg) and Universiteit Gent (RUG), a free university (both in Brussels: Université Libre de Bruxelles (ULB) and Vrije Universiteit Brussel (VUB) and a Catholic university (Université Catholique de Louvain (UCL) and Katholieke Universiteit Leuven (KULeuven). Until 1970 their was only one bilingual Catholic university, located in the city of Leuven. When the university was split, the French university was established in Louvain-la Neuve, a new town built for this purpose in the Walloon region. There is also an undergraduate program at the Facultés Notre-Dame de la Paix in Namur, but all their students move to one of the six others to obtain their graduate degree (licence in geography).

[2] Fourty-one graduates with several jobs in and outside education were classified as working in education.

[3] Of course this represents the present-day jobs. The trend includes both new types of jobs for younger graduates and movements between the job sectors for older graduates. Through comparison with Beguin's survey, one can even show recent shifts towards teaching jobs for older generation graduates at the UCL, probably as a consequence of the teachers shortage in the schools.

[4] For a methodological presentation of correspondence analysis, see Greenacre & Blasius, 1994.

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