

Educational and occupational progression – following graduates from the University of Warsaw

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The paper presents a methodology for the study of outcomes following graduation. The methodology allows a comprehensive evaluation of graduate educational and career progression by analysis of multiple sources: administrative data, panel surveys and qualitative research. These sources are integral to the research framework created for the study *Monitoring the fate of university graduates outcomes using administrative data from Social Insurance Institution records*. The system offers low cost employment monitoring of graduates. The application of information from administrative records to social research is of particular interest. The approach, commonly used in Scandinavian countries, is new to Poland. The methodology is demonstrated by following the employment and further study of University of Warsaw graduates.

KEYWORDS: graduate outcomes, panel survey, qualitative research, administrative registers, University of Warsaw, Social Insurance Institution.

The labour market in Poland is changing dynamically, accompanied by discussion about corresponding adaptive change to the education system. The time at which the system outcome becomes evident occurs when 'the learning process is completed and graduates enter the labour market. Difficulty finding a first job is generally regarded

as a dysfunction of the education system, but may also result from improper flow of information about graduate preferences and skills in addition to labour market expectations (Szafranec, 2011). Systematic provision of reliable information about the situation of graduates may improve communication, stimulating mutual adaptation between the educational system and the labour market.

For a long time, little interest has been directed to the fate of Polish graduates and the issue has been studied sporadically – usually the result of individual institutional initiatives in Higher Education (HE) or included in specialised research. Currently, the significance of graduate outcomes is seen as an important factor in evaluation leading

This study was part of the project *Monitorowanie losów absolwentów uczelni wyższych z wykorzystaniem danych administracyjnych ZUS* (Monitoring the fate of university graduates' outcomes using administrative data from Social Insurance Institution records), carried out by the Quality Evaluation Unit at the University of Warsaw, as part of the system level project "Quality and effectiveness of education – strengthening institutional research capabilities" executed by the Educational Research Institute and co-financed from the European Social Fund (Human Capital Operational Programme 2007–2013, Priority III High quality of the education system). This article was initially published in Polish in *Edukacja*, 128(3) 2014.

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ultimately towards improvement of the quality and adaptation of the range of courses offered by HE to meet the expectations of the labour market. This has stimulated research activity in this field. The problem, however, is that domination of surveys conducted using different methodologies (see Ćwiąkańska, Hojda and Ostrowska-Zakrzewska, 2010) results in difficulties in the comparison of their findings. Research so far has not yielded reliable data for the comparison of the quality of education offered by various educational institutions – notably with respect to HE.

This article presents the findings of a study carried out by the Quality Evaluation Unit at the University of Warsaw (*Pracownia Ewaluacji Jakości Kształcenia Uniwersytetu Warszawskiego*, PEJK UW), commissioned by the Educational Research Institute. The principal objective of the work was to develop and test a methodology for monitoring graduate outcomes using means which permit comparison results. Methodology was therefore developed to allow its universal application to graduates from Polish universities. As part of this project, UW graduates were monitored in accordance with the methodology developed.

Methodology

The main features of the study were effective use and the merging of different sources of information: administrative registers, data collected specifically for this project from panel surveys and qualitative research. This allowed comprehensive assessment of the educational and career paths followed by university graduates, identification of the variation in such paths, and most importantly, success factors for the labour market. A single narrow definition of a successful career was avoided. A study based on information from records should interpret stable employment and level of pay as indicators of success. Opinion surveys should relate assessment to study subjects; therefore, success at this stage

was defined as finding a job after graduation which was judged by the employee to be satisfactory.

Each source of information required a specific approach to both data collection and analysis. Methods for each research approach applied during the study are described below.

Examination of registers

Data on outcomes were drawn from the records of the On-line Candidates Registration (*Internetowa Rejestracja Kandydatów*, IRK) and the University Study-Oriented System (*Uniwersytecki System Obsługi Studiów*, USOS). The data concerned those enrolled at the University of Warsaw in the years 2007–2010. The merging of information from both registers allowed tracking of individual learning paths from recruitment, through the credits obtained for courses or stages leading to the degree and continuation of study in other subjects at UW.

The purpose of the analysis of administrative data obtained from the Social Insurance Institution (SII) was to provide a reliable and fact-based description of the career history of UW graduates. The data were used to develop indices to describe the career paths of respondents during the 60 months covered by the analysis. In each analysed month, graduates could be monitored according to state social insurance premiums paid. This allowed determination of how the employment status and wages of these people varied.

Social Insurance Institution provided data to the PEJK UW for a random test sample of 2 000 graduates from the University¹ in a form which disallowed linkage to individual educational history. Five hundred individuals in the sample were graduates of first

¹ It was a dependent random sample of awards from UW. People who obtained more than one award in years 2007 and 2008 could be chosen more than once. There were two people in the sample who were chosen twice. Therefore, there were 1998 distinct PESEL numbers on the list.

degree courses and the remaining 1 500 had graduated from uniform master's or second degree studies.

Since the identification data were removed, it was not possible to determine which courses had been completed, or in which mode they had studied. However, the degree course is a key variable in terms of analysis. A large proportion of those who complete first degree studies generally continue with second degree courses, while graduates with second degrees and uniform master's rarely continue their education further. This is not without significance to their careers, so it was important to account for the type of final degree. Therefore, for the purpose of the analysis, the group was divided into first degrees and second degrees plus uniform master's. This estimation was restricted to available data on graduates' year of birth.

Panel opinion survey

The primary objective of the panel survey was to obtain a dynamic analysis of UW graduate opinions about syllabi and the relevance of knowledge acquired during studies to their job searches. The measurement was in two phases, the first upon obtaining the degree and the second 6 months later. The survey was voluntary and it was conducted online. The scope of the questions in the first and second measurements was not the same. In the first measurement greater emphasis was placed on the course and in the second, the section about the work situation of graduates was expanded. Using this approach it was possible to determine how experience had influenced opinions, especially when in contact with the labour market shortly after graduation.

For the first measurement, respondents received individual email invitations. Out of 13 843 emails, 13 557 reached the UW graduate mailboxes. Fifty one graduates refused to take part and the questionnaire was completed by 1896 people. The response rate of the

survey was 14%. In the second measurement, invitations were sent to those who had responded to the first. Six hundred and eight UW graduates continued to participate.

Qualitative research

Qualitative methods are often used in research for issues related to education, because they help researchers identify and understand the "real world of study subjects". They help to generate ideas, concepts or hypotheses, thereby supporting studies using other methods. Qualitative methods tend to focus on elucidating the meaning of phenomena in the way subjects perceive them, whereas quantitative methods allow estimation of the scale and may suggest causes and allow predictions (Jasiński and Kowalski, 2007).

The qualitative part of the study included in-depth and focus group interviews. In-depth interviews allowed establishment of individual motivation, and to clearly understand the respondent's point of view and rationale. Direct conversation allows the opportunity to follow the reasoning of the subjects and to explore their ideas, views and reasons, which, while not usually revealed shape human attitudes and behaviour.

Group discussions helped to explain the social aspect of the study. They allowed factors and the most convincing elements of graduate opinions and attitudes to be recorded. By observing the interaction between participants, it was possible to reconstruct aspects of the decision-making process affected by social reconciliation and adaptation of attitudes and opinions. These aspects were of key importance in the case of students who "borrowed" the opinions of their colleagues owing to lack personal experience.

All three actors in the labour market were interviewed, i.e. employers (36 interviews), graduates (20 interviews) and students of UW (20 interviews). Group interviews were only conducted with graduates (10 groups) and students (10 groups). The decision not to conduct group interviews with employers

resulted primarily from the belief that decisions taken by potential employers are individual in nature, while the social aspect, which can be studied in group discussions, is insignificant.

Other sources of information

Additional employment related information about students and their opinions about education at UW was provided by a regular survey entitled *The university-wide survey to assess the quality of education at the University of Warsaw*. These surveys have been conducted since 2008. Four surveys were conducted in the years: 2008, 2009, 2010 and 2012. The issues dealt with are centred around university education (for more, see Izdebski 2010). Therefore, the issue of student employment was not specifically addressed by this study. Nevertheless, the questionnaire did contain items relating directly to student employment, including work during term time, weekly working hours and the relation of the work to their studies.

Educational paths of UW graduates

The careers of graduates should be traced along the path taken prior to graduating, that is, with a description of their choices when starting and then continuing their studies. This could use information drawn from the USOS and data from *The university-wide survey to assess the quality of education*.

The research and analysis conducted in 2008–2012 by the PEJK UW showed that the variety of opinions concerning the university, level of involvement with courses and subsequent fates of graduates depended largely on three factors: the level of course (first and second degree, uniform master's studies), mode of study (full-time, evening studies, weekend studies) and the study area (three areas of education were identified in the analyses: mathematics and natural studies, economics, social studies and the humanities).

The project *Monitoring the fate of university graduates using administrative data from Social Insurance Institution records* confirmed the existence of these divisions. For the analysis of certain issues, these divisions were reduced to only two groups of subjects. It did not make sense to distinguish between uniform master's and first degree studies in analysis of recruitment and the evaluation of some aspects of the study could be divided according to graduation in mathematics and natural sciences and other subjects.

These dimensions are not completely independent. The area is related to the mode of study. External (evening and weekend) courses at the UW are offered much less frequently in mathematics and natural sciences than in the other subjects.

Differences between groups of students manifest at all stages along educational paths. Differences between full-time and external students are particularly evident during first degree courses. External courses are much less popular at the recruitment stage, which results in much fewer drop-outs. As a result of self-selection and the impossibility of conducting the selection process due to an insufficient number of candidates, people with weaker results are admitted to external courses than to full-time studies. People attending full-time courses achieve better. The percentage of those completing successive stages of study to obtain a degree is higher (Figure 1). Full-time students in general obtain higher classes of degree. This group also includes the largest percentage of those continuing their education in another subject at the UW.

Second degree courses differ from first degree courses by the level of selection. The differences are visible at the recruitment stage. Competition between candidates is much lower for second degree courses (Zając, 2011). Selection during the course itself is also much weaker. At second degree level not many students left during the course. The percentage of students who received awards was also higher than for first degrees.

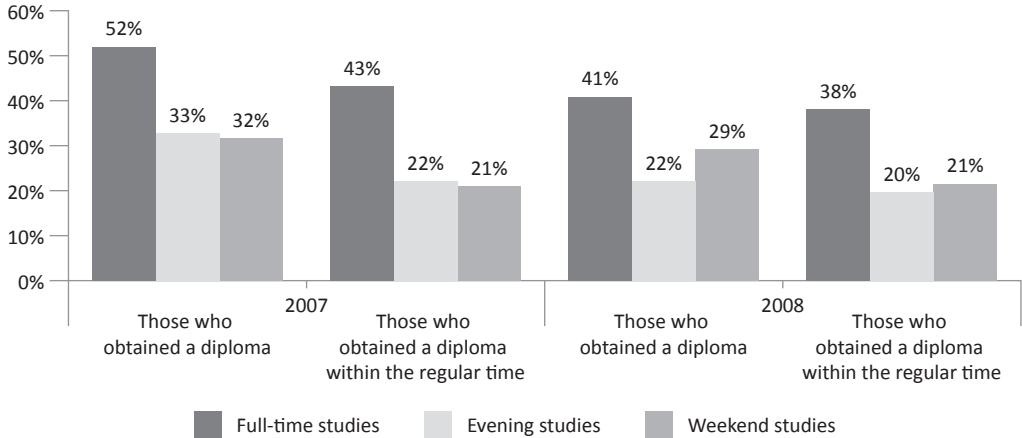


Figure 1. Average percentage awarded first degrees, by mode of studies and year of commencement.

First degree courses in mathematics and natural sciences are usually not the most popular at UW. In general, most candidates apply for courses on socio-economic subjects. However, more students drop out from mathematics and natural sciences more frequently than for other courses (especially after first year). Moreover, the percentage of students graduating is also lower. An analysis of the distribution of final results indicates that humanities graduates achieve a larger proportion of very good results. Graduates from these courses continue their education at UW less frequently than others (Zajac, 2012).

Differences between groups of students described here are also visible in opinion surveys. It has been frequently concluded from the research by PEJK that external students were less involved in the university life. Equally distinct differences can be seen for study areas. Students and graduates of mathematical and natural sciences were usually more satisfied with their studies – syllabus, level, competence of teaching staff and faculty. Most also expressed satisfaction with their choice of study programme. More often than other respondents, they believed that they were well prepared for future work, although they found jobs considerably less frequently during their studies than

graduates of humanities or socio-economic subjects.

Different attitudes to study observed among students of mathematics and natural sciences, social sciences and humanities were also reflected by the qualitative research. It can be hypothesised that conscious choice of subject greatly influences the observed differences. The following quotes from graduates of molecular biology, sociology and Polish studies illustrated a fundamental difference between the two groups of graduates.

[biology] was my favourite subject. At primary school I used to enter biology competitions. I was in a biology and chemistry form. Then I applied for medical and biological studies. I was admitted to both. I chose biology [...].

(interview, molecular biology graduate)

If I were to recommend sociology to someone [...], if this person did not have specific interests, or outstanding talent or a flair for science, I would recommend sociology.

(interview, sociology graduate)

I was going to choose history or Polish philology following simple, high-school thinking: I like Polish, I like history, so I'm going to study those subjects; I also wanted to study classical

philology. And it so happened that I was only accepted for Polish and I'm very happy that I wasn't admitted anywhere else, because I would have done those silly courses, I don't know what I would have done next.

(focus, Polish studies graduate)

Consciousness about choice translates into a commitment to study and willingness to make the associated effort; later this determines whether the graduate can be considered as a specialist with a lot to offer, sought after by employers or as a young inexperienced employee who must make a lot of effort to get a satisfying job.

The study has shown that, in the case of graduates of natural sciences, choice of study programme was much more conscious. Usually, such people had already formed their preferences at high school (some even earlier), so when they applied for university they usually chose one or two very similar fields for study. Conscious choice means that a candidate would know more or less what would be taught and why they wanted to study. In consequence they also knew – at least in general terms – what type of career awaited after graduation.

The situation is different for many graduates from social sciences and humanities. In this group, the choice of study programme is quite often made by chance – candidates for humanities or social sciences frequently applied for admission to many courses, the common features of which were that they were not mathematics or natural sciences. In a sense, they left the final choice to chance. Typically, they did not know, or at least they did not think about where they could work after finishing or what they wanted to do.

My choices were totally random. I was always for humanities, I think of myself as a humanist – I was total failure in physics or maths, I hoped there would be no physics at all.

(focus, graduate of humanities)

To tell you the truth, I was happy I was here, except that I didn't know what you can do after graduating [psychology]. I mean, I knew that there was a stage, I had some predispositions, I knew, maybe I could be a psychotherapist, but I don't think I considered it in this way at the time. [...] when I was accepted, basically I absorbed everything around me, but I didn't think about the future.

(focus, graduate of social studies)

I didn't think about study in any practical terms, I only wanted to pursue interesting studies with a lot of opportunities for development. I chose the course with the greatest potential for development. I'm going to learn a lot of interesting stuff.

(interview, graduate of social studies)

We do not know what the scale of the phenomena was, because qualitative research cannot reveal this. Certainly, there were both students (and graduates) who consciously chose social sciences and humanities, as well as those electing for mathematics or natural sciences without realising what they were actually choosing. However, interviews revealed a distinct regularity, pointing to the lower awareness of students and graduates of humanities and social sciences compared to those in mathematics and natural sciences.

There are always many positive aspects to time spent in HE, since the years between the ages of 18 and 25 are perceived as the most enjoyable. Graduates themselves are aware of the "bio-social" element of their status. For this reason, even those who, after graduation, have completely lost contact with their field of study and work in an unrelated industry, still tend to regard their studies as positive.

Many students however can enter full-time employment related to their field of study – frequently in philological and social studies – suggesting five years of study are not necessary and that it is a waste of time and taxpayers' money. This situation

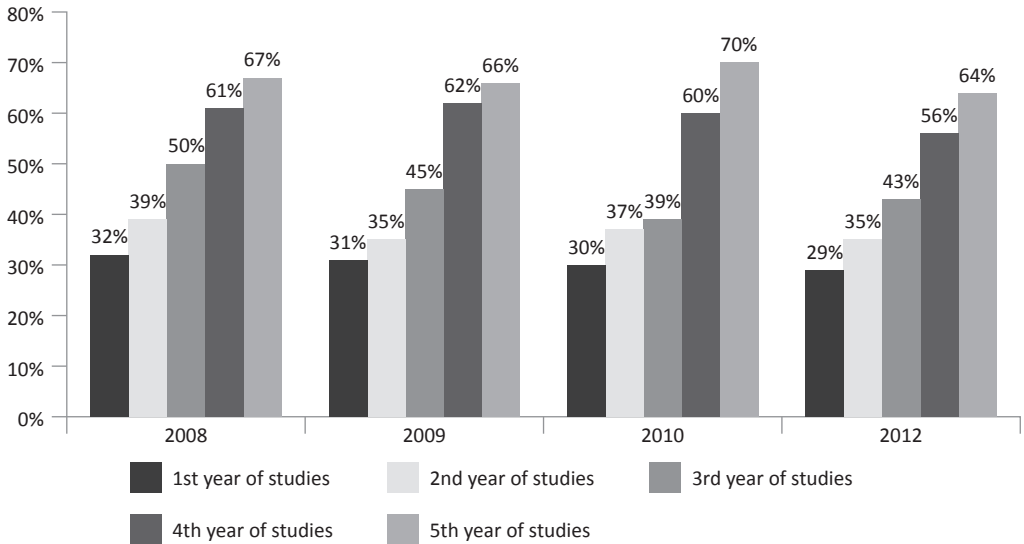


Figure 2. Student employment by year of study, during the years of the study.

Source: The university-wide survey to assess the quality of education at the University of Warsaw.

is illustrated well by the following statement made by a graduate of social studies:

Respondent: Now I would wonder whether or not to apply for university, because courses don't lead to a profession, and I was looking for a profession.

Moderator: Do you mean to say that you would have found a job and now have professional experience?

Respondent: Speaking from today's perspective – yes, but I know that back then I was not mentally prepared to go to work. It would be best to extend youth, by five years, with the right not to decide for yourself... My parents provided for me, it was fine, it suited me.

(focus, graduate of social studies)

Graduates and students who took part in the study, especially those from humanities and social sciences sometimes compared their courses with similar courses in the West, and discovered that in Poland they had more free time. So it seemed that time at university could be used more effectively – for example, for practical vocational training.

Status of students and graduates

Taking a job is the natural logical step after graduating from university. Students at UW often start their careers before completing their studies. Almost half the students participating in the survey conducted by PEJK in 2008–2012 said that they already had a job (Figure 2). Also, a study of graduates within this project showed that the vast majority had jobs as students.

Employment of students is related to their mode of study. Full-time students much more frequently had jobs than external students attending courses in the evening or at weekends. It was also found that second-degree students had jobs more often than other respondents. Students in their final years most commonly had work.

The increase in the proportion of students working during later years of study was particularly pronounced for full-time students. Otherwise, the relationship between year of study and employment for those attending weekend courses proved the weakest, since this group were usually in work irrespective of their year of study.

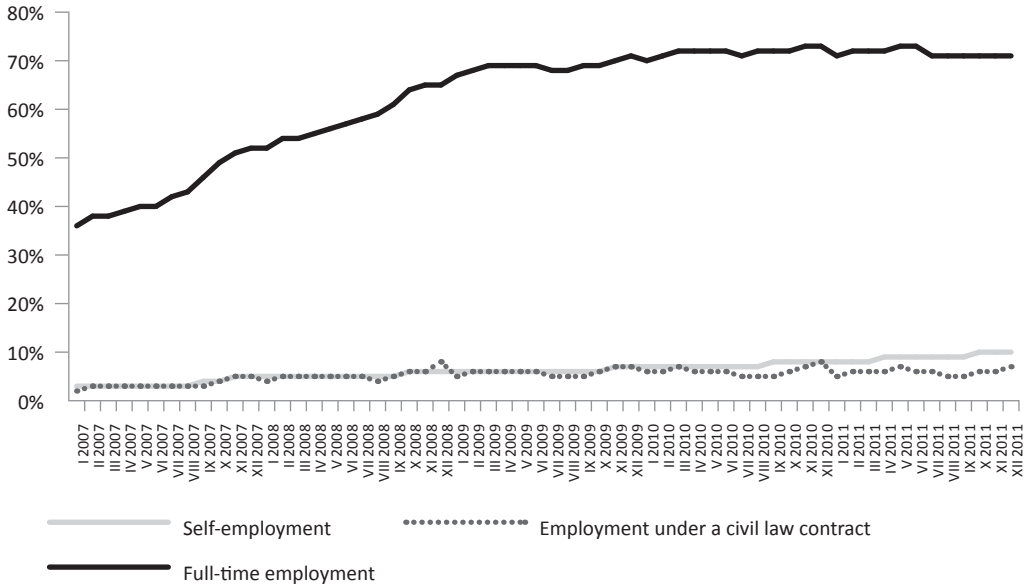


Figure 3. People included in the study, holders of the master's degree, employed full time, under civil law contracts and self-employed (in %).

These findings show that students of UW enter professional life gradually, and most of them already have work experience when they finish.

Reliable information about graduates in terms of their careers is available from SII records. Employees make social insurance contributions, so their records are available. These record employment, so the percentage in work after graduation can be found, as well as, whether employment is permanent or temporary, showing how stable it is.

In the analysis of data from social insurance records, the three main forms of employment were used as categories: employment contract, civil contracts and self-employment². This was found from the codes used by Social Insurance Institution.

As previously stated, analysis covered graduates during two years – 2007 to 2008 – and from January 2007 to December 2011. This means that during the first two years, not all were graduates. Therefore, analysis should distinguish between the two periods: from January 2007 to September 2008 and from October 2008 to the end of the study. The dynamics of the phenomena observed during the first period is also seen to be associated with the dynamics of the graduates' completion of studies, that is, entering the labour market as graduates. For first degrees, September 2010 was an important turning point. This was the year by which holders of bachelor degrees who were continuing their education should have been awarded the title of master. For this reason, three periods

² A person employed full-time is understood as a hired employee, working permanently under various types of employment contract (including on maternity or paternity leave). A person working under a civil agreement is temporary, for example under a contract of mandate, an agency agreement, etc. This category does not include people who work with a contract for a specific task, because

social insurance contributions are not paid on such contracts and consequently, payment of such people is not recorded by the SII system. For this reason, the percentage of those employed, presented in the analyses, based on the SII registers, do not include people who work under such contracts. Self-employed people pay social insurance according to the rules applied to their business.

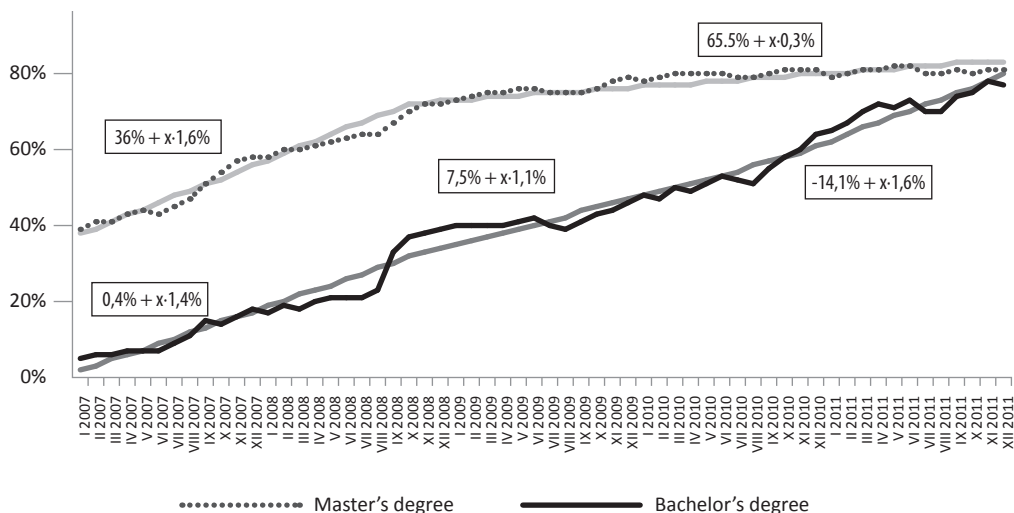


Figure 4. Graduates employed by type of award* (in %).

* The chart also shows a model of segmented linear regression with equations.

feature in the analyses covering this group: from January 2007 to September 2008, from October 2008 to September 2010 and from October 2010 to end of the study.

It should be emphasised that the percentages presented were calculated for all graduates in a category, not only those employed. Lack of employment does not imply difficulty finding work, because not all graduates are available for work. Some of them have embarked on further study, some may be raising children or are out of work for other reasons. This explains the reason why percentages presented here should be treated as a conservative estimate of actual employment.

Figure 3 shows the monthly percentages of respondents with master's degrees in different forms of employment. It is noteworthy that throughout the study period, full-time employment was the dominant form, whereas, the percentage of those employed according to civil contract or who were self-employed was similar but at a considerably lower level than for those who were full time.

The percentage employed full-time grew considerably during the first period of the

study (that is, from January 2007 to September 2008) and it stabilised during the second period of the study (October 2008 to December 2011). This was a consequence of the fact that the respondents were awarded their master's titles during the first period, which influenced their status on the labour market. The percentage of those employed on a civil contract or who were self-employed increased slightly throughout the study period.

Of particular note are the differences in the percentage rates of increase in employment in each period. This is shown by the coefficients of regression presented on the Figure 4. In the case of graduates with master's degrees, a rapid increase in employment took place during the first period (up until September 2008). This indicates that they were working during their final months of study or immediately after graduation. After graduation, significantly weaker growth in the employment rate was observed. This is probably explained by people having found jobs.

In the case of graduates with first degrees, employment rate rose quickly in the first period, then it slowed down to accelerate yet

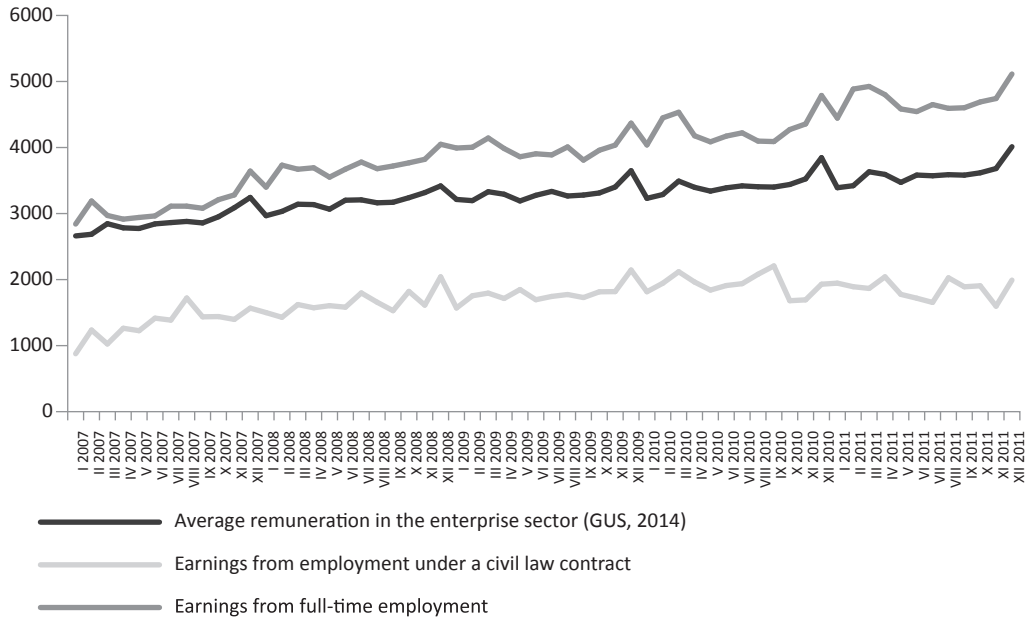


Figure 5. Average monthly earnings*, holders of master's degrees, employed full-time or by civil contract.

* Calculated only for people employed during the specific month.

again in the final period of the study. The period of employment rate growth slowdown coincided with the expected start on second degree courses; therefore, it is credible that the slowdown was caused by entry to master's degree courses.

Comparing the graphs of segmented linear regression for both study populations, it should be noted that the slope of both regression lines is very similar. This means that UW graduates – holders of master's and bachelor's degrees entered the labour market at a similar rate – the percentage difference of those employed throughout the period was constant at around 30 percentage points (higher for holders of the master's title). However, in recent years, after anticipated completion of second degree courses by holders of the bachelor's degree, the difference between employment rates of holders of the bachelor's and master's degrees decreased sharply and finally disappeared. This suggests that the

labour market opportunities for graduates in both groups equalised.

Qualitative research studies on employers by the same research group have found that the term “university graduate” is generally regarded as synonymous with “holder of a master's degree” – and so relatively stable positions are reluctantly offered to people who – according to the popular notion – “have not completed” their education at university level. This is since withdrawal from HE at bachelor level is so considered, not only by employers but also the graduates themselves. In consequence, graduates with first degrees are frequently willing to continue through master's level and employers are reluctant to employ bachelor degree holders. They are convinced that the availability of such employees will be disrupted owing to the likelihood of their starting the next stage of their education, which will take up much of their time.

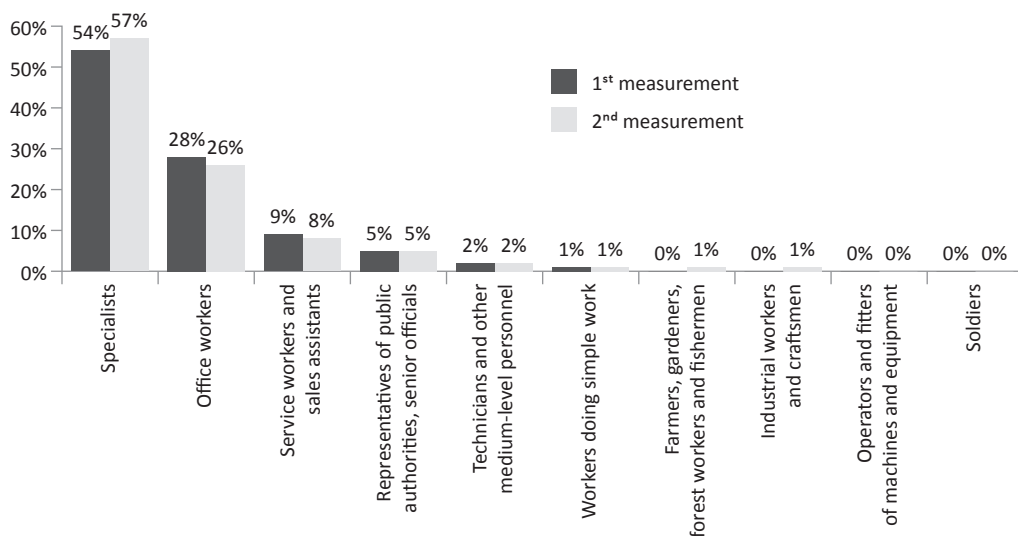


Figure 6. People included in the study by occupation type in both measurements.

The good standing of graduates from UW is also testified to by their wages – confirmed by the analysis of the SII records. Average wages of holders of the master's degrees exceeded average wages in the enterprise sector (as recorded by the Central Statistical Office). The further from graduation date the greater were the differences. It should be noted, however, that graduates with first degrees earned less – their average pay was lower than in the enterprise sector. This indicated the higher market value placed on second degree and uniform master's. It is also noteworthy that the change pattern of earnings of UW graduates employed full-time was consistent with average national (Figure 5), which confirms the verity of data from SII records.

Job satisfaction

From the point of view of a worker, finding a job or earning high wages is not necessarily tantamount to success. The analysis of records presented in the previous section had to be based on recorded facts. However, the research discussed here also included opinions from UW graduates, so it was possible

to establish whether they were satisfied with their work situation.

The labour market research conducted earlier suggested that there were several factors contributing to work satisfaction (e.g. Sikorska, 2004). These were: the compatibility of work with their qualifications, the complexity or level of responsibility and opportunities for development. Job satisfaction is also influenced by stability of employment (linked closely with its legal form) and earnings.

It should be emphasised that based on panel surveys the majority of graduates were employed in senior positions demanding high qualifications. The UW graduates included in the panel study usually categorised their posts as specialists – more than half the respondents in both of the measurements described themselves this way, as illustrated in Figure 6.

In light of data on the types of position held, UW graduates could be expected to be satisfied with their jobs. This seemed to be the case – in both panel measurements, the vast majority of employed graduates expressed satisfaction with their work.

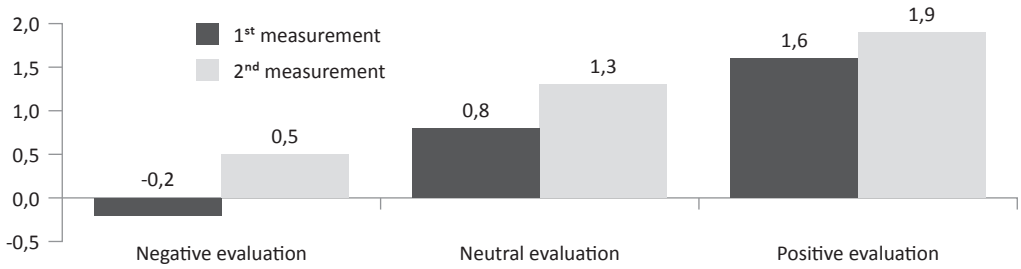


Figure 7. Evaluation of job satisfaction* according to sense of job stability in both measurements.

* Average value for the scale from -3 to +3, where -3 denoted definitely dissatisfied with the job, a +3 denoted definitely satisfied with the job.

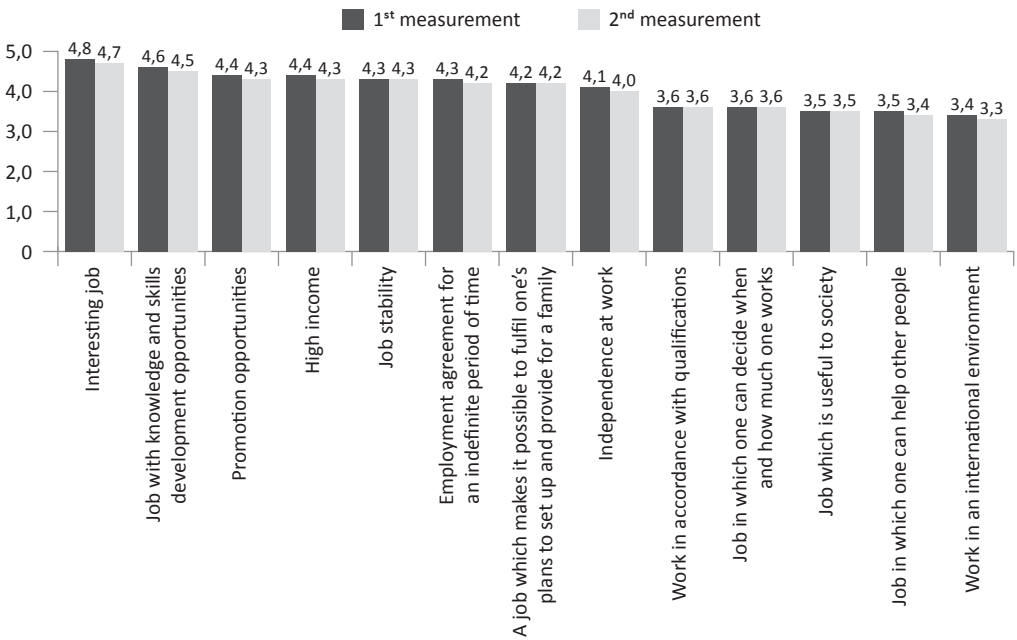


Figure 8. Average* evaluation of importance scores for aspects of employment in successive measurements by the panel study.

* Average for a five-point scale, where 1 – not important at all and 5 – very important.

As expected, positive evaluation of their work was influenced by convictions about its compatibility with their skills and the sense of employment stability.

In particular, this last factor significantly affected opinions about work. As seen in the Figure 7, the stronger the sense of stability, the greater was their job satisfaction.

It can therefore be concluded that the use of the indicator for labour market success

applied in the study, namely, finding a full-time job with a contract of employment was justified – UW graduates defined success in the same way.

In the analyses of records, level of wages was also taken as a measure of success on the labour market. From the panel study we were able to measure how this factor influenced job satisfaction. It was found that those with higher wages, those who felt well rewarded

and those happy with their work were also positive about their financial situation.

Due to the fact that – as already mentioned – the concept of success on the labour market is in fact complex and multi-faceted, we asked respondents to assess the weight and importance they assigned to various aspects of their work. The results are shown in Figure 8.

The graduates in the study found it important that work was interesting, allowed development of knowledge and skills and that it was stable (with an employment contract). High on the priority list was the possibility of starting and raising a family.

It should also be noted that the social dimension of their work, that is, its social usefulness or helping other people, was not regarded as critical. It is also noteworthy that “high earnings” were not among the most important factors – although, in general rated as important. This is yet another argument to support the view that the notion of a satisfying job, and in consequence, professional success, is complex. This should be borne in mind when analysing of educational outcomes and developing public policies to intervene on the labour market.

Studies and labour market from the employers' perspective

Comparability of this approach to monitoring the fates of graduates from various faculties and universities was the primary objective of the research presented here; to allow investigation of the relationship between education profile and success on the labour market. Unfortunately, without being able to merge information from university records and social insurance records it was not possible to determine what precise proportion of graduates from different courses found a job. In light of the data collected so far it has only been possible to show some general relationships between courses, syllabi and the situation on the labour market.

Highly valuable information on the importance of education offered by the University to the labour market is provided by interviews with employers. They reported that it was not possible that university education would prepare anyone adequately to perform a job properly (i.e. to teach them the necessary skills). For example, progress in computer science is too fast for lecturers at faculties of information technology to keep up with the most recent developments. Business in Poland develops faster than what can be taught at University. Furthermore, preparation to work in Public Relations, accountancy or any other job would – in the case of a large company – have to involve many procedures and products unique to that company. This is not what any university can provide. Information in a resume, in particular about the course of study, provides more of an indication of the candidate's potential or aptitude than a guarantee of their knowledge and practical skills (e.g. “they were able to cope with and complete a difficult course – so they will manage at our company”). Declarations by some employers suggested that it was not the education itself that developed high competence in graduates from some universities, but the mechanisms of selection, following the logic of “This is where the best candidates go, because these universities are regarded as the best ones”, therefore, the good reputation enjoyed by graduates from a university is largely by virtue of the competition at the initial recruitment stage. This conviction underlay a clear preference for graduates from state universities (e.g. University of Warsaw, Warsaw University of Technology and Warsaw School of Economics).

The qualitative research with employers showed a diverse labour market for university graduates. While being a market of “young professionals”, it could also be – a market full of “people with degrees but no qualifications”.

The first market is not only for graduates with certain qualifications and knowledge,

but also those with qualities such as creativity. Such people are perceived as experts in their fields. Graduates in this segment are much sought after by employers. Due to the relatively small number of them, they can be offered conditions of employment beyond the reach of many other jobseekers. For graduates from UW, this group would, in particular, include graduates from mathematics and natural sciences. In the opinion of employers, their distinguishing feature is the ability to go beyond typical solutions learned during their studies or previous experience. This was a quality attributed to graduates of Faculty of Mathematics, Informatics and Mechanics, where arduous mathematical training provides enormous potential to find new solutions to common problems. Originality and creativity in their approach to problems is shown, not only by science graduates – these characteristics were also said to apply to graduates from humanities, such as cultural studies at the Faculty of Polish Studies. Characteristically, however, such opinions could be obtained from employers regarding courses considered by students as difficult and requiring substantial effort.

This category of graduates, regarded as a group of young professionals in their fields, is treated very seriously by employers. This is due to the fact that the candidates themselves treat their work seriously.

People who come here – it's obvious that they want to get experience. They are well prepared when it comes to their knowledge about the firm. They try to find out about our products. They try – maybe not all of them, but those who stick in my memory came very well prepared. They tried to find out something about insurance law. About acts of parliament associated with other acts of parliament. And that is impressive. Such maturity in taking decisions about one's professional career.

(interview, employer, insurance company)

Another market segment, to which majority of university graduates belong, offers jobs to people who have completed their studies but who have failed to acquire specific qualifications or skills. These are people who do not feel they are specialists in any field – even including the one they studied – and do not have an idea about what they are going to do. And this is how they are treated by their employers. These are very often graduates from social sciences or humanities, without special achievements derived from their course of study (e.g. publications or participation in a major project or research project related to their course).

Moderator: So is there anything new that has emerged in recent years?

Respondent: [...] when they come here, the difference is great. They don't come prepared. Sometimes they don't attend and they don't call to cancel the meeting. They approach this job differently. And this creates a bad impression. Even if the same person sends in a CV to apply for another position. My colleague and I handle it and we remember.

(interview, employer, insurance company)

However, UW graduates in this group are not doomed to unemployment. The Warsaw labour market, with a lot of job offers, affords the opportunity of work. Since this group is not so much in demand by employers compared with those in the first segment, they have to be prepared to accept less satisfying jobs and less attractive employment conditions. It may take a relatively long time to find a job which falls below what their formal qualifications should allow.

UW graduates generally apply for administrative positions. Sociology graduates are among these people – wanting to find jobs as interns or assistants in HR, which are positions for which university education is not required. People apply for such positions who have this kind of professional experience – which means that

they have been working below their qualification level for some time.

(interview, employer, large IT company)

Conclusion

This paper gives an overview of the educational and career paths of graduates from the University of Warsaw who completed their studies in selected years. The data were obtained by various methods. The choice of methods applied resulted from the conclusions drawn from complementary qualitative and quantitative research approaches, and available facts and surveyed opinion.

The choice of such a complex approach resulted from the complex nature of the phenomenon under study, which is subject to intense public debate, and therefore replete with superficial opinion, hasty conclusions and stereotypes. An in depth understanding of the phenomenon and the mechanisms at the interface between the university and the labour market were clearly required. The qualitative research was of an explorative nature, concerning a critical stage of graduates' lives. Beyond preparation for the quantitative stage, qualitative research aids understanding better than qualitative interpretation and is complementary to the findings (Jasinski and Kowalski, 2007). The analysis of qualitative interviews with graduates and employers made it possible to identify two labour markets for university graduates: professionals who do not need to look for a job, because "a job will find them" and the others, already forced to seek a job actively during their studies.

Making a clear, objective distinction between facts and opinions as an object of study is also important to methodological correctness and clarity of the findings. If facts are examined, analysis of "tracks" left by the facts, rather than opinions about these facts, should be the focus. One important source for such "tracks" is in public records (Wallgren and Wallgren, 2007). Information is

accurate and devoid of the issues typical of opinion polls, especially surveys (memory problems, interviewer effect and respondents consciously bolstering their image). Analysis of the Social Insurance Institution records showed that graduates from the University of Warsaw are not generally employed according to "junk employment agreements" – a term used to describe unstable forms of employment and which has been the subject of hot media debate. Most people who have completed their studies at UW, quickly found stable full-time employment.

Examination of the facts should be supplemented with a survey of opinion, essential for proper interpretation of the facts. For example, even if the level of wages is determined very precisely, it is inadequate to describe how graduates perform on the labour market. This is because records will not indicate whether wages are satisfactory or not. This image needs to be placed against that of employee satisfaction with their occupational status. As the results of surveys demonstrated, job satisfaction proved to be dependent on the conditions of employment, but wages were only one component of this, and not always the most important.

The approach adopted by this study allows a broad assessment of the situation facing university graduates. It should allow the optimisation of decisions made within the academic community – by candidates, students, university authorities, educational policy makers and actors on the labour market. This creates a sound basis for future dialogue between actors in the education system and the labour market.

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