Rationale for undertaking the research project; objective of research

Both today’s economy and today’s labour market are essentially changing. For social geography, this means that the functioning of people in a dynamic reality is growing in importance as a subject of research. People’s confrontation with change defines social borders. The nature of that confrontation is revealed with particular sharpness in the transition of graduates of successive education levels into employment. This transition is now seen as one of particularly complex processes in society. It takes place subsequent to the completion of education or self-education, often coupled with temporary work, and is completed at the time of starting a permanent job or self-employment considered by the person concerned as his or her key activity.

Higher education graduates are a particular subpopulation of labour market entrants in that their efforts to build a capital allowing them to find a satisfactory job required the highest investment from them or their families. However, they encounter significant problems both in finding a job allowing them to use their competences acquired during their university education and in finding any job at all. Problems in transition into the labour market entail negative social and economic consequences. They may delay the time when the graduate becomes an autonomous person, an adult in the full meaning of the word, a productive and investing member of the society, and when he or she makes the decision to marry or have children. These delays may result in a downturn of the society’s economic standing, decreased birth rate, slower economic growth, growing emigration, declining popularity of a given study subject, growing scepticism about higher education institutions.

The scale and importance of the delayed and less smooth transition of graduates make it justified and necessary to reflect more profoundly on the reasons and mechanisms of those problems. In relation to geography graduates, identifying the results of transition seems crucial in ensuring the maintenance of this study subject in the universities’ education portfolio. Consequently, it could help reduce concerns about possible further decline of geography’s standing as an academic discipline. As I have found out from studies by other Polish and foreign authors, graduates’ transition, despite being an important problem, have been among the least studied subjects among labour market processes. Geographers, both worldwide and in Poland, have turned out to be a subpopulation whose professional careers have been seldom explored. So far, no theoretical studies or empirical research have been carried out on geographers’ transition to the labour market immediately upon their graduation.

These considerations inspired me to undertake research, the main objective of which was to gain insight into the process of transition of geography graduates into the labour market.

In terms of theoretical explanation, my goal was to synthesise the existing knowledge on higher education graduates’ transition in the light of societal and economic processes and in the context of labour market theories.

In terms of information and diagnosis, the aim of my research was to explore the nature of geography degree graduates’ transition and to identify the factors which determine the labour market status of recent higher education graduates.

In terms of prediction, my goal was to develop a statistical model for predicting the results of graduates’ transition.

In terms of planning and decision-making, the goal was to suggest possible strategies that could be used by higher education institutions, in line with their profiles, for optimising the labour market situation of the future graduates of their geography courses.
Research methodology

These goals required not only an analysis of specialist literature of various disciplines, particularly demography, economy, social geography, sociology and psychology, but also empirical research. Since there is no institution in Poland collecting information on graduates’ transition to the labour market, I found it necessary to undertake my own representative research. To do this, I chose the diagnostic survey method, typically used for social research. The research was carried out between 2011 and 2012 on a national scale. It was preceded by developing the research tools and testing them on a group of 150 students and graduates of geography at the Pedagogical University of Cracow.

The first phase of the core research was conducted in May and June 2011 and involved persons graduating in the academic year 2010/2011 from full-time geography degree programmes at all 14 higher education institutions in Poland running these type of programmes. I sent official letters to the heads of geography faculties or institutes, requesting their authorisation to conduct questionnaire research among students at dates that were as close as possible to each participants’ graduation date (e.g. the last class or the date of their bachelor’s or master’s viva voce examination). I received written authorisations to conduct my research from 12 universities and carried out my research in each of them. These universities were: Pomeranian University in Słupsk, Adam Mickiewicz University in Poznań, University of Gdańsk, Jagiellonian University in Kraków, Jan Kochanowski University in Kielce, Łódź University, Maria Curie-Skłodowska University in Lublin, Nicolaus Copernicus University in Toruń, Pedagogical University in Kraków, University of Silesia in Sosnowiec, Warsaw University and Wrocław University.

The survey was confidential rather than anonymous, as each respondent was requested to enter their e-mail address (or telephone number) on the questionnaire form. I obtained questionnaire responses from 1347 persons, which accounts for 78% of all graduates of full-time geography degree programmes in Poland in the academic year 2010/2011. The objective of this stage of the research was, among others, to find out about the respondents’ plans concerning their career, including their planned job-seeking activities and methods, desirable positions and work conditions, or their willingness to become self-employed, as well as to measure their assessment and satisfaction with the degree programme in the context of their job-seeking efforts.

The second stage was conducted approximately six months after the respondents’ graduation. Such a period was selected as the six months following formal graduation is considered to be the transition period. An online questionnaire was sent to all those participants (597 geographers) who had declared in the first stage that they planned to seek employment or start their own business immediately after graduation. The aim of this stage was to identify the real labour market situation of each geography graduate in comparison to his or her previous expectations. The email addresses were unique keys which identified each respondent at the moment of graduation and approximately six months later. 375 graduates responded positively to the request to take part in the research, which translates into a response rate of 62.8%.

This personalised collective group of graduates was the study group which was subjected to further in-depth statistical quantitative and qualitative analysis. The subjects included 245 females (65.3%) and 130 males (34.7%). All three types of full-time study cycles were fairly equally represented among the graduates participating in the research: 32.5% of them were graduates of first-cycle (3-year) bachelor’s programmes, 32.0% were graduates of second-cycle (2-year) master’s programmes

1 Based on the reliability criterion, 1,120 responses were qualified for further analyses.
2 As found based on information obtained from the deans’ offices of each geography institute.
and 35.5% were graduates of single-cycle 5-year master’s programmes, which were still being offered by some universities at the time of the research. The population was uniform age-wise, as 98% of the subjects were between 22 and 24 years of age. Around one-third of the subjects (37%) originated from rural environments and one in four (25%) from small towns (of less than 50,000 inhabitants). The remaining respondents came from larger towns or large cities (more than 200,000 inhabitants). A vast majority of the respondents graduated in either June 2011 (41.6%) or July 2011 (26.1%), which means that by the time the second stage of the research was administered, most of the subjects had had their full qualifications, demonstrable on the labour market, for six to eight months. Most of the remaining respondents obtained their degrees in either September or October the same year. The subjects represented various specialisation areas as geography graduates: teaching (of either geography or another subject, such as nature, history, biology, or social studies) (14.4%), environment protection (14.1%), physical geography (13.9%), spatial management (13.6%), tourism (10.4%), human geography (10.4%), GIS (5.3%) and regional geography (3.7%). One in seven graduates (14.1%) obtained a degree in general geography, not having chosen a specialisation subject.

Characteristics of the transition process in the light of the literature and own research

Having analysed temporal and spatial changes of numbers of higher education graduates, evolution of graduates’ profile in response to the labour market’s demand for competences, as well as the roots, current state of affairs, and predictions concerning unemployment for the last two decades, I can observe that the issue of transition of this population is increasingly multifaceted and it is becoming more and more challenging to find a job in line with one’s aspirations and education level. A surplus of persons with high formal competences has disturbed the previously observed and predictable process of graduates’ moving towards higher social microstructures through access to attractive job and pay offers. This has an impact on the evolution of labour market relations and enables employers to hire people for jobs that are below those people’s qualifications or salary expectations. There is a growing frequency of resorting to flexible employment arrangements, which decrease the employees’ social security level or their promotion opportunities. Those arrangements and circumstances result in a low career satisfaction and low estimations of quality of life among graduates, which has been confirmed in the population of geography graduates.

I have studied the transition of geographers by identifying:

- the percentage of working persons (either employed or self-employed);
- the extent to which they are able to use their educational capital, accumulated at the university, in their work, measured by how strongly their job is related to their education level and subject, and by their professional destinations;
- the graduates’ employment stability and security, reflected in the type of employment arrangement;
- the probability of a genuine transition into adult financial independence, measured by the salary level;
- the extent to which the graduates’ plans concerning their future jobs have translated into their real jobs;
- the graduates’ self-assessed perceived job satisfaction (Likert’s scale).

The research findings demonstrate that geography graduates’ transition into the labour market was moderately successful. Six months after their graduation, nearly half of the respondents (48.8%) had jobs and few individuals (0.5%) had their own businesses. The remaining graduates (50.7%) were
unemployed and were either looking for a job, depending on others for support, or continuing their education.

Graduates were found to have little chance of using their capital of competences acquired at university (especially those specific to their subject of study) in their job; their work had little relation with their formal qualifications or their plans and professional aspirations at the time of graduation. More than half of the working geography graduates (56.8%) had jobs completely unrelated to their area of study; some of those jobs did not require any higher education degree. Only one in six working respondents (15.9%) had a job entirely matching the discipline which they had studied. The persons who worked in jobs related to their area of study were employed mostly in education or public administration, non-material services or general social services. They included: teachers (16.8%), persons involved in environment management and organisation in local government administration (7.6%), persons working in geodesy, cartography or spatial information systems (6.5%), persons working in tourism industry, e.g. travel agencies or hotels (3.8%) and those working in scientific or academic institutions, mostly universities (3.2%). An analysis of types of employment arrangements of the respondents showed that nearly one in three recent geography graduates worked under a contingent work contract (30.6%). The largest group (44.3%) had fixed-time contracts. The salary level observed (on average PLN 1,516 per month after tax) raises concerns about whether these people have a real chance of transition into adult life, essentially involving financial independence. Most of the working respondents (82.6%) worked in sectors which they had not aspired, or planned, to work in at the time of graduation. More than half of the working geography graduates (53.0%) declared being “not at all satisfied” or “mostly unsatisfied” with their jobs. About one-third (34.4%) said they were “somewhat satisfied” and only one in eight (12.6%) declared being “very satisfied”.

Based on literature, I was able to find out that the borderline between education and employment is currently becoming blurred, and the transition process becomes prolonged. The main reasons why transition is being delayed among graduates include:

- Labour market circumstances: job offers do not match graduates’ expectations in terms of subject of work or salary, or it is difficult to find any job offers at all. This often induces graduates to go back to education and hope that further study cycles or training courses will give them qualifications and competences enabling them to find a satisfying job.

- Life philosophy of higher education graduates, i.e. their goals and priorities. A growing number among them have a wary attitude towards career and the sacrifices it entails. Some of them even marginalise professional work in their lives (those are sometimes dubbed the “good enough generation”) or postpones the search for a permanent and satisfying job by leaving for a gap-year journey after graduation.

- Psychological reasons. Some people are anxious about possible transition failure, having witnessed other people struggling to find a job, or even as a result of their own negative experiences. This makes them decide to continue education in a different subject or to start doctoral studies as a way of spending the difficult period in the university context, which the graduate had already had the opportunity to get used to.

The findings of my research show that among geography graduates, the prolongation of transition was almost solely due to the difficulties they encountered with finding a satisfying job. Of non-working graduates, almost a quarter (23.7%) gave up on further searching for a job and focused on continuing education (pursuing a higher degree, another subject of study, specialist courses), hoping that additional qualifications may help them find a job meeting their expectations. Other reasons for delaying entry into the labour market, mentioned in the literature, did not occur among the geography graduates participating in my research.
Factors influencing a successful transition of geography graduates into the labour market

Having studied literature on labour market mechanisms, I have found a multitude of views on the key factors which determine the success of graduates’ transition. They are formulated within various theories, such as: human capital theory, segmentation theory, signal theory, competition theory, social capital theory, psychological capital theory, expectations theory, confidence theory. According to these theories, transition is shaped by economic, psychological, sociological and educational factors. It is currently assumed that a successful labour market transition depends chiefly on the quality of the transition capital. It comprises the graduate’s competences and their transferability to the potential job. These result from the level and quality of education, i.e. the type and cycle of degree programme, its subject or domain, the graduate’s diploma mark, as well as his or her active involvement in students’ associations or organisations, participation in extracurricular courses or other training, internships abroad or international student exchanges. Also important in the process are personal features, such as interpersonal skills, and external factors, including the economic condition of the country, recruitment procedures, and labour market evolution. However, empirical studies of this process usually concentrate on variables that are attributable to the graduate. These include: quality of education capital, level of competences, commitment to job searching and the methods used, and the graduates’ ambitions and aspirations.

In my research on factors bearing on the success of geography graduates’ transition, I took into account all four groups of variables. Specifically, I measured the following:

- Educational capital quality, measured by: the type of degree; the type of study programme completed (two cycles in line with the Bologna Process or a single-cycle master’s programme); the university awarding the degree; specialisation areas chosen within the study subject; the diploma mark; additional certified qualifications obtained during the studies; a study period abroad (e.g. within the Erasmus programme); additional studies (another subject).
- Level of competences, measured by a self-assessment by the geography graduates (on the scale of 1 to 6) of 20 competences representing four groups (knowledge competences, personality competences, key competences, distinguishing competences).
- The graduate’s commitment to job searching and the methods used, measured by the success rate and the time of starting the search for a job.
- The graduates’ ambitions and aspirations, measured by a self-assessment (on the scale of 0 to 2) of one’s chances of success on the labour market compared with other graduates; financial expectations; declared criteria of selecting a prospective employer; types of preferred jobs.

Research findings show that the quality of educational capital was the factor with the most significant impact on the prospects of obtaining a job after graduating from geography and on the employment conditions. Also important was the respondents’ commitment to job searching and their professional ambitions. This is reflected in the significant correlation found between the graduates’ job market status and:

- the type of study cycle they had completed: 62.4% graduates of single-cycle 5-year master’s programmes had jobs, compared to 55.8% graduates of second-cycle (2-year) master’s programmes and 28.7% of graduates of first-cycle (3-year) bachelor’s programmes;
- diploma mark: 61.7% graduates with a “very good” mark on their diplomas had jobs, compared to nearly one-half of those holding “good plus”, “good” and “pass plus” marks and one in four graduates with a “pass” mark;
• job-seeking strategy: job-seeking was the most effective near the time of graduation and when it involved a use of Internet resources and social networks, as well as direct contacts with prospective employers;

• job preferences and aspirations: graduates planning to work in education, GIS-related jobs and hotel industry, as well as those willing to accept any job, were the most successful in finding jobs; the least successful were those aspiring to work in spatial planning or environment protection and environmental engineering jobs;

• the graduates’ own estimation of their job prospects in comparison with their peers: the percentage of successful job finders was higher (by 8.5 percentage points on average) among those who considered themselves more attractive for prospective employers compared to their fellow geography graduates both from the same university and from other universities.

The research findings also proved a correlation between the graduates’ education level and:

• their job being related to their study subject: 20% of working single-cycle master’s programme graduates worked in a job closely related to their study field, compared to 16.3% of working second-cycle master’s programme graduates and only 7.1% of working bachelors;

• salaries: master’s degree holders earned 25% more on average than bachelors.

On the other hand, a marginal correlation was found between the graduates’ job market status and: additional qualifications, self-assessed competences, financial aspirations, criteria of selecting a prospective employer.

No correlation was found between the type of study cycle completed (bachelor’s, master’s) and the time taken by each graduate to find a job.

**Prediction**

In order to achieve my aims in terms of prediction, i.e. to develop a statistical model for predicting the results of graduates’ transition by assigning them to either the working graduates subgroup or the unemployed graduates subgroup, I used stepwise discriminant analysis. The set of variables subject to analysis (once qualitative variables were expressed as quantitative and encoded) consisted of 95 elements grouped in four subsets: educational capital, self-assessed competences, job-seeking strategies and aspirations and motivation.

First, I analysed each subset separately in order to identify its individual importance for predicting geography graduates’ chances for a successful entry on the labour market and to find out whether any of the subsets proved sufficient for classifying graduates to the “working” subgroup or the “non-working” subgroup. Analyses showed that no prediction of job market status could be made using any one of those subsets of variables alone. It is proven by high Wilks’s lambda values (0.9300 for competences; 0.8710 for job aspirations; 0.8054 for educational capital and 0.6849 for job seeking strategies) and low percentage values showing how effective those variables were in assigning cases to the “working” and “non-working” subgroups (58% and 65% for competences; 48% and 78% for job aspirations; 75% and 55% for educational capital; 73% and 58% for job-seeking strategies, respectively).

Subsequently, in order to identify the relative impact of each of the variables, acting jointly, on the graduate’s labour market status and to develop a model, I analysed the entire set of variables jointly. In order to verify how effective the model was for assigning graduates to the “working” or “non-working” groups, I conducted an analysis on a sample of randomly selected respondents still in education. Next, the model was verified on another independent test sample. Following that analysis, 28 variables were chosen for the model. The discriminant function is denoted as follows:
\[ D(X) = -0.327 - 1.673 \text{SP}_5 - 0.823 \text{KE}_{23} - 0.512 \text{SP}_4 + 1.012 \text{KE}_{13} + 0.863 \text{KE}_{15} - 1.272 \text{SP}_5 + 0.902 \text{AM}_{24} - 0.691 \text{SP}_1 - 0.609 \text{SP}_8 - 1.229 \text{AM}_5 + 1.090 \text{AM}_{22} - 1.423 \text{AM}_{23} + 0.598 \text{SP}_{13} - 0.760 \text{SP}_2 - 0.443 \text{KA}_6 + 0.231 \text{KA}_9 - 1.342 \text{SP}_{10} + 0.869 \text{SP}_{15} + 0.523 \text{KE}_{21} - 0.230 \text{KE}_{27} + 0.448 \text{SP}_3 + 0.523 \text{AM}_{26} + 0.376 \text{SP}_{12} - 0.757 \text{SP}_6 + 0.392 \text{KE}_{17} - 0.708 \text{SP}_{11} + 0.413 \text{AM}_{25} + 0.890 \text{AM}_{11} \]

The variables which I included proved their sufficient discriminant power; their influence on assigning the subjects to “working” or “non-working” subgroups was statistically significant. This is demonstrated by the Wilks’s lambda value of 0.4590 and the empirical significance level close to zero.

Based on the values of the discriminant functions, using Statistica software, I classified the graduates in the test group. More than 91% of the test subjects were correctly assigned to the “working” group.

\(^4\text{SP}_1\) I looked for a job by consulting press advertisements.

\(\text{KE}_2\) No specialization chosen (general geography).

\(\text{SP}_4\) I looked for a job by consulting advertisements online.

\(\text{KE}_3\) Type of geography degree obtained.

\(\text{KE}_1\) Teaching specialization.

\(\text{SP}_5\) I looked for a job through a public employment agency.

\(\text{AM}_9\) I want to work in education.

\(\text{SP}_8\) I looked for a job by contacting prospective employers directly (visit, phone).

\(\text{SP}_6\) When looking for a job, I turned to my family for help.

\(\text{AM}_8\) My most important criterion when looking for a job is promotion opportunities.

\(\text{AM}_{10}\) I want to work in a different job than those listed above.

\(\text{AM}_{11}\) I want to work in a nature conservation institution.

\(\text{SP}_{12}\) I started looking for a job as soon as I graduated.

\(\text{SP}_2\) I looked for a job through the careers office at my university.

\(\text{KA}_6\) Key competences subset

\(\text{KA}_5\) Knowledge competences subset

\(\text{SP}_{10}\) I looked for a job at job fairs.

\(\text{SP}_{13}\) I started looking for a job 3 to 6 months after I graduated.

\(\text{KE}_6\) Human geography specialization.

\(\text{KE}_9\) I graduated from another study subject.

\(\text{SP}_3\) I looked for jobs through my personal contacts (colleagues, friends).

\(\text{AM}_7\) I want to start my own business.

\(\text{SP}_{14}\) I started looking for a job just before I graduated.

\(\text{SP}_1\) I looked for a job through a private recruitment company.

\(\text{KE}_7\) GIS specialization.

\(\text{SP}_{11}\) I looked for a job in another way.

\(\text{AM}_{12}\) I want to do any job (even below my competences).

\(\text{AM}_{11}\) My most important criterion when looking for a job is whether my work will be useful for the society.
and almost 83% were classified to the “non-working” group. This confirms that the model is a highly accurate tool for predicting the results of transition based on the selected variables.

The model that I developed is:

- a high-accuracy tool for predicting transition results of geography graduates, usable both in academic research and in forecasting by institutions dealing with labour market transition problems;
- a methodological contribution on how to develop models dedicated to graduates of other subjects.

Moreover, by isolating a set of variables which individually are the most relevant to predicting the subjects’ assignment to the “working” or “non-working” group, the model could serve as a basis to develop more accurate and shorter questionnaires for similar research.

**Proposed actions to improve geography graduates’ situation on the labour market**

Universities’ commitment to help their graduates in a successful transition to the labour market is nowadays a key element in building high quality education, improving the competitive position of the given study subject on the education services market, and a response to the Bologna Declaration recommendations.

Based on literature and survey studies, I developed a set of tools and proposed actions that should help achieve those goals during geography studies. They include:

- an audit questionnaire – a tool for a cyclical examination of the adopted education patterns, plans and curricula of degree programmes, leading to their updates;
- a strategy of holistic support for students in their efforts to plan and start their career, by including the issues of personal development planning in the study programme;
- a strategy for implementing methodological innovations, especially by supplementing each specialisation curriculum with sets of interdisciplinary project-oriented courses in line with PBL (problem/project-based learning) and WBL (work-based learning) approaches, which involve relations with employers and other stakeholders;
- an analysis of professional destinations of geographers worldwide, focusing on the currently dominant professional profiles, as well as those offering the most favourable prospects;
- proposed actions towards shaping a positive image of the given university, its geography degree programme, and its graduates in their environment;
- an analysis of the modernisation patterns of geography degree programmes as perceived by the graduates (concerning their design, plan, curriculum, and implementation strategy).

**To sum up,** I consider my work to fill a gap in social geography research on the issue of transition of recent university graduates into the labour market. I perceive my contribution to social geography as consisting in:

- a *synthesis* of research on higher education graduates’ transition in the light of societal and economic processes and in the context of labour market theories, with an explanation of the transition from education to the labour market;
- a *diagnosis* of the nature of that process, identifying the determinants of its speed, based on the only Polish nationwide research on geography graduates;
developing a model for prediction, which is considered one of the key functions of modern geography and a potential interface between geography and social practice.