

**Internships and study-related jobs and their effect on the duration until labour market entry of graduates**

*1 Introduction*

The “knowledge society” demands a higher level of skills and in addition key competences (Mertens 1974), i. e. competences to cope with changing tasks (which cannot be predicted) during the life cycle (Stehr/Grundmann 2001: 331). Especially for graduates these additional competences are necessary.

According to graduate studies (for example Briedis/Minks 2004) the labour market entry of graduates of technical, mathematical and natural scientific studies and economics is smoother than the labour market of graduates who studied language science, cultural science or social science. One starting point of my research is the assumption that the additional key competences can be acquired in practical experience (i. e. internships and study-related jobs) in the studies and that therefore internships and study-related jobs are important for labour market entry of graduates. I suppose that these additional competences are of special relevance for graduates of languages science, cultural science, social science and geography, as these fields of study are not as strongly straightened towards labour market demand as other fields of study. In addition, I suppose that internships and study-related jobs are important as they have a signalling effect concerning the abilities and commitment of graduates and that they provide useful contacts for labour market entry. Summarised, I assume that internships and study-related work reduce the time until labour market entry and that this effect is more pronounced for graduates of languages science, cultural science, social science and geography as for other graduates.

*2 Theoretical background and derived assumptions*

*2.1 Signalling theory*

When engaging new employees, companies face an uncertainty problem as they do not (exactly) know the productivity of applicants (Spence 1973: 356). Spence (1973, 1974) assumes that applicants send signals which give information about the productivity. According to Spence (1973) there are changeable and constant signals. Characteristics which can be changed by the individual can be a signal if there is a correlation between the costs to acquire it and the abilities of the individual (Spence 1973: 358).

One important reason for working during studies is financial necessity, but it also can give evidence about motivation and productivity: It can be assumed that internships and study-related jobs can be a signal for employers as – others things being equal – those who had study-related jobs and some internships are more productive than those who not could cope with studies and some internships and/or study-related jobs. It is assumed that those who signal higher productivity through internships and study-related jobs are more desired in the labour market and therefore have a shorter waiting time for their first job.

### *2.2 Human capital theory*

According to Becker (1993) one important reason for people to invest in their competences and skills is increasing their future income. Applied to the question, this means that students have study-related jobs and internships to acquire competences and skills demanded in the labour market which raise their income after studies. As persons with a higher level of skills and competences are more demanded in the labour market, one can also assume that acquiring competences and skills in study-related jobs and internships accelerates labour market entry. According to Burda (2001), however, human capital – as well as real capital – is subject to depreciation. This means, that competences and skills acquired in internships or study-related jobs towards the end of the studies more likely accelerate labour market entry compared to earlier study-related jobs and internships. Moreover, it can be assumed that study-related jobs and internships are more useful for labour market entry towards the end of studies due to the fact that at this stage more previous knowledge acquired in the studies is present and therefore more additional knowledge specific to the job can be acquired. In addition, it can be assumed that quality of mentoring and the duration are important factors for the acquisition of knowledge and competences in internships and study-related jobs and therefore for labour market entry.

### *2.3 Social capital theory*

According to Mackay et al. (1971) the labour market is far away from the ideal of a “perfect” market with perfect information. According to Lin (2001), the reason, why contacts play a role in the economic sphere, is an information problem, i. e. a lack of knowledge about relevant characteristics of the market (in this case a lack of information about job applicants respectively firms). Applied to the question, this means that contacts are used as they reduce the uncertainty about applicants respectively companies. As social capital is a sort of capital, too, it is also subject to depreciation if not used regularly (Bourdieu 1983). Therefore, I expect study-related jobs and internships late in the studies (last internship) to be much more important concerning contacts for labour market entry than study-related jobs and internships earlier in the studies. Newer social capital concepts by Coleman (1990) and Lin (2001) stress

the rational, calculating aspect of contacts. These authors emphasize that people socialise with others as it is for their own advantage. Applied to the question, this means, that employers and students socialise *purposefully* in order to recruit new employees respectively in order to find a job after studies. I suppose that this calculating aspect of social contacts is especially important concerning students of geography, social, language and cultural science as employers' uncertainty about their abilities is particularly large. Therefore I assume that for graduates of these fields of study with comparatively little reference to the labour market, this strategy is especially relevant to reduce the time period until the first job is obtained. For graduates of other fields of study, I suppose that the factor is less important as these graduates soon find a job without using contacts, too (therefore the potential for reducing searching time is less than for graduates of subjects with less reference to the labour market).

### *3 Data*

For the analyses, data from the *Bavarian Graduate Panel* are used. This is a graduate study containing data for graduates who completed their studies at a Bavarian university or *University of Applied Sciences* in 2003/2004. In this study, fields of study of all groups (language sciences and cultural sciences, social sciences, economics, mathematics and natural sciences and engineering) with a sufficient number of graduates were include (for further information about the study see Falk/Reimer/Hartwig 2007). The study also contains longitudinal data on a monthly basis which allow to analyse the career entry phase in detail.

### *4 Method*

In my analysis on labour market entry, I use these longitudinal data to analyse the question, whether practical experience has a positive effect on labour market entry of graduates (transition rate into a first employment) and which mechanisms cause the effect: Human capital, social capital or signals?

For these longitudinal data, special methods are required, so-called event-history methods. For the present problem, piecewise constant exponential models (Blossfeld/Rohwer 2002) were used. These models allow for the fact that transition rates (here: the transition into first employment respectively doctoral thesis phase) may change between specific time intervals. According to Golsch (2006), it is not possible to apply OLS regressions on longitudinal data.

## *5. Empirical results*

### *5.1 Signalling*

The analyses show no signalling effect concerning practical experience in the studies: The number of internships during studies is uncorrelated with the duration until labour market

entry. This is true both for subjects with a clear reference to labour market as well as for those and with a diffuse reference to labour market. Therefore the hypotheses about internships and jobs signalling productivity cannot be affirmed.

### *5.2 human capital*

The analyses which were calculated separately for fields of study with clear versus with diffuse reference to the labour market show that neither competences acquired in internships nor in study-related jobs have an effect which reduces the duration until labour market entry. This means, that the hypotheses concerning the relevance of competences from internships and study-related jobs for labour market entry cannot be affirmed. But the hypothesis concerning depreciation of competences is affirmed as students acquire more competences in the last internship compared with the first. The hypotheses concerning the importance of good mentoring and the duration of internships are supported, too.

### *5.3 Social capital*

In accordance with the hypotheses, the analyses show that contacts from study-related jobs strongly shorten the transition into a first employment. There is also a positive effect for the contacts from internships (in the model in which all graduates are included), but this effect is much less strong. This means that for a short duration until a first employment contacts from (study-related) jobs are much more important than contacts from internships. The result that contacts from jobs are more significant for labour market entry is affirmed by the fact that twelve percent of first jobs are attained through contacts from (study-related) jobs, but only eight percent through contacts from internships.

In the separate models for those fields of study with diffuse versus clear reference to labour market, in both models the effects for contacts from internships are not significant any more, as the number of cases is reduced (compared to the model with all graduates). Nevertheless, the effects for contacts from jobs remain highly significant and strong for both groups/models, but the effect for graduates of fields of study with diffuse reference for labour market entry is even stronger, as supposed theoretically. This can be explained by the fact that the duration until the transition into a first employment is usually longer for graduates of fields of study with diffuse reference towards labour market than for those who study a subject with clear reference towards labour market, if formal ways lead to the first employment. Contacts lead to a fast entry into the labour market in both groups. Therefore the abbreviating effect of contacts compared to formal ways is stronger for graduates of fields of study with diffuse reference towards the labour market compared with graduates of fields of study with strong reference to the labour market.

The hypothesis concerning the depreciation of contacts is confirmed, too: The analyses show that the last internship is much more useful for students for contacts to employers than the first one.

### *6 Summary and Conclusion*

This short presentation of some results from my dissertation has shown that practical elements in the studies in the form of internships and (study-related) jobs are an important opportunity to abbreviate the duration until labour market entry for graduates. The results have shown further that the contacts are crucial for this effect and that signalling and competences do not play a direct role.

But it should not be neglected that in the analyses for this essay only the *direct* effects of competences were included. Additional analyses show that the acquisition of competences and skills is an important factor for the question, whether contacts result from internships or (study-related) jobs or not. In other words, social capital and human capital are not independent. The acquisition of competences and skills (human capital) is rather a precondition for contacts which (can) lead to the first employment after studies (social capital). Moreover, according to Kühne (2005), a certain level of (key) competences is often a precondition for obtaining an internship, too. Therefore, internships and (study-related) jobs often enforce (dis)advantages already existing before beginning with internships respectively study-related jobs.

It is clear that the duration until labour market entry is not the only measure for the quality of labour market entry. Further analyses in my dissertation address the quality of the first employment. Important measures are the income at the beginning of the first employment, the question, whether the first employment was limited in time or open-ended, the question, whether the university degree was indispensable or not and three measures for the adequacy of the first employment: adequacy of position/status, level of tasks and professional qualification. The aim of the dissertation is to provide an extensive survey about the question, whether practical elements in the studies have a positive influence on labour market entry and, as this can be approved: Which aspects of the labour market entry are influenced by practical experience and to what extent do practical elements play a role concerning each aspect? In addition, the mechanisms which generate these effects are examined.

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