Job performance and career prospects of auditors
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Chapter 11

Summary

11.1 Introduction

In this thesis, the performance at the labor market of full-time educated auditors and Nivra educated auditors have been compared. The primary goal of this thesis is to get some insight into the labor market prospects of (future) graduates of the newly set up dual tracks in higher education. Dual tracks are set up next to the already existing full-time educational tracks. Since most dual educational tracks in higher education have no or hardly any graduates yet it is not possible to compare the labor market prospects of dual and full-time graduates. Therefore, we have looked for a profession with the two educational tracks already existing for quite some time and with both educational tracks having a large number of graduates. We have found two professions which meet these conditions, namely nurses and auditors. Unfortunately, we had to restrict ourselves to the group of auditors. In this chapter the main results of this thesis are summarized and some policy recommendations are given.

11.2 Summary

Based on the study of literature in chapter 2 some research questions have been formulated:

1. Which of the two educational types turns out the most productive employees?

2. Do people choose the training system which makes them most productive; i.e. does educational self-selection occur?
3. Do auditors of the full-time accountancy education have different career paths than auditors of the Nivra education?

and more specifically

4. Do auditors of full-time education work in a wider range of jobs than auditors of the Nivra education?

These research questions are used as point of departure for the empirical work in chapters 6 to 10. We have found that the Nivra education turns out slightly more productive auditors than the full-time education in auditing. The answer to question 2 is negative. We have not found evidence of self-selection. The answer to question 3 is largely affirmative and the answer to question 4 is affirmative.

Chapter 6 compares wages of the Nivra and the full-time educated auditors. This has been done separately for employees and employers (partners, CEO’s, etc.). The research results are related to the first two research questions but one should keep in mind that wages are no measures of true productivity. Based on the differences in the composition of the human capital between Nivra and full-time educated auditors we expected that full-time educated auditors would earn more than the Nivra educated auditors, but we did not expect to find any earnings differentials between differently educated self-employed auditors. Our expectations concerning earnings differentials have been confirmed by the estimation results. Among employees, full-time educated auditors earn more than Nivra educated auditors. Auditors who do not wish to become partner can better choose the full-time training to maximize their earnings. Furthermore, no earnings differentials have been found among differently educated employers. The estimation results on the employees’ wages show that the correlations between the error terms in the wage equations and the education equation are quite low and not significant. This indicates that in this setting no evidence has been found of educational self-selection.

The income equations of employees and partners have been used to calculate approximations of the NPV of lifetime income for the two types of education. This has been done in order to see whether full-time educated auditors recoup their higher educational investment. On the whole, differences in NPV are relatively small. Nivra educated partners have the highest NPV of lifetime income. This is because they have a relatively high probability of becoming partner and because partners earn much more than employees. However, more than 80% of the auditors does not become partner and these auditors are better off in terms of NPV of lifetime income when they have full-time education.
Chapter 7 uses job performance evaluations of an audit firm to compare job performance of full-time and Nivra educated auditing employees. This has been done for the period 1993-1998. Beginning with answering the first research question the distributions of job performance are quite similar across the two types of accountancy training. The difference in average job performance is in favor of the Nivra education but it is quite small compared to the spread in job performance. Several econometric methods (OLS, ML with jointly modelling job performance, educational choice and attrition) have been used to compare the two groups of employees on their performance more thoroughly. Again some mild evidence has been found favoring the Nivra educated audit employees. The results indicate that the Nivra educated auditors are slightly more productive than full-time educated auditors. The covariance parameters between the error terms in job performance equations and the educational equation are not always significantly different from zero. This makes it hard to make inferences on educational self-selection (the second research question). It seems to be the case that the full-time educated auditors perform better under the full-time regime than the average auditor would have done and that the Nivra educated auditor performs worse in his own regime than the average auditor would have done. This points to an absolute advantage of the full-time educated auditors in both educational regimes. But keep in mind that the covariances are not always significant.

Note that in chapter 6 no clear evidence of educational self-selection has been found as well. This indicates that the answer to the second research question is 'no'. There is no convincing evidence of educational self-selection with people choosing the education which makes them most productive.

The topics covered in chapter 8 and 9 are related to the third research question. Chapter 8’s topic is whether differently educated auditors are equally mobile at the labor market. In chapter 9 this is done more thoroughly for one particular sector, namely public auditing. In chapter 10 we look for an answer to the fourth research question by investigating the sector choice of auditors.

Chapter 8 analyzes and compares tenure of the two types of auditors using survival analysis. We expected that the full-time educated auditors are more mobile at the labor market than the Nivra educated auditors because their knowledge is easier to transfer to other firms/sectors than the knowledge of Nivra educated auditors. The estimation results show that career paths between the two groups of auditors differ with respect to job mobility. Tenure of full-time educated auditors turns out to be shorter than tenure of Nivra educated auditors.
Chapter 9 investigates whether type of accountancy training affects the career opportunities of auditors in audit firms. These firms' staffing policies are characterized by a so called 'up-or-out' culture. The longer people stay (survive) in these firms the better they have performed in the organization. Nivra educated auditors are more likely to become partner of a firm than the full-time educated auditors. Full-time educated auditors leave the audit firm at a higher rate than the Nivra educated auditors. However, this does not necessarily mean that Nivra educated auditors perform better in public auditing than full-time educated auditors. It may also indicate that the outside options of full-time educated auditors are better than for Nivra educated auditors. Information on the wages earned in the new job confirms this.

The data set from the audit firm contains information on job performance of audit employees. Different job performance measures have been constructed based on past and current job performance. The results show that only current job performance, especially performing below the firm's standards, affects tenure significantly. Past job performance does not affect tenure. Comparing the survival functions of the two educational types shows that the full-time educated auditors stay a little longer than the Nivra educated auditors, but the differences are very small. The career prospects in this firm seem to be slightly better for full-time educated auditors. Combining the results obtained from the two data sets there does not seem to be much difference in career prospects within public auditing between the two groups of auditors.

Chapter 10 compares the distribution of the differently educated auditors over five sectors: public auditing, public sector auditing, internal auditing, non auditing jobs private sector and non auditing jobs public sector. Empirical analysis shows that the distributions of the two groups of auditors over the five sectors differ significantly. The full-time educated auditors work relatively often in non auditing jobs in the private sector whereas the Nivra educated auditors work relatively often in public auditing.

Throughout all empirical chapters much attention has been paid to the factors affecting the choice between the Nivra training and the full-time training in accountancy. One of the most important factors is social background measured by the educational level of the auditor's father. Auditors with a highly educated father are much more likely to have attended the full-time education than auditors with a lower educated father. However, for the younger cohorts in the sample educational choice is much less affected by social background than for the older cohorts. Financial constraints play an important role here. Nowadays, people whose parents have an income below a certain level receive relatively high scholarships compared to people whose parents have an income above that level.
This has been done to stimulate people from lower social classes to study in higher education. However, several decades ago, this was not the case yet. The Nivra offered people from a lower social background the opportunity to continue studying after finishing HBS/gymnasium. The attractiveness of the Nivra education among these people decreased in favor of full-time higher education when the costs of studying full-time in higher education decreased.

11.3 Concluding remarks and policy recommendations

Dual educational tracks have been promoted in higher education because it is believed, based on experiences in intermediate vocational education, that the combination of learning and studying facilitates the transition from school to work. However, it is shown in this thesis that the long term prospects between graduates from full-time and dual education of a particular study may differ.

Empirical analysis has shown that wages of Nivra educated auditors who are on the payroll are relatively low compared to the wages of full-time educated auditors. Furthermore, job mobility among Nivra educated auditors is relatively low and Nivra educated auditors work relatively often in auditing jobs whereas the full-time educated auditors work relatively often in non auditing jobs. These differences are likely to be due to differences in the composition of the human capital of these differently educated auditors. Some of the differences in labor market prospects have also been found for graduates of dual and full-time education in intermediate vocational education. This indicates that our findings do not only hold for the education in auditing but may be generalizable to other studies in higher education as well.

For auditors it is not that serious that Nivra educated auditors are relatively immobile and work relatively often in the occupational field directly related to their education, since employment among auditors is high and rather stable. But other educational fields prepare people for occupations in which employment may be more vulnerable to conjunctural variation. It may be very hard for graduates from dual educational tracks to find work when an economic downturn hits their occupational field. The graduates from the full-time education may be better off then because it is easier for them to find work outside the occupational field corresponding with their education.

Based on the experiences in intermediate vocational education with dual education we believe that in the short run dual education makes the transition from school to work easier for its graduates than full-time education does. That is why we do not see any objections to introducing dual educational tracks in
higher education. However, in our point of view it is advisable to organize dual education in such a way that dual students have a comparable amount of general human capital as the graduates from full-time education and that they do not acquire large amounts of specific human capital from one type of employer. This can be accomplished, for example, in the following ways:

- The curriculum of dual students should be comparable (same number of credit points, a limited trade off between working hours against study hours, same requirements educational program) with the curriculum of full-time students.

- Dual students should not have only one employer during the training period but they should have several employers or work at different departments at a large organization in order to avoid early specialization.