

Entrepreneurial Aspirations: Another Form of Job Search?

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ABSTRACT. We study the labour market behaviour of employed individuals that have entrepreneurial aspirations in addition to aspirations to switch job. We analyze empirically these two “search processes” side-by-side and find that entrepreneurial aspirations and aspirations to switch job are relatively common. However, most employees are not engaged in both search processes, nor are the two processes alike: It is more difficult to empirically explain entrepreneurial aspirations than aspirations to switch job. Only few observable characteristics of the employed are related to both processes. Varied experience and job dissatisfaction are directly related to the probability of having entrepreneurial aspirations and aspirations to switch job, while job tenure is inversely related to them. Our analysis also contributes to the understanding of the process of transition from work into entrepreneurship: Employees who can experiment with new things in their present job, regard the content of their work important, and are dissatisfied with their superiors have more often entrepreneurial aspirations than others.

1. Introduction

Job-to-job switches account for a large part of labour market turnover (see e.g. Farber, 1999). It is therefore unsurprising that on-the-job search for labour market opportunities is a widely recognized and thoroughly studied phenomenon by labour economists. In this paper, we integrate this strand of labour economics with the economics of self-employment and entrepreneurship to explore the previously overlooked possibility that employed individuals may have entrepreneurial aspirations in addition to aspirations to

switch job.¹ We study, in particular, whether entrepreneurial aspirations can or should be regarded as another form of job search.

From a theoretical point of view, having entrepreneurial aspirations and thinking frequently about starting an own business reflect a type of search for entrepreneurial opportunities. Such search is not necessarily dramatically different from on-the-job search for a new job. First, the basic structure of the two decision problems is the same: Individuals considering entrepreneurship or a new job are forward-looking and transit, at least on average, into the new position on the basis of a rational selection process. For those who are presently employed, the comparison of the options involves, among other things, the change in earnings, be the considered option an entrepreneurial opportunity or a new job offer. In both cases, we can expect that they select the strategy that at least approximately maximizes their own discounted lifetime utility. Second, there are search costs and randomly arriving opportunities in both cases. In the standard models of entrepreneurship, the search process is implicit, but were it explicitly modelled, it would be – not unlike in the job search models – about acquiring market information and analyzing randomly arriving opportunities. Descriptive accounts of the two search or “scanning” processes also seem to support their similarity (see, for example, Krueger et al., 2000 for an analysis of entrepreneurship).

The aim of this paper is to take a closer empirical look at the two search processes: Are entrepreneurial aspirations on-the-job common? Do the same persons simultaneously search for a new job and entrepreneurial opportunities? To what extent do the determinants of these processes differ, or are entrepreneurial aspirations just another form of job search? Can observables explain them equally well? Are the two processes related? These are the questions we

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address. To the best of our knowledge, no other paper has previously modelled these phenomena side-by-side and compared their correlates.

We examine entrepreneurial aspirations and aspirations to switch job using the Finnish Quality of Work Life Survey from the year 1997. Studying side-by-side job search and entrepreneurial aspirations on-the-job generates three main findings. *First*, neither entrepreneurial aspirations nor job search are uncommon, but only a few people are engaged in both search processes. *Second*, despite their apparent similarity, the two processes are not alike: It is more difficult to empirically explain entrepreneurial aspirations than aspirations to switch job. Moreover, the observable characteristics of the employed that can be linked to entrepreneurial aspirations are quite different from those of job search: For example, females and married employees, those who cannot experiment with new things in current work and who do not work unpaid overtime are less interested in entrepreneurship. Dissatisfaction with one's superior and considering content most important in work have a significant positive effect on entrepreneurial aspirations. A completely different set of variables is related to job search. Employee age has a non-linear relation with job search, implying that the youngest and oldest employees engage less in on-the-job search. The employment relationship also clearly affects job search, as both part time work and temporary contract dummies get highly significant coefficients. The number of job switches in the past correlates positively with job search, too. *Third*, it turns out that only varied work experience, job tenure, and job dissatisfaction are associated both with entrepreneurial aspirations and aspirations to switch job: Varied experience and job dissatisfaction are directly related to the probability of having entrepreneurial aspirations and aspirations to switch job, while job tenure is inversely related to them. As these are the only observable characteristics of the employed that are related to both processes, entrepreneurial aspirations are not just another form of job search.

Our analysis also contributes to the recent literature that explores entrepreneurial origins and entrepreneurs' experiences prior to entrepreneurship.² Our study complements, in par-

ticular, the previous analyses of entrepreneurship that use either cross-sectional or longitudinal data: The former data cannot mirror any dynamics related with the self-employment choice, because they reflect the status quo that prevails at each point in time. The latter data captures actual transitions into entrepreneurship, which however are relatively rare. The aspirations data allow us to investigate a population of *potential* entrepreneurs, for having entrepreneurial aspirations is the logical step just prior to a transition into entrepreneurship. We complement the picture by showing that the potential supply of entrepreneurs "from-the-job" (cf. Hellmann, 2002), as measured by entrepreneurial aspirations, is an order of magnitude larger than the actual transitions: Almost every tenth employee has often thought about starting own business or becoming self-employed, but only around 1.1–1.2% of the workers switch into entrepreneurship annually in Finland (cf. Uusitalo, 2001).

The rest of the paper is organized as follows: In the next section, we outline a theoretical framework for our empirical analysis. In Section 3, we discuss the data and estimation issues. In Section 4, we present the results of our empirical analysis. Section 5 contains a brief summary.

2. Theoretical preliminaries

There are both similarities and differences between the search for entrepreneurial opportunities and the search for a new job on-the-job. From a theoretical point of view, the underlying structures of the two decision problems are similar. From an empirical point of view, the determinants of the two processes are likely to differ, at least in some respects.

2.1. Key similarities: The basic decision problem

Search for entrepreneurial opportunities parallels on-the-job search for a better job at least in three important ways. First, the underlying structure of the two decision problems is the same: The formal theory of on-the-job search suggests that when considering whether or not to switch to a new job, employees are forward-looking and transit into the new job on the basis

of a rational selection process. They on average choose the strategy that maximizes their own discounted lifetime utility. The formal theory of on-the-job search also explains why some search for a new job on-the-job while others do not, with nonzero search costs providing a prominent explanation for the inactivity on-the-job (e.g. Burdett, 1978).³ Absent a formal theory of entrepreneurial aspirations, the search for entrepreneurial opportunities on-the-job can be thought to be determined in the same way as the search for a better job is. As suggested by the previous studies (see for example, Evans and Jovanovic, 1989; Holtz-Eakin et al., 1994; Benz, 2005), individuals considering entrepreneurship select, at least on average, a strategy to maximize their own discounted lifetime utility, are forward-looking and transit into entrepreneurship on the basis of a rational selection process. For the employed, the comparison of the options involves the wage lost if an entrepreneurial opportunity is pursued.

Second, there are search costs and randomly arriving opportunities in both cases. In the standard models of entrepreneurship (Evans and Jovanovic, 1989; Holtz-Eakin et al., 1994), the search process is implicit. Were it however explicitly formalized, it would be about acquiring market information and analyzing randomly arriving entrepreneurial opportunities (see also Krueger et al., 2000), just like in the job-search models (cf. Burdett, 1978; Pissarides, 1984). The randomly arriving opportunities, in turn, might be related for example to the uncertainty regarding the mean of the distribution determining an individual's gross earnings as an entrepreneur.

Third, many on-the-job search models imply a negative relation from wage to separations (search), because the higher the current wage of an employee, the less likely that the next (randomly arriving) wage offer is lucrative for the employee (Burdett, 1978; Jovanovic, 1979a).⁴ The same applies to the next (randomly arriving) entrepreneurial idea. These models also typically imply that the probability that an individual switches a job decreases with tenure. In our context, the theory of on-the-job search suggests that the longer the tenure of an employee, the longer the implicit search process

that has *not* led to a switch, and thus the less likely that the employee's current job is not among the best available to him, or that it is less likely to be worse than the typical entrepreneurial idea that the employee obtains. The negative relation can also be thought to arise either because of worker heterogeneity (i.e., because of workers prone to search for a new job or for an entrepreneurial opportunity doing it early) or because of accumulation of employer-specific capital (Farber, 1999).

2.2. *Other similarities and differences from the empirical literature*

Some of the actual determinants of entrepreneurial aspirations and aspirations to switch job probably originate from common sources, such as the search costs (e.g. time cost) and the common elements of the distributions of job offers/entrepreneurial opportunities. Many details are likely to differ, however. For example, the problem of obtaining start-up capital and dealing with entry regulations have been repeatedly stressed in the entrepreneurship literature, but there is no obvious counterpart for them in the job search literature. In any event, the available empirical literature on entrepreneurship and on job search suggests that there are plenty of potential determinants of entrepreneurial aspirations and aspirations to switch job. To guide our empirics, we next consider them briefly:

2.2.1. *Potential determinants of entrepreneurial aspirations*⁵

Both cross-sectional studies and longitudinal data support the proposition that a large number of various economic, sociological, psychological, cultural and environmental factors impact the probability of actually becoming an entrepreneur. Among the most of cited factors are educational attainment (e.g., the level and field of education), occupational status (e.g., professional status and industry), individual and family background characteristics (e.g., gender, marital status, number of dependents), income from present occupation, and various characteristics of the economic environment (e.g., the area of residence).⁶ In addition, labour market experiences have been

documented to matter: Years worked, number of similar jobs held, and job tenure have been identified to affect switches to entrepreneurship in the previous studies.⁷ In an important new study contributing to this strand of the literature, Lazear (2004, 2005) directs our attention to a specific kind of experience by arguing that people with more varied experience are more likely to become entrepreneurs. This jack-of-all-trades view of entrepreneurship adds variation in an employee's experience to the list of factors impacting the probability of becoming an entrepreneur.⁸ Finally, the non-wage attributes of current job, like working conditions and general job satisfaction are also likely to influence the discounted lifetime utility and hence aspirations to become an entrepreneur.⁹

2.2.2. *Potential determinants of aspirations to switch job:*¹⁰

Empirical studies suggest that, besides wage and tenure, various other worker characteristics, such as age and socioeconomic status, have significant effects on job search (see for example, Blau, 1992; Pissarides and Wadsworth, 1994; Manning, 2003) and are therefore potential determinants of job search. Finally, job satisfaction and various non-pecuniary attributes of the current job influence quits (e.g. Clark, 2001) and should therefore also be related to job search.

3. Data and empirical specification

3.1. *Data sources*

The data set that we are using is the 1997 Quality of Work Life Survey (QWLS) of Statistics Finland. The initial sample for QWLS is derived from a monthly Labour Force Survey (LFS) of Statistics Finland, where a random sample of working age population is selected for a telephone interview. The 1997 QWLS was based on LFS respondents in September and October who were 15–64 old wage and salary earners with normal weekly working time of at least five hours. About 3795 individuals were selected for the QWLS sample and invited to participate in a face-to-face interview. Out of this sample, 2978 persons, or 79%, participated (see Lehto and Sutela, 1999).

QWLS includes questions on the personal characteristics and work experience of the respondents, and a large set of questions on perceived working conditions. Statistics Finland supplements QWLS with information from the LFS, such as working time and exact labour market status. Supplementary information on the industry and location of the employer, and on the level and field of education of the respondents is from various registers maintained by Statistics Finland.

3.2. *Definition of variables*

3.2.1. *Dependent variables*

The dependent variables used in this study are on-the-job search for entrepreneurial opportunities and on-the-job search for a better job. Unfortunately, the earlier literature has not been able to identify an ideal measure especially for the former type of behaviour. Absent the ideal measures, we have chosen to proxy them as follows: As for entrepreneurial aspirations on-the-job, QWLS includes a question “Have you ever thought about starting your own business or becoming self-employed?”, with possible answers “no”, “occasionally”, “often”, and “don’t know”. We use a binary indicator for the answer “often” as our primary dummy indicator for on-the-job search for entrepreneurial opportunities. We denote this first main dependent variable ASPIRATIONS1. As for search for a better job, there is a question “Have you been looking for another job in the last 6 months?”. The responses to this question are used to construct a binary indicator for on-the-job search for a better job. We denote this second main dependent variable of ours JOBSEARCH1. We present the exact definitions of these and all the other variables in an Appendix.

Although our measures for the two types of labour market behaviour are certainly imperfect, we have several reasons to trust in them. First, they reflect the same type of search in progress as the variables used to capture on-the-job-search in the previous labour market analyses (see, for example, Blau, 1992; Pissarides and Wadsworth, 1994) and analyses of latent entrepreneurship (Blanchflower et al., 2001;

Thurik and Grilo, 2005). Second, we can establish the robustness of our results with respect to alternative measures: When studying their robustness, we use a binary indicator for thinking about becoming an entrepreneur at least sometimes, which includes the categories “occasionally” and “often”. We denote this variable *ASPIRATIONS2*. We also use all three categories, “no”, “occasionally”, and “often” to form an ordered variable *ASPIRATIONS3* (leaving out “don’t know” answers) and estimate the model as an ordered probit model. As for job search, we try a binary indicator on whether the respondent has looked for a job during the last four weeks as an alternative to *JOBSEARCH1*. We denote this indicator *JOBSEARCH2*. Clearly, this variable is a more restricted measure of job switch aspirations. Third, if our measures completely failed to capture the two types of labour market behaviour, we should probably find no meaningful effects. Last but not least, our main measures have the merit of simplicity.

We acknowledge that our proxy for the employee search for entrepreneurial opportunities is imperfect. A potential criticism against using aspirations data as an indicator of search for entrepreneurial opportunities is that an individual’s aspirations may predict her search activity (actions) poorly even if she is unconstrained to pursue such search. We have three responses to this type of criticism. First, for our analysis to make sense it is required only that entrepreneurial aspirations are positively (but not perfectly) correlated with the actual search process and eventual transitions to entrepreneurship. Second, if this correlation is weak, something of a paradox emerges. The source of the paradox is that unless the transitions to entrepreneurship are preceded by some kind of search and systematic development of entrepreneurial ideas (i.e., “on-the-job search” for them) that the entrepreneurial aspirations reflect, “true” potential entrepreneurship on-the-job is next to random or unpredictable. Third, psychological studies suggest that intentions indeed predict (planned) behaviour, particularly when that behaviour is rare or hard to observe (see Krueger et al., 2000 and the references therein). The

results from this literature suggest that models of intentions are useful in understanding and predicting entrepreneurial activity. Furthermore, our ongoing work with the same survey data as in this paper, but now linked to longitudinal register data, shows that aspirations indeed have predictive power for actual transitions to entrepreneurship. Of those who in the 1997 survey said that they have often thought about entrepreneurship (*ASPIRATIONS1*), 14% had transitioned to entrepreneurship by the year 2002. Among those who have at least sometimes thought about entrepreneurship (*ASPIRATIONS2*), the corresponding transition rate was 6%, and among those who have never thought about entrepreneurship, it was only 1.2%. These findings corroborate some recent evidence from the UK (Henley, 2005).¹¹

3.2.2. *Regressors*

We consider two sets of regressors (models 1 and 2) that we include sequentially into our empirical specification. In the first model, we include several personal and job characteristics. In the second model, we add firm and plant characteristics.

The basic personal characteristics include age and age squared (*AGE*, and *AGE*²), gender (*FEMALE* dummy), education (education levels *EDUCATION1* to *EDUCATION4*), fields of education (technical and natural science *TECHNICAL*, business, law, and social sciences *BUSINESS*, humanities, health care, teaching, etc. *HUMANITIES*, and other fields *OTHER*), family (*MARRIED* dummy, *CHILDREN* for the number of children), as well as indicators for the type of the current employment relationship (*PARTTIME*, *TEMPORARY*).

MANAGER is an indicator for managerial tasks in current job, *OVERTIME* indicates that the persons very often works unpaid overtime, and *EXPERIMENTS* indicates that the persons can experiment with new things in the current job. These variables may explain why an individual is looking for a new job: Managerial position in current job may enhance the likelihood of receiving a job offer (e.g., a call from head-hunter), and a person working unpaid overtime or (not) being able to experiment with

new things in the current job may have a strong incentive to scan for a new job. Interestingly, these variables also reflect the kind of characteristics in an individual's current job that are useful if the person starts her own business (see also Gompers et al., 2005).

We include in the model the log of monthly pay, LOG_PAY, and years of firm-specific experience, TENURE. We acknowledge that these may be endogenous. If the firm uses wage as a means of lowering the quit rate, turnover and wage should be simultaneously determined. On the other hand, quit intentions and tenure may be jointly determined. For the time being, we use these two variables without instrumenting them. The relationship between tenure and quit intentions (either to entrepreneurship or another job) may be negative because of employee heterogeneity even when there is no true negative state dependence in turnover. We can at least partly control the heterogeneity by including a variable that measures the number of job changes in the last five years, JOB_SWITCHES. Employees, who have switched jobs often in the past, are likely to do it also in the future. We also include a measure for varied experience. To that end, we construct an indicator that equals one if the employee has held more than three clearly different occupations (professions) during her working life. The indicator, which we denote VARIED_EXPERIENCE, equals zero otherwise.¹²

Finally, we include some job satisfaction dummy variables, i.e., general dissatisfaction with current work, UNSATISFIED; dissatisfaction with superior, SUPERIOR_BAD; and the opinion that the content is definitely the most important in work, compared to pay, WORK_CONTENT; and an indicator on whether the person is a labour union member, UNION.

In the second model, we also include characteristics of the firm for which the interviewed employees are working. These include indicators for public or foreign ownership (PUBLIC, FOREIGN), plant size (size groups PLANT_SIZE_10 to PLANT_SIZE_500), and industry (industry dummies INDUSTRY_i for 12 industries). The motivation for including these variables is as follows: Corporate culture may for example be more (or less) hostile towards

within-firm promotions or intrapreneurship (i.e., within-firm entrepreneurship) in foreign-owned than in domestically owned firms. Foreign-owned firms may also employ different incentive schemes and corporate governance systems, which obviously might affect the propensity of an employee to engage in either search process. Opportunities for entrepreneurial learning on-the-job and scope for within-firm career paths may vary with the size of the plant one is working for. Finally, it is well-documented that job-to-job switches and propensity to transit into entrepreneurship vary by industry.

4. Results

4.1. Univariate analysis

We first present some descriptive evidence on entrepreneurial and job search intentions. In Table I, we present descriptive statistics on the alternative dependent variables that measure entrepreneurial intentions and job search. Table I suggests that entrepreneurial aspirations on-the-job are not rare, as almost every tenth employee (8% of the employed) has often thought about starting her own business. Entrepreneurial aspirations seem to be less common than aspirations to switch job (15% of the employed). This difference is, however, driven by the definition of the variables. If we use ASPIRATIONS2, the mean is much higher (37% of the employed). On the other hand, the share of those who have searched for a new job in the last four weeks is only 6.4%. Because of this ambiguity and the difference in the way the questions are asked, we cannot probably say much about which of the two types of aspirations on-the-job is more common. The mean value of ASPIRATIONS3 is 1.45 in a scale from 1 to 3, which

TABLE I
Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ASPIRATIONS1	2971	0.080	0.271	0	1
ASPIRATIONS2	2971	0.373	0.484	0	1
ASPIRATIONS3	2971	1.453	0.638	1	3
JOBSEARCH1	2964	0.152	0.359	0	1
JOBSEARCH2	2962	0.064	0.244	0	1

TABLE II
Cross tabulation of entrepreneurial aspirations with job search

ASPIRATIONS1	JOBSEARCH1		Total
	0	1	
0 (0.936)	2346 (0.831)	375 (0.920)	2721
1 (0.064)	160 (0.169)	76 (0.080)	236
Total	2506	451	2957
Pearson $\chi^2(1)$			57.016
p-value			0.000

Note: shares of column total in parentheses.

shows that on average, the survey respondents have either not thought about entrepreneurship or have done it only occasionally.

In Table II, we cross-tabulate ASPIRATIONS1 and JOBSEARCH1 for the individuals for whom there is non-missing information on both variables. The figures show that almost 80% of the respondents are neither looking for a job nor thinking (often) about entrepreneurship. Almost 13% are searching for a new job, but not interested in becoming an entrepreneur, and 5% can be classified as latent entrepreneurs that are not actively engaged in on-the-job search for a new job. Less than 3% of the employed are both potential entrepreneurs and job switchers. Thus, only a few people are engaged in both search processes.

The table also shows that the two processes are not independent. The dependence is confirmed by a Pearson's chi-square test, which rejects the hypothesis that entrepreneurial aspirations and job search are independent at the 1% level. This unconditional result is of course driven to a large extent by the large number of non-searchers.

4.2. Regression results

4.2.1. Basic results

The search decision we seek to model is discrete rather than continuous. To allow for such a qualitative response, we run probit regressions of the form

$$y_i = 1[X_i'\beta + \varepsilon_i > 0] \quad (1)$$

where $y_i \in \{ASPIRATIONS1_i, JOBSEARCH1_i\}$, $1[\cdot]$ is an indicator function, X_i is the vector of regressors, β is the associated parameter vector, and ε_i is an independent centred normal error with unit variance. The model is estimated by the method of (quasi) maximum likelihood, and we report marginal effects that are evaluated at the means of the variables and that measure the impact of infinitesimal changes in the continuous variables and discrete changes in the dummy variables. In view of the possibility that the normal probability model is mis-specified (or that there is heteroscedasticity), we use standard errors that are based on the robust Huber-White variance-covariance estimator. For a more detailed discussion of the model and these estimators, we refer the reader to Wooldridge (2002) and Greene (2003).

Table III reports the results of our basic probit estimations. The first two columns presents results without firm characteristics and industry dummies, whereas in the last two columns, these controls are included. The table shows that despite their apparent similarity, the two search processes are not alike. First, it is more difficult to empirically explain entrepreneurial aspirations than aspirations to switch job. Pseudo- R^2 is clearly higher for the latter. Cramer's (1999) λ -statistic, which is a measure of fit for binary models, suggests the same: The values for the entrepreneurial aspirations and job search models are 0.052 and 0.196, respectively. So does the percentage correctly predicted, when the sample proportion of the dependent variable is used as the cut-off point (see Cramer, 1999). In this case, the share of correctly predicted ASPIRATIONS1 is 66.4 percent and the corresponding figure for JOBSEARCH1 is 72.8 percent.

Second, the determinants seem to differ. In the models we consider, the *only* variables that are related to the *both* search processes are VARIED_EXPERIENCE, TENURE, and UNSATISFIED. Out of these variables, TENURE is not significant in the model for ASPIRATIONS1 when firm characteristics are included (see, however, discussion on bivariate probit estimations below). Varied experience has a positive and statistically significant coefficient in

TABLE III
Probit marginal effects

	(Model 1) ASPIRATIONS1	(Model 1) JOBSEARCH1	(Model 2) ASPIRATIONS1	(Model 2) JOBSEARCH1
AGE	0.003 (0.004)	0.013 (0.004)***	0.002 (0.004)	0.013 (0.005)***
AGE ²	-0.000 (0.000)	-0.000 (0.000)***	-0.000 (0.000)	-0.000 (0.000)***
EDUCATION1	-0.007 (0.023)	-0.030 (0.026)	0.010 (0.028)	-0.027 (0.028)
EDUCATION2	0.009 (0.019)	-0.022 (0.023)	0.020 (0.020)	-0.023 (0.024)
EDUCATION3	0.002 (0.021)	0.026 (0.027)	0.008 (0.022)	0.025 (0.028)
HUMANITIES	-0.015 (0.016)	0.028 (0.023)	0.006 (0.021)	0.018 (0.024)
BUSINESS	-0.012 (0.015)	0.024 (0.021)	-0.007 (0.015)	0.025 (0.022)
TECHNICAL	-0.026 (0.013)**	0.007 (0.018)	-0.015 (0.014)	0.013 (0.020)
FEMALE	-0.040 (0.012)***	-0.014 (0.013)	-0.035 (0.012)***	-0.017 (0.014)
MARRIED	-0.025 (0.012)**	-0.015 (0.014)	-0.02 (0.012)**	-0.013 (0.014)
CHILDREN	0.004 (0.003)	-0.001 (0.004)	0.001 (0.004)	-0.003 (0.005)
PARTTIME	0.015 (0.020)	0.061 (0.024)**	0.007 (0.020)	0.060 (0.025)**
TEMPORARY	0.011 (0.014)	0.099 (0.020)***	0.015 (0.015)	0.102 (0.022)***
MANAGER	0.010 (0.011)	0.006 (0.013)	0.011 (0.011)	0.003 (0.013)
EXPERIMENTS	0.053 (0.018)***	0.004 (0.017)	0.055 (0.018)***	0.002 (0.017)
OVERTIME	0.043 (0.024)*	-0.010 (0.022)	0.034 (0.023)	-0.014 (0.021)
JOB_SWITCHES	0.003 (0.002)	0.012 (0.003)***	0.003 (0.002)	0.012 (0.003)***
VARIED_EXPERIENCE	0.032 (0.016)**	0.035 (0.018)*	0.040 (0.017)**	0.042 (0.019)**
TENURE	-0.001 (0.001)*	-0.006 (0.001)***	-0.001 (0.001)	-0.005 (0.001)***
LOG_PAY	0.016 (0.016)	-0.024 (0.018)	0.022 (0.016)	-0.016 (0.019)
SUPERIOR_BAD	0.061 (0.034)*	0.035 (0.035)	0.064 (0.035)*	0.045 (0.036)
UNSATISFIED	0.046 (0.024)*	0.280 (0.039)***	0.044 (0.024)*	0.279 (0.040)***
WORK_CONTENT	0.030 (0.016)*	-0.020 (0.015)	0.031 (0.016)*	-0.023 (0.015)
UNION	-0.028 (0.014)**	-0.004 (0.014)	-0.018 (0.013)	-0.004 (0.015)
PLANT_SIZE_10			0.015 (0.022)	-0.007 (0.024)
PLANT_SIZE_10-49			0.001 (0.019)	-0.008 (0.023)
PLANT_SIZE_50-499			-0.009 (0.018)	-0.010 (0.023)

TABLE III
(Continued)

	(Model 1) ASPIRATIONS1	(Model 1) JOBSEARCH1	(Model 2) ASPIRATIONS1	(Model 2) JOBSEARCH1
PUBLIC			-0.014 (0.016)	-0.020 (0.019)
FOREIGN			0.005 (0.018)	-0.009 (0.022)
Pseudo R^2	0.065	0.206	0.078	0.211
Observations	2926	2920	2846	2841

Note: Robust standard errors in parentheses. *significant at 10%; **significant at 5%; ***significant at 1% level. EDUCATION4, OTHER, and PLANT_SIZE_500 are used as reference groups. Coefficients of industry dummies are not reported.

all the models. The statistically significant relation between VARIED_EXPERIENCE and entrepreneurial aspirations is consistent with Lazear's (2004, 2005) jack-of-all-trades hypothesis of entrepreneurship. According to the hypothesis, varied experience matters, because entrepreneurs need to master a number of different skills and have more balanced talents than "specialists". The statistically significant relation between VARIED_EXPERIENCE and job search suggests, however, that the hypothesis needs not be unique to entrepreneurship, as the jacks-of-all-trades also search on-the-job for a new job more frequently than others. Moreover, the marginal effect of VARIED_EXPERIENCE on the probability of having entrepreneurial aspirations is of the same order of magnitude as is its marginal effect on the probability of job search (0.032 and 0.035, respectively, in columns 1 and 2 of Table III, and 0.040 and 0.042, respectively, in columns 3 and 4). As expected, job tenure is negatively related to both entrepreneurial aspirations and to aspirations to switch job. Job dissatisfaction has a significant positive effect on both search activities.

Are there any other variables besides these three variables that have consistently a significant relation both to ASPIRATIONS1 and to JOBSEARCH1? The answer is clear-cut: No.¹³ The model for ASPIRATIONS1 suggests that females and married employees are less interested in entrepreneurship; that the opportunity to experiment with new things in current work and working unpaid overtime have relatively large marginal effects on ASPIRATIONS1; and

finally, dissatisfaction with one's superior and considering content most important in work have a significant positive effect on entrepreneurial aspirations. A completely different set of variables is related to JOBSEARCH1: AGE and AGE² are both significant, but the former obtains a positive and the latter a negative coefficient. This non-linearity implies that the youngest and oldest employees engage less in on-the-job search. The estimates imply that the effect of age on job search is highest at the age of 31.¹⁴ The employment relationship also clearly affects job search, as both part time work and temporary contract dummies get highly significant coefficients. Interestingly, the number of job switches in the past obtains a significant positive coefficient in the job search equation. This can be interpreted to indicate that there is indeed heterogeneity in the employees' inclination to leave their job.

As to the remaining variables, their effects on ASPIRATIONS1 and on JOBSEARCH1 are less systematic and not exceedingly robust. Years of education, for example, have no systematic impact on either dependent variable. Field of education is significant only in the first model (column 1) for entrepreneurship, where employees with technical or natural science education think about entrepreneurship less often. This effect disappears once the industry for which the employees are working is controlled for (column 3). Wage (LOG_PAY) is not significant in either equation, which stands in contrast to the findings of many earlier empirical studies on job search. It is, however, worth

noting that albeit insignificant, the coefficient of LOG_PAY is negative. Plant size and ownership variables are insignificant in both equations. Lastly, some miscellaneous industry effects can be found (not reported in the table).

To formally test whether the determinants of the two processes differ as a whole we re-estimate the entrepreneurial aspirations and job search models from columns 3 and 4 of Table III as a bivariate probit model. We do not report the results in the Table, but note that the results are very similar to the univariate probit estimates. Interestingly, TENURE is again significant in the aspirations equation. A Wald-test for the bivariate model indicates, unsurprisingly, that the coefficients of the entire control vectors are not identical in the two probit equations ($\chi^2(40)$ statistic is 186.26, with a p -value < 0.001). A test of the equality of the coefficients of the three common determinants of the two processes, i.e., those of VARIED_EXPERIENCE, TENURE and UNSATISFIED, shows, moreover, that the coefficients of TENURE and UNSATISFIED are significantly different from each other in the two equations, but those of VARIED_EXPERIENCE are not.¹⁵

The bivariate Probit confirms yet another earlier finding of ours, as it shows that the two search processes are related even after conditioning on the observables. The correlation coefficient of the error terms of the two probit models is 0.277 with a standard error of 0.052. This result implies that even after controlling for a rather long list of observable characteristics, the conditional independence of the two processes can be rejected at the 1% significance level. It is useful to remember, however, that unobservable heterogeneity common to many non-searchers drives this result, as there are only few who are both potential entrepreneurs and job switchers. A prime example of such heterogeneity is the (high but unobserved) quality of the current worker–job match of the non-searchers.

4.2.2. Robustness tests

We performed a number of robustness tests. We do not report these tests in detail to save space, as we run several new regressions both for on-the-job search for entrepreneurial opportunities

and for on-the-job search for a new job. Anticipating the outcome of these tests, each of them illustrate that the two processes are rather different and, in particular, they confirm our earlier result that the only variables that are systematically related to the both search processes are VARIED_EXPERIENCE, TENURE, and UNSATISFIED.

Robustness test 1: Many individuals move into entrepreneurship gradually by starting a business as a second job and then eventually become fully self-employed if the business succeeds. To explore whether our results are driven by such gradual transitions, we experiment by including a dummy for side-entrepreneurship (SIDEENTREPRENEUR), which indicates that the individual is presently gaining experience as entrepreneur or farmer in a second job. The results indicate that having a second job as entrepreneur correlates positively with the probability of thinking about becoming full time entrepreneur (but not with job search). None of our main findings change, however, if we include this variable. This finding means that SIDEENTREPRENEUR reflects aspects of entrepreneurial aspirations other than those captured by the included regressors. To what extent this finding relates to the reasons why aspirations do not always materialize is a topic that we are addressing in our ongoing work.

Robustness test 2: Is a mis-specified distributional assumption driving our findings? To address this question, we re-run our basic models as linear probability models, which may be more robust to the underlying assumptions about the model specification than the probit model (see for example, Wooldridge, 2002). Again, the only coefficients that are significant in all the models are those of VARIED_EXPERIENCE and UNSATISFIED (TENURE is not significant in the entrepreneurial aspirations models). Moreover, the coefficients of these variables are fairly close to the marginal effects that we obtain from the probit estimations. This is natural, since most of our explanatory variables are dichotomous.

Robustness test 3: Are mis-measured dependent variables driving our findings? To address this question, we re-run our basic regressions using alternative measures for the two dependent variables. Instead of ASPIRATIONS1 we try

ASPIRATIONS2. We also use ordered probit to explain ASPIRATIONS3 that has three ordered categories. The results of this robustness test echo our previous findings. *VARIED_EXPERIENCE*, *TENURE*, and *UNSATISFIED* are related to entrepreneurial aspirations in the same way as before and now also *TENURE* is clearly significant in all the models. There are, however, some differences in the other coefficients. In probit estimation for ASPIRATIONS2 and ordered probit estimation for ASPIRATIONS3 the variables *CHILDREN*, *MANAGER* and *LOG_PAY* obtain significant positive coefficients and *UNION* a significant negative coefficient. Further, *MARRIED*, and *SUPERIOR_BAD* are no longer significant. Finally, instead of *JOBSEARCH1* we explain *JOBSEARCH2*. In this case, *TENURE* and *UNSATISFIED* are still significant, but *VARIED_EXPERIENCE*, while still positive, is not. This may reflect the fact that since *JOBSEARCH2* is based on search in the last four weeks, it is a less reliable measure of on-the-job search. Among the other variables, *SUPERIOR_BAD* now obtains a significant positive coefficient, whereas the age group dummies and *JOB_SWITCHES* are no longer significant.¹⁶

Robustness test 4: An issue in interpreting the effects of *VARIED_EXPERIENCE*, *TENURE*, and *UNSATISFIED* is their potential endogeneity, since the same unobservables that affect intentions to leave the present workplace may also correlate with the kind of experience gained previously, length of tenure, and job satisfaction. The possibility can be examined using the test suggested by Rivers and Vuong (1988).¹⁷ Performing the endogeneity tests shows that in the probit models for ASPIRATIONS1 and *JOBSEARCH1* exogeneity of these variables can be accepted. The only exception is *UNSATISFIED*, which the test suggests to be endogenous to ASPIRATIONS1. To see how much this matters, we estimate a bivariate probit model for ASPIRATIONS1 and *UNSATISFIED*, with the latter explained by the instruments used in the endogeneity test. The system is recursive, since entrepreneurial intentions have no impact on satisfaction, but job satisfaction can influence the search for entrepreneurship. Further, the explanatory variables are partly different. This makes it possible to ignore the

simultaneity in the likelihood and estimate the model as bivariate probit (Greene, 2003). However, this does not change the significance of any of the coefficients that are significant in the basic probit model for ASPIRATIONS1. We can therefore conclude that endogeneity is not a serious problem.¹⁸

5. Discussion

Our empirical analysis shows that neither entrepreneurial aspirations nor aspirations to switch job are uncommon. It seems, however, that only few of the employed are engaged in both search processes. We also document that almost every tenth employee has often thought about starting a business of her own. Because every hundredth Finnish worker actually switches from work to entrepreneurship annually (Uusitalo, 2001), our findings indicate that the potential supply of entrepreneurs “from-the-job” is an order of magnitude larger than the actual transitions. The same does not apply to job-to-job switches: the share of job searchers is much closer to the share of actual job switchers.¹⁹ To the best of our knowledge, these results are novel, as the previous literature offers no points of comparison.

Our results corroborate previous knowledge in the sense that both the entrepreneurship and job search literature suggest that job tenure (*TENURE*) reduces and dissatisfaction with one’s current job (*UNSATISFIED*) increases the propensity to leave one’s current job. We show that they are similarly associated with both underlying search processes.

Our analysis shows that the two search processes are not alike: It is more difficult to empirically explain entrepreneurial aspirations than aspirations to switch job. Moreover, the observable characteristics of the employed that can be linked to entrepreneurial aspirations are quite different from those of job search: Employees who can experiment with new things in their present job, regard the content of their work (as opposed to pay) important, and are very dissatisfied with their superior’s leadership have more often entrepreneurial aspirations than others. Consistent with the available evidence on actual transitions into entrepreneurship, women and

married employees have entrepreneurial aspirations less frequently than others. None of these employee attributes that influence entrepreneurial aspirations have an effect on the probability of searching for a new job.

What also echoes the results of some earlier studies is the effect of varied experience (VARIED_EXPERIENCE) on entrepreneurial aspirations (e.g. Wagner, 2003; Lazear, 2004). It is, however, not entirely clear what explains the positive effect of this variable on job search and whether Lazear's jack-of-all-trades hypothesis has a clear counterpart in the context of on-the-job search. Labour market opportunities available to the jacks-of-all-trades may, of course, be richer than to others: Individuals currently on the job that master a number of different skills and have a balanced set of talents may for example receive job offers simply more frequently. Or alternatively, the offers to them may be drawn from a distribution either with a higher mean or higher variance, which both increase the returns to search (for a given reservation wage). A reason for this might for example be that many managerial

positions call for a balanced set of talents. The basic intuition underlying this argument is thus not too different from the standard view that education enhances labour market opportunities. The widely studied "hobo syndrome", i.e., that some people may simply have a preference to often switch to a new kind of job, provides a further motivation why varied experience as a regressor in the job search equation may become significant (see Munasinghe and Sigman, 2004).

How large are the effects of these three common determinants on the probabilities of entrepreneurial aspirations and on-the-job search for a new job? Before summarizing the effects we first have to note that due to the nonlinearity of the probit model, the marginal effects are a function of all the independent variables. This implies that the effects of the three variables on the probabilities are associated. The effects are associated although the model does not include an explicit interaction term (see for example, Ai and Norton, 2003).

We show the magnitude of the effects and their association in Figure 1, where the (predicted)

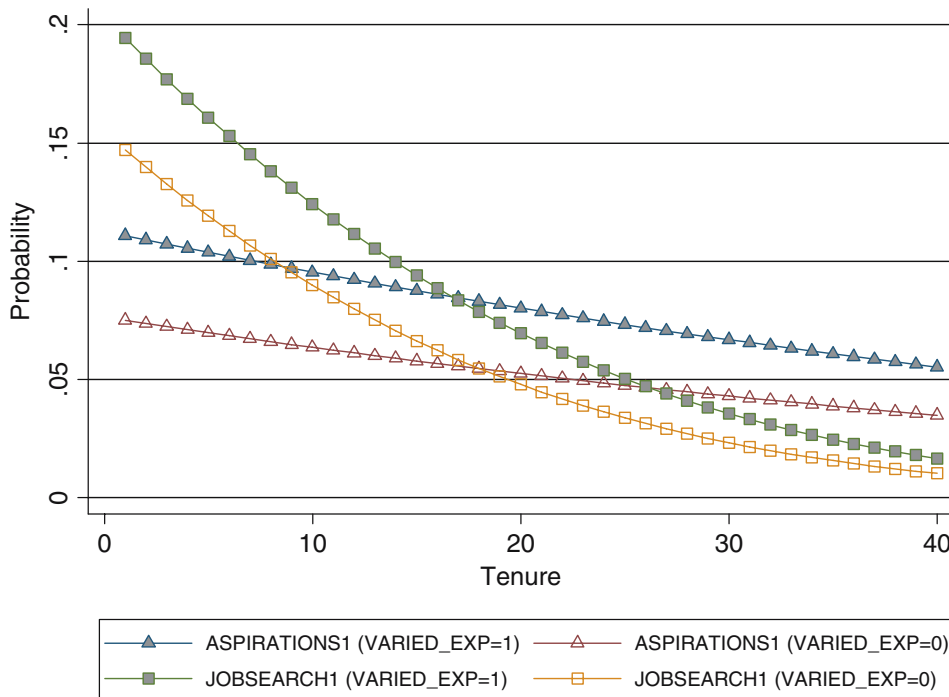


Figure 1. Probabilities of entrepreneurial aspirations and job search as functions of tenure and varied experience.

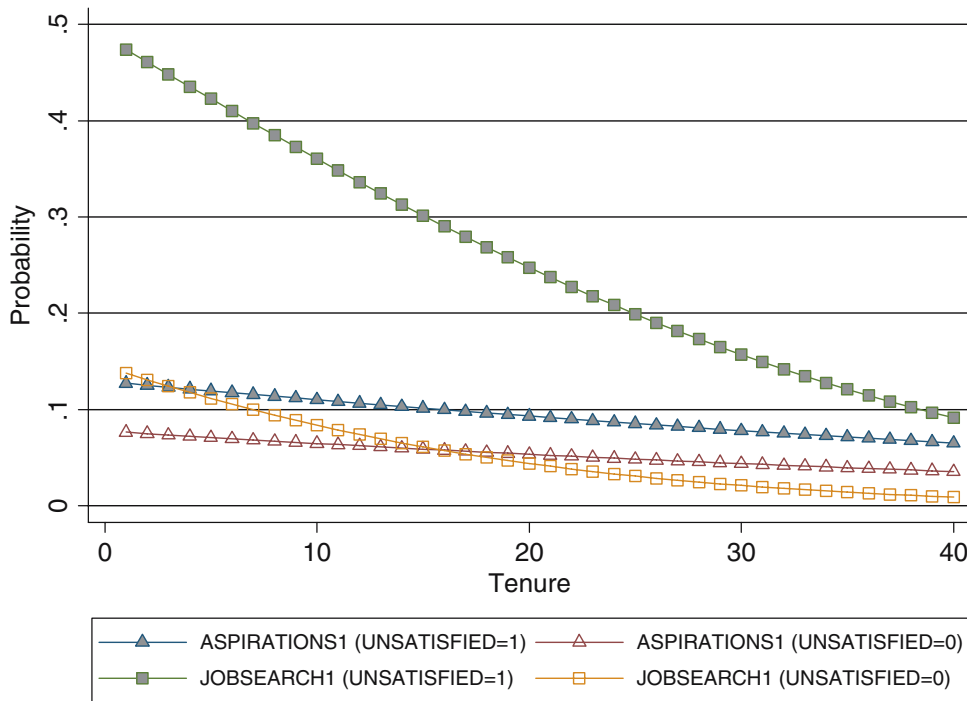


Figure 2. Probabilities of entrepreneurial aspirations and job search as functions of tenure and job dissatisfaction.

probabilities are plotted against tenure separately for $\text{VARIED_EXPERIENCE}=1$ and $\text{VARIED_EXPERIENCE}=0$. We evaluate the probabilities at the means of all the other variables and using the parameter estimates of model 1. The figure shows that the probabilities fall with tenure, but the fall is much steeper in the case of job search. Tenure dampens the effect of varied experience, as the probabilities of entrepreneurial aspirations of those with and those without varied experience approach each other as tenure increases. The gap between the two probabilities of job switch aspirations narrows even faster.

We show in Figure 2 the effects of TENURE and UNSATISFIED on the probabilities. In this case, being unsatisfied leads to a much higher probability of job search than being satisfied with current job. This effect falls with tenure, but even at 40 years of tenure, the probability of job search is still higher for the dissatisfied. While the job search literature suggests that job tenure reduces and dissatisfaction with one's current job increases the propensity to leave one's current job, their interaction has

to the best of our knowledge not been documented before. In the case of entrepreneurial aspirations the difference in probabilities between the two groups is clearly smaller.

6. Conclusions

The purpose of this paper is to contribute to the existing empirical analyses of labour market behaviour of employed individuals by exploring the previously overlooked possibility that the individuals on-the-job may have entrepreneurial aspirations in addition to aspirations to switch job.

To study the two processes side-by-side, we use Finnish data on the entrepreneurial and job switch aspirations of a random sample of individuals currently on-the-job. Three main findings emerge from this side-by-side analysis:

- Neither entrepreneurial aspirations nor aspirations to switch job are uncommon, but only few of the employed are engaged in both search processes.

- Despite their apparent similarity, the two search processes are not alike: It is more difficult to empirically explain entrepreneurial aspirations than aspirations to switch job. Moreover, the observable characteristics of the employed that can be linked to entrepreneurial aspirations are quite different from those of job search: Employees who can experiment with new things in their present job, regard the content of their work (as opposed to pay) important, and are very dissatisfied with their superior's leadership have more often entrepreneurial aspirations than others. Only few of the employee attributes that influence entrepreneurial aspirations have an effect on the probability of searching for a new job.
- Out of the observable characteristics of the employed, only varied experience, job tenure, and job dissatisfaction are associated both with entrepreneurial aspirations and aspirations to switch job. Varied experience and job dissatisfaction are directly related to the probability of having entrepreneurial aspirations and aspirations to switch job, while job tenure is inversely related to them. No other observable characteristic of the employed is robustly related to both processes. These find-

ings enhance our understanding of the process of switching from work into entrepreneurship and suggest that the process is not just another form of job search.

Our analysis also sheds new light on how frequently entrepreneurial ideas or aspirations translate into actual transitions from work into entrepreneurship: While very few Finnish workers actually switch from work to entrepreneurship annually, the potential supply of entrepreneurs "from-the-job" is an order of magnitude larger than the actual transitions.

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Appendix

In this appendix we report the definitions of our variables in detail.

Entrepreneurship and job search variables

ASPIRATIONS1	= 1 if has thought about starting own business or becoming self-employed "often", = 0 if "occasionally", "not", or "don't know". (Missing answers are excluded from the analysis.)
ASPIRATIONS2	= 1 if has thought about of entrepreneurship or self-employment "often" or "occasionally", = 0 if "not", or "don't know". (Missing answers are excluded from the analysis.)
ASPIRATIONS3	= 1 if has not thought of entrepreneurship, = 2 if occasionally, = 3 if often. ("Don't know" and missing answers are excluded from the analysis)
JOBSEARCH1	= 1 if has been looking for another job in the last 6 months (while in present job), = 0 if not. (Missing answers are excluded from the analysis)
JOBSEARCH2	= 1 if has looked for a job in the last 4 weeks, = 0 if not (Missing answers are excluded from the analysis)

Work experience and employment relationship variables

MANAGER	= 1 if tasks involve supervision of others or delegation of tasks to other employees, = 0 otherwise
OVERTIME	= 1 if does almost daily overtime for which receives no compensation, = 0 otherwise
EXPERIMENTS	= 1 if experiments with new things in work continuously or very frequently, = 0 otherwise
JOB_SWITCHES	Number of job changes in last 5 years
VARIED_EXPERIENCE	= 1 if has been in over three distinctly different kinds of occupations during his/her life, = 0 otherwise
UNEMPLOYMENT	Unemployment months in last 5 years

Appendix (Continued)

TENURE	Years in current workplace in continuous employment relationship
EXPERIENCE_3	= 1 if total work experience under 3 years, = 0 otherwise
EXPERIENCE_3–12	= 1 if total work experience is 3–12 years, = 0 otherwise
EXPERIENCE_13–27	= 1 if total work experience is 13–27 years, = 0 otherwise
EXPERIENCE_OVER_27	= 1 if total work experience is over 27 years, = 0 otherwise
PARTTIME	= 1 if works part time (self reported status), = 0 otherwise
TEMPORARY	= 1 if currently in fixed-term employment relationship, = 0 otherwise
HARM	= 1 if at least one adverse factor that affects work 'very much' (out of 20 different kind of factors), = 0 otherwise
HAZARD	= 1 if at least one factor experienced as a 'distinct hazard' (out of 13 different kind of factors), = 0 otherwise
Personal characteristics variables	
AGE	= age of the employee
AGE ²	= age of the employee squared
FEMALE	= 1 if female, = 0 if male
MARRIED	= 1 if married or cohabiting, = 0 otherwise
CHILDREN	Number of children under 18 years living at home
EDUCATION1	= 1 if comprehensive education, = 0 otherwise
EDUCATION2	= 1 if upper secondary or vocational education, = 0 otherwise
EDUCATION3	= 1 if polytechnic or lower university degree, = 0 otherwise
EDUCATION4	= 1 if higher university degree, = 0 otherwise
TECHNICAL	= 1 if education in technology, natural sciences or computer science, = 0 otherwise
BUSINESS	= 1, if education in business, law or social sciences, = 0 otherwise
HUMANITIES	= 1 if education in health care, teaching, or humanities, = 0 otherwise
OTHER	= 1 if education in agriculture and forestry or unspecified field, = 0 otherwise (reference group)
SOCIOECONOMIC_HIGH	= 1 if social economic position high (higher white collar employee, management position etc.), = 0 otherwise
UNION	= 1 if member of labour union, = 0 otherwise
ILLNESS	= 1 if suffers from any medically diagnosed chronic illness, = 0 otherwise
Work attitude variables	
UNSATISFIED	= 1 if "very unsatisfied" with current job, = 0 otherwise
SUPERIOR_BAD	= 1 if very dissatisfied with superior's leadership, = 0 otherwise
WORK_CONTENT	= 1 if contents are definitely the most important in work, = 0 otherwise (pay definitely the most important, pay slightly more important than contents, contents slightly more important than pay)
Income variables	
LOG_PAY	= ln(MIDPAY), where MIDPAY is the mid point of monthly income category. Categories are under FIM 3000, then increases by 1000 from 3000 to 16000, by 2000 from 18000 to 20000, by 5000 from 20000 to 30000, and the final category is over 30000. For the first and last categories, MIDPAY is the category limit. Income is gross income, including shift work and bonuses, but excluding overtime pay
FIXEDPAY	= 1 if fixed monthly or hourly pay (including shift work supplement), = 0 otherwise
PIECERATE	= 1 if only piece-work or commission pay, = 0 otherwise
FIXED_AND_BONUS	= 1 if pay consists of fixed basic pay plus piece work bonus, productivity bonus or commission, = 0 otherwise
Firm characteristics variables	
PUBLIC	= current employer is state or municipality, = 0 otherwise
FOREIGN	= current employer is private, mainly foreign-owned enterprise, = 0 otherwise
PLANT_SIZE_10	= 1 if number of persons working in same establishment is under 10, = 0 otherwise
PLANT_SIZE_10–49	= 1 if number of persons working in same establishment is 10–49, = 0 otherwise
PLANT_SIZE_50–499	= 1 if number of persons working in same establishment is 50–499, = 0 otherwise
PLANT_SIZE_500	= 1 if number of persons working in same establishment is 500 or more, = 0 otherwise
INDUSTRY_i	Dummies for industries i = AB (agriculture, forestry, fishing), CDE (mining, manufacturing, energy), F (construction), G (trade), H (hotels and restaurants), I (transportation and communications), J (finance), K (real estate and business services), L (public administration), M (education), N (health and social services), OPX (other public and private services, households, industry unknown)
REGION_i	Dummies for i = 1,...,21 NUTS3 regions

Notes

¹ Entrepreneurial intentions alone have been studied by Blanchflower et al. (2001), Thurik and Grilo (2005), and Henley (2005). In social psychology oriented management research, there also exists a strand of literature studying entrepreneurial intentions (see, e.g., Krueger et al., 2000). On-the-job search alone has been investigated by Blau (1992), Pissarides and Wadsworth (1994), and Manning (2003), among others.

² The emphasis in the academic economics research on entrepreneurial origins has often been either on cross-sectional determinants of self-employment choice or on job-to-entrepreneurship and unemployment-to-entrepreneurship switches in longitudinal data. See, e.g., Blanchflower and Oswald (1998), Le (1999), Blanchflower (2000), Dunn and Holtz-Eakin (2000), Audretsch (2003), and Parker (2004).

³ On the other hand, the relative efficiencies of search as unemployed or on-the-job have an influence on how the search is conducted. The theory also predicts that for a given (nonzero) level of search costs, the distribution from which the job offers are drawn determines the search decision.

⁴ The negative relation arises also in matching models, because workers are more likely to stay in jobs (matches) with high productivity and wages than in jobs with low productivity and wages (Jovanovic, 1979b).

⁵ The literature on entrepreneurship has during recent years grown rapidly if not exploded. Nice roadmaps to this increasingly diversified literature are Le (1999), Blanchflower (2000), Audretsch (2003), and Parker (2004).

⁶ This is of course not a complete list. It does encompass, however, a non-negligible subset of the empirically most relevant determinants of entrepreneurship as identified in the received literature. Because our data are from Finland and about entrepreneurial aspirations of individuals currently on-the-job, we can to some extent limit the range of relevant variables: First, ethnic background and race that have been examined especially in the US literature are not relevant in Finland because of the homogeneous population and small number of immigrants. Second, because our data refer to individuals currently on-the-job, certain specific determinants of unemployment-to-entrepreneurship switches are not of primary interest to us. Finally, there are relatively few published empirical studies of the determinants of transitions from salaried employment to self-employment that use Finnish data and that would suggest variables on and above the ones we consider here: Using data on test scores from a battery of ability and personality tests, Uusitalo (2001) finds that human capital and psychological factors influence the transitions. In Johansson's (2000) study, the focus is on the effects of financial variables on the transitions.

⁷ Other kind of labour market experience may also matter. Gompers et al. (2005) argue in their recent paper that entrepreneurial learning and network building that naturally happen in certain kind of established firms are important for

the creation of new firms. Their analysis of venture capital-backed US firms supports this Fairchild view of entrepreneurship and not the Xerox view, according to which employees are pushed from large bureaucratic firms into entrepreneurship because of the reluctance of such firms to develop innovative entrepreneurial ideas further. Hellmann (2002) also emphasizes the employees of established companies as a source of new entrepreneurs and shows theoretically that the unavailability of outside resources, such as venture capital, may inactivate these would-be entrepreneurs. Shane and Khurana (2003) test the hypothesis that prior firm-founding and firm-financing experiences affect the willingness to found new firms.

⁸ The key prediction of Lazear's model is that individuals with more balanced skills are more likely than others to choose an entrepreneurial career. The primary reason for this is that establishing and running a new firm require skills in a variety of fields, such as human resource management (to hire high-quality employees), technology (to develop or understand the firm's product/service), marketing (to create a market for the product) and finance (to raise initial capital for the firm). If this jack-of-all-trades view is empirically relevant, it could also show up in our aspirations data.

⁹ It is well-documented that the monetary rewards from entrepreneurship are so low that entrepreneurship can hardly be determined solely by a choice based on alternative incomes. It has been suggested, in particular, that job satisfaction and other non-monetary benefits have a large impact on the choice; see for example, Blanchflower (2000), Hamilton (2000), Hundley (2001), and Benz and Frey (2004).

¹⁰ Like the literature on entrepreneurship, the literature on job search and the dynamics of job change is both plentiful and growing (see e.g. Mortensen, 1986, and Farber, 1999).

¹¹ According to Henley (2005), 5.5% of those who had said in a survey that they would like to start a business in 12 months were actually self-employed a year later. Two years later, 7.5% of them were self-employed. The share of new self-employed among those who had not thought about entrepreneurship was only one fourth of these figures.

¹² The measure is similar (but not identical) to what Lazear (2004, 2005) and Wagner (2003) use to test the jack-of-all-trades hypothesis. It also should capture the "hobo syndrome", which has been proposed to explain certain individuals' job mobility (see Munasinghe and Sigman, 2004, and the references therein).

¹³ Wald-tests for the added regressors also support this view. In the models for ASPIRATIONS1, the *p*-value of the joint test for the added regressors is 0.09, which means that the firm-level observables are significant at the 10% level. The statistical significance is different in the models for JOB-SEARCH1, as there the corresponding *p*-value is 0.34.

¹⁴ In the probit model for job search the coefficients of AGE and AGE² are 0.0758 and -0.0012, respectively (these correspond to the marginal effects in column 4 of Table - III). These parameter values imply that the maximum is at AGE = 30.6. Since the mean age is 39.6, at the mean values of the variables age has a negative effect on the probability of job search.

¹⁵ For VARIED_EXPERIENCE, $\chi^2(1)$ statistic is 0.09 with p -value 0.76. A test of the coefficients of TENURE shows that they are significantly different ($\chi^2(1)$ statistic is 6.72 with p -value 0.01). So are the coefficients of UNSATISFIED, for which $\chi^2(1)$ statistic is 18.92 (p -value < 0.001).

¹⁶ In addition to these robustness tests we also tried controlling the total work experience of the survey respondents by adding dummy variables for experience categories, EXPERIENCE_3 to EXPERIENCE_OVER_27. This kind of work experience is of course correlated with AGE and TENURE, but as we are not interested in the age effects *per se*, the correlation is not a source of concern to us. Controlling for the total work experience does not affect the conclusions on our main variables of interest. Capital constraints is yet another prominent omitted variable. Not having perfect controls for capital constraints should not, however, be of great concern to us for two reasons. First, capital constraints have apparently had only a minor effect on transitions from salaried employment to self-employment in Finland in the 1990s (Uusitalo, 2001). Johansson's (2000) probit estimations echo this view, as he finds that the quantitative impact of a wealth variable on the transitions is not very large. Second, our regressions include both LOG_PAY and age group dummies that control for the effects of financial capital to some extent. Including these controls is important, because they are also important determinants of home ownership and because Johansson (2000) has found that home ownership is positively associated with the probability of becoming self-employed.

¹⁷ This test amounts to regressing the possibly endogenous variable on a set of exogenous variables that include the exogenous variables in the model and additional instruments. (Finding good instruments is, however, known to be difficult and our study is no exception in this respect). The residual from this regression is then inserted in the original models. A test of the significance of the coefficient of the residual is an endogeneity test. To implement the test for VARIED_EXPERIENCE, we need to consider its determinants. Since VARIED_EXPERIENCE refers to past labour market experiences, we cannot use as instruments such variables that relate to the present employment. The instruments with which we ended up working are as follows. First, we have the exogenous variables that are included in Model 1 that are not related to the present job, i.e. age, education, field of education, sex, marital status, children, and past job switches. Second, as additional instruments, we include unemployment months during the past five years (UNEMPLOYMENT), an indicator for long-term illness (ILLNESS), and regional dummies. Unemployment and illness can be regarded as exogenous shocks that may force the individuals to change occupation. On the other hand, the regional indicators can control for differences in labour market opportunities that may explain occupational switches. These variables turn out not to be direct determinants of ASPIRATIONS1: if included directly in the models for entrepreneurial intentions, they are never significant.

Following the above procedure, we also test for the endogeneity of TENURE. In addition to the instruments used for VARIED_EXPERIENCE, we also use the exogenous variables in model 2 that are related to current job. These include OVERTIME, EXPERIMENTS, PARTTIME, TEMPORARY, SUPERIOR_BAD, WORK_CONTENT, UNION, PLANT_SIZE_10 to PLANT_SIZE_500, PUBLIC, FOREIGN, and industry dummies. Besides these exogenous variables we use as instruments for TENURE also an indicator for high socioeconomic position (SOCIOECONOMIC_HIGH); dummies for different pay systems (fixed pay, FIXEDPAY; piece rate or commission pay, PIECERATE; or combination of them, FIXED_AND_BONUS).

We also test for the endogeneity of UNSATISFIED, using the same instruments as in the case of TENURE, but adding also some working conditions variables (HARM, HAZARD). We obtain the results that UNSATISFIED is not endogenous in the equation for JOBSEARCH1, but it is endogenous for ASPIRATIONS1.

¹⁸ We also test for the endogeneity of LOG_PAY, since wage may be used as a means to restrict quits, but find no evidence for it. The instruments are the same as in the test of endogeneity of TENURE.

¹⁹ Based on preliminary calculations using Finnish Employment Statistics, each year around 14–17% of the employed Finns leave their current job for a new job. These figures are based on comparisons of end-of-the-year situations and therefore somewhat underestimate actual transitions.

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