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Self-employment in Britain: When, who and why?

Mark Taylor*

Summary

■ This work explores self-employment in Britain across recent years with a particular focus on when individuals became self-employed, who is more or less likely to enter self-employment and why individuals choose to enter self-employment. It complements previous micro-economic studies that focus on transitions into and out of self-employment and presents new evidence on the returns to self-employment and how these compare to the returns to paid employment. Lifetime employment history data from the British Household Panel Survey suggest that the large increase in self-employment in the 1980's was due to increases in the inflow rate, while an increase in the outflow rate in the early 1990's has stopped this trend. Panel data from the same source indicate that gender, parents occupation, assets and considering the work itself, the use of initiative or hours of work to be the most important aspect of a job emerge as key determinants of self-employment entry. Gender, age, occupation and elapsed duration in self-employment emerge as important determinants of self-employment exit. Our analysis reveals that, all else equal, the self-employed report higher levels of job satisfaction with pay and with the work itself than employees, but lower levels of satisfaction with job security.■

JEL classification: J23, J28, J62.
Keywords: Self-employment, labour market dynamics, job satisfaction, BHPS.

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In Britain, the 1980's is often described as the decade of the entrepreneur. The number of self-employed individuals in Britain almost doubled from 1.8 million (or 7.3 percent of those in work) in 1979 to 3.4 million (13.4 percent of those in work) in 1989. This dramatic increase was not repeated elsewhere in Europe. Table 1 gives the rates of self-employment in 1988 in various EU countries, the percentage changes in the levels of self-employment since 1979, and comparisons with the 1990's. (The normal problems with international comparisons occur here, with different definitions and variations in how particular groups of people are classified.) Although the increase in self-employment from 1979-1988 was a common theme, the 68 percent increase in self-employment rates in the UK during the 1980's was unique in its magnitude. Despite this, the self-employment rate in the UK in 1988, at 11 percent, was still below the EU average of 14 percent. The experiences of the 1990's were more diverse; one half of the countries had an increase in self-employment, the other half a fall. The 2001 self-employment rate for the UK (at 11 percent) was lower than the EU average, and represents an 11 percent reduction in self-employment since 1991.

Several different theories have been proposed to explain this large increase in self-employment in Britain. These range from changing demand structures, to the fragmentation of large firms and an increasing propensity towards contracting out, to government policy and initiatives. Self-employment is also important as a means of exit from unemployment, a potential alternative to employment for displaced workers, and an escape from discrimination in the labour market.

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Some of the self-employed become job creators and therefore contribute to employment growth. Work at the micro-level has sought to explain why individuals might choose self-employment over paid employment, with negative employment experiences (e.g. redundancy, job dissatisfaction), desire for personal autonomy, discrimination and expected earnings typically used to explain why individuals enter self-employment.

Table 1. Self-employment rates in 1988 and 2001 and percentage changes 1979-1988 and 1991-2001 in various EU countries

Country	1988 rate (%)	% change 1979-88	2001 rate (%)	% change 1991-2001
Belgium	13	+ 3	16	-2
Denmark	6	-24	7	-11
France	11	+2	9	-23
Germany (West)	8	+5	10[a]	+14[a]
Greece	27	+1	42	-7
Ireland	13	+13	18	+16
Italy	22	+28	26	-4
Luxembourg	8	-7	6	0
Netherlands	8	+2	14	+11
Portugal	17	+10	27	+11
Spain	18	+22	16	+1
UK	11	+68	11	-11
Unweighted average	14	+11	17	-1

Note: [a] Refers to unified Germany.
Sources: First two columns based on national labour force surveys, reproduced from Eardley and Corden (1996). Second two columns calculated from Tables of employment and macroeconomic indicators presented in European Commission (2002).

We contribute to the literature by presenting microeconomic evidence from panel data on the transitions into and out of self-employment that complements previous work (e.g. Taylor, 1999, 2001; Martinez-Granado, 2002; Henley, 2004). We also present new evidence on the returns to self-employment and how these compare to the returns to paid employment when unobserved individual-specific effects are taken into account. Data from the British Household Panel Survey (BHPS) suggest that the growth in self-employment in the 1980's was due to increases in the inflow rate, while an increase in the outflow rate in the late 1980's and early 1990's

stopped this trend. Our results indicate that gender, labour market status, parents occupation, assets and what an individual considers to be the most important aspect of a job are the main determinants of entering self-employment. Gender, age, occupation and elapsed duration in self-employment are the most important determinants of leaving self-employment. We also find large and statistically significant returns to self-employment relative to paid employment in terms of reported levels of job satisfaction overall, and job satisfaction with pay, the work itself and hours worked.

1. The growth in self-employment in Britain

The exceptional growth in self-employment in Britain in the 1980's followed a long period in which self-employment was static in numbers and declining as a proportion of the employed labour force. Figure 1 plots self-employment in Britain as a percentage of the workforce (where the workforce is defined as those in some form of work—either full- or part-time employment or self-employment) from 1970 to 2002 by gender, and shows that self-employment in Britain is male dominated. For men, self-employment remained relatively stable (at around 9 percent of the male work force) between 1970 and 1979, after which it increased continuously until 1989. By this time, self-employment accounted for more than 16 percent of the male work force. Since then the male self-employment rate has fallen to 14 percent. For women, the self-employment rate increased from about 4 percent of the work force in 1979 to approaching 7 percent in 1989, and remained relatively stable since. Comparing this with male self-employment over the same period suggests that, although a larger proportion of men are self-employed, the proportionate increase in self-employment over the period was greater for women. The fall in the self-employment rate among men in the 1990's was not repeated among women. There are other interesting differences between male and female labour market behaviour highlighted by Figure 1. Firstly the self-employment rate for women fluctuated less than that for men between 1970 and 1979. For men, self-employment increased overall in this period while for women it fell. Also, the increase in the self-employment rate for women stopped by about 1985, while for men the increase continued until 1989. Although agricultural workers are included here, a similar pattern emerges if they are excluded (Abell et al., 1995).

While these plots have usefully illustrated the growth in self-employment rates, they are unable to tell us anything about the processes underlying this growth. The increase could potentially have been caused by an increase in the flows into self-employment, while the outflows were unchanged. Equally, it could have been caused by a reduction in the outflow rate, while the inflows were stable. To investigate changes in these processes, it is necessary to have longitudinal data so that individuals movements into and out of self-employment can be traced over time. We take a longitudinal view of self-employment in Britain in the recent past, analysing entry and exit rates to and from self-employment over time. This analysis uses data from the BHPS.

Figure 1. Self-employment as a percentage of the work force in Britain 1970-2002

Notes: Figures from the Labour Force Survey, published regularly in Labour Market Trends.

2. The British Household Panel Survey

The BHPS is a nationally representative panel data set of around 5,500 households and 10,000 individuals. These same individuals have been interviewed on an annual basis since 1991 about different aspects of their lives such as their housing, consumption, health, employment experiences, values and opinions and income from different sources. If anyone splits from their original household to form a new

household, all adult members of the new household are also interviewed. Children in original households are interviewed when they reach the age of 16. The BHPS annual questionnaire provides data on the employment status of individuals at the time of each interview. It includes information on current labour market status, and the date at which that status was entered. For those in some form of employment, data on a wide range of job characteristics are available. In addition, each annual questionnaire includes an account of all labour market transitions occurring since the September of the previous year. This contains information on type of employment (or status if out of the labour force), spell start and end dates, occupation, industry and the reason for leaving any jobs. Therefore it is possible to track individuals labour market movements since 1990.

At Wave 2 (1992), individuals were asked to recall their lifetime employment history, detailing the start and end dates of each spell of employment (full or part-time), self-employment, unemployment and economic inactivity experienced to date since first leaving full-time education. Although it is likely that these accounts suffer from problems of recall error, this problem was minimised in the BHPS by first asking respondents to reconstruct their marital and fertility histories (as these are events less likely to be forgotten). A chronological ordering of personal histories is therefore developed to aid the recollection of employment related events. By merging this with the annual employment histories, it is possible to study the flows of individuals into and out of self-employment from the year they first entered the labour market until the date of the Wave 11 interview in the Autumn/Winter of 2001.[1] A problem with these data is that the sample

[1] Wave 11, collected in 2001, is at the time of writing the most recently available data. This merging procedure involves matching spell start and end dates. At Wave 1 of the BHPS, data were collected on all labour market spells ending after September 1990. Similarly, at Wave 2, data were collected on all labour market spells ending after September 1991, and so on at the following waves. Additionally, at Wave 2 data were also collected on all labour market spells since the respondent left full-time education for the first time up to and including the current labour market status at Wave 2. To match these data together involved making an assumption. The assumption used is that the year on year histories are more reliable than the lifetime history. Thus, in the over-lapping period from September 1990 to the Wave 2 date of interview, the year on year accounts take precedent over the lifetime history. Thus the lifetime history was used as a basis up to the first spell that ended after September 1990, after which the year on year histories are used. A similar matching procedure was used to link the various year on year accounts together so

will become less representative the further back in time we look. For example, the average age of the sample falls as we go back in time, and this will therefore be reflected in an individual's labour market status. However, Taylor (1997) reports that self-employment rates derived from these lifetime employment histories correspond well with the actual self-employment rates shown in Figure 1 back to the mid-1970's.

A common problem is identifying and defining the self-employed. In economic terms, the self-employed can be distinguished from employees by their mode of remuneration. They do not receive a wage but instead receive a return on their input of capital, entrepreneurial skill and risk taking as well as on their labour. Most survey data use self-declaration—survey respondents are asked to classify their main current economic activity themselves. This is how the self-employed are identified in our sample. This definition may result in ambiguity in some cases, and it is possible that some flows into and out of self-employment may not be real but reflect changes in how individuals report a particular activity.

3. Self-employment flows

3.1. Self-employment entry and exit rates 1970-2001

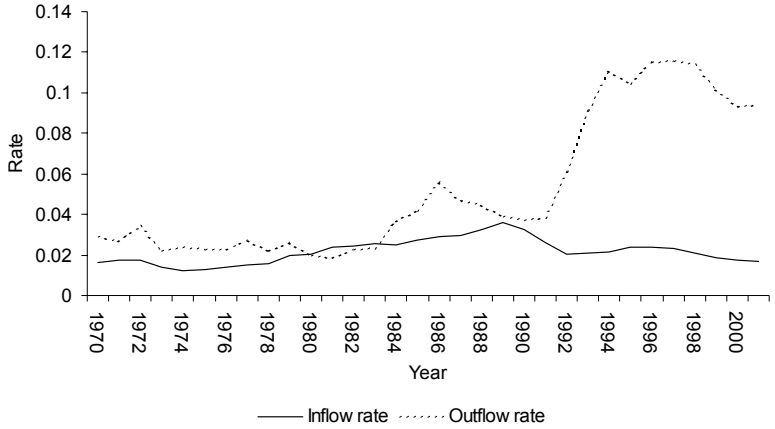
The BHPS employment history data allows us to establish whether the increase in self-employment over the 1980's was due to an increase in the entry rate or a decrease in the exit rate. The Thatcher Government elected in 1979, like many other governments in Europe and North America, passed legislation designed to encourage the unemployed and others to become self-employed by offering them financial support. If these initiatives were successful, we would expect the increase in self-employment to be caused by a combination of an increase in entry rates to self-employment and a decrease in the exit rates.

A problem arises concerning the definition of a transition into or out of self-employment. It is not always obvious exactly when a transition occurs. For example, does an individual become self-employed at the moment the decision is made, or at the moment the necessary

that, for example, the Wave 1 annual job history data were used up to the first spell that ended after September 1991, after which data from the Wave 2 year on year job history were used.

capital is accumulated, or at the moment the first work is arranged or started? More recently, some individuals are becoming self-employed for no reason other than their employer or a changing working situation demands it. These individuals may continue to do exactly the same job at the same workplace, but due to administrative or institutional reasons are considered self-employed. This obviously creates problems when examining flows of individuals into and out of self-employment. In the BHPS, individuals define their own labour market status and the corresponding dates of any labour market changes, so such decisions remain their own.

Figure 2. Self-employment inflow and outflow rates in Britain 1970-2001



Notes: Inflow rate defined as proportion of work force who entered self-employment in a given calendar year. Outflow rate defined as the proportion of the self-employed who left self-employment in a calendar given year. Three year rolling averages.

Figure 2 plots the percentage of the BHPS labour force that entered self-employment each year from 1970 to 2001, and also the proportion of the self-employed that left self-employment in each year.[2] For example, almost 2 percent of the BHPS sample who were

[2] The inflow rate is defined as the proportion of the non-self-employed labour force that entered self-employment in that calendar year. The labour force consists of men and women that were either in some form of employment or were not

active in the labour market at the end of 1970 entered self-employment that year while 3 percent of the self-employed left self-employment in that year. Immediately obvious from this is the increase in the inflow rate to self-employment over the 1980's. The proportion of the labour force entering self-employment each year more than doubled between 1978 and 1989, from 1.6 percent to 3.6 percent. It declined steadily after this peak to 2 percent in 2001. The rapid rise in the outflow rates post 1991 suggest that the earlier figures may suffer from recall error or from an unrepresentative sample. The historical data may also under report some churning. However, the trend that emerges is consistent with the declining job tenure and increased job instability in Britain reported in, for example, Gregg and Wadsworth (1995), Burgess and Rees (1996) and Booth et al. (1999). Even allowing for the violent increases in the early 1990's, there is a longer term upward trend in the exit rate from self-employment from the early-1980's. Both the inflow rate to and outflow rate from self-employment have increased, although the inflow rate increased, on average, faster than the outflow rate during the early 1980's. Thus the increase in self-employment during the 1980's was caused by an increase in the inflow rate into self-employment, and ended with an increase in the outflow rate. Martinez-Granado (2002) provides evidence consistent with this, concluding that government policies implemented in the 1980's were successful in promoting the entry into self-employment but not in preventing self-employment exit.

3.2. Annual transitions between labour market states

We now focus on the panel data collected at each annual date of interview to examine annual transitions between labour market states, and into and out of self-employment in particular, over the 1990's. We categorise individuals on the basis of their labour market status at a particular date of interview at t, and look at their status at the subsequent date of interview at t+1.[3] Analysis is restricted to white men

working but looking for a job. The chart plots three year rolling averages for smoothing purposes.

[3] These figures do not exactly correspond to those shown in Figure 2. This is because Figure 2 is based on transitions into and out of self-employment within a given calendar year, while these annual transitions refer to an individual's labour market status at two consecutive dates of interview. Using an individual's labour market status at two consecutive dates of interview will necessarily ignore short spells occurring between interview dates that are captured in Figure 2.

and women of working age (16 to 64/59). We exclude ethnic minorities because of small and potentially unrepresentative samples. In Table 2 we present transition matrices showing annual rates of movement between labour market states in the BHPS between 1991 and 2001. This table shows, for example, that of men who were self-employed at a particular date of interview *t*, 87 percent were also self-employed at the subsequent date of interview at *t*+1 (see also Henley, 2004).

Table 2. Transition matrices, BHPS 1991-2001 (row percentages)

Labour market status at *t*	**Labour market status at *t*+1**				
Men	**Self-empl.**	**Em-ployee**	**Unem-ployed**	**Inactive**	**Total**
Self-employed	86.6	9.3	2.1	2.0	4768
Employee	2.0	93.2	2.4	2.4	24145
Unemployed	6.9	39.2	41.4	12.6	1992
Inactive	1.4	12.3	6.2	80.0	4171
Women					
Self-employed	76.5	13.7	1.4	8.4	1827
Employee	1.2	91.8	1.8	5.3	24911
Unemployed	2.7	48.2	21.7	4.9	1443
Inactive	1.8	15.2	4.9	78.2	8688

Notes: Status measured at each date of interview. Self-employment and employee status are defined by the respondent. Unemployment is defined as not currently working and having searched for work in the past 4 weeks. Economic inactivity includes retired, looking after the home or family, in full-time education, maternity leave, on a government training scheme or long-term sick.

Focussing initially on men, the table illustrates that self-employment is less stable than paid employment, although transition rates from self-employment into unemployment and economic inactivity are similar to those from paid employment. The transition rate into self-employment is highest from unemployment—almost 7 percent of men in unemployment at t are in self-employment at *t*+1. In contrast, 2 percent of employees and 1.4 percent of the economically inactive at *t* are self-employed at *t*+1. Among women, self-employment is less stable than paid employment with about three-quarters of self-employed women at *t* in self-employment at *t*+1 compared with a persistence rate of 93 percent in paid employment.

However, the majority of women who leave self-employment between t and t+1 remain in employment at *t*+1. Transition rates into self-employment among women are generally lower than for men, but as for men are highest from unemployment. Almost 3 percent of women who were unemployed at *t* are in self-employment at *t*+1. Taylor (2001) and Henley (2004) report similar transition rates using the same data but different samples.

3.3. The determinants of self-employment entry and exit

Thus far we have described self-employment incidence and transitions between self-employment and other labour market states. But what determines whether men and women enter or leave self-employment? What individual characteristics are associated with a higher (or lower) probability of starting a business? We estimate the determinants of the probability of entering and leaving self-employment using probit models. To estimate the determinants of entering self-employment, our dependent variable takes the value 1 for an individual who was self-employed at a particular date of interview in year *t*+1 but not at the date of interview in year *t*, and zero for those who were not self-employed at either time. To estimate the probability of leaving self-employment, the dependent variable takes the value 1 if an individual in self-employment at the date of interview in year t was no longer self-employed at the date of interview in year *t*+1, and the value 0 if an individual in self-employment at *t* was in self-employment at *t*+1.

The full results from estimating these models are presented in Tables A1 and A2 in the appendix. The vectors of explanatory variables contain standard variables thought to influence the probability of entering and leaving self-employment, all measured at the date of interview prior to any entry into or exit from self-employment. Rather than discussing these results in detail, we instead show in Table 3 some predicted probabilities based on the estimates, focussing on variables that the literature indicate to be the most important. The first set of variables in Table 3 indicate whether, when aged 14, the individual had a self-employed parent and, if so, whether the parent employed others. The literature indicates that the probability of self-employment is substantially higher among the children of business owners than among the children of non-business owners (Lentz and Laband, 1990; Dunn and Holtz-Eakin, 2000; Hout and Rosen, 2000; Martinez-Granado, 2002; Fairlie and Robb, 2003; Henley, 2004). There is an increasing

consensus that this is due to similarities across family members in entrepreneurial preferences rather than intergenerational links in the acquisition of general or specific business capital (Westhead et al., 1988; Dunn and Holtz-Eakin, 2000; Fairlie and Robb, 2003). We then focus on the aspect of a job that the respondent believes to be most important. Previous research has indicated that an important motivation for self-employment is the freedom and independence it offers (Taylor, 1996), while Hamilton (2000) reports that self-employment offers important non-pecuniary benefits for many workers. We also examine how self-employment rates differ by age—as individuals acquire labour market experience and human capital they make contacts and form networks that might facilitate self-employment entry (Martinez-Granado, 2002; Cowling and Taylor, 2001). The final set of variables is an indication of individual wealth, in the form of the value of the respondent's residence if an owner-occupier (house prices in the BHPS are self-assessed, and have been deflated to 2001 prices). There is a growing literature indicating that one of the main obstacles preventing entrepreneurial activity is capital constraints (Evans and Jovanovic, 1989; Evans and Leighton, 1989; Lindh and Ohlsson, 1996; Black et al., 1996; Blanchflower and Oswald, 1998; Taylor, 2001). Housing wealth is one, and perhaps the most important, way through which individuals can access capital markets.

The first column of Table 3 shows the probability of entering self-employment based on the "average" individual in the sample (estimated at the sample means), while the second column uses the median values. The third and fourth columns focus on the probabilities of entering self-employment for men with the following characteristics:

- *Employee*: 47 year old married man who was in paid employment at *t* (and had been for 5 years), has no qualifications, has two children and an employed wife, and has a mortgage on a house worth GBP 77,000 (the median value among home-owners). All other variables set to zero.
- *Unemployed*: 47 year old married man who was unemployed at *t* (and had been for 12 months), has no qualifications, whose wife is not in work, and has a mortgage on a house worth GBP 77,000. All other variables set to zero.

Table 3. Predicted probability of entering self-employment

Men	Means	Medians	Employee[a]	Unem-ployed[b]
Base	0.018	0.024	0.032	0.115
Parent self-employed	0.019	0.028	0.036	0.126
Parent employer	0.037	0.051	0.065	0.193
Important job aspects:				
Security	0.013	0.017	0.023	0.088
Work itself	0.022	0.030	0.040	0.135
Use initiative	0.027	0.037	0.049	0.156
Hours	0.046	0.060	0.076	0.217
Age				
25	0.014	0.016	0.020	0.080
35	0.020	0.023	0.028	0.103
45	0.023	0.026	0.032	0.115
55	0.022	0.026	0.031	0.112
House value (GBP)				
100,000	0.019	0.026	0.034	0.119
200,000	0.023	0.031	0.039	0.134
300,000	0.027	0.037	0.046	0.150
400,000	0.032	0.043	0.053	0.168
500,000	0.038	0.050	0.062	0.186
Women	**Means**	**Medians**	**Employee[c]**	**Inactive[d]**
Base	0.011	0.008	0.010	0.017
Parent self-employed	0.015	0.011	0.015	0.024
Parent employer	0.016	0.012	0.016	0.025
Important job aspects:				
Security	0.012	0.008	0.011	0.019
Work itself	0.013	0.010	0.013	0.021
Use initiative	0.020	0.015	0.019	0.030
Hours	0.013	0.009	0.011	0.019

Table 3. Continued…

Men	Means	Medians	Employee[a]	Unem-ployed[b]
Age				
25	0.009	0.005	0.006	0.010
35	0.013	0.007	0.009	0.015
45	0.014	0.008	0.010	0.017
55	0.011	0.006	0.008	0.013
House value (GBP)				
100,000	0.013	0.009	0.011	0.018
200,000	0.018	0.013	0.016	0.026
300,000	0.026	0.019	0.023	0.036
400,000	0.036	0.027	0.031	0.048
500,000	0.048	0.037	0.043	0.064

Notes: Authors calculations using estimates in Appendix A1. [a] Male employee aged 47, married, 2 children, basic qualifications, mortgage on house worth GBP 77,000, in employment for 5 years, employed wife. [b] Unemployed man, married, 2 children, basic qualifications, mortgage on house worth GBP 77,000, unemployed for 12 months, non-employed wife. [c] Female employee, married, 2 children, basic qualifications, mortgage on house worth GBP 77,000, employed husband, aged 43, in employment for 4 years. [d] Woman out of labour force, aged 43, married, 2 children, basic qualifications, mortgage on house worth GBP 77,000, employed husband, out of labour market for 8 years.

The first column of Table 3 shows that the average man in the sample has a 1.8 percent probability of entering self-employment over a one year period. This is doubled to 3.7 percent if he had a parent who was an employer when aged 14. Regarding the use of initiative to be the most important aspect of a job increases the probability of entering self-employment by one percentage point (to 2.7 percent), while regarding working hours as the most important aspect increases the probability by three percentage points to 4.6 percent. It appears that it is the hours flexibility offered by self-employment that is attractive, rather than the work flexibility. The probability of self-employment entry increases with age, a 45 year old man has a 2.3 percent chance of entering self-employment compared to 1.4 percent for a 25 year old. As expected the probability of entering self-employment increases with assets, although the size of the effect is relatively small, all else equal. A fivefold increase in the value of the property from GBP 100,000 to GBP 500,000 doubles the probability

of entering self-employment from 2 percent to 4 percent—a level similar to that when having a parent who was an employer.

The predicted probabilities estimated at the sample medians reveal a slightly higher probability of entering self-employment, for example at 6 percent for men who consider working hours to be the most important aspect of a job. Our hypothetical employee has still higher predicted probabilities that follow a similar pattern. The unemployed man has the highest predicted probabilities of entering self-employment. This man has a 12 percent chance of entering self-employment over the one year period, which increases to nearly 20 percent if he had a parent who was an employer and to over 20 percent if he considers the hours of work to be the most important aspect of a job. Again, we can see that having a father who was an employer results in an equivalent probability of entering self-employment to having a house worth GBP 500,000.

The second panel of Table 3 focuses on the results for women. Again, we present estimates at the sample means, medians and for two hypothetical women:

- *Employee*: 43 year old married woman who was in paid employment at *t* (and had been for 4 years), has no qualifications, has two children and an employed husband, and has a mortgage on a house worth GBP 77,000. All other variables set to zero.
- *Economically inactive*: 43 year old married woman who was out of the labour market at *t* (and had been for 8 years), has two children, no qualifications, an employed husband, and has a mortgage on a house worth GBP 77,000. All other variables set to zero.

The results show lower predicted probabilities for entering self-employment among women than men—at the sample means the predicted probability is 1.1 percent. A self-employed parent increases the probability, as does considering the use of initiative to be the most important aspect of a job. The latter approximately doubles the predicted probability. As for men, the predicted probability of entering self-employment increases with age and with the value of the house. Living in a house worth GBP 200,000 results in a similar predicted probability of entering self-employment as regarding the use of initiative to be the most important job aspect. Assets have a larger impact on the probability of entering self-employment among women than men—a fivefold increase in the value of the house from GBP 100,000 to GBP 500,000 results in increasing the predicted probabil-

ity of entering self-employment by a factor of four. The economically inactive woman is the most likely to enter self-employment.

These results, showing the importance of gender, age, labour market status, assets, and parents occupation in determining self-employment entry rates in Britain, are consistent with previous research (Martinez-Granado, 2002; Taylor, 2001). They highlight the roles of labour market experience, the accumulation of business related human capital and financial capital in the decision to enter self-employment.

Table 4. Predicted probability of leaving self-employment

	Men			Women		
	Means	**Medians**	**Indiv. 1[a]**	**Means**	**Medians**	**Indiv. 2[b]**
Base	0.106	0.146	0.183	0.204	0.578	0.554
Employer	0.076	0.094	0.122	0.122	0.395	0.371
Professional occupation	0.079	0.105	0.135	0.108	0.365	0.342
Manual occup.	0.118	0.146	0.183	0.243	0.578	0.554
Previous labour market state						
Unemployed	0.145	0.215	0.201	0.251	0.726	0.557
Economic inactivity	0.289	0.387	0.368	0.249	0.723	0.554
Age:						
25	0.149	0.232	0.280	0.264	0.687	0.664
35	0.097	0.161	0.201	0.191	0.596	0.572
45	0.087	0.145	0.184	0.182	0.523	0.558
55	0.110	0.179	0.221	0.232	0.649	0.626
Duration of spell						
1 year	0.164	0.215	0.244	0.234	0.611	0.576
5 years	0.117	0.158	0.183	0.202	0.568	0.533
10 years	0.082	0.115	0.135	0.175	0.528	0.493
15 years	0.064	0.091	0.108	0.160	0.504	0.469
20 years	0.056	0.081	0.097	0.155	0.496	0.461

Notes: Authors own calculations using estimates in Appendix A2. [a] Man aged 43, self-employed for 5 years, in manual occupation in construction, earning GBP 1200 per month, married without children, employed wife, basic qualifications, and mortgage. [b] woman aged 41, self-employed for 3 years in manual occupation in health and beauty industry, earned GBP 550 per month, married without children, basic qualifications, mortgage and employed husband.

Table 4 presents the predicted probabilities of leaving self-employment between two consecutive dates of interview. The full results are available in Table A.2 in the appendix, and again we focus on variables that the literature has identified as important determinants of self-employment exit. The first group of variables focus on

occupation, as the literature suggests that individuals in higher status, professional, occupations have lower exit rates from self-employment (Taylor 1999, 2001). The second group focus on the previous labour market status of individuals, as research has indicated that time spent out of work reduces tenure in subsequent employment (Arulampalam et al., 2000; Böheim and Taylor, 2002). The third variable is the age of the individual, also shown to be an important determinant of self-employment exit rates (Holtz-Eakin et al., 1994; Cressy, 1996; Taylor, 1999). The final group of variables we focus on is elapsed duration in the current self-employment spell, as an indicator of how well the business is established. We expect that individuals with more established enterprises will have lower exit rates (Jovanovic, 1982; Taylor, 1999, 2001).[4] We estimate the predicted probabilities at the sample means, at the sample medians, and for two hypothetical individuals:

- *Individual 1.* A 43 year old married man who has been self-employed for five years, in a manual occupation in the construction industry, earning GBP 1200 per month, with no qualifications, has a mortgage, an employed wife and who was previously employed. All other variables set to zero.
- *Individual 2.* A 41 year old married woman who has been self-employed for three years in manual occupation in the health and beauty industry, who earns GBP 550 per month, has no qualifications, has a mortgage, an employed husband and who was previously employed. All other variables set to zero.

The results show that, at the sample means, the average self-employed man in the sample has an 11 percent probability of leaving self-employed between two consecutive dates of interview. Having employees reduces this probability by three percentage points to 8 percent. Being in a professional occupation also has a large, negative impact, reducing the predicted probability of leaving self-employment to 8 percent. Being employed in a manual occupation increases the probability of leaving to 12 percent. Entering self-employment from unemployment and especially economic inactivity increases the exit rate to 15 and 29 percent. Age has a large, non-linear effect on the

[4] We would also expect income from self-employment at t to be a good predictor of self-employment exit, and the estimates presented in Table A.2 suggest that this is the case. However the size of this effect is relatively small, with a tenfold increase in income from GBP 500 per month to GBP 5000 per month resulting in a one percentage point fall in the self-employment exit rate, all else equal.

probability of leaving self-employment, which is lowest for men aged 48. A man aged 25 has a 15 percent probability of leaving self-employment, and this falls to 9 percent for a man aged 45. This age effect is likely to reflect the accumulation of business skills, contacts and human capital. The predicted probability of leaving self-employment also falls with the elapsed duration of the self-employment spell, although at a declining rate. A man who has been self-employed for only one year has a 16 percent probability of leaving self-employment in the subsequent year. This falls to 12 percent for a man who has been self-employed for five years, and continues to fall to 6 percent for a man who has been self-employed for 20 years.

The predicted probabilities of leaving self-employment estimated at the sample medians are higher, and are highest (at 39 percent) for self-employed men who entered self-employment from economic inactivity. They are lowest (under 10 percent) for the self-employed who employ others or who have been self-employed for 10 years or more. The predicted probabilities for our hypothesised self-employed man are higher than those for the "average" self-employed man.

The predicted self-employment exit rates are considerably higher for women than for men. At the sample means, a self-employed woman has a 20 percent chance of leaving self-employment before the next interview date. This is significantly reduced if she employs other workers (12 percent), or if she works in a professional occupation (11 percent), and increases if she works in a manual occupation (24 percent). Women who entered self-employment from unemployment or economic inactivity have similar probabilities of leaving, at 25 percent. A similar non-linear age effect that emerged for men is also evident for women, with the probability of leaving self-employment lowest for women aged 40. However, even for such women, the probability remains above 18 percent. The probability of self-employment exit also falls with the elapsed duration of the self-employment spell for women. Women who have been self-employed for just one year have a one in four chance of leaving self-employment before the next date of interview. This falls to 15 percent for those who have been in self-employment for 20 years. The estimated probabilities at the sample medians are much higher—the probability of leaving self-employment is estimated to be over 50 percent. This falls to below 40 percent if the woman is an employer or working in a professional occupation. Our hypothetical woman has a

similar probability of leaving self-employment as that estimated at the sample medians.

These results highlight the importance of employment related human capital (measured by occupation, whether an employer, age, and elapsed self-employment duration), previous labour market experience and gender in determining self-employment exit rates and are consistent with previous British studies (Martinez-Granado, 2002; Taylor, 1999, 2001).

4. Measuring the returns to self-employment using reported job satisfaction

We investigate whether the self-employed report higher levels of job satisfaction with various aspects of their job than otherwise similar employees. We compare the returns to self-employment and paid employment using job satisfaction measures rather than wage and earnings measures for two reasons. Firstly, the measures of income from self-employment collected in the BHPS are self-reported, and self-reported self-employment income measures are well known to be unreliable. Furthermore, 47 percent of the self-employed in the BHPS have their income imputed because of missing data, compared with under 8 percent of employees. Secondly, a significant proportion of the self-employed are paid by the job rather than by the hour or monthly, and so converting their income measures into an hourly wage or monthly earnings is not always sensible. Furthermore, research has shown that self-employment offers non-pecuniary benefits to the extent that many workers are willing to enter and remain self-employed despite receiving financial returns substantially below their alternative paid employment wage (Hamilton, 2000). Instead we focus on reported levels of job satisfaction with various aspects of the job—pay, job security, the work itself and the hours of work—and with the job overall. We interpret these reported job satisfaction scores as direct measures of individuals utility derived from the various aspects of their current job (Clark and Oswald, 1996). Recent research comparing reported job satisfaction levels of employees and self-employed has suggested that the self-employed report being more satisfied in their work than paid employees (Blanchflower and Oswald, 1998; Blanchflower, 2000). However, unlike these previous studies, we have access to panel data and are therefore able to take unobserved individual specific effects into account.

Although analysis of subjective satisfaction scores are not without problems, previous research in this area suggests that job satisfaction scores provide important information about subjective workplace experiences (Rose, 1998). Low job satisfaction scores are correlated with high rates of anxiety and depression (Argyle, 1989), while Freeman (1978), Akerlof et al. (1988), Clark et al. (1998) and Clark (2001) find job satisfaction to be related to quits. Mangione and Quinn (1975) and Clegg (1983) report that job satisfaction is negatively related with absenteeism and positively correlated with productivity.

At each date of interview in the BHPS, men and women that were in work were asked to rate satisfaction levels with four specific facets of their job: total pay, job security, the actual work itself, and hours of work. Respondents were asked to rank their satisfaction on a scale from 1 to 7 where 1 corresponds to "not satisfied at all" and 7 to "completely satisfied". They were then asked a final question: "All things considered, how satisfied or dissatisfied are you with your present job overall using the same 1-7 score?" The answers to these questions form the dependent variables in our analysis. In Table 5 and Table 6 we summarise the distribution of job satisfaction scores by employment type separately for men and women. Table 5 shows that, for men, the self-employed on average reported higher levels of overall job satisfaction than employees, and also higher average levels of satisfaction with their pay and the work itself (see also Blanchflower, 2000; Hundley, 2001). 19 percent of self-employed men were completely satisfied in their job compared with 12 percent of employees, while 30 percent of self-employed men were completely satisfied with the work itself compared with 20 percent of employees. Men, both self-employed and employees, were on average least satisfied with their pay. Table 6 shows that 26 percent of self-employed women were completely satisfied with their job compared with 19 percent of employees. Women were, on average, most satisfied with the work itself and least satisfied with pay.

Table 5. Reported job satisfaction of employees and the self-employed, men (column percentages)

Level	Overall		With pay		With security		With work		With hours	
	E	**SE**	**E**	**SE**	**E**	**SE**	**E**	**SE**	**E**	**SE**
Not satisfied at all	2.05	1.46	5.43	5.15	4.83	6.78	2.09	0.96	3.05	3.30
2	3.17	2.43	6.07	5.08	3.84	4.95	2.68	1.32	3.81	4.63
3	7.73	5.06	15.52	12.08	8.34	8.96	6.38	2.92	11.12	13.13
4	9.77	7.65	10.49	10.64	11.20	12.79	9.73	5.74	13.73	12.59
5	23.07	20.22	23.90	20.67	18.33	17.71	20.24	15.85	21.41	19.68
6	41.94	44.27	30.46	33.82	32.53	27.50	39.63	43.37	32.90	31.09
Completely satisfied	12.27	18.91	8.13	12.56	20.93	21.32	19.27	29.85	13.97	15.58
Median	6	6	5	5	6	5	6	6	5	5
Mean	5.23	5.51	4.65	4.88	5.16	4.97	5.39	5.84	5.01	4.96

Notes: BHPS 1991-2001. N person-years: employees=29787; self-employed=5753.

Table 6. Reported job satisfaction of employees and the self-employed, women (column percentages)

Level	Overall		With pay		With security		With work		With hours	
	E	SE	E	SE	E	SE	E	SE	E	SE
Not satisfied at all	1.58	1.69	4.76	5.83	3.57	4.44	1.76	1.25	1.97	2.46
2	2.33	1.82	5.49	4.85	2.67	4.15	2.42	1.38	2.59	3.62
3	5.55	4.76	13.74	10.91	6.84	9.91	5.69	3.39	9.15	10.81
4	6.24	6.10	8.48	9.84	8.35	10.76	7.23	4.77	8.52	8.49
5	19.53	15.58	22.43	16.74	16.64	14.25	18.97	14.44	19.26	18.27
6	45.84	44.15	32.72	32.31	35.03	26.95	40.41	38.65	35.46	33.41
Completely satisfied	18.93	25.86	12.37	19.53	26.89	29.54	23.52	36.11	23.04	22.96
Median	6	6	5	6	6	6	6	6	6	6
Mean	5.53	5.68	4.86	5.02	5.44	5.25	5.55	5.90	5.39	5.29

Notes: BHPS 1991-2001. N person-years: employees = 31299; self-employed = 2247.

The estimation procedure we specify to examine the impact of self-employment on job satisfaction scores accounts for the ordered nature of the dependent variable. We estimate random effects ordered probit models (Frechette, 2001), where the dependent variable takes a value between 1 (not satisfied at all) and 7 (completely satisfied). This is modelled as a function of employment status and a range of demographic, household and job related characteristics. We benefit from panel data with repeated observations on the same individuals which allow us to take time-invariant individual-specific effects into account. This will be important if inherently more motivated and committed workers are more likely to be self-employed. Specifically, the latent probability of reporting a job satisfaction score S is:

$$S_{it}^{*} = X_{it}\gamma + \varepsilon_{it} \tag{1}$$

$$\varepsilon_{it} = w_{it} + v_i \tag{2}$$

where S_{it}^{*} is unobserved, X_{it} is a vector of strictly exogenous individual, household and job and employer related characteristics, and γ is a vector of coefficients to be estimated, i=1,…,n, t=1,…,T. By assuming the unobservable individual-specific heterogeneity is time-invariant, we decompose the error term ε_{it} into the individual-specific unobservable effect, v_i and random error w_{it}. We assume that the individual-specific unobservable effect, v_i is random, and that the w_{it} are normally distributed and independent of the X_{it} for all i and t.

This framework has its limitations. It assumes, for example, that the time-invariant unobserved individual-specific effect (v_i) is independent of the observable characteristics (X_{it}). This is quite unrealistic in our case as, for example, we might expect committed and motivated workers to be more likely to work longer hours, more likely to be self-employed and also to be more satisfied in their job. In this case, the estimated coefficients will pick up some of the effects of the unobservable v_i and the impact of being self-employed will be positively biased. To avoid this problem, we relax the assumption that v_i is independent of the observable time-varying characteristics in X_{it}. Following Chamberlain (1984), we model the dependence between v_i and the observable characteristics by assuming that the regression function of v_i is linear in the means of all the time-varying covariates. This can be written:

$$v_i = a_1 + \overline{X}_i a_2 + \eta \tag{3}$$

We assume that η_i is independent of the X_{it} and w_{it} for all i and t, α_1 is the intercept and $\overline{X}_i$ refers to the vector of means of the time varying covariates for individual i over time. Equation (4) therefore becomes:

$$S_{it}^{*} = X_{it}\gamma + \overline{X}_i a_2 + \eta_i + w_{it} \tag{4}$$

$i=1,\ldots,n$, $t=1,\ldots,T_i$ where we have absorbed the intercept into the γ. This is equivalent to the random effects ordered probit with additional regressors, $\overline{X}_i$. Arulampalam et al. (2000) use a similar technique to look at unemployment persistence.

We present the estimated coefficients of interest in Table 7. The full results are available from the author on request. We have included separate indicators in the regressions to capture the self-employed with no employees (the sole proprietors) and the self-employed with employees (the job creators). This is because we expect the roles performed at the workplace to differ according to whether or not the self-employed individual has employees (Cowling et al., 2004). The results show that among men, self-employed workers, both sole proprietors and job creators, report significantly higher levels of job satisfaction overall, with pay, with work itself and with hours of work than paid employees, all else equal.[5] The latter is somewhat surprising given the well-documented fact that the self-employed in general work more hours per week than employees (Blanchflower, 2004), although our estimates hold usual weekly hours of work constant. Furthermore the self-employed with employees report significantly higher levels of job satisfaction overall than the self-employed without employees. Self-employed men without employees report significantly

[5] These coefficients could be biased due to problems of selection or endogeneity—optimistic and happy people may choose to become self-employed. To check this we have estimated fixed effects logit models where the dependent variable takes the value 1 if an individual reported a job satisfaction score of 6 or 7, and zero otherwise. The results from doing so are consistent with those reported herein, suggesting that entering self-employment is associated with increases in job satisfaction. Because fixed effects approaches cannot be applied to ordered response models we focus on the random effects ordered probit results.

lower levels of job satisfaction with job security than paid employees, illustrating the perceived insecurity of such employment. However the coefficient on the self-employed with employees variable is not statistically significant, indicating that job creators report similar levels of job security than otherwise similar paid employees. The sizes of the coefficients in the models for overall job satisfaction, job satisfaction with work itself, and with hours worked are not sufficient on their own to shift a worker between job satisfaction categories. However, being self-employed (either with or without employees) has the largest single impact on job satisfaction with pay, and the estimated coefficients are sufficiently large that an employee who reports a job satisfaction score of three would, all else equal, report a score of four if he was self-employed.

Among women, the pattern is somewhat different. All else equal, women in self-employment but without employees report significantly higher levels of job satisfaction overall, with pay and with work itself than employees. They report significantly lower levels of job satisfaction with their job security. Women that are job creators report similar levels of job satisfaction overall, with pay and with work than employees, but lower levels of job satisfaction with security and with hours worked than employees. Among self-employed women, job creators report lower levels of job satisfaction with hours worked than sole proprietors. These effects however are generally not large enough to change the predicted job satisfaction level of an individual, all else equal. The exception to this is with job satisfaction with pay. Being a sole proprietor has a large positive effect on job satisfaction with pay, and, as for men, has the single largest impact on this aspect of job satisfaction. Furthermore, and as for men, the effect is sufficiently large that an employee reported a job satisfaction with pay score of three would, all else equal, report a score of four if self-employed. These results indicate that there are significant utility gains associated with self-employment and that these relate to different aspects of the work environment.

Table 7. Estimated impact of being self-employed on job satisfaction (random effects ordered probit estimates)

	Job satisfaction with:				
Men	**Overall**	**Pay**	**Security**	**Work**	**Hours**
Self-employed, no employees	0.207 ***	0.453 ***	-0.264 ***	0.308 ***	0.179 ***
Self-employed with employees	0.356 ***	0.442 ***	-0.085	0.381 ***	0.179 ***
Rho	0.420	0.421	0.422	0.425	0.411
N person-years	31561	31402	31224	31547	31562
Women					
Self-employed, no employees	0.116 *	0.352 ***	-0.258 ***	0.246 ***	0.062
Self-employed with employees	0.015	0.153	-0.185 *	0.041	-0.232 **
Rho	0.384	0.402	0.394	0.392	0.352
N person-years	28143	28057	27791	28141	28139

Notes: BHPS 1991-2001. Employee is reference category. Equations also include age, age squared, wage, 3 marital status indicators, number of weeks employed in past 12 months, whether experienced unemployment in past 12 months, whether experienced economic inactivity in past 12 months, previous labour market status, whether health limits the type or amount of work, 4 education level indicators, 6 region of residence indicators, the number of dependent children, 3 housing tenure indicators, 4 important job aspects indicators, weekly hours, 4 occupation indicators, 8 industry indicators, 10 year indicators and the means of the time varying covariates. See text for details. Full estimation results are available from the author on request. ***, **, * indicate statistical significance at the 0.01, 0.05 and 0.10 level.

5. Conclusions

In this paper we have highlighted the dramatic increase in self-employment rates in the 1980's. Analysis of longitudinal data from the BHPS indicates that this growth in self-employment was due to increases in the inflow rate into self-employment, while an increase in the outflow rate from self-employment in the 1990's stopped this trend. Annual transition rates over the period 1991 to 2001 suggest that self-employment is less stable than paid employment, although transition rates from self-employment and paid employment into unemployment are similar. Transition rates into self-employment are highest from unemployment.

Multivariate analysis indicates that current unemployment, regarding working hours as the most important aspect of a job and having a parent who was an employer have the largest impact on the probability of entering self-employment for men. Although assets, as measured by house value, are also important, it requires a fivefold increase in assets (from GBP 100,000 to GBP 500,000) to double the probability of entering self-employment. Self-employment entry rates are lower among women than men, and for women, the highest probabilities are found for those who regard the use of initiative to be the most important job aspect. Assets have a larger impact among women than men, with a fivefold increase in assets (from GBP 100,000 to GBP 500,000) increasing the probability of self-employment entry by a factor of four. The probability of leaving self-employment is larger for women than men, and is lowest among employers and professionals, and declines with the elapsed duration of the self-employment spell. This highlights the importance of providing support to the self-employed during the start-up period to help them become established. Our results confirm that individuals with particular preferences, who have been exposed to self-employment as a child and who have greater wealth and access to capital markets are most likely to become self-employed. Human capital, both general (captured by age and occupation) and specific (captured by the elapsed duration in self-employment) are important determinants of self-employment exit.

Multivariate analysis of reported job satisfaction levels indicates that the self-employed enjoy higher levels of job satisfaction overall, with pay, with work itself and with hours worked than employees, but lower levels of job satisfaction with job security. Among men, job

creators report similar levels of job satisfaction than sole proprietors, while among women, job creators appear to behave more like paid employees in terms of their reported levels of job satisfaction. The fact that the self-employed report higher levels of job satisfaction than employees with all aspects except job security prompts the question of why are more people not self-employed. The answer to this may be that job security is considered to be an important aspect of a job for a large proportion of individuals. Therefore policies designed to encourage small businesses will only have limited success unless they incorporate some form of security and support in the event of business failure.

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Appendix

Table A.1. Probability of entering self-employment between *t* and *t*+1 given not self-employed at *t*: Marginal effects

	Men			Women		
	Mar-ginal effect	**t-stat**	**Mean**	**Mar-ginal effect**	**t-stat**	**Mean**
Age	0.002	(3.11)	38.44	0.002	(3.35)	37.08
$Age^2/100$	-0.002	(2.55)	16.46	-0.002	(2.97)	15.09
Status at t						
Inactive	-0.000	(0.10)	0.136	0.009	(4.17)	0.245
Unemployed	0.050	(9.94)	0.064	0.014	(3.29)	0.041
Duration in status at t						
Inactive	-0.001	(1.48)	0.862	-0.000	(2.14)	1.833
Unemployed	-0.002	(2.13)	0.155	0.000	(0.87)	0.165
Employee	-0.001	(4.34)	4.011	-0.000	(0.91)	2.866
Demographics						
Married	-0.001	(0.48)	0.566	-0.005	(1.98)	0.565
Cohabiting	0.006	(1.77)	0.118	-0.003	(0.98)	0.120
Spouse employed	0.002	(1.05)	0.490	0.005	(2.03)	0.582
Limiting health	-0.008	(2.76)	0.133	-0.000	(0.74)	0.130
Higher degree	-0.007	(1.68)	0.027	0.008	(1.51)	0.016
First degree	-0.007	(2.50)	0.108	0.002	(0.84)	0.093
Other higher qualifica-tion	-0.003	(1.63)	0.269	0.004	(2.26)	0.226
A-Levels or equivalent	0.001	(0.25)	0.152	0.002	(0.90)	0.130
One child	0.005	(1.96)	0.138	0.002	(1.00)	0.179
Two children	0.004	(1.37)	0.143	0.002	(1.09)	0.174
Three or more children	0.008	(1.86)	0.058	0.007	(2.34)	0.076
Own house outright	0.002	(0.73)	0.137	0.001	(0.67)	0.118
Social tenant	-0.002	(0.65)	0.156	0.000	(0.15)	0.186
Private tenant	0.014	(3.73)	0.093	0.011	(3.99)	0.091
House value if owner (GBP 10000)	0.000	(2.28)	6.199	0.000	(4.64)	6.099
Immigrant	0.011	(2.02)	0.027	0.011	(3.01)	0.034
Parents occupation						
Parent self-employed	0.002	(0.64)	0.129	0.005	(1.95)	0.137
Parent employer	0.016	(2.84)	0.071	0.001	(0.26)	0.070

Table A.1. Continued….

	Men			Women		
	Mar-ginal effect	**t-stat**	**Mean**	**Mar-ginal effect**	**t-stat**	**Mean**
Most important job aspect						
Security	-0.006	(3.00)	0.257	0.001	(0.54)	0.149
Use of initiative	0.010	(2.83)	0.072	0.009	(2.99)	0.055
Work itself	0.004	(1.89)	0.183	0.003	(1.59)	0.249
Hours of work	0.028	(3.18)	0.010	0.001	(0.50)	0.052
Log likelihood	-2770			-2076		
Pseudo R^2	0.0648			0.0520		
N person years	27215			30078		

Notes: Probit marginal effects estimated at the sample means. Ratio of coefficient to robust standard error in parenthesis. Estimation also includes 6 region indicator variables and 9 year indicator variables. Dependent variable takes the value 1 if an individual who is not self-employed at t is in self-employment at t+1, and the value 0 if an individual who is not self-employed at t is not self-employed at t+1. House value in September 2001 prices.

Table A.2. Probability of leaving self-employment between *t* and *t*+1 given self-employed at *t*: Marginal effects

	Men			Women		
	Mar-ginal effect	***t*-stat**	**Mean**	**Mar-ginal effect**	***t*-stat**	**Mean**
Age	-0.015	(4.03)	43.41	-0.025	(1.95)	41.42
$Age^2/100$	0.018	(3.97)	20.03	0.030	(1.88)	18.04
Employer	-0.045	(3.56)	0.308	-0.120	(3.67)	0.274
Duration in self-employment at t	-0.011	(5.90)	8.940	-0.009	(1.68)	6.430
(Duration in self-employment at t)^2	0.000	(4.75)	156.99	0.000	(1.10)	92.306
Log Income from self-employment at t	-0.005	(2.03)	6.704	-0.006	(1.24)	5.535
Demographics						
Married	0.006	(0.28)	0.708	0.046	(0.86)	0.704
Cohabiting	0.018	(0.78)	0.116	0.125	(1.81)	0.088
Spouse employed	-0.017	(1.30)	0.628	0.004	(0.08)	0.719
Higher degree	0.034	(0.91)	0.014	0.042	(0.51)	0.037
First degree	0.031	(1.20)	0.090	-0.037	(0.86)	0.118
Other higher qualification	0.014	(1.03)	0.270	-0.034	(1.11)	0.311
A-Levels or equivalent	-0.008	(0.52)	0.124	0.009	(0.20)	0.118
One child	0.029	(1.64)	0.151	-0.047	(1.25)	0.180
Two children	-0.018	(1.06)	0.167	0.002	(0.05)	0.196
Three or more children	0.031	(1.46)	0.086	-0.038	(0.81)	0.094
Own house outright	-0.003	(0.18)	0.182	-0.012	(0.31)	0.169
Social tenant	0.057	(2.64)	0.090	0.079	(1.54)	0.091
Private tenant	0.033	(1.63)	0.101	0.128	(2.57)	0.090
House value if owner (GBP 10000)	-0.001	(0.82)	8.719	0.001	(0.65)	9.637
Immigrant	0.013	(0.42)	0.034	-0.091	(2.07)	0.086
Occupation						
Professional	-0.033	(1.45)	0.096	-0.123	(2.12)	0.060
Managerial	0.004	(0.21)	0.302	-0.053	(1.51)	0.365
Skilled non-manual	-0.056	(2.63)	0.065	-0.037	(0.91)	0.168
Previous labour market state						
Unemployed	0.012	(0.55)	0.061	-0.051	(0.81)	0.040
Inactivity	0.141	(2.36)	0.014	-0.054	(1.40)	0.130

Table A.2. Continued….

	Men			Women		
	Mar-ginal effect	***t*-stat**	**Mean**	**Mar-ginal effect**	***t*-stat**	**Mean**
Most important job aspect						
Security	-0.011	(0.64)	0.159	-0.096	(2.52)	0.137
Use of initiative	-0.039	(2.41)	0.216	-0.126	(3.42)	0.170
Work itself	-0.030	(1.90)	0.273	-0.113	(3.21)	0.371
Hours of work	-0.043	(1.53)	0.015	-0.004	(0.06)	0.050
Log likelihood		-1380			-665	
Pseudo R^2		0.1185			0.1611	
N person years		3985			1426	

Notes: Probit marginal effects estimated at the sample means. Ratio of coefficient to robust standard error in parenthesis. Estimation also includes 4 parental occupation indicator variables, 10 industry indicator variables, 6 region indicator variables and 9 year indicator variables. Dependent variable takes the value 1 if an individual who is self-employed at *t* is not in self-employment at *t*+1, and the value 0 if an individual who is self-employed at *t* is also self-employed at *t*+1.