



<http://www.durham-ent.org/>



Why Do Small Firms Produce the Entrepreneurs?

Simon C Parker

June 2007





Cross-tabulation (job quitters only)

Size	Become self-employed	
	% Yes (#)	% No (#)
1-2	5.7 (33)	94.3 (549)
3-9	3.2 (99)	96.8 (2990)
10-24	2.4 (90)	97.6 (3634)
25-49	1.6 (39)	98.4 (2419)
100-199	1.1 (20)	98.9 (1870)
500-999	0.8 (9)	99.2 (1142)

$$\chi^2(8) = 120.50; \eta = 0.079; N = 19230$$





Introduction

- Two “stylised facts”:
 1. Employees significantly more likely to quit small than large firms to start new ventures
 - See also Boden (1996) for US; Wagner (2004) for Germany; and Hyytinen and Maliranta (2006) for Finland
 2. More self-employment entry from paid employment than from unemployment
- Why 1.?
 - We don't yet know!
 - May carry implications for pro-entrepreneurship policies & contribute to debate about role of small firms in economy
 - Employers and workers can also benefit from knowing why





What I do in this paper

1. Consider 3 rival theories that can potentially explain the first stylised fact:
 - a. “Transmission Theory” – small firms best at transmitting pro-entrepreneurship attitudes or capabilities to their workers
 - b. “Self-selection Theory” – less risk averse individuals sort into both small firms and entrepreneurship at different stages of their lives
 - c. “Blocked mobility” – workers stuck in small firms cannot access good jobs in large firms so escape into self-employment
2. Obtain testable implications of the theories and test them using 13 waves of BHPS, 1991-2003





Data source: BHPS:

- Rich data on workplace, job and personal characteristics
- Nationally representative; 10,000 individuals interviewed p.a.

Note:

- Unconditional quit rates higher in small than in large firms
 - E.g., because worse conditions or higher failure rates
- So we will study the *conditional probability* of entrepreneurship entry by size, S
 - I.e., conditional on workers quitting at all





Structure of rest of the talk:

1. The three theories and hypothesis derivation
 - a. Transmission theory
 - b. Self-selection theory
 - c. Blocked mobility theory
2. Data and measurement
3. Results
 - a. Entry into self-employment
 - b. Joining paid employment
 - c. Interpretation
4. Conclusion





1a. The transmission theory

- Tasks in small firms more diverse
 - Introducing workers to networks of suppliers and customers
 - Obtain a rounded view about what it takes to run a small firm themselves
 - Lots of experiences makes it easier to identify novel venture ideas
 - Entrepreneurs are “jacks-of-all trades” (Lazear, 2005), having diverse human capital
- Small firms provide stronger role models
 - More visible in small firms than in large ones
 - Worker is closer to owner-manager (fewer management layers between workers and entrepreneur)





- **Hypothesis 1:**

- Managers (M) in small firms have greatest learning and networking opportunities, so $M \times S$ should *decrease* entry probability

- **Hypothesis 2:**

- Workers with long job tenure (T) in small firms have the greatest exposure to role models, so $T \times S$ should *decrease* entry probability

- **Hypothesis 3:**

- If role models are context specific, job-changing workers are more likely to remain in the same industry or occupation (IO), so IO should *increase* entry probability





1b. The self-selection theory

- Simple moral hazard model of worker sorting predicts:
 - Large firms offer insurance (smoothed wage) whereas small firms run by risk averse individuals who offer workers more variable wages
 - testable and true!
 - Hence the most (least) averse sort into large (small) firms
 - If exogenous opportunities to found a risky firm improve, the least risk averse (who sort into small firms) do best (need to offer a smaller risk premium to their newly hired workers) by quitting to take them.
- Also, if these new firms close, entrepreneurs being less risk averse are more likely to return to small firms





-
- **Hypothesis 4:**
 - Entrants to entrepreneurship are less likely to have been trade union members or to remain in same occupation or industry (because less risk averse) when they change jobs
 - **Hypothesis 5:**
 - Entrepreneurs who re-enter paid employment are more (less) likely to join small (large) firms than employees who take new jobs in paid employment
 - **Hypothesis 6:**
 - Smaller firms offer more volatile wages than large firms





1c. Blocked mobility theory

- Two ingredients: Dual labour markets and frustration:
 - Small firms in the secondary sector offer poor earnings and conditions
 - Employees frustration decreases with firm size S
 - Small firm employees cannot join large firms in the primary sector
 - So escape into entrepreneurship
- And for managers, the top job is blocked in most small firms by the presence of the owner-manager!





-
- **Hypothesis 7 [Small firms are secondary sector]:**
 - Bad jobs (B) are temporary, and lack training and promotion prospects; so $B \times S$ should *decrease* entry probability
 - Good jobs (G) have long tenure, high earnings, and unions in workplace; so $G \times S$ should *increase* entry probability
 - **Hypothesis 8 [Frustration]:**
 - Frustration (F) is higher for dissatisfied workers and managers who are blocked; so $F \times S$ should *decrease* entry probability
 - **Hypothesis 9:**
 - Entrepreneurs who re-enter paid employment are still blocked from large firms so are more (less) likely to join small (large) firms than employees who take new jobs in paid employment





Summary

- Lots of testable predictions
- Some of the theories generate similar, others different, predictions about variables
 - See Table 1 of the paper
- Hence empirical strategy is to build up a composite picture about which if any theory is most consistent with the data
 - A horse race?
 - But more than one horse can win!





2 Data and measurement

- Entrepreneurship measured as self-employment
 - Self-assessed; includes incorporated self-employed
- Data on 3732 job changing employees present in at least two consecutive waves
 - Leads to 19230 observations over the panel
- Ca.1.25% workers become self-employed each year
- Ca.11.8% self-employed join paid employment each year
- BHPS data on workplace characteristics:
 - Size, industry, whether unions present (yes in 42%), whether private sector (yes in 67%)





-
- BHPs data on job characteristics:
 - Tenure in present job (ave 4.4 years in PE; 9.16 years in SE) *
 - Whether a manager (20% in PE); whether manual (9%)
 - Usual monthly net earnings (ave: £927.71)
 - Whether job covered by a union (27% were)
 - Whether job temporary (6% were)
 - Whether job switches were in same industry/occupation (23% and 34% were for SE; 40% and 45% were for PE)
 - Dissatisfaction with promotion (9%), boss (3%), lack of training (2%) and job overall (2%)
 - Lack of training (62%) and promotion prospects (43%)





-
- BHPS data on personal characteristics:
 - Female (48%)
 - Self-employed status (12%)
 - Marital status (73%)
 - Poor health (5%)
 - Age (average = 38 years)
 - Highest qualifications achieved (5 dummies)
 - Regional dummies
 - Empirical methods:
 - Random effect probit for entry and exit corresponding to Hypotheses 1-5 and 7-9 above





3a. Results: Entry into self-employment

Variable	Coefficient	Sig?	Hypothesis	Verdict
Manager × Size	-0.02	No	1 (TT) and 8 (BM): –	No support for TT or BM
Tenure × Size	0.02	No	2 (TT): –	No support for TT
Same ind/occ	-0.29 / -0.16	Yes	3 (TT): + and 4 (SS): –	Support for SS, <i>not</i> TT
Union member	-0.19	Yes	4 (SS): –	Support for SS
Temp × Size	0.01	No	7 (BM): –	No support for BM
No trg × Size	-0.12	Yes- just (Bonf)	7 (BM): –	Marginal support for BM
No prom × Size	-0.02	No	7 (BM): –	No support for BM





Variable	Coefficient	Sig?	Hypothesis	Verdict
Wage × Size	0.03	No	7 (BM): +	No support for BM
Union @ × Size	0.05	No (Bonf)	7 (BM): +	No support for BM
Job dissat × Size	0.03	No	7 (BM): –	No support for BM
Promotion dissat × Size	0.02	No	7 (BM): –	No support for BM
Boss dissat × Size	0.09	No	7 (BM): –	No support for BM
Training dissat × Size	-0.27	No	7 (BM): –	No support for BM





3b. Results: Joining paid employment

Dep var	Indep var	Coeff.	Sig?	Hypothesis	Verdict
Join small (1-2)	Self-emp at t-1	1.49	Yes	5 (SS) & 9 (BM): +	Consistent with SS & BM
Join small (1-9)	Self-emp at t-1	1.25	Yes	5 (SS) & 9 (BM): +	Consistent with SS & BM
Join large (100+)	Self-emp at t-1	-1.16	Yes	5 (SS) & 9 (BM): -	Consistent with SS & BM





- Interpretation:

- In addition, small firms have significantly more volatile wages – consistent with Hypothesis 6 (SS)
- So results so far are consistent with SS but BM lacks consistent support and TT gets none
- Evidence from variables in levels that lack of promotion & training and temporary jobs are associated with self-employment entry in *all* firms, not just small ones
 - So poor job quality can explain some quits but *not* the size-entry relationship





4. Conclusion

- Self-selection based on risk attitudes a **more convincing** explanation of why small firms spawn so many entrepreneurs than:
 - Transmission of capabilities & attitudes, or
 - Blocked mobility of disadvantaged workers
- More employees than unemployed become self-employed:
 - So this may carry implications for policies seeking to promote self-employment
 - Though modest if risk attitudes are fixed (ent education?)
 - Kaufmann internships won't generate expected value added?





-
- Limitations of the present study:
 - May have omitted some hard-to-observe characteristics that affects entrepreneurial entry (e.g., job tasks)
 - Lack of direct measures of risk aversion in BHPS
 - More generally, imperfect proxies for the theories
 - Though we did try out a range of different proxies!
 - “Good practice” of TT may have been “swamped”
 - Alternative theories beyond the 3 considered here?
 - Different data sets to explore for other countries
 - Policy implications?

