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Abstract

This paper examines the impact of self-employment experience on post-self-employment wages and uses the number of self-employment spells to distinguish the relative importance of pull or push factors for entry into self-employment. Workers with a single spell in self-employment have unemployment histories, self-employment durations, education and likelihood of professional occupations that conform better to the archetypical entrepreneur, while individuals with multiple spells in self-employment appear more likely to have been pushed into self-employment due to poor wage market opportunities. Repeaters receive higher returns to self-employment experience than to wage experience and nonrepeaters receive much lower returns to their self-employment experience.

EXECUTIVE SUMMARY

Do Employers Value Entrepreneurial Human Capital?

An empirical study of post-self-employment wages

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1 Introduction

In 2003, 7.5% of the labor force or about 10.3 million workers were self-employed.[2] Many of these self-employed workers quickly return to paid employment. Evidence from Canada and Great Britain suggest that average gross flows into and out of self-employment involves over 40% of self-employed workers each year.[3][4] Given the transitory nature of self-employment, a better understanding of the nature of transitions between self-employment and wage employment is needed. This study attempt to provide evidence on one aspect of this broader topic: how are wages impacted by self-employment experience?

The few previous studies that have also looked at how previous self-employment experience impacts wages have yielded inconclusive evidence. While one study has found that self-employment experience and wage experience are valued roughly the same in the US labor market, another study reports that entrepreneurs returning to paid employment earn a higher wage than employees with similar work experience, education

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[2] Hipple, S., 2004, Self-employment in the United States: An update, Monthly Labor Review, 124(7), 13-23.

[3] Lin, Z., G. Picot and J. Compton, 2000, The Entry and Exit Dynamics of Self-Employment in Canada, Journal Small Business Economics 15(2), 105-125.

[4] Taylor, M. P., 1999, Survival of the Fittest? An Analysis of Self-Employment Duration in Britain, The Economic Journal 109(454), 140-155.

and demographics.[56] In a dataset of self-employed workers in France, workers leaving self-employment earn significantly lower wages than other workers with similar characteristics, empirically confirming anecdotal evidence that the “stigma of failure" is much higher in Europe than in the US.[7]

The evidence in previous studies on the impact of self-employment experience on wages is also hard to interpret because one cannot distinguish causality from correlation. The average worker who enters self-employment could differ from the average worker who never enters self-employment. For example, suppose workers who are willing to give self-employment a try are in someway better than the average worker. Because they are better workers, they have higher wages on average than workers who never are self-employed. This wage difference is not caused by their self-employment experience, but results from the correlation between worker quality and self-employment. Additionally, self-employed workers who eventually return to wage work will likely differ from those who do not exit. Correlation between worker quality and self-employment exits could also lead us to improperly conclude that there is a causal relationship between self-employment experience and subsequent wages, a problem know as *selection bias*.

This study uses data from the National Longitudinal Study of Youth 1979 (NLSY79) which tracks the employment history of individuals over a 25-year period. Because I observe the pattern of wages for any given worker through time, this study does not suffer from the selection bias that plagues previous studies because a worker’s post-self-employment wages are compared to the same worker’s pre-self-employment

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[5] Evans, D. S. and L. S. Leighton, 1989, Some Empirical Aspects of Entrepreneurship, The American Economic Review 79(3), 519-535.
[6] Hamilton, B. H., 2000, Does Entrepreneurship Pay? An Empirical Analysis of the Returns to Self-Employment, Journal of Political Economy 108(3), 604-631.
[7] Landier, A., 2005, Entrepreneurship and the Stigma of Failure, Working Paper, New York University.

wages. Using a worker's own compensation history as the benchmark wage eliminates wage differences due to variation in inherent abilities and allows me to identify the causal impact of self-employment experience on subsequent wages.

Theories provide two divergent views of the self-employed: workers are either "pushed" or "pulled" into self-employment. "Push" theories argue that individuals select self-employment as a response to limited opportunities in traditional wage employment. These theories explain some empirical characteristics of the self-employed observed in the data such as higher rates of self-employment among immigrants,[8] those with a work-limiting health condition,[9] those living in area with or previously worked in industries with high unemployment,[10] and those with unstable employment histories.[11]

In contrast, "pull" theories portray the self-employed as skilled and motivated individuals drawn to entrepreneurial pursuit and business ownership. Ample empirical support for pull theories exist. Self-employed workers tend to have a strong believe in their own abilities to achieve and give little credence to external forces such as destiny or luck, indicating a high internal locus of control.[12,13] Additionally, self-employed workers also report greater job and life satisfaction.[14]

The pool of self-employed workers is likely to be a mix of workers driven by pull or push factors. The educational attainment and income distribution of self-employed

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[8] Light, I., 1997, Disadvantaged Minorities in Self-Employment, International Journal of Comparative Sociology 20(1), 31-45.
[9] Zissimopoulos, J. M. and L. A. Karoly, 2007, Transitions to self-employment at older ages: The role of wealth, health, health insurance and other factors, Labour Economics 14(2), 269-295.
[10] Rissman, E., 2003, Self-Employment as an Alternative to Unemployment, FRB of Chicago Working Paper No. 2003-34.
[11] Evans and Leighton, 1989.
[12] Rotter, J. B., 1966, Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80*, whole issue.
[13] Evans and Leighton, 1989.
[14] Blanchower, D. G. and A. J. Oswald, 1998, What Makes an Entrepreneur?, Journal of Labor Economics 16(1), 26-60.

workers is somewhat polar, supporting the notion that there are two types of self-employed worker. Relative to the educational distribution of paid employees, self-employed workers are more likely to either have less than a high school degree or at least a university degree.[15] Similarly, the income distribution for self-employed workers has fatter tails relative to wage workers, meaning that they are more likely to have either very high or very low wages.[16, 17]

The duality among the self-employed is also manifested in exit patterns. It is important to point out that exits are not synonymous with failure. One study reports that 38% of a sample of small business owners described their firms as successful at the time of exit.[18] Tenure in self-employment is a large predictor for self-employment duration, with hazards rates as high as 10% in the first few years and dropping off to zero by the eleventh year of self-employment.[19] Additional studies have found that workers who remain self-employed the longest have no previous unemployment experience, have some paid employment experience, quit their previous job, and started their business with some initial capital. Conditional on exit, the likelihood that a male worker leaves self-employment for a better job is about 70% if they were self-employed for less than a year, but drops to about 50% if they exit after 1 to 5 years. Bankruptcy was cited only 15% of the time for those in self-employment for less than one year but increases to 23% for durations of 1-2 years. These findings suggest that there are a number of workers who

[15] Lin et al., 2000.
[16] Hamilton, 2000.
[17] Lin et al., 2000.
[18] Bates, T., 2005, Analysis of young, small _rms that have closed: delineating successful from unsuccessful closures. Journal of Business Venturing 20(3), 343-358.
[19] Evans and Leighton, 1989.

enter self-employment for very short stints as an alternative to unemployment.[20] That exits in Canada are slightly countercyclical lends additional support to the hypothesis that workers use self-employment is an alternative for unemployment.[21] Exits rise when unemployment drops and the average paid employment wage increases.

One would expect the return to self-employment experience to differ for those who enter self-employment as an alternative to unemployment and those whose career is in self-employment. Using tenure in self-employment is the most obvious way to delineate these two types, but this would pose problems in estimating the returns to self-employment experience. Instead, I show that the number of self-employment spells is a useful way to categorize self-employed workers. Those who have entered self-employment multiple times over the 25-year sample have characteristics that are more consistent with opportunistic entry, while those with a single spell in self-employment appear to be more motivated by career aspirations.

2 Analysis and Results

I identify “repeaters" as individuals who have multiple spells in self-employment during the 25-year sample period. “Nonrepeaters" are those with a single spell in self-employment. Because my hypothesis is that repeaters and nonrepeaters engage in different types of self-employment, these labels are constant for individuals in every job they hold. In other words, repeaters are classified as repeaters even before their first entry in self-employment. Note that this distinction is different from another categorization of self-employed workers that appears in the literature: novice versus experienced. Novices

[20] Taylor, 1999.
[21] Lin et al., 2000.

Table 1

	Wage Employment	Self-employment	
		Nonrepeater	Repeater
Age	29.8	30.5	30.7
Married	49.7	60.4	53.4
Black	11.3	5.9	4.4
Hispanic	6.9	4.0	6.0
Unemployed	22.6	9.7	12.7
Professional	13.8	14.1	12.3
Education			
<HS	15.1	13.3	16.6
HS	47.5	44.7	45.2
some college	17.4	19.3	21.7
college+	20.0	22.8	16.6
Professional	13.8	14.1	12.3

are those who are self-employed for the first time and include both repeaters and nonrepeaters. Those who are experienced are on their second or later self-employment spell and only include repeaters.

I show that repeaters differ from nonrepeaters along a number of dimensions. The descriptive statistics in Table 1 shows that repeaters tend to be less educated, are less likely to be in a professional occupation, and are more likely to have had a spell of unemployment in the previous year. Additionally, the survival rates for novice entrepreneurs displayed in Table 2 indicate that repeaters stay self-employed in less numbers and for shorter durations than nonrepeaters.[22]

These characteristics of repeaters may lead one to believe they are a lower quality worker and thus fail more frequently. However, prior to entry into self-employment, repeaters have hourly wages that are about 2.7% than those with similar characteristics with zero or one self-employment spell (nonentrants and repeaters). Additional analysis reported in Table 3 shows that each year of self-employment experience increases wages

[22] Survival rates are shown only for the first self-employment spell to mitigate the impact of learning effects in subsequent spells.

Table 2: Novice Self-employment Survival Rates

Years	Nonrepeater	Repeater
1	82.4	65.8
2	65.8	46.0
3	56.9	37.6
4	51.6	28.7
5	48.2	21.1
6	47.3	15.6
7	45.1	13.5
10	41.3	8.0
Observations	450	237

by about 6.2% for repeaters, but only by 1.9% for nonrepeaters.[23] The labor market appears to value the self-employment experience of repeaters more highly than the experience of nonrepeaters, a finding that is inconsistent with repeaters being of a lower quality type.

One hypothesis that explains these apparently contrasting set of facts is that repeaters take a more opportunistic view of self-employment than nonrepeaters. They enter self-employment when wage opportunities are poor, but exit when a better job arises. Nonrepeaters are those with a more career driven view of self-employment: they are the archetypical small business owner who remains in self-employment until failure or retirement.[24] This explains the longer tenures and greater propensity to be a professional among nonrepeaters. Career motives can also explain why nonrepeaters receive much lower returns to their self-employment experience. If repeaters are more likely to have a career view of self-employment, they will be more likely to let their

[23] As a reference point, both repeaters and nonrepeaters get close to a 5% boost in wages for each year of wage experience. Without distinguishing between these two sets of self-employment, the average return to self-employment experience is roughly the same as the return to wage experience, consistent with previous studies.

[24] Notice that this characterization of self-employment differs somewhat from the push versus pull categories. An individual could be pushed or pulled into a career in self-employment, as this category would include both the classic entrepreneur and the minority business owner with poor language skills.

Table 3

	Percent wage increase from additional year	
	wage employment	self-employment
Repeater	4.8	6.2
Nonrepeater	4.9	1.9

Note: Values are coefficients from log wage fixed effects regressions that also controls for total work experience and unemployment history.

corporate skills deteriorate. An alternative explanation is that conditional on exit, those with a career perspective are much more likely to have exited due to failure.

3 Conclusions

Both theory and the empirical evidence indicate that self-employed workers are far from being a homogenous group. In particular, pull and push theories of entrepreneurial entry describe two distinctly different sets of workers which lie on completely opposite sides of the spectrum. Failure to recognize these differences and thus treating all self-employment the same will tend to disguise important relations that impact pushed entrepreneurs in one way and pulled entrepreneurs in the opposite way.

Using the number of self-employment spells over a 25-year period is one method that appears to split the sample of entrepreneurs in a meaningful way. Although the average return to self-employment experience is roughly the same as the return to wage experience, splitting the sample into repeaters and nonrepeaters reveals different results. Although the wages of both groups are impacted in about the same way by wage experience, repeaters have much higher returns to their self-employment experience than nonrepeaters. This result runs counterintuitive to the assumption that repeaters are more likely to have failed thus requiring multiple self-employment spells. An alternative hypothesis that can reconcile the seemingly contradictory evidence is that repeaters enter

self-employment opportunistically—when wage labor opportunities are poor, the enter self-employment until labor market conditions improve.

Additional research into improved methods to characterize these two types of self-employment has the potential to reveal more answers that have been thus far hidden in the averages.