



The role of hybrid entrepreneurship in explaining multiple job holders' earnings structure



Matthias Schulz^{a,b,*}, Diemo Urbig^{a,b,c}, Vivien Procher^{a,b,d}

^a Jackstädt Center of Entrepreneurship and Innovation Research, 42119 Wuppertal, Germany

^b Schumpeter School of Business and Economics, 42119 Wuppertal, Germany

^c Institute for Development Strategies, Indiana University, Bloomington, IN 47405, USA

^d RWI - Leibniz-Institut für Wirtschaftsforschung, 45128 Essen, Germany

ARTICLE INFO

Keywords:

Multiple job holding
Self-employment
Hybrid entrepreneurship
Earnings

ABSTRACT

Despite the high prevalence of hybrid entrepreneurs among multiple job holders, research on hybrid entrepreneurship and multiple job holding has largely evolved independently from each other. We take a first step for a fruitful exchange between both research streams by building on hybrid entrepreneurship theories to explain why multiple job holders frequently have higher hourly earnings in their second job compared to their main job. Consistent with these entrepreneurship theories, our empirical analysis, based on the British Household Panel Survey (1991–2008), demonstrates that engaging in self-employment as second job significantly increases the probability of having higher average earnings in this second job, compared to being paid employed in both occupations. Furthermore, we explore the roles of gender and household composition in explaining multiple job holders' earnings structure.

1. Introduction

Evidence from the European Labor Force Survey indicates that self-employment is much more prevalent among multiple job holders than among single job holders: For example, among second-job occupations in 2013, the share of self-employment amounts to 26% in France, 38% in the UK, and 56% in Italy. In contrast, the corresponding share among first-job occupations amounts to only 11% in France, 14% in the UK, and 23% in Italy (Eurostat, 2014). Despite the high prevalence of self-employment among multiple job holders, theories on self-employment are rarely acknowledged in the literature on multiple job holding and vice versa.

Empirical evidence shows that a high share of multiple job holders may have higher average earnings (averaged over hours) in their second job rather than in their main job, ranging from 25% (Kimmel and Smith Conway, 2001), over 48% (Paxson and Sicherman, 1996), to 70% (Wu et al., 2009). This phenomenon cannot be explained by theories on multiple job holding related to hours-constrained main jobs (Paxson and Sicherman, 1996). Other multiple job holding theories attempt to explain this using non-pecuniary benefits from the primary job and benefits, such as flexibility, from the portfolio of multiple jobs (Kimmel and Smith Conway, 2001). Furthermore, Wu et al. (2009) propose that multiple job holders engaging in self-employment as a second job (so-called hybrid entrepreneurs) might have higher second-job earnings; however, they neither provide a theoretical argument nor do they test this proposition empirically. Thus, none of the alternative explanations isolate the particular mechanism and, in particular with respect to the role of self-employment (Wu et al., 2009), there is no clear-cut empirical evidence explaining higher second job earnings.

* Corresponding author at: Jackstädt Center of Entrepreneurship and Innovation Research, 42119 Wuppertal, Germany.
E-mail address: mschulz@uni-wuppertal.de (M. Schulz).

We advance this research, first, by extending Paxson and Sicherman (1996)'s analysis for a more recent dataset and using more advanced methods, as well as by stressing the need for additional theories to explain higher second job earnings. Second, we highlight previously neglected entrepreneurship theories proposing specific mechanisms that explain higher second job earnings. Third, while entrepreneurship research demonstrates that hybrid entrepreneurs differ from full-time entrepreneurs with respect to their demographic characteristics, entrepreneurial outcomes, and responses to public policy (Folta et al., 2010; Raffiee and Feng, 2014; Schulz et al., 2016; Thorgren et al., 2016), we theoretically and empirically demonstrate that hybrid entrepreneurs are also distinct from multiple job holders who have two paid employment positions.

2. Hybrid entrepreneurship and its consequences for observed earnings structures

There are multiple theories explaining the emergence of individual-level multiple job holding, in general, and hybrid entrepreneurship, in particular. In the literature on multiple job holding, one reason for holding two jobs relates to an hours constraint in the main job, which leads individuals who desire to work more, to take on a second, lower-paid, job (Paxson and Sicherman, 1996). If the second job was better paid, individuals would give up their main job and fully switch to the second job (Wu et al., 2009). This argument, independent of whether or not the second job is self-employment, implies lower second-job earnings (Paxson and Sicherman).

Furthermore, non-pecuniary benefits in the first job or human capital spillover across the two occupations might be other reasons for multiple job holding (Panos et al., 2014). For example, a university professor might use the status of his profession to engage in a second, higher-paid job as consultant (Kimmel and Smith Conway, 2001). While this motive for multiple job holding is discussed rather generally in multiple job holding research, entrepreneurship research can help isolate the mechanisms of how heterogeneity between self-employment and paid employment may lead to simultaneously engaging in both of these occupations.

Specifically, three of the mechanisms for hybrid entrepreneurship can explain higher average earnings in the second job if this second job constitutes the self-employment activity. First, if leaving paid employment entails sunk costs, e.g., losing certain pension schemes, then prospective entrepreneurs might still keep a lower-paid job during a testing phase (Folta et al., 2010). Second, if earnings are risky in self-employment but risk-free in paid employment, risk-averse individuals might combine both occupations but require a risk-premium in self-employment, resulting in higher average earnings (Parker, 1996). Third, if marginal earnings are constant in paid employment and decreasing in self-employment, earnings-maximizing individuals might combine both (Lévesque and Schade, 2005). As in this occupation-combining optimum the marginal return to self-employment equals the marginal return to paid employment, a combination of both implies higher average earnings in self-employment. Thus, these three entrepreneurship theories allow and, in the case of the latter two mechanisms, even suggest, higher second job earnings. Due to the high frequency of hybrid entrepreneurs among multiple job holders, these entrepreneurship theories may, in fact, be decisive for the observed structure of multiple job holders' earnings.

3. Method

We test our theorizing on the role of self-employment on multiple job holders' earnings with yearly data from the British Household Panel Survey (BHPS) from 1991 to 2008, for employees aged between 18 and 65.

In a first step, we extend Paxson and Sicherman (1996)'s analysis of multiple job holders' earnings. We employ a random-effects (instead of Paxson and Sicherman's pooled) multinomial logit model, with the occupation in time t in relation to occupation in $t-1$ as dependent variable. Focusing on paid employees in $t-1$, there are four¹ possible outcomes in t : Work in same job as in $t-1$ (reference group), take second job in t with average earnings lower than in main job, take second job in t with average earnings higher than in main job, switch to new job in t . As explanatory variables, we include both Paxson and Sicherman's desire to work more and the desire to work less.² Then, to test our theorizing, we additionally include the desire to start a business (only available for years 1998–2008).³ To better identify the causal effects of these desires on subsequent changes in occupation, we build on changes in reported desires; reflected in dummy variables turning one if a desire is reported in $t-1$ but not in $t-2$. To validate that the effect of the desire to start a business (in $t-1$) on later earnings indeed rests on an actual later engagement in self-employment (in t), we subsequently split the outcome of higher second job earnings into the cases of paid employment versus self-employment as the second job (in t). We use age, tenure, their respective squares, and schooling as individual-level control variables (cf., Paxson and Sicherman, 1996). In addition, we include region and wave dummies. As there is evidence that rather robust differences in labor supply decisions between men and women (Altonji and Blank, 1999) also translate into differences in multiple job holding rates in the UK (Panos et al., 2014) and as Paxson and Sicherman's analysis focuses on men only, we test the extent to which the theorizing also applies to women.

As earnings in self-employment might be comparably low during the first year and as entrepreneurial action might not immediately follow the emergence of entrepreneurial intent, our analyses focusing on those who just entered self-employment and whose intent formed a year before might be excessively conservative. Therefore, in a second step, we test whether our theorizing holds for hybrid entrepreneurship, independent of whether individuals just started or have been self-employed for a longer time. The

¹ Due to their focus on working hours, Paxson and Sicherman (1996) further differentiate between "switching into new job with more working hours" and "switching into new job with less working hours". We do not follow them, because we focus on the earnings structure of multiple job holders.

² Thus, we follow Paxson and Sicherman (1996) by using a directional measurement of hours constraints: "Thinking about the hours you work, assuming that you would be paid the same amount per hour, would you prefer to (work fewer hours/work more hours/continue the same hours)?"

³ "Tell me whether you would like this to happen to you in the next twelve months: Would you like to...start up your own business (a new business)? (Yes/No)"

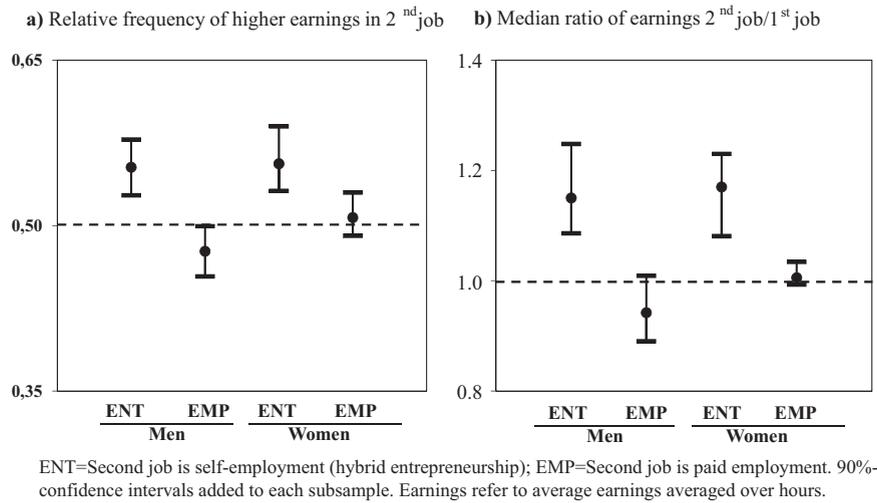


Fig. 1. – Subsample comparisons for multiple job holders' earnings structures.

dependent variable is whether or not an individual has higher average earnings in the second job. We also explore differences between men and women as well as the potential influence of individuals' household contexts by allowing the effect of hybrid entrepreneurship on earnings structures to vary between individuals in single households, sole earners in a multi-person household, and earners in a household with multiple people contributing to household income.

4. Results

Fig. 1a and b report descriptive statistics on earnings of paid employees who are engaged in a second job as hybrid entrepreneurs (ENT) vis-à-vis those with a second paid employment (EMP). In support of our theorizing, and irrespective of gender, the relative frequency of multiple job holders whose hourly earnings are higher in their second than in their main job is higher among hybrid entrepreneurs than among employees engaged in a second paid employment (Fig. 1a). Even when considering the more informative median ratio of second to first job hourly earnings (2nd job/1st job), the observed pattern is the same; the ratio is higher among

Table 1
Impact of employees' desires on occupational choice.

		Take second job in <i>t</i> with average earnings...				Switch to new job in <i>t</i>	
		...lower than in main job		...higher than in main job			
ΔStart business _{<i>t</i>-1}	-Male	0.003	(0.003)	0.008	(0.004)**	0.041	(0.011)***
	-Female	0.007	(0.004)	-0.001	(0.003)	0.061	(0.013)***
ΔFewer hours _{<i>t</i>-1}	-Male	0.000	(0.002)	-0.000	(0.002)	0.000	(0.007)
	-Female	-0.002	(0.002)	0.002	(0.002)	0.007	(0.007)
ΔMore hours _{<i>t</i>-1}	-Male	0.010	(0.006)*	0.005	(0.005)	0.044	(0.014)***
	-Female	0.003	(0.004)	0.009	(0.005)*	0.023	(0.013)*
Age _{<i>t</i>-1}		-0.000	(0.000)	-0.000	(0.000)	-0.008	(0.001)***
Age _{<i>t</i>-1} ²		-0.000	(0.000)	0.000	(0.000)	0.000	(0.000)***
Tenure _{<i>t</i>-1}		0.001	(0.000)**	0.001	(0.000)*	-0.017	(0.001)***
Tenure _{<i>t</i>-1} ²		-0.000	(0.000)**	-0.000	(0.000)	0.000	(0.000)***
Female		0.002	(0.001)*	0.001	(0.001)	-0.011	(0.004)***
Vocational _{<i>t</i>-1}		-0.001	(0.001)	-0.001	(0.002)	0.016	(0.005)***
Highschool _{<i>t</i>-1}		-0.003	(0.002)*	-0.001	(0.002)	0.019	(0.006)***
University _{<i>t</i>-1}		-0.002	(0.002)	-0.000	(0.002)	0.032	(0.006)***
Region dummies	Yes						
Wave dummies	Yes						
Log-pseudolikelihood		-27,031.57					

Random-effects multinomial logit model, marginal effects at means reported, clustered (individual-level) standard errors in parentheses. N=47,820 (1998–2008).

Significance levels

- * p < 0.10.
- ** p < 0.05.
- *** p < 0.01.

hybrid entrepreneurs than among those with a second paid employment (see Fig. 1b).

Our first regression analysis focuses on average earnings directly after transitioning into multiple job holding (see Table 1, specifically columns 1 and 2, which refer to multiple job holders' earnings structure). For men, our results mostly confirm the findings of Paxson and Sicherman (1996). While the desire to work more increases the probability of taking a second job with lower average earnings by 1% point,⁴ we do not find this desire to be statistically significant when related to taking a second job with relatively higher average earnings. Thus, men's desires to work more (in hours-constrained jobs) do not explain higher second-job earnings (Paxson and Sicherman, 1996). Turning to an individual's desire to start a business, we observe that it significantly increases the probability of subsequently holding a second job in t with higher average earnings by 0.8% points. Thus, and in contrast to desires on hours worked, desires to start a business can, at least to some extent, explain men taking on a higher-paid second job. Separating the outcome of earning more in the second job (Table 1, column 2) into self-employment as second job and paid employment as second job (see Table 2, columns 1 and 2) suggests that the higher second job earnings among men are driven by subsequent self-employment and not only by related desires; the effect is statistically significant only for those with self-employment as second job.

For women, we do not observe a positive impact of desires to start a business on taking on a second job at higher average earnings (see Tables 1 and 2). Further differences can be noted for the desire to work more. Males take on a second job at lower wages while women rather take on second jobs at higher wages. Table 2 further suggests that females' desires to work more do not translate into higher average earnings in self-employment. Thus, entrepreneurship does not seem to explain higher second job earnings for females.

As our first analysis focuses on those who just entered self-employment and whose intent was formed a year before, the results might be excessively conservative. Estimations reported in Table 3 relax these assumptions and investigate the effect of being a hybrid entrepreneur on multiple job holders' likelihood to earn more in the second job than in the main paid-employment job. Results indicate that hybrid entrepreneurship increases the probability of higher average earnings in the second job by 8.6 percentage points (Model 1). Thus, while the impact of hybrid entrepreneurship on multiple job holders' earnings might be small for the case of entry (Table 1), which allows a better grasp of the potentially causal effect, hybrid entrepreneurship, in general, is more strongly associated with higher average earnings in the second job.

Splitting the effect of hybrid entrepreneurship by gender (Table 3, Model 2) reveals that the effect is slightly smaller for women than for men, but in both cases positive and statistically significant. Thus, women might differ from men in their earnings as multiple job holders in the beginning (see Table 1), but these differences in earnings might get smaller in the long run (see Table 3).

As an individual's decisions regarding the earnings structure and, thus, the likelihood to earn more in the second job, might also depend on the household context, we further explore related conditional effects (see Table 3, Model 3). We only observe a statistically significant positive likelihood of higher average earnings in the second job for hybrid entrepreneurs who live in households where other members also contribute to household income. The differences between the three marginal effects of hybrid entrepreneurship conditioned on household composition, however, are not statistically significant. Hence, this initial exploration suggests that our results are not strongly dependent on the household composition.⁵

5. Discussion and conclusion

To advance research on multiple job holding and the role of self-employment (Wu et al., 2009), we demonstrate that multiple job holding with second jobs that deliver higher average earnings than the main job is not unpredictable, but can be explained to some extent by hybrid entrepreneurship. Thereby, our study underlines the relevance of entrepreneurship theories for research on multiple job holding. Current studies might benefit from considering second-job self-employment as important, but distinct form of multiple job holding (e.g. Lalé, 2016). Several opportunities for future research emerge from our study.

While earnings of full-time entrepreneurs are well studied in entrepreneurship research, relatively little is known about hybrid entrepreneurs' earnings. Our study provides a first exploratory analysis in this direction, suggesting that many hybrids earn on average more from self-employment than from their main paid employment. This contrasts with the general notion that entrepreneurs earn less than in comparable paid employment (Åstebro and Chen, 2014; Daly, 2015; Hamilton, 2000) and, thereby, opens up further research opportunities on the specifics of hybrid entrepreneurs vis-à-vis full-time entrepreneurs as well as the sources of differences in earnings in self-employment vis-à-vis paid employment.

Our results further suggest that males' and females' structures of earnings in multiple job holding might be similar in the long run, but seem to differ in the short run, when entering multiple job holding. Furthermore, our replication of Paxson and Sicherman (1996) is only confirmative for men, but not for women. This raises questions as to why women differ in their engagement in multiple job holding and, possibly, with respect to temporal characteristics of their earnings structure. For example, future research could investigate whether women's higher likelihood of engaging in part-time employment as main job (Altonji and Blank, 1999) makes them more likely to find well-paid second jobs, which require longer working hours. As men are more likely to be employed full-time in their main job, they may have limited capacity to dedicate working hours to a second job, which ultimately limits the

⁴ Besides using lagged changes instead of current levels, not pooling multiple job holders might explain why—in contrast to Wu et al. (2009)—we find robust effects of hour constraints on multiple job holding for BHPS data.

⁵ As the relationship of main-job to second-job earnings may, e.g. due to occupation-specific complementarities, also depend on the combination of occupations of multiple job holders, we conducted a robustness check that includes dummy variables for 81 combinations of main and second jobs' 1-digit occupational classification in all models; the effect related to self-employment is robust.

Table 2

Impact of desires on occupational choice when differentiating between entering self-employment and paid employment as second job.

		Take second job in t with average earnings higher than in main job...			
		...as paid employee		...as self-employed	
Δ Start business $_{t-1}$	- Male	0.003	(0.003)	0.004	(0.002)*
	- Female	-0.001	(0.002)	0.000	(0.002)
Δ Fewer hours $_{t-1}$	- Male	0.001	(0.002)	-0.001	(0.001)
	- Female	0.000	(0.001)	0.002	(0.002)
Δ More hours $_{t-1}$	- Male	0.005	(0.005)	0.001	(0.002)
	- Female	0.007	(0.003)**	0.000	(0.002)
Controls		Yes			
Log-pseudolikelihood		-27,275.90			

Specification as in Table 1, but splitting second outcome by second occupation. As splitting one outcome from Table 1 only affects estimations related to the two new outcomes and for brevity, this table omits estimations for the remaining outcomes.

Significance levels

*** $p < 0.01$.

* $p < 0.10$.

** $p < 0.05$.

Table 3

Impact of second-job self-employment on multiple job holders' probability to earn more in the second job.

	Model 1		Model 2		Model 3	
Hybrid	0.086	(0.021)***				
Hybrid Male			0.100	(0.030)***		
Hybrid Female			0.075	(0.029)***		
Hybrid Single HH $_{t-1}$					0.068	(0.044)
Hybrid Sole Earner $_{t-1}$					0.080	(0.061)
Hybrid More Earners $_{t-1}$					0.093	(0.024)***
Female	0.008	(0.022)	0.019	(0.028)	0.008	(0.022)
Sole Earner $_{t-1}$	0.009	(0.037)	0.009	(0.037)	0.005	(0.049)
More Earners $_{t-1}$	-0.011	(0.024)	-0.011	(0.024)	-0.021	(0.031)
Controls	Yes		Yes		Yes	
Log-likelihood	-4159.02		-4158.80		-4158.85	
N	6362		6362		6362	

Random-effects logit model, marginal effects at means reported, clustered (individual-level) standard errors in parentheses. Significance levels

* $p < 0.10$.

** $p < 0.05$.

*** $p < 0.01$.

opportunities of choosing among second job opportunities and drives men more than women toward self-employment.

Future research might also re-consider the observed gender differences in the context of household composition (see Fletcher, 2010, and the discussion by Saridakis et al., 2014). While we do not find significant differences between our three variables on household composition with respect to the impact of hybrid entrepreneurship on multiple job holders' earnings, differences by gender and household composition might still play a role if combined. For example, studies could investigate whether a man's engagement in multiple job holding depends on whether his spouse already has multiple jobs or is even unemployed, which could indicate a need to supplement income and accept a second job with rather low average earnings. Furthermore, engagement in hybrid entrepreneurship may be more likely if one's spouse is self-employed and needs help running the business. As current entrepreneurship theories on entrepreneurs' time allocation tend to neglect the role of household composition, these studies might benefit from considering research on multiple job holding households (see, for instance, Goodwin and Mishra, 2004), which provides theories at the household level that may be useful when augmenting entrepreneurship theories. Overall, our results suggest that combining multiple job holding and entrepreneurship research might, thus, be promising for both of these research streams.

Acknowledgements

We thank the anonymous reviewer and the editor, Dimo Dimov, as well as Werner Bönthe and participants of the Brown Bag Seminar at the Schumpeter School of Business and Economics, Wuppertal, for comments on an earlier version of this article. We thank Adam Lederer for language editing. All remaining errors are our own. Furthermore, we are very grateful for the generous financial support from the Dr. Werner Jackstädt-Stiftung.

References

- Altonji, J.G., Blank, R.M., 1999. Race and gender in the labor market. In: *Handbook of Labor Economics* 3, 3143–3259.
- Åstebro, T., Chen, J., 2014. The entrepreneurial earnings puzzle: mismeasurement or real? *J. Bus. Ventur.* 29 (1), 88–105.
- Daly, M., 2015. The long term returns of attempting self-employment with regular employment as a fall back option. *Labour Econ.* 35, 26–52.
- Eurostat, 2014. (<http://ec.europa.eu/eurostat/data/database>). (accessed 18.02.16).
- Fletcher, D.E., 2010. 'Life-making or risk-taking'? Co-preneurship and family business start-ups. *Int. Small Bus. J.* 28 (5), 452–469.
- Folta, T.B., Delmar, F., Wennberg, K., 2010. Hybrid entrepreneurship. *Manag. Sci.* 56 (2), 253–269.
- Goodwin, B.K., Mishra, A.K., 2004. Farming efficiency and the determinants of multiple job holding by farm operators. *Am. J. Agric. Econ.* 86 (3), 722–729.
- Hamilton, B.H., 2000. Does entrepreneurship pay?: an empirical analysis of the returns to self-employment. *J. Polit. Econ.* 108 (3), 604–631.
- Kimmel, J., Smith Conway, K., 2001. Who moonlights and why? Evidence from the SIPP. *Ind. Relat.: A J. Econ. Soc.* 40 (1), 89–120.
- Lalé, E., 2016. *The Evolution of Multiple Jobholding in the US Labor Market: The Complete Picture of Gross Worker Flows*. IZA Discussion Paper Series 10355
- Lévesque, M., Schade, C., 2005. Intuitive optimizing: experimental findings on time allocation decisions with newly formed ventures. *J. Bus. Ventur.* 20 (3), 313–342.
- Panos, G.A., Pouliakas, K., Zangelidis, A., 2014. Multiple job holding, skill diversification, and mobility. *Ind. Relat.: A J. Econ. Soc.* 53 (2), 223–272.
- Parker, S.C., 1996. A time series model of self-employment under uncertainty. *Economica* 63 (251), 459–475.
- Paxson, C.H., Sicherman, N., 1996. The dynamics of dual job holding and job mobility. *J. Labor Econ.* 14, 357–393.
- Raffiee, J., Feng, J., 2014. Should i quit my day job? A hybrid path to entrepreneurship. *Acad. Manag. J.* 57 (4), 936–963.
- Saridakis, G., Marlow, S., Storey, D.J., 2014. Do different factors explain male and female self-employment rates? *J. Bus. Ventur.* 29 (2014), 345–362.
- Schulz, M., Urbig, D., Procher, V., 2016. Hybrid entrepreneurship and public policy: the case of firm entry deregulation. *J. Bus. Ventur.* 31 (3), 272–286.
- Thorgren, S., Sirén, C., Nordström, C., Wincent, J., 2016. Hybrid entrepreneurs' second-step choice: the nonlinear relationship between age and intention to enter full-time entrepreneurship. *J. Bus. Ventur. Insights* 5, 14–18.
- Wu, Z., Baimbridge, M., Zhu, Y., 2009. Multiple job holding in the United Kingdom: evidence from the British Household Panel Survey. *Appl. Econ.* 41 (21), 2751–2766.