

Papers in Evolutionary Economic Geography

06.05

Starting anew: Entrepreneurial intentions and realizations subsequent to business closure

Veronique Schutjens and Erik Stam



Utrecht University
Urban & Regional research centre Utrecht

Starting anew: Entrepreneurial intentions and realizations subsequent to business closure

Veronique Schutjens¹ & Erik Stam^{1,2,3}

¹ Urban and Regional research centre Utrecht, Faculty of Geosciences, Utrecht University, PO Box 80115, 3508 TC Utrecht, The Netherlands.

Tel.: + 31 30 2534528, Fax: +31 30 2532037, e-mail: v.schutjens@geo.uu.nl ; e.stam@geo.uu.nl

² Erasmus Research Institute of Management (ERIM), Erasmus University Rotterdam, Rotterdam, The Netherlands.

³ Max Planck Institute of Economics - Entrepreneurship, Growth and Public Policy Group, Jena, Germany.

Abstract

We know that most businesses fail. But what is not known is to what extent failed ex-entrepreneurs set up in business again. The objective of this article is to explore potential and realized serial entrepreneurship. Based on three disciplines – psychology, labour economics, and the sociology of careers – we formulated propositions to explain (potential) serial entrepreneurship. We tested these propositions empirically with a longitudinal database of 79 businesses that had closed within 5 years after start-up. A large majority of the ex-entrepreneurs maintained entrepreneurial intentions subsequent to business closure, while almost one in four business closures were followed by a new business (serial entrepreneurship). Our results show that the determinants of restart intention (potential serial entrepreneurship) and actual restart realization (realized serial entrepreneurship) are different. Ex-entrepreneurs who are young, who worked full-time in their prior business, and who recall their business management experience positively are likely to harbour restart intentions. Only ‘being located in an urban region’ transpired to have a significant effect on the start of a new business. Although entrepreneurial intentions are a necessary condition for the start of a new business, this study shows that the explanation of entrepreneurial intentions is distinct from the explanation of new business formation subsequent to business closure.

Keywords: serial entrepreneurship; business closure; entrepreneurial intentions; new business formation, The Netherlands

1. Introduction: business closure and beyond

In research on entrepreneurial success, business closures are considered as a negative outcome of the market process. However, on the macro level, business closures provide market opportunities for new businesses; and on the micro level, designing an exit strategy and moving on to other labour market or business opportunities may also be a fruitful personal step. Nevertheless, we know relatively little about the consequences of business closure. Has the entrepreneurial process definitely come to an end, or is there a follow-up? In this paper we focus on the micro level entrepreneurial consequences of business closure, or more specific entrepreneurial intentions, and the subsequent start of a new business after business closure.

The rather negative one-sided view of business closure as failure is changing; it is now recognized that the motivation of entrepreneurs to stop activities and the nature of business closures show wide variations (Headd 2003, Schutjens et al. 2003). Business closure is not always the consequence of a lack of economic viability, nor of necessity. Many entrepreneurs close their businesses for personal reasons, voluntarily, and with plans to restart. Of course, business closure is a formal exit from the market, but when account is taken of the characteristics of the ex-entrepreneur, an important follow-up to the decision to close the business may emerge. In other words, the entrepreneurial process may not end when the business is closed. Some ex-entrepreneurs are determined never to start anew, but many remain attracted to the independence and seek to start anew, sometime, somewhere. It has been stated that entrepreneurship is essentially about these individuals who start multiple new businesses (MacMillan 1986), and empirical research has shown that those who have been self-employed are more likely to become self-employed again than are those who have not (Caroll and Mosakowski 1987, Hyytinen and Ilmakunnas 2006). Businesses set up by these habitual (serial or portfolio¹) entrepreneurs differ in many ways from businesses led by novice entrepreneurs (Alsos and Kolvereid 1998, Westhead and Wright 1998a, 1998b, Westhead et al. 2003).

Learning from failure is an important aspect of dynamic organizations and economies (Sitkin 1992, McGrath 1999), that might also be reflected in serial entrepreneurship. Indeed, serial entrepreneurship is a key ingredient of one of the world's most dynamic regional economies: Silicon Valley (see Saxenian 1994; Lee et al. 2000). The business climate there encourages risk taking and tolerates failure. In Silicon Valley there are many examples of entrepreneurs who have failed, but restarted successfully. These entrepreneurs (and their resource providers) usually view failure as a learning experience. Although this 'model' may be hard to copy in other contexts, many policymakers elsewhere are aiming to replicate it, starting with policies to reduce the stigma attached to failure (Waasdorp 2001) and restructuring bankruptcy laws (Armour and Cumming 2004).

But do we understand the process of starting anew? If so, can we use this understanding and insight to stimulate and support ex-entrepreneurs in starting a new business? Insight into the background of business closure and the exit and restart strategies of entrepreneurs is of relevance not only in entrepreneurship studies, but also in industrial organization (Klepper 1996, Audretsch et al. 2000) and firm demography (Callejon 2004; Van Wissen and Van Dijk 2004) research. Such an insight could also be of value to policymakers in understanding, encouraging, and safeguarding entrepreneurship. Policymakers might well find useful pointers in these backgrounds that would help them identify, promote, and maintain productive entrepreneurship (Baumol 1990).

As is the case with business closures, the concept of serial entrepreneurship has scarcely been explored. It is the focus of this paper. The research question is: *How can potential and realized serial entrepreneurship be explained?* By the term *potential serial entrepreneurship* we refer to the entrepreneurial intentions of ex-entrepreneurs; by *realized entrepreneurship*, we refer to the start of a new business by ex-entrepreneurs subsequent to business closure. Since there is as yet no established international literature on this topic, we first discuss the literature on some closely related concepts in firm emergence studies, namely *nascent entrepreneurship* and *novice* and *serial entrepreneurship*. Following this literature review, in section 3 we present a conceptual framework of serial entrepreneurship based on three disciplines: psychology (entrepreneurial personality), labour economics, and sociology (occupational careers). We formulated three propositions explaining serial entrepreneurship on the basis of these three disciplines. In the fourth section we describe the longitudinal dataset and the variables used. Subsequently, in section 5 the confrontation of the three propositions by empirical evidence is reported. Finally, in section 6 we put forward our conclusions and recommendations.

2. Empirical evidence of nascent and serial entrepreneurship research

2.1 Nascent entrepreneurship

Longitudinal studies on entrepreneurial intentions and the subsequent creation of a new business are scarce (Shook et al. 2003). Studies that focus on ex-entrepreneurs, their entrepreneurial intentions, and the realization of these entrepreneurial intentions are even scarcer. To acquire insight into the realization of the entrepreneurial intentions of ex-entrepreneurs, however, we may explore research on nascent entrepreneurship: that is, on the efforts made in starting a new business (see for example Van Gelderen et al. 2005). Empirical research has shown that over a quarter of these pre-starters failed to complete the preparation process (Stigter 2001). These entrepreneurs were asked why they had not (yet) set up a new business. Many potential entrepreneurs had stopped their preparations because of personal circumstances: lack of time, or insufficient experience, for example. The most frequently reported reason was that financing fell short of what was needed, or that people baulked at the financial risks and administrative bureaucracy surrounding independent entrepreneurship (see Van Gelderen 1999). Two aspects played a part here: a lack of desirability (reflected in already having a good job or firm, risk aversion, no strong entrepreneurial intentions) and a lack of feasibility (lack of financial resources, no relevant experience/knowledge, private matters, too much time needed).

Who then did realize their plans to start a firm? The empirical study of the follow-up of nascent entrepreneurs shows that many characteristics of the entrepreneur do not directly affect the realization of intentions. Neither gender, income, age, nor level of education (all important determinants of nascent entrepreneurship) have any effect on making the wish to start a firm come true (Van Gelderen et al. 2005). A factor that did matter, however, was the ambition to start fulltime. On the one hand, people who seriously aim at investing all the time they have at their disposal usually make a success of the new firm. Their drive is strong (entrepreneurial personality), and so is their faith; they do not hesitate to pursue a business opportunity with the formation of a new firm. On the other hand, from an economic perspective, people without any job alternatives may have no other choice than to start a firm fulltime. People need an income, and they may implement their plans out of sheer necessity. Another notable conclusion from the

follow-up of nascent entrepreneurs is that start-up plans with relatively low resource needs are more often realized.² Many people with too high hopes with respect to start-up capital and firm size fail to realize their plans.

2.2 *Novice and serial entrepreneurship*

Notwithstanding their differential focus, the studies that contrast novice with serial entrepreneurship (summarized in table 1) may give some indication of the differences between the entrepreneurs who start again after the closure of their former business, and those ex-entrepreneurs who do not become serial entrepreneurs (but who did once start a business as a novice entrepreneur).

Table 1. Stylized facts contrasting serial with novice entrepreneurship

+ male	Kolvreid & Bullvåg 1993, Westhead & Wright 1998a
- emphasize a need for independence	Westhead & Wright 1998a, 1998b
- age	Birley & Westhead 1993, Kolvreid & Bullvåg 1993, Westhead & Wright 1998a, 1998b
+ familiar with entrepreneurship because of family / parents	Westhead & Wright 1998a
- sector experience	Westhead & Wright 1998a
+ often own start-up capital	Westhead & Wright 1998a
+ often start with a business partner	Westhead & Wright 1998a, Stam & Schutjens 2005
+ entrepreneurial alertness	Ucbasaran et al. 2003
+ likely to 'develop an idea for a product' as a start-up reason	Westhead & Wright 1998b
- likely to 'take advantage of an opportunity that appeared' as a start-up reason	Westhead & Wright 1998b

Most of these differences relate to the nature of the business (realized first or later). Since these comparisons are made in a cross-sectional way, we have to be careful about inferring causal relationships. For example, certain abilities or motivations could have developed during a serial entrepreneur's first business and these could account for the difference between the *same people* acting as novice and serial entrepreneur in the course of time, but not the difference between one-off and serial entrepreneurs. Also, several characteristics of serial entrepreneurs are measured after they have decided to start again (for example, starting with one's own start-up capital or starting with a business partner), which thus cannot explain why an entrepreneur whose business has been closed down starts again. However, on the basis of these differences between serial and novice entrepreneurs, we are already in a position to state several hypotheses that would be capable of predicting whether an entrepreneur would start again after the closure of his business: young males who are familiar with entrepreneurship because family members own a firm are more likely to become serial entrepreneur than other people are.

2.3 *Potential and realized (serial) entrepreneurship*

The failure of situational and personality characteristics to account for new firm formation suggests that intentions models might have more explanatory and predictive power (Krueger et al. 2000). People do not start new firms as a reflex, but only after careful consideration.

Situational and individual variables are therefore poor predictors of new business formation when entrepreneurial intentions are not activated. In many cases, intentions are the best predictors of planned behaviour (such as starting a new business). Insight into the process of setting up a business for the first time (novice entrepreneurship) and for the second time (serial entrepreneurship) is therefore enhanced when the distinction is drawn between the intention to start again and the subsequent realization of the entrepreneurial plans (see figure 1).

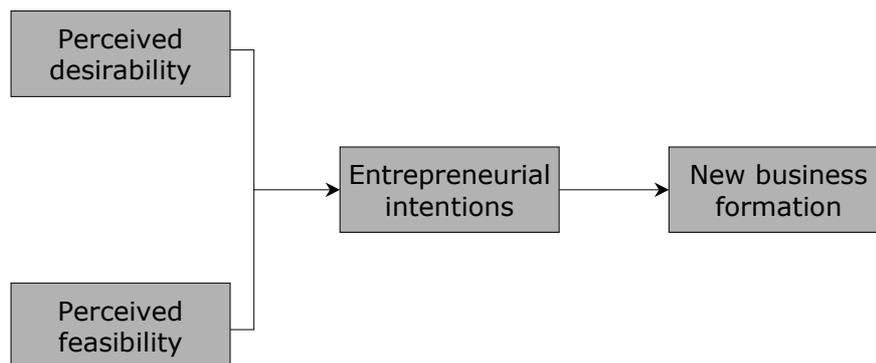


Figure 1. An intentions-based model of new firm formation (adapted from Krueger 2003)

There is to date little empirical research focusing on potential serial entrepreneurs owing to the lack of longitudinal databases of entrepreneurs who, having closed one business, later started another. Nevertheless, there is one study that concentrates on the chance ex-entrepreneurs have of setting up a new business later on (Van der Klaauw 1998). The characteristics of both (a) the entrepreneur and (b) the final stage of the former business (just before closedown) affect the realization of a new business. Older entrepreneurs (>45 years of age) are less likely than their younger counterparts to start again; female entrepreneurs are less likely than males to start again. People from minority ethnic groups are more likely than members of the host community to realize their (re-)start plans. Less-well-educated entrepreneurs are less likely to start again than medium or highly-educated entrepreneurs. The perception of the final stage of the former business is important as well. People who have had severe emotional problems associated with closing down a business do more often start a new one; their commitment to business ownership may be strong, and these emotions might have enhanced entrepreneurial learning (cf. Cope 2003). Entrepreneurs who were declared bankrupt and people who put a stop to their activities for other than personal reasons try again more often than do other ex-entrepreneurs. Finally, people who managed to get a new job immediately after closing down their former business realized their new start-up plans relatively often.

Having reviewed the literature on different types of entrepreneurs and explored the different indicators that might be important for explaining serial entrepreneurship, we come to the next step, namely explanations of serial entrepreneurship.

3. Conceptual explanations of serial entrepreneurship: three perspectives

From a purely economic perspective, firms close when demand falls, or competition is so fierce that costs exceed revenue (Alchian 1950; Caves 1998). As soon as market opportunities appear, new firms enter. While it may succeed in describing the industrial patterns of firm entry and exit, this perspective limits the explanation of firm entry and exit to market performance alone. Empirical studies have shown that, for many entrepreneurs, setting up and even closing down their business is a personal, voluntary, and sometimes even a temporary decision (Watson and Everett 1993, 1996, Headd 2003, Schutjens et al. 2003). In our view, firm entry and exit processes can better be understood by focusing on entrepreneurs and their decisions and taking heed of more than market circumstances.

As yet there is no tried-and-tested theory of serial entrepreneurship. There have been studies of the characteristics of serial entrepreneurs (Alsos and Kolvereid 1998; Westhead and Wright 1998a; 1998b, Westhead et al. 2003) and on differences in the performance of the businesses of novice, portfolio, and serial entrepreneurs (Westhead et al. 2003; 2005). Hardly any study has concentrated on the decision to start a new business after the former business has been closed: that is, the decision to become a serial entrepreneur. To explain the decisions of entrepreneurs to start anew, we draw on three disciplines: psychology (entrepreneurial personality), labour economics, and sociology (careers, life course). With their help, we formulated three theoretical propositions on serial entrepreneurship.

3.1 Psychology: entrepreneurial personality

Entrepreneurial personality research takes into account the effect of personality traits as well as attitudes and motives related to the decision to start a new business (Rauch and Frese 2000, Korunka et al. 2003). The general proposition in entrepreneurial personality research can be stated as follows:

EP Proposition: An entrepreneurial personality increases the likelihood of serial entrepreneurship.

That is not to say that individuals without an entrepreneurial personality never become entrepreneurs. However, individuals who lack an entrepreneurial personality will be less likely to start again after firm closure. We assume that they have found that this ‘occupation’ did not suit their personality.

Three ‘classic’ entrepreneurial personality characteristics have emerged from a number of studies investigating the differences between entrepreneurs and non-entrepreneurs and of the potential determinants of entrepreneurial success. These ‘classic’ characteristics (Rauch and Frese 2000, Korunka et al. 2003) comprise a high need for achievement (McClelland 1961), a strong internal locus of control (Rotter 1966), and a moderate to high risk-taking propensity (Van Praag and Cramer 2001). Indirectly, being brought up and living in a family of entrepreneurs is also assumed to stimulate an entrepreneurial personality. Other important personal characteristics may be reflected in the motives to start a new business (Gatewood et al. 1995).

Arguments have, however, been voiced against considering entrepreneurs to be qualitatively different from the general labour population in their reasoning (Carter et al. 2003) and traits (Gartner 1989).

3.2 *Labour economics*

In labour economics, entrepreneurship is considered as a labour-force decision for self-employment: entrepreneurship as a possible (desirable and attractive) occupational career option. Labour economics explains entrepreneurship, or more specifically self-employment, for example as a labour-market strategy that is applied when workers lose their jobs and are unable to obtain gainful employment (Evans and Leighton 1989; Kirchoff 1996, Storey 1991). Labour economics focuses on the supply and demand of entrepreneurs (Blanchflower and Oswald 1998, Casson 2003). The general proposition in labour economics would read as follows:

LE Proposition: The higher the opportunity costs of self-employment, the lower the likelihood of becoming a serial entrepreneur.

Unemployment stimulates self-employment, but rising wages raise the opportunity costs of self-employment and make wage employment more attractive (Lucas 1978). Individuals with excellent labour market perspectives do not choose to become entrepreneurs, because the opportunity costs of self-employment are high (Amit et al. 1995). Individuals who have become unemployed after business closure are more likely to become serial entrepreneurs. As a corollary, it can be said that entrepreneurs who have a job in addition to their own business, and who do not become unemployed through the closure of their business, can be expected to be less likely to start another business than individuals without such an immediate job alternative. Assuming that the job prospects are better for the highly educated and for individuals in urban areas, we expected that highly-educated individuals and individuals in urban areas would be more likely to have better job opportunities after the closure of their business. For them, starting a new business comes with higher opportunity costs (cf. Headd 2003).

3.3 *Sociology of careers*

The sociology of the life course or occupational careers is focused on the effects of prior experiences on current occupational choices (cf. Carroll and Mosakowski 1987; Katz 1994; Shane 2000). People who have previously set up a firm have already experienced every aspect of starting, owning, managing, and even losing their business. The general proposition in the sociology of careers research would be:

SC Proposition: The greater an individual's level of entrepreneurial experience, the greater the chance of becoming a serial entrepreneur.

In this respect it might be hypothesised that ex-entrepreneurs who have learnt from the management of their former firm ('internal learning') and/or from the business closure are more likely to become serial entrepreneurs.

External learning is more proactive than internal learning. External learning is about opportunity recognition and entrepreneurial alertness. This feature is reflected in Ronstadt's (1988) 'Corridor Principle': the mere act of starting a venture enables entrepreneurs to see other venture opportunities they could neither see nor take advantage of before starting their initial venture. Consequently, entrepreneurs who have once set up a business are more likely to start again than people who have not done so, because the latter are less alert to entrepreneurial

opportunities (cf. Kirzner 1997). Prior business-ownership experience impacts the (potential) serial entrepreneur's mindset and knowledge base to facilitate the identification (and exploitation) of business opportunities ('entrepreneurial behaviour'; Ucbasaran et al. 2003). The assumption here is that habitual entrepreneurs can concentrate on searching for opportunities within a more specific domain of venture ideas based on routines that worked well in the past ('heuristics') (McGrath and MacMillan 2000, Ucbasaran et al. 2003). Ex-entrepreneurs who have high entrepreneurial alertness are probably more likely to become serial entrepreneurs. The external learning process derives from the insight that business opportunities have to be recognized by potential entrepreneurs. New market niches, new market players, new technology, or highly-qualified employees can only be discovered if the entrepreneur is capable of recognizing these opportunities. In our opinion, people with former start-up experiences will have developed this external view, especially if they encountered external threats and opportunities in their former firm (Ucbasaran et al. 2003).

4. Research design

4.1 Dataset

We have used a unique database of 79 firms out of a representative panel of firms that started in 1995 but closed within 5 years (the Netherlands Young Business Panel: YBP). This panel was founded in 1995 with 313 new businesses in manufacturing and business services in three Netherlands regions: Greater Amsterdam, the Province of Groningen, and Twente-Salland. In order to reach only genuinely new entrepreneurs, we selected individuals from this longitudinal dataset who had had no new business two years prior to 1995. These businesses had been surveyed annually for five years (1995-2001) with a telephonic questionnaire concerning the characteristics of the business, its environment, the entrepreneur, and the entrepreneur's strategies (see also Schutjens and Stam 2003). There were 79 business closures in these five years. Surprisingly, 28 percent of these business closures were considered to be 'temporary business closures' by the entrepreneurs concerned. The remaining closures (72 percent) were considered to be 'definitive business closures'. At the time of business closure and exit from the Young Business Panel (79 businesses), only 9 entrepreneurs (11 percent) were able to sell (parts of) their business. Only one business went bankrupt; a substantial part (84 percent) managed to close their businesses without severe financial consequences. Personal positive motives for the decision to close down the business were very important; many entrepreneurs reported that they already had a job in addition to their own business and chose to increase the number of hours in paid employment, or that a new job had been offered to them (see also Schutjens et al. 2003). Lack of time (children, education), illness, and divorce were other reasons often reported. Only 12 entrepreneurs said that their firm was not economically viable (15 percent), while another 15 percent had experienced severe trouble with customers, the Inland Revenue, or business partners. The entrepreneurs of all the closed businesses were also asked about their entrepreneurial intentions subsequent to business closure. A fairly large proportion of them still wanted to start anew.

In 2004, we tracked down these ex-entrepreneurs and confronted them with their entrepreneurial intentions at the time of closing their business. Their responses enabled us to explore the determinants and the differences between stated and revealed preferences to start

anew. We analysed these firms and their entrepreneurs in a two-stage research process: the analysis of the stated preference for a (re)start; and the realization of the start of a new firm (revealed preference). We were able to trace 52 of the 79 ex-entrepreneurs of the closed businesses (3 to 8 years after the closure); 47 ex-entrepreneurs were willing to participate in a follow-up interview.³ A substantial group of 11 (of the 47) entrepreneurs had started a new business (see table 2 for an overview).

Table 2. Entrepreneurial intentions and new business formation after business closure in the YBP (number of entrepreneurs)

Entrepreneurial intentions: plans to start a new business at time of business closure (79 ex-entrepreneurs)	Response (tracked down) (47 ex-entrepreneurs)	Realization of new business? (47 ex-entrepreneurs)	
		No	Yes
No	19% (15)	67% (10)	100% (10)
Do not know yet/maybe	21% (17)	53% (9)	78% (7) / 22% (2)
Yes (plans)	59% (47)	60% (28)	68% (19) / 32% (9)

These outcomes are comparable with other research findings in the Netherlands. However, Hulshoff and colleagues (2001) found fewer entrepreneurs in their empirical studies with restart intentions: almost 40 percent of all entrepreneurs intended to start a new firm later on; 25 percent were in doubt and one-third had no plans whatsoever. These numbers are much lower than the corresponding figures in USA (De Koning 1999, Waasdorp 2001). It is interesting to note that many entrepreneurs have stuck to their plans, since none (out of 10) of the entrepreneurs who had expressed no intention of restarting has done so. This finding might indeed suggest that entrepreneurial intentions are the best predictor for the realization of a new business. The longitudinal research design makes it possible to distinguish between entrepreneurial intentions and the realization of these intentions after business closure, and to explain the lack of entrepreneurial intentions and the unrealized intentions.

4.2 Variables

The datasets used contain information on the 79 businesses that were closed within the first five years of existence. A dataset was built based on four data sources. The first source was the questionnaire distributed at the start of the Young Business Panel in 1994. In this questionnaire, many questions were asked about personal motives and personality aspects, using five-point scales (fully disagree / disagree / neutral / agree / fully disagree). Second, the yearly questionnaires following the first baseline questionnaire were used to create variables about changing entrepreneurial behaviour. Third, when entrepreneurs stopped their business activities, they completed a final panel questionnaire with specific questions about the closure of the business. Finally, an important source of information was the questionnaire distributed in Spring 2004 to all the ex-entrepreneurs that were tracked down (47 people).

The indicators of the theoretical perspectives mentioned above and the variables representing these indicators are described in Table 3.

Table 3. Overview of indicators and variables used

<i>Indicators</i>	<i>Category</i>	<i>Explanation</i>
<i>Entrepreneurial personality indicators</i>		
Need for achievement	Yes	Agree / fully agree with 'like to work hard' and disagree / totally disagree on 'like doing nothing'
	No	Neutral / disagree / fully disagree with 'like to work hard' and neutral / agree / fully agree on 'like doing nothing'
Internal locus of control	Yes	Agree / fully agree with 'my life is ruled by my own actions' and disagree / fully disagree on 'my life is ruled by coincidences'
	No	Neutral / disagree/ fully disagree with 'my life is ruled by my own actions' and neutral / agree / fully agree on 'my life is ruled by coincidences'
Risk taking propensity	High	Agree / fully agree with 'I like taking risks' and disagree / fully disagree on 'I play safe'
	Low	Neutral / disagree / fully disagree with 'I like taking risks' and neutral / agree / fully agree on 'I play safe'
Entrepreneurship in the family	Yes	Entrepreneurship in the family (parents or other family members)
	No	No entrepreneurship in the family (parents or other family members)
Enjoyed entrepreneurship prior firm	Yes	Aspect of 'enjoyment in working in the prior business' was more than expected, according to entrepreneur at time of exit prior business
	No	Aspect of 'enjoyment in working in the prior firm' was not more than expected, according to entrepreneur at time of exit prior business
<i>Labour economics indicators</i>		
Unemployed after business closure	Yes	Unemployed
	No	Job, new business, education
Sideline activities	Yes	Sideline activities: a job in the last month before exiting prior business
	No	No sideline activities: no other job in the last month before exiting prior business
Number of hours invested	< 20 h/w	Average number of hours per week worked in prior business between start and exit, less than 20
	>= 20 h/w	Average number of hours per week worked in prior business between start and exit, 20 or more
Education level	High	Education level Polytechnic / University
	Low-Med	Education level lower than Polytechnic / University
Located in urban region	Amsterdam	Location of prior business urban region Amsterdam
	Other	Location of prior business Twente or Groningen
Gender	Female	
	Male	
Exit motivation	Job alternative	Most important reason to stop prior business was job alternative
	Other	Most important reason to stop prior business was 'other reason'
<i>Career indicators</i>		
Previous working experience	Yes	Sector of prior business in line with previous working experience
	No	Sector of prior business not in line with previous working experience
Former start-up motivation	Positive	Only positive motivations to start prior business (market niche, being independent, challenge, can do it better)
	Negative	Also or only negative motivations to start prior business (unemployed, fired, not satisfied)
Drawbacks in prior start-up	Yes	Drawbacks experienced during start-up of prior business
	No	No drawbacks experienced during start-up of prior business
Applicable entrepreneurial experience	Yes	Experience of prior business applied in new business
	No	No experience of prior business applied in new business
Business management experience	Positive	Less than two drawbacks reported at time of closure prior business
	Negative	Over two drawbacks reported at time of closure prior business

Collected information or advice	> average	During life course prior business: more than average (=2.25 times) collection of information or advice
	< average	During life course of prior business: less than average (=2.25 times) collection of information or advice
Changed product or service	Yes	Changed product or service during life course of prior business
	No	Did not change product or service during life course of prior business
Market acquisition strategy	Yes	Active market acquisition strategy during life course of prior business
	No	No active market acquisition strategy during life course of prior business
Age entrepreneur at time of business closure	=< 35	Age at time of closure of prior business: 35 years or less
	> 35	Age at time of closure of prior business: more than 35 years
Exit experience	Moving	Closing down prior business was an emotional personal experience
	Not moving	Closing down prior business was not an emotional personal experience
Exit with sale of the business	Yes	Sale or take-over of (parts of) prior business
	No	No sale or take-over of (parts of) prior business
Effect business closure on career	Yes	Closure of prior business affected further career
	No effect	No effect of closure prior business on further career

5. Beyond business closure: entrepreneurial intentions and realizations

The central research question in this study is: what determines the entrepreneurial intention and the realization of a new business subsequent to business closure? As expected, entrepreneurial intention and the realization of a new business are positively and significantly related: the ex-entrepreneurs who did not want to start a new business at the time of the first business closure had all stuck to their plans. In many cases, business closure is not the end of the entrepreneurial process. Almost one in three of the entrepreneurs (11/37) who expressed their intention to start a new business at the time of business closure actually became a business owner again in the course of the subsequent seven years.

In the next sections we report the statistical tests we executed to detect differences between (ex-) entrepreneurs who do and who do not have the intention of starting anew subsequent to the closure of their business, and between (ex-) entrepreneurs who have and have not actually started a new business after closure of the prior one. In addition to these bivariate statistical analyses, we also executed some multivariate analyses in order to uncover the effects of a set of determinants on entrepreneurial intentions and realizations subsequent to business closure.

5.1 *Entrepreneurial personality*

The results of the empirical analyses show that the presence of the three classic personality characteristics (need for achievement, locus of control, risk-taking propensity) do not differ significantly between the groups of ex-entrepreneurs (see table 4).

Table 4. Entrepreneurial personality indicators (number of entrepreneurs)

	Category	Entrepreneurial intention			Realization of restart		
		Nr.	% yes	% no	Nr	% yes	% no
Need for achievement	Yes	38	82	18	23	17	83
	No	41	81	20	24	29	71
Internal locus of control	Yes	33	79	21	17	35	65
	No	46	83	17	30	17	83
Risk-taking propensity	High	26	81	19	9	22	78
	Low	53	81	19	38	24	76
Entrepreneurship in the family	Yes	34	85	15	19	37	63*
	No	45	78	22	28	14	86
Enjoyed entrepreneurship in prior business	Yes	58	85	16	36	31	69**
	No	21	71	29	11	0	100

** p<0.05; * p<0.10

The need for achievement, internal locus of control, and risk-taking propensity indicators have no significant impact on either the realization or the intention of starting a new firm. There are, however, other entrepreneurial personality indicators that might be correlated with entrepreneurial intentions and realizations subsequent to business closure. Relatively many ex-entrepreneurs with family members (once) owning a business have set up a new business. This tendency has little to do with resources provided by the family, since entrepreneurs who regarded their family as important for the start of their prior firm did not start a new business any more often than those without such business-linked relations. It seems that coming from an entrepreneurial family has a more underlying, indirect psychological effect. This effect holds when a subgroup of ex-entrepreneurs with restart intentions is analysed separately. Another indication of ‘entrepreneurial personality’ is the extent to which individuals enjoy being an entrepreneur. In this respect, entrepreneurs who reported that they had enjoyed working in their former business realize a new business significantly more often. Although the two latter indicators measure different aspects at a different time, they might be correlated. The ‘entrepreneurship in the family’ and ‘enjoyed entrepreneurship’ indicators are indeed significantly related ($p=0.038$): 85 percent of the entrepreneurs with entrepreneurship in the family indicate that they enjoyed entrepreneurship, while only 64 percent of the entrepreneurs without entrepreneurship in the family did so.

Other indications of ‘entrepreneurial personality’ can be found in the reasons entrepreneurs give for their restart (see table 5). Need for achievement, autonomy, and opportunity dominate here.

Table 5. Reasons for the restart (18 reasons reported, 11 restarted entrepreneurs)

Reason reported:	Frequency:
Need for achievement	5
Own boss / autonomy	3
Opportunity	3
Success of prior activities	2
Experience	2
Other	2
Not known	1
Total:	18

5.2 Labour economics

Table 6 shows the relationship between labour economics indicators and restart intention and realization. Only 3 entrepreneurs in our study were unemployed at the time of business closure (or immediately afterwards; for this purpose, we used the information from 47 interviews instead of from 79 firm exits). And only one of these unemployed ex-entrepreneurs had the intention of starting again; none of them actually did so. Unexpectedly, sideline activities next to the former business did not seem to affect the intention to restart, and neither did the realization of a new business. In contrast with our expectations, individuals who already had a job in addition to their business did not have significantly weaker entrepreneurial intentions after firm exit than did the individuals without a job in addition to their (former) business. However, entrepreneurs who worked in their business for an average of more than 20 hours a week during its life course reported restart intentions more often than the others did. Still, the effect on realization of a new business is not significant. This is important, because the turnover level relates positively to the number of hours invested in the business; which is why ‘hours invested’ is a crude indicator of entrepreneurial earnings (turnover level itself however has no significant effect).

In contrast with our expectations and the findings of Van der Klaauw (1998), educational level does not make any difference to entrepreneurial intentions and realizations. The regional difference is remarkable; the direction of its sign is opposite to our expectations. In the urban area of Amsterdam there are more labour market opportunities than in less urbanized areas. Nevertheless, we found that relatively many ex-entrepreneurs in this urban area have started a new business.⁴ This unexpected outcome is, however, in line with the age-old ‘incubation hypothesis’ in urban economics, which states that “persons aspiring to go into production on a small scale [entrepreneurial intentions!] have found themselves less obviously barred by a high cost structure at the center of the urban area than at the periphery” (Hoover & Vernon 1959, p. 47). In other words: individuals who already have entrepreneurial intentions realize them more easily in urban environments than in peripheral environments.

People who closed their business because of a (new) job reported entrepreneurial intentions less often (no statistically significant difference), but were similar to the others regarding their entrepreneurial realizations.

As with most labour economic analyses, we also controlled for gender, but in contrast with our expectations this indicator had no significant relationship with either entrepreneurial intentions or the realization of a restart.

Table 6. Labour economic indicators (number of entrepreneurs)

	Category	Entrepreneurial intention			Realization of restart		
		Nr.	% yes	% no	Nr.	% yes	% no
Unemployed after business closure	Yes	3	33	67	3	0	100
	No	44	80	21	44	25	75
Sideline activities	Yes	43	77	23	25	24	76
	No	36	86	14	22	23	77
Number of hours invested	< 20 h/w	36	72	28*	19	21	79
	>= 20 h/w	41	88	12	28	25	75
Education level	High	39	74	26	25	24	76
	Low-Med	40	88	13	22	23	77
Located in urban	Amsterdam	20	85	15	10	50	50**

region							
	Other	59	80	20	37	16	84
Gender	Female	18	72	28	10	20	80
	Male	61	84	16	37	24	76
Exit motivation	Job alternative	22	73	27	17	24	77
	Other	57	84	16	30	23	77

** p<0.05; * p<0.10

Ex-entrepreneurs who had the intention of starting anew, but did not actually realize a restart, stated that they were satisfied with their current employment relatively often (table 7). This finding is also an indicator of the importance of labour market opportunities with respect to (not) starting a new business later on.

Table 7. Reasons for *not* starting anew (50 reasons reported, 36 not-restarted entrepreneurs)

Reason reported:	Frequency:
(Satisfied with / security of / too busy with) current employment	19
Stress of own business	5
No entrepreneurial type / self-confidence	4
No willingness to work alone (at home)	3
High age	3
Illness	3
Tax office problems	2
Not experienced enough for own business	2
Unfavourable economic climate	2
Other reasons	7
Total:	50

5.3 Career

During the life course of their prior business, many entrepreneurs undertook specific actions to acquire entrepreneurial skills. Do specific aspects of their career affect the intention to restart, or the realization of a new business? There is no significant relationship between former working experience and the start-up motivation of the former business with either entrepreneurial intentions or entrepreneurial realizations. Problems encountered during the preparation or start-up of the former business – that is, negative former start-up experience – seem to lower entrepreneurial intentions and realizations (although there were no statistically significant differences).

Having acquired applicable entrepreneurial experience did have a positive relationship with starting again. People without serious managerial trouble during the lifetime of their former firm were not significantly more likely to intend to (or actually) set up a new firm. Also, entrepreneurs who took (external) advice were no more inclined to plan or realize a restart than other people were. Since only five entrepreneurs underwent serious external problems, four of whom actively sought for solutions, we could not test the effect on restart intentions and realization. The effect of changing goods and services – that is, having experience with the production and marketing of different goods and services – on firm restart intentions and realization, was not significant.⁵ An active external view does not seem to have any (direct) effects on entrepreneurial intentions and realizations. An active market acquisition strategy in the former firm is related positively to restart intentions, but negatively to restart realizations (neither, however, was significantly different).

Young entrepreneurs are more prone to intend and also to start a new business again. This age-effect could mean many different things. For example, it could reflect the lower opportunity costs for young people opting for self-employment instead of wage employment, and perhaps also the need of older people for income security. But the finding could also reflect a generation effect: young entrepreneurs have been brought up in a more entrepreneurial society than older people were (the rate and number of entrepreneurship almost doubled in the period 1985-2000 in the Netherlands; see Bosma and Wennekers 2004).

Entrepreneurs' evaluation of the business closure (whether it was 'a emotionally upsetting experience') had no significant relationship with either restart intentions or restart realizations. At the time of business closure, 88 percent of all entrepreneurs stated that they would try again if they had known beforehand how the firm would develop (44 entrepreneurs). Their main argument was the joy of being an entrepreneur (64 percent); 18 percent considered their 'entrepreneurial period' as very instructive. Entrepreneurs who had sold their prior business realized the start of a new business more often (however, due to small numbers no statistical significance).

In the end, only six entrepreneurs in our study witnessed an effect of business closure on their further career, and for five of them the effect was rather positive. The business closure in fact created new labour market possibilities. We have summarized the effects of the career indicators in table 8.

Table 8. Career indicators (number and percentage of entrepreneurs)

	Category	Entrepreneurial intention			Realization of restart		
		Nr.	% yes	% no	Nr.	% yes	% no
Previous working experience	Yes	48	79	21	30	20	80
	No	31	84	16	17	29	71
Former start-up motivation	Positive	44	80	21	26	23	77
	Negative	35	83	17	21	24	76
Drawbacks in start-up of prior business	Yes	23	74	26	20	20	80
	No	56	84	16	27	26	74
Applicable entrepreneurial experience	Yes	24	83	17	24	33	67
	No	23	74	26	23	13	87*
Business management experience	Positive	55	86	15	30	27	73
	Negative	24	71	29	17	18	82
Accumulated information / took advice	> average	17	77	24	11	18	82
	< average	33	79	21	20	25	75
Changed product or service	Yes	15	73	27	11	9	91
	No	35	80	20	20	30	70
Market acquisition strategy	Yes	43	84	16	28	21	79
	No	35	77	23	18	28	72
Age entrepreneur at time of business closure	=< 35	48	88	13*	24	33	67*
	> 35	31	71	29	23	13	87
Exit experience	Moving	8	75	25	8	13	88
	Not moving	37	78	22	37	24	76
Exit with sale of the business	Yes	9	89	11	5	40	60
	No	70	80	20	42	21	79
Effect of business closure on career	Yes	6	67	33	6	17	83

	No	41	81	20	41	24	76
--	----	----	----	----	----	----	----

* p<0.10

The experience of managing a (new) business had more impact on the career of the ex-entrepreneur than the experience of a business closure: relatively many entrepreneurs who stated that they had acquired suitable entrepreneurship experience from the former business realized a restart. We are therefore inclined to conclude that serial entrepreneurs cannot be distinguished on the basis of learning from critical events such as a business closure, but are more likely to be distinguished by the attitude and skills developed incrementally in the prior business. This conclusion is supported by the interviews held with the serial entrepreneurs. Five (out of the 11) entrepreneurs who realized a restart had used knowledge and experience from their former business for setting up and managing the new business. Market acquisition, professional attitude, and general entrepreneurial tasks were reported most often. The other six entrepreneurs said that they had not learned or applied anything from their past business experiences. This can probably be explained by the extent of their former business: the latter group of serial entrepreneurs invested less time in their business, had a lower turnover, and were involved in market acquisition less often than were the ‘learning serial entrepreneurs’. So this group of entrepreneurs was less involved in their own business: in other words, they did not have a complete ‘real firm’. All in all, it could be argued that they had less experience from which to learn. An interesting question in this respect is which of the two groups develop the best performing restarts.

5.4 Discussion

The findings of our bivariate longitudinal analyses resemble the main conclusions of cross-sectional entrepreneurship studies to some extent. The importance of young age and familiarity with entrepreneurship (in the family) in the intention and realization of restarting still holds. We also found, however, some indications that the entrepreneurial career (‘enjoyed entrepreneurship in prior business’, ‘number of hours invested’ in the prior business, and acquiring ‘applicable entrepreneurial experience’) has some impact on starting anew.

Our empirical analyses show that the determinants of restart intention and restart realization differ; this result reinforces our impression that these two phenomena are separate. Which of the three disciplines mentioned is most applicable to them? Only the entrepreneurial personality indicators ‘entrepreneurship in the family’ (cf. Westhead and Wright 1998a) and ‘enjoying entrepreneurship’ differ significantly between individuals who have and have not realized a restart. The traditional entrepreneurial personality indicators (need for achievement, locus of control, and risk-taking propensity) make no difference, confirming the argument that personality traits do not make a person an entrepreneur or, as in this study, a serial entrepreneur. One labour economics indicator discriminated as expected between ex-entrepreneurs with entrepreneurial intentions and those with none; the former had more often invested a large number of hours in the previous business. In contrast with our (labour economics related) expectations, ex-entrepreneurs in urban regions realized a restart more often. Finally, two career indicators made a difference: ex-entrepreneurs with entrepreneurial intentions reported more often that they had gained applicable entrepreneurial skills and knowledge (experience), and younger ex-entrepreneurs were more likely to have entrepreneurial intentions *and* to have realized a restart. The age of the entrepreneur at exit is the only indicator that was significantly related to both entrepreneurial intentions and restart realizations.

Multivariate regression analyses were used to assess the relative importance of these indicators that discriminate in entrepreneurial intentions and restart realizations. A logistic regression analysis on restart intention shows that young entrepreneurs who worked more than 20 hours per week in their former business and who had positive experiences in managing it have restart intentions most often (table 9). Entrepreneurial intentions after business closure seem to depend on labour economics as well as career factors.

Table 9. Logistic regression on restart intention (N=76)[†]

	<i>B</i>	s.e.
Age at time of exit (>35)	- 1.454*	0.798
Gender (female)	+ 0.086	0.864
Education level (high)	- 1.055	0.844
Number of hours worked (per week) in prior business (>20)	+ 1.808**	0.856
Market acquisition strategy	+ 0.835	0.754
Business management experience (positive)	+ 1.678**	0.836
Enjoyed entrepreneurship prior business	+ 1.092	0.772
Exit motivation: personal reasons	+ 1.856	1.362
Exit motivation: job alternative	- 0.751	0.792
Exit with sale of the business	- 0.751	1.355
Industry (business services)	- 0.135	1.044
Constant	+ 1.922	1.884
N	76	
Model X ²	18.968	
Df	11	
-2 Log likelihood	56.54	
Nagelkerke R ²	0.351	

[†] In the analyses, all variables with significant impact on restart intentions are included in the model. Variables that turned out to be important according to other literature are added as well (gender, education level, market acquisition strategy, business management experience, enjoyed entrepreneurship prior business, exit motivation, exit with sale of the business, industry).

3 respondents had missing values on the variables 'market acquisition strategy' and 'number of hours worked (per week) in prior business'

* <0.10; ** p<0.05

Logistic regression analysis (table 10) of the realization of a new business shows that only the regional effect persists when variables with skewed distributions are excluded from the model (these parameters have high standard errors). We also tried to include entrepreneurial intentions at the time of business closure. However, the resulting standard error was too high: there were no entrepreneurs who had realized a restart without entrepreneurial intentions at the time of business closure. Based on this outcome, we can indeed assert that (entrepreneurial) intentions are a necessary condition for (entrepreneurial) behaviour (cf. Krueger 2003): that is, starting a new business after closure of the prior one.

So, for restart intentions, the age of the entrepreneur is important, while the regional setting has the most important effect on realizing the restart. On the one hand, these findings are in line with the studies comparing novice and serial entrepreneurship, where a young age is one of the factors most often found to be related to serial entrepreneurship. On the other hand, there seems to be an urban stimulus to restart: the incubator hypothesis revisited?

Table 10. Logistic regression on restart realization (N=47)^{††}

	<i>B</i>	s.e.
Age at time of exit (>35)	- 1.323	0.855
Region (Amsterdam)	+ 1.501*	0.860
Applicable entrepreneurial experience (yes)	+ 0.916	0.844
Entrepreneurship in the family (yes)	+ 1.226	0.824
Constant	- 1.453	0.923
N	47	
Model X ²	11.349	
Df	4	
-2 Log likelihood	39.80	
Nagelkerke R ²	0.323	

^{††} In the analyses all variables with significant impact on restart realization are included in the model, with the exception of variable 'enjoying entrepreneurship in prior business' and because of high standard errors (skewed distribution). Addition of the variable 'industry' did not affect either the model fit or the parameters (see Van Gelderen et al. 2005).

* <0.10; ** p<0.05

Summarizing the explanations of entrepreneurial intentions and realizations subsequent to business closure, we can conclude that the psychological variables have no explanatory value and that the labour economics variables have the highest explanatory value, especially for entrepreneurial intentions.

6. Conclusions and recommendations

Our explorative study has shown that most of the entrepreneurs who 'fail' still maintain their entrepreneurial intentions, and a considerable group succeeds as serial entrepreneurs. It is common knowledge that, next to a large variety of firms, there is also a large variety of entrepreneurs. Novice, serial, and portfolio entrepreneurs should therefore be considered separately; this conclusion deserves serious attention, especially since the latter two groups are growing in numbers (Bruins 2004).

In this exploration of intentions to start anew and the subsequent realization of these intentions by ex-entrepreneurs, we used a unique database spanning 10 years with detailed information on the entrepreneur, the start, the development, and the exit of the prior business. Our analyses showed that all three disciplines – psychology, labour economics, and the sociology of careers – provided indicators that discriminate between ex-entrepreneurs with and without entrepreneurial intentions and between ex-entrepreneurs who did and did not realize a new business start. For the explanation of entrepreneurial intentions and realizations subsequent to business closure, only the labour economics and the sociology of careers variables turned out to be important. The number of hours invested in the prior business and positive experience with managing the former business positively affected the intention to start anew, while the age of the entrepreneur had a negative effect on the intention to start anew. In contrast with our (labour economics) expectations, an urban environment was positively related to the restart. This finding is, however, completely in line with the urban economics literature. We should nevertheless be cautious about our results, since our analyses on serial entrepreneurship are based on a relatively small dataset.

As with the difference in the explanations of nascent and realised entrepreneurship, this study has made clear that the necessity of separating the explanation of entrepreneurial intentions

of ex-entrepreneurs and the explanation of new business formation subsequent to business closure. These two phenomena should not be separated conceptually, however, since entrepreneurial intentions are a necessary condition for new business formation. Here lies an exciting challenge for future research; within our longitudinal perspective, an in-depth follow-up is called for of the ex-entrepreneurs who start anew, contrasting their new business with their prior business and the businesses of novice entrepreneurs.

If creating an entrepreneurial economy is a policy goal, then the level of entrepreneurship in society must be increased. Our paper has shown that entrepreneurial intentions at the time of business closure are a strong predictor of new business formation subsequent to business closure. Even 'failed' entrepreneurs have a higher inclination to start a new business (again) than the average wage earner. In other words, providing people with entrepreneurial experience, irrespective of whether outright success or failure ensues, also improves the level of entrepreneurship in society in the longer term.

Contrary to received opinion, there is no consensus on the better performance of the businesses of habitual entrepreneurs (Starr & Bygrave 1991; Westhead & Wright 1999; Kirschenhofer & Lechner 2006). An interesting question for future research would be which serial entrepreneurs develop the best performing restarts.

Acknowledgements

The authors would like to thank Ruud Ververs for his research assistance and Marco van Gelderen, Deniz Ucbasaran and two anonymous referees for their valuable comments; all disclaimers apply.

Notes

¹ Habitual entrepreneurs are entrepreneurs with previous (independent) business experience. There are two types of habitual entrepreneurs: serial and portfolio entrepreneurs (cf. Westhead and Wright 1998a, 1998b, Wright et al. 1997). Serial entrepreneurs are those individuals whose former business has been exited (sold or closed), but who at a later date established or purchased another business. A portfolio entrepreneur, however, is an individual who retained the original business, but established or purchased another business at a later date. Habitual entrepreneurs are contrasted with novice entrepreneurs, that is individuals with no prior business-founding experience (Westhead and Wright 1998b).

² That is, a preference for a relatively small amount of start-up capital positively affects the realization of entrepreneurial intentions.

³ Three ex-entrepreneurs were tracked down, but they could not be reached during the interview period, and two ex-entrepreneurs refused to cooperate. The 47 ex-entrepreneurs who were eventually interviewed resemble the total group of 79 business closures with respect to gender, level of education, region, and type of firm exit. There is a small bias in the group of ex-entrepreneurs who could be traced. There are significant differences with respect to the age of the entrepreneur (relatively many older (ex)entrepreneurs could be traced back: probably young (ex)entrepreneurs are more prone to move) and firm age (relatively many firms that have closed could only be reached quite recently: the chance that its entrepreneur has not (yet) moved is relatively large).

⁴ Relatively many ex-entrepreneurs in the urban region are under 35 years (60 percent versus 49 percent in the other regions), however, this difference is not statistically significant. Among young ex-entrepreneurs the restart realization rate is significantly higher in the urban region than in the other two regions.

⁵ This could also be interpreted as problemistic search (Cyert and March 1963) for a viable product-market combination, after the prior one had failed to be successful.

References

- Alchian, A.A. 1950 Uncertainty, Evolution, and Economic Theory, *Journal of Political Economy*, **58.3**: 211-221.
- Alsos, G.A. and Kolvereid, L. 1998 The Business Gestation Process of Novice, Serial, and Parallel Business Founders, *Entrepreneurship, Theory and Practice*, **22.2**: 101-114.
- Amit, R., Muller, E. and Cockburn, I. 1995 Opportunity costs and entrepreneurial activity, *Journal of Business Venturing*, **10.2**: 95-106
- Armour, J. and Cumming, D. 2004 The legal road to replicating Silicon Valley. ESRC Centre for Business Research, University of Cambridge, Working Paper No. 281.
- Audretsch D.B., Houweling P. and Thurik A.R. 2000 Firm survival in the Netherlands, *Review of Industrial Organization*, **16.1**: 1-11.
- Baumol, W. 1990 Entrepreneurship: Productive, Unproductive, and Destructive. *Journal of Political Economy*, **98.5**: 893-921.
- Birley, S. and Westhead, P. 1993 A comparison of new businesses established by 'novice' and 'habitual' founders in Great Britain, *International Small Business Journal*, **12**: 38-60.
- Blanchflower, D.G. and Oswald, A.J. 1998. What makes an entrepreneur? *Journal of Labor Economics*, **16.1**: 26-60.
- Bosma, N. and Wennekers, S. 2004 Trends in het Nederlandse starters- en ondernemersklimaat. in Hulsink, W., Manuel, D. and Stam, E., *Ondernemen in netwerken. Nieuwe en groeiende bedrijven in de informatiesamenleving* (Van Gorcum: Assen), 15-34.
- Bruins, A. 2004 *Starten in de recessie. Startende ondernemers in 2003*, EIM: Zoetermeer.
- Callejon, M. 2004 Introduction to 'Entrepreneurship and the Demography of Firms and Industries' Special Issue, *Small Business Economics*, **22.3**: 163-164.
- Carroll, G.R. and Mosakowski, E. 1987 The career dynamics of self-employment, *Administrative Science Quarterly*, **32**: 570-589.
- Carter, N. M., Gartner, W.B, Shaver, K.G. and Gatewood, E.J. 2003. The career reasons of nascent entrepreneurs, *Journal of Business Venturing* 18: 13-39.
- Casson, M. 2003 Entrepreneurship, business culture and the theory of the firm, in Acs, Z. and Audretsch, D., *Handbook of Entrepreneurship Research. An interdisciplinary introduction* (Kluwer: Boston), 223-246.
- Caves, R. 1998 Industrial organization and new finding on the turnover and mobility of firms, *Journal of Economic Literature*, **36**: 1947-1982,
- Churchill, N. and Lewis, V. 1983 The five stages of small business growth, *Harvard Business Review*, **6.3**: 43-54.
- Cope, J. 2003 Entrepreneurial learning and critical reflection. Discontinuous events as triggers for 'higher-level' learning, *Management Learning*, **34.4**: 429-450.
- Costello, N. 1996 Learning and routines in high-tech SMEs: Analyzing rich case study material, *Journal of Economic Issues*, **30**: 591-597.
- Cyert, R.M. and March, J.G. 1963 *A Behavioral Theory of the Firm* (Prentice-Hall: Engelwood Cliffs, NJ).
- De Koning, A. 1999 *Business failures and entrepreneurship in international perspective* (EIM: Zoetermeer).
- Evans, D. and Leighton, L. 1989 Small business formation by unemployed and employed workers, *Small Business Economics*, **2**: 319-330.

- Everett, J. and Watson, J. 1998 Small business failure and external risk factors, *Small Business Economics*, **11**: 371-390.
- Garnsey, E. 1998 A theory of the early growth of the firm, *Industrial and Corporate Change*, **7**: 523-556.
- Gartner, W.B. 1989 "Who is an Entrepreneur?" Is the Wrong Question. *Entrepreneurship: Theory and Practice*, **13**: 47-68.
- Gatewood, E.J., Shaver, K.G. and Gartner W.B. 1995. A longitudinal study of cognitive factors influencing start-up behaviors and success at venture creation, *Journal of Business Venturing*, **10.5**: 371-391.
- Grilo, I. and Irigoyen, J.M. 2005 *Entrepreneurship in the EU: To wish and not to be*. (Papers on Entrepreneurship, Growth and Public Policy #01-2005, Max Planck Institute of Economics, Jena, Germany).
- Headd, B. 2003 Redefining Business Success: Distinguishing Between Closure and Failure, *Small Business Economics*, **21**: 51-61.
- Hoover, E. and Vernon, R. 1959 *Anatomy of a metropolis* (Harvard University Press, Cambridge, Mass).
- Hulshoff, H., Kerste, R. and Snel, D. 2001 *Jonge ondernemingen in 2000*, EIM: Zoetermeer.
- Hyttinen, A. and Ilmakunnas, P. 2006 Transitions to entrepreneurship: The roles of aspirations and serial entrepreneurship. Paper presented at the Workshop on Firm Exit and Serial Entrepreneurship, Max Planck Institute of Economics, Jena (Germany) 13-14 January.
- Katz, J.A. 1994 Modeling entrepreneurial career progressions: Concepts and considerations. *Entrepreneurship Theory and Practice*, **19.2**: 23-39.
- Kirchhoff, B.A. 1996. Self-employment and dynamic capitalism, *Journal of Labor Research*, **17.4**: 627-644.
- Kirschenhofer, F. and Lechner, C. 2006. Long-term performance of habitual entrepreneurs – which direction to go? Paper presented at the Workshop on Firm Exit and Serial Entrepreneurship, Max Planck Institute of Economics, Jena (Germany) 13-14 January.
- Kirzner, I. 1997. Entrepreneurial discovery and the competitive market process: an Austrian approach. *Journal of Economic Literature*, **35**: 60-85.
- Klepper, S. 1996. Entry, exit, growth, and innovation over the product life cycle, *American Economic Review*, **86.3**: 562-583.
- Kolvereid, L and Bullvåg, E. 1993 Novice versus experienced business founders: An exploratory investigation, in Birley, S. and MacMillan, I., *Entrepreneurship Research: Global perspectives* (North Holland: Amsterdam), 275-285.
- Korunka, C., Frank, H., Leuger, M. and Mugler, J. 2003 The entrepreneurial personality in the context of resources, environment, and the startup process – A configurational approach, *Entrepreneurship Theory & Practice*, **28.4**: 23-42.
- Krueger, N. 2003. The cognitive psychology of entrepreneurship. in Acs, Z. and Audretsch, D., *Handbook of Entrepreneurship Research. An interdisciplinary introduction* (Kluwer: Boston), 105-140.
- Krueger, N. Reilly, M., and Carsrud, A. 2000. Competing models of entrepreneurial intentions. *Journal of Business Venturing* **15**: 411-432.
- Lee, C.M., Miller, W.F., Hancock, M.G. and Rowen, H.S. (eds) 2000 *The Silicon Valley Edge. A habitat for innovation and entrepreneurship* (Stanford University Press: Stanford, CA).
- Lucas, R. 1978 On the size distribution of business firms, *Bell Journal of Economics*, **9**: 508-523.

- MacMillan, I.C. 1986 To really learn about entrepreneurship, let's study habitual entrepreneurs, *Journal of Business Venturing*, **1**: 241-243.
- McClelland, D. 1961 *The Achieving Society* (Van Nostrand: Princeton, NJ).
- McGrath, R.G. 1999 Falling Forward: Real Options Reasoning and Entrepreneurial Failure. *Academy of Management Review*, **24**: 13-30.
- McGrath, R. and MacMillan, I. 2000 *The entrepreneurial mindset: Strategies for continuously creating opportunity in an age of uncertainty* (Harvard Business School Press: Boston, MA).
- Rauch, A. and Frese, M. 2000 Psychological approaches to entrepreneurial success: A general model and an overview of findings. *International Review of Industrial and Organisational Psychology*, **15**: 101-143.
- Ronstadt, R. 1988 The corridor principle, *Journal of Business Venturing*, **3**, 31-40.
- Rotter, J. 1966 Generalized expectancies for internal versus external control of reinforcement, *Psychological Monographs*, **80**:1-28.
- Saxenian, A.L. 1994 *Regional Advantage. Culture and competition in Silicon Valley and Route 128* (Harvard University Press: Cambridge, MA).
- Schutjens, V.A.J.M, Rosenbrand, M. and Van Engelenburg, R. 2003 *Bedrijfsbeëindiging van jonge ondernemingen in Nederland. Keuze of noodzaak?* (Raad voor Zelfstandig Ondernemerschap: Scheveningen).
- Schutjens, V. and Stam, E. 2003, The evolution and nature of young firm networks: a longitudinal perspective, *Small Business Economics*, **21.2**: 115-134.
- Schutjens, V.A.J.M. and Wever, E. 2000 Determinants of new firm success. *Papers in Regional Science*, **79.2**: 135-159.
- Shook, C.L., Priem, R.L., and McGee, J.E. 2003 New venture creation and the enterprising individual: A review and synthesis. *Journal of Management*, **29**: 379-399.
- Sitkin, S. 1992 Learning through failure: The strategy of small losses, in Staw, B.M. and Cummings, L.L. (eds.), *Research in Organizational Behavior* (Greenwich, CT: JAI Press) 231-266.
- Stam, E. and Schutjens, V. 2005 The fragile success of team start-ups (Papers on Entrepreneurship, Growth and Public Policy #17-2005, Max Planck Institute of Economics, Jena, Germany).
- Starr, J. and Bygrave, W. 1991. The Assets and Liabilities of prior start-up experience: An exploratory study of multiple venture entrepreneurs, in: Churchhill, N., Bygrave, J, Covin, D., Sexton, D., Slevin, K., Vesper, K. and Wetzel, W. (eds) *Frontiers of Entrepreneurship research 1991* (Babson College: Wellesley, MA) 213-227.
- Stigter, H. 2001 *Het voorbereidingsproces: van start tot finish?* (EIM: Zoetermeer).
- Storey, D. 1991 The birth of new firms – Does unemployment matter? – A review of the evidence, *Small Business Economics*, **3**: 167-178.
- Ucbasaran, D., Westhead, P., Wright, M. and Binks, M. 2003 Does Entrepreneurial Experience Influence Opportunity Identification? *The Journal of Private Equity*, **Winter 2003**: 7-14.
- Van der Klaauw, B. 1998 *De effecten van het beëindigen van een onderneming op toekomstig ondernemerschap*. Report Vakgroep Algemene Economie, Vrije Universiteit, Amsterdam.
- Van Gelderen, M. 1999 *Ontluikend ondernemerschap. Een studie naar mensen die bezig zijn met het opzetten van een bedrijf* (EIM: Zoetermeer).
- Van Gelderen, M.W., Thurik, R., and Bosma, N. 2005 Success and risk factors in the pre-startup phase. *Small Business Economics*, **24**: 365-380.

- Van Praag, C.M. and Cramer, J.S. 2001 The roots of entrepreneurship and labour demand: Individual ability and low risk aversion. *Economica*, **68**: 45-62.
- Van Wissen, L. and Van Dijk, J. 2004 Editorial introduction Demography of the firm and spatial dynamics, *Annals of Regional Science*, **38.2**: 193-197.
- Waasdorp, P.M. 2001 *Serial Entrepreneurship in the 21st century*, Paper presented for Concerted Actions Forum on Entrepreneurship, Växjö, Sweden.
- Watson, J. and Everett, J. 1993 Defining small business failure, *International Small Business Journal*, **11.3**: 35-48.
- Watson, J. and Everett, J. 1996 Do small businesses have higher failure rates: Evidence from Australian retailers, *Journal of Small Business Management*, **34.4**: 45-62.
- Westhead, P. and Wright, M. 1998a Novice, Portfolio, and Serial Founders: are they different? *Journal of Business Venturing*, **13**: 173-204.
- Westhead, P. and Wright, M. 1998b Novice, Portfolio, and Serial Founders in Rural and Urban Areas, *Entrepreneurship Theory and Practice*, **22**: 63-100.
- Westhead, P. and Wright, M. 1999 Contributions of novice, portfolio, and serial founders located in rural and urban areas, *Regional Studies*, **33**: 157-173.
- Westhead, P., 2003 Differences Between Private Firms Owned by Novice, Serial and Portfolio Entrepreneurs: Implications for Policy Makers and Practitioners, *Regional Studies*, **37.2**: 187-200.
- Westhead, P., Wright, M. and Ucbasaran, D. 2005 Novice, Serial and Portfolio Entrepreneur Behaviour and Contributions, *Small Business Economics*, forthcoming.
- Wright, M., Robbie, K. and Ennew, C. 1997 Serial entrepreneurs, *British Journal of Management*, **8**: 251-268.