Business Creation in the United States: Panel Study of Entrepreneurial Dynamics II Initial Assessment

Full text available at: http://dx.doi.org/10.1561/0300000022

Business Creation in the United States: Panel Study of Entrepreneurial Dynamics II Initial Assessment

Paul D. Reynolds

Florida International University
USA
pauldreynolds@earthlink.net

Richard T. Curtin

University of Michigan
USA
curtin@umich.edu

now
the essence of knowledge

Boston – Delft

Foundations and Trends® in Entrepreneurship

Published, sold and distributed by:
now Publishers Inc.
PO Box 1024
Hanover, MA 02339
USA
Tel. +1-781-985-4510
www.nowpublishers.com
sales@nowpublishers.com

Outside North America:
now Publishers Inc.
PO Box 179
2600 AD Delft
The Netherlands
Tel. +31-6-51115274

The preferred citation for this publication is P. D. Reynolds and R. T. Curtin, Business Creation in the United States: Panel Study of Entrepreneurial Dynamics II Initial Assessment, Foundations and Trends® in Entrepreneurship, vol 4, no 3, pp 155–307, 2008

ISBN: 978-1-60198-096-0

Foundations and Trends® in Entrepreneurship
Volume 4 Issue 3, 2008

Editorial Board

Editorial Scope

Foundations and Trends® in Entrepreneurship will publish survey and tutorial articles in the following topics:

- Nascent and start-up entrepreneurs
- Opportunity recognition
- New venture creation process
- Business formation
- Firm ownership
- Market value and firm growth
- Franchising
- Managerial characteristics and behavior of entrepreneurs
- Strategic alliances and networks
- Government programs and public policy
- Gender and ethnicity
- New business financing:
- Business angels
- Bank financing, debt, and trade credit
- Venture capital and private equity capital
- Public equity and IPO's
- Family-owned firms
- Management structure, governance and performance
- Corporate entrepreneurship
- High technology
- Technology-based new firms
- High-tech clusters
- Small business and economic growth

Information for Librarians
Foundations and Trends® in Entrepreneurship, 2008, Volume 4, 6 issues. ISSN paper version 1551-3114. ISSN online version 1551-3122. Also available as a combined paper and online subscription.

Foundations and Trends® in
Entrepreneurship
Vol. 4, No. 3 (2008) 155–307

DOI: 10.1561/0300000022

now
the essence of knowledge

Business Creation in the United States: Panel Study of Entrepreneurial Dynamics II Initial Assessment*

Paul D. Reynolds[1] and Richard T. Curtin[2]

[1] *Florida International University, Miami, FL, USA, pauldreynolds@earthlink.net*
[2] *University of Michigan, Ann Arbor, MI, USA, curtin@umich.edu*

Abstract

PSED II began in 2005 with the selection of a cohort of 1,214 nascent entrepreneurs chosen from a representative sample of 31,845 adults. The first 12 month follow-up interviews were completed with 80% of the original cohort. The project is designed to replicate, with appropriate methodological improvements, PSED I. The PSED provides a unique, unprecedented description of the initial stages of the entrepreneurial process. The results suggest that prior experience and an appropriate strategy are critical for completing a new firm birth; personal attributes, motivations, and contexts seem to have minimal effect. The PSED findings have substantial implications for policy makers who wish to improve the capacity of the US entrepreneurial sector to confront global competitive threats with a steady flow of new and innovative firms.

* Sponsors for this survey are listed on page 308

Preface

The effort to develop reliable empirical descriptions of the business creation process began in 1993 with an initial survey of Wisconsin adults. The basic design — screening representative samples of adults to locate those active in business creation, obtaining detailed information about the start-up effort, and follow-up interviews to determine the outcomes — was established in this first project. The data collection for this first effort was completed by the University of Wisconsin Survey Research Laboratory.

Based on the success of this initial effort, this methodology was replicated with a representative sample of US households conducted by the Survey Research Center at the University of Michigan in 1993. The feasibility of the research design was confirmed and led to the formation of the Entrepreneurial Research Consortium. This group, composed of over 120 scholars from 34 entrepreneurial research centers provided financial support to implement the first Panel Study of Entrepreneurial Dynamics (PSED I) in 1998. Once the interview procedure was designed, national screenings were conducted by Market Facts (now Synovate) and the initial detailed interviews and the follow-up were completed by the University of Wisconsin facility. Midway

through the project, with major support from the Ewing Marion Kauffman Foundation, the data collection responsibilities were transferred to the University of Michigan's Institute for Social Research, where the second and third follow-ups were completed and the complete data set was harmonized, documented, and placed in the public domain.

The second project, PSED II, supported by from the Ewing Marion Kauffman Foundation with supplemental funding from the US Small Business Administration, was begun in 2005. The research design includes two follow-ups at 12 month intervals; the first follow-up was completed during the winter of 2007.

There has been an impressive amount of scholarly research and publications based on this research paradigm: at least seven books, 45 peer reviewed journal articles, eight book chapters, nine dissertations and one thesis, 63 professional presentations, and six research reports. This does not count the extensive material based on the Global Entrepreneurship Monitor initiative and data sets which is based on the PSED research procedures. There is little doubt that efforts to locate and track representative samples of business creation activities have been a major contribution to research on firm creation.

This report is the first assessment of the results of the first two waves of the PSED II cohort. It is designed to provide an introductory overview to the research project and describe the major results. The focus is on the most basic features of the process; detailed information has not been included in this report. Emphasis has been placed on the scope of activity and the most important policy implications.

As a result, despite the large range of sophisticated conceptual frameworks and theories which have been the basis for selecting topics and items to be included in the assessment, theory testing and development is not pursued in this analysis. This work is designed to provide an overview which can form the basis for exploring more specific issues in detail, issues with relevance to specific theories or conceptual frameworks. The wide range of variables provides considerable opportunity to explore and test the suitability of alternative theories.

All data from both cohorts are in the public domain. Researchers and scholars from a wide range of backgrounds should find this comprehensive description of new firm creation a rich source of material for developing and refining theories.

Paul Reynolds
Florida International University
Miami, Florida

Richard Curtin
University of Michigan
Ann Arbor, Michigan

Summary

Business creation, a central feature of entrepreneurship, facilitates job creation, economic innovation, and improved sector productivity. It is also a major career option for millions of Americans. The Panel Study of Entrepreneurial Dynamics (PSED), the only nationally representative data set providing longitudinal descriptions of new business creation, is a critical source of information on the early stages of the entrepreneurial process.

The PSED I study was based on a cohort identified in 1999 and was followed with annual interviews for three years. PSED II began in 2005 with the selection of a cohort of 1,214 nascent entrepreneurs chosen from a representative sample of 31,845 adults. The first 12 month follow-up interviews were completed with 80% of the original cohort. The project is designed to replicate, with appropriate methodological improvements, PSED I.

Despite the six years between the national screenings, the prevalence rates and the major features of nascent entrepreneurs and nascent enterprises are very similar for the two cohorts; the change in the participation rate, from 5.6 per 100 to 6.0 per 100 was not statistically significant. Most of the increased in total counts reflect the increase

in the population as the number of active nascent entrepreneurs has grown from 10.7 to 12.1 million.

Men are about twice as active as women in entering the start-up process, participation is greatest among those 25–44 years of age, and African Americans and Hispanics are considerably more involved than whites. Educational attainment and household income have modest effects for all but women; women in low income households with little education are much less likely to initiate a new firm. The individuals who are active in the start-up process represent all segments of the population, although they tend to be in mid-career and heavily involved in work for pay.

Nascent enterprises are represented in all economic sectors, with a slight emphasis on business services and retail firms. Start-up teams are associated with half of these efforts and teams with no family relationships represent about 20%. Most are independent start-ups, but 20% have some sponsorship by an existing business. At the time of the first detailed interview, in 2005, the typical nascent enterprise absorbed about 1,500 hours and $10,000 in personal finances from the start-up team.

About 6% of the nascent enterprises are designed for a high growth trajectory; almost half expect to be a small scale initiative — a version of self-employment. Those positioned for higher growth are associated with larger, non-family teams, substantially more sweat equity and financial support, and report more activities related to implementation of the new firm.

A preliminary assessment of the outcome status of the 2005 cohort indicates that after 12 months 12% report an operational new firm, 20% have disengaged, and 68% are continuing to work on the start-up. About 10 billion hours and $70 billion of personal funds are invested in 7.4 million nascent enterprises; about half of the sweat equity and personal financial support is associated with nascent enterprises that do not become operating businesses.

PSED has demonstrated usefulness and feasibility of developing a representative sample of business creation activity before new operating firms are incorporated into national registries. Most studies of start-ups are based on samples drawn from these national registries. The PSED

provides a unique, unprecedented description of the initial stages of the entrepreneurial process.

The results suggest that prior experience and an appropriate strategy are critical for completing a new firm birth; personal attributes, motivations, and contexts seem to have minimal effect. The PSED findings have substantial implications for policy makers who wish to improve the capacity of the US entrepreneurial sector to confront global competitive threats with a steady flow of new and innovative firms.

Contents

1

Understanding Entrepreneurship and the Missing Link

> As a nation, we should seek to have ... a million new business start-ups every year (nearly twice present levels).
>
> Schramm, 2006, p. 175

Entrepreneurship, the creation of new firms and new ventures, is important for America. There is now substantial recognition of the contributions of entrepreneurship to innovation, job growth, and improved productivity (Council on Competitiveness, 2007; Reynolds, 2007a). New firms are also a critical feature of the creation of new sectors, be it automobiles, computers, or big box retail outlets. There is also growing evidence that regions with higher levels of firm creation will have greater economic growth in subsequent periods (Acs and Armington, 2004; Reynolds, 1998). This also appears to be true for countries, as those with higher levels of new firm creation seem to have higher levels of subsequent economic growth (Reynolds et al., 2004). The new firm-economic growth relationship seems pervasive, although the precise mechanisms have yet to be established.

Perhaps the most compelling evidence is that the major source of systematic job expansion is found among new firms. Indeed, there is a net loss of jobs among establishments of any age greater than one year, as jobs destroyed by establishment contractions and terminations outnumber those created by expansions (Acs and Armington, 2004). This suggests that without a steady influx of new firms creating new jobs the total number of jobs would decline.

The attraction of the entrepreneurial benefits has led to a number of suggestions that entrepreneurship is to be encouraged for its social as well as economic benefits; politicians and analysts at all levels seem to differ only the appropriate level of encouragement for more entrepreneurship (Schramm, 2006; Council on Competitiveness, 2007). Much of the United States concern is related to the national potential in relation to global competition.

There is little question that a number of Asian countries, particularly China and India, exhibit high levels of economic growth; part of this growth is related to the level of new firm creation. A comparison of both total firm creation activity and firms with high growth aspiration is provided in Table 1.1 (based on Autio, 2007). Using data developed as part of the Global Entrepreneurship Monitor research program, the number of individuals 18–64-years old in each country is used to estimate the total count of individuals active in the firm creation

Table 1.1 Entrepreneurial activity, all and high growth initiatives in selected global regions.

Regions, Countries	Population: 18–64 yrs old	TEA index prevalence (#/100) (a)	TEA counts	High growth TEA prevalence (#/100) (b)	High growth TEA counts
India, China	1,426,000,000	14.95	206,400,000	0.96	15,300,000
USA	181,000,000	11.31	20,500,000	1.49	2,700,000
Latin America (c)	193,000,000	14.19	25,900,000	0.69	1,200,000
Western Europe (d)	229,000,000	5.53	11,200,000	0.49	1,100,000
Canada	21,000,000	8.49	1,800,000	1.23	300,000
Japan	81,000,000	2.27	1,800,000	0.14	100,000

Notes:
a: From Table 6, Reynolds et al. (2004a).
b: From Table 3, Autio (2007).
c: Argentina, Brazil, and Mexico.
d: Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, UK.

process or managing a new firm, up to 42-months old; those persons included in the Total Entrepreneurial Activity (TEA) index. Both the prevalence rates and total number of active individuals are provided. Five selected regions are ranked by the total counts of TEA active individuals expecting a high growth nascent enterprise; high growth defined as firms expected to have 20 or more employees five years after the firm's birth.

While the United States does well in both the prevalence of all active nascent entrepreneurs as well as those emphasizing a high growth enterprise, the total count is considerably less than the combination of China and India. While differences in prevalence rates appear to be the most natural metric to determine differences in the level of entrepreneurial activity, it still may be true that the larger the number of new firm births, the larger the number of innovative high-growth firms that would be competitive in global markets. China and India have almost eight times as many individuals in the age range of labor force participation (18–64 years of age) and ten times as many active nascent entrepreneurs, 200 million compared to 20 million for the United States. Perhaps more critical, there are six times as many working on a high growth potential start-ups, 15 million compared to 3 million for the United States. Concern about the ability of the United States to compete with dynamic Asian economies seems well placed. Other regions provide less cause for concern.

Latin America and Western Europe have less than half the total numbers of high-potential growth start-ups as the United States. Japan is an interesting case, for despite having a population almost four times the size of Canada, it has one-third the Canadian count of high growth potential nascent entrepreneurs. Compared to the United States, Japan has half the population but just 4% of the count of high-potential growth enterprises.

To remain competitive in the global economy, especially with regard to China and India, the United States should ensure that entrepreneurship is maintained and perhaps expanded. Exhortations for increasing entrepreneurship are often linked to a range of proposals for increasing the level of entrepreneurial opportunities and activity, such as increasing the investment in research and development, a greater focus on

entrepreneurship across all aspects of primary and secondary education, adjustment of government regulations and tax codes to facilitate firm registration, as well as greater recognition and acceptance of entrepreneurship in the society. While many of these ideas and proposals may have a positive impact on the level of entrepreneurial activity, they are frequently based on incomplete or partial understanding of the firm creation process. Just how to achieve the objective in the introductory quotation — doubling the annual count of new firms in the United States — is not well specified. Given that four different longitudinal analyses of the prevalence of new firm creation rates indicate virtually no changes since 1990 this task represents a considerable challenge.[1] More complete and precise information about the firm creation process is required to realize this objective.

Almost all concepts of entrepreneurship — utilized by business persons, policy makers, and academic researchers — include the creation of a new venture, product, or organization as a central aspect. There is no question that individuals or teams of individuals are considered to be the major factors that lead to the creation of a "new" venture, product line, or organization.

Three major stages can be associated with the creation of new enterprises. The first would be the decision of individuals, alone or in teams, to initiate the creation of a new firm — the conception of a new enterprise. The second would be the organization and identification of individuals and resources establish the new firm — the gestation or start-up process. The third would be the culmination of the start-up phase with an operational new firm and the subsequent growth trajectory of the enterprise — the birth of a new firm.

There are a wide range of issues associated with the life-cycle of a business. It would be of some importance to know more about those individuals and teams that enter the process, what proportion actu-

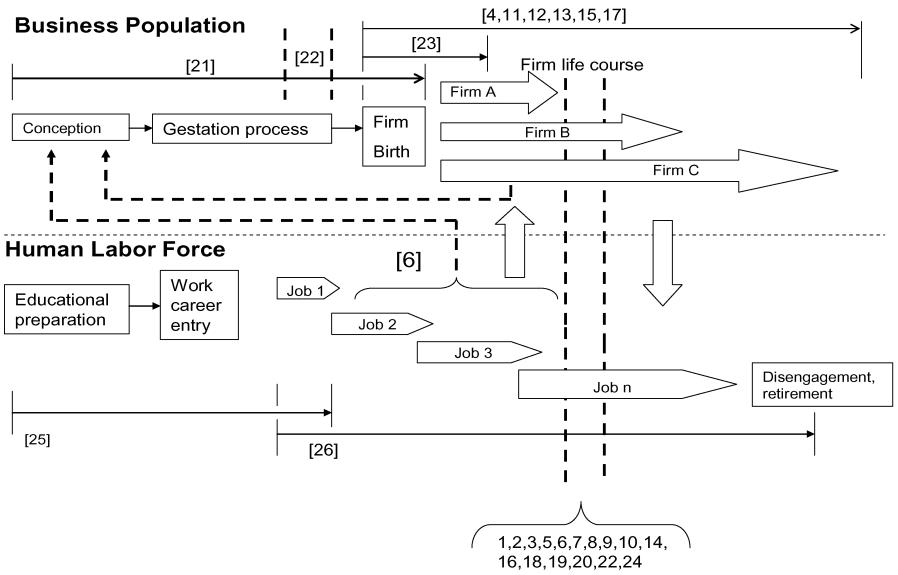
[1] This includes data based on increased personal emphasis on self-employment (Fairlie, 2006); comparisons of prevalence of nascent entrepreneurs (Reynolds, 2008); new registrations of employer firms making unemployment insurance payments (Spletzer et al., 2004); and new registrations of employer firms making initial federal social security payments (US Small Business Administration, Office of Advocacy, 2004); when this data is organized in terms of new firms per 1000 in the population, there has been no apparent temporal trend, up or down, since 1990.

ally complete the process with a new business and, in turn, what proportion of these new businesses have a high growth trajectory. For those concerned with the success of individual business enterprises, it would be useful to know what types of people, strategies, and resources lead to success — firm birth and subsequent growth. For those concerned with maintaining a dynamic, competitive entrepreneurial sector, it would be useful to know what types of ambient conditions seem to promote greater levels of start-up efforts, and thus more nascent enterprises. From a societal cost-benefit prospective, there is value in knowing the aggregate amount of time and resources absorbed by the firm creation process, and who bears the costs and shares in the benefits.

What resources for understanding the firm creation process might be available? Given the wealth of data assembled and maintained by the federal government and other interested parties, it is of some interest to consider the availability of data that would lead to understanding of the critical factors affecting the emergence of successful new enterprises. Such an assessment was recently completed by a panel of experts convened to report on this issue within the National Academy of Science (Haltiwanger et al., 2007).[2] A summary of the conceptualization of the business creation process is presented in Figure 1.1. The presentation is organized around two phenomena, presented horizontally. The top portion represents the business life course and the bottom the work career of typical individuals. The dotted lines leading to the "conception" box indicate the two major processes associated with becoming involved in the conception of a new business One is the individuals shifting into the start-up mode after a work career holding jobs; the other would be individuals initiating new firms as part of the current job requirements, representing a start-up sponsored by an existing firm.

The major purpose of the conceptualization is to assist in identifying existing data sets and their utility for research on different aspects of the business dynamics process. A total of 26 different data sets were identified as relevant to some aspect of the firm creation and development process; they are listed at the bottom of Figure 1.1.

[2] The first author of this report, Paul Reynolds, was a member of this panel.



Key to Numbered Data Sets

1	BLS, Business Establishment List	14	Dun & Bradstreet Duns Market Identifier File
2	BLS, Quarterly Census of Employment and Wages	15	NSF [U.S. Census] Longitudinal Research Database
3	BLS, Current Employment Statistics	16	SBA Statistics of US Business
4	BLS, Business Employment Dynamics	17	Business Information Tracking Series [BITS]
5	BLS, American Time Use Survey	18	FRB Survey of Small Business Finances
6	BLS-Census: Current Population Surveys	19	IRS Survey of Income
7	U.S. Census Business Register	20	Standard & Poor's Compustat
8	U.S. Census Company Organization Survey	21	Kauffman Foundation Panel Study of Entrepreneurial Dynamics [U of Michigan]
9	U.S. Census, Economic Census	22	Kauffman Foundation and Others: The Global Entrepreneurship Monitor [GEM]
10	U.S. Census, Survey of Business Owners	23	Kauffman Firm Survey [Mathematica]
11	U.S. Census Longitudinal Business Database	24	Kauffman Financial and Business Databases
12	U.S. Census Integrated Longitudinal Business Database	25	National Longitudinal Survey of Youth [BLS, conducted by Ohio State/NORC]
13	U.S. Census Longitudinal Employer-Household Dynamics	26	Panel Study of Income Dynamics [U Michigan]
BLS = Bureau of Labor Statistics			
IRS = Internal Revenue Service			
NORC = National Opinion Research Center, Affiliated with the U of Chicago			
NSF = National Science Foundation			
SBA = Small Business Administration			
From Table 4.1, page 68, from Haltiwanger, Lynch, and Mackie, 2007.			

Fig. 1.1 Business creation and available data sets.

- Fifteen of the 26 provide cross-sectional information about existing firms at one point in time, but without any capacity for tracking the firms over time (1,2,3,5,6,7,8,9,10, 14,16,18,19,20,22,24).
- Seven provide for longitudinal analyses of existing firms, once they are included in an existing firm registry, such as the unemployment insurance files maintained by the Bureau of Labor Statistics, the Longitudinal Business Database maintained by the US Census, or a sample drawn from the Dun and Bradstreet data files (4,11,12,13,15,17,23).
- Three track the labor force activities of people, persons, either as individuals or as members of households, but the focus is on the nature of the jobs they hold and shifts between jobs over the life course. Other than reports of "self-employment," there is little attention to creating new businesses and the descriptions of the "self-employment" activity is brief and basic (6, 25, 26).
- One, the Global Entrepreneurship Monitor, provides annual comparisons of national measures of firm creation activities, but does not have the potential for tracking individual businesses (22).

Only one extant research program, the Panel Study of Entrepreneurial Dynamics (21), provides detailed information on a representative national sample reflecting the firm creation process. Without the PSED research program there would be no information on this early and critical stage of business dynamics. There would be no information regarding:

- Who gets involved in creating a new business?
- How many nascent entrepreneurs exist?
- What do nascent entrepreneurs do to create a new firm?
- To what extent are new firms based on advances in technology and science?
- What proportion of nascent enterprises complete the process to become a new firm?

- How long does it take to reach a resolution — a new firm or disengagement?
- What is unique about nascent enterprises that become a new business compared to those that do not make the firm birth transition?
- What is the social cost, in terms of sweat equity and personal investments associated with the firm creation process?
- What is unique about those new firms expected to have a substantial growth trajectory after launch?
- How many individuals must implement how many firms to create one firm with substantial growth potential?
- How does the start-up procedure and strategy affect the trajectory of firms once they are launched?

All of these issues have great relevance for efforts to promote new firm creation and improve the efficiency of the process. Without information on these issues, policies designed to increase the level of entrepreneurial activity could be ineffective or counterproductive.

While many have recognized the positive contributions of entrepreneurial activities, others have pointed out that under some conditions these "entrepreneurial ventures" may actually redistribute and concentrate wealth among fewer people; the "entrepreneurial team" benefits while all others suffer a net loss (Baumol, 1968; Baumol et al., 2007). The major implication from such analysis is that conditions should be established to "channel" entrepreneurial energy into avenues that will produce net societal benefits and discourage initiatives, such as fraudulent business activities or schemes to manipulate stock prices, which lead to net societal losses. Developing and implementing such conditions is a continuing challenge; a more complete understanding of the business creation process may lead to the development of more effective procedures for promoting beneficial entrepreneurship.

The Panel Study of Entrepreneurial Dynamics, which focuses on the early stages of the firm creation process, provides the needed information to more fully understand the entrepreneurial process. Data sets from the initial study, PSED I, based on a representative sample developed in 1999 that was followed for four year are publicly available.

A wide range of scholarly articles, dissertations, and book chapters as well as a detailed assessment of the unique nature of those who launch new firms has been completed (Reynolds, 2007b). PSED II, based on a 2005 representative sample of the US population, has completed its first follow-up interview; data from the population screening, initial interview, and first follow-up are now publicly available.

The information from these two projects provides a description of a representative sample of the individuals involved in the firm creation process. Many of the results were unexpected, particularly those related to the scope of participation in firm creation and the diversity of strategies and procedures followed to launch new firms. What follows is an interim report on the information developed from the PSED II following the first follow-up data collection. The results are considered in relation to the results from the earlier PSED I initiative.

This overview makes clear that the PSED II initiative is a unique national resource, the only available source of current information on an important feature of the business dynamics underlying the growth and adaptation of the modern US economy. *There is no other source for most of this information.*

References

Acs, Z. J. and C. Armington (2004), 'Employment growth and entrepreneurial activity in cities'. *Regional Studies* **38**(9), 911–927.

Alsos, G. A. and L. Kolvereid (1998), 'The business gestation process of novice, serial and parallel business founders'. *Entrepreneurship Theory and Practice* **22**(4), 101–114.

Armington, C. and M. Odle (1982), 'Small business –how many jobs?'. *The Brookings Review* (Winter) **1**(2), 14–17.

Autio, E. (2007), *Global Entrepreneurship Monitor: 2007 Global Report on High-Growth Entrepreneurship*. Babson Park, MA and London, UK: Babson College and London Business School.

Baumol, W. J. (1968), 'Entrepreneurship in economic theory'. *American Economic Review (Papers and Proceedings)* **58**, 64–71.

Baumol, W. J., R. E. Litan, and C. J. Schramm (2007), *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity*. New Haven, CT: Yale University Press.

Birch, D. L., A. Haggerty, and W. Parsons (1995), *Who's Creating Jobs?* Boston, MA: Cognetics, Inc.

Council on Competitiveness (2007), *Where America Stands: Entrepreneurship Competitiveness Index*. Washington, DC: Council on Competitiveness.

Curtin, R. and P. Reynolds (2004), 'PSED background for analysis'. In: W. B. Gartner, N. Carter, and P. Reynolds (eds.): Appendix B of *Handbook of Entrepreneurial Dynamics: The Process of Organizational Creation*. Thousand Oaks, CA: Sage Publications, pp. 477–494.

Davidsson, P. (2004), *Researching Entrepreneurship*. New York, NY: Springer.

de Rearte, A. G., E. Lanari, and P. A. A. J. Atucha (1998), *El Proceso de Creaction de Empresas; Abordaje Methodologico y Primeros Resultados de un Studio Regional*. Argentina: Universidad Nacional de Mar del Plata.

Delmar, F. and P. Davidsson (2000), 'Where do they come from? Prevalence and characteristics of nascent entrepreneurs'. *Entrepreneurship & Regional Development* **12**, 1–23.

Fairlie, R. W. (2006), *Kauffman Index of Entrepreneurial Activity: National Report 1996-2005*. Kansas City, MO: Ewing Marion Kauffman Foundation.

Gartner, W. B., K. G. Shaver, N. M. Carter, and P. D. Reynolds (2004), *Handbook of Entrepreneurial Dynamics: The Process of Business Creation*. Thousand Oaks, CA: Sage.

Haltiwanger, J., L. Lynch, and C. Mackie (eds.) (2007), *Understanding Business Dynamics: An Integrated Data System for America's Future*. Washington, DC: National Academy of Sciences.

Menzies, T., Y. Gasse, M. Diochon, and D. Garand (2002), *Nascent Entrepreneurs in Canada: An Empirical Study*. Paper presented at the ICSB 47th World Conference, San Juan, Puerto Rico.

Reynolds, P., N. Bosma, E. Autio, S. Hunt, N. De Bono, I. Servais, P. Lopez-Garcia, and N. Chin (2005), 'Global entrepreneurship monitor: Data collection design and implementation: 1998–2003'. *Small Business Economics* **24**, 205–231.

Reynolds, P. D. (1998), 'Business volatility: Source or symptom of economic growth?'. In: Z. J. Acs et al. (ed.): *Entrepreneurship, Small and Medium-Sized Enterprises, and the Macro-economy*. Cambridge, UK: Cambridge University Press.

Reynolds, P. D. (2007a), *Entrepreneurship in the United States: The Future is Now*. Boston, MA: Kluwer.

Reynolds, P. D. (2007b), *New Firm Creation in the United States: A PSED I Overview,* Foundations and Trends in Entrepreneurship, Vol. 3. Hanover, MA: now Publishers, Inc.

Reynolds, P. D. (2008), 'Screening item effects in estimating the prevalence of nascent entrepreneurs'. *Small Business Economics* (in press).

Reynolds, P. D., W. D. Bygrave, E. Autio, and others (2004a), *Global Entrepreneurship Monitor: 2003 Summary Report.* Babson Park, MA: Babson College.

Reynolds, P. D., N. M. Carter, W. B. Gartner, and P. G. Greene (2004b), 'The prevalence of nascent entrepreneurs in the United States: Evidence from the panel study of entrepreneurial dynamics'. *Small Business Economics* **43**(4), 263–284.

Reynolds, P. D., N. M. Carter, and S. B. White (1997), *The Entrepreneurial Process: Economic Growth, Men, Women and Minorities.* Westport, CT: Quorum Books.

Reynolds, P. D. and R. Curtin (2004), 'PSED data set: Examples of analysis (use of weights)'. In: W. B. Gartner, N. Carter, and P. Reynolds (eds.): Appendix C of *Handbook of Entrepreneurial Dynamics: The Process of Organizational Creation.* Thousand Oaks, CA: Sage Publications, pp. 495–540.

Schramm, C. J. (2006), *The Entrepreneurial Imperative: How America's Economic Miracle Will Reshape the World* (*and Change Your Life*). New York: Harper Collins.

Schreyer, P. (1996), *SMEs and Employment Creation: Overview of Selected Quantitative Studies in OECD Member Countries,* STI Working Paper 1966/4. Paris, France: Organization for Economic Co-operation and Development.

Spletzer, J. R., R. Jason Faberman, A. Sadeghi, D. M. Talan, and R. L. Clayton (2004), 'Business employment dynamics: New data on gross job gains and losses'. *Monthly Labor Review* pp. 29–42.

US Small Business Administration, Office of Advocacy (2004), *The Small Business Economy: A Report to the President.* Washington, DC: US Government Printing Office.

van Gelderen, M. (1999), *Ontluikend Ondernemerschap*. Zootermeer, NL: EIM.

Van Gelderen, M. W. (2000), 'Enterprising behavior or ordinary people'. *European Journal of Work and Organizational Psychology* **9**, 81–88.