

Panel Study of Entrepreneurial Dynamics: A Five Cohort Outcomes Harmonized Data Set

Paul D Reynolds
[pauldavidsonreynolds@gmail.com]

with

Diana Hechavarria, Li (Rachel) Tian, Mikael Samuelsson, and Per Davidsson¹

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Abstract

The date of entry into firm creation, eighteen start-up activities, and occurrence of major outcomes—initial profits or disengagement--have been harmonized for five PSED cohorts (Australia, China, Sweden, US PSED I, II). This unique resource is based on 3,910 nascent ventures for which 2,541 have outcome data. These cohorts are representative samples of business creation in their representative countries. The potential for assessing major processes associated with firm creation and the impact of different national contexts is enhanced by this new data set.

¹ The original harmonized consolidation of U.S. PSED I and II was completed by Paul Reynolds, Diana Hechavarria (University of South Florida, Tampa, FL, US) completed initial processing of the Australian (CAUSEE) data set to harmonize data with the consolidated U.S. PSED I, II data sets. Li (Rachel) Tian (Nankai University; Tianjin, China) provided details on the start-up activities of the CH-PSED data set. Mikael Samuelsson (Stockholm School of Economics; Sweden) processed and placed the SE-PSED data in a public archive (Research Gate) and provided data on the sixth wave of SE-PSED data. Per Davidsson (Queensland University of Technology; Brisbane, Australia) provided additional information and details on the CAUSEE and SE-PSED projects. Paul Reynolds, however, is fully responsible for this harmonized version and should be informed of any oversights or errors.

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Sponsorship

US PSED I was initiated by the 34 member teams of the Entrepreneurial Research Consortium, which covered the initial pretests, initial screening and first two waves of data collection. Funding from the Ewing Marion Kauffman foundation supported the third and fourth waves of data collection. A large sample of women nascent entrepreneurs was sponsored by National Science Foundation Grant SBR-9809841 (Dr. Nancy Carter, Principal Investigator) and an enhanced sample of African-American and Hispanic nascent entrepreneurs was sponsored by National Science Foundation Grant SBR-9905255 (Dr. Patricia Green, Principal Investigator). Initial screening was completed by Market Facts and the first and second waves of data collection completed by the University of Wisconsin Survey Research Laboratory; third and fourth waves of data were collected by the University of Michigan Institute for Social Research, where the consolidated data sets and documentation were developed.

US PSED II was initiated by a grant from the Kauffman Foundation, which covered design, the initial screening and the first three waves of data collection. The fourth wave of data collection was supported by NSF grant SES-0818366 (Dr. Richard Curtin, Principal Investigator) and the fifth and six waves of data collection was supported by NSF grant SES-0919772 (Dr. Richard Curtin, Principal Investigator). Initial Screening was completed by the Opinion Research Corporation, all six waves of detailed data collected by the University of Michigan Institute for Social Research.

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The Swedish PSED project was supported by the Knut and Alice Wallenberg's Foundation, the Swedish Foundation for Small Business Research, and the Swedish Board for Industrial and Technical Development. Jonkoping University was the host institution during the data collection phase.

The Chinese PSED project was sponsored by the Chinese National Natural Science Foundation grant number 70732004: "Research on new venture creation and growth in China" Provided to the School of Business at Nankai University in Tiajin, China.

Introduction

The creation of a new business represents a process that starts with preliminary activity and ends with a profitable new firm. New firm formation is a dynamic process, with adjustments as the start-up team pursues implementation. The tasks required vary widely across different types of businesses and the contribution of each activity to success varies with changes in the economic context. Empirically based analysis of the business creation process requires at least two elements; it must be based on representative samples of all potential start-ups, both those that succeed and those that ultimately quit, and it must observe the potential startup over time to determine how and why some succeed and others quit.

The Panel Study of Entrepreneurial Dynamics (PSED) protocol has responded to this challenge by adopting, after extensive field testing, several procedures. First, those active in the pre-profit stage of business creation are located with a screening module completed by representative samples of adults. Not only does this provide confidence that the sample represents business creation in the population, it also facilitates extrapolation from the sample to the total population for estimates of the total number of individuals or resources involved. Those active in business creation complete a detailed interview shortly after being identified in the screening.

The second feature are the follow-up interviews, usually every 12 months, to determine the outcome of the effort to implement a new business. This provides clear evidence of the success of these efforts, those that report profitable new firms provide details about their contributions to job creation, exports, and value added (or profits).

A number of national PSED projects have been implemented since the pretest of the protocol in 1993. The most extensive data sets were developed in two large scale panels in the United States (US PSED I in 1999 and US PSED II in 2005). Other efforts were implemented in the first wave of projects in Canada, Germany, the Netherlands, Norway, and Sweden from 1997 to 1999). A second wave of projects was implemented from 2007 to 2009 in Australia (the Comprehensive Australian Study of Entrepreneurial Emergence or CAUSEE), China, and the Netherlands.

Five of these projects utilized very similar procedures for identifying the occurrence and timing of start-up activities and determining the outcomes of the process. The following presents harmonization of the data from the Australia (CAUSEE); CH-PSED; SE-PSED; and from U.S. PSED I and II cohorts.

This document describes the procedures used to develop a consolidated, harmonized five-cohort data set. The sources of each data set and all other materials and documentation regarding the individual PSED projects are available in Appendix A. Reducing the barriers to analysis with this consolidated data set should facilitate utilization of this material to assess a wide range of theories related to business creation.

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Cohort Development

A summary of the procedures used in the five projects to develop these different cohorts is presented in Table 1.²

Table 1 Cohort Development Overview: Five Projects

	PSED I	PSED II	CAUSE E	SE-PSED	CH-PSED	Total
Screening Initiated	Jul 98	Oct 05	Apr 07	Apr 98	Jul 09	
Screening Completed	Jan 00	Jan 06	Apr 08	Oct 98	Aug 09	
Comparison group: Population	223		586	608		
Comparison group: Minority	208					
Young firm representative sample:			561			
High potential convenience sample			226			
Nascent screening sample	62,612	31,845	30,105	30,427	20,998	179,987
Screening identified nascents	*1,492	1,587	1,010	961	974	6,024
Completed Wave 1 interview	830	1,214	625	623	601	3,893
Completed Wave 2 interview	501	972	493	554	321	2,893
Completed Wave 3 interview	511	746	281	395	120	2,053
Completed Wave 4 interview	533	527	185	309		1,554
Completed Wave 5 interview		435	365	255		1,055
Completed Wave 6 interview		375		271		646
One or more follow-up interviews	695	1,110	524	584	321	3,441
One or more follow-up interviews, %	83.7%	91.4%	83.8%	93.7%	53.4%	88.4%
Wave 1 to Wave 2 lag: Mths (avg)	13.1	12.4	13.5	6.5	12.6	
Wave 1 to Wave 3 lag: Mths (avg)	29.3	25.2	27.1	12.8	24.6	
Wave 1 to Wave 4 lag: Mths (avg)	53.4	37.4	40.8	18.3		
Wave 1 to Wave 5 lag: Mths (avg)		49.6	69.8	25.6		
Wave 1 to Wave 6 lag: Mths (avg)		61.3		76.4		
*US PSED I had three screening procedures, the first selected all eligible nascent entrepreneurs, the second only female nascent entrepreneurs, and the third only Black or Hispanic nascent entrepreneurs. As a result, a large number of those identified as nascent entrepreneurs were not included in the cohort. Case weights provide an adjustment to match the gender and ethnic proportions in the adult population.						

All five projects started with screening a sample of representative adults to identify those active in business creation; the procedures varied among the cohorts. For

² Data on timing, comparison groups, total screening samples based on respective chapters in Reynolds and Curtin (2011) and Delmar and Davidsson (2000). Data on counts of respondents by wave, proportion with follow-up interviews, and timing between waves of data collection based on processing the consolidated data file.

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the Australian, Swedish, and two U.S. cohorts this is the entire country. For the CH-PSED it is eight cities, selected at random to represent four major regions of China.³

In three projects comparison groups were identified and interviewed to provide a basis for comparing nascent entrepreneurs with those not involved in business creation. Further, the CAUSEE project also identified and interviewed owner-managers of new firms, those that had recently experienced profits and included a convenience sample of new firms in high technology sectors; these cases are not included in this assessment.

The size of the samples completing each follow-up wave for the five projects is provided in the fourth set of rows of Table 1. In some cases, US PSED I and SE-PSED, the later follow-up samples are larger than samples in previous follow-ups. This represents tenacious efforts to contact and interview respondents not captured in earlier follow-ups. This helps to increase the proportion with outcome data from at least one follow-up interview.

For the consolidated data sets, the focus is on the nascent entrepreneurs and nascent ventures. The proportion of nascent entrepreneurs included in the initial detailed, Wave 1 interviews for which at least one follow-up interview is completed is provided in the fifth set of rows in Table 1, while the average was 88% it varied from 53% for CH-PSED to 94% for SE-PSED.

The final set of rows in Table 1 provides the lag, in months, from the initial, Wave 1 interview to each of the follow-up interviews. This information is based on the dates at which the interviews were completed and is an estimate of the width of the start-up window covered in each project. It varies from 25 months for CH-PSED to 76 months for SE-PSED.

While there is considerable variation in the timing of the data collection associated with the five cohorts, the procedures discussed below compensate for any variation in the administration of the interviews at different calendar times or case specific times in the business life course.

Advantages of Harmonization

The focus of this assessment is to provided harmonized outcomes for all cases and develop case specific time lines representing the start-up window. This provides two major advantages. First, by increasing the size of the sample of nascent entrepreneurs/ventures it enhances the potential for precise comparisons of the effects of various processes, either independently or in relation to each other. Second, it facilitates comparison of the start-up process in different contexts; the five cohorts represent business creation in four different countries.

³ Regional samples were weighted to reflect the prevalence rate of entrepreneurship in the GEM China 2007 survey.

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This data set provides a description of the start-up process, reflected in the start-up activities, outcomes, and the timing in the start-up window, the actual presence of start-up activities in each time period, and a selected set of independent variables. There is a wealth of data, thousands of variables for some cohorts, on the nature of the start-up teams, strategies developed to implement the business, legal structure, sources and amounts of informal and formal financing, perceptions of context and the competition, and a wide range of other features of the firm creation process. The relevant case identification numbers are included to facilitate merging information on these topics from the original data files.

Considerations in Harmonizing: Defining Transitions

Two types of harmonization were required. The first type of harmonization reflects the fact that the interviews take place at arbitrary points in the business creation process. Such a harmonization required an operational definition of the major transitions—entry into the process, new firm birth, disengagement—that were independent of when the interviews were conducted. This involved using information on when the various activities were undertaken. This information was used to create case specific timelines; a history that was independent of the timing of the interviews themselves.

The second harmonization challenge involves the major transition events:

- Entry into the start-up process (Variable CPT_MY): No single conceptual definition was reflected in the data collection procedures. Information about a wide range of start-up activities and their date of initiation allows for the use of multiple criteria for determining the date of beginning the start-up process. A common criterion was developed for application to all five projects. The details are provided below.
- New firm birth. (Variable SU_NEWF). For all five cohorts, a firm birth is considered to be the presence of monthly profits that covers expenses and owner salaries.⁴ The criteria used and the variable names of items used to establish dates are provided in Table 2. There was some variation in the specific criteria. For the PSED I, PSED II, CAUSEE, and SE-PSED a question about the presence of revenue was followed by a question about monthly revenue covering monthly expenses. This was followed by a question about inclusion of owner-managers salaries in the monthly expenses. If owner's salaries were covered, the venture was assumed to be in profit. A different criterion was used in PSED II to identify new firms for different follow-up interview modules, the presence of positive monthly cash flow that covered owner's salaries

⁴ The use of initial profits as an indicator of firm birth is a critical feature of the PSED protocol, used to excluded new ventures that are no longer in a start-up phase and the basis for providing different modules to the start-up cases in the follow-up interviews. Those in profit receive questions appropriate for a going concern. However, other criteria for a firm birth are widely utilized, such as major initial labor input, initial purchase or sales on behalf of the new venture, or date of inclusion in a formal registry. These alternative firm birth criteria can have an enormous impact on the proportion of start-up activities considered new firms and implications for theoretical assessments or public policy. These issues are explored elsewhere (Reynolds, 2015b).

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for six of the past 12 months. In the harmonization of US PSED I and II, the initial presence of monthly profit was used to defined a new firm birth, except when this date was missing the initial presence of profits in six of 12 months was used as the “birthdate.” The CAUSEE cohort used profits for the 6 of the past 12 months criteria. For the CH-PSED cohort cases that met two of three criteria—registration, revenue for six of 12 months, or profits for six of 12 months—were considered new firms for the follow-up interviews.

Table 2 Criteria for Identifying a New Firm Birth

Cohort	Firm Birth Criteria	Interview Items: Dates
US PSED I	Salaries for managers who are also owners included in the expenses.	Q166, Q166A/ R624, R624A/ S624, S624A/ T624, T624a
US PSED II (Primary)	Are the salaries for owners who are also managers included in the computation of monthly expenses?	AE16, AE16A/ BE16, BE16A/ CE16, CE16A/ DE16, CE16A/ EE16, EE16A/ FE16, FE16A
US PSED II (secondary)	If missing values for primary variables on initial profits. Were the salaries or wages of the owners who were active in managing the business included in the monthly expenses for more than six of the past twelve months?	FA35,FA35A/ BA35,BA35A/ CA35,CA35A/ DA35,DA35A/ EA35,EA35A/ FA35,FA35A
CAUSEE	Waves 2-6; Monthly revenue for more than 6 of past 12 months that covered expenses and salaries for owners active in managing the business.	W2_A27M,W2_A27Y/ W3_A27M, W3_A27Y/ W4_A27M, W4_27Y/ W5_Q15M,W5_Q15Y
SE-PSED	Monthly expenses include owner/manager salary	GI31MN__,GI31YN__(1)
CH-PSED	Which month/year did your venture earn the first profits?	FirstprofitM, FirstprofitY (2)
(1) Same items in all interview waves, wave identified by last two numbers, 00, 06, 12, 18, 24, 75.		
(2) Asked only in Waves 2, 3; same variable name in different files.		

- Quit the start-up effort. (Variable SU_QUIT) Disengagement from the start-up process is theoretically unambiguous. There have been, however, different procedures for determining abandonment, summarized in Table 3. US PSED I and CAUSEE asked the respondent to confirm that neither the respondent nor anyone

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else was working on the start-up. In the SE-PSED and CH-PSED respondents were asked if they had quit working on the start-up venture. For US PSED II multiple criteria were involved, less than 160 hours working on the start-up in the previous 12 months, expected to work less than 80 hours in the next 6 months, and agreeing that this start-up was part of their current career plans.

Table 3 Criteria for Identifying Disengagement

Cohort	Disengagement Criteria	Interview Items: Dates
US PSED I	No longer worked on by anyone.	R537, R537A/ S537, S537A/ T537, T537A
US PSED II	Less than 160 hours devoted to venture in past 12 months, expect less than 80 hours of work on the venture in the next 6 months, no longer a major focus of the work career.	BA43A, BA43B/ CA43A, CA43B/ DA43A, DA43B/ EA43A, EA43B/ FA43A, FA43B
CAUSEE	Neither you nor anyone else is currently working on the start-up you were working on 12 months ago. Is that correct?	W2_A21M,W2_A21Y/ W3_A21M,W3_A21Y/ W4_A21M,W4_A21Y/ W5_Q7M,W5_A7Y
SE-PSED	In what year/month did you give up?	SA01YN__ , SA01MN__ (1)
CH-PSED	Reports giving up, spending less than half of previous work on project, and reports they have given up working on the start-up.	TquitM, TquitY (2)
1) Same item in all interview waves, wave identified by last two characters: 00, 06, 12, 18, 24, and 75.		
2) Asked in Waves 2, 3 interviews: same variable names in different files.		

- Still Active in the Start-up Process. (Variable SU_ACTIV) All cases that qualified as having entered the startup process but had not yet become a profitable new firm or a quit were considered to be still active in the start-up process.

Despite the slight variations in the operational definitions use to determine the status of the venture, they are treated as equivalent in the following analysis.

Considerations in Harmonization: Standardizing Start-up Activities

Success in the first harmonization challenge, developing case specific time lines, also required careful attention to the reports on initiation of start-up activities. All projects used interviews with extensive lists of start-up activities. For each activity the respondent was asked about initiation and, if initiation had occurred, the date of initiation. While the range of such activities varied from several dozen to sixty, there are a limited number of activities included in all five projects. Further, the date of some

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important events, such as obtaining formal financial support, was not always obtained in the interviews. Hence, some effort was required to assemble data on the dates of initiating 19 start-up activities that were comparable across all five cohorts.

The processing of the five data sets involves several major activities. They begin with assigning common variable names to the same start-up activities in each cohort. This was followed by standardizing the dates each activity was initiated. As many receive ongoing attention after initiation, such as developing a business plan, the completion or end dates are not considered in this assessment.

- 1) For all start-up activities associated with each wave of data collection, the year and month of initiation is accessed. Two types of responses receive special attention.
 - If the year but not the month is provided, it is assumed the month is June.
 - For those cases where the season, rather than the month, is provided, February is assigned for winter, May is assigned for spring, August is assigned for summer, and November assigned for autumn (fall).
- 2) The day of the month was not obtained in the interviews; a day value of 15 was assigned to each case.
- 3) All dates are then transformed using the SPSS “YRMODA” function into the number of days since 14 October 1582 (day 0 of the Georgian calendar). It is assumed this is before any start-up activity for any current business was initiated.

The interview procedure was to ask about all start-up activities in the Wave 1 interview, for any that were reported a date was obtained. Those activities not reported were included in the next interview. Once a date of initiation was obtained for a start-up activity, that activity was dropped from subsequent interviews.

In the processing, standardized dates assigned to each start-up activity in each wave are computed. Then all waves are scanned to locate the earliest date for each activity. This earliest date a start-up activity is initiated is retained as the “all wave” date, identified by “AW” at the end of the variable name.

Dates of initiation were missing for several important start-up activities, such as the first date formal financing was provided to nascent ventures. In these cases an alternative procedure was utilized. Reports of the provision of formal financing were tracked in each follow-up wave. If the presence of formal financing was identified in an interview, it was assumed to be provided half way between that interview and the previous interview. This procedure was used to estimate dates of initiation of:

- US PSED I: Initial formal financing for the start-up venture [GETFNDAW]
- CAUSEE: Initial personal investment by respondent [ONINVAW1]

If this information was reported in the Wave 1 interview, it was assumed to have occurred half way between the screening interview and the wave 1 interview.

The reports of initiating start-up activities across the five projects are summarized in the right column of Table 4, which shows the proportion of cases in each project that

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report initiating different activities. The activities are ranked by prevalence of reporting. It should be noted that virtually all cases report that serious thought was given to the start-up. The prevalence of serious thought is low for the Swedish (SE-PSED) cohort because this was not included in the first three waves, so many respondents dropped out of the project before receiving this question.

Table 4 Start-up Activities Prevalence by Cohort (1/2)

VARIABLE NAME	START-UP ACTIVITY	PSED I	PSED II	CAUSEE	SE-PSED	CH-PSED	PROJ AVG
	Total Cases	830	1,214	625	668	601	3,938
THINK_AW	Serious thought	99.9	99.3	99.0	38.2	99.8	87.3
ONINVAW1	MBR 1: Invested own money	93.6	80.6	90.2	61.1	60.7	77.3
BUSPLNAW	Began business plan	71.2	73.2	74.2	90.6	71.9	76.2
MODEL_AW	Developed model, prototype	87.8	75.0	69.4	66.8	33.9	66.6
PURCHAAW	Purchased materials, supplies, parts	81.0	70.4	74.1	49.0	43.3	63.5
DFNMKTAW	Define markets to enter	92.0	67.9	79.8	67.5	0.0	61.5
PROMOTAW	Promote products or services	72.2	61.5	69.1	55.8	35.9	58.9
SALES_AW	Sales, income, or revenue	62.7	66.7	63.0	64.8	24.6	56.4
LEASE_AW	Leased, acquired major assets	65.5	65.5	65.1	54.5	0.0	50.1
TLKCSTAW	Talk to customers	0.0	85.4	88.8	1.8	72.9	49.8
FINPRJAW	Financial projections	57.0	47.6	60.2	77.7	0.0	48.5
FTWK_AW1	MBR 1: Full time start-up work	46.3	29.7	42.6	45.5	53.6	43.5
SAVMONAW	MBR 1: Saving money to invest in firm	79.6	0.0	0.0	52.1	77.4	41.8
PHLISTAW	Phone book listing for business	28.7	63.5	78.2	0.0	18.1	37.7
BKACCTAW	Established bank account for firm	54.2	52.7	57.1	0.0	0.0	32.8
SUPCRDAW	Obtained supplier credit	49.9	39.1	35.0	37.0	0.0	32.2
SUTEAMAW	Began to organize start-up team	66.6	0.0	0.0	59.0	33.6	31.8
SPACE_AW	First use of physical space	0.0	73.1	85.8	0.0	0.0	31.8
IFOCPTAW	Collect information on competition	0.0	73.1	81.4	0.0	0.0	30.9
HIRE__AW	Hire employee	28.4	21.6	21.9	32.6	36.3	28.2
FNDREGAW	Determine regulatory requirements	0.0	63.8	72.3	0.0	0.0	27.2
ASKFNDAW	Asked for formal funding	34.5	28.3	7.8	37.7	22.0	26.0
CSHFL_AW	Cash flow covers expenses, not owners	30.5	24.7	20.5	46.6	0.0	24.4
FEDTAXAW	Federal income taxes	42.2	49.0	29.8	0.0	0.0	24.2
FICA__AW	Federal social security payment (U.S.)	29.2	28.6	0.0	56.6	0.0	22.9
LEGAL_AW	Legal form registered	0.0	48.8	58.6	0.0	0.0	21.5
EIN__AW	Acquired registration number	0.0	36.1	11.2	55.8	0.0	20.6
HRACCTAW	Hire accountant	0.0	39.8	56.6	0.0	0.0	19.3
CLASS_AW	Took class, seminar, workshop	56.3	0.0	0.0	37.9	0.0	18.8
DBA__AW	Acquired doing business as name	0.0	29.4	63.0	0.0	0.0	18.5
PATENTAW	Patent, copyright, trademark filing	26.6	10.1	13.4	16.6	11.5	15.7
INVRSKAW	Assessed investment risk	0.0	0.0	0.0	0.0	77.7	15.5
PHLINEAW	Business phone line established	33.7	0.0	0.0	43.1	0.0	15.4
TDASOCAW	Joined trade association	0.0	22.4	26.7	25.1	0.0	14.9
GETFNDAW	Got initial formal financing	12.2	20.0	14.4	17.5	9.0	14.6
CLDCARAW	Arranged child care, housekeeping	41.8	0.0	0.0	24.7	0.0	13.3
LIABISAW	Obtained liability insurance	0.0	30.9	32.5	0.0	0.0	12.7
UNEMP_AW	Filed state unemployment ins (U.S.)	18.4	14.7	29.0	0.0	0.0	12.4
FNDSUPAW	Find suppliers	0.0	0.0	0.0	0.0	61.1	12.2

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Table 4 Start-up Activities Prevalence by Cohort (2/2)

VARIABLE NAME	START-UP ACTIVITY	PSED I	PSED II	CAUSEE	SE-PSED	CH-PSED	PROJ AVG
HELPPRAW	Contact with helping program	24.7	0.0	0.0	34.4	0.0	11.8
HRLAWRAW	Hire lawyer	0.0	26.3	23.0	0.0	0.0	9.9
BUSPLFIAW	Business plan finished	0.0	47.5	23.0	0.0	0.0	9.5
PRDCPLAW	Model, prototype fully developed	0.0	46.4	0.0	0.0	0.0	9.3
OPERBUAW	Respondent thinks buss is operational	0.0	0.0	0.0	40.6	0.0	8.1
OFFICEAW	Acquired office space	0.0	0.0	0.0	0.0	39.9	8.0
EQTAGAW1	MBR 1: Signed ownership agreement	0.0	11.9	23.5	0.0	0.0	7.1
PERMITAW	Explore permit regulations	0.0	0.0	0.0	32.3	0.0	6.5
EMAIL_AW	Established business E-mail	0.0	0.0	0.0	28.7	0.0	5.7
PRTECHAW	Proprietary technology developed	0.0	12.0	15.8	0.0	0.0	5.6
ONINVAW2	MBR 2: Invested own money	0.0	24.9	0.0	0.0	0.0	5.0
BUSREGAW	Registered new firm	0.0	0.0	0.0	0.0	23.6	4.7
FINSPTAW	Investment in legal business	0.0	21.4	0.0	0.0	0.0	4.3
WEBSITAW	Business website	0.0	0.0	0.0	17.5	0.0	3.5
DANDB_AW	Know listed in Dun & Bradstreet (US)	7.2	8.5	0.0	0.0	0.0	3.1
EQTAGAW2	MBR 2: Signed ownership agreement	0.0	12.0	0.0	0.0	0.0	2.4
FTWK_AW2	MBR 2: Full time start-up work	0.0	9.6	0.0	0.0	0.0	1.9
ONINVAW3	MBR 3: Invested own money	0.0	6.0	0.0	0.0	0.0	1.2
GOTPNTAW	Received patent, copyright, trademark	0.0	6.0	0.0	0.0	0.0	1.2
EQTAGAW3	MBR 3: Signed ownership agreement	0.0	5.8	0.0	0.0	0.0	1.2
EQTAGAW4	MBR 4: Signed ownership agreement	0.0	3.4	0.0	0.0	0.0	0.7
ONINVAW4	MBR 4: Invested own money	0.0	2.6	0.0	0.0	0.0	0.5
FTWK_AW3	MBR 3: Full time start-up work	0.0	2.1	0.0	0.0	0.0	0.4
EQTAGAW5	MBR 5: Signed ownership agreement	0.0	1.3	0.0	0.0	0.0	0.3
ONINVAW5	MBR 5: Invested own money	0.0	0.9	0.0	0.0	0.0	0.2
FTWK_AW4	MBR 4: Full time start-up work	0.0	0.5	0.0	0.0	0.0	0.1
FTWK_AW5	MBR 5: Full time start-up work	0.0	0.0	0.0	0.0	0.0	0.0

The challenge of obtaining cross national comparisons is related to the small number of start-up activities that are common across all five projects. Although there are 66 different start-up activities in Table 4, only 51 are found in the most extended project, US PSED II, and 20 are recorded in the CH-PSED data set. There are only 11 start-up activities, including serious thought, common to all five projects.

In order to increase the number of start-up activities common to all projects, several adjustments were made to create start-up dates that would be similar across the five cohorts. These adjustments are presented in Table 5. In all cases the dates associated with the original start-up activity are retained.

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Table 5 Selected Estimates of Start-up Activities Dates

Cohort	Original file name	Original activity	Consolidated file name	Activity estimated
CH-PSED	OFFICEAW	Acquire office space	LEASE_AW	Purchase, lease capital assets
CH-PSED	INVRSKAW	Access investment risk	FINPRJAW	Develop financial projections
CH-PSED	FNDSUPAW	Locating supplier	SUPCRDAW	Obtain supplier credit
CH-PSED	BUSREGAW	Registering the business	EIN__AW	Acquire business registration number
CH-PSED	TLKCSTAW	Talk to customers	DFNMKTAW	Defining markets
US PSED I	Earliest of FICA__AW; UNEMP_AW;F EDTAXAW	All require a business registration or EIN number	EIN__AW	Acquire business registration number
US PSED II	EQTAGAW1	Team member 1 signs a formal team ownership agreement	SUTEAMAW	Begin to form a start-up team
CAUSEE	EQTAGAW1	Team member 1 signs a formal team ownership agreement	SUTEAMAW	Begin to form a start-up team
SE-PSED	PHLINEAW	Dedicated phone line for the start-up	PHLISTAW	Phone book listing for the start-up

Table 6 Start-up Acts Harmonized Across Projects

VARIABLE NAME	START-UP ACTIVITY	US-PSED I	US-PSED II	CAUSEE	SE-PSED	CH-PSED	PROJ AVG
	Total cases	830	1,214	625	668	601	3,938
THINK_AW	Serious thought	99.9	99.3	99.0	38.2	99.8	87.3
ONINVAW1	MBR 1: Invest own money	93.6	80.6	90.2	61.1	60.7	77.3
BUSPLNAW	Began business plan	71.2	73.2	74.2	90.6	71.9	76.2
DFNMKTAW	Define markets to enter	92.0	67.9	79.8	67.5	72.9	76.0
MODEL_AW	Developed model, prototype	87.8	75.0	69.4	66.8	33.9	66.6
FINPRJAW	Financial projections	57.0	47.6	60.2	77.7	77.7	64.0
PURCHAAW	Purchased materials, supplies, parts	81.0	70.4	74.1	49.0	43.3	63.5
PROMOTAW	Promote products or services	72.2	61.5	69.1	55.8	35.9	58.9
LEASE_AW	Leased, acquired major assets	65.5	65.5	65.1	54.5	39.9	58.1
SALES_AW	Sales, income, or revenue	62.7	66.7	63.0	64.8	24.6	56.4
PHLISTAW	Phone book listing for firm	28.7	63.5	78.2	43.1	18.1	46.3
SUPCRDAW	Obtaining supplied credit	49.9	39.1	35.0	37.0	61.1	44.4
FTWK_AW1	MBR 1: Full time start-up work	46.3	29.7	42.6	45.5	53.6	43.5
SUTEAMAW	Began to organized start-up team	66.6	11.9	23.5	59.0	33.6	38.9
EIN__AW	Acquired registration number	47.6	36.1	11.2	55.8	23.6	34.9
HIRE__AW	Hired employee	28.4	21.6	21.9	32.6	36.3	28.2
ASKFNDAW	Asked for formal funding	34.5	28.3	7.8	37.7	22.0	26.0
PATENTAW	Patent, copyright, trademark filing	26.6	10.1	13.4	16.6	11.5	15.7
GETFNDAW	Got initial formal financing	12.2	20.0	14.4	17.5	9.0	14.6

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The effect of these adjustments is to provide a set of 19 start-up activities that are harmonized across all five projects, as presented in Table 6. The rank order is similar to that in Table 4, with serious thought, personal investments in the start-up venture, business plan development, and defining the markets to enter reported by 75% of all cases. This pattern, however, reflects the raw, unweighted case data, with a total of almost four thousand cases. More precise comparisons require adjustments to compensate for sampling issues as well as identifying those cases at the same stage in the business life course.

Identifying Active Nascent Entrepreneurs

The first adjustments are related to several complications. First is the collection of data over a window of time, from 25 months for CH-PSED to 76 months for SE-PSED; these represent arbitrary sections of the start-up window. Second are the ambiguities associated with language, such that asking about the same issues in a different format may produce different responses. This seems to be the case when the presence of initial profits is assessed. Third is related to the phenomena itself. While the initial assumption may be that those involved in devoting time and resources to business creation are serious about reaching initial profitability, it appears that a substantial minority have a modest commitment. Those that report a small number of activities spread over a number of years would appear to be “hobby nascents” with little enthusiasm for creating a profitable new venture. The following procedure is design to exclude nascent entrepreneurs with a very low level of active commitment.

There are six steps in the procedures utilized to identify those cases representing active nascent entrepreneurs that have recently become involved in business creation. These stages and the effect on the size of the five cohorts are presented in Table 7. The criteria are applied sequentially, so some cases could be excluded for failure to meet more than one criterion.

Table 7 Case Attrition in Identifying Active Nascent Entrepreneurs with Follow-up Data

CK CODE*	Selection Criteria	PSED I	PSED II	CAUSEE	SE-PSED	CH-PSED	Total
	Total Number of Cases	830	1,214	625	640	601	3,910
90	Profits 3+ months before screening	58	56	32	126	6	278
80	Less than 3 of 18 start-up acts	72	213	35	123	164	607
70	No pair of acts in same 12 months	11	22	7	6	9	55
60	Profits reported before entry date	0	1	0	0	0	1
50	Entry 10 years before 1 st interview	16	13	2	5	7	43
40	Nascent Entrepreneurs count	665	902	546	395	409	3,002
	Proportion Nascent Entrepreneurs	81.1%	74.8%	87.8%	61.0%	69.0%	75.0%
	No follow-up interviews	104	49	87	25	148	413
00	Nascent entrepreneurs with follow-up interviews count	569	860	462	383	267	2,541
	Proportion nascent with follow-up	68.6%	70.8%	73.9%	57.3%	44.4%	64.5%

*CASEKEEP variable values.

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The first stage involves confirming that the respondent represents a venture in the pre-profit stage. While this is an important part of the screening module, when asked about this issue at the beginning of the first, Wave 1, detailed interview a number of ventures were actually in profit at the time of the screening. They should, therefore, be excluded. To compensate for errors or reporting by the respondent or assigning dates a three month cushion is utilized,⁵ cases with profits up to three months before screening are retained.⁶

The remaining processing is based on 18 start-up activities associated with a date of initiation. As it is generally reported by 100% of all respondents and does not involve action, serious thought is not included in this assessment. Processing based on more than 18 activities or a different set of 18 may lead to slightly different results.

The second criterion excludes start-up efforts reporting less than three of 18 start-up activities over all waves of the data collection. This can be considered an indicator of a low level of commitment.

The third criteria is related to the intensity of commitment, for there are cases where a number of start-up acts have been initiated, but none within the same 12 month period. This lack of activity may also reflect uncertainty about making a commitment and these cases are also excluded.

For each case, the first pair of start-up activities that occurred within a 12 month period are identified, and the earliest date in this pair is considered the date of entry into the start-up process. Reflecting the diversity in the start-up process for those identified as active nascent entrepreneurs in the screening, for a substantial number of cases the date of entry, or conception, occurs after the Wave 1 interview.

Once the date of entry, or conception, is identified, it is possible to consider the lag between the entry date and the screening interview. While for most this is within the previous two years, there are a small number that entered the process 10 years before the initial interview. These would appear to have a low level of commitment and are excluded.

These criteria identify those cases that may be considered current, active nascent start-ups at the time of the first interview. In this assessment it is 75% of the initial count of 3,938, or 3,002 cases where there is Wave 1 data.

⁵ Extending this “cushion” to 6 months had little effect on four cohorts; it would have increased good cases with follow-ups for the SE-PSED cohort by 8%.

⁶In the CAUSEE and CH-PSED projects, the detailed Wave 1 interview was to be provided immediately after the screening interview. There were, however, some cases where the Wave 1 interview was applied in a second session. For consistency with the other projects, it was assumed that, on average, the screening interview occurred 30 days before the Wave 1 interview.

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The various survey vendors were able to complete one or more follow-up interviews with 86% of these cases, so the total of the five cohorts with at least one follow-up interview to provide outcome data is 2,541.

Hence, there are two samples available for analysis. One consists of 3,910 active as current nascent entrepreneurs in the first detailed interview. The second consist of 2,541 cases with some outcome information. The following weighting schemes provide case weights appropriate for both samples.

Weights: Population Sampling Case Weights

A major ongoing issue with all surveys of national populations is the differential tendency of different groups of individuals to become involved and complete the interview procedures. The underrepresentation of young men and overrepresentation of older women in all surveys of adult populations is well documented. In addition, there is a tendency for those at both ends of the socio-economic spectrum not to be involved, the poor and the very rich are often not included.

The standard procedure is to include measures of age, gender, socio-economic status, and perhaps geographic location for each case in a survey. The sample is then compared with the best available descriptions of the population on these characteristics. This is often a major government effort designed to provide reliable estimates of important population characteristics, such as the unemployment rate. Case weights are then attached to the cases in the survey such that the survey sample will match the population sample on the critical characteristics. The case weighted sample will have the same proportion of young men and older women as the population sample considered the best possible estimate.

This is of particular concern for studies of activities of young men, and it is well documented that early career men, those under 45 years old, are a major source of nascent entrepreneurs. As a result, confidence that young men are accurately represented in any sample of nascent entrepreneurs is higher when case weights reflecting their prevalence in the adult population are available.

The most straightforward procedure takes advantage of a well-managed screening of the adult population. In this first stage a representative sample of the population is identified and asked about participation in business creation. Those that qualify as nascent entrepreneurs become part of the cohort to be followed over time. The case weights developed so the screening sample will represent the total population are provided as part of the screening assessment. These same weights can then be carried over to the nascent cohort. Once they are re-centered, adjusted so the average value is one, they provide confidence that an assessment using the nascent cohort reflects adjustments that give proper emphasis to those nascent entrepreneurs that are young men and older women. We would expect the former to have weights greater than one and the latter to have weights less than one.

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For three of the cohorts this procedure was possible. Weights from the initial screening to identify nascent entrepreneurs for the U.S. PSED I, U.S.PSED II, and SE-PSED were available and could be attached to the cases in the respective cohorts.

For the CAUSEE and CH-PSED these screening weights were not available and an alternative procedure was employed. In both Australia and China there have been ongoing annual assessments of the national population to identify those active in business creation as part of the Global Entrepreneurship Monitor [GEM] research program. The GEM and PSED programs share the same conceptual scheme and the screening procedures are very similar. The GEM data can be used to identify cohorts of nascent entrepreneurs just as they are identified for the PSED cohorts. As a result, it is to be expected that the case weights assigned to GEM nascent entrepreneur cases, adjusted for age and gender, should be similar to those expected in a PSED screening.⁷

Based on this strong similarity between the two research programs and the availability of the detailed GEM survey data, the following procedure was implemented. For Australia, the data from GEM surveys completed in 2005 and 2006, which used a sampling procedure similar to the CAUSEE project to screen 4,983 adults, were consolidated. The weights associated with men and women in six age categories were determined for both nascent ventures and young firms. The patterns are presented in Table 8 for Australia. The actual values would change as the average weight is adjusted depending on the actual cases in the sample.

Table 8 Weights from Australia GEM screening applied to CAUSEE Cases

Age Range	Nascent Ventures (GEM: n=202)		Young Firms (GEM: n=179)	
	Men	Women	Men	Women
18-24	2.40	1.78	2.31	1.95
25-34	2.53	1.05	2.24	1.16
35-44	1.69	0.74	1.76	0.83
45-54	1.14	0.80	1.19	0.69
55-64	0.72	0.65	0.81	0.62
65-98	0.86	0.92	0.55	0.82

A similar procedure was utilized for the CH-PSED sample. In this case weights attached to the nascent sample from GEM surveys completed with 9,951 adults in 2007, 2009, and 2010 were assessed to identify the weights presented in Table 9. No GEM surveys was completed in 2008. This was, however, a less satisfactory procedure, as the GEM screening represented the entire population, urban and rural, and the CH-PSED involved samples in eight large cities. The major impact, however, is modest, very young men, under 25 years of age, received a greater weight, mostly offset by a slightly lower weight for women 25-54 years old.

⁷ A harmonized adult population survey file for all GEM cases from 1998 to 2010 is available (Reynolds and Hechavarria, 2015). Case weights for this assessment were taken from a version of this data file that extended to 2012 and described in Reynolds (2015a).

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Table 9 Weights from China GEM screening applied to CH-PSED Cases

	Nascent Ventures (n=793)	
Age Range	Men	Women
18-24	1.24	1.00
25-34	1.08	0.92
35-44	1.08	0.93
45-54	0.95	0.92
55-70	0.94	1.05

Finally, re-centering weights so the average value was 1.000 was done for each cohort. The procedure creates an overall average weight of 1.000 but ensures that cohort based assessments have an appropriate case weight distribution.

Overall, then, it has been possible to develop case weights that compensate for differential participation in the screening surveys in all five projects.

Weights: Adjustments for Start-up Team Size

A more subtle issue is adjustments to compensate for the size of the start-up team. In all five projects, the start-up team is considered to be those that will own part of the new firm. Any individual that expects to own part of a new firm is considered an acceptable respondent in the screening procedure. As a result, a start up with multiple future owners is more likely to be included in the sample than a one-person start-up. The most straight forward way to adjust for the possibility of oversampling is to reduce the cases weights by dividing by the expected number of owners.⁸

Team size reflects response to questions about expected owners of the new firm. Because a small number of cases reporting more than 5 expected owners, the distribution is constrained to five categories. There are a small number of cases where new firm ownership is expected to involve other organizations, such as financial institutions or other operating businesses. Because the sampling procedure involves identifying humans involved in firm creation, the team size for the weighting adjustment utilizes only potential human owners.⁹ The unweighted distributions of the start-up team size for the five cohorts are presented in Table 10.

⁸This complication has been mentioned in numerous commentaries, including Davidsson and Gordon (2012). The procedure used here was proposed by Ruef (2010).

⁹In the US PSED I and US PSED II about 3% of the owners are either other organizations (financial institutions, other businesses, government agencies) or individuals representing other organizations (Reynolds and Curtin, 2008, Table 5.1).

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Table 10 Distribution of Human Start-up Team Size: By Cohort (unweighted)

	US PSED I	US PSED II	CAUSEE	SE-PSED	CH-PSED	ALL COHORTS
N cases	830	1,214	593	623	601	3,861
HUMAN TEAM SIZE						
1	50.4%	54.0%	50.9%	52.3%	41.9%	50.5%
2	37.0%	34.7%	34.7%	26.5%	48.9%	36.2%
3	6.3%	5.9%	7.6%	9.6%	3.2%	6.4%
4	3.7%	4.7%	2.5%	6.7%	2.7%	4.2%
5 +	2.7%	0.7%	4.2%	4.8%	2.3%	2.6%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The results of this adjustment for the US PSED II sample are provided in Table 11. As can be seen in this presentation there is a major impact on the weights assigned to start-up ventures with larger teams, but these are a small proportion of the sample. Almost 89% of the US PSED II nascent firms are expected to have one or two owners; only about one in twenty expect to have four or five owners.

Table 11 Case weights adjusted for start-up team size: US PSED II

Team size	Proportion of cases: Total sample	Nascent entrepreneurs, Wave 1: Population weights	Nascent entrepreneurs Wave 1; Population weights adjusted for team size	Nascent entrepreneurs with follow-ups: Population weights	Nascent entrepreneurs with follow-ups: Population weights adjusted for team size
One	54.0%	1.01	1.38	1.01	1.37
Two	34.7%	0.97	0.66	0.98	0.66
Three	5.9%	1.14	0.52	1.13	0.51
Four	4.7%	0.96	0.33	0.95	0.32
Five	0.7%	0.88	0.24	0.72	0.20
Total	100.0%				
Average		1.00	1.00	1.00	1.00
Total cases	1,214	909	909	860	860

Using measures of the case outcomes using all available waves of data, it is possible to examine the effects of alternative weight schemes. This will utilize only those cases where there is at least one follow-up interview, but makes no correction for time

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in the start-up process. The comparison of three weighting schemes for five cohorts is provided in Table 12.

Table 12 Effects of Weights on Outcome Proportions: Five Cohorts Compared

Cohort	N cases	Weighting	Initial Profits	Active Start-up	Quit	Total
US PSED I	569	None	27.9%	45.7%	26.4%	100.0%
	569	Population	29.1%	43.3%	27.6%	100.0%
	569	Pop/Size	26.3%	43.7%	30.0%	100.0%
US PSED II	860	None	21.1%	29.8%	49.1%	100.0%
	860	Population	21.1%	28.0%	50.9%	100.0%
	860	Pop/Size	20.5%	28.5%	51.0%	100.0%
CAUSEE	462	None	31.0%	39.6%	29.4%	100.0%
	440	Population	30.5%	40.2%	29.3%	100.0%
	439	Pop/Size	29.6%	41.8%	28.6%	100.0%
SE-PSED	383	None	39.2%	27.6%	33.2%	100.0%
	382	Population	37.4%	26.4%	36.2%	100.0%
	382	Pop/Size	37.2%	26.7%	36.1%	100.0%
CH-PSED	267	None	43.4%	20.6%	36.0%	100.0%
	263	Population	43.9%	20.6%	35.5%	100.0%
	263	Pop/Size	46.1%	18.9%	35.0%	100.0%
ALL CASES	2,541	None	29.5%	31.9%	36.6%	100.0%
	2,514	Population	29.4%	32.6%	38.0%	100.0%
	2,513	Pop/Size	28.6%	33.0%	38.4%	100.0%

While Table 12 presents a gross comparison, it is clear that, one, the weights do affect the estimates of the outcome and, two, the effects are not very large. In many cases, the effect of using population weights is as great as the adjustments for the start-up team size. Except for the CH-PSED sample, the use of weights reduces the proportion of start-ups that expect to reach initial profits compared to an unweighted assessment. But the differences are small. The largest reduction is 2.0% for the SE-PSED cohort and the reduction for all cases is 0.9%, less than one percent. It would appear that the use of weights does affect the outcome, but it is not a major factor.

It is also clear that the majority of those that enter the firm creation process will not achieve initial profits, more details about the outcomes over time will be explored below.

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Harmonizing the Start-up Window: Issues

More precise comparisons of the outcomes after entering the firm creation process requires systematic attention to the status of the nascent venture at each time increment. This is done by tracking the status of each case for each time period. In this analysis this includes the first month after entry, the second to third month, the fourth to sixth month, seventh to ninth month, and so on. The result for all cases combined into a single cohort is presented as Table 13 and graphically for up to 72 months in Figure 1. The figure provides a dramatic image of the modest proportion –one third--that achieve initial profits, even after 72 months, and the substantial minority, 22%, that continue in the start-up process.

Table 13 Outcome Status After Entry into Business Creation, Venture Weights

Time from entry	Cases w/ data (Count)	Cases with data (Per Cent)	In Profit (Per Cent)	Active Start- up (Per Cent)	Quit (Per Cent)	Total with status (Per Cent)
Entry	2,513	100.0	0.0	100.0	0.0	100.0
0 - 1 MTH	2,513	100.0	0.3	99.6	0.2	100.0
1- 3 MTHS	2,511	99.9	1.4	98.1	0.6	100.0
4- 6 MTHS	2,510	99.9	3.9	94.3	1.8	100.0
7- 9 MTHS	2,507	99.8	6.2	90.4	3.4	100.0
10- 12 MTHS	2,505	99.7	9.1	83.9	6.9	100.0
13- 15 MTHS	2,494	99.3	10.7	79.6	9.7	100.0
16- 18 MTHS	2,472	98.4	13.6	73.1	13.3	100.0
19- 21 MTHS	2,455	97.7	16.1	67.1	16.8	100.0
22- 24 MTHS	2,435	96.9	18.2	61.8	20.1	100.0
25- 27 MTHS	2,412	96.0	20.1	57.9	22.0	100.0
28- 30 MTHS	2,385	94.9	21.5	53.5	25.0	100.0
31- 33 MTHS	2,365	94.1	23.1	49.8	27.1	100.0
34- 36 MTHS	2,350	93.5	24.0	47.5	28.5	100.0
37- 39 MTHS	2,325	92.5	25.3	44.1	30.6	100.0
40- 42 MTHS	2,306	91.8	26.2	41.0	32.8	100.0
43- 45 MTHS	2,297	91.4	26.6	39.3	34.1	100.0
46- 48 MTHS	2,287	91.0	27.1	37.5	35.4	100.0
49- 51 MTHS	2,275	90.5	27.5	36.2	36.3	100.0
52- 54 MTHS	2,257	89.8	28.3	33.9	37.8	100.0
55- 57 MTHS	2,241	89.2	29.1	32.1	38.9	100.0
58- 60 MTHS	2,227	88.6	29.9	30.6	39.5	100.0
61- 63 MTHS	2,185	86.9	30.5	28.7	40.8	100.0
64- 66 MTHS	2,137	85.0	31.5	26.5	42.0	100.0
67- 69 MTHS	2,103	83.7	32.6	24.5	42.9	100.0
70- 72 MTHS	2,059	81.9	33.5	22.1	44.5	100.0
73- 84 MTHS	1,895	75.4	36.9	13.8	49.3	100.0
85- 96 MTHS	1,797	71.5	39.2	7.8	53.0	100.0
97-108 MTHS	1,752	69.7	40.7	4.6	54.7	100.0
109-120 MTHS	1,729	68.8	41.4	3.0	55.6	100.0
121-132 MTHS	1,707	67.9	42.0	1.6	56.4	100.0
133-144 MTHS	1,697	67.5	42.4	1.0	56.7	100.0
145-156 MTHS	1,691	67.3	42.5	0.5	57.0	100.0
157-168 MTHS	1,686	67.1	42.7	0.2	57.2	100.0
169-180 MTHS	1,683	67.0	42.7	0.0	57.3	100.0
181-240 MTHS	1,683	67.0	42.7	0.0	57.3	100.0

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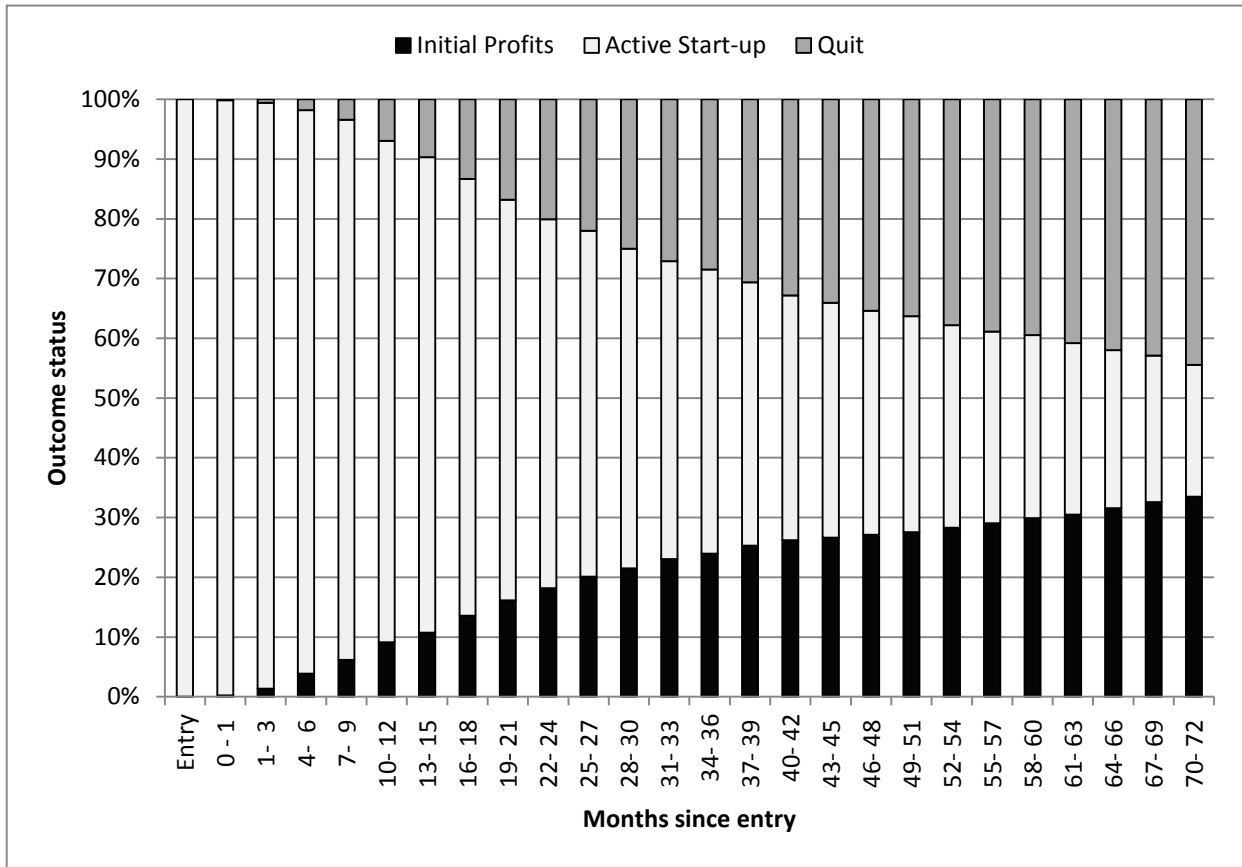


Figure 1 Outcome Status by Months since Entry, Venture Weights [n=2,513]

Several features of this presentation are important. This assessment represents harmonizing all cases in relation to the date of entry into the process. As a result, the number of cases with status information may vary over the time periods. The effect of this variation is presented in the third column of Table 13, above. It indicates the number of cases with status data by months since entry into the process. This is almost 100% for the first 24 months and is over 93% for the first 36 months, declining to 82% at 72 months and stabilizes at slightly less than 70% after 96 months.

This reflects two features of the data processing. As most respondents report start-up activities before the first interview, there is a time lag between the computed date of entry and the wave 1 interview. There is also some variation in the number of follow-up interviews, so there is also variation between the date of and entry and the last interview. These lags are presented overall and for each cohort in Table 14.

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Table 14 Lags from Entry to Wave 1 and Final Interviews, Venture Weights

	N Cases	Entry to Wave 1 Interview (Avg Mths)	Entry to Last Follow-up Interview (Avg Mths)
PSED I	569	23.5	70.0
PSED II	860	16.0	54.8
CAUSEE	439	16.2	70.8
SE-PSED	382	16.5	58.2
CH-PSED	263	12.3	30.1
ALL CASES	2,513	17.4	59.0

As shown in Table 14, the average lag between the date of entry and the first wave interview varies from 12 to 23 months, with an overall average of 17 months. The average span of activity represented by the data collection, the time between the date of entry and the last interview, varies from 30 to 71 months, with an average of 59 months across all cases.

The proportion of initial cases on which follow-up data is available is after the date of entry is provided in Figure 2 for all cases and each of the five cohorts. As can be seen, for the first 18 months, data is available for almost all cases and for the first 30 months data is available for 90% or more of all cases. Between 30 and 42 months there is a decline to 85% for the CH-PSED cohort, the other four cohorts stay above 85% until about 72 months after the date of entry.

The main reason for the high proportions of the cohorts with outcome data through 72 months is the procedures employed in preparing the time series. Once an active start-up is considered to have initial profits or abandoned its outcome is fixed for all remaining time periods. In essence, the major issue for each time period is determining which status the active start-ups will take. When the time series passes the date of the last interview and the case is still considered an active start-up, the case is reclassified as a missing data case. As shown in Figure 2, there is a sharp drop in “cases with data” after 72 months, suggesting caution for any assessments tracking outcomes more than six years after entry into the business creation process. After 72 months the right censoring issues becomes a major challenge.

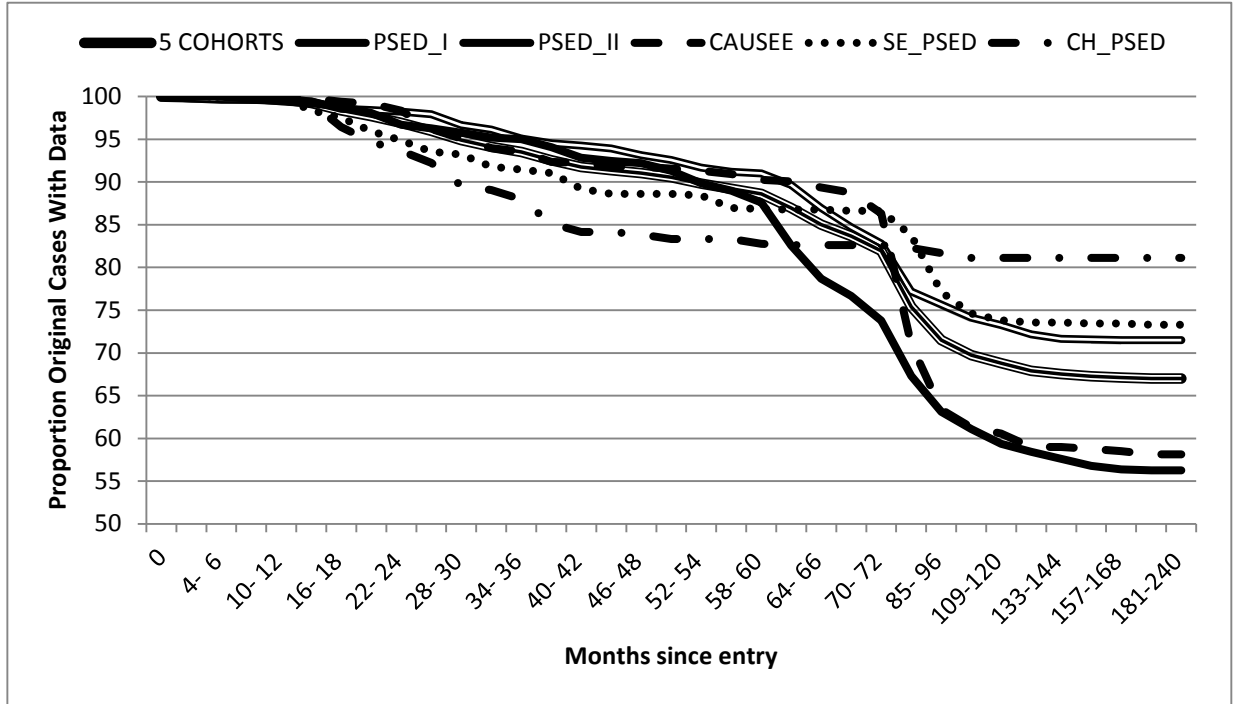


Figure 2 Proportion of Cases with Outcome Status from Date of Entry, Venture Weights

Confidence in the accuracy of the data to present patterns for all five cohorts through 36 months after entry should be high, and for all but the CH-PSED cohort for 72 months after entry. The patterns of the status of the cases for all five cohorts are presented for those reporting initial profits in Figure 3, discontinuations or quits in Figure 4, and still active in the start-up process in Figure 5.

This makes clear the substantial differences between cohorts. Particularly in the proportion that report initial profits reflected in Figure 3. It is clear that 72 months following entry into the start-up process no more than 30 per 100 of those in Australia (CAUSEE) or the U.S. (PSED I, PSED II) have achieved initial profits, compared to 40 per 100 in Sweden. In comparison, at 36 months after entry, when there should be high confidence in the Chinese data, 50 per 100 have reported initial profits. This may reflect the rapid expansion of the Chinese economy in 2009-2011, which would increase the demand for goods and services provided by new firms.

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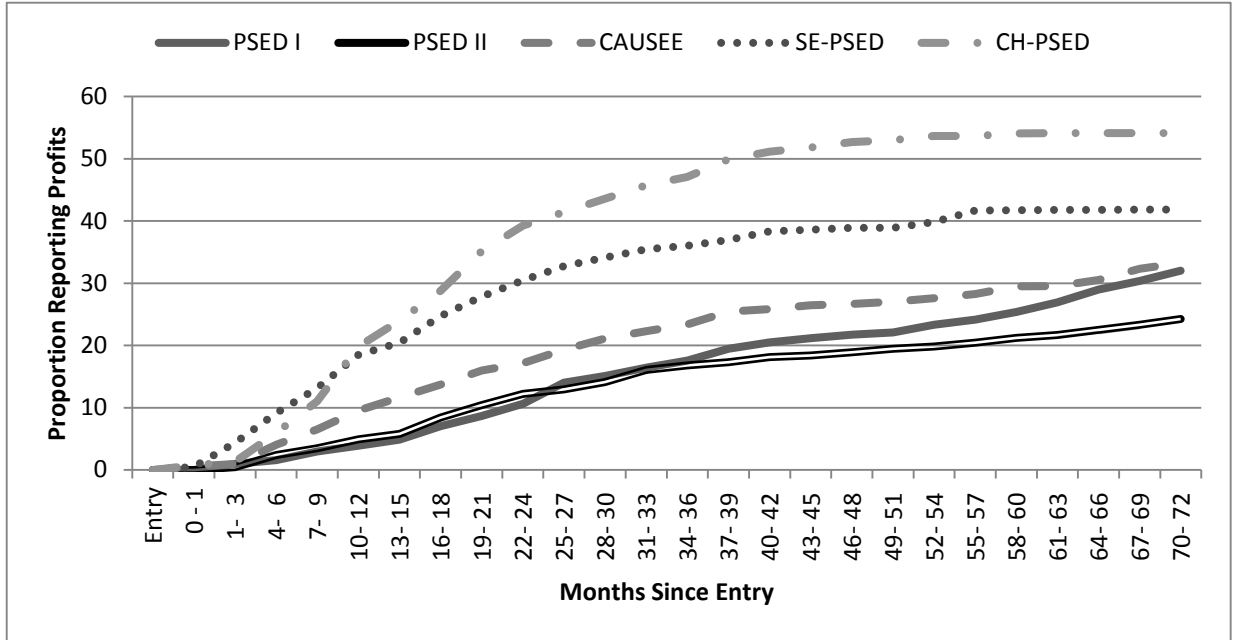


Figure 3 Proportion Reporting Profits by Months after Entry, Venture Weights

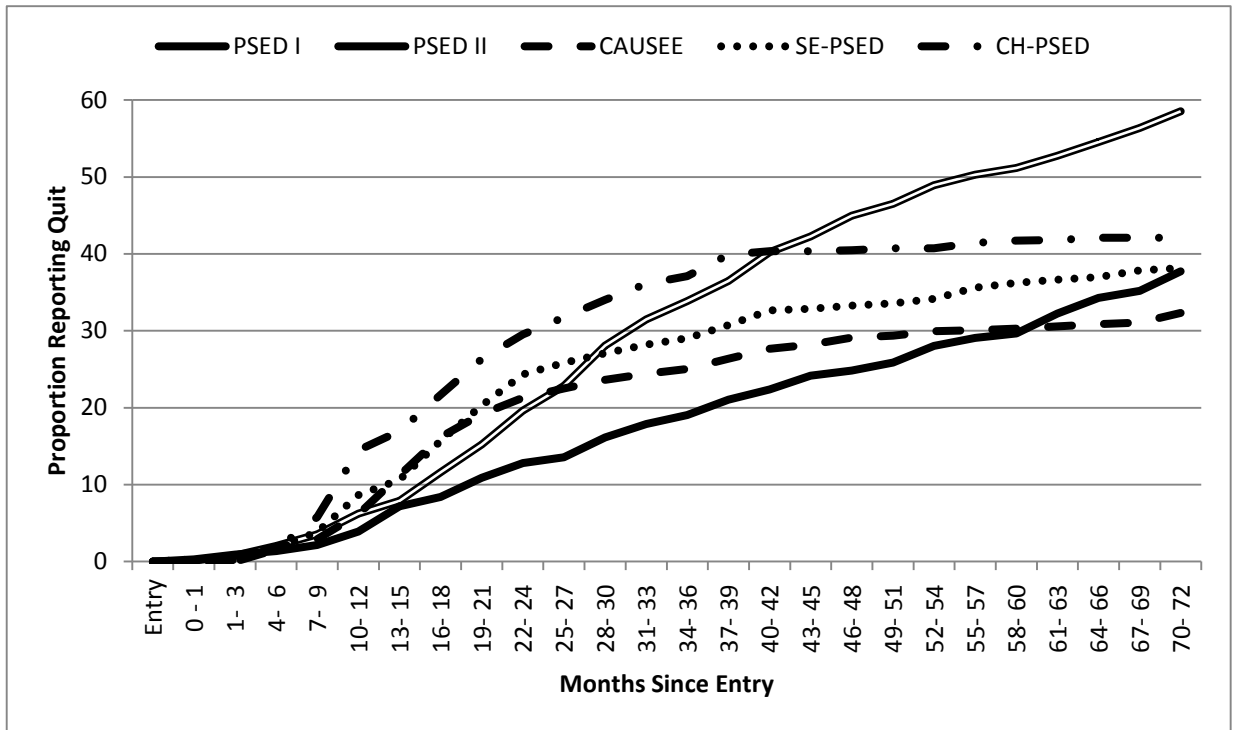


Figure 4 Proportion Reporting Quitting by Months after Entry, Venture Weights

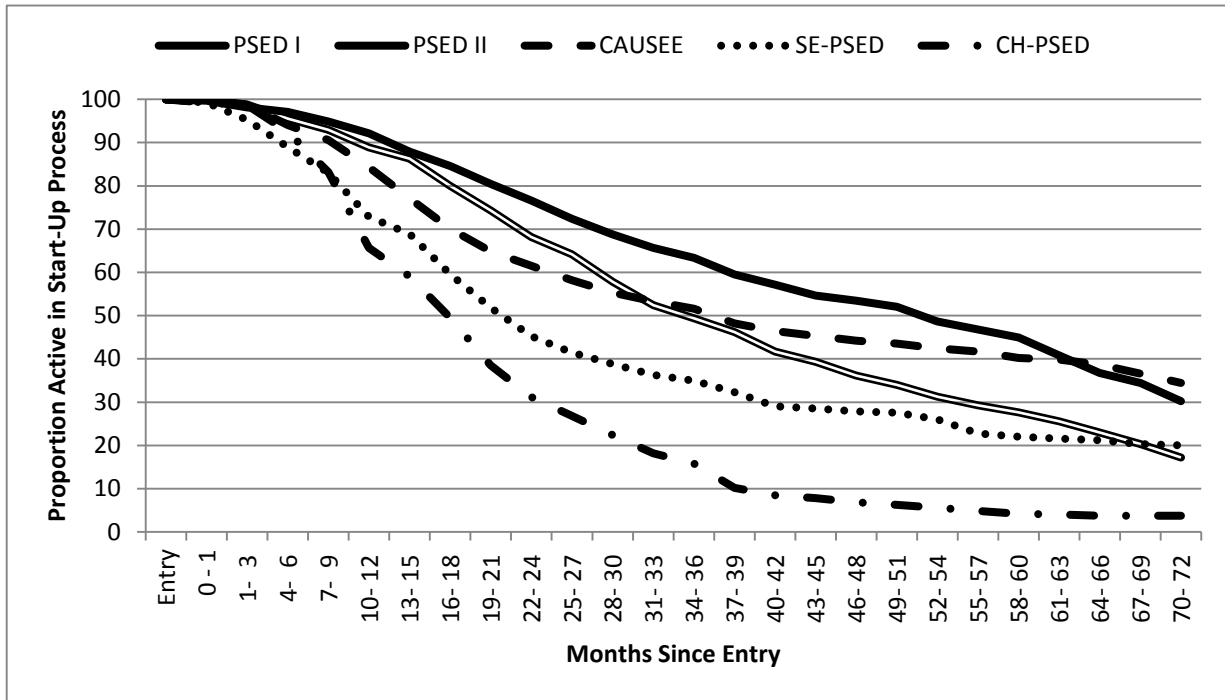


Figure 5 Proportion Reporting Active in Start-up Process by Months after Entry, Venture Weights

The proportion reporting they have disengaged from the process grows over time, stabilizing at 30 to 40 per 100 for four cohorts after 60 months, the exception being the PSED II cohort, which shows an increase to 60 per 100 at 72 months.

The remaining cases, from 20 to 35 per 100, for four cohorts report they are still active in the start-up process at 72 months. This is about 5 per 100 for the CH-PSED cohort, which may reflect the low proportion completing the third, 24 month interview. If they were not actively involved they may have just not completed the interview. But for the other four cohorts these may be the hobby nascents that are ambivalent about the initiative and unable to determine if the nascent venture can be profitable or they should abandon the effort.

Overall, it would appear appropriate to assume that harmonized data sets have been created to describe the outcome of the firm creation process for all five cohorts up to 36 months after entry into the business creation process. For four cohorts, CAUSEE, SE-PSED, and U.S. PSED I, II it would seem appropriate to assume data is harmonized for up to 72 months after entry to the business creation process.

Sequence, Timing of Start-up Activities

The activities pursued over the start-up window are organized in relation to the time of entry into the process in nine periods:

- 0001: Up to one month after date of entry.
- 0203: Two to three months after entry.
- 0406: Four to six months after entry
- 0712: Seven to twelve months after entry.
- 1324: Thirteen to twenty four months after entry.
- 2536: Twenty-five to thirty-six months after entry.
- 3748: Thirty-seven to forty-eight months after entry.
- 4960: Forth-nine to sixty months after entry.
- 6172: Sixty-one to seventy-two months after entry.

These numbers are used in the variable labels to identify different time periods.

There are many instances where more than one activity occurs in a given time period. Variables in the data set allow for up to 13 activities in each period. For example:

SA0001_1 One activity reported in the first month after entry into the process.

SA0001_2 Second activity reported in the first month after entry into the process.

SA0001_3 Third activity reported in the first month after entry into the process.

And so on . . .

There is no significance to the order of presentation for a given time period; they only information is that they occurred in the same time period. These are technically string variables, as the values are the specific activities identified in each time period.

Variables that indicate the presence of different activities in each time period are provided, they are identified by the following six character labels following the time period identification:

'BUSPLN'	'BUSS PLAN INITIATED'
'MODEL_'	'MODEL INITIATED'
'PROMOT'	'PROMOT 4 PROD/SERV'
'PATENT'	'IPR'S INITIATED'
'LEASE_'	'PURC,LEASED CAPITAL ASSET'
'PURCHA'	'PURC,MATERIAL,SUPPL,INVENT'
'DFNMKT'	'DEFINING MARKETS'
'FINPRJ'	'FINANCIAL PROJ'S'
'ASKFND'	'ASKED 4 FUNDING'
'GETFND'	'GOT FUNDING'
'SUPCRD'	'SUPPLIER CREDIT'
'HIRE__'	'PERSON HIRED'
'SALES_'	'INCOME RECEIVED'
'PHLIST'	'INTERNET/PHONE LIST'
'EIN___'	'REGISTERED GOV ID NUMBER'
'ONINV1'	'OWN #1 INVESTED'
'SUTEAM'	'ORGANIZE SU TEAM'
'FTWK_1'	'FT INVOL OWN#1'.

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Table 15 provides an illustration of the selected cases that have reported multiple start-up activities in the initial period. Table 16 provides a count of the cases by number of start-act reported in each time period following entry into the start-up process. For example, in the first month following date of entry all cases reported at least one start-up activity (required for defining date of entry into the process), 1,568 cases reported only one activity in this first month, seven cases reported 10 activities, and one case reported 13 activities occurred in this first month.¹⁰

Table 15 Selected Examples of Cases with Multiple First Period Activities

CO_RESPID	SA0001_1	SA0001_2	SA0001_3	SA0001_4	SA0001_5	SA0001_6	SA0001_7
1328100599	PROMOT	PURCHA	PHLIST	FTWK_1	SUPCRD	ASKFND	ONINV1
1328100621	BUSPLN	PURCHA	EIN__	SALES_	SUPCRD	ONINV1	DFNMKT
46000020362	BUSPLN	MODEL_	SUTEAM	SUPCRD	ONINV1	DFNMKT	PURCHA
46000030371	MODEL_	PROMOT	SUTEAM	EIN__	PHLIST	SALES_	HIRE__
61000000569	PROMOT	PURCHA	GETFND	PHLIST	SALES_	SUPCRD	DFNMKT
61000002561	MODEL_	PROMOT	SALES_	HIRE__	FTWK_1	SUPCRD	PURCHA
86000008183	MODEL_	PURCHA	PHLIST	SALES_	HIRE__	SUPCRD	ONINV1
86000033089	BUSPLN	PROMOT	EIN__	FTWK_1	SUPCRD	ONINV1	FINPRJ

Table 16 Number of Start-up Acts Reported by Months after Entry

Mths from	00	02	04	07	13	25	37	49	61
Mths to	01	03	06	12	24	36	48	60	72
No acts:									
0	0	1,551	1,406	950	1,425	2,177	2,479	2,719	2,800
1	1,568	583	670	732	546	363	343	156	101
2	589	284	343	440	346	193	111	46	24
3	340	181	195	251	215	86	62	22	15
4	193	134	128	178	144	55	16	10	7
5	109	79	79	128	98	41	20	4	3
6	61	53	51	77	66	13	13	4	2
7	47	32	34	90	48	11	5	0	0
8	15	23	22	40	27	6	4	2	2
9	17	19	13	27	23	6	0	0	0
10	7	9	10	16	6	2	1	0	0
11	5	6	2	10	5	0	0	0	0
12	2	0	0	9	3	1	0	0	0
13	1	0	1	6	2	0	0	0	0
Total*	2,954	2,954	2,954	2,954	2,954	2,954	2,954	2,954	2,954
*Only cases with data qualifying as nascent entrepreneurs, unweighted.									

¹⁰ Fifty-seven activities that occurred in the six months prior to date of entry were reassigned to the first month following entry. They may reflect the lack of availability of a precise date of initiation for some start-up activities.

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The main purpose of developing this data set is to provide harmonized measures of start-up activity and outcomes across the five cohorts. There is considerably more detail about start-up activity for some specific cohorts.

Selected Independent Variables

A number of characteristics of the nascent ventures have been included in the data file. Most basic, the age and gender of the respondent as well as the number of humans expected to own the new firm were included to compute case weights. But in addition a range of other variables were harmonized across cohorts to facilitate preliminary analysis. These include:

- Gender, age, expected firm ownership, work experience, same industry experience, and start-up experience of all team members
- Educational attainment of team member 1 (respondent)
- Contextual motivation reported by team member 1 (respondent)
- Source of initial motivation (desire to entrepreneur of business idea) of team member 1 (respondent)
- Economic sector of the nascent venture
- Expected location of customers (local, regional, national, or international)
- Expected sales and jobs in the first and fifth year
- Firm growth preference of team member 1 (respondent)
- Three items reflecting the technological sophistication of the firm

In all cases the items in the initial interviews and response categories have been examined and transforms implemented to maximize harmonization of these items. In order to reduce interview costs, some details on start-up team structure were not obtained in the AU-PSED (CAUSEE) project and gross estimates obtained.

There is, however, a wealth of additional information—thousands of items in some projects—available in the original data files. The opportunities for analysis of factors that may affect outcomes are almost unlimited. To facilitate adding variables to the cases from the different cohorts the project specific ID numbers have been retained for each case, as described below.

Dataset Overview

The syntax files used to process the survey data are summarized in Appendix B. This is an overview of the final processing of the consolidated files. It does not reflect the effort required to standardize the dates and labels in each cohort, based on US PSED I and II. These SPSS syntax files are available, on request, from the first author. Appendix C provides a list of the variables. An overview of the project code, cohort case ID variable names, and case counts is provided in Table 17. Only nascent entrepreneur/nascent venture cases are included in this aggregate file.

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Table 17 Cohort, Case Identification Codes

COHORT	'PROJECT' Value Labels	'RESPID' ORIGINAL CASE ID	Country Phone Codes	NUMBER OF CASES
US PSED I	1999	RESPID/SAMPID	01	830
US PSED II	2005	RESPID/SAMPID	01	1,214
CAUSEE	3001	ID	61	625
SE-PSED	4000	IPNUM	46	640
CH-PSED	5000	UNIQUE_ID*	86	601
All cohorts				3,910

*Original case ID, not used in CO-RESPID for aggregate data set.

Adding variables to explore the impact on start-up activities or outcome measures requires a corresponding case ID number. This is straightforward for all but the CH-PSED cohort. The original case ID was renamed as RESPID for the aggregate file for four cohorts. The original CH-PSED case ID is an alphanumeric, which includes characters to identify the city in which the screening for nascents occurred; there is some duplication among the numeric portion of the CH-PSED ID numbers. Therefore, a unique numeric code was created for each CH-PSED case for processing the aggregate file. The original CH-PSED ID values are retained as UNIQ_ID in the aggregate file to facilitate adding more data from the CH-PSED data set.

As there were some duplicate numeric ID numbers in different cohorts, a unique aggregate file ID was created by computing an 11 digit ID with the country phone codes as the first two digits, 01 for the US, 61 for Australia, 46 for Sweden, and 86 for China. This is the first variable in the case record, identified as CO_RESPID.

The case weights are attached only to cases that qualify for that category. As a result, processing with case weights should exclude cases that do not qualify for that assessment.

The data set is available as SPSS V22 save, Stata V8, and SAS V9 files.

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- Ruef, Martin. (2010). "Sampling of Groups." Appendix B of The Entrepreneurial Group. Princeton, NJ. Princeton U. Press, Pp. 2334-235.

Appendix A: Data Sources

Australia:

Comprehensive Australian Study of Entrepreneurial Emergence (CAUSEE):
'<http://eprints/qut/edu.au/49327/>.

China (CH-PSED):

Provided by Li (Rachel) Tian, Nankai U. China.

Sweden (SE-PSED):

Delmar, Frederic. Coding Manual for file Swedish PSED data 1998. Author provided.

Samuelsson, Mikael. Dataset: erc-neo-ne6-n12-n18-n24-proj – project based data file will all waves from month 0 to month 14, SPSS.SAV file available on Research Gate.

Samuelsson, Mikael, Dataset: ERC/PSED-75. 75 month follow up data. Author provided.

Samuelsson, Mikael. Technical Report: SWE PSED codebook – all variables with names and waves, available on Research Gate.

U. S. PSED I, II:

All interview schedules, data sets, and codebooks available at 'www.psed.isr.umich.edu'.

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Appendix B: Overview of Syntax Files

Input Files	Syntax	Program activity	SPSS Save	Output
W14121PR.SAV;CBNC_001.SAV;ACTS_TO5.SAV;ACTS_F05.SAV;CAUSEE_MASTER_14JAN14.SAV;ERC-NE0-NE6-NE12-NE18-NE24-PROJ.SAV;CH_PSED_101_B.SAV	NE_AGG_001.TXT	Add start-up dates for US PSED I. Estimate dates of formal financing for US PSED I cases as average between previous wave where formal financing first identified; add first date contact with helping programs; add start-up dates for US PSED II; add start-up dates for CAUSEE and estimate date for first R investment; estimate size of SE PSED start-up teams based on known gender of team members; add SE-PSED start-up dates; add start-up dates for CH-PSED cases and reset four events to closest even from other four cohorts [OFFICEAW, INVRKAW, FNDSUPAW, BUSREGAW];add all five files to create one harmonized file.	NE_AGG_001.SAV	NE_AGG_001.
NE_AGG_001.SAV	NE_AGG_002X.TXT	For US PSED II and CAUSEE, substitute signing ownership agreement for beginning to form start-up team; For US PSED I, set earliest of FICA, UNEMP, or FEDTAX as EIN date; for SE-PSED set phone listing to phone line date; for CH-PSED set define markets to talk to customers date. Using 18 common start-up acts, excluding THINK, and identify sequence of dates of 1-12 start-up acts; identify all acts occurring simultaneously in each period. Then compute lags between pairs of start-up acts from 1-2 to 9-10.	NE_AGG_002X.SAV	NE_AGG_002X.
NE_AGG_002X.SAV	NE_AGG_003.TXT	For SE-PSED assume screening 1 mth before wave 1; complete assessment to identify CASEKEEP cases, and set weights for all NE cases (w and w/o follow-ups) and NF cases (w follow-ups).	NE_AGG_003.SAV	NE_AGG_003

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NE_AGG_003.SAV	NE_AGG_004.TXT	Create venture weights by dividing R weights by Start-up Team size for NE and FU cases, re-center so average equals 1.0000; reset quits before entry date to entry date; compute occurrence of all harmonized acts, compute lag fo all acts after entry date; create cohort based file, 5 cases, for all prevalence and lag measures; create excel files for assessments.	NE_AGG_004.SAV (case files); NE_AGG_004_PRO J (cohort files).	NE_AGG_004
NE_AGG_004.SAV	NE_AGG_005.TXT	Program creates start-up window time lines for up to 240 months; provides output status for 3 month intervals. .	NE_AGG_005.SAV	NE_AGG_005
NE_AGG_004.SAV	NE_AGG_007.TXT	Identifies which of all 18 start-up acts are occurring at different time periods following entry into the start-up process.	NE_AGG_007.SAV	NE_AGG_007
NE_AGG_007.SAV	NE_AGG_008.TXT	Create variables to identify which start-up acts are reported at each time period and total acts in each time period.	NE_AGG_008.SAV	NE_AGG_008
NE_AGG_008.SAV; NE_AGG_005.SAV	NE_AGG_010.TXT	Process final case file for distribution, create unique case ID files with cohort identifier (CO_RESPID), provide harmonized variable labels, re-order variables for clarity.	NE_AGG_010_SPS S.SAV	NE_AGG_010
NE_AGG_010.SAV	NE_AGG_020.TXT	Create harmonized IV from 5 cohorts first wave data collection to describe the start-up team and focus, add these to the data file describing the start-up process and outcomes, create SPSS, SAS, and STATA data files for analysis.	NE_AGG_020_06JAN16.SAV; NE_AGG_020_STATATA_V8_06JAN16; NE_AGG_020_SAS_V9_06JAN16	NE_AGG_020

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Appendix C: List of Variables

Variable	Label
CO_RESPID	COUNTRY PHONE CODE + COHORT UNIQUE CASE ID CODE
RESPID	COHORT UNIQUE CASE ID CODE, US PSED I CASE ID
SAMPID	US PSED II CASE ID
ID	CAUSEE, AUSTRALIAN-PSED, CASE ID
IPNUM	SWEDISH-PSED CASE ID
CH_UNIQ_ID	CHINA CASE ID: NUMBER & LETTERS TO IDENTIFY CITIES
UNIQ_ID_4	CHINA-PSED TRANSFORMED NUMERIC ID
PROJECT	UNIQUE COHORT CODES
CASEKEEP	CASES QUALIFYING AS ACTIVE NASCENT ENTRE
GOODC_NE	WAVE 1: NASCENT ENTRE CASES SUITABLE FOR ANALYSIS
GOODC_FU	NASC ENTRE W/FOLLOW-UP DATA ON OUTCOMES
WT_WV_1	WAVE 1 WEIGHTS
WT_WV_2	WAVE 2 WEIGHTS
WT_WV_3	WAVE 3 WEIGHTS
WT_WV_4	WAVE 4 WEIGHTS
WT_WV_5	WAVE 5 WEIGHTS
WT_WV_6	WAVE 6 WEIGHTS
WT_GD_NE	WT POPUL BASED ADJ 4 GOODCASE NASCENT ENTRES
WT_GD_FU	WT POPUL BASED ADJ 4 GOODCASE NAS ENTRE W/OUTCOMES
WT_VN_GD_NE	WT TEAM SIZE ADJ 4 GOODCASE NASCENT VENTURES
WT_VN_GD_FU	WT TEAM SIZE ADJ 4 GOODCASE VENTURES W/ OUTCOMES
OUTCOME_001	OUTCOME 1 MONTHS AFTER ENTRY
OUTCOME_003	OUTCOME 3 MONTHS AFTER ENTRY
OUTCOME_006	OUTCOME 6 MONTHS AFTER ENTRY
OUTCOME_009	OUTCOME 9 MONTHS AFTER ENTRY
OUTCOME_012	OUTCOME 12 MONTHS AFTER ENTRY
OUTCOME_015	OUTCOME 15 MONTHS AFTER ENTRY
OUTCOME_018	OUTCOME 18 MONTHS AFTER ENTRY
OUTCOME_021	OUTCOME 21 MONTHS AFTER ENTRY
OUTCOME_024	OUTCOME 24 MONTHS AFTER ENTRY
OUTCOME_027	OUTCOME 27 MONTHS AFTER ENTRY
OUTCOME_030	OUTCOME 30 MONTHS AFTER ENTRY
OUTCOME_033	OUTCOME 33 MONTHS AFTER ENTRY
OUTCOME_036	OUTCOME 36 MONTHS AFTER ENTRY
OUTCOME_039	OUTCOME 39 MONTHS AFTER ENTRY
OUTCOME_042	OUTCOME 42 MONTHS AFTER ENTRY
OUTCOME_045	OUTCOME 45 MONTHS AFTER ENTRY
OUTCOME_048	OUTCOME 48 MONTHS AFTER ENTRY
OUTCOME_051	OUTCOME 51 MONTHS AFTER ENTRY
OUTCOME_054	OUTCOME 54 MONTHS AFTER ENTRY

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OUTCOME_057	OUTCOME 57 MONTHS AFTER ENTRY
OUTCOME_060	OUTCOME 60 MONTHS AFTER ENTRY
OUTCOME_063	OUTCOME 63 MONTHS AFTER ENTRY
OUTCOME_066	OUTCOME 66 MONTHS AFTER ENTRY
OUTCOME_069	OUTCOME 69 MONTHS AFTER ENTRY
OUTCOME_072	OUTCOME 72 MONTHS AFTER ENTRY
SC_DATE	SCREENING INTERVIEW: STANDARDIZED DATE
W1_DATE	WAVE 1 INTERVIEW: STANDARDIZED DATE
W2_DATE	WAVE 2 INTERVIEW: STANDARDIZED DATE
W3_DATE	WAVE 3 INTERVIEW: STANDARDIZED DATE
W4_DATE	WAVE 4 INTERVIEW: STANDARDIZED DATE
W5_DATE	WAVE 5 INTERVIEW: STANDARDIZED DATE
W6_DATE	WAVE 6 INTERVIEW: STANDARDIZED DATE
LIW_DATE	LAST INTERVIEW: STANDARDIZED DATE
CPT_MY	DATE: ENTRY (CONCEPTION)-1ST OF 2 ACTS W/IN 12 MONTHS
CPT_W1LAG	MTHS LAG, CONCEPT TO WAVE 1 INTERVIEW
CPT_PFT_LAG	MTHS:CONCEPTION TO POS MTH CASH FLOW W/SALARIES
SU_NEWF	FIRST DATE REVENUE GREATER THAN EXPENSES, SALARIES
SU_ACTIV	LAST DATE REPORT START-UP ACTIVE
SU_QUIT	DATE DISENGAGEMENT FROM START-UP PROCESS
LIFECOUR	1ST EVENT TO LAST PHONE ITRW (MONTHS)
THINK_AW	1ST DATE:INITIAL SERIOUS THOUGHT
PHLISTAW	1ST DATE:GOT INTERNET/PHONE LISTING
CLASS_AW	1ST DATE:TOOK CLASS,WORKSHOP ON START-UPS
CSHFL_AW	1ST DATE:FIRST MTHLY POSIT CASH FLOW
SALES_AW	1ST DATE:FIRST INCOME RECEIVED
BKACCTAW	1ST DATE:OPENED BANK ACCT FOR BUSINESS
HIRE__AW	1ST DATE:FIRST PERSON HIRED
FTWK_AW1	1ST DATE:FULL TIME INVOLVED:OWN#1
FTWK_AW2	1ST DATE:FULL TIME INVOLVED:OWN#2
FTWK_AW3	1ST DATE:FULL TIME INVOLVED:OWN#3
FTWK_AW4	1ST DATE:FULL TIME INVOLVED:OWN#4
FTWK_AW5	1ST DATE:FULL TIME INVOLVED:OWN#5
CLDCARAW	1ST DATE:ARRANGED CHILD CARE,HOUSEKEEPING
SUPCRDAW	1ST DATE:SUPPLIER CREDIT ESTABLISHED
ASKFNDAW	1ST DATE:FIRST ASKED FOR FUNDING
ONINVAW1	1ST DATE:INVEST OWN MONEY:OWN#1
ONINVAW2	1ST DATE:INVEST OWN MONEY:OWN#2
ONINVAW3	1ST DATE:INVEST OWN MONEY:OWN#3
ONINVAW4	1ST DATE:INVEST OWN MONEY:OWN#4
ONINVAW5	1ST DATE:INVEST OWN MONEY:OWN#5
SAVMONAW	1ST DATE:BEGAN SAVING TO INVEST IN BUSINES
FINPRJAW	1ST DATE:FINANCIAL PROJECT INITIATED

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DFNMKTAW	1ST DATE:DEFINING MARKETS INITIATED
LEASE_AW	1ST DATE:PURC,LEASED CAPITAL ASSET
PURCHAAW	1ST DATE:PURC,MATERIAL,SUPPL,INVENT
PATENTAW	1ST DATE:PATENT,TRADE,COPY INITIATED
PROMOTAW	1ST DATE:PROMOT 4 PROD/SERV INITIATED
MODEL_AW	1ST DATE:MODEL,PROTOTPE INITIATED
SUTEAMAW	1ST DATE:START-UP TEAM FORMED
BUSPLNAW	1ST DATE:BUSINESS PLAN INITIATED
DANDB_AW	1ST DATE:KNOW US DUN & BRADSTREET CREDIT LISTING
FEDTAXAW	1ST DATE:FIRST FEDERAL INCOME TAX
FICA__AW	1ST DATE:FIRST FEDERAL FICA PAYMENT
UNEMP_AW	1ST DATE:FIRST STATE UNEMPLOYMENT INS
PHLINEAW	1ST DATE:INITIAL DEDICATED PHONE LINE
HELPPRAW	1ST DATE:INITIAL HELPING PROGRAM CONTACT
GETFNDAW	1ST DATE:GOT FIRST FUNDING
SPACE_AW	1ST DATE:FIRST USE PHYSICAL SPACE
LEGAL_AW	1ST DATE:LEGAL FORM REGISTERED
LIABISAW	1ST DATE:LIABILITY INSURANCE BOUGHT
BSPLFIAW	1ST DATE:BUSINESS PLAN COMPLETED
PRDCPLAW	1ST DATE:MODEL,PROTOTPE COMPLETED
PRTECHAW	1ST DATE:PROPRIET TECH FULLY DEVELOP
GOTPNTAW	1ST DATE:PATENT,TRADE,COPY OBTAINED
TLKCSTAW	1ST DATE:BEGAN TO TALK TO CUSTOMERS
IFOCPTAW	1ST DATE:BEGAN COLLECT COMPETIR INFO
FNDREGAW	1ST DATE:DETERMINED REGULAT REQUIRE
HRACCTAW	1ST DATE:HIRED ACCOUNTANT
HRLAWRAW	1ST DATE:HIRED LAWYER
TDASOCAW	1ST DATE:JOINED TRADE ASSOCIATION
EIN__AW	1ST DATE:FILED 4 GOVERN REGIST NUMBER (EIN IN U.S.)
DBA__AW	1ST DATE:FILED FICTICIOUS (DBA) NAME
EQTAGAW1	1ST DATE:SIGNED AGREE:OWN #1
EQTAGAW2	1ST DATE:SIGNED AGREE:OWN #2
EQTAGAW3	1ST DATE:SIGNED AGREE:OWN #3
EQTAGAW4	1ST DATE:SIGNED AGREE:OWN #4
EQTAGAW5	1ST DATE:SIGNED AGREE:OWN #5
FINSPTAW	1ST DATE:1ST DEBT/EQUITY INVEST INTO LEGAL BUSS
PERMITAW	1ST DATE:SE EXPLORE BUSS REGULATIONS 4 PERMITS
OPERBUAW	1ST DATE:SE R ASSUMES OPERATING BUSINESS
EMAIL_AW	1ST DATE:SE ESTABLISHED E-MAIL ADDRESS
WEBSITAW	1ST DATE:SE ESTABLISHED WEB SITE
OFFICEAW	1ST DATE:CH ACQUIRED OFFICE SPACE
INVRSKAW	1ST DATE:CH ASSESSED INVESTMENT RISK
FNDSUPAW	1ST DATE:CH LOCATING SUPPLIERS

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BUSREGAW	1ST DATE:CH REGISTERED THE NEW FIRM
SA0001_1	SU ACT 00-01 MONTHS: NO 1
SA0001_2	SU ACT 00-01 MONTHS: NO 2
SA0001_3	SU ACT 00-01 MONTHS: NO 3
SA0001_4	SU ACT 00-01 MONTHS: NO 4
SA0001_5	SU ACT 00-01 MONTHS: NO 5
SA0001_6	SU ACT 00-01 MONTHS: NO 6
SA0001_7	SU ACT 00-01 MONTHS: NO 7
SA0001_8	SU ACT 00-01 MONTHS: NO 8
SA0001_9	SU ACT 00-01 MONTHS: NO 9
SA0001_A	SU ACT 00-01 MONTHS: NO 10
SA0001_B	SU ACT 00-01 MONTHS: NO 11
SA0001_C	SU ACT 00-01 MONTHS: NO 12
SA0001_D	SU ACT 00-01 MONTHS: NO 13
SA0203_1	SU ACT 02-03 MONTHS: NO 1
SA0203_2	SU ACT 02-03 MONTHS: NO 2
SA0203_3	SU ACT 02-03 MONTHS: NO 3
SA0203_4	SU ACT 02-03 MONTHS: NO 4
SA0203_5	SU ACT 02-03 MONTHS: NO 5
SA0203_6	SU ACT 02-03 MONTHS: NO 6
SA0203_7	SU ACT 02-03 MONTHS: NO 7
SA0203_8	SU ACT 02-03 MONTHS: NO 8
SA0203_9	SU ACT 02-03 MONTHS: NO 9
SA0203_A	SU ACT 02-03 MONTHS: NO 10
SA0203_B	SU ACT 02-03 MONTHS: NO 11
SA0203_C	SU ACT 02-03 MONTHS: NO 12
SA0203_D	SU ACT 02-03 MONTHS: NO 13
SA0406_1	SU ACT 04-06 MONTHS: NO 1
SA0406_2	SU ACT 04-06 MONTHS: NO 2
SA0406_3	SU ACT 04-06 MONTHS: NO 3
SA0406_4	SU ACT 04-06 MONTHS: NO 4
SA0406_5	SU ACT 04-06 MONTHS: NO 5
SA0406_6	SU ACT 04-06 MONTHS: NO 6
SA0406_7	SU ACT 04-06 MONTHS: NO 7
SA0406_8	SU ACT 04-06 MONTHS: NO 8
SA0406_9	SU ACT 04-06 MONTHS: NO 9
SA0406_A	SU ACT 04-06 MONTHS: NO 10
SA0406_B	SU ACT 04-06 MONTHS: NO 11
SA0406_C	SU ACT 04-06 MONTHS: NO 12
SA0406_D	SU ACT 04-06 MONTHS: NO 13
SA0712_1	SU ACT 07-12 MONTHS: NO 1
SA0712_2	SU ACT 07-12 MONTHS: NO 2
SA0712_3	SU ACT 07-12 MONTHS: NO 3

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SA0712_4	SU ACT 07-12 MONTHS: NO 4
SA0712_5	SU ACT 07-12 MONTHS: NO 5
SA0712_6	SU ACT 07-12 MONTHS: NO 6
SA0712_7	SU ACT 07-12 MONTHS: NO 7
SA0712_8	SU ACT 07-12 MONTHS: NO 8
SA0712_9	SU ACT 07-12 MONTHS: NO 9
SA0712_A	SU ACT 07-12 MONTHS: NO 10
SA0712_B	SU ACT 07-12 MONTHS: NO 11
SA0712_C	SU ACT 07-12 MONTHS: NO 12
SA0712_D	SU ACT 07-12 MONTHS: NO 13
SA1324_1	SU ACT 13-24 MONTHS: NO 1
SA1324_2	SU ACT 13-24 MONTHS: NO 2
SA1324_3	SU ACT 13-24 MONTHS: NO 3
SA1324_4	SU ACT 13-24 MONTHS: NO 4
SA1324_5	SU ACT 13-24 MONTHS: NO 5
SA1324_6	SU ACT 13-24 MONTHS: NO 6
SA1324_7	SU ACT 13-24 MONTHS: NO 7
SA1324_8	SU ACT 13-24 MONTHS: NO 8
SA1324_9	SU ACT 13-24 MONTHS: NO 9
SA1324_A	SU ACT 13-24 MONTHS: NO 10
SA1324_B	SU ACT 13-24 MONTHS: NO 11
SA1324_C	SU ACT 13-24 MONTHS: NO 12
SA1324_D	SU ACT 13-24 MONTHS: NO 13
SA2536_1	SU ACT 25 TO 36 MONTHS: NO 1
SA2536_2	SU ACT 25 TO 36 MONTHS: NO 2
SA2536_3	SU ACT 25 TO 36 MONTHS: NO 3
SA2536_4	SU ACT 25 TO 36 MONTHS: NO 4
SA2536_5	SU ACT 25 TO 36 MONTHS: NO 5
SA2536_6	SU ACT 25 TO 36 MONTHS: NO 6
SA2536_7	SU ACT 25 TO 36 MONTHS: NO 7
SA2536_8	SU ACT 25 TO 36 MONTHS: NO 8
SA2536_9	SU ACT 25 TO 36 MONTHS: NO 9
SA2536_A	SU ACT 25 TO 36 MONTHS: NO 10
SA2536_B	SU ACT 25 TO 36 MONTHS: NO 11
SA2536_C	SU ACT 25 TO 36 MONTHS: NO 12
SA2536_D	SU ACT 25 TO 36 MONTHS: NO 13
SA3748_1	SU ACT 37 TO 48 MONTHS: NO 1
SA3748_2	SU ACT 37 TO 48 MONTHS: NO 2
SA3748_3	SU ACT 37 TO 48 MONTHS: NO 3
SA3748_4	SU ACT 37 TO 48 MONTHS: NO 4
SA3748_5	SU ACT 37 TO 48 MONTHS: NO 5
SA3748_6	SU ACT 37 TO 48 MONTHS: NO 6
SA3748_7	SU ACT 37 TO 48 MONTHS: NO 7

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SA3748_8	SU ACT 37 TO 48 MONTHS: NO 8
SA3748_9	SU ACT 37 TO 48 MONTHS: NO 9
SA3748_A	SU ACT 37 TO 48 MONTHS: NO 10
SA3748_B	SU ACT 37 TO 48 MONTHS: NO 11
SA3748_C	SU ACT 37 TO 48 MONTHS: NO 12
SA3748_D	SU ACT 37 TO 48 MONTHS: NO 13
SA4960_1	SU ACT 49 TO 60 MONTHS: NO 1
SA4960_2	SU ACT 49 TO 60 MONTHS: NO 2
SA4960_3	SU ACT 49 TO 60 MONTHS: NO 3
SA4960_4	SU ACT 49 TO 60 MONTHS: NO 4
SA4960_5	SU ACT 49 TO 60 MONTHS: NO 5
SA4960_6	SU ACT 49 TO 60 MONTHS: NO 6
SA4960_7	SU ACT 49 TO 60 MONTHS: NO 7
SA4960_8	SU ACT 49 TO 60 MONTHS: NO 8
SA4960_9	SU ACT 49 TO 60 MONTHS: NO 9
SA4960_A	SU ACT 49 TO 60 MONTHS: NO 10
SA4960_B	SU ACT 49 TO 60 MONTHS: NO 11
SA4960_C	SU ACT 49 TO 60 MONTHS: NO 12
SA4960_D	SU ACT 49 TO 60 MONTHS: NO 13
SA6172_1	SU ACT 61 TO 72 MONTHS: NO 1
SA6172_2	SU ACT 61 TO 72 MONTHS: NO 2
SA6172_3	SU ACT 61 TO 72 MONTHS: NO 3
SA6172_4	SU ACT 61 TO 72 MONTHS: NO 4
SA6172_5	SU ACT 61 TO 72 MONTHS: NO 5
SA6172_6	SU ACT 61 TO 72 MONTHS: NO 6
SA6172_7	SU ACT 61 TO 72 MONTHS: NO 7
SA6172_8	SU ACT 61 TO 72 MONTHS: NO 8
SA6172_9	SU ACT 61 TO 72 MONTHS: NO 9
SA6172_A	SU ACT 61 TO 72 MONTHS: NO 10
SA6172_B	SU ACT 61 TO 72 MONTHS: NO 11
SA6172_C	SU ACT 61 TO 72 MONTHS: NO 12
SA6172_D	SU ACT 61 TO 72 MONTHS: NO 13
SA0001_PHLIST	00 TO 01 MTHS: INTERNET/PHONE LISTING
SA0001_SALES_	00 TO 01 MTHS: INCOME RECEIVED
SA0001_HIRE__	00 TO 01 MTHS: PERSON HIRED
SA0001_FTWK_1	00 TO 01 MTHS: FULL-TIME INVOLVE BY OWNER #1
SA0001_SUPCRD	00 TO 01 MTHS: SUPPLIER CREDIT
SA0001_ASKFND	00 TO 01 MTHS: ASKED FOR FUNDING
SA0001_ONINV1	00 TO 01 MTHS: OWNER #1 INVESTED
SA0001_FINPRJ	00 TO 01 MTHS: FINANCIAL PROJECTIONS/
SA0001_DFNMKT	00 TO 01 MTHS: DEFINING MARKETS, CUSTOMER BASE
SA0001_LEASE_	00 TO 01 MTHS: PURCHASE,LEASED CAPITAL ASSET
SA0001_PURCHA	00 TO 01 MTHS: PURCHASE MATERIAL,SUPPLIES,INVENTORY

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SA0001_SUTEAM	00 TO 01 MTHS: ORGANIZE START-UP TEAM
SA0001_MODEL_	00 TO 01 MTHS: MODEL INITIATED
SA0001_PROMOT	00 TO 01 MTHS: PROMOTION FOR PROD/SERV
SA0001_PATENT	00 TO 01 MTHS: PATENT,COPYRIGHT,TRADEMARK INITIATED
SA0001_BUSPLN	00 TO 01 MTHS: BUSINESS PLAN INITIATED
SA0001_EIN__	00 TO 01 MTHS: REGISTERED GOV ID NUMBER
SA0001_GETFND	00 TO 01 MTHS: GOT FUNDING
SA0203_PHLIST	02 TO 03 MTHS: INTERNET/PHONE LISTING
SA0203_SALES_	02 TO 03 MTHS: INCOME RECEIVED
SA0203_HIRE__	02 TO 03 MTHS: PERSON HIRED
SA0203_FTWK_1	02 TO 03 MTHS: FULL-TIME INVOLVE BY OWNER #1
SA0203_SUPCRD	02 TO 03 MTHS: SUPPLIER CREDIT
SA0203_ASKFND	02 TO 03 MTHS: ASKED FOR FUNDING
SA0203_ONINV1	02 TO 03 MTHS: OWNER #1 INVESTED
SA0203_FINPRJ	02 TO 03 MTHS: FINANCIAL PROJECTIONS
SA0203_DFNMKT	02 TO 03 MTHS: DEFINING MARKETS, CUSTOMER BASE
SA0203_LEASE_	02 TO 03 MTHS: PURCHASE,LEASED CAPITAL ASSET
SA0203_PURCHA	02 TO 03 MTHS: PURCHASE MATERIAL,SUPPLIES,INVENTORY
SA0203_SUTEAM	02 TO 03 MTHS: ORGANIZE START-UP TEAM
SA0203_MODEL_	02 TO 03 MTHS: MODEL INITIATED
SA0203_PROMOT	02 TO 03 MTHS: PROMOTION FOR PROD/SERV
SA0203_PATENT	02 TO 03 MTHS: PATENT,COPYRIGHT,TRADEMARK INITIATED
SA0203_BUSPLN	02 TO 03 MTHS: BUSINESS PLAN INITIATED
SA0203_EIN__	02 TO 03 MTHS: REGISTERED GOV ID NUMBER
SA0203_GETFND	02 TO 03 MTHS: GOT FUNDING
SA0406_PHLIST	04 TO 06 MTHS: INTERNET/PHONE LISTING
SA0406_SALES_	04 TO 06 MTHS: INCOME RECEIVED
SA0406_HIRE__	04 TO 06 MTHS: PERSON HIRED
SA0406_FTWK_1	04 TO 06 MTHS: FULL-TIME INVOLVE BY OWNER #1
SA0406_SUPCRD	04 TO 06 MTHS: SUPPLIER CREDIT
SA0406_ASKFND	04 TO 06 MTHS: ASKED FOR FUNDING
SA0406_ONINV1	04 TO 06 MTHS: OWNER #1 INVESTED
SA0406_FINPRJ	04 TO 06 MTHS: FINANCIAL PROJECTIONS
SA0406_DFNMKT	04 TO 06 MTHS: DEFINING MARKETS, CUSTOMER BASE
SA0406_LEASE_	04 TO 06 MTHS: PURCHASE,LEASED CAPITAL ASSET
SA0406_PURCHA	04 TO 06 MTHS: PURCHASE MATERIAL,SUPPLIES,INVENTORY
SA0406_SUTEAM	04 TO 06 MTHS: ORGANIZE START-UP TEAM
SA0406_MODEL_	04 TO 06 MTHS: MODEL INITIATED
SA0406_PROMOT	04 TO 06 MTHS: PROMOTION FOR PROD/SERV
SA0406_PATENT	04 TO 06 MTHS: PATENT,COPYRIGHT,TRADEMARK INITIATED
SA0406_BUSPLN	04 TO 06 MTHS: BUSINESS PLAN INITIATED
SA0406_EIN__	04 TO 06 MTHS: REGISTERED GOV ID NUMBER
SA0406_GETFND	04 TO 06 MTHS: GOT FUNDING

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SA0712_PHLIST	07 TO 12 MTHS: INTERNET/PHONE LISTING
SA0712_SALES_	07 TO 12 MTHS: INCOME RECEIVED
SA0712_HIRE__	07 TO 12 MTHS: PERSON HIRED
SA0712_FTWK_1	07 TO 12 MTHS: FULL-TIME INVOLVE BY OWNER #1
SA0712_SUPCRD	07 TO 12 MTHS: SUPPLIER CREDIT
SA0712_ASKFND	07 TO 12 MTHS: ASKED FOR FUNDING
SA0712_ONINV1	07 TO 12 MTHS: OWNER #1 INVESTED
SA0712_FINPRJ	07 TO 12 MTHS: FINANCIAL PROJECTIONS
SA0712_DFNMKT	07 TO 12 MTHS: DEFINING MARKETS, CUSTOMER BASE
SA0712_LEASE_	07 TO 12 MTHS: PURCHASE,LEASED CAPITAL ASSET
SA0712_PURCHA	07 TO 12 MTHS: PURCHASE MATERIAL,SUPPLIES,INVENTORY
SA0712_SUTEAM	07 TO 12 MTHS: ORGANIZE START-UP TEAM
SA0712_MODEL_	07 TO 12 MTHS: MODEL INITIATED
SA0712_PROMOT	07 TO 12 MTHS: PROMOTION FOR PROD/SERV
SA0712_PATENT	07 TO 12 MTHS: PATENT,COPYRIGHT,TRADEMARK INITIATED
SA0712_BUSPLN	07 TO 12 MTHS: BUSINESS PLAN INITIATED
SA0712_EIN__	07 TO 12 MTHS: REGISTERED GOV ID NUMBER
SA0712_GETFND	07 TO 12 MTHS: GOT FUNDING
SA1324_PHLIST	13 TO 24 MTHS: INTERNET/PHONE LISTING
SA1324_SALES_	13 TO 24 MTHS: INCOME RECEIVED
SA1324_HIRE__	13 TO 24 MTHS: PERSON HIRED
SA1324_FTWK_1	13 TO 24 MTHS: FULL-TIME INVOLVE BY OWNER #1
SA1324_SUPCRD	13 TO 24 MTHS: SUPPLIER CREDIT
SA1324_ASKFND	13 TO 24 MTHS: ASKED FOR FUNDING
SA1324_ONINV1	13 TO 24 MTHS: OWNER #1 INVESTED
SA1324_FINPRJ	13 TO 24 MTHS: FINANCIAL PROJECTIONS
SA1324_DFNMKT	13 TO 24 MTHS: DEFINING MARKETS, CUSTOMER BASE
SA1324_LEASE_	13 TO 24 MTHS: PURCHASE,LEASED CAPITAL ASSET
SA1324_PURCHA	13 TO 24 MTHS: PURCHASE MATERIAL,SUPPLIES,INVENTORY
SA1324_SUTEAM	13 TO 24 MTHS: ORGANIZE START-UP TEAM
SA1324_MODEL_	13 TO 24 MTHS: MODEL INITIATED
SA1324_PROMOT	13 TO 24 MTHS: PROMOTION FOR PROD/SERV
SA1324_PATENT	13 TO 24 MTHS: PATENT,COPYRIGHT,TRADEMARK INITIATED
SA1324_BUSPLN	13 TO 24 MTHS: BUSINESS PLAN INITIATED
SA1324_EIN__	13 TO 24 MTHS: REGISTERED GOV ID NUMBER
SA1324_GETFND	13 TO 24 MTHS: GOT FUNDING
SA2536_PHLIST	25 TO 36 MTHS: INTERNET/PHONE LISTING
SA2536_SALES_	25 TO 36 MTHS: INCOME RECEIVED
SA2536_HIRE__	25 TO 36 MTHS: PERSON HIRED
SA2536_FTWK_1	25 TO 36 MTHS: FULL-TIME INVOLVE BY OWNER #1
SA2536_SUPCRD	25 TO 36 MTHS: SUPPLIER CREDIT
SA2536_ASKFND	25 TO 36 MTHS: ASKED FOR FUNDING
SA2536_ONINV1	25 TO 36 MTHS: OWNER #1 INVESTED

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SA2536_FINPRJ	25 TO 36 MTHS: FINANCIAL PROJECTIONS
SA2536_DFNMKT	25 TO 36 MTHS: DEFINING MARKETS, CUSTOMER BASE
SA2536_LEASE_	25 TO 36 MTHS: PURCHASE, LEASED CAPITAL ASSET
SA2536_PURCHA	25 TO 36 MTHS: PURCHASE MATERIAL, SUPPLIES, INVENTORY
SA2536_SUTEAM	25 TO 36 MTHS: ORGANIZE START-UP TEAM
SA2536_MODEL_	25 TO 36 MTHS: MODEL INITIATED
SA2536_PROMOT	25 TO 36 MTHS: PROMOTION FOR PROD/SERV
SA2536_PATENT	25 TO 36 MTHS: PATENT, COPYRIGHT, TRADEMARK INITIATED
SA2536_BUSPLN	25 TO 36 MTHS: BUSINESS PLAN INITIATED
SA2536_EIN__	25 TO 36 MTHS: REGISTERED GOV ID NUMBER
SA2536_GETFND	25 TO 36 MTHS: GOT FUNDING
SA3748_PHLIST	37 TO 48 MTHS: INTERNET/PHONE LISTING
SA3748_SALES_	37 TO 48 MTHS: INCOME RECEIVED
SA3748_HIRE__	37 TO 48 MTHS: PERSON HIRED
SA3748_FTWK_1	37 TO 48 MTHS: FULL-TIME INVOLVE BY OWNER #1
SA3748_SUPCRD	37 TO 48 MTHS: SUPPLIER CREDIT
SA3748_ASKFND	37 TO 48 MTHS: ASKED FOR FUNDING
SA3748_ONINV1	37 TO 48 MTHS: OWNER #1 INVESTED
SA3748_FINPRJ	37 TO 48 MTHS: FINANCIAL PROJECTIONS
SA3748_DFNMKT	37 TO 48 MTHS: DEFINING MARKETS, CUSTOMER BASE
SA3748_LEASE_	37 TO 48 MTHS: PURCHASE, LEASED CAPITAL ASSET
SA3748_PURCHA	37 TO 48 MTHS: PURCHASE MATERIAL, SUPPLIES, INVENTORY
SA3748_SUTEAM	37 TO 48 MTHS: ORGANIZE START-UP TEAM
SA3748_MODEL_	37 TO 48 MTHS: MODEL INITIATED
SA3748_PROMOT	37 TO 48 MTHS: PROMOTION FOR PROD/SERV
SA3748_PATENT	37 TO 48 MTHS: PATENT, COPYRIGHT, TRADEMARK INITIATED
SA3748_BUSPLN	37 TO 48 MTHS: BUSINESS PLAN INITIATED
SA3748_EIN__	37 TO 48 MTHS: REGISTERED GOV ID NUMBER
SA3748_GETFND	37 TO 48 MTHS: GOT FUNDING
SA4960_PHLIST	49 TO 60 MTHS: INTERNET/PHONE LISTING
SA4960_SALES_	49 TO 60 MTHS: INCOME RECEIVED
SA4960_HIRE__	49 TO 60 MTHS: PERSON HIRED
SA4960_FTWK_1	49 TO 60 MTHS: FULL-TIME INVOLVE BY OWNER #1
SA4960_SUPCRD	49 TO 60 MTHS: SUPPLIER CREDIT
SA4960_ASKFND	49 TO 60 MTHS: ASKED FOR FUNDING
SA4960_ONINV1	49 TO 60 MTHS: OWNER #1 INVESTED
SA4960_FINPRJ	49 TO 60 MTHS: FINANCIAL PROJECTIONS
SA4960_DFNMKT	49 TO 60 MTHS: DEFINING MARKETS, CUSTOMER BASE
SA4960_LEASE_	49 TO 60 MTHS: PURCHASE, LEASED CAPITAL ASSET
SA4960_PURCHA	49 TO 60 MTHS: PURCHASE MATERIAL, SUPPLIES, INVENTORY
SA4960_SUTEAM	49 TO 60 MTHS: ORGANIZE START-UP TEAM
SA4960_MODEL_	49 TO 60 MTHS: MODEL INITIATED
SA4960_PROMOT	49 TO 60 MTHS: PROMOTION FOR PROD/SERV

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SA4960_PATENT	49 TO 60 MTHS: PATENT,COPYRIGHT,TRADEMARK INITIATED
SA4960_BUSPLN	49 TO 60 MTHS: BUSINESS PLAN INITIATED
SA4960_EIN__	49 TO 60 MTHS: REGISTERED GOV ID NUMBER
SA4960_GETFND	49 TO 60 MTHS: GOT FUNDING
SA6172_PHLIST	61 TO 72 MTHS: INTERNET/PHONE LISTING
SA6172_SALES_	61 TO 72 MTHS: INCOME RECEIVED
SA6172_HIRE__	61 TO 72 MTHS: PERSON HIRED
SA6172_FTWK_1	61 TO 72 MTHS: FULL-TIME INVOLVE BY OWNER #1
SA6172_SUPCRD	61 TO 72 MTHS: SUPPLIER CREDIT
SA6172_ASKFND	61 TO 72 MTHS: ASKED FOR FUNDING
SA6172_ONINV1	61 TO 72 MTHS: OWNER #1 INVESTED
SA6172_FINPRJ	61 TO 72 MTHS: FINANCIAL PROJECTIONS
SA6172_DFNMKT	61 TO 72 MTHS: DEFINING MARKETS, CUSTOMER BASE
SA6172_LEASE_	61 TO 72 MTHS: PURCHASE,LEASED CAPITAL ASSET
SA6172_PURCHA	61 TO 72 MTHS: PURCHASE MATERIAL,SUPPLIES,INVENTORY
SA6172_SUTEAM	61 TO 72 MTHS: ORGANIZE START-UP TEAM
SA6172_MODEL_	61 TO 72 MTHS: MODEL INITIATED
SA6172_PROMOT	61 TO 72 MTHS: PROMOTION FOR PROD/SERV
SA6172_PATENT	61 TO 72 MTHS: PATENT,COPYRIGHT,TRADEMARK INITIATED
SA6172_BUSPLN	61 TO 72 MTHS: BUSINESS PLAN INITIATED
SA6172_EIN__	61 TO 72 MTHS: REGISTERED GOV ID NUMBER
SA6172_GETFND	61 TO 72 MTHS: GOT FUNDING
SA0001_TOT	TOTAL SU ACTS: 00 TO 01 MTHS AFTER ENTRY
SA0203_TOT	TOTAL SU ACTS: 02 TO 03 MTHS AFTER ENTRY
SA0406_TOT	TOTAL SU ACTS: 04 TO 06 MTHS AFTER ENTRY
SA0712_TOT	TOTAL SU ACTS: 07 TO 12 MTHS AFTER ENTRY
SA1324_TOT	TOTAL SU ACTS: 13 TO 24 MTHS AFTER ENTRY
SA2536_TOT	TOTAL SU ACTS: 25 TO 36 MTHS AFTER ENTRY
SA3748_TOT	TOTAL SU ACTS: 37 TO 48 MTHS AFTER ENTRY
SA4960_TOT	TOTAL SU ACTS: 49 TO 60 MTHS AFTER ENTRY
SA6172_TOT	TOTAL SU ACTS: 61 TO 72 MTHS AFTER ENTRY
SUACTS_A	START UP ACTS W/ DATES,ALL WAVES:MAX=18
SUACTM_A	START UP ACTS W/O DATES,ALL WAVES:MAX=18
SUACTT_A	START UP ACTS TOTAL COUNT,ALL WAVES
SUACTA_5	TOTAL START-UP ACTS,ALL WAVES:5 CATEGORIES
SUACT_1	DATE: INITIAL ACT REPORTED
SUACT_2	DATE: SECOND ACT REPORTED
SUACT_3	DATE: THIRD ACT REPORTED
SUACT_4	DATE: FOURTH ACT REPORTED
SUACT_5	DATE: FIFTH ACT REPORTED
SUACT_6	DATE: SIXTH ACT REPORTED
SUACT_7	DATE: SEVENTH ACT REPORTED
SUACT_8	DATE: EIGHTH ACT REPORTED

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SUACT_9	DATE: NINTH ACT REPORTED
SUACT_10	DATE: TENTH ACT REPORTED
SUACT_11	DATE: ELVENTH ACT REPORTED
SUACT_12	DATE: TWELFTH ACT REPORTED
SUACT_102	MONTHS:1ST TO 2ND START UP ACT
SUACT_103	MONTHS:1ST TO 3RD START UP ACT
SUACT_104	MONTHS:1ST TO 4TH START UP ACT
SUACT_105	MONTHS:1ST TO 5TH START UP ACT
SUACT_106	MONTHS:1ST TO 6TH START UP ACT
SUACT_107	MONTHS:1ST TO 7TH START UP ACT
SUACT_108	MONTHS:1ST TO 8TH START UP ACT
SUACT_109	MONTHS:1ST TO 9TH START UP ACT
SUACT_110	MONTHS:1ST TO 10TH START UP ACT
SUACT_203	MONTHS:2ND TO 3RD START UP ACT
SUACT_204	MONTHS:2ND TO 4TH START UP ACT
SUACT_205	MONTHS:2ND TO 5TH START UP ACT
SUACT_206	MONTHS:2ND TO 6TH START UP ACT
SUACT_207	MONTHS:2ND TO 7TH START UP ACT
SUACT_208	MONTHS:2ND TO 8TH START UP ACT
SUACT_209	MONTHS:2nd TO 9TH START UP ACT
SUACT_210	MONTHS:2nd TO 10TH START UP ACT
SUACT_304	MONTHS:3RD TO 4TH START UP ACT
SUACT_305	MONTHS:3RD TO 5TH START UP ACT
SUACT_306	MONTHS:3RD TO 6TH START UP ACT
SUACT_307	MONTHS:3RD TO 7TH START UP ACT
SUACT_308	MONTHS:3RD TO 8TH START UP ACT
SUACT_309	MONTHS:3RD TO 9TH START UP ACT
SUACT_310	MONTHS:3RD TO 10TH START UP ACT
SUACT_405	MONTHS:4TH TO 5TH START UP ACT
SUACT_406	MONTHS:4TH TO 6TH START UP ACT
SUACT_407	MONTHS:4TH TO 5TH START UP ACT
SUACT_408	MONTHS:4TH TO 6TH START UP ACT
SUACT_409	MONTHS:4TH TO 9TH START UP ACT
SUACT_410	MONTHS:4TH TO 10TH START UP ACT
SUACT_506	MONTHS:5TH TO 6TH START UP ACT
SUACT_507	MONTHS:5TH TO 7TH START UP ACT
SUACT_508	MONTHS:5TH TO 8TH START UP ACT
SUACT_509	MONTHS:5TH TO 9TH START UP ACT
SUACT_510	MONTHS:5TH TO 10TH START UP ACT
SUACT_607	MONTHS:6TH TO 7TH START UP ACT
SUACT_608	MONTHS:6TH TO 8TH START UP ACT
SUACT_609	MONTHS:6TH TO 9TH START UP ACT
SUACT_610	MONTHS:6TH TO 10TH START UP ACT

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SUACT_708	MONTHS:7TH TO 8TH START UP ACT
SUACT_709	MONTHS:7TH TO 9TH START UP ACT
SUACT_710	MONTHS:7TH TO 10TH START UP ACT
SUACT_809	MONTHS:8TH TO 9TH START UP ACT
SUACT_810	MONTHS:8TH TO 10TH START UP ACT
SUACT_910	MONTHS:9TH TO 10TH START UP ACT
SU_NEWF_I	ALL WAVES:INITIAL POS MTH CASH FLOW, EXP & SALARIES
SU_QUIT_I	ALL WAVES:R QUIT THE START-UP,ASSUMED ABANDONED
THINK_AW_I	ALL WAVES:BEGIN FIRST THOUGHT ABOUT BUS IDEA
PHLISTAW_I	ALL WAVES:INITIAL DEDICATED PHONE LISTING,LINE
SALES_AW_I	ALL WAVES:INITIAL SALES,REVENUE,INCOME
HIRE_AW_I	ALL WAVES:INITIAL EMPLOYEE HIRE
FTWK_AW1_I	ALL WAVES:STARTED DEVOTING FULL TIME TO SU
SUPCRDAW_I	ALL WAVES:ASKED FOR SUPPLIER CREDIT
ASKFNDAW_I	ALL WAVES:ASKED EXTERNAL SOURCES FOR FUNDING
ONINVAW1_I	ALL WAVES:BEGAN INVESTING OWN MONEY
FINPRJAW_I	ALL WAVES:FINANCIAL PROJECTIONS INITIATED
DFNMKTAW_I	ALL WAVES:DEFINING MARKETS INITATED
LEASE_AW_I	ALL WAVES:PURCHASED,LEASED PLANT,EQUIP,VEH
PURCHAAW_I	ALL WAVES:PURCHASED MATER,INVENT,SUPPLIES
SUTEAMAW_I	ALL WAVES:START-UP TEAM FORMED
MODEL_AW_I	ALL WAVES:MODEL, PROTOTYPE INITATED
PROMOTAW_I	ALL WAVES:PROMOT 4 PRODUCT,SERVICE INITIATE
PATENTAW_I	ALL WAVES:PATENT,TRADEMARK,COPYRIGHT INITAT
BUSPLNAW_I	ALL WAVES:BUSINESS PLAN INITIATED
EIN_AW_I	ALL WAVES:OBTAINED BUSINESS REGISTRATION NUMBER
GETFNDAW_I	ALL WAVES:RECEIVED FUNDING FROM EXTERNAL SOURCES
SU_NFIAW_CL	MTHS LAG ENTRY TO POSITIVE MTH CASH FLOW (EXP & SALARIES)
SU QUIAW_CL	MTHS LAG ENTRY TO R QUIT, START-UP ABANDONED
THINK_AW_CL	MTHS LAG ENTRY TO BEGIN FIRST THOUGHT ABOUT BUS IDEA
PHLISTAW_CL	MTHS LAG ENTRY TO INITIAL DEDICATED PHONE LINE
SALES_AW_CL	MTHS LAG ENTRY TO INITIAL SALES,REVENUE,INCOME
HIRE_AW_CL	MTHS LAG ENTRY TO INITIAL EMPLOYEE HIRE
FTWK_AW1_CL	MTHS LAG ENTRY TO STARTED DEVOTING FULL TIME TO SU
SUPCRDAW_CL	MTHS LAG ENTRY TO ASKED FOR SUPPLIER CREDIT
ASKFNDAW_CL	MTHS LAG ENTRY TO ASKED FOR EXTERNAL SOURCE FUNDING
ONINVAW1_CL	MTHS LAG ENTRY TO R BEGAN INVESTING OWN MONEY
FINPRJAW_CL	MTHS LAG ENTRY TO FINANCIAL PROJECTIONS INITIATED
DFNMKTAW_CL	MTHS LAG ENTRY TO DEFINING MARKETS INITATED
LEASE_AW_CL	MTHS LAG ENTRY TO PURCHASED,LEASED PLANT,EQUIP,VEH
PURCHAAW_CL	MTHS LAG ENTRY TO PURCHASED MATER,INVENT,SUPPLIES
PATENTAW_CL	MTHS LAG ENTRY TO PATENT,TRADEMARK,COPYRIGHT INITAT
PROMOTAW_CL	MTHS LAG ENTRY TO PROMOT 4 PRODUCT,SERVICE INITIATE

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MODEL_AW_CL	MTHS LAG ENTRY TO MODEL, PROTOTYPE INITATED
SUTEAMAW_CL	MTHS LAG ENTRY TO START-UP TEAM FORMED
BUSPLNAW_CL	MTHS LAG ENTRY TO BUSINESS PLAN INITIATED
EIN__AW_CL	MTHS LAG ENTRY TO OBTAINED BUSINESS REGISTRATION NO
GETFNDAW_CL	MTHS LAG ENTRY TO RECEIVED EXTERNAL SOURCE FUNDING
TM1_SEX	TM MBR 1: GENDER (RESPONDENT)
TM2_SEX	TM MBR 2: GENDER
TM3_SEX	TM MBR 3: GENDER
TM4_SEX	TM MBR 4: GENDER
TM5_SEX	TM MBR 5: GENDER
TMX_MALES_AU	TEAM TOTAL MALES: AUSTRALIA ONLY
TMX_FEMALES_AU	TEAM TOTAL FEMALES: AUSTRALIA ONLY
TM1_AGE	TM MBR 1: AGE (RESPONDENT)
TM2_AGE	TM MBR 2: AGE
TM3_AGE	TM MBR 3: AGE
TM4_AGE	TM MBR 4: AGE
TM5_AGE	TM MBR 5: AGE
TM1_AGE_6C	TM MBR 1: AGE 6 CATEG (RESPONDENT)
TM2_AGE_6C	TM MBR 2: AGE 6 CATEG
TM3_AGE_6C	TM MBR 3: AGE 6 CATEG
TM4_AGE_6C	TM MBR 4: AGE 6 CATEG
TM5_AGE_6C	TM MBR 5: AGE 6 CATEG
TMX_YOUNG_AU	YOUNGEST TEAM MEMBER: AUSTRALIA ONLY
TMX_OLD_AU	OLDEST TEAM MEMBER: AUSTRALIA ONLY
TM1_EDUC	TM MBR 1: EDUC ATTAINMENT (RESPONDENT)
TM1_OWN	TM MBR 1: % OWNERSHIP (RESPONDENT)
TM2_OWN	TM MBR 2: % OWNERSHIP
TM3_OWN	TM MBR 3: % OWNERSHIP
TM4_OWN	TM MBR 4: % OWNERSHIP
TM5_OWN	TM MBR 5: % OWNERSHIP
TM1_WKEXP	TM MBR 1: YRS WORK EXPERIENCE (RESPONDENT)
TM2_WKEXP	TM MBR 2: YRS WORK EXPERIENCE
TM3_WKEXP	TM MBR 3: YRS WORK EXPERIENCE
TM4_WKEXP	TM MBR 4: YRS WORK EXPERIENCE
TM5_WKEXP	TM MBR 5: YRS WORK EXPERIENCE
TM1_IDEXP	TM1: YRS SAME INDUSTRY EXPERIENCE
TM2_IDEXP	TM2: YRS SAME INDUSTRY EXPERIENCE
TM3_IDEXP	TM3: YRS SAME INDUSTRY EXPERIENCE
TM4_IDEXP	TM4: YRS SAME INDUSTRY EXPERIENCE
TM5_IDEXP	TM5: YRS SAME INDUSTRY EXPERIENCE
TM1_OTHSUS	TM1: OTHER START-UPS EXPERIENCE
TM2_OTHSUS	TM2: OTHER START-UPS EXPERIENCE
TM3_OTHSUS	TM3: OTHER START-UPS EXPERIENCE

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TM4_OTHSUS	TM4: OTHER START-UPS EXPERIENCE
TM5_OTHSUS	TM5: OTHER START-UPS EXPERIENCE
TMX_TOT_INDEX_AU	TEAM TOTAL YRS INDUSTRY EXP: AUSTRALIA ONLY
TMX_TOT_MGTEX_AU	TEAM TOTAL YRS MANAGEMENT EXP: AUSTRALIA ONLY
TMX_TOT_SUEXP_AU	TEAM TOTAL W/ START-UP EXP: AUSTRALIA ONLY
TM1_NATBRN	TM MBR 1: BORN IN THE COUNTRY
TM_SIZEH	SU TEAM SIZE: TOTAL OWNERS,HUMAN
CTXTMOT	CONTEXTUAL MOTIVATION: OPPORTUNITY VS NO BETTER CHOICE
BUS_ORIGIN	INITIAL MOTIVATION: ENTRE DESIRE OR BUS IDEA
SECTOR_20C_US	ECONOMIC SECTOR: 20 CATEGORIES-UNITED STATES
SECTOR_17C_AU	ECONOMIC SECTOR: 17 CATEGORIES-AUSTRALIA
SECTOR_08C_SE	ECONOMIC SECTOR: 8 CATEGORIES-SWEDEN
SECTOR_15C_CH	ECONOMIC SECTOR: 15 CATEGORIES-CHINA
CUST_LOC	% LOCAL CUSTOMERS:< 20 MILES
CUST_REG	% REGIONAL CUSTOMERS:20-100 MILES
CUST_NAT	NATIONAL CUSTOMERS > 100 MILES AWAY
CUST_INT	INTERNATIONAL CUSTOMERS, OUTSIDE COUNTRY
SALE_1YR	SALES EST, NAT CURR: 1ST YR OPER
SALE_5YR	SALES EST, NAT CURR: 5TH YR OPER
JOBS_1YR	JOBS EST:1ST YR OPER
JOBS_5YR	JOBS EST:5TH YR OPER
GR_PREF	TM1 PREFERENCE FOR FIRM GROWTH (RESPONDENT)
TECH_5YR	PROD/SERV TECH NOT AVAILABLE 5 YRS AGO
RD_FOCUS	R/D SPENDING A MAJOR PRIORITY
HI_TECHQ	CONSIDER BUSINESS HI-TECH?