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AN EMPIRICAL ANALYSIS: VENTURE CAPITAL CLUSTERS AND FIRM MIGRATION

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Regions and states utilize venture capital forums to raise the profiles of youthful, potentially high-growth firms located within their boundaries. They aim to help organizations raise capital, to widen professional networks and to stimulate regional development. As a contribution toward determining the success of the forum concept, the Florida venture forum was studied. This paper follows those companies who received funding subsequent to participating in the forum during the period 1997–2003; data is drawn from the forum and public records. Funding profiles are built up for successful participants and the funding entities. A secondary profile, post-funding, is developed that examines the role the funding agent plays in determining whether the funded company remains or migrates from its original location. The finding of this paper is that a significant number of funded entities are located within venture capital cores or clusters. The paper shows that funded companies are younger than non-funded companies, more likely to be acquired and move from their original location. The paper also shows that the participant companies that were acquired achieve an exit strategy by migrating out of the state of Florida.

Keywords: Venture capital clusters; firm migration; relocation theory; entrepreneurship; venture forum.

1. Introduction

In this study, we consider one of the catalysts employed by states and regions in promoting entrepreneurial development: the "Venture Forum." The Venture Forum is a mechanism through which entrepreneurs can raise the public awareness of their companies, stimulate interest in their firms, and, potentially, raise capital to spur growth.

The primary focus of this work is the Florida Venture Forum (FVF). The FVF has been held in the state of Florida annually since 1984. The paper uses data from a longitudinal study of the companies that presented their business plans at the FVF's Venture Capital Conference during the period 1997–2003. We examine the profiles of the companies that received funding during the period, together with the source and location of the funding agents. *Pratt's Guide to Venture Capital Sources* was used as a basis for the dataset on funding agents (Bokser, 1997; Pratt, 1998, 1999, 2000, 2001, 2002, 2003).

This study begins with a background discussion on regional development factors, including background information on then FVF, the primary development factor examined in this

study. Within this discussion, the existing literature on location and relocation theory is also reviewed. The study uses grounded theory to examine the proposition that there is a higher probability of participatory companies being funded if they are co-located within venture capital clusters or are willing to relocate to funding agents. This is considered through three research questions. First, we examine the location of venture capital firms (VCF) in the state of Florida during the period 1997–2003 and examine if the firms cluster together. Second, we use the data from the FVF to examine if the presenting firms are co-located within venture capital clusters. Third, we examine if those firms funded are younger than non-funded companies, are more likely to be acquired than non-funded companies and are more likely to move from their original location than non-funded companies. Conclusions and implications are then presented in the final section.

2. Regional Development Factors

The role of entrepreneurship and innovation as catalysts of regional transformation has been acknowledged by many scholars (Morse and Flender, 1976; Sweeny, 1987; Kirchhoff, 1995; Malecki, 1997; Clark and Guy, 1998; Autio and Yli-Renko, 1998; Gordon and McCann, 2005) and has led community leaders at all levels to derive mechanisms to fuel this catalyst of growth. These mechanisms include financial incentives, legal structures, infrastructure provisions, as well as the promotion of the socioeconomic and geographic attributes of a region, all aimed at attracting and retaining entrepreneurs and their companies. The provision of these support factors from the state or region rarely leads to competitive differentiation in the marketplace for entrepreneurial talent, as most developed regions can provide such support. These factors are, in actuality, the necessary prerequisites for innovation and growth (Venkataraman, 2004). As such, many developed states and regions have adequate support structures, such as development zones aimed at nurturing start-up firms. In actuality, however, many of the development zones lack a sense of being a "venture community" containing the entrepreneurial meta-knowledge, both experiential and practical, which is engendered in functioning communities (O'Gorman and Kautonen, 2004).

Many regions have attempted to provide the spark for the growth of entrepreneurial communities through a variety of mechanisms, including venture forums and business plan competitions. One such forum is the Massachusetts Institute of Technology's (MIT) Enterprise Forum. This organization was founded in 1978 "to support the missions of the MIT Alumni Association and of MIT itself by building connections to technology entrepreneurs and to the communities in which they reside" (Enterprise-Forum, 2006). At this forum, entrepreneurs[a] present their ideas to an invited panel and to a public audience in order to solicit feedback and, where required, raise capital. The forum has 23 chapters, 19 of which are in the USA. They aim to continue to promote the ideals and concepts which have led to over 5,000 companies being developed from the MIT campus and its graduates. As a measure of success, these companies are estimated to employ approximately 1.1 million

[a]Originally only for MIT graduates, but is now open to graduates of other institutions.

people with annual global sales of $232 billion, equivalent to a GDP of $116 billion (MIT, 2006).

One region that aims to duplicate the success of the venture forum concept is Florida. With a population of 17,789,864 people in 2005, Florida ranks as the fourth most populous American state behind California (population 36,132,147), Texas (population 22,859,968), and New York (population 19,254,630). Florida is also highly ranked in terms of population change. With an 11.5 percent population increase during 2000–2005, Florida ranked third, behind Arizona (15.8 percent) and Nevada (20.8 percent) (Census, 2005).

In 2003, Florida ranked fourth in terms of high-tech industry employment, which totaled 258,800 (Fiala, 2005). The state ranked fifteenth in terms of total research and development expenditures in 2000, while in 2004, its universities ranked ninth in total research expenditures and fifth in license income (AUTM, 2004). If in terms of venture capital, Florida ranked fifteenth in terms of investment in 2005 with $389 million (Herald, 2006). This contrasts to the $6.167 billion invested in Silicon Valley during the same period. In terms of attracting venture capital, Florida ranked eighth among the top ten most populous states, attracting only a 1.34 percent share of the total venture capital available, compared to the top two most populous states: California, which obtained a 42.91 percent share, and Texas with a 6.3 percent share (eFlorida, 2006).

A focal point for Florida's venture capital community is the annual Florida Venture Forum (FVF, 2006). The FVF was founded in 1984 by business leaders and academics to provide a state-wide support group for all entrepreneurs. This purpose is characterized in their mission statement:

> "The goal of the Forum is to help ensure the success of entrepreneurial ventures by offering expert counsel, educational advice and managerial assistance. The Florida Venture Forum is a 501(c)(6) non-profit organization that is supported locally by private companies, service providers, venture capitalists and academic institutions" (FVF, 2006).

Since 1990, the FVF has been the principal organizer of the Florida Venture Capital Conference (FVCC), which acts as the state's premier venture forum. Over the period 1992 to 2004, the presenting companies raised more than $680.8 million of venture capital funding (Kovaleski, 2004).

3. Literature Review

Location theory literature is extensive. It finds its origins in the scholarship of the 19th century with Von Thünen (1826) and Lunhardt (1885), and came to prominence with the work of Alfred Weber in the early decades of the twentieth century (Weber, 1929), who considered the problem of minimizing transportation costs as a mechanism for identifying the optimal firm location. The literature can be characterized in terms of three approaches: neoclassical, behavioral and institutional, which has been documented by Pellenbarg *et al.* (2002). The neoclassical approach extends the work of Weber and considers firm relocation in terms of spatial margin theory. The behavioral approach is typified by the work of

Simon (1955), which used firm-specific and non-economic data to identify the best location for a firm. The behavioral approach was the most useful in identifying and examining the issues associated with both "push" and "pull" factors (Pellenbarg *et al.*, 2002), and the literature developed beyond the issues associated with a firm's location to consider the specific issues associated with firm "relocation." The institutional approach considers the social and cultural contexts in which a firm is embedded in relation to the firm's location (Krugman, 1991). The field of location theory continues to evolve and recent research trends look to consider the entrepreneur through the lens of spatial context (Scott, 2006). McCann and Sheppard (2003) have presented an authoritative perspective on the history of the subject and on the prospective factors that continue to influence the research in industrial location theory.

The research in firm location theory has been adopted and developed further to incorporate migration theory. Work of Keeble and others in the 1970s considered migration issues in the U.K. and Europe (Keeble, 1971, 1976; Sant, 1975; Klaassen and Molle, 1983; Van Dijk and Pellenbarg, 2000). However, the academic literature on firm migration, especially those in the early stages of their entrepreneurial lifecycle, is sparse. Holl (2004) has considered the decision-making associated with the start-up and relocation of manufacturing plants in Portugal, in which it was shown that at the time of firm creation, entrepreneurs are influenced by issues of diversity, local market size and labor costs, while later firms are attracted to relocation by access to larger (national) markets, transportation links and more varied section of producers. Figueiredo *et al.* (2002) also considered location decisions of Portuguese entrepreneurs, showing that when a firm made the determination to stay at their hometown, they were influenced by being in the proximity to agglomeration economies and major urban centers. They further showed that the entrepreneurs would accept the higher labor costs in these areas in exchange for the advantage of heightened information pertaining to the home area over the uncertainty elsewhere (Figueiredo *et al.*, 2002). Bartik (1985) found that union sympathies of states, together with tax policies, have a major effect on business location. Van Dijk and Pellenbarg (2000) have considered firm relocation in the Netherlands and have shown that the relocation decision is influenced by factors internal to the firm, such as ownership of factory space or other property. However, the distances involved in the migrations considered in the European studies are relatively small when compared to the potential for firm migrations within larger countries such as the United States, China or India.

The topic of firm relocation is important, as the implications of a firm's choice of location and, if required, subsequent migration in the early stages of a firm's lifecycle, could potentially be the determinant of a firm success or failure. Many studies have shown that firm mobility is related to the size and growth associated with a firm (Mayer and Goldstein, 1961; Boswell, 1972; Cochran, 1981), and while a start-up location such as an incubator (Allen and McKlusky, 1990) may be satisfactory for a short while, it is necessary for a firm to migrate from the incubator in order to grow and flourish.

In previous studies, Plant and Salinas (1992) considered firm relocation from a resource requirements perspective within the United States, while Galbraith and De Noble (1988) considered location decisions by high-technology firms, comparing firm size, industry type

and institutional form. Brüderl *et al.* (1992) considered the topic of firm mortality, showing that 37 percent of new business start-ups failed within four years, and as such, the ability to migrate to a more supportive environment is of importance to entrepreneurs.

The term "firm migration" has been defined by Pellenbarg *et al.* (2002) as "a firm's change of address from location A to location B," and they state that "this definition is best suited to small and medium-sized single plant firms". Therefore, we feel that the term is applicable to the organizations seeking funding as studied in this paper. Thus, following the lead of Pellenbarg *et al.* (2002) and Holl (2004) who indicate the need for further research in the area of economic demography that focuses on the migration of firms at each stage of organizational growth, this paper looks to add to firm location theory by considering some of the interacting factors between the locations of start-up firms and venture capital firms. The paper considers whether or not firms migrate following a funding event at a venture forum.

4. Research Methodology

In developing a better understanding of the role of venture forums in the success of new ventures and to examine the impact that funding has upon the relocation dynamics of successfully funded ventures, a grounded theoretic approach was taken (Glaser and Strauss, 1967). The approach was considered appropriate as the theoretical research base and literature in the area of firm relocation is sparse, as Pellenbarg *et al.* (2002) point out.

The grounded approach is inductive in nature, not relying upon previous evidence for justification. It is applicable and appropriate in the early stages of research in which the foundations of an area are being created.

The research process utilized here was as outlined in Corbin and Strauss (1990). The five basic steps included:

(i) Iterative data collection
(ii) Generation of concepts
(iii) Development of categories and relating them to the concepts
(iv) Theoretical sampling, and
(v) Use of the coding paradigm

Grounded theory attempts to facilitate increasingly refined analytical interpretations of data by constantly comparing information from a wide variety of sources through a process model (Charmaz, 1994; Pidgeon, 1996). The approach analyzes the data sources using three types of coding: open, axial and selective. The open coding process involves analyzing the qualitative data and information generated from primary and secondary sources. In this study, the primary sources included interviews with 23 case study organizations. Secondary sources included case studies regarding the ventures funded after appearing at the forum, data obtained via public data sources including the Security and Exchange Commission, data from the Internet, and data from the firms themselves. This dataset was comprised of 156 companies that appeared at the Florida Venture Capital Forum in the period 1997–2003, of which 47 secured funding.

In the axial coding process, the relationships between the subject companies, the funding agent, the causal conditions, and the context in which the funding event exists are studied. In this research study, both the causal conditions and the context relate to the amount of venture funding made available and to the regional growth conditions. The data resulting from the analysis performed in these two coding processes allow further analysis to be performed in the selective coding phase. A more detailed statistical analysis of the data pertaining to the relocation of companies successfully funded through the FVCC is examined.

5. Research Questions

This study empirically examines the historical data associated with the FVCC from 1997–2003 and examines the following research questions:

(i) In Florida, do venture capital firms locate in clusters?
(ii) Are companies that present at the FVCC co-located within venture capital clusters?
(iii) Are funded companies:
    (a) younger than non-funded companies?
    (b) more likely to be acquired than non-funded companies?
    (c) more likely to move from their original location than non-funded companies?
(iv) Do funded companies migrate to the location of the funding agent?

6. Data

The data for the study was based upon the companies presenting business plans at the FVCC in the period 1997–2003. The dataset pertaining to the companies seeking funding was provided by the FVF that identified the funded companies. The data included: the name of the presenter/CEO of the company, the amount raised and the source of the funding where disclosed (FVF, 2002). The data relating to funding events refers only to the first funding event reported following a company presenting at the FVCC. This paper does not examine the correlation between the forums as the sole cause of the funding events. Supplemental data were also obtained from previous FVF Chairpersons and from the Executive Director of the FVF (2002–2003); this included the number and listing of presenters and access to press releases and the FVF archives. Additional data for the companies that presented and were funded during 1997–2003 were obtained from the United States Securities and Exchange Commission, the State of Florida — Division of Corporations, the State of Delaware — Division of Corporations, and from interviews with corporate officers of 23 of the presenting companies. The dataset pertaining to the venture capital companies was obtained from *Pratt's Guide to Venture Capital Sources* (1997–2003).

7. The Location of Venture Capital Firms in Florida

While there are many different types of funding sources available to companies seeking capital, this study only examines the location of venture capital (VC) firms.

Table 1. Number of VC firms in florida by year.

Year	Number of VC Firms
1997	26
1998	24
1999	27
2000	30
2001	32
2002	28
2003	38

Source: *Pratt's Guide to Venture Capital Sources*, Editions 22 (1997) – 27 (2003). New York: Venture Economics.

Table 1 shows the number of VC firms located in Florida by year. The firms were analyzed by their physical location in order to identify "clusters" and "cores." A core is defined as a location where the average number of VC firms over the period 1997–2003 is greater than one. This would denote the long-term establishment of a venture capital base for potential future growth. We define a cluster as being a set of locations (nodes) with a VC presence during the period 1997–2003 within 25 miles of a core. The radius of 25 miles was chosen as this approximates to the transect of a "Metropolitan Division" (MD), a subset of a Metropolitan Statistical Area (MSA). For example, the Miami-Fort Lauderdale-Miami Beach, FL MSA (denoted MSA 33100) is composed of nine principal cities: Miami, Ft. Lauderdale, Miami Beach, West Palm Beach, Kendall, Boca Raton, Deerfield Beach, Boynton Beach and Delray Beach. Alternatively, the MSA can be considered as three metropolitan divisions — MD 22744: Ft. Lauderdale-Pompono Beach-Deerfield Beech; MD 33124: Miami-Miami Beach-Kendall; MD 48424: West Palm Beach-Boca Raton-Boynton Beach.

The data drawn from Pratt's for the period 1997–2003 was plotted as a graph (see Fig. 1). The data in the nodes represent the average number of venture capital firms at a location, and the data on the arcs being the distance between nodes.

When addressing research question one, "In Florida, do venture capital firms locate in clusters?", we can deduce from the graph that it is possible to identify nine cores and eight clusters. Two clusters, the Miami and the Ft. Lauderdale clusters, overlap and form a nascent "ribbon" linking the two metropolitan districts. Three other clusters, Tampa-Winter Garden (Orlando)-Melbourne, form a line across the state linked together by the interstate I4 and Route 528, but are separated by rural areas rather than being part of a MSA in the case of Miami-Ft. Lauderdale. We can thus conclude that venture capital cluster formation has occurred in Florida at the Metropolitan District level and is developing toward clusters at the Metropolitan Statistical Area level.

8. FVCC Participant Companies

Since its foundation, each year the forum has received more applications from aspiring presenters than could be scheduled. Thus, the applications were filtered by the forum's committee members and a subset of applicant companies was selected to present. The total

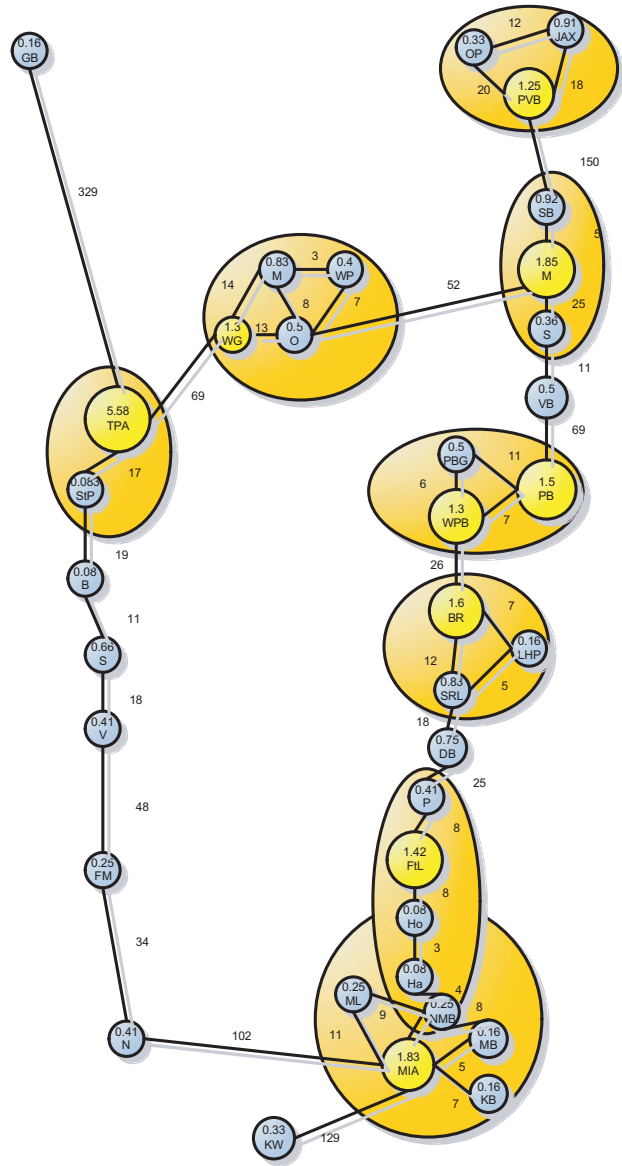

Fig. 1. A spatial graph of venture capital firms in Florida.

Source: *Pratt's Guide to Venture Capital Sources*, Editions 22 (1997)–27 (2003). New York: Venture Economics.

number of presenters in 1997–2003 was 156, with a mean of 22.3 presenters per year. The mean number of companies being funded was 6.7 per year (an average of 30 percent). See Table 2 for additional details.

An examination of the presenting companies that received funding shows that their mean age from incorporation to the date of their presentation at the FVCC was 24.54 months. In Table 3, we show the major funding categories and the mean age of the companies receiving funding in each category.

The data provided an opportunity to examine the geographic relationships surrounding the funded companies and their funding agents. Figure 2 shows the locations for the 123 Florida-based companies that presented at the forum during the study period. The data is

Table 2. FVCC: Funded company data points 1997–2003.

Year of FVCC	# of Comp. Selected to Present at Conference*	Avg. Age of Funded Comp. at Presentation Date (Months)**	Avg. Age of Non-Funded Comp. at Presentation Date (Months)**	# of Comp. Rec. Funding+	% of Presenting Comp. Funded	Total Amt. of Funding (Millions)+	Mean Funding per Comp. (Millions)
1997	19	34.75	68.85	4	21%	11.50	2.9
1998	25	20.83	24.42	6	24%	404.44	67
1999	24	25.00	31.06	7	29%	150.20	21
2000	22	14.80	16.12	5	23%	108.20	22
2001	25	23.89	103.19	9	36%	43.30	4.8
2002	19	14.29	65.92	7	37%	29.95	4.3
2003	22	38.22	50.92	9	41%	45.91	5.1

**Source*: Personal communication from the Executive Directors of the Florida Venture Forum, 1997–2003.
***Sources*: (i) Florida Department of State, Division of Corporations, http://www.sunbiz.org; (ii) Securities and Exchange Commission, http://www.sec.gov/edgar.shtml.
+*Source*: FVF (2002).

Table 3. Types of funding activity.

Type of Funding	Number of Companies Receiving Funding*	Mean Age of Companies Attracting Funding (Months)**
International Institution	1	39.25
Institutional	5	26.25
Venture Capital	26	19.96
Private Equity	6	33.33
Bank	3	11.66
Acquisitions	3	39.25
Not Disclosed	3	19.66

**Sources*: (i) FVF (2002); (ii) Personal communication with presenting companies; (iii) Internet sources including the website of the companies, the SEC, ABI/Proquest, and Lexus/Nexus.
***Sources*: (i) Florida Department of State, Division of Corporations, http://www.sunbiz.org; (ii) Securities and Exchange Commission, http://www.sec.gov/edgar.shtml.

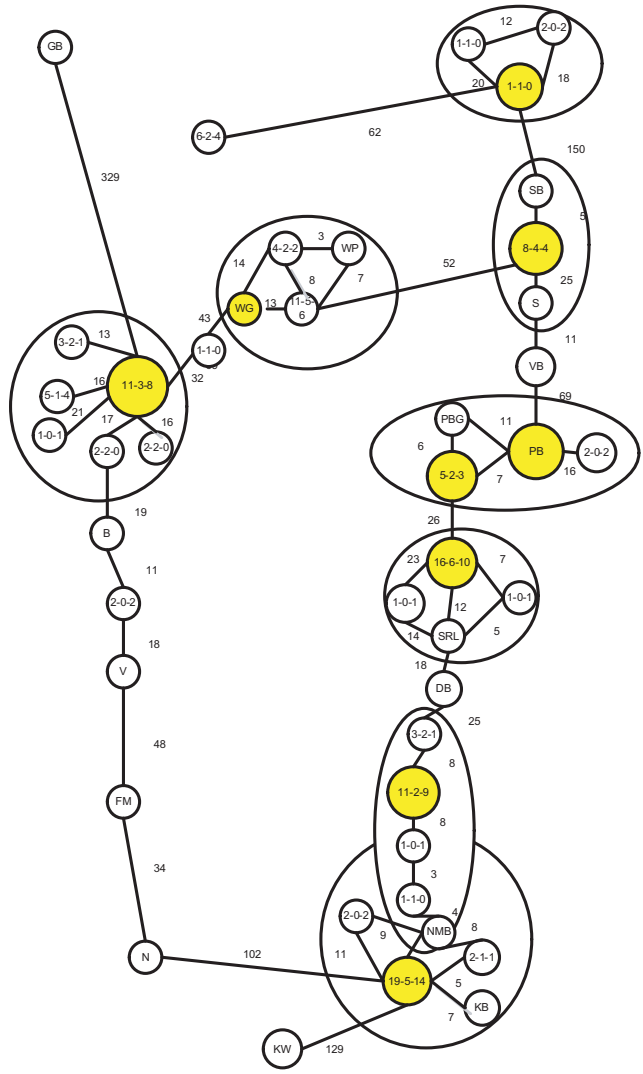

Fig. 2. A spatial graph of location of Florida-based firms that participated in the FVCC. *Sources*: (i) The venture capital data was obtained from *Pratt's Guide to Venture Capital Sources*, Editions 22 (1997)–27 (2003). New York: Venture Economics. FVF (2002). (ii) A list of all presenting companies was derived from Personal conference proceedings and through communications with Executive Directors of the Florida Venture Forum, 1997–2003. (iii) The funded companies were derived from FVF (2002).

broken down by location. Each node has a three part label: part one represents the total number of companies that presented at a forum from that location; part two represents the number of successfully funded companies (47 companies in 23 cities); the third part represents the number of companies that did not receive funding (109 companies in 38 cities).

The data is summarized in Table 4 and shows that 92.66 percent of participant companies originate in a cluster. For those not co-located in a cluster, two were co-located with a venture capital node (Sarasota) located outside a cluster; six were in the proximity of a research university (The University of Florida) 62 miles from the nearest node (Jacksonville) while the remaining presenter was approximately equidistant between two core nodes (Tampa and Winter Garden) but not within proximity of a cluster.

When addressing research question two, "Are companies that present at the Florida Venture Forums co-located within venture capital clusters?", the data confirms that the majority of VCs and presenters are co-located and that 92.66 percent of successfully funded firms are located in a cluster.

8.1. *Extending the analysis of clusters and cores*

An analysis of the distribution of the funded companies through two other filters extends our analysis: the number of funded ventures in relation to the population density of the city in which the companies are located; and the number of funded companies based upon the population density. The data are presented in Table 5. The data indicates that the city with

Table 4. Co-location statistics for companies and venture capital clusters.

Co-Location Characteristic	# of Companies	%
Funded in a core	38	82.61%
Non-funded in core	67	70.53%
Funded in a cluster	43	93.48%
Non-funded in a cluster	91	95.79%

Source: Metropolitan Statistical Areas are defined by the United States Government: http://www.census.gov/population/www/estimates/metrodef.html.

Table 5. The number of ventures/population density of the locations (in thousands) (1997–2003).

City	#V/PD
Melbourne	9.28
Boca Raton	5.65
Orlando	6.51
West Palm Beach	3.47
Tampa	2.86
Maitland	1.99
Plantation	1.36
Oldsmar	1.31
Miami	1.27
St. Petersburg	1.24
Ft. Lauderdale	1.07

Source: Population Density data: http://www.census.gov/.

Table 6. The number of ventures/per capita income (1997–2003).

City	#V/PCI
Miami	33.05
Orlando	23.56
Melbourne	20.86
Oldsmar	14.70
Boca Raton	13.15
Tampa	13.66
St. Petersburg	9.47
West Palm Beach	8.62
Ft. Lauderdale	7.19
Plantation	7.07
Maitland	5.36

Source: Per capita income data: http://www.census.gov/.

the highest density of companies receiving funding was Melbourne, a core venture capital location. The city is the closest city to the Kennedy Space Center, which has budget authority FY 2005 of $1,246 million (NASA, 2005) and can in part be accredited for contributing to its position as a venture creation hub. However, further research is required to identify the relationships more definitively.

A second viewpoint is to examine the number of funded companies based upon the per capita income of the population. Table 6 shows that the City of Miami has the largest number of companies per capita income (PCI). However, further research is required as the mean income figures for the greater metropolitan areas are not indicative of the total distribution of the wealth for the residents. For example, while the PCI for Greater Miami is $15,128 (Census, 2005), the IRS reports (Mongabay, 2006) that the 13,774 residents of Miami's Fisher Island [FL 33156] have an adjusted gross income (AGI) of $2,006,672, Palm Beach's 6,564 residents [FL 33480] have an AGI of $3,003,143 and Boca Raton's 10,086 residents [FL 33496] have an AGI of $1,802,136. However, the data does indicate that these affluent residents could form the basis of an angel investor community, providing professional and developmental support to entrepreneurs.

9. Investment Preferences and Firm Migration

The third research question examines the differences between those companies that received funding following presenting at a FVCC event and those who failed to receive funding. The question has three separate components. The first asks: "Are companies that receive funding younger than non-funded companies?"; the second asks: "Are the funded companies more likely to be acquired than non-funded companies?"; while the third asks "Are funded companies more likely to move from their original location than non-funded companies?" While each component is examined separately, the aim is to obtain three sequential views of participatory companies as they progress through the start-up lifecycle: First, does a participatory company's age have any implications for funding?; Second, what are the implications for a company to be acquired following a funding event?; and finally, are there

Table 7. The mean age of presenters, 1997–2003.

Year	Mean Age at the Time of Presentation	
	Funded	Non-funded
1997	34.75	68.85
1998	20.83	29.42
1999	25.00	31.06
2000	14.80	16.12
2002	23.89	103.19
2002	14.29	65.92
2003	38.22	50.92

Sources: (i) Florida Department of State, Division of Corporations, http://www.sunbiz.org; (ii) Securities and Exchange Commission, http://www.sec.gov/edgar.shtml.

any relocation factors associated with a funding event? These questions in turn lead to the fourth research question presented in Section 10, which examines the question of whether funded companies relocate to the location of the funding agent.

9.1. *The age of participant companies*

An analysis of the data pertaining to the age of FVCC participants is presented in Table 7 and shows that the mean age of funded companies during 1997–2003 is consistently less than that of non-funded companies.

The mean age of all funded companies (1997–2003) at the time of presentation was 24.91 ($n = 47$) months; while for non-funded companies, the mean was 54.98 months ($n = 100$[b]). The difference of 30.07 months was significant ($p = 0.016$) giving validation to the assertion that younger companies are more likely to attract funding at a VC forum than more mature ones.

9.2. *The status of participant companies*

An analysis of the data pertaining to the status of FVCC participants is presented in Table 8, which shows the number and percentage of companies for four states.

Overall, the data shows that for the 84 months of the study, 42.6 percent of all presenting companies ultimately became inactive; while 41.9 percent remained active, and 14.9 percent of the companies were acquired (the status of two companies is unknown, 0.6 percent of the total). An examination of the data by category indicates that 29.8 percent of funded companies were ultimately acquired against only 7.8 percent of companies who did not receive funding; a chi-square test ($p = 0.001$) was used to validate our assertion that funded companies are more likely to be acquired than non-funded companies.

[b]Date data was missing for 10 non-funded companies and they were excluded, e.g., some companies presented business plans but were never formally incorporated.

Table 8. The status of presenters, 1997–2003.

Status of Companies	# of Funded Companies (1997–2003)	%	# of Non-Funded Companies (1997–2003)	%
Acquired	14	29.79	8	7.77
Active	14	29.79	48	46.60
Inactive	18	38.30	45	43.69
IPO	1	2.13	0	0.0

Sources: (i) A list of all presenting companies was derived from Personal conference proceedings and through communications with Executive Directors of the Florida Venture Forum, (1997–2003). (ii) The funded companies were derived from: FVF (2002) and http://www.venturexpert.com, an online resource from Thompson Financial Publishing.

Table 9. The status of presenters, 1997–2003.

Age from Founding to Event (Months)	IPO	Funded Companies			Non-Funded Companies		
		Acquired	Inactive	Active	Acquired	Inactive	Active
0–24	1	3	3	0	1	10	0
25–48	0	4	11	0	1	12	0
49–72	0	3	2	6	2	9	6
73–96	0	3	1	4	2	6	9
97–120	0	1	1	3	0	3	11
121–148	0	0	0	1	1	4	10
149–172	0	0	0	0	0	0	6
173–196	0	0	0	0	1	0	3
> 197	0	0	0	0	1	1	3

Sources: (i) A list of all presenting companies was derived from Personal conference proceedings and through communications with Executive Directors of the Florida Venture Forum, 1997–2003. (ii) The funded companies were derived from: FVF (2002) and http://www.venturexpert.com, an online resource from Thompson Financial Publishing.

Extending our analysis, the data detailed in Table 9 shows the status of the presenting companies over the study period. The data shows that during the study period 1997–2003, only one company went on to an IPO, a period spanning the rise and fall of the dotcom bubble in which a total of 1482 companies were taken public in the United States[c] (Junkunc, 2004). Florida ranked 14th in 1999 and 20th in 2002 in terms of the number of IPOs by state (PPI, 2002). However, further research is needed to identify the forum's limited utility as a vehicle for launching public companies. One possible reason for the low number of IPOs within the state could be that the growth-based companies may relocate or be acquired to other states prior to becoming public entities. Later in this paper, we investigate the relationship between funding entities and the companies they acquired, investigating whether or not funded companies in this dataset move to the source of their funding.

[c]The data includes industrial company IPOs only, excluding all financial firms, utilities and agencies. The data excludes foreign firms, privatizations, subsidiary IPOs, spin-offs, prior leveraged buyouts (lbo ipo) and secondary offerings.

The data for the study group during the period 1997–2003 show that 14 funded and 9 non-funded companies were acquired. The data show that 93 percent of the funded companies were less than 96 months old, while the age of acquired non-funded companies was distributed over a wide range. This indicates that funded entities are acquired at an earlier stage in their lifecycle, but that acquisition as an exit strategy remains a viable option for all organizations throughout their lifecycle. The acquisition data also indicates that the forum is potentially used by a subset of participants (investor groups and entrepreneurs) as a mechanism to affect rapid liquid exits for their ventures. However, further research, which is beyond the scope of this paper, would have to be completed in order to determine the intentionality of this strategy on the part of the entrepreneurs, as well as the funding and acquiring entities.

The data show that 50 percent of the funded companies that were going to fail did so within the first 25 months of operation. This data is in line with the findings of prior researchers in small business mortality such as Churchill, who reported that over 50 percent of businesses established in the United States between 1946–1954 were sold or discontinued within two years (Churchill, 1955; Cochran, 1981; Audretsch and Mahmood, 1995; Caves, 1997).

Remaining private clearly remains an option as exercised by 13 companies, all of whom were still active in this study and all of whom received funding. Their mean age was 69.63 months (as of organization on 1 September 2004). The mean age of all 47 funded companies (1997–2003) was 30.19 months, while the 109 non-funded companies had a mean age of 50.44 months.

9.3. *The migration of participant companies*

An analysis of the data pertaining to the location and migration of FVCC participants is presented in Table 10.

The data presented in Table 10 show the migration distances the presenting companies moved during the study period. The data show that 78 percent of non-funded participants remained where they were founded, while 59.6 percent of funded companies remained in their original locations. The relocation of the remaining companies can be considered in five radii from the starting location: first, the local category (1–25 miles), which corresponds

Table 10. The migration distances of presenters (1997–2003).

Miles Company Moved Following Presentation at FVCC	# Non-Funded	# Funded
0	85	28
1–25	8	7
26–100	2	2
101–350	1	0
351–2000	3	6
> 2000	3	4
Unknown	7	0

to a metropolitan division; the second radii has as its upper limit three times the size of a metropolitan division (100 miles), approximately the width of the state; the third and fourth radii equate to regional movements within the state (Jacksonville to Miami and to Pensacola both approximate to 350 miles) and extended inter-state regional movements (351–2000 miles); the final category equates to bicoastal national and international relocation distances. The data show that of those companies that move, an intra-metropolitan move is the most frequent distance with 14.9 percent of funded companies and 7.3 percent of non-funded companies in this range. For funded companies, the second most frequent relocation range was an inter-state move, undertaken by 12.8 percent of companies. The data show that 40.4 percent of funded companies moved, while only 16.66 percent of non-funded companies moved, indicating that more companies that were funded than not funded move. A simple chi-square test of move versus non-move and funded versus non-funded confirmed our assertion ($p = 0.002$), where H_0: To move versus not to move is independent of funding versus non-funded outcomes.

10. Funding Agents and Their Influence on Firm Migration

The fourth research question examines whether funded companies migrate to the location of the funding agent. Research by Van Osnabrugge and Robinson (2000) indicates that business angels consider local geographic proximity (i.e., within 50 miles (80km)) an important attribute of their decision whether or not to invest in a company. This proposition is based upon a series of factors: that the angels like to be close in order to "keep an eye" on their investments; that investors, strengths can, where necessary, provide management value "filling in the gaps" and that they can help provide access to other local angel investors as necessary (Van Osnabrugge, 2000). Venture capital firms are less sensitive to the proximity of their investment firms. Makela and Maula (2005) have shown that some firms focus upon cross-border investments. This helps to legitimize the investment zone. They also found that VC firms tend to drive their portfolio companies back towards their home location. Hall and Tu (2003) have shown that the decision for VC firms to invest overseas is based upon their size, the number of offices they operate from, the stage of development of the investee ventures and is inversely related to the length of time in which the VC has been in operation.

For small, young, single office firms with small to medium capital to invest in, local investments are attractive (Van Osnabrugge and Robinson, 2001). Thy enable the firm to develop a sphere of influence based upon personal and business relationships. Synergies can also be created between their investments, thus helping to create and develop entrepreneurial clusters (Hendry *et al.*, 2000; Romijn and Albu, 2002; Wever and Stam, 1999; Feldman *et al.*, 2005). In this section, we will consider whether or not the firms funded in the study moved to the location of their funding source.

The funding sources (agents) in the study include angel, private equity, bank funding, venture capital, institutional funds and public offering. The location of the agents that invested in the FVCC participants is detailed in Table 11. The data shows that Florida was the largest source of venture capital firms who operated in a single state and who invested in the FVCC participants. It also shows that for venture capital firms that have offices in multiple

Table 11. Location of funding agent.

Location of Funding Source*	No. of Companies Receiving Funding	%
Multi State + Florida**	14	31.82
Multi State − Florida+	8	18.18
Florida	6	13.64
New York	3	6.82
Tennessee	2	4.55
Massachusetts	1	2.27
California	1	2.27
International Korea	1	2.27
Institutional Oklahoma	1	2.27
Not Disclosed	7	15.91

*The total number of companies funded was 44, three firms were acquired.
**Multi State + Florida: indicates that the venture capital firm acting as a funding agent has offices in more than one state, including an office in Florida.
+Multi State-Florida: indicates that the venture capital firm acting as a funding agent has offices in more than one state, NOT including an office in Florida.

states, there was more investment from those firms that had offices including Florida than those that did not. The categories of investors that included Florida-based offices provided a total of 45.46 percent of all investments, showing the resource value a local venture community provides to entrepreneurs.

The data also provided an opportunity to examine the geographic relationships between the location of funded companies and their funding agents. Research by Gupta and Sapienza (1992) indicated that "(1) venture capital firms (VCFs) specializing in early stage ventures prefer less industry diversity and narrower geographic scope relative to other VCFs; (2) corporate VCFs (i.e., those owned by non-financial corporations) prefer less industry diversity but broader geographic scope relative to non-corporate VCFs; (3) larger VCFs prefer greater industry diversity and broader geographic scope than do smaller VCFs; and (4) provision of small business investment companies (SBIC) financing by the VCF has no impact on preferences regarding industry diversity but is associated with a preference for narrower geographic scope". Gupta and Sapienza's (1992) survey examines the geographic investment preferences of 169 investment firms from *Pratt's Guide* (Schutt and Grover-Lizardi, 1992). The study considered a range of preferences ranging from "local investments only = 1; one region only = 2; multiple regions only = 3; regional followed by national preference = 4; national or 'no' preference = 5" and produced a mean preference of 3.42.[d] In our study, we found that for the 47 funded ventures, 27 expressed a geographic investment preference. The data was categorized using Gupta and Sapienza's scale and is illustrated in Table 12.

The data indicate that of the eight investment firms with offices in multiple states not including Florida, three reported a preference, two of which had a national preference for investment. Five did not disclose a preference. Of the 14 companies that have multiple

[d]A mean is not normally used to express data from a scale — for reference only, we found the mean geographic investor preference in this study to be 3.7.

Table 12. Geographic investor preferences.

Gupta & Sapienza Scale	Firm Preference
1	3.7%
2	25.9%
3	18.5%
4	0%
5	51.9%

Table 13. Frequency of occurrence of funding events by distance.

Distance	# of Companies
0–499	21
500–999	5
1000–1499	9
1500–1999	0
2000–2499	0
2500–2999	0

Source: GEOD program: http://www.lands.nsw. gov.au/survey_mapping/surveying/gda/geod_software.

Table 14. Descriptive statistics.

Mean distance between company and funding entity	453.5 miles
Median distance between company and funding entity	153 miles
Minimum distance between company and funding entity	1 mile
Maximum distance between company and funding entity	1149 miles
Number of companies	33 miles

offices, including at least one office in Florida, the data indicated that 22.2 percent preferred investing in only one region, 11.1 percent multiple regions, while 56.6 percent expressed national preferences. Of the venture firms with an office in only one state — excluding Florida who expressed a preference ($n = 5$), 40 percent expressed a preference for national investments and 40 percent for multiple regions.

As we have stated earlier, the 35 funded companies in this study were in 28 cities. In order to determine the distance between the closest offices of the funding agent and the company receiving funding, the latitudes and longitudes of the cities were located and the distance between them calculated using the GEOD program (developed by Graham Samuel and Associates in conjunction with the Australian Department of Lands and The University of Newcastle, Australia). The program uses NTv2 Grid Interpolation and provides an absolute accuracy of $\sim$ 0.1m (95 percent). An analysis of the data pertaining to the distances of funded firms and funding agents is shown in Table 13 and produced the descriptive statistics found in Table 14. Fourteen funding event data points were not included as they were either internationally-based or the source of funding was not disclosed.

The firm location data as illustrated in Table 13 can be related to the funding agent location analysis using Gupta and Sapienza's scale through consideration of three categories of investment agent. First, the majority of the investment agents were Florida-based or had an office in Florida and exercised their local preference for investments, as the highest frequency of occurrence of funding agents from funded company (60 percent) falls in the distance range of 0–499 miles[e]. An analysis of the locations of 20 of the funding agents located in Florida-based offices shows that five were co-located in the same city as the company receiving their funding. Second, 25.9 percent of investors were funding agents located in geographic proximity to Florida (east coast, Oklahoma and Tennessee) who classified their interests as regional. Third, 18.5 percent of agents with offices distributed throughout the United States preferred national investments.

The data show that in the case of VCFs acting as funding agents with offices in multiple locations including Florida, 78.6 percent of the funded companies remained where they were originally located. Similarly, for multistate firms that did not have a Florida office, 87.5 percent of the funded companies remained where they were originally located.

However, with regard to VCFs with offices in only one state, 66.7 percent of the funded firms remained in their original locations, while 33 percent migrated (see Table 15). When the data was separated to examine the case of firms only in Florida and those VCFs with a single-office firm but outside Florida (see Table 16), the data indicates a 50 percent or greater tendency for funded firms to remain at their original location; however, the dataset is too sparse to draw further conclusions.

Table 15. Funding sources and relocation.

Location of VC Firm	Migrate	%	Remain	%	Total
VC firm with offices in multiple states including an office in Florida (Multi +FL)	3	21.4	11	78.6	14
VC firm with offices in multiple states without an office in Florida (Multi − FL)	1	12.5	7	87.5	8
VC firms located only in one state	4	33.3	8	66.7	12
A fund located outside the USA	1	100.0	0	0.0	1
Acquired	1	33.3	2	66.7	3
Institutional	1	100.0	0	0.0	1
Funding agent's location was not disclosed					8
Total	9		26		47

Sources: (i) The venture capital data was obtained from *Pratt's Guide to Venture Capital Sources*, Editions 22 (1997) – 27 (2003). New York: Venture Economics. (ii) Outcome data was obtained from the Florida Department of State, Division of Corporations, http://www.sunbiz.org; and the Securities and Exchange Commission, http://www.sec.gov/edgar.shtml.

[e]Florida can be defined abstractly as a triangle with the three furthest mainland cities as nodes: Pensacola to Jacksonville is 330 miles, Jacksonville to Miami 326 miles and Miami to Pensacola 534 miles.

Table 16. Single state funding agents and relocation.

Location of VC Firm	Migrate	%	Remain	%	Not Disclosed	Total
VC firms located only in Florida	2	33.33	4	66.67	0	6
VC firms with an office only in one state not including Florida	3	37.5	4	50.00	1	13

Sources: (i) The venture capital data was obtained from *Pratt's Guide to Venture Capital Sources*, Editions 22 (1997) – 27 (2003). New York: Venture Economics. (ii) Outcome data was obtained from the Florida Department of State, Division of Corporations, http://www.sunbiz.org; and the Securities and Exchange Commission, http://www.sec.gov/edgar.shtml.

The data also show that of the 47 companies that received funding from VCFs, only four firms moved out of state:

- Catalina Food Ingredients, founded 27 April 1994 and presented in 1997 (aged 33 months), was funded $3.5 million by Sirrom Capital of Nashville, TN. The company moved from Oldmar, FL, to Washington, DC, and was acquired in 2000 for an undisclosed amount.
- Yupi.com, registered on 20 October 1997 and presented in 1999 (aged 15 months), was funded by Comcast Venture capital ($108 million) and acquired by Microsoft and Telefonos de Mexico in 2001 when it moved to Redmond, WA.
- Cylex Systems, founded 29 August 1994 and presented in 1999 (aged 53 months), was funded $6 million by HIG Capital of Miami. The company moved from Orlando, FL to Tokyo when it was acquired by Ricoh. The terms were not disclosed.
- Parkstone Medical, founded 2 September 1998 and presented in 2000 (aged 16 months), was funded $31.5 million by Oak Investment Partners, Westport, CT. Parkstone Medical was located in Plantation, FL and moved to Cyprus, CA, acquired and then filed for bankruptcy protection in 2001 when its assets were sold in the fall for $1.15 million.

The data associated with the cases indicates that the funding agents were used to provide capital for growth and improve their strategic positioning, making the companies more attractive as a takeover possibility; this resulted in all four of the firms being acquired.

11. Conclusions and Implications

The study has used data from the FVCC 1997–2003 to examine four research questions. The first question asked whether venture capital firms in Florida located in clusters. The study showed that there were nine cores within eight clusters, with one significant core located in Tampa averaging 5.58 VCFs over the study period. The data showed that two ribbons were forming where contiguous clusters were merging, one across central Florida where two metropolitan division clusters were merging toward being a metropolitan statistical area cluster. The data indicated that there is potential for the four south Florida clusters to create a contiguous cluster stretching from Palm Beach to Miami.

The second question asked whether the companies presenting at the FVCC co-locate within venture capital clusters. The data showed that 92.66 percent of successful firms in the study were located in a venture capital cluster. The analysis showed that Melbourne and Orlando were the most favorable locations, both in terms of the number of funded participants in comparison to the population density and the per capita income of the founding location.

The third research question examined the differences between the funded and non-funded companies through three subquestions. The first subquestion asked whether the companies that received funding were younger than those that did not, and the data confirmed this to be true for all study years.

The second part of the question asked whether the funded companies were more likely to be acquired than non-funded companies. The data showed that 29.8 percent of funded companies were acquired against 7.8 percent for non-funded companies. The data also showed that 93 percent of the acquired funded companies were less than 96 months in age, while non-funded companies were acquired over an age range extending beyond 197 months.

The final part of the third question asked if funded companies were more likely to move from their original location than those companies not receiving funding. The data showed that 78 percent of non-funded companies remained at their founding location against 59.6 percent of funded companies, and that overall, an intra-metropolitan relocation was most frequently adopted. However, the data only pertaining to funded companies showed that inter-state relocation was the most frequent.

The fourth question refined the relocation question to ask specifically if funded companies migrate to the location of the funding agent. The statistical analysis of the data showed that the funding source did not affect the relocation decision. However, for the four companies that were acquired during the study period, it should be noted that all of the companies relocated out of Florida.

The study has aimed to examine the data pertaining to a group of motivated, qualified entrepreneurial companies and to draw conclusions on the use of venture forums as levers of regional development. The dataset shows that nascent entrepreneurial development clusters are forming, containing both firms and funding agents. Further, the study shows that the success rate of companies achieving successful funding is influenced by being co-located within a core or cluster. However, further research is needed to consider whether all the factors are in place to support and sustain companies undergoing rapid growth within these clusters. These factors include access to a highly educated local workforce and funding agents capable of funding multiple ventures throughout a complete maturation period.

While the dataset was sparse, it showed that the funding source did not affect the decision of the companies to move. However, the fact that all acquired firms relocated out of the state reinforces the belief that while the forum provides a mechanism for companies to raise capital, the state may not yet have a sufficiently mature technology and venture capital base to support all companies seeking funding companies through their early periods of growth.

While further research is needed, the data show indications that the state of Florida would benefit from a more developed or specialized venture capital community. The data in this study follow the research of Gupta and Sapienza, who indicate that the scope of

a venture funds' investment interests relate to the size of the firm. The data in this study show that the current median distance of 453.5 miles between the venture capital firms and the funded entity is indicative of a sparsely distributed set of venture capital firms and associated volume of funding. Pratt (Waters, 2004) states that the number of venture capital firms in Florida in 1997 was 26, rising to 38 firms in 2003, a growth rate of 46 percent. This compares with Texas and New York, two of the three largest states by population. Texas saw a growth rate of 100 percent from 65 in 1997 to 130 in 2003, and growth in New York was 46.2 percent with 197 venture firms in 1997 and 288 in 2003. However, all states fall well behind California, which saw a rise in its number of venture capital firms located in the state by 143 percent, from 269 in 1997 to 655 in 2003.

While the data indicates a sparse distribution of venture capital firms and investment agents in Florida, the data in this study does indicate that venture capital firms with multistate office locations are providing funding for Florida-based companies seeking capital. This indicates that Florida-based start-up and high growth firms should not just search locally for sources of capital, but rather, should consider extending their geographic funding boundaries until a higher density of venture capital firms exists within the state itself.

References

Allen, DN and R McKlusky (1990). Structure, policy, services and performance in the business incubator industry. *Entrepreneurship: Theory and Practice*, 15(2), 61–77.

Audretsch, D and T Mahmood (1995). New firm survival: New results using a hazard function. *The Review of Economics and Statistics*, 77(1), 97–103.

Autio, E and H Yli-Renko (1998). New technology-based firms as agents of technological rejuvenation. *Entrepreneurship and Regional Development*, 10(1), 71–92.

AUTM (2004). U.S. Licensing Survey: FY 2004 http://www.autm.net.

Bartik, TJ (1985). Business location decisions in the United States: Estimates of the effects of unionization, taxes, and other characteristics of states. *Journal of Business & Economic Statistics*, 3(1), 14–22.

Bokser, D (1997). *Pratt's Guide to Venture Capital Sources*, 22nd Ed. New York: Venture Economics.

Boswell, J (1972). *The Rise and Decline of Small Firms*. London: Allen and Unwin.

Brüderl, J, P Preisendörfer and R Ziegler (1992). Survival chances of newly founded business organizations. *American Sociological Review*, 57(2), 227–241.

Caves, R (1997). Industrial organization and new findings on the turnover and mobility of firms. Discussion Paper No. 1808, Harvard Institute of Economic Research, Harvard University, November.

Census (2005) http://www.census.gov.

Charmaz, K (1994). The grounded theory method: An explication and interpretation. In *More Grounded Theory Methodology: A Reader*, B Glaser (ed.), pp. 95–111. Mill Valley, CA: Sociology Press.

Churchill, B (1955).Age and life expectancy of business firms. *Survey of Current Business*, 35(12), 15–19.

Clark, J and K Guy (1998). Innovation and competitiveness: A review. *Technology Analysis and Strategic Management*, 10(3), 363–395.

Cochran, AB (1981). Small business mortality rates: A review of the literature. *Journal of Small Business Management*, 19(4), 56–60.

Corbin, J and A Strauss (1990). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. Newbury Park, CA: Sage Publications.

eFlorida (2006). http://eflorida.com.

Enterprise-Forum (2006). http://enterpriseforum.mit.edu/about/.

Feldman, MP, J Francis and J Bercovitzm (2005). Creating a cluster while building a firm: Entrepreneurs and the formulation of industrial clusters. *Regional Studies*, 39(1), 129–141.

Fiala, M (2005). Jobs in Florida's tech industry total 258,800: Tech exports from Florida grow to $9.4 billion. Research Note, Orlando, FL: American Electronics Association. http://www.aeanet.org.

Figueiredo, O, P Guimaraws and D Woodward (2002). Home-field Advantage: Location decisions of Portuguese entrepreneurs. *Journal of Urban Economics*, 52(2), 341–361.

FVF (2002). The 2002 Florida venture capital conference presenters capture $13.9 million in funding. Press release, Florida Venture Forum. http://www.flvencap.org/.

FVF (2006). http://www.flvencap.org.

Galbraith, C and A De Noble (1988). Location decisions by high technology firms: A comparison of firm size, industry type and institutional form. *Entrepreneurship: Theory and Practice*, 12(3), 31–47.

Glaser, B and A Strauss (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago, IL: Aldine Publishing Company.

Gordon, N and P McCann (2005). Clusters, innovation and regional development: An analysis of current theories and evidence. In *Industrial Clusters and Inter-Firm Networks*, C Karlsson, B Johansson and RR Stough (eds.), pp. 29–57. Cheltenham, UK: Edward Elgar.

Gupta, A and H Sapienza (1992). Determinants of venture capital firms' preferences regarding the industry and geographic scope of their investments.*Journal of Business Venturing*, 7(5), 347–362.

Hall, G and C Tu (2003). Venture capitalists and the decision to invest overseas. *Venture Capital*, 5(2), 181–190.

Hendry, C, J Brown and R Defillippi (2000). Regional clustering of high technology-based firms: Opto-electronics in three countries. *Regional Studies*, 34(2), 129–144.

Herald (2006). 2005 venture capital investment in Florida up 46%. *Miami Herald*, 23 January 2006. http://www.miami.com/mld/miamiherald/13691937.htm.

Holl, A (2004). Start-ups and relocations: Manufacturing plant location in Portugal. *Papers in Regional Science*, 83(4), 649–668.

Junkunc, M (2004). Toward a greater understanding of entrepreneurial activity: Examining the nature and importance of specialized knowledge. PhD dissertation, Anderson School of Management, UCLA.

Keeble, D (1971). Employment mobility in Britain. In *Spatial Policy Problems of the British Economy*, M Chisholm and G Manners (eds.), pp. 24–68. Cambridge: Cambridge University Press.

Keeble, D (1976). *Industrial Location and Planning in the United Kingdom*. London: Methuenand Co.

Kirchhoff, B (1995). Twenty years of job creation research: What have we learned? Working Paper, Small Business Foundation of America, Washington, DC June.

Klaassen, L and W Molle (eds.) (1983). *Industrial Mobility and Migration in the European Community*. Aldershot: Gower.

Kovaleski, R (2004). The 2004 Florida venture captial conference presenters successful in raising captial. Press release 26 July 2004. http://www.flvencap.org/.

Krugman, P (1991). History and industry location: The case of the manufacturing belt. *American Economic Review*, 81(2), 80–83.

Lunhardt, W (1885). *Mathematische Begrundung der Volkwirtschaftlehre*. Leipzig.

Makela, M and M Maula (2005). Cross-border venture capital and new venture internationalization: An isomorphism perspective. *Venture Capital*, 7(3), 227–257.

Malecki, E (1997). *Technology and Economic Development: The Dynamics of Local, Regional and National Competitiveness*, 2nd Ed. London: Addison Wesley Longman.

Mayer, K and S Goldstein (1961). *The First Two Years: Problems of Small Firms' Growth and Survival*. Washington, DC: Small Business Administration.

McCann, P and S Sheppard (2003). The rise, fall and rise again of industrial location theory. *Regional Studies*, 37(6), 649–663.

MIT (2006). http://entrepreneurship.mit.edu/entre_at_mit.php.

Mongabay (2006). http://wealth.mongabay.com/cities/FLORIDA.html.

Morse, R and J Flender (1976). *The Role of New Technical Enterprises in the U.S. economy*. A Report of the Commerce Technical Advisory Board to the Secretary of Commerce, Department of Commerce, United States of America.

NASA (2005). *Kennedy Space Center Annual Report*, NP-2006–04–014–KSC.

O'Gorman, C and M Kautonen (2004). Policies to promote new knowledge-intensive industrial agglomerations. *Entrepreneurship and Regional Development*, 16(6), 459–479.

Pellenbarg, P, L van Wissen and J van Dijk (2002). Firm migration. In *Industrial Location Economics*, P McCann (ed.), pp. 110–151. Cheltenham, UK: Edward Elgar.

Pidgeon, N (1996). Grounded theory: Theoretical background. In *Handbook of Qualitative Research Methods for Psychology and the Social Sciences*, JTE Richardson (ed.), pp. 75–85. Leicester, UK: PBS Books.

Plant, R and J Salinas (1992). CISEPO (City Selection Program): A DSS for relocating companies within the U.S. *Computers, Environment and Urban Systems*, 16(2), 117–130.

PPI (2002). The state's new economy index. Public Policy Institute data. http://www. neweconomyindex.org/states/2002/florida.html.

Pratt, S (1998). *Pratt's Guide to Venture Capital Sources*, 22nd Ed. New York: Venture Economics.

Pratt, S (1999). *Pratt's Guide to Venture Capital Sources*, 23rd Ed. New York: Venture Economics.

Pratt, S (2000). *Pratt's Guide to Venture Capital Sources*, 24th Ed. New York: Venture Economics.

Pratt, S (2001). *Pratt's Guide to Venture Capital Sources*, 25th Ed. New York: Venture Economics.

Pratt, S (2002). *Pratt's Guide to Venture Capital Sources*, 26th Ed. New York: Venture Economics.

Pratt, S (2003). *Pratt's Guide to Venture Capital Sources*, 27th Ed. New York: Venture Economics.

Romijn, H and M Albu (2002). Innovation, networking, and proximity: Lessons from small high-technology firms in the United Kingdom. *Regional Studies*, 36(1), 81–86.

Sant, M (1975). *Industrial Movement and Regional Development: The British Case*. Oxford: Pergamon Press.

Schutt, D and J Grover-Lizardi (eds.) (1992). *Pratt's Guide to Venture Capital Sources*. New York: Venture Economics.

Scott, A (2006). Entrepreneurship, innovation and industrial development: Geography and the creative field revisited. *Small Business Economics*, 26(1), 1–24.

Simon, H (1955). A behavioral model of rational choice. *Quarterly Journal of Economics*, 69(1), 99–118.

Sweeny, GP (1987). *Innovation, Entrepreneurs and Regional Development*. New York: St. Martin's Press.

Van Dijk, J and P Pellenbarg (2000). Firm relocation decisions in the Netherlands: An ordered logit approach. *Papers in Regional Science*, 79(2), 191–219.

Van Osnabrugge, M (2000). A comparison of business angel and venture capitalist investment procedures: An agency theory-based analysis. *Venture Capital*, 2(2), 91–109.

Van Osnabrugge, M and R Robinson (2000). *Angel Investing*. San Francisco: Jossey-Bass.

Van Osnabrugge, M and R Robinson (2001). The influence of a venture capitalist's source of funds. *Venture Capital*, 3(1), 25–39.

Venkataraman, S (2004). Regional transformation through technological entrepreneurship. *Journal of Business Venturing*, 19, 153–167.

Von Thünen, J (1826). *Der Isolierte Staat in Beziehung auf Landschaft und Nationalokomie, Hamberg* (translated by C Wartenbergm, 1966) Oxford: Von Thünen's Isolated State, Pergamon Press.
Waters, T (2004). *Pratt's Guide to Private Equity Sources*, 28th Ed. New York: Venture Economics.
Weber, A (1929). *Alfred Weber's Theory of Location of Industries.* Chicago: University of Chicago Press.
Wever, E and E Stam (1999). Clusters of high technology SMEs: The Dutch case. *Regional Studies*, 33(4), 391–400.