The Roots of Great Innovation

State-Level Entrepreneurial Climate and Sustainability of Nonprofit Arts and Culture Organizations

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ABSTRACT: What is the interaction between a city's entrepreneurial climate and the sustainability of arts and culture nonprofits? Business, the arts, and innovation do not exist in isolation. *New York Times* writer David Brooks (2011) opined, "The roots of great innovation are never just in the technology itself." The global economy has transitioned from one driven by manufacturing to a knowledge-based economy (Powell & Snellman 2004). Public policies support growth of innovative businesses (Thurik & Audretsch 2013). Concurrently, the arts have been leveraged to generate instrumental benefits in areas such as education, social cohesion, and economic development (Belfiore, 2004; McCarthy, Ondaatje, Zakaras, & Brooks 2004). Particularly, there has been significant developments around the power of the arts to produce economic benefits through urban revitalization, economic impact, and advancing the appeal of a place to the creative class, corporations, prospective residents, and tourists (Grodach 2017). Richard Florida (2004, 2009) famously positioned the arts as being of significant value for the "creative class." This interaction has been portrayed as one-way in which the arts benefit cities economic pursuits. Such characterization fails to consider open systems theory whereby internal and external conditions influence the operations of organizations. This paper asks, "Do entrepreneurship levels affect the population dynamics of arts and culture nonprofits?" The interactions between the formation and exit of nonprofit arts organizations and entrepreneurial climate of the fifty US states for the period from 1989 to 2011 are analyzed using negative binomial regression. Higher entrepreneurial climates are associated with fewer nonprofit arts and culture formations and fewer exits. The implications of this and opportunities for additional research are discussed. **KEYWORDS:** Cultural Policy; Nonprofit Arts; Arts Management; Organizational Ecology.

Business, the arts, and innovation do not exist in isolation. *New York Times* writer David Brooks (2011) opined, "The roots of great innovation are never just in the technology itself." The global economy has transitioned from one driven by manufacturing to a knowledge-based economy (Powell & Snellman 2004). Public policies support growth of innovative businesses (Thurik & Audretsch 2013). Concurrently, the arts have been leveraged to generate instrumental benefits in areas such as education, social cohesion, and economic development (Belfiore 2004; McCarthy et al. 2004). Particularly, there has been significant developments around the power of the arts to produce economic benefits through urban revitalization, economic impact, and advancing the appeal of a place to the creative class, corporations, prospective residents, and tourists (Grodach 2017). Richard Florida (2004, 2009) famously positioned the arts as being of significant value for the "creative class." This interaction has been portrayed as one-way in which the arts benefit cities economic pursuits. Such characterization fails to consider open systems theory whereby internal and external conditions influence the operations of organizations.

Nonprofit arts and culture organizations (NPACOs), those organizations identified in the United States by the National Taxonomy of Exempt Entities (NTEE) as group A – arts, culture, and humanities – have been assessed as vulnerable in the past. NPACOs were traditionally established to provide access to and deliver education, arts, and cultural material (Garber 2008; Larson 1983). Insufficient access to resources is the most probable cause of organizational demise (Kaufman 1991). NPACOs must acquire the assets needed to remain operational and continue serving organizational mission and multiple goals of public policy. As a group, NPACOs have responded to threats and diversified sources of revenue, integrated entrepreneurial methods, and modified program schedules (J. Lowell & Ondaatje 2006; J. F. Lowell 2008). What has not been addressed is the effect of entrepreneurial activity on the arts and culture sector.

Analyzing longitudinal data on populations of NPACOs in all fifty of the United States for the period 1989 to 2011, I explore the interaction of entrepreneurial activity and the population dynamics of arts and culture nonprofits. My findings suggest that higher entrepreneurial activity is associated with fewer nonprofit arts and culture formations and fewer exits. The implications of this and opportunities for additional research are discussed.

Knowledge Work, Entrepreneurship, and Creative Places

The importance of manufacturing in the global economy was surpassed by knowledge work in the late twentieth century. Powell and Snellman (2004, 201) define the knowledge economy as, " . . . production and services based on knowledge-intensive activities that contribute to an accelerated pace of technical and scientific advance, as well as rapid obsolescence." Researchers have endeavored to understand the dimensions and dynamics of knowledge work while politicians and public administrators have developed policies and initiatives that support growth of the knowledge industries (Faria 2016; Leyden & Link 2014). Two byproducts of changes in the global economy have been the shift to an entrepreneurial economy (Thurik &

Audretsch 2013) and the growth of creative places strategies (Grodach 2017). The entrepreneurial economy describes when economic performance derives from growth of innovative enterprises (Audretsch & Thurik 2000, 2001; Thurik & Audretsch 2013). Creative place strategies leverage the arts as development tools to foster revitalization and replace manufacturing activity (Grodach 2017). This research was undertaken to investigate the interaction of these phenomena.

Entrepreneurship

The rise of the entrepreneurial economy spurred the development of policies designed to encourage start-up and survival of entrepreneurial ventures (Thurik & Audretsch 2013). Entrepreneurship is the development of a business from idea to profitable enterprise (C. Brooks 2015). Firms with fewer than 20 employees make up 98 percent of US businesses and 17.9 percent of private sector payrolls (Small Business and Entrepreneurship Council 2015). They account for 63 percent of new jobs created between 1993 and 2013 (Small Business and Entrepreneurship Council 2015). Recognized as an important contributor to the US economy, it is important that entrepreneurship declined from 5.78 million self-employed in 2008 to 5.31 million in 2013 (Small Business and Entrepreneurship Council 2015). Theory highlights the vulnerability of young and small organizations (Hannan & Freeman 1977, 1989). Data further underscores the vulnerability of new organizations. Approximately half of firms survive five years and about one-third survive ten years or more (Small Business and Entrepreneurship Council 2015). Entrepreneurship is an important, vulnerable component of the economy and policy makers and scholars are attending to fostering, incubating, attracting, and supporting entrepreneurs with public policies.

The Kauffman Index of Entrepreneurial Activity (KIEA) is an indicator of new business creation in the United States and explores demographic and geographic variables of new business formation (Fairlie 2013). The entrepreneurship index is the percentage of adults, aged twenty to sixty-four, who started a new business and worked fifteen or more hours in the first month of business. State-level index scores revealed sub-national variations from 1996 to 2013. Fairlie (2013) reports that entrepreneurial activity varied significantly across states, and that the activity follows strong geographical patterns. By moving from the national level to the sub-national, it is possible to see differences related to geography. For example, in 2013 Montana, Alaska, South Dakota, California, and Colorado had the highest entrepreneurial rates (Fairlie 2013). Iowa, Rhode Island, Indiana, Minnesota, Washington, and Wisconsin had the lowest. Elazar (1972) noted the significance of geography in political culture, and Wolpert reported on geographic variation in philanthropic giving (Wolpert 1988, 1997). This is consistent with open systems theory which recognizes that organizations are heavily influenced by their contexts or local environments (Bastedo 2006).

Creative Places Policies and the Arts and Culture Sector

Creative places research and policies gained prominence in the 1990s and 2000s. Markusen (2014, 567), observed:

> Internationally and in the U.S., academics, urbanists and advocates have charted new agendas for the intersections of arts, culture, and place. The roles of artists and cultural organizations as urban change agents have come to the fore.

Richard Florida underscored the importance of arts and culture as community assets that attract and help to retain diverse, talented, and knowledge workers (Florida 2004, 2009). In addition, arts and culture amenities are sought by companies concerned with employee quality of life, favorably contribute to tourism, make positive contributions to academic outcomes, and more (Arts Education Partnership 2013, n.d.; Colorado Department of Education & Colorado Council on the Arts 2008; Evans 2003; Florida 2004, 2009, 2017; Hargrove 2014; Kouri 2012; Markusen 2014; Petroman et al. 2013).

Creative places strategies are common across levels of government (Americans for the Arts 2017; Grodach 2017; Leyden & Link 2014; National Governors Association 2019; NGA Center for Best Practices 2001, 2003, 2008, n.d.; Phillips 2010). There is no singular formula or universal solution to creative places initiatives (Curridd-Halkett & Stolarick 2010). The local environment, resources, and conditions must be considered (Curridd-Halkett & Stolarick 2010; Grodach 2008; Grodach, Curridd-Halkett, Foster, & Murdoch 2014). Examination of geography and clustering have proven that place and innovation are connected in important ways (Delgado, Porter, & Stern 2010; Florida 2004, 2009, 2017).

Arts and culture organizations are central to creative places initiatives. Research has demonstrated that NPACOs exist with increased threats to their survival. Specifically, NPCACOs must acquire assets needed to remain operational and continue serving organizational mission and multiple goals of public policy. Economists have identified multiple challenges in achieving this aim. The costs of delivering programs has risen faster than ticket prices (Baumol & Baumol 1985; A. C. Brooks 2000). Private donations have not increased to match the difference. These donations may be influenced by government subsidies, but it is not clear whether they do so positively or negatively (A. C. Brooks 2003; Dokko 2009). Financial ratios have been utilized to assess risk of failure (Hager 2001; Tuckman & Chang 1991). As a group, NPACOs have responded to threats and diversified sources of revenue, integrated entrepreneurial methods, and modified program schedules (J. Lowell & Ondaatje 2006; J. F. Lowell 2008). These measures have not eliminated threats to NPACOs. Kaiser (2015) predicted the demise of the nonprofit arts and culture sector as we know it by 2035 unless funding and participation trends change dramatically.

Economic conditions have given rise to policies supporting entrepreneurship and the development of the arts and cultural assets of communities. This relationship between arts and culture and knowledge-based industries has been assessed unidirectionally, wherein the arts

favorable contribute to innovations. It is appropriate to assess the impact of high entrepreneurship on the nonprofit arts and culture sector.

Organizational Ecology

The world is populated by organizations and they are the means by which humans cooperate to achieve shared goals (Hannan & Freeman 1977). However, basic demographic figures have attracted limited scholarship and attention (Carroll & Hannan 2000). Some organizational theorists have criticized and dismissed the theory as a process of counting (Carroll & Khessina 2005; Lawrence 1997; Perrow 1986). Additionally, scholars working in fields are often unable to identify common lifespans, stability, or turmoil in the field, and speak to the longitudinal fluctuations (Carroll & Hannan 2000). Organizational ecologists reject the possibility that chance drives survival or demise and studies the ecology to identify influences and causes.

The theory of organizational ecology derives from the natural sciences and is employed by social scientists. Ecology investigates the influence of environmental conditions on populations of biological organisms, whereas organizational ecology applies these principals to the study of populations of organizations (Hannan & Freeman 1977, 1989). The ecology of organizations includes such variables as public policies, the economy, populations of other types of organizations, and human demographics and behavior. Social scientists test and evaluate how conditions influence population dynamics such as formation (organizational birth) and exit (organizational failure or death).

The application of ecology to organizations requires the adaptation of concepts, such as birth and death. Organizations are not born; instead they are formed, founded, or enter the market (Bowen, Nygren, Turner, & Duffy 1994; Hager 2001). Scholars have applied different definitions of organizational birth. Among nonprofit studies the standard has been to use the Internal Revenue Service (IRS) rule date recognizing the organization as a charitable nonprofit as a proxy for birth (Bowen et al. 1994; Hager 2001). And, as organizations are not born, they do not die. They exit the marketplace and cease operations. Again, the IRS is useful in establishing the exit of nonprofit organizations. This paper relies on Hager's (2001) definition of organizational exit. An organization is considered to have exited when it fails to file the IRS form 990 for three or more consecutive years. This is consistent with current IRS policy that revokes a nonprofit's tax-exempt status when the appropriate 990 forms have not been filed for three consecutive years (Internal Revenue Service 2013).

Populations under investigation must be bound in some way. The organizations included must share common features including history, politics, social structure, geography, and vulnerability. NPACOs operating in the United States in the twentieth- and twenty-first century numbers in the tens of thousands. They share status as tax-exempt entities, a mission to deliver arts and culture programming or education, and the general funding system of direct and indirect subsidies, private donations, and earned income. Many studies of this population have used a national lens (A. C. Brooks 2004, 2007; P. N. Hughes & Lukestich 1999; P. N. Hughes & Lukestich 2004; National Endowment for the Arts 2012; Smith 2007). This overlooks the

significance of state and local variations in the environment. Schuster (2002) identified the rich opportunity in studying sub-national arts policies. The ecology of states varies. Using organizational ecology to study the population of ACOs at the state level enhances information of the circumstances under which forms emerge, persist, and cease to exist.

Organizational ecology has been used in previous studies to assess the growth and contraction of NPACOs in the United States (Bowen et al. 1994), the significance of financial ratios in predicting the survival of NPACOs in Minnesota (Hager 2001), and how mechanisms for funding state arts agencies (appropriations, taxes, fees, trust funds, revenue from lotteries and gaming) contribute to the environment and influence the population dynamics of NPACOs (Gallagher 2019). Studies of the arts and culture sector have raised the legacy and significance of entrepreneurship among artists (Jensen 1994; Kriedler 1995; Miller 1974; White & White 1965/1993). To date, entrepreneurship has not been incorporated as an ecological variable that may influence the sustainability of NPACOs.

Data and Methods

The theory of organizational ecology is rooted in the study of populations. To understand the interaction of entrepreneurship and the population of NPACOs it is necessary to observe patterns of organizational formation and exit. In biology, these are recognized as births and deaths. In the United States the IRS requires tax exempt organizations to file financial information annually (National Center for Charitable Statistics n.d.). Annual filings are commonly used as a census of nonprofit arts and culture organizations (Hager 2000; Hager, Galaskiewicz, Bielefeld, & Pins 1996). Until recently, not all nonprofits were required to annually file an IRS 990. As a result, some newer and/or smaller organizations were not required to file and may have been excluded (Hager 2001). The data is then easily tabulated by state.

The data set used for this paper was modified from a previously constructed data set (Gallagher 2014). That set utilized the core data files from the National Center for Charitable Statistics, The State Arts Agency Public Funding Sourcebook, and data on the population, education, and gross domestic product of the states. The National Center for Charitable Statistics at the Urban Institute compiles and maintains core files from the IRS 990 Forms. These files include more than sixty variables drawn from the IRS annual Return Transaction Files (RTF) for all nonprofit organizations required to file since 1989 (Urban Institute 2006). This provides researchers with information such as organization name, employer identification number (EIN), National Taxonomy Exempt Entities (NTEE) classification, address, rule date (when the tax-exempt status of an organization was recognized), and financial details, such as total revenues. It also documents the last year of filing, used to establish years of entry and exit. The data set was brought up to date with support from SMU Data Arts. Observations were made for each state for the years 1996 to 2011. These include the Kauffman Entrepreneurial Activity Index (reviewed earlier in this paper), the number of NPACOs at the start of the year (the population density), the number of new NPACOs, and the number of NPACO exits, total state legislative appropriations to the state arts agency (inflation adjusted to 2019), region, human

population, state unemployment, educational attainment of the population twenty-five and older, and political party dominance in the state legislature.

Research has demonstrated that key characteristics drive support for and participation in the arts. Educational attainment, income, and population size are among these (A. C. Brooks 2001; Rushton 2005, 2008; Wolpert 1997). Control variables for population by state were retrieved (U. S. Census Bureau n. d.-a, n. d.-b, n.d.-a). Annual state unemployment rates (not seasonally adjusted) were taken from the Bureau of Labor Statistics (Bureau of Labor Statistics n. d.). Education attainment was operationalized as the percentage of the population over twenty-five who had earned a bachelor's degree or higher (U. S. Census Bureau n.d.-b).These decennial data for educational attainment were transformed to annual estimates by dividing the amount of change by the ten years in the period to find an estimated annual rate of change. These rates were then multiplied by the time period and added to the base to approximate an annual rate of educational attainment using the process of linear interpolation. Density is the number of organizations in the marketplace and is recognized in organizational ecology for impacting the population of organizations. This is captured in this data set with the number of NPACOs present at the beginning of the year.

The data for the analysis of organizational entries and exits were organized as annual time series for the years from 1996 to 2011 for all variables. This combination of data produced 800 observations. The vital statistics of interest in this study are the annual counts of entry and exit of NPACOs. The year of entry is defined as the year in which the organization received IRS recognition (Bowen et al. 1994; Hager 2001). The number of entries is calculated as the number of organizations formed in a year (Bowen et al. 1994; Hager 2001). Consistent with existing research, exits are identified when an NPO fails to file with the IRS several consecutive years during the time period studied (Bowen et al. 1994; Hager 2001). The exit count is the number of organizations that failed to file an IRS 990 for three consecutive years. Stata was used to identify the last year an organization in the data filed the 990 form. If the organization did not file for at least three consecutive years, the exit year was the year after the final filing.

Population studies lend themselves to the use of count data, capturing the number of entries, or births, and the number of exits, or deaths. The selection of linear or logistic is at odds with this type of data. Poisson regression is commonly used to analyze count data but assumes equidispersion and that the counts are independent of one another (Hilbe 2007; Piza 2012). Longitudinal counts of populations, entries, and exits violates these assumptions. Negative binomial regression can be used for over-dispersed count data where the mean exceeds the variance. It is a generalization of Poisson regression with parameters included to model for over-dispersion. The model was fit using Stata version 12.

To analyze whether state entry counts are improved by the higher entrepreneurship, the following model is hypothesized:

State entry count = f (Kauffman Entrepreneurial Activity Index, organizational population density, total legislative appropriations to state arts agency (inflation adjusted to 2019 $), region,

human population (1000s), rate of unemployment, educational attainment of the population 25 or older, and political party dominance in the state legislature.

Exit counts were substituted as the dependent variable to explore the relationship between exits and entrepreneurship.

Organizational ecology emphasizes the significance of a population's complete history. Missing and disaggregate sources of data creates challenges in assembling this for many populations. This standard would exclude many populations from study, including ACOs in the United States. The data used for this paper span the years 1996 to 2011. This may reduce the depth of analysis possible for individual organizations but still produces an overview of population dynamics. Furthermore, nonprofits with gross receipts less than $25,000 were not required to file annually with the IRS prior to 2007. Smaller organizations, while part of the total population, were not documented in the NCCS data. Organizational ecology identifies increased liability for small organizations (Hannan & Freeman 1977, 1989). Commonly, they do not have resource surpluses that enable them to continue operation following unanticipated financial events (Hager 2001; Tuckman & Chang 1991). Their exclusion from this study may understate the incidence of exit in the population. However, the NCCS data set is the most comprehensive source of information on the nonprofit sector and is routinely used by scholars in this field, making it an appropriate source of data.

Findings

The significance of the entrepreneurship and the arts have individually attracted the attention of policymakers. They are benefitting from public policies that seek to cultivate and encourage them independently. Prior to this research they have received limited exploration as they relate to each other. This research sought to explore if there is a synergistic relationship.

The formation of new organizations is one of the measures of interest to organizational ecologists. Using the IRS ruling year as a proxy for entry, this study found that 31,835 ACOs entered the nonprofit sector in the United States between 1996 and 2011. The number of new entrants per year ranged from 935 in 2011 to 2,465 in 1999, with an annual average of 1,989
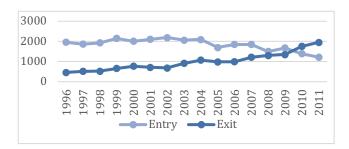

Figure 1. Nonprofit arts entries and exits (1998-2012).

new organizations. This was matched by rates ranging from 3.99% to 6.47%and an average entry rate of 5.38%. This is depicted in Figure 1.

Entries varied across states and years. Rates of entry varied from 0.00% in Delaware in 2011 to 16.61% in Oregon in 2006. Average entry rates for the period ranged from 3.02% in North Dakota to 8.42% in California. The negative binomial regression of entrepreneurship against the counts (not rates), controlling for year, density of ACOs, population, unemployment, education, and the Kauffman Entrepreneurial Index was performed to evaluate how entrepreneurship impacts formation of new a NPACOs. The results are in Table 1.

The coefficients in negative binomial regression are the log of the expected count.

Table 1: Negative Binomial Regression Model of Nonprofit Entries and Entrepreneurship.

Variable	Coefficient	IRR	Std. Error
Density	0.0002305***	1.000231***	0.0000206
Populations 1,000s	0.0000577***	1.000058***	2.72e-06
Unemployment	0.0369103**	1.0376**	0.0129199
Educational attainment	0.0440638***	1.045049***	0.0040859
State entrepreneurship	-0.9762403***	0.3767428***	0.0666529
Observations	800		0.1652171
Wald Chi Sq.	6012.70		
Degrees of freedom	5		

* p<.10, **p<.05, ***p<.01

Researchers may choose to report the incident rate ratio (IRR) to interpret the findings. The IRR represents a percent change, increase or decrease, in the dependent variable determined by the amount it is above or below one (Piza 2012). Density and population have limited, positive influence on the formation of nonprofit ACOs. Unemployment is associated with a 3.76% increase in the formation of nonprofit ACOs. Educational attainment has the largest positive effect, increasing the number of arts formations by 4.5%. This is consistent with research highlighting the importance of educational attainment on arts participation and support (A. C. Brooks 2001, 2004). The variable of interest, the entrepreneurial index, is associated with a large and statistically significant decrease in the number of nonprofit, arts and culture entries. The IRR is 0.376, which indicates an almost 62% decrease in the number of nonprofit arts and culture entries for every unit increase in the KEAI.

The rate at which organizations exit the market is equally important, as it reveals what forms are not surviving in the current environment. Between 1996 and 2009, 24,560 nonprofit ACOs exited the market. Annual exits ranged from 723 in 1996 to 3,578 in 2009, as depicted in Figure 2, below. These are matched to rates of 1.97%to 14%. The annual, national average was 1,625 exits per year or 5.21% of the population per year. Among states, average exits for the period ranged from 1.79%in Nebraska to 9.73% in Utah.

All state annual exit counts were analyzed with negative binomial regression to test the relationship with the rate of entrepreneurship. The results are reported in Table 2. The IRR is also reported. As with entries, density and population at the state-level present negligible increases in the number of exits. Unemployment prompts a 4.23% increase in the number of exits and educational attainment produces a 4.6% increase in exits. As with entries, the entrepreneurship IRR is less than one and represents a decrease in the number of exits of approximately 68%.

Table 2: Negative Binomial Regression Model of Nonprofit Arts and Culture Exits and Alternative Mechanisms.

Variable	Coefficient	IRR	Std. Error
Density	0.0002458***	1.000246***	0.000019
Populations 1,000s	0.0000544***	1.000054***	2.54e-06
Unemployment	0.0415178***	1.042392***	0.0112616
Educational attainment	0.04500059***	1.046034***	0.0037548
State entrepreneurship	-1.13483***	0.3214767***	0.0559592
Observations	800		
Wald Chi Sq.	5942.86		
Degrees of freedom	5		

* p<.10, **p<.05, ***p<.01

Discussion and Conclusion

Business, innovation, and the arts have been identified as central to the dynamics of the knowledge economy. Public policies have been developed around the world to create economic opportunity and build prosperity. The entrepreneurial economy and creative places policies are two areas that have attracted increased attention since the 1990s (Audretsch & Thurik 2001; Grodach 2017). NPACOs demonstrated increased vulnerability and probability of demise in the past (Bowen et al. 1994; Hager 2000; Hager et al. 1996) but have diversified their revenue streams, built diversity in their organizations and audiences, and entered into cross-sector collaborations. Consequently, NPACOs have been linked to a wide-array of instrumental benefits (Belfiore 2004; McCarthy et al. 2004). While research positioned arts and cultural amenities as beneficial to knowledge workers, innovation, and economic growth (Florida 2004, 2009) exploration of the inverse of the relationship – whether knowledge and entrepreneurial trends in the economy benefit the arts – had not previously been undertaken.

Scholars and research institutes are examining data in order to better understand and facilitate sustainability for arts organizations. Among the methods employed, organizational ecology analyzes population dynamics as they respond to changes in the ecology. The attention to entrepreneurship in society, generally, and the arts, specifically, is worthy of additional exploration. This paper posited that the relationship between entrepreneurship and arts organizations is deserving of examination. Negative binomial regression of the Kaufman

Entrepreneurial Index (Fairlie 2013) against the formation and exit counts of nonprofit ACOs indicate that entrepreneurially favorable environments decrease both the entry and exit of nonprofit ACOs within states. There are several important implications and limitations to these findings.

Organizational formation, or birth, is one indicator of sectoral health. States with higher entrepreneurial activity had fewer NPACO entries during the period studied. If the arts good for fostering innovation and entrepreneurship, it appears the converse is not necessarily true for *nonprofit* arts and culture organizations. Lower formation of NPACOs might result from lower demand. Do entrepreneurs make time to engage with NPACOs in their communities? Do programming offers align with consumer demands? On the other hand, the data used can't tell us the population dynamics in the for-profit arts. Perhaps, innovative communities also foster new artistic products, audience experiences, and organizational forms. While this study examined the relationship between entrepreneurial climate and nonprofit arts, the lack of data on for-profit arts creates an important limitation and an opportunity for additional research.

Organizational exit, or death, is another indicator of sectoral health. States with higher entrepreneurial activity also had lower NPACO entries during the period studied. This means that NPACOs are less likely to exit than other places. Reduced incidence of death is generally considered a positive indicator. And, given the vulnerability of NPACOs this might appear an almost utopian solution – if it were not for the low entry rate. Organizational ecology reports the tendency for larger and older firms to dominate an environment (Hannan & Freeman 1989). This produces a semi-monopolistic environment in which larger firms secure the majority of resources. Furthermore, older organizations have a greater difficulty introducing change and innovation. Again, as with organizational formation, the ability to interpret this is limited by data only from NPACOs.

The purpose of organizational ecology is to observe the development of new, organizational forms (Hannan & Freeman 1989). Kriedler (1995) presents the evolution of the nonprofit arts organizational form and concludes that the arts will be forced to continue to adapt to environmental conditions. Ellis (2007) posits that innovation is less likely in the centralized, hierarchical systems common in the nonprofit arts. These positions point to challenges faced by 501(c)(3)s. The data here may indicate that there is a shift away from the 501(c)(3) form among arts organizations. Population dynamics of for-profit arts organizations would be necessary to come to any conclusions.

Limitations and Opportunities

The data used includes several important limitations. These limitations are accompanied by opportunities to further advance our understanding of the interaction between entrepreneurship and the arts.

- This analysis presented only the nonprofit segment of the arts sector. Due to data fragmentation there is not a comprehensive source for the arts sector. This is a significant limitation. A research opportunity exists for a sector-inclusive source of

population data for arts and culture.

- No variables were included to capture NPACO size or age. Age and size are important variables to organizational behavior. Future analysis incorporating the organizational traits of size and age affords the opportunity to consider trends within organizational generations and size.

- The data represents a sixteen-year time-period from 1995 to 2011. More recent data, including the population changes that resulted from the economic shock of the global economic crisis and recovery, have the potential to provide a more current and accurate report of the population dynamics.

The economy has been transformed, and governments have promoted entrepreneurship and creative places for their suitability to new conditions. The arts are beneficial to innovation and entrepreneurship. The influence of entrepreneurship on the nonprofit arts had not been explored. Entrepreneurship is associated with lower rates of formation of NPACOs and lower rates of organizational exit.

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