# The Emergence of Rural Artistic Havens: A First Look

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Nearly all applied research on arts activity has examined phenomena in metropolitan areas. Findings from this past research confirm an arts specialization in a limited number of cities. This paper finds a similar pattern in nonmetropolitan areas, where a limited number of counties maintain or develop a distinct specialization in the arts. We document the emergence of these "rural artistic havens" and identify county characteristics associated with the attraction of performing, fine, and applied artists. The implications of these findings for rural development strategies focusing on the arts are discussed.

***Key Words:*** arts activity, built amenities, creative class, logistic regression, natural amenities, tourism development

The belief that the arts are quintessential central place functions—overwhelmingly concentrated in the largest or most distinctive cities—is widely held. Empirical work examining the location of arts activity often starts from this premise (Florida 2002a, Heilbrun 1992, Markusen, Cameron, and Schrock 2004). Richard Florida's (2002a) work on the "economic geography of bohemia" examines the fifty largest Metropolitan Statistical Areas (MSAs) and concludes that the arts are highly concentrated in only a handful of places, such as New York, Los Angeles, San Francisco, Seattle, and Washington. The research discussed in this paper arrives at a similar conclusion with an important caveat—namely, that the arts are highly concentrated, yet this is true across nearly all tiers of the settlement hierarchy.

The possibility that some rural areas serve as magnets for artistic activity has not been comprehensively investigated. Yet, two developments suggest strong economic rationales for some artists choosing rural addresses. From the demand side, the growth of tourism in some rural areas may support arts markets despite relatively low population density. Alternatively, footloose artists supplying regional or national markets may choose to live in amenity-rich rural areas, similar to other footloose creative professionals (McGranahan and Wojan 2007). The analysis will address two questions posed by these developments. First, are artists becoming more prevalent in rural areas? In those particular rural areas where artists cluster, what role do demand and supply factors play in explaining this phenomenon?

The interest in these questions goes beyond filling a gap in the academic literature. The substantial and growing number of rural initiatives that have made arts and culture the centerpiece of development efforts provides a strong motivation for analysis. Examples of these initiatives include the Arts Build SmART Communities Project at the University of Wisconsin in Platteville, the effort to brand Paducah, Kentucky, as the "SoHo of the South" through its Artist Relocation Program, and the effort in Maine to anchor its statewide creative economy initiatives in arts and culture.[1] The interest that these and similar examples are generating in town halls, economic development

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The views expressed here are the authors' and not necessarily those of the Economic Research Service, the U.S. Department of Agriculture, or the University of Tennessee, nor of the workshop's sponsoring agencies.

[1] See http://www.uwplatt.edu/cont_ed/artsbuild/welcome.html, http://paducahtourism.org/content.asp?Content=Arts+%26+Culture, and http://www.maine.gov/governor/baldacci/vision/culture.html, respectively.

consultancies, county extension offices, and state houses makes clear the need for analyzing the location of artists in rural areas.

Central to our analysis is the notion of an "arts community" that flows out of an agglomeration of artists in a place. The location of some artists in rural areas is unremarkable. The anticipated benefits from arts or cultural tourism promotion, or the consumption amenities associated with a lively arts sector, are more likely found in places securing a minimum critical mass of artists or performers. We arrive at reasonable, though necessarily arbitrary, criteria for defining "rural artistic havens" that conform to this notion of an arts community, using detailed occupational data from decennial censuses. We then investigate county-level characteristics that differentiate artistic havens from all other nonmetro counties using a logistic regression model.

Our findings document the presence and genesis of artistic havens, thus reinforcing claims that some rural areas are capable of attracting creative talent. Results from the logistic regression model provide insight as to which rural areas are most likely to develop as artistic havens. These results have implications for the feasibility of arts-based tourism strategies and creative economy strategies more generally.

## Trends in Artists' Migration to Nonmetropolitan Counties

For the purposes of this study, arts occupations are defined by the most detailed occupational classification available at the county level for 2000. Within the 93 detailed occupations included in the Census STF4 file, "art and design workers" and "entertainers and performers, sports, and related workers" are the only two categories that are not substantially commingled with non-arts occupations. Fortunately, 511 detailed occupations are available at the county level for 1990 from the Equal Employment Opportunity Commission (EEOC) special tabulation of the Census,[2] which allows constructing comparable measures for the two years. The corresponding 1990 occupational categories are "designers," "painters, sculptors, craft-artists, and artist printmakers," "photographers," "musicians and composers," "actors and directors," "dancers," "athletes," and "artists, performers, and related workers, n.e.c." The 2000 aggregation does not allow for purging athletes from the data series, though they comprise a minimal share of the total, nor does it allow the inclusion of authors who are commingled with the considerably larger number of technical writers.

The national arts employment share increased marginally, from 1.14 percent to 1.16 percent, between 1990 and 2000. However, the growth in this share was due almost exclusively to growth in nonmetro arts, as the metro share was 1.26 percent in both years. In 1990, the nonmetro arts employment share was roughly half (0.64 percent) that of the metro share, increasing to 0.71 percent by 2000.

Table 1 provides information on the distribution of arts occupations by settlement size, using the 1993 Economic Research Service's Rural-Urban Continuum code. Within metropolitan counties, central counties of large metro areas contain the largest share of artists, comprising close to 1.5 percent of total employment. This share remained constant between 1990 and 2000. The substantially lower arts share in all nonmetro settlement types confirms the perception of arts as a central place function. The data also suggest that growth in arts employment shares has been more rapid in nonadjacent counties. In fact, for each of the size classes, the 2000 arts share in the nonadjacent counties surpassed that of the corresponding adjacent counties.

The salient feature of Table 1 is a surprising similarity in arts occupation shares throughout the settlement hierarchy given priors of a highly concentrated economic sector. At least at the aggregate level, it appears that some share of arts employment can be characterized as a nonbasic sector that serves the local population. The fact that very few counties had no artists in 1990 (114) or 2000 (80) reinforces this characterization. At the other extreme, very few counties (metro or nonmetro) have arts employment shares of more than 2 percent.

Florida's (2002a) interpretation of a highly concentrated spatial distribution of artists makes more sense in considering the surplus in artists in a particular place above a common basal level. In

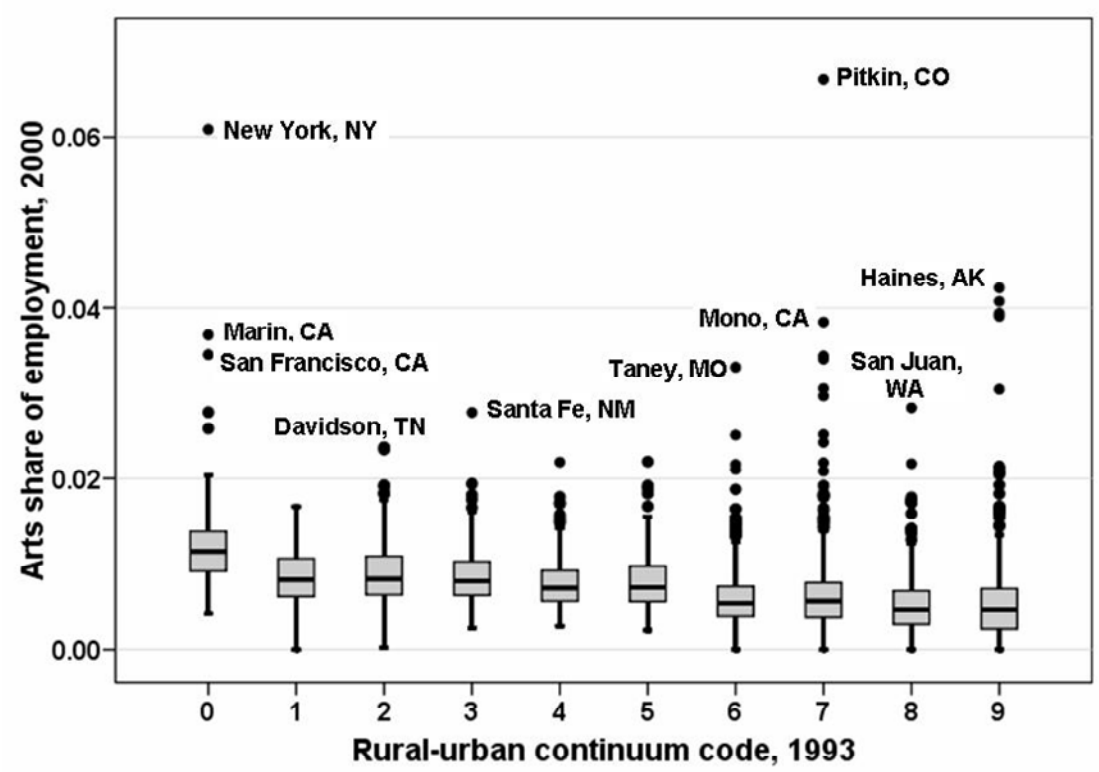
[2] In 2000, this information was provided only for counties or groups of counties with populations of more than 50,000, to meet new non-disclosure rules.

**Table 1. The Spatial Distribution of Arts Occupations**

| Settlement Type | | | 1990 | 2000 | % Change |
|---|---|---|---|---|---|
| U.S. Total | | Arts Occs. | 1,282,119 | 1,464,999 | 14.26% |
| | | Total Empl. | 112,304,720 | 126,376,878 | 12.53% |
| | | Share | 1.14% | 1.16% | |
| 1993 Rural-Urban Continuum Code | | | | | |
| METRO COUNTIES | | | | | |
| 0 | Central counties of metro areas of 1 million population or more | Arts Occs. | 796,538 | 859,633 | 7.92% |
| | | Total Empl. | 54,813,418 | 59,384,093 | 8.34% |
| | | Share | 1.45% | 1.45% | -0.39% |
| 1 | Fringe counties of metro areas of 1 million population or more | Arts Occs. | 37,358 | 52,781 | 41.28% |
| | | Total Empl. | 4,302,519 | 5,626,721 | 30.78% |
| | | Share | 0.87% | 0.94% | 8.03% |
| 2 | Counties in metro areas of 250,000 to 1 million population | Arts Occs. | 260,267 | 306,817 | 17.89% |
| | | Total Empl. | 25,184,100 | 28,868,027 | 14.63% |
| | | Share | 1.03% | 1.06% | 2.84% |
| 3 | Counties in metro areas of fewer than 250,000 population | Arts Occs. | 81,005 | 99,700 | 23.08% |
| | | Total Empl. | 9,001,699 | 10,372,818 | 15.23% |
| | | Share | 0.90% | 0.96% | 6.81% |
| NONMETRO COUNTIES | | | | | |
| 4 | Urban population of 20,000 or more, adjacent to a metro area | Arts Occs. | 32,471 | 39,605 | 21.97% |
| | | Total Empl. | 4,181,671 | 4,726,285 | 13.02% |
| | | Share | 0.78% | 0.84% | 7.92% |
| 5 | Urban population of 20,000 or more, not adjacent to a metro area | Arts Occs. | 21,806 | 28,048 | 28.63% |
| | | Total Empl. | 2,778,443 | 3,170,849 | 14.12% |
| | | Share | 0.78% | 0.88% | 12.71% |
| 6 | Urban population of 2,500 to 19,999, adjacent to a metro area | Arts Occs. | 39,957 | 50,335 | 25.97% |
| | | Total Empl. | 6,773,514 | 7,860,997 | 16.05% |
| | | Share | 0.59% | 0.64% | 8.55% |
| 7 | Urban population of 2,500 to 19,999, not adjacent to a metro area | Arts Occs. | 32,235 | 42,090 | 30.57% |
| | | Total Empl. | 5,304,523 | 5,971,691 | 12.58% |
| | | Share | 0.61% | 0.70% | 15.98% |
| 8 | Completely rural or less than 2,500 urban population, adjacent to a metro area | Arts Occs. | 5,846 | 7,231 | 23.69% |
| | | Total Empl. | 1,033,342 | 1,240,179 | 20.02% |
| | | Share | 0.57% | 0.58% | 3.06% |
| 9 | Completely rural or less than 2,500 urban population, not adjacent to a metro area | Arts Occs. | 6,839 | 9,787 | 43.11% |
| | | Total Empl. | 1,400,894 | 1,575,792 | 12.48% |
| | | Share | 0.49% | 0.62% | 27.22% |

Source: 1990 EEOC special tabulation of the Census, and 2000 Census STF4.

the fifty largest metropolitan areas, Florida finds a significant surplus in only a handful of cities. Examining the distribution of arts employment shares across all settlement types provides a much fuller picture of bohemia in America. This exercise (Figure 1) demonstrates that the recognized large metro centers in New York, Los Angeles, and San Francisco have peers in nearly all of the settlement types, starting with smaller metro areas (e.g., Santa Fe), the largest nonmetro counties (e.g., Ulster County, New York, containing Woodstock), and extending down to completely rural counties (e.g., San Juan and San Miguel counties in Colorado, containing Silverton and Telluride, respectively). Figure 1 compels a closer examination of the genesis of rural areas with relatively high shares of arts occupations.




[a] See Table 1 for category descriptions.

**Figure 1. Box Plot Comparing Arts Employment Shares Across the Rural-Urban Continuum, with Outliers**

## Defining and Delineating Artistic Havens

Figure 1 makes clear that some rural counties are, or have become, magnets for artists. Anecdotal accounts (Markusen and Johnson 2006, Villani 1998) have examined the existence of "arts communities" that flow out of the agglomeration of artists in a place. The idea is that a minimum critical mass of artists or performers is required such that members of the community benefit from substantial interaction among themselves and the group is large enough to affect culture of the wider community.

Two quantitative criteria delineate the artistic haven construct: (i) artists comprise a substantive share of total employment, and (ii) artists are sufficiently numerous to create the critical mass required of an arts community. Establishing thresholds for these criteria is clearly subjective, but we will argue that the thresholds chosen are reasonable. It is important to note that the thresholds define an empirical construct helpful in analyzing an interesting phenomenon. This approach emphasizes identifying assets that may be valuable in local development strategies.

We first set an absolute minimum screen of 40 artists as a criterion for classification as an artistic haven. This absolute threshold reinforces the "arts community" aspect of the construct and it substantially reduces the likelihood of false positives in the classification based on sampling error. This is because occupational census data are based on the 1-in-6 long form sample, so the relative scarcity of arts employment may lead to large errors in counties with very small employment bases. Given the expectation that artistic havens are relatively rare, false positives are of greater concern than false negatives in the estimations that follow.

Arriving at the second quantitative criterion—the threshold that constitutes a substantive share of arts employment—is also highly subjective.

However, statistics does provide an objective criterion for determining when a threshold is too restrictive (Hsieh 1989). From this perspective, the optimal arts share threshold is one that is as high as possible to ensure that these employment shares are in fact distinctive, but not so high that there are too few artistic havens for the results to be statistically powerful.

We use the presence of a 4-year college as the explanatory variable of interest given anecdotal evidence of the importance of colleges to local arts communities and the ease of interpreting the odds ratio of a binary variable.[3] In concrete terms, our statistical test should be able to detect whether the presence of a 4-year college increases the odds of being classified as an artistic haven by 50 percent. Entering these various parameters, we arrive at a threshold arts employment share corresponding to the 95th percentile of the arts employment share distribution, or an employment share of 1.07 percent in the 1990 data.[4] A comparison of means presented later in the paper (Table 4) confirms that the arts employment share in our delineated havens is three times the arts share in other nonmetro counties, providing assurance of their distinctiveness.

We examine two distinct phenomena in the data independently—counties that are classified as artistic havens in 1990 and counties that achieved the threshold arts employment share with at least 40 artists in 2000. See box for construction of the samples used in these analyses. We classify the 90 counties meeting artistic haven thresholds in 1990 as established havens. Sixteen additional counties met the employment share threshold but had fewer than 40 artists in 1990, and so were not classified as established havens. These same counties also failed to meet the 40 artist minimum screen in 2000 and so were excluded from the emerging havens analysis, along with the 90 established havens from 1990. Counties that had very small employment bases (fewer than 1,066 employees) were excluded from the analysis, as these counties would fail to meet the absolute threshold even with the largest arts employment shares observed in these data. There were 109 counties meeting identical artistic haven thresholds in 2000 that were classified as emerging havens. This structure allows us to differentiate havens from nonhavens in 1990, and then to differentiate counties that became havens from those that remained nonhavens in 2000.

Artistic havens represented as places are mapped in Figure 2, with the corresponding county names provided in Table 2. Most notably, the Mountain West and the Northeastern United States contain contiguous counties of artistic havens. However, artistic havens are found throughout the United States. Particularly notable is the recent vintage of many of these artistic havens. With only a few exceptions (e.g., Branson, Missouri; Leelanau County, Michigan; and Door County, Wisconsin, on Lake Michigan), the diffusion of havens throughout the middle of the country is a recent phenomenon. The map confirms that artistic

SAMPLE SIZES IN ESTABLISHED HAVEN AND EMERGING HAVEN ANALYSIS

| | |
|---|---|
| Total number of nonmetropolitan counties in 1990 | 2,260 |
| *minus* Alaska and Hawaii counties | -6 |
| *minus* counties with very small employment base (fewer than 1,066 workers) | -113 |
| Sample size for established haven analysis | 2,141 |
| *minus* counties classified as established havens | -90 |
| *minus* counties meeting artist employment share threshold but failing the 40 artist minimum screen in 1990 and 2000 | -16 |
| Sample size for emerging haven analysis | 2,035 |
| Counties classified as emerging havens | 109 |
| Total number of established and emerging havens | 199 |

[3] In the regressions that follow, we use the share of the 18–24 population enrolled in college to represent the relative importance of colleges in a county. Given the strong correlation between the presence of a 4-year college and student enrollment, the sample size calculations using either variable are similar.

[4] To apply this criterion, we define an acceptable type I error probability at 0.05 and an acceptable type II error probability at 0.10, in accordance with standard rules of thumb. Using the sample size in Table III from Hsieh (1989, p. 798), we arrive at this 5th percentile cutoff by first computing the multiple correlation coefficient ($\rho$) for the presence of a 4-year college with all other covariates. Dividing the column entries associated with detecting a 1.5 odds ratio by $(1 - \rho)$ provides the minimum required sample size. Our sample size of roughly 2,100 counties will in fact provide powerful results for an event probability as small as 4 percent, but we use the threshold corresponding with the 95th percentile as a conservative measure that is commonly applied. The required sample size is highly sensitive to the effect size the test is intended to detect. For example, detecting a minimal effect size of a 10 percent increase in likelihood with an event probability of 5 percent would require a sample nearly twenty times larger.

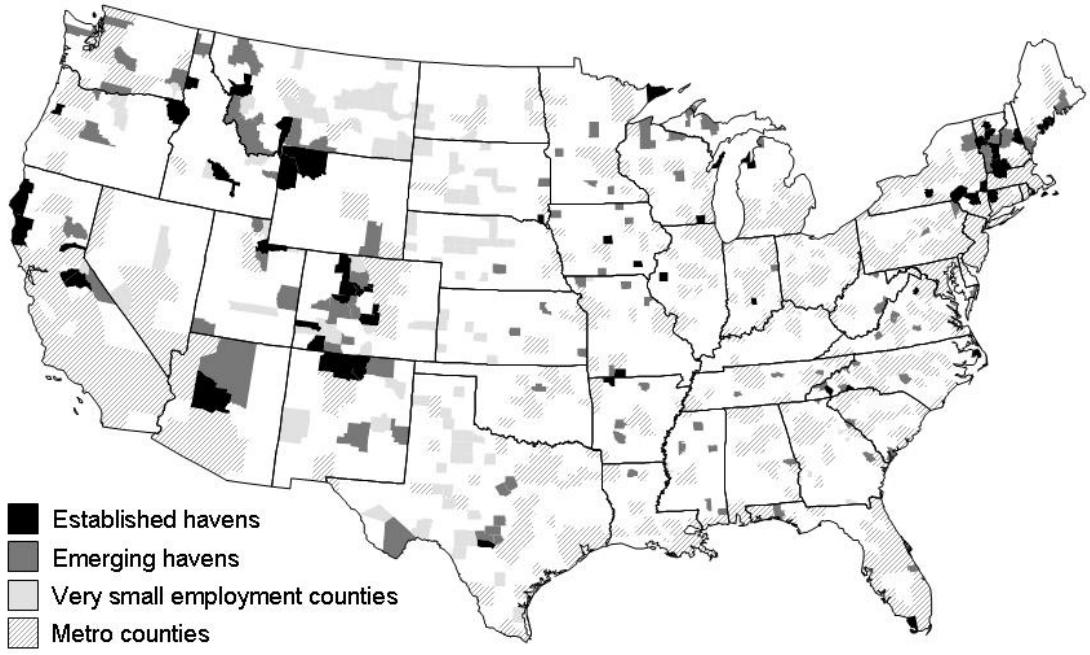



**Figure 2. Map of Established and Emerging Rural Artistic Havens, 2000**

havens as defined are geographically dispersed phenomena. Those county characteristics associated with the genesis of artistic havens are examined next.

### Attributes Associated with Artist Location

We review research examining the location of artists from the cultural economics literature, the emerging literature on the creative economy, and anecdotal accounts of rural arts communities in the academic and popular literature to arrive at our specification of an econometric model for characterizing rural artistic havens.

Heilbrun (1996) analyzed state-level characteristics associated with the level of arts activity, proxied by the number of artists per 10,000 residents. Activity in the *performing arts* was positively associated with metropolitan area size, the size of the tourism sector (using hotel receipts as a proxy), income per capita, and ethnic diversity, measured as the share of the population made up of Hispanics and non-whites. All of these results confirmed the importance of various demand factors as predicted. In contrast, with the exception of ethnic diversity, none of these factors was associated with *visual arts* activity, consistent with the expectation that visual artists are more footloose and not as dependent on local market demand. However, visual arts activity was associated with the educational attainment of the population (while performing arts activity was not). Heilbrun interprets educational attainment as a proxy for area attractiveness to footloose professionals, effectively increasing the supply of visual artists.

Factors affecting the supply of creative professionals are the focus of the emerging creative economy literature (e.g., New England Council 2001, Florida 2002a, Florida 2002b, Markusen, Cameron, and Schrock 2004, Markusen and Johnson 2006). Florida (2002a) examines the correlation between the employment share in the arts (his *bohemian index* includes performing artists, visual artists, and authors) and various indices constructed for the 50 largest Metropolitan Statistical Areas (MSAs) with a population of more than 700,000. Arts activity is strongly correlated with a *talent index* (percentage of the population with at least a bachelor's degree), a *melting pot*

**Table 2. List of Nonmetropolitan Established and Emerging Haven Counties**

ESTABLISHED HAVENS RANKED BY 1990 ARTS EMPLOYMENT SHARE

| | | | | |
|---|---|---|---|---|
| Blaine, ID | Lincoln, ME | Jack, TX | Routt, CO | Roberts, SD |
| Pitkin, CO | Nevada, CA | Greene, NY | Summit, UT | Rio Arriba, NM |
| Gilpin, CO | Ulster, NY | Douglas, NV | Windsor, VT | Walworth, WI |
| Sagadahoc, ME | Park, WY | Custer, SD | Benton, OR | Yankton, SD |
| Teton, WY | Teller, CO | La Plata, CO | Cedar, MO | Jackson, NC |
| Taos, NM | Mariposa, CA | Terrell, GA | Franklin, MA | Dawson, GA |
| Taney, MO | Summit, CO | Tompkins, NY | Carroll, AR | Kauai, HI* |
| Nantucket, MA | Garfield, CO | Cook, MN | Brown, IN | Tuolumne, CA |
| San Miguel, CO | Rappahannock, VA | Mendocino, CA | Missoula, MT | Grand Traverse, MI |
| Dickinson, KS | Hawaii, HI* | Windham, VT | Addison, VT | Jo Daviess, IL |
| Knox, ME | Torrance, NM | Bandera, TX | Jefferson, MT | Citrus, FL |
| Dukes, MA | Clay, SD | Polk, NC | Dare, NC | McDonough, IL |
| Linn, MO | Park, CO | Washington, VT | Delaware, NY | Humboldt, CA |
| Jefferson, IA | Monroe, FL | Lake, MT | Chariton, MO | Calaveras, CA |
| Yavapai, AZ | Latah, ID | Amador, CA | Carroll, NH | Cochise, AZ |
| Eagle, CO | Swisher, TX | Story, IA | Appomattox, VA | Fremont, CO |
| Lamoille, VT | Gallatin, MT | Door, WI | Clear Creek, CO | Newport, RI |
| Leelanau, MI | Columbia, NY | Dickinson, IA | Ramsey, ND | |
| Maui, HI* | Litchfield, CT | Cheshire, NH | Glynn, GA | |

EMERGING HAVENS RANKED BY 2000 ARTS EMPLOYMENT SHARE

| | | | | |
|---|---|---|---|---|
| Haines, AK* | Park, MT | Delta, CO | Steele, MN | Flathead, MT |
| Mono, CA | Chaffee, CO | Grand, UT | Skagit, WA | Prince Edward, VA |
| Gunnison, CO | Kent, MD | Archuleta, CO | Putnam, TN | George, MS |
| Jefferson, WA | Wasatch, UT | Lincoln, LA | Ralls, MO | Jay, IN |
| Lincoln, NM | Bennington, VT | Kerr, TX | Nicollet, MN | Plumas, CA |
| Grand, CO | Forrest, MS | Cache, UT | Buffalo, NE | Coconino, AZ |
| Teton, ID | Riley, KS | Roosevelt, NM | Rice, KS | Garland, AR |
| Whitman, WA | Stevens, MN | Hancock, ME | Lake, CO | Union, PA |
| Albany, WY | McCormick, SC | Brewster, TX | Beaverhead, MT | Matanuska-Susitna, AK* |
| Lincoln, GA | Stone, MO | Silver Bow, MT | Madison, ID | Izard, AR |
| Indian River, FL | Bayfield, WI | Kendall, TX | Lewis, TN | Henderson, NC |
| Gillespie, TX | Emmet, MI | Bulloch, GA | Montgomery, VA | Mitchell, IA |
| Walton, FL | Bonner, ID | Wayne, PA | Sawyer, WI | Brookings, SD |
| Northumberland, VA | Carbon, MT | Erath, TX | Crow Wing, MN | Monongalia, WV |
| Oktibbeha, MS | Ravalli, MT | Adair, MO | Portage, WI | Houghton, MI |
| Decatur, IA | Moore, NC | Kittitas, WA | Lee, AL | Marquette, MI |
| Grafton, NH | Crawford, KS | Clark, AR | Leflore, MS | Worcester, MD |
| Watauga, NC | Comanche, TX | Payne, OK | Klickitat, WA | Washington, UT |
| Mitchell, NC | Rutland, VT | Swain, NC | York, ME | Rockbridge, VA |
| Beaufort, SC | Nodaway, MO | Bremer, IA | Pocahontas, WV | |
| Rio Grande, CO | Lafayette, MS | Towns, GA | Essex, NY | |
| Hood River, OR | Deschutes, OR | Sioux, IA | Vilas, WI | |
| Llano, TX | Colfax, NM | Orange, VT | Jefferson, TN | |

Source: Authors' tabulation.

Note: * denotes county not included in regression analysis.

*index* (percentage of the population that is foreign-born), a *gay index* (percentage of households in which a householder and an unmarried partner are both of the same sex), and a high-tech or *technpole index* (a composite measure that includes the percentage of national high-tech output and a high-tech location quotient).

Markusen and Johnson (2006) examine the distribution of arts occupations throughout the entire state of Minnesota, with a special emphasis on the role that artists' centers play in promoting and sustaining a local arts community. The study provides a detailed look at the importance of an arts infrastructure (e.g., gallery, performance, and rehearsal space, and focal points for arts education, for interaction of professional and amateur artists, and for exchange with the wider community). Data on artist location by age cohort in Minnesota confirms that Minneapolis is a draw for artists aged 16–34, but that Greater Minnesota gains artists in the 35–44 and over-65 age cohorts. They conclude that lower cost of living and environmental amenities may attract mature artists who have established their careers.

The description is consonant with findings from an analysis of the rural creative class (McGranahan and Wojan 2007). Natural and recreational amenities were strongly associated with the share of highly creative occupations in a county. Rural creative class workers were older and more likely to be married than their urban peers.

The strongest evidence that artists are concentrating in some rural areas comes from the popular literature. John Villani's (1998) frequently updated guide, *The 100 Best Small Art Towns in America*, identifies a number of genuine rural towns that contain distinctive arts communities. Written as a travel guide, the book provides a rich description of what to expect on an arts excursion in the country, providing anecdotal evidence of arts markets existing in a limited number of rural areas. In addition to galleries and performance spaces, special note is made of microbreweries (or the infrequent absence of any), historic buildings and old town squares, charming bed and breakfasts, and stirring vistas or waterfront.

## Variable Selection

We combine the statistical and anecdotal analysis of artist and creative class location decisions summarized above to select variables for our logistic regression model. We classify these variables as supporting either the supply (quality of life) or demand (arts market) rationales for the rural residential choices of artists. For ease of exposition, the variables are grouped in conceptual categories relating to settlement patterns, economic structure, natural amenities, built amenities, arts infrastructure, tourism, cost of living, and ethnic diversity. Descriptive statistics are provided in Table 3.

### *Settlement Patterns*

Past work on the rural creative class confirms that footloose professionals prefer rural counties with moderate population density to support a range of consumer services, but not so densely populated as to emulate urban environments. A measure of 1990 population density (*Population density*, expected sign +) is included in the regression, along with the square of this measure (expected sign -), both of which are hypothesized to influence the supply of creative professionals, including artists. Population growth in the preceding decade (*Population change*) indicates more favorable demand conditions for nascent arts markets and is anticipated to be positively associated with the likelihood of being an artistic haven. A variable that may affect both the supply of artists and the local demand for the arts is the percentage of the adult population over 62 years of age (*Population over 62*). Baby-boomers winding down their occupational careers may find artistic havens attractive places to retire, either because they are seeking rural locations with consumption amenities related to culture, or because they envision taking up new careers in the arts. The expected sign of this variable is positive and, as with population growth, exogeneity of this variable is tested given a strong conceptual argument that the variable may be endogenous. Distance (in road miles) to the nearest metropolitan county is included in the regression (*Road distance*, expected sign -). The final settlement pattern variable also measures proximity effects. It is the spatial lag of the art employment share of a county in 1990 (*Spatial lag arts share*, expected sign +). Neighboring counties were identified using a scaled inverse distance matrix (details are below in the Methods section). Potential "cultural spillover" effects could

**Table 3. Variables and Descriptive Statistics**

| Variable Name | Variable Description | Source | N | Mean | Std. Error |
|---|---|---|---|---|---|
| *Population density* | Ln of population density, 1990 | Census STF4 | 2260 | 5.06 | 0.026 |
| *Population change* | Ln of population change, 1980–1990 | Census STF4 | 2260 | 4.60 | 0.003 |
| *Population over 62* | Percent population above 62, 1990 | Census STF4 | 2260 | 18.95 | 0.097 |
| *Road distance* | Road distance (miles) to nearest metropolitan county | ESRI, ERS | 2260 | 57.30 | 1.035 |
| *Spatial lag arts share* | Spatial lag of 1990 arts employment share | Census STF4 | 2141 | 1.38 | 0.009 |
| *Arts share 1990* | Share of artist employment, 1990 | Census STF4 | 2260 | 0.005 | 0.00007 |
| *Arts share 2000* | Share of artist employment, 2000 | Census STF4 | 2260 | 0.006 | 0.00009 |
| *Median income* | Ln of median household income, 1990 | Census STF4 | 2260 | 3.05 | 0.004 |
| *Out commuters* | Percent commute outside county, 1990 | Census STF4 | 2260 | 25.35 | 0.318 |
| *Business services* | Percent business services, 1990 | Census STF4 | 2260 | 4.16 | 0.034 |
| *Manufacturing* | Percent manufacturing, 1990 | Census STF4 | 2260 | 18.43 | 0.238 |
| *B.A./B.S. degree* | Percent of 25–44 with at least 4-year degree, 1990 | Census STF4 | 2260 | 14.56 | 0.122 |
| *Topography* | Multiplicative measure of topography and elevation | McGranahan 1999 | 2260 | 6.05 | 0.106 |
| *Land in forest* | Percent of land in forest, state-level surveys 1987–1992 | Forest Service | 2260 | 37.40 | 0.670 |
| *Water area* | Ln of water area (z-score) | McGranahan 1999 | 2260 | -0.10 | 0.020 |
| *January temperature* | January temperature (z-score) | McGranahan 1999 | 2260 | -0.07 | 0.021 |
| *January sun* | January days of sun (z-score) | McGranahan 1999 | 2260 | 0.04 | 0.021 |
| *July temperature* | July residual temperature | McGranahan 1999 | 2260 | -0.04 | 0.021 |
| *July humidity* | July humidity (-1 × z-score) | McGranahan 1999 | 2258 | 0.10 | 0.022 |
| *Wine county* | Presence of winery (0–1), 1990 | 1990 county business patterns (CBP) | 2260 | 0.03 | 0.003 |
| *Bike trails* | Openings for rail to trail conversions before 1993 | Rail to Trails Conservancy | 2244 | 0.14 | 0.010 |
| *Historic places* | Entries in National Register of Historic Places, 1990 | National Park Service | 2260 | 9.52 | 0.301 |
| *Big box retail* | Department stores with > 100 employees | 1990 county business patterns (CBP) | 2260 | 0.46 | 0.020 |
| *College enrollment* | Enrolled college students, 1990 | Census STF4 | 2260 | 21.38 | 0.290 |
| *Nonprofit organizations* | Number of nonprofit organizations/associations, 1990 | Rupasingha, Goetz, & Freshwater 2006 | 2260 | 9.69 | 0.298 |
| *Hotel and restaurant employment* | Percent employment hotels and eating establishments, 1990 | Census STF4 | 2260 | 5.23 | 0.054 |
| *Lodging size structure* | Modified Herfindahl of lodging establishments, 1990 | 1990 county business patterns (CBP) | 2257 | 16.13 | 0.805 |
| *Seasonal homes* | Seasonal homes over total, 1990 | Census STF4 | 2260 | 6.90 | 0.218 |
| *Median rent* | Median gross housing rent | Census STF4 | 2260 | 286.26 | 1.317 |
| *Foreign born* | Percent foreign born, 1990 | Census STF4 | 2260 | 0.02 | 0.001 |
| *Ethnic diversity* | Ethnolinguistic fractionalization, 1990 | Census STF4 | 2260 | 0.18 | 0.004 |

work through both the demand side, by increasing the effective size of the local arts market, and the supply side, by representing unobserved regional factors that are especially attractive to artists.

*Economic Structure*

Following Heilbrun (1996), we include the natural log of 1990 county median income (*Median income*) to assess whether higher incomes are associated with artistic haven status. The 1990 employment shares of *Manufacturing* and *Business services* are included to assess whether these sectors systematically increase or decrease the likelihood of developing as an artistic haven. Artists may be averse to the disamenities associated with industrial development, suggesting an expected negative sign on the *Manufacturing* variable coefficient estimate, while higher employment shares in *Business services* may indicate attractiveness to creative professionals and the coefficient estimate is expected to be positive. The share of workers who commute out of the county (*Out commuters*) is also included in the regression. We include a variation of Florida's *talent index*, comprised of the share of workers, aged 25–44, with at least a 4-year college degree (*B.A./B.S. degree*, expected sign +). Our choice of the 25–44 age group data is driven by the need to reduce the influence of potentially large older populations in some rural areas that can depress educational attainment. The variable should capture the influence of human capital along with the attractiveness of the place to footloose professionals, increasing the supply of artists.

*Natural Amenities*

Natural amenities attract the rural creative class, so it is reasonable to assume that amenities are also important to the rural location decisions of artists. An array of attributes is included in the regression to provide insight regarding the impact of particular amenities. A multiplicative measure that combines the "peakedness" of the local landscape with its elevation assesses the attraction of mountains (*Topography*, expected sign +).[5] The percentage of land in forests (*Land in forest*, expected sign +) and its squared term (expected sign -) tests the hypothesis from the landscape preference literature that people prefer combinations of forest and open space (Ulrich 1986). The value of waterfront amenities is assessed using the natural log of the proportion of county area that is water, limited to a maximum of 250 square miles (*Water area*, expected sign +) (from McGranahan 1999). Climatic variables related to January and July temperatures (*January temperature* and *July temperature*) and the amount of winter sunshine (*January sun*) and summer humidity (*July humidity*) round out the natural amenity measures.

Two intermediate variables between natural and built amenities are the classification as a wine county—defined by the presence of one or more wineries in 1990 (*Wine county*, expected sign +)—and the presence of recreational bike trails that opened by 1992 (*Bike trails*, expected sign +). Villani (1998) makes special note of the wine-making traditions that are associated with a number of small arts towns. Wine tourism and arts tourism may appeal to tourists seeking out cultural experience, suggesting a positive influence on local arts markets. Florida (2002b) notes the importance of an active lifestyle for the creative class. Establishing a bike trail by 1992 (federal funding for rail-to-trail conversion began in 1990) may indicate an interest in promoting in a county recreational amenities that are valued by footloose professionals.

*Built Amenities*

Florida (2002b) discusses the authenticity of place as an important allure to the creative class, using the dictum from Jane Jacobs (1961) that "old ideas can sometimes use new buildings; new ideas must use old buildings." To assess the importance of authenticity to artistic havens, the number of county entries in the National Register of Historic Places as of 1990 (*Historic places*,

[5] These data come from *The National Atlas of the United States of America*, U.S. Department of Interior, U.S. Geological Survey, Washington, D.C. (1937). The map legend contained two kinds of scales. The first of these was a 5-point scale describing the basic topography, which ranged from "plains" to "plains with hills and mountains" to "hills and mountains." The second kind was 4-point scales that described incidental variation. Thus, one could have plains with high mountains as well as generally varied (hills and mountains) areas with high mountains. In general, variation within the basic categories was greater at the top end of the basic scale than at the bottom. For instance, the basic "plains" category ranged only from "flat" to "irregular," while the hills and mountains category ranged from "low hills" to "high mountains." We multiplied the basic by the incidental scores to create our scale

expected sign +) is included in the regression. To assess possible negative contributions to authenticity (or town plans which are more automobile-dependent), the number of large retail establishments (*Big box retail*, defined as the number of retail establishments with more than 100 employees in 1990, expected sign -) is included in the regression.

We include the percentage of 18–25 year olds enrolled in college (*College enrollment*) to differentiate counties with substantial college towns from counties lacking a significant college population. Colleges may either contribute to the built amenities in a place, increase the demand for the arts by supporting demographics typically attuned to arts and culture, or be an important component of the local arts infrastructure. The presence of colleges was strongly associated with the attraction of rural creative class workers (McGranahan and Wojan 2007). A similar impact is expected for artistic havens, given the multiple roles colleges may play in increasing local demand for the arts and in increasing the local supply of artists.

*Arts Infrastructure*

The potential role of nonprofit organizations in promoting the arts is assessed by including the total number of organizations in the National Center for Charitable Statistics' master file on or before 1990 (*Nonprofit organizations*, expected sign +).[6] More generally, the variable provides an indicator of local social capital. More specific data on nonprofit arts organizations were not included in the analysis due to problems of endogeneity.

*Tourism Sector*

The local tourism sector is the main channel through which otherwise thin rural arts markets become viable. At the state level, Heilbrun (1996) includes lodging receipts as a proxy for the size of the tourism sector in his analysis of the distribution of arts activity. Nondisclosure rules make the inclusion of this variable infeasible at the county level. However, data on employment in the recreation sector, limited to hotels and restaurants in order to exclude detailed industries that may employ substantial numbers of performers, is included (*Hotel and restaurant employment*, expected sign +). A variable characterizing the composition of the lodging sector (*Lodging size structure*, expected sign +) is included to assess the anecdotal evidence that arts town accommodation tends to be small-scale. It is computed as the number of lodging establishments divided by the Herfindahl employment concentration index for all lodging establishments in a county (see Wojan and Lackey 2000). The variable increases by the square of the number of lodging establishments if these establishments are of equal employment size, but only linearly if employment is highly concentrated in a small number of establishments.

We include the percentage of seasonal homes (*Seasonal homes*, expected sign +) as another indicator of the attractiveness of the county in the form of recreational opportunities, other consumption amenities, or the ease of access to major metropolitan areas. This variable may also capture factors contributing to a high quality of life even if these factors are not compelling enough to support a large local tourism industry.

*Cost of Living*

Cost of living in a county is proxied by the 1990 median gross housing rent from the Census of Housing (*Median rent*). Given low average incomes in the arts sector, it is anticipated that a higher cost of living may reduce the attractiveness of a place to artists.

*Diversity*

Two variables are included to address whether more ethnically diverse populations characterize artistic havens. The percentage of the population that was foreign-born (*Foreign born*, expected sign +) recreates Florida's *melting pot index*. Ethnic diversity is measured using the ethno-linguistic fractionalization measure (*Ethnic diversity*) discussed in Alesina and La Ferrara (2004). It is computed as

$$\text{Ethnic Diversity} = 1 - \Sigma_i s_i^2,$$

where $s_i$ equals the share of population classified as white, Hispanic, black, Asian, or Native American. Populations that are more diverse may sup-

[6] Derived from Rupasingha, Goetz, and Freshwater 2006, and available at http://www. nercrd.psu.edu/Social_Capital/index.html.

port a larger number of artists, needed to serve distinct cultural communities (Heilbrun 1996) or indicate openness to alternative ways of thinking (Florida 2002b). However, any association between diversity and openness may be less evident in nonmetro areas, where many persistent poverty counties contain large minority populations.

## Empirical Model and Estimation

We use a logistic regression model to examine county characteristics associated with the presence of a substantial artistic community. The extension of random utility maximization to this analysis is not direct given that the "event" of interest does not result from individual choice but from the cumulative location decisions of a number of artists. The event also requires that a county is relatively more attractive to artists than to workers as a whole. We interpret the results as representative of the location calculus of artists seeking inclusion in an artistic community related to the supply and demand factors described earlier. Standard errors of the logistic regressions were estimated with Davidson and MacKinnon's (1993) jackknife heteroskedastic-consistent covariance matrix.

Given the inherently spatial nature of the data, a modified Moran's I test for spatial dependence suitable for discrete choice models was used to test for spatial dependence in the residuals (Munroe, Southworth, and Tucker 2002, Kelejian and Prucha 2001). The statistic resembles the conventional Lagrange Multiplier test for spatial error dependence, and is based on the residuals $\hat{e}_i = y_i - F(\boldsymbol{x}_i'\hat{\beta})$, where $F(\ )$ is a cumulative density function. The statistic is calculated as

$$I = \hat{\mathbf{e}}'\mathbf{W}\hat{\mathbf{e}} / tr(\mathbf{W}*\mathbf{W}* + \mathbf{W}*'\mathbf{W}*) ,$$

where $\mathbf{W}^* = \mathbf{W}\hat{\Sigma}$, and $\hat{\Sigma}$ is a diagonal matrix with the elements $F(\boldsymbol{x}_i'\hat{\beta})[1 - F(\boldsymbol{x}_i'\hat{\beta})]$. Our results are only approximate because this statistic is based on the normal distribution. We rescaled the logistic coefficients by

$$\left(\sqrt{3}/\pi\right)\hat{\beta}$$

to approximate probit estimates, and proceeded to calculate the statistic (Maddala 1983). The statistic is distributed as $N(0,1)$. Connectivity between counties was defined using an inverse distance matrix. The elements of $\mathbf{W}$ are $w_{ij} = d_{ij}^{-\delta}$, where $d_{ij}$ is the distance between the centroid of county $i$ to neighbor $j$, and $\delta$ is a decay parameter describing the 1990 bohemian residential patterns over space. When the scaling parameter ($\delta$) is 0.5, then the weight is the simple (inverse) Euclidean norm distance between county $i$ and $j$. Larger values of $\delta$ mean that the influence of intercounty spillover effects decreases more rapidly. The scaling parameter was estimated using the non-parametric procedure of Fotheringham, Brunson, and Charlton (2002). The estimated scaling parameter was 1.25, suggesting that a simple Euclidean distance measure would overestimate the importance of intercounty influence across space. The matrix was row-standardized so that the elements of each row of $\mathbf{W}$ summed to one. Spatial error dependence was not detected at the 1 percent level in either the emerging or established haven logistic regressions ($I = 0.18$ and 2.41).

## Results

We begin our discussion by comparing the means of the independent variables across the three relevant categories: emerging havens, established havens, and all other nonmetro counties included in the regression analysis in Table 4. The comparisons of most interest are those relating to natural and built amenities and to tourism, as these variables tend to be more evocative than those relating to settlement patterns, economic structure, or diversity. Both emerging and established havens tend to be located in more mountainous regions (*Topography*), with a larger college-going population (*College enrollment*), with a larger lodging and restaurant sector (*Hotel and restaurant employment*), and where the lodging sector is also more diverse (*Lodging size structure*). In fact, nearly all of the comparisons of the amenities and tourism variables are as expected with the exception of the presence of large-scale retailing (*Big box retail*). The descriptive statistics suggest that both supply and demand factors play a role in the formation of artistic havens. We now turn to the logistic regression results to assess the net effects of these variables on the likelihood of being classified as an artistic haven.

**Table 4. Means Comparison of Local Factors for Nonmetro Counties**

| Variable | Emerging (A) | | Established (B) | | Non-Haven (C) | |
|---|---|---|---|---|---|---|
| ARTS EMPLOYMENT SHARES FOR 1990 AND 2000 USED TO CONSTRUCT DEPENDENT VARIABLE | | | | | | |
| *Arts share 1990* | 0.007 | B, C | 0.015 | A, C | 0.004 | A, B |
| *Arts share 2000* | 0.014 | C | 0.015 | C | 0.005 | A, B |
| INDEPENDENT VARIABLES | | | | | | |
| *Population density* | 5.34 | C | 5.45 | C | 5.08 | A, B |
| *Population change* | 4.67 | B, C | 4.75 | A, C | 4.59 | A, B |
| *Population over 62* | 17.90 | C | 16.53 | C | 19.09 | A, B |
| *Road distance* | 52.77 | | 43.75 | C | 57.47 | B |
| *Spatial lag arts share* | 1.21 | C | 1.12 | C | 1.39 | A, B |
| *Median income* | 3.11 | B, C | 3.27 | A, C | 3.04 | A, B |
| *Out commuters* | 19.52 | C | 23.17 | | 25.78 | A |
| *Business services* | 5.29 | B, C | 6.96 | A, C | 3.99 | A, B |
| *Manufacturing* | 14.77 | C | 13.13 | C | 19.10 | A, B |
| *B.A./B.S. degree* | 21.74 | B, C | 24.00 | A, C | 13.70 | A, B |
| *Topography* | 9.44 | B, C | 11.67 | A, C | 5.58 | A, B |
| *Land in forest* | 48.59 | C | 53.33 | C | 36.32 | A, B |
| *Water area* | 0.12 | C | 0.23 | C | -0.12 | A, B |
| *January temperature* | -0.22 | C | -0.35 | C | -0.05 | A, B |
| *January sun* | -0.02 | | 0.25 | C | 0.03 | B |
| *July temperature* | 0.59 | B, C | 0.95 | A, C | -0.12 | A, B |
| *July humidity* | 0.36 | C | 0.46 | C | 0.06 | A, B |
| *Wine county* | 0.01 | B | 0.14 | A, C | 0.02 | B |
| *Bike trails* | 0.32 | C | 0.34 | C | 0.12 | A, B |
| *Historic places* | 17.78 | B, C | 25.43 | A, C | 8.51 | A, B |
| *Big box retail* | 0.82 | C | 0.77 | C | 0.44 | A, B |
| *College enrollment* | 38.32 | B, C | 29.54 | A, C | 20.23 | A, B |
| *Nonprofit organizations* | 20.13 | B, C | 30.54 | A, C | 8.39 | A, B |
| *Hotel and restaurant employment* | 8.01 | C | 8.30 | C | 4.93 | A, B |
| *Lodging size structure* | 59.16 | B, C | 87.46 | A, C | 10.73 | A, B |
| *Seasonal homes* | 13.11 | C | 14.75 | C | 6.07 | A, B |
| *Foreign born* | 0.027 | | 0.032 | C | 0.02 | B |
| *Ethnic diversity* | 0.18 | B, C | 0.14 | A, C | 0.19 | A, B |

Note: Letters A, B, and C indicate significant column differences based on pairwise two-tailed t-statistics at a 90 percent confidence level or higher. Equality of variances was tested using a folded F-test. When the null hypothesis of equal variances was rejected, Satterwaithe's approximation was used to adjust the degrees of freedom for the t-tests.

Results on population density parallel those found for the rural creative class (McGranahan and Wojan 2007), at least for established havens, which were more likely in nonmetro counties of moderate population density (Table 5). However, this characteristic was not associated with emerging havens. Faster rates of population growth in the 1980s also increased the likelihood of being an established haven but were not significant in the emerging havens regression. In fact, the only settlement variable that was significant in both the emerging and established havens regressions was the *Population over 62* variable. This is one result that is at odds with the comparison of means (Table 4), suggesting that retirement destination counties are more likely to be artistic havens, *ceteris paribus*. We do not know whether this result is explained by increased arts demand in retirement destination counties, by the mutual attraction of a place to artists and retirees (supply), or by a growing numbers of artists in the rural over-62 cohort (supply), suggesting an interesting topic for future research.

*Population change*, *Population over 62*, and *Median rent* are potentially endogenous variables. While there are no direct tests for endogeneity, exogeneity is a testable hypothesis. The Vuong-Rivers test for exogeneity (Wooldridge 2002) was used to test the hypothesis that the variables mentioned above were exogenous variables in our models. The Type I error rate of the multiple tests for exogeneity were adjusted using Bonferroni's procedure (Mittelhammer, Judge, and Miller 2000).[7] The null hypothesis of exogeneity could not be rejected for these variables at the 10 percent level in the emerging haven equation (P = 0.70, 0.53, and 0.08 for *Population change*, *Population over 62*, and *Median rent*, respectively). These results corroborate those obtained from joint F-tests on the residual coefficients for these variables in the emerging haven model (F = 4.03, P = 0.25). In the established havens model, the null hypothesis of exogeneity was rejected at the 10 percent level (P = 0.62, 0.88, and 0.01 for *Population change*, *Population over 62*, and *Median rent*, respectively). The results are consistent with joint F-tests on the residual coefficients for these variables in the established haven equation (F = 8.83, P = 0.03). While these results are encouraging for the emerging haven equation, there is reason to suspect that *Median rent* is not exogenous in the established haven model. To attend to this problem, the predicted values of *Median rent* were used as an instrument in the established haven equation.[8]

Results from the economic structure variables confirm the importance of a highly educated population in explaining artistic haven status. The coefficient estimate on *B.A./B.S. degree* is both highly precise and of relatively large magnitude for both emerging and established havens regressions. This result is consistent with Florida's study of bohemia in large cities (2002a) and Heilbrun's study of arts activity across states (1996), explained in both cases as the attraction of a place to highly educated and relatively footloose workers, including artists. For emerging havens, the employment share in *Manufacturing* is positively associated with the likelihood of being a haven, an unexpected result made more interesting by the seeming contradiction with the pairwise comparisons (Table 4).

One of the broadest distinctions between established and emerging havens is the relative importance of the natural amenity coefficient estimates. Mountains (*Topography*), mixed forest cover (*Land in forest* and *Land in forest* squared), and dry winters (*January sun*) are all associated with established haven status, but none of these variables is associated with emerging haven status. In this respect, the locational preferences associated with established havens more closely resemble factors attracting creative class workers more generally (McGranahan and Wojan 2007). Referencing the descriptive statistics (Table 4), it would be incorrect to characterize emerging havens as flat and deforested; yet, after controlling

[7] At $\alpha = 10$ percent, with three restrictions in each equation, the adjusted Type-I error rate is 0.033. This approach is useful for specifically identifying which variable(s) fail the exogeneity test, which is not possible with the joint F test.

[8] The instruments used in the Vuong-Rivers test included all exogenous variables (excluding *Population change*, *Population over 62*, and *Median rent*), and lagged socio-demographic and economic variables, including the percentage of the population aged 7–17 (1980), the percentage commuting outside a county (1980), the percentage of the workforce between 15 and 64 (1980), percentage of establishments in the recreation industry (except hotels, 1980), percentage black, Native American, and Hispanic (1980), the percentage of households with children (1980), the percentage of the population above 62 years of age (1980, used only in the *Population over 62* test), and economic indicators of whether a county was designated a poverty-persistent county or a retirement destination county, or if the county was dependent on mining or manufacturing in 1979. The same instruments were used to generate predicted values of *Median rent*.

**Table 5. Logistic Regression Results, p-Values, and Log Odds**

| | Emerging Haven | | | Established Haven | | |
|---|---|---|---|---|---|---|
| Variable | Estimate | p-Value* | Odds | Estimate | p-Value | Odds |
| *Constant* | -30.232 | 0.0068 | | -28.584 | 0.0056 | |
| *Population density* | 0.812 | 0.4533 | | 2.52 | 0.0477 | 12.43 |
| *Population density squared* | -0.058 | 0.5992 | | -0.299 | 0.0221 | 0.74 |
| *Population change* | 2.466 | 0.3033 | | 3.00 | 0.1189 | |
| *Population over 62* | 0.14 | 0.0023 | 1.15 | 0.105 | 0.0061 | 1.11 |
| *Road distance* | -0.005 | 0.2753 | | -0.004 | 0.3493 | |
| *Spatial lag arts share* | 1.039 | 0.1523 | | 0.803 | 0.3278 | |
| *Median income* | 0.188 | 0.9032 | | -2.77 | 0.3869 | |
| *Out commuters* | 0.012 | 0.4058 | | 0.0003 | 0.9809 | |
| *Business services* | 0.191 | 0.1082 | | 0.203 | 0.111 | |
| *Manufacturing* | 0.055 | 0.0209 | 1.056 | 0.006 | 0.8437 | |
| *B.A./B.S. degree* | 0.242 | 0 | 1.274 | 0.151 | 0.0001 | 1.162 |
| *Topography* | 0.065 | 0.129 | | 0.123 | 0.0132 | 1.131 |
| *Land in forest* | -0.009 | 0.7099 | | 5.109 | 0.0798 | 165.6 |
| *Land in forest squared* | 0.0002 | 0.3914 | | -5.547 | 0.0601 | 0.004 |
| *Water area* | 0.1 | 0.6335 | | 0.375 | 0.1217 | |
| *January temperature* | -0.024 | 0.9335 | | -0.556 | 0.1698 | |
| *January sun* | 0.259 | 0.2108 | | 0.537 | 0.0195 | 1.71 |
| *July temperature* | 0.301 | 0.1938 | | -0.049 | 0.8039 | |
| *July humidity* | 0.574 | 0.0523 | 1.775 | -0.431 | 0.1682 | |
| *Wine county* | -1.728 | 0.1435 | | 1.485 | 0.0066 | 4.417 |
| *Bike trails* | 0.338 | 0.1752 | | 0.223 | 0.3052 | |
| *Historic places* | 0.007 | 0.3616 | | 0.005 | 0.6222 | |
| *Big box retail* | -0.272 | 0.2003 | | -0.215 | 0.3071 | |
| *College enrollment* | 0.036 | 0.0029 | 1.037 | -0.005 | 0.7012 | |
| *Nonprofit organizations* | -0.013 | 0.4451 | | -0.013 | 0.4344 | |
| *Hotel and restaurant employment* | 0.212 | 0.007 | 1.236 | -0.036 | 0.6792 | |
| *Lodging size structure* | 0.0106 | 0.0244 | 1.011 | 0.003 | 0.368 | |
| *Seasonal homes* | 0.0194 | 0.2609 | | -0.051 | 0.0898 | 0.95 |
| *Median rent* | -0.004 | 0.522 | | 0.025 | 0.1945 | |
| *Foreign born* | 9.083 | 0.0474 | 1.09 | -6.021 | 0.4459 | |
| *Ethnic diversity* | 1.952 | 0.2351 | | -0.439 | 0.8085 | |
| | | | | | | |
| Number of havens (%) | | 109 (5.09) | | | 90 (4.42) | |
| N | | 2035 | | | 2141 | |
| Log likelihood ($L_r$) | | -233 | | | -189 | |
| Estrella's adjusted $R^2$ ** | | 0.18 | | | 0.21 | |

Source: Authors' estimates.

* t tests based on jackknifed standard errors (Davidson and MacKinnon 1993).
** Estrella's (1998) adjusted $R^2$.

Note: In the established havens model, *Median rent* is predicted values because this variable failed the exogeneity test.

for other factors, these variables are not powerful in distinguishing emerging havens from other nonmetro counties.

The relative importance of a local wine industry (*Wine county*) casts the strongest distinction between established and emerging havens. While a wine county was more than four times more likely to be classified as an established haven, the coefficient estimate in the emerging havens regression is negative and large in absolute value, albeit failing to meet conventional levels of significance. The other built amenities variables have the expected sign, but most (*Bike trails*, *Historic places*, and *Big box retail*) are not estimated with enough precision to be significantly different from zero.

The findings on the impact of the percentage of 18–25 year olds enrolled in college (*College enrollment*) is particularly interesting given the number of plausible explanations for a positive association with haven status. Thus, for emerging havens, the association might be explained by greater demand for the arts, the positive impact on the built environment, a substantial role in supporting local arts infrastructure, or an increase in the supply of artists. Yet none of these possible channels appears to apply to established havens, as the estimate is negative, though not significant. Perhaps the best way to interpret this result is that established havens in 1990 had significantly smaller college enrollment share than many of the nonmetro counties that would become emerging havens in 2000.

The results confirm the importance of the tourism sector to arts activity, first identified by Heilbrun (1996), at least for emerging havens. The impact of the share of *Hotels and restaurant employment* is significant only in the emerging havens regression. Again, the pairwise comparisons are instructive as both emerging and established havens have relatively high mean level hotel and restaurant employment shares (Table 4). The composition of the lodging sector (*Lodging size structure*) is also positively associated with emerging haven status—suggesting that smaller and more intimate lodging options may be an important asset in developing arts-based tourism promotion strategies.

*Ethnic diversity* was not significantly associated with artistic haven status. However, a higher percentage of a foreign-born population increased the likelihood of being classified as an emerging haven. The emerging havens display similarities with the large metropolitan arts magnets examined by Florida (2002a). The finding reinforces the claim in Christopherson, Loker, and Monagan (2006) that diversity has the potential to increase the artistic and cultural vitality of rural places.

## Conclusions

The decision to partition the analysis to examine rural places that had attained an arts specialization in 1990, and those rural places that developed that specialization through the 1990s, was driven initially by a sense that these places were qualitatively different. Although the established havens category contains some surprises, the majority of these counties are located in places of spectacular natural beauty and/or located near distinctive cities such as New York or San Francisco. Comparing results from these analyses help to illuminate the relative importance of supply and demand factors in characterizing artistic havens.

Although variables related to either supply or demand factors are significant in both the established and emerging havens regressions, supply factors clearly dominate in the characterization of established havens. Natural amenities and moderate population density required to support consumption amenities were significantly related to established haven status. These same factors were associated with the attraction of creative professionals in general (McGranahan and Wojan 2007). While these natural amenities may also be important in attracting tourists, neither the composition of the lodging sector nor the level of tourism activity were significantly related to established haven status. The strong association between established havens and a local wine industry reinforces the impression that highly distinctive places appeal to footloose creative professionals.

In contrast, factors related to the demand for the arts dominate in the emerging havens regression. Most importantly, both the level of tourism activity and the composition of the lodging sector are significantly related to the likelihood of supporting an arts community in 2000. College enrollment and the share of the population that is foreign-born or over 62 years of age are other factors that may increase local demand for the

arts. While these variables may also increase the supply of artists, independent of the effects on local demand for the arts, a clear distinction with established havens emerges. Emerging havens appear to be much less reliant on the existence of an irreproducible factor—such as the Rocky Mountains—in attracting artists to rural areas.

The implication of these findings is not that the success of arts-based development strategies is no longer dependent on the attractiveness of the rural environment. The descriptive statistics (Table 4) confirm that emerging havens are distinguished from other nonmetro counties by the level of natural amenities.[9] What appears to matter most is the opportunity for a high quality of life. The strongest evidence for this claim comes from the magnitude of the coefficient estimate on the percentage of 25–44 year olds with a college degree in both the emerging and established havens regressions. Since highly educated workers forfeit the largest earnings premium by working in a rural area, the opportunity for a high quality of life can compensate for lower income. Clearly, a high quality of life is not the only explanation of this phenomenon, but inclusion of the *B.A./B.S. degree* variable in our estimations often reduces the magnitude or significance of other amenity variables. This suggests that the locational sorting of highly educated workers may be a very powerful proxy for quality of life. The implications of these findings are that counties that have been unable to retain highly educated workers are less likely to attract artists in sufficient numbers to constitute an arts community.

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[9] An alternative specification not reproduced here finds that a composite natural amenities measure that captures the attractiveness of the local landscape is significantly associated with emerging haven status.

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