

Flocking to the Crowd: Cultural Entrepreneur Mobility Guided by Homophily, Market size, or Amenities?

Douglas S. Noonan, Shiri M. Breznitz & Sana Maqbool

Abstract

Economic activity and innovation clusters in urban areas. Urban economics points to important knowledge and productivity spillovers in cities, in addition to other factors like thicker markets, lower transportation costs, and consumptive amenities. Yet thus far little work has analyzed how these different factors drive migration decisions of arts-related entrepreneurs, especially when they work in online platforms for fundraising. We use data on the largest US crowdfunding platform to identify relocating creators, allowing us to identify which kinds of regions are attracting and retaining more of this sort of talent. We test for the influence of clustering based on homophily, migration to larger markets, and relocation toward particular geographic amenities. Overall we find the strongest evidence for homophily and some distinct tendencies favoring certain regional amenities. Importantly, we both identify general relocation patterns among crowdfunding creatives and break down the attracting features for different types of creators. An examination of (net) migration by different categories of projects, such as musicians or filmmakers, reveals important heterogeneity in the attractors. For example, musicians are drawn stronger music sectors while writers seek more isolation from other writers. This helps inform the interregional competition for talent and “creative class,” especially among a group of relatively footloose arts- and culture-intensive entrepreneurs.

1. Introduction

Amidst a rising tide of urbanization, uneven trajectories in the growth and economic vitality of cities draw attention to the underlying conditions and forces influencing these dynamics. The observed clustering of human capital and innovation in certain urban regions is set against a backdrop of globalization and increasing use of online and digital technologies. Regions compete to attract and retain talent. While high-skilled labor and entrepreneurs in innovative or high-tech sectors receive much attention, arts and culture can play a role, too, directly producing innovation or indirectly supporting innovation and growth (Florida 2002, Rodríguez-Pose and Lee 2020). The “creative class” and “creative industries” are often touted as catalysts for innovative hubs and contributors to the economic engine (Lee 2014, Sleuwaegen and Boiardi 2014). Yet, if creative and cultural entrepreneurs are valuable ingredients to vibrant regional

This is the author's manuscript of the article published in final edited form as:

Noonan, D. S., Breznitz, S. M., & Maqbool, S. (2021). Flocking to the crowd: Cultural entrepreneur mobility guided by homophily, market size, or amenities? *Journal of Cultural Economics*, 45(4), 577–611. <https://doi.org/10.1007/s10824-021-09415-6>

economies, then rather little is known about the factors that attract or retain this creative talent. Attracting cultural entrepreneurs, especially in a digital age, may not follow traditional clustering patterns.

Human capital is one of the most important factors in today's knowledge economy and is an essential part of any industrial cluster (Porter 1990). Hundreds of scholars around the world emphasize the importance of co-location of related industries (Piore and Sable 1984, Porter 1990). Initially, clusters were based on the location of their basic resources, mostly natural resources such as energy and access to transport. Over time, as the industrial process became flexible, transportation costs went down, and markets became increasingly important, industrial clusters specialized in parts of the production chain such as research, design, development, and manufacturing. Today, in the global economy, most advanced companies focus on R&D rather than manufacturing their own product. Subsequently, the ability of highly skilled human capital to transfer knowledge, by leveraging their social capital, became the most important resource that determines the ability of industries and regional development (Granovetter 1973, Putnam 1995). As cities compete for resources, the most sought-after resource became human capital.

According to Moretti (2012), the polarized US has some cities attracting more high-skilled workers than others, leading to winning and losing cities. On one side, "brain hub" cities include those with the largest share of workers with college degrees (e.g., Stamford, CT; Boston, MA; San Jose, CA). On the other side are cities with the lowest share of workers with college degrees (e.g., Flint, MI; Yuma, AZ; Merced, CA). These cities have higher unemployment rates and outmigration. Moretti's winning cities depend on a balance between the supply of labor and the availability of jobs. Companies want to locate in winning cities to ensure access to the top talent while workers want to reside in winning cities to secure the best jobs. Policymakers promote their city's economic status by attracting either employers or workers.

At the same time, the creative class literature (Florida 2002) highlights how winning cities can attract innovative workers by investing in amenities, such as culture and environment. In addition, workers in the arts and cultural sector may themselves directly contribute to innovation and revitalize a local economy (Rodríguez-Pose and Lee 2020). Importantly, artists contribute to local economy directly through their own innovative work as well as help make places more attractive for other high-human-capital workers to live, work, and innovate in (Tubadji et al. 2015). In the words of Markusen and Schrock, "regional artists can enhance the quality and saleability of products and services of other businesses in the region who are customers of or suppliers to artists" (Markusen and Schrock 2006, p.1662). Artists do well in larger cities due to demand for their work and the agglomeration of related art fields (Blau 1989, Scott

2005, Judd 1999, Holcomb 1999), most of which correlate with wealthier and larger cities. Cities compete to attract the creative class (Buettner and Janeba 2016), yet what drives success is not well established.

Entrepreneurship plays a crucial role in job creation and economic development (Acs 1992, Minniti and Levesque 2008) as entrepreneurship is a tool that fosters innovation and economic growth (Acs et al. 2008). Thus, it is important to understand the factors that create a fruitful entrepreneurial environment. According to Hoffmann (2007), there are six major determinants of entrepreneurship: access to resources, specifically technology and finance; the capabilities and access to skilled labor; market conditions which lead to opportunities, including access to customers; the regulatory framework; and cultural factors, such as a collaborative environment where entrepreneurs support each other. We are particularly interested in the market access and collaborative environment aspects of a region's influence on entrepreneurship. Entrepreneurs may choose to relocate, either permanently or temporarily, to take advantage of the entrepreneurial ecosystem in a different region in an effort to minimize the risk associated with launching a new venture (Mittelstädt and Cerri 2008). Entrepreneurs' use networks of support and access to finance or customers often to generate employment and value in a region. As cities compete to attract entrepreneurs, it is important to decipher the attributes that attract entrepreneurs to start a business in one city over another.

The emergence of the platform economy raises questions around the relevance of winning and losing cities. When high-skilled workers can work from anywhere as long as they have internet connection, we might see limited movement of platform users between cities. However, this is not the case. Our analysis of a large database of crowdfunding entrepreneurs in the creative sector shows fairly frequent relocations. Our sample, for instance, shows an interstate annual mobility rates of 2.9%, which is substantially greater than Basso and Peri show (2020). Hence, this paper asks: what regional attributes explain which metros attract more online creators? We leverage this novel database of creators using a crowdfunding platform to fundraise to trace their relocations and assess which regions are attracting more of this talent. We test alternative hypotheses regarding tendencies to migrate near others like them (leveraging spillovers in their area of economic activity), to move to better markets, or to relocate to regions with nicer (consumptive) amenities like climate. We find strong and consistent evidence in support of the homophily hypothesis, although important differences arise across different types of creatives (e.g., those in fine arts vs. filmmakers). Despite fundraising in a cloud-based platform, local market size and environmental amenities still play roles in attracting entrepreneurial projects and migrants.

Recent attention to “gig workers,” the “platform economy,” and freelance work in the creative sector raises questions about recent dynamics in supporting and growing innovative talent. In an arts and cultural sector characterized by diverse work (e.g., full-time vs. part-time, primary job vs. secondary/hobby, employee vs. self-employed), many datasets and analyses can overlook entrepreneurial efforts undertaken as “gigs” or side projects. Our analysis addresses this gap by using a dominant crowdfunding platform to essentially capture snapshots over time of cultural entrepreneurs on the platform. Our focus on crowdfunding creators contributes insight into where these potentially more transitory creative efforts are relocating. This complements other studies of cultural entrepreneurs with more persistent or conventional funding. And without directly observing cultural entrepreneurs’ relocations and their motivations, focusing on the cities that gain or lose these projects reveals systematic patterns in the data. Our novel approach allows us to track the relocating of projects by the same creator, revealing where new creative ventures are moving. This is important as online platform-based creative work may decouple where an entrepreneur lives from where they work.

We start by discussing several bodies of literature. We examine studies on city attractiveness, the literature on entrepreneurial mobility, and studies related to factors influencing relocation decisions of artists and creative talent. Next, we describe the data on crowdfunding creators and other region-specific data. We then introduce our model and empirical estimation technique, taking account of dual processes that may underlie region’s net migration. After presenting the results, we discuss them in light of the alternative hypotheses about which forces are most important for attracting this potentially footloose group of creative entrepreneurs. Finally, we review these findings in the context of policy implications for regional competition and development.

2. Literature Review

Cities are attractive due to a variety of advantages they provide to workers and firms in general. Strong agglomeration forces can arise from locational advantages for firms in larger markets, such as larger scales with more productivity-enhancing capital and better access to consumers. In such circumstances, workers who migrate to cities immediately benefit from a wage premium (Krupka and Noonan 2013). Knowledge-based explanations for clustering in cities – such as human capital that is enhanced by proximity to and spillovers from others in the city (the ‘city air’ as Alfred Marshall called it) – receive considerable attention in urbanization and migration literatures (e.g., Ellison et al. 2010). Glaeser (2010) notes that at the center of agglomeration economies lies the knowledge gained from interactions in urban areas that enhances the development of human capital and increases the flow of ideas. Further, Glaeser

maintains that despite being the most expensive regions, the opportunities to share networks and resources makes cities extremely desirable and advantageous to work in. Brail (2020) states that some of the benefits from working near other firms within agglomeration economies include the provision of strong networks of such shared knowledge, research activity, labor pools, and training programs. These opportunities come from the co-location of supporting institutions, universities, and governance structures that encourage economic development.

While there may be a taste for certain urban centers that correlates with high-skill workers and artists, other factors beyond sorting support agglomeration. Larger cities provide thicker markets for specialized inputs and better labor matching. These forces, much like benefits from knowledge spillovers, encourage clustering in urban centers. These findings align with the work of Chen and Rosenthal (2008) who demonstrate that workers with higher human capital tend to migrate to productive regions, where they can take advantage of their skills. In general cities specializing in industries with stronger agglomeration economies will experience greater economic gains from a larger population density. Krupka and Noonan (2013) leverage differences in experience and tenure to show how a mix of knowledge spillovers and better matching helps explain urban advantages, especially for the largest and smallest cities. Thus we might expect to see arts-related entrepreneurs migrate to or between cities in search of better access to customers or funders (better markets), better potential job matches or complementary productive partners (better matches), or better spillover opportunities (better networks and learning). Relocation can bring arts entrepreneurs to better markets or spillovers as they “flock together.”

In his work on *The New Geography of Jobs*, Moretti (2012) defines unique cities that attract top talent as “Brain Hubs”. His analysis indicates that “stars” prefer some cities over others due to homophily: people’s desire to be with similar people. Thus, according to Moretti, highly skilled workers prefer cities with people who possess similar interests and level of knowledge. Nevertheless, studies have shown that cities can attract top talent using other strategies, beyond homophily, such as promoting culture and providing certain amenities (Florida 2002). Glaeser and Maré (2001) argue that there are four critical urban amenities which contribute to the desirability of a city. These include a rich variety of services and consumer goods, aesthetics and physical setting, good public services, and the ease of movement. They argue that if cities are to continue to be prosperous, they must attract workers through appealing quality-of-life factors and higher wages. Moreover, a greater variety of cuisines and cultural amenities such as museums and performing arts contribute to cities’ development and attraction of human capital (Schiff 2015, Glaeser and Maré 2001). Glaeser and Maré’s (2001) findings suggest that cities with greater amenities have grown at faster rates than low amenity cities.

The approaches that give primacy to amenities or tolerant cultures in explaining urban growth and migration have generated large literatures and several critiques. That critiques of Florida's "creative class" thesis are well-rehearsed at this point (e.g., Borén and Young 2013a) underscores the ongoing interest in the drivers of migration of creative and talented workers. Storper and Scott (2009) argue for a primacy of production and jobs – the dynamics of job creation – rather than amenities, tastes, or changing factor mobility. They see high-skilled workers as ultimately following employment opportunities. Although amenities can accelerate urban growth, the inflow of high skilled workers will cease if the supply of jobs dries up. Chen and Rosenthal (2008) find that cities with growing business environments attract more workers, particularly higher skilled, highly educated, and younger workers, while cities with growing amenities typically attract retired persons, regardless of education level. Specifically examining the impact of cultural workers, Rodriguez-Pose and Lee's (2020) research highlights the need for diverse knowledge within cities. They examine the contribution of scientific and creative activity to innovation in cities. They find that innovation in US cities results from both STEM workers and creative workers' activities. Tubadji et al. (2015) argue for the importance of arts workers in supporting growth and in attracting immigration in the US, though their work looks only at international immigration and does not focus on migration of artists themselves.

Studies in economics examining artists' relocation decisions are rare. Kelly and O'Hagan (2007) investigate the global pattern of geographic artist clustering by birth location, the labor migration patterns and internal clustering of Italian Renaissance artists, and the internal and external labor migration of artists in France in the 19th century. They identify four sets of factors to consider for formation of clusters in particular regions: wealth, artistic freedom, chance events, and factor conditions. Wealth is seen as a necessary condition for a city to generate artistic clustering, as high income translated to high artistic demand and a competitive market. Factors of production, capital resources, and infrastructure also determine cluster locations and migration patterns for artists. Lopez (2019) models sorting between urban areas in the presence of mobile cultural producers who can serve high-income residents with high demand while struggling to afford to live in affluent cities. His model emphasizes the tensions of congestion and cost of living for cultural producers in cities with agglomeration economies while also highlighting equilibria with cultural workers moving to smaller markets and the importance of diversity in a region's cultural offerings.

Regional amenities can have distinct draws on migrating artists. Regional attributes like learning opportunities, labor markets, and professional networks (rather than outdoor amenities) matter most for migrating creatives (Hansen and Niedomysl 2009, Borén and Young 2013b). Markusen (2013) uses older

data from the U.S. Census Public Use Microdata Series and American Community Survey data to explore the location of U.S. artists and their migration patterns to and from major metropolitan areas. The author finds that artists actively move among cities of all sizes but are pulled to centers of metros as their presence is low in suburban areas. While she hypothesizes cities gaining in migrating artists to be those with better complementary factors and learning opportunities, better scale economies, higher incomes, lower costs-of-living, and better lifestyle amenities, Markusen (2013) does not formally test these hypotheses. She finds artists to be distributed widely across the country, moving frequently, and exhibiting different migration patterns among visual artists, performing artists, and writers. Housing supply and cost of living surely helps explain the presence of artist clusters in smaller markets (Lopez 2019, Markusen 2013). Berlin and Detroit (after the 2008 financial crisis) are examples of cities with large concentrations of arts-related employment and artists who were drawn to these cities partly because of housing availability and cost of living (Ewing and Grady 2012). Buettner and Janeba (2016) find subsidizing a local cultural public good to be effective in attracting a highly productive mobile creative class in Germany.

It is difficult to distinguish a set of variables that create agglomeration economies as they arise due to a combination of historical momentum – regional growth rooted in path-dependent economic evolution (Scott 2006, Storper and Manville 2006) – and policies that attract high skilled workers to a region (Storper and Scott 1995). More recent migration patterns of entrepreneurial artists should reflect major technological and labor market shifts. The rise of the “platform economy” and “gig workers” in the US (Kenney and Zysman 2020) may increase self-employment rates, reduce locational dependency on a single employer, and empower more mobility among artists. This may be especially true for more solitary creators like visual artists and writers (Markusen 2013). In addition, the rise of online crowdfunding to provide new ways to earn revenue (Lazzaro and Noonan 2020, Regner 2020) may entail different relocation pressures. We contribute new evidence on this emerging topic of platform-based (or “platform-dependent”) entrepreneurs, especially their geography, which thus far has not received much attention (Kenney and Zysman 2020). Crowdfunding allows potential entrepreneurs to raise funds irrespective of location. As a result, as Sorenson et al. (2016) show, we see far less spatial concentration of crowdfunding activity than we do for traditional financial support for entrepreneurs. Yet decisions to stay or go can affect one’s social network, critical to new forms of cultural participation (Peukert 2019). For instance, moving may cost an individual access to their prior local network while improving their access to a new local network. Distance to potential funders matters for crowdfunding success (Mendes-Da-Silva et al. 2016), so entrepreneurs may relocate to gain proximity to the “crowd” of funders. If crowdfunding entrepreneurs’ relocation decisions relate to their past or future crowdfunding activity, then

it raises questions about what kind of places they tend to seek or remain at. Some locations may provide a more supportive environment or market than others.

3. Data

We analyze which regions attract more online platform-dependent, creative entrepreneurs, and which regions are losing them, after combining several data sources. Detailed data on artistic entrepreneurs' mobility, at a national scale, can be scarce in terms of the geography or classification of "arts related." The prevalence of arts-related ventures by entrepreneurs outside of their primary occupation further limits the usefulness of most large-scale public datasets. To address this, we employ a rich dataset from Kickstarter – a reward-based crowdfunding platform, notable for its arts- and culture-intensive portfolio of campaigns and for being the dominant crowdfunding platform in the United States (Dalla Chiesa and Handke 2020, Lazzaro and Noonan 2020). We use this platform to indirectly track the relocation of projects of creative entrepreneurs who use the platform multiple times yet change locations between campaigns. The Kickstarter platform is arguably the world's largest crowdfunding platform – thus far with over \$5 billion raised from over 18 million backers for almost 200,000 successful projects – and remains the dominant platform of its kind in the US market. The great majority of Kickstarter campaigns related to artistic and creative ventures, reflecting Kickstarter's mission "to help bring creative projects to life" (Kickstarter 2020). Reflecting their commitment to art and creative expression, most campaigns fall into top-level categories related to arts (see Table 1).

<< TABLE 1 ABOUT HERE >>

Using data scraped from all Kickstarter projects (successful or not) launched from its start through 2016 (Li 2019), we identify the subset of all project creators with multiple campaigns. This amounts to over 25,000 repeat creators in the Kickstarter data. Almost 24% of these creators list different locations for their successive campaigns. To be clear, the data do not track actual migration of the project creators, but rather the location of the project itself. Thus, although we refer to this as relocating entrepreneurs or creators, it is actually their projects or ventures that relocate in our data. When the locations entrepreneurs' residences and ventures diverge, this approach has the advantage of focusing on where the economic activity or project is located. Using the locations for each project, we map the full set of projects to their urbanized region (Core-Based Statistical Area, or CBSA), including 942 metropolitan and micropolitan regions across the US. CBSAs capture regional economies and can vary widely in terms of demographic, economic, and environmental characteristics in the US. Further, aggregating to the CBSA level allows us to focus on major relocations and not local moves.

A number of publicly available datasets that capture the characteristics of the CBSAs complement the Kickstarter data. We gather additional data on employment (by NAICS code, for Creative Class), demographics, the presence of arts-specialty schools, and climate at the CBSA level. This includes socioeconomic indicators like total population, average household income, the number of residents with a college degree or higher, and the number of residents with employment, as well as the cost of living in each CBSA. We add information about the employment concentrations by sector for CBSA residents. The Martin Prosperity Institute Local IDEAs database (2010) provides data on the proportion of creative class workers. In addition, we use 2010 employment data from the Bureau of Labor Statistics based on NAICS codes at the CBSA level to estimate employment concentration in sectors related to Kickstarter categories. We also control for “brain hub” CBSAs from Moretti (2012), related to the proportion of employed with graduate degrees, and for CBSAs around “platform hubs” (Kenney and Zysman 2020) like Seattle and San Francisco. Additionally, we join data related to regional characteristics like climate attributes (McGranahan 1999), land area, and whether the CBSA contains a coastline. Lastly, we also use data on the number of arts-specialty schools located in each CBSA (Breznitz and Noonan 2018). Table 2 contains details on variable definitions. See the Appendix for additional information on how employment data was linked to Kickstarter categories.

<< TABLE 2 ABOUT HERE >>

Assembling the data for each metropolitan and micropolitan region allows a focus on which regions better attract relocations of creative entrepreneurs, controlling for factors describing the region’s conditions. This helps inform the interregional competition for talent and “creative class,” especially among a group of relatively footloose arts- and culture-intensive entrepreneurs. (This approach tells us little about why an arts entrepreneur would pick one city or one neighborhood over another. It focuses on inter-regional competition.) Almost half of the relocating repeat creators actually move their venture to a location outside of their original CBSA. Even with almost a quarter million distinct crowdfunding projects, and 25,000 repeat creators using this platform, the number of relocating creatives in the data dwindles – partly reflecting the specialized nature of this subgroup. The descriptive statistics in Table 3 show CBSA characteristics and how those attributes differ for those CBSAs experiencing nonzero net migration. Focusing on *net* migration implies a mean net migration value near to zero because, except for some ‘leakage’ involving locations outside of CBSAs in the US, it is a zero-sum measure. The shaded rows in Table 3 indicate net migration of particular subsets of creators based on the Kickstarter category of their

initial project. More CBSAs naturally experience nonzero net migration for broader categories of creators (e.g., Arts) than narrower categories (e.g., Technology). Comparing the set of all CBSAs with just those experiencing nonzero net migration (i.e., ‘winners’ and ‘losers’), Table 3 shows how the regions with more churn in these creative entrepreneurs tend to be larger, more educated, more coastal, more urban, and home to more Kickstarter projects overall. Among the many regions experiencing nonzero net migration of these creators, Table 4 indicates the CBSAs with the greatest positive and negative net migration. While some of the biggest ‘winner’ metro areas (e.g., San Francisco, Seattle, Nashville) may not be very surprising, other ‘loser’ metro areas (e.g., Boston, Austin, San Diego) suggest that simple narratives received from the more general literature on the new geography of jobs or general entrepreneurial mobility might not capture well the dynamics among these relatively footloose creative entrepreneurs.

<< TABLE 3 ABOUT HERE >>

<< TABLE 4 ABOUT HERE >>

4. Model and Estimation Methods

To contribute to the literature on entrepreneurial migration and which regions gain or lose particular components of a “creative class,” we test a set of hypotheses regarding the roles of homophily, market size, and amenities. Urbanized areas with more economic activity of a type similar to the relocating entrepreneurs may be more likely to attract more of this relocation as workers seek greater ‘peer effect’ spillovers or thicker markets (Krupka and Noonan 2013). We test for this tendency for people to be attracted to others like them – homophily – by estimating whether net migration increases with more crowdfunding projects of the same category or more jobs in related sectors. Alternatively, these relocating creators may seek to avoid local competition. We hypothesize that net migration increases with larger, wealthier markets. Thus, we expect that regions with greater population, income, education will experience greater net migration. Comparing tests of the homophily and market-size hypotheses helps identify whether proximity to “crowds” of peers or backers is more important, especially in the context of entrepreneurs who use an online platform for fundraising. The online nature of these ventures also suggests that amenities like climate or regional location may play an important role. We expect net migration to be greater for regions with favorable conditions, though we remain agnostic about which sorts of weather or rural lifestyle these creators favor.

Our approach emphasizes migration or changes in location for entrepreneurial projects rather than the overall level of entrepreneurial activity or financing in a region. Some metro areas host more crowdfunding activity or have stronger histories of or infrastructures for funding cultural activity. Yet affluent cities with robust funding resources for cultural ventures (e.g., New York City, Los Angeles, San Francisco) may not be the same that attract these entrepreneurs' projects. Neither New York nor Los Angeles have a positive net migration, while San Francisco's prominent position in Table 4 may be offset by cultural hubs with strong traditional funding such as Boston and Minneapolis on the left side of Table 4. Still, in case a region's affluence and traditional support of cultural activity may crowd out crowdfunding, we control for income and creative-class employment levels.¹

To test these hypotheses about which metro areas are attracting more of these creative entrepreneurs, we set up a model to explain net migration flows as a function of factors describing the attractiveness of a metro area. Clearly, analyzing relocation patterns at the aggregated, metro-level does not directly reveal motivations for or mechanisms shaping individual relocations, even though the hypotheses derive from microfoundations. Akin to the linear modeling of Neal (2012) and Cebula et al. (2020), our basic empirical model also explains migration to a region based on its demographics, regional economy, and amenities. Our initial model then takes the form:

$$\text{Net migration} = \omega + \beta H + \mu M + \alpha A + \varepsilon \quad (1)$$

where H represents homophily-related variables, M describes market size and conditions, and A indicates amenities. Though this model is linear in parameters (ω , β , μ , α), including population as a quadratic term (Pop , Pop^2) allows identification of nonlinear effects of metropolitan market size. Such an approach is necessary to properly test for market-size effects and whether marginal effects of increases in regional "crowd size" differ with the size of the population center. Other variables describing the regional market conditions include the average wealth (*Income*), share of the population with college degrees (*College*), the number of arts-specialty schools (*ArtsSchools*), and a regional cost-of-living index (*CostofLiving*). As shown in Breznitz and Noonan (2018), arts schools can be important to arts-related job growth and may

¹ The strength of a region's traditional cultural funding infrastructure might crowd-out crowdfunding as conventional funding sources can be more readily found, although conversely it might crowd-in alternative fundraising via crowdfunding as more entrepreneurial activity flourishes. Either way, considering dynamics (i.e., relocation) rather than more static, overall "levels" of crowdfunding shifts our attention to the decision to relocate conditional on having already completed an initial crowdfunding campaign. From this perspective, it is less clear how the strength of a region's traditional funding infrastructure would make the second project more or less likely to relocate. An entrepreneur in a traditionally stronger area might relocate their project to traditional funding deserts ahead of their second campaign to take advantage of a crowdfunding's comparative advantage there. Conversely, they might relocate to traditional funding hotspots in search for positive spillovers and diversified funding sources (e.g., regular employment).

be direct contributors to out-migration of early-stage arts entrepreneurs who graduate and leave the market. An interaction term for *Cost of Living* and *ArtsSchools* better accounts for this possibility, testing whether arts schools “export” more crowdfunding creators when cost-of-living is higher. Further, following Moretti (2012), regional market conditions include the ratio of the number of residents with college degrees to the number of jobs (*GradsperJob*) and an indicator for the top-20 metro areas in terms of share of jobs with college degrees (*BrainHub*), which Moretti describes as the US’s “brain hubs” (p.92) and especially attractive and productive. The amenities variables include geographic factors like regional fixed effects (*Eastern, Western, coastal*), population density (*PopDensity*), and climate (*JanTemp, JulyTemp, Humidity*).

The model in equation (1) also includes factors related to the homophily hypotheses. First, employment conditions are characterized by the region’s share of jobs in creative-class occupations (*CreativeClass*) and whether the region is located in one of the platform-economy hubs (*PlatformHub*) identified by Kenney and Zysman (2020). Regions with strong clusters in the creative class or platform economy hubs may be especially attractive to relocating creatives on a crowdfunding platform. To account for the possible attraction to others working on the same platform, the number of other (i.e., not associated with a creator who relocated there) projects in the region (*AllProjects*) is included. When examining migration of subgroups, such as those creating music projects or fine arts projects, broader measures of creative-class employment or general platform-based activity may not capture a sufficiently precise peer group. In subgroup migration models, we also include the count of crowdfunding projects in the same category as the migrants (*OwnProjects*). Likewise, subgroup-specific migration models include per-capita employment in related industry sectors (*OwnJob*). This enables identification of whether the more general or narrow measures explain net migration, and whether migrants are drawn to peers as complements to their work or are moving away from their competitors. Controlling for broader labor-market conditions (e.g., *CreativeClass, OwnJob*) especially helps identify whether related employment prospects better explain relocation patterns or whether attractiveness to other unrelated crowdfunders (*AllProjects*) or related crowdfunding projects (*OwnProjects*) predict relocation for different subgroups. Conducting the analysis at the metro-level prevents us from making inferences about individual-level motivations and mechanisms, but focusing on drivers of regional attractiveness does show the relocation tendencies at the metro-level.

Thus, we estimate a model to explain net migration of these creative entrepreneurs across regions (CBSAs) in order to test our competing hypotheses of homophily, market size, and amenities as potential attractors for these creative entrepreneurs. Interregional competition to attract the “creative class,” “hipsters,” or “geeks” (Rodríguez-Pose and Lee 2020) hinges on strategies related to this kind of creative

entrepreneur. We hypothesize regional factors appealing to or retaining these creatives as shown in equation (1): homophily, market size, and amenities. Estimating equation (1) via ordinary least squares (OLS) regression techniques suffers from a problem when very many regions have zero net migration. The high frequency of regions with zero net migration includes some regions with offsetting in-migration and out-migration and many more that simply experience neither arrivals nor departures.² To account for this zero-inflated distribution of the dependent variable, a finite mixture model (FMM) is estimated via maximum likelihood. In short, the finite mixture model assumes two latent classes – regions that do and do not experience migration – and allows for different densities for these two different classes of regions. This approach allows the estimator to adjust for the clustering of data at zero, much like a zero-inflated count model would. This more general approach importantly allows for negative values in the dependent variable, which we commonly observe among regions “exporting” or “losing” migrants. The estimator here fits a two-component model with a point mass density at zero and a linear regression for equation (1). The finite mixture model also allows for different sets of parameters for each component. For simplicity, as much as possible here we estimate the two component models with the same independent variables. For comparison, the Appendix includes the equivalent net migration models estimating using only OLS. Because our interest lies with the component of the finite mixture model explaining net migration, our discussion of results emphasizes that component and treats the point-mass model largely as a control.

Initially, we present results for all relocating, creative crowdfunding-based entrepreneurs. Then, we deconstruct the aggregation of these creative entrepreneurs into different groupings based on the categories of their initial projects. This allows us to examine how musicians, filmmakers, and others might migrate differently, and whether different sorts of metro areas might attract them. Our interest here follows from the heterogeneity identified by Markusen (2013). The possibility that the disconnect between an entrepreneur’s locations of residence and project also motivates estimating separate models by different subgroups if this disconnect is more severe for, say, musicians. We differentiate these creators based on their (initial) campaign’s self-reported category (see Table 1). We also reconstruct the “Local” (i.e., location-based projects) categories from Breznitz and Noonan (2020) in order to assess the

² Of the 512 CBSAs with zero net migration, 104 had offsetting in-migration and out-migration (e.g., New Orleans had 28 in-migrants and 28 out-migrants) while 408 had no migration in this sample. A full 90% of all CBSAs had at least one Kickstarter project launched.

factors attracting these creators to different urbanized regions.³ After examining the factors attracting more locally-based migrants to regions, we then explore the factors explaining net migration for subgroups based on other artistic categories like the fine arts, film and video, and others.

5. Results

Table 5 exhibits the results for net migration across all movers in the data. The full set of results for the finite mixture models includes estimates for belonging to the set of regions with zero net migration *and* (conditionally) how much net migration regions experience. We focus our discussion on parameter estimates for this second stage of the model because our primary interest lies in explaining nonzero net migration. See the appendix for the full results that include estimates of the parameters explaining the point mass at zero. Those results indicate that regions with zero net migration tend to be in the East and have fewer Kickstarter projects overall.⁴

<< INSERT TABLE 5 ABOUT HERE >>

Several interesting patterns emerge for predictors of net migration in these models in Table 5. In terms of amenities, we can see that there is a strong attraction to western regions away from eastern ones. Regions with higher humidity tend to have more positive net migration. In terms of market size, population has a strong nonlinear effect, such that the most populous metro regions tend to have lower or more negative net migration. These mobile creators are being drawn out of the metropolises.

Market conditions in the region also significantly predict net migration. A consistent and important market factor includes the interaction term between cost of living and the number of art schools. Metro areas with many art schools tend to be net exporters of these creators when they also have high cost of living. Lower cost of living, conversely, helps attract these creators when many art schools occupy the region. Also consistent with the homophily hypothesis, metro areas with larger numbers of other

³ “Local” or more location-based projects are identified based on their subcategories, including architecture, community gardens, dance, festivals, installations, plays, public art, spaces, residencies, restaurants, theater, residencies, and workshops,

⁴ See the appendix (tables A1, A2) for the estimates of the first-stage of the point mass at zero net migration. The results for different categories of creators generally resemble those for All movers, with a few key differences. First, having more projects of the same type (not just any type) tends to be associated with nonzero net migration. In addition, more wealth and less creative class employment tend to be associated with greater likelihood of zero net migration. Yet differences across creator categories remain, such as an insignificant role of income for Music, Publishing, and Technology. Like the results for All movers, in general total population in the region is not significantly associated with the likelihood of having zero net migration of Local or Music creators. For the other categories of movers, however, it appears that very populous metro areas tend to be more likely to have zero net migration.

Kickstarter projects in the region draw more net migration to the region. Employment in the creative class, in general, does not seem to be a significant factor.

The remainder of the results shift the focus to various subgroups of crowdfunding creators. The remaining columns in Table 5 show model estimates for net migration only among subgroups of Kickstarter creators. The first broad category, Local, highlights attractors for more location-based projects, perhaps differing from the bulk of other projects in a more digital space. The next two groupings build on Kickstarter's explicitly arts-related categories for crowdfunding projects: Fine Arts (Art, Dance, Theater) and Arts (Fine Arts, Film & Video, Music). For these FMM estimates of subsets of the full crowdfunding database, we can control for other projects in the same grouping. For example, the Fine Arts estimates include a variable measuring the number of other Fine Arts projects on Kickstarter in that CBSA (*OwnProjects*). Contrasting that parameter with the control for all projects of any type (*AllProjects*) allows us to identify whether it is a general crowdfunding community that attracts movers or whether it is a more specialized group of peers. Likewise, for the arts-related categories, we can control for employment concentrations in related industries (*OwnJob*) to see if more jobs in relevant sectors attracts movers. For instance, estimated effects for *OwnJob* in the Fine Arts model can contrast how fine-arts related job intensity predicts net migration with the broader *CreativeClass* employment measure.

Differentiating among factors relevant to various subgroups of crowdfunding creators is especially important given the substantial variation among Kickstarter creators. Examining subgroups of relocating creators allows us to identify which CBSAs better attract different types of entrepreneurs. For example, the migrants in more location-based categories show somewhat different patterns, as can be seen in the Local column of Table 5. Local creators are drawn to regions with many other Local project creators on Kickstarter, rather than just all projects on Kickstarter in general. Further, they are also drawn out of metro areas with very high populations, drawn out of platform-hub economy regions, and drawn to regions with more art schools. Notably, the positive effect of art schools declines in cost of living, suggesting that expensive cities with many art schools tend to export Local creators while cheaper regions with art school attract them. In terms of amenities, a similar story holds for relocating Kickstarter creators in general as for Local ones, except that we see a significant negative effect of winter temperatures.

Table 5 breaks down some different arts-related categories among the movers in the Kickstarter data. For the narrower definition (Fine Arts), we see particularly strong climate-related amenity factors explaining net migration, the continued negative role of very populous metro regions and of the platform economy

hubs, and otherwise no significant effects of any of our homophily indicators. Art schools do not play a significant role, and these fine-arts creators do not appear to be particularly drawn to or away from metros with strength in the fine arts or even creative class jobs or crowdfunders. When we broaden the definition of arts to also include Music and Film & Video productions, we see another significant shift in the results. Arts-related creators tend to relocate projects toward metros with more Arts crowdfunding creators, not towards more crowdfunding activity in general or Arts-related jobs. The tendency for regions to export (import) creators when they have more art schools and cost of living is high (low) returns. There is also a strong westward push, an appeal of colder winters and higher humidity, and little impact of regional socioeconomic indicators like income and education.

<< TABLE 6 ABOUT HERE >>

The Music category and the Film & Video category comprise almost 30% of all Kickstarter campaigns. Table 6 shows results that investigate those two categories separately. Homophily results are strong here, particularly for other projects related to their own category and not for all Kickstarter projects in general. Music migrants, unlike any of the other categories, tend to be drawn to regions with more music-related employment. Except for the westward attraction to moving musicians, neither relocating musicians nor filmmakers show a very strong role for the amenity factors in explaining which cities tend to attract more net migration. The attractiveness of regions with both high concentrations of art schools and low cost of living remains for Film & Video, but these effects are much weaker for Music. In addition, musicians do not appear to be drawn to or away from regions based on the size of their population.

Table 6 shows the results for two more subgroups of the migrating creators' data. The migrating creators in the Publishing category show rather different patterns compared to the other groups. Not only are Publishing migrants being drawn away from coastal regions and being drawn towards platform-economy hubs, they also tend toward areas with higher education levels – the only subgroup examined here that does so. They also seem to be drawn towards high-density regions. The most important difference for Publishing movers, however, involves homophily, as they are drawn *away* from regions with more publishing-related Kickstarter campaigns. This contrasts with what is observed for other subgroups.

The final set of results in Table 6, for Technology-category movers, provides some contrast against the more traditionally artistic or arts-related projects in Kickstarter. More populous regions tend to lose these crowdfunding Technology creators, though they are drawn to high population density regions. Most notably, Table 6 shows how regions with more Kickstarter projects – both overall and specifically those

related to Technology – tend to attract more Technology-project migration. These results importantly differ from more arts-related Kickstarter categories, which show more specialized interest of the artistic entrepreneurs. Attractions to smaller metros and those with lower cost-of-living and including more arts schools remain generally consistent. But, like the Film & Video category (and unlike the others and Kickstarter projects overall), the Technology net migration does not exhibit tendencies toward wealth, education, or particular amenities.

6. Discussion

The purpose of this paper was to understand whether traditional factors of location apply to online cultural related projects. The analysis finds that though some factors such as homophily are similar to traditional clustering of human capital (Moretti 2012), the results identify different attractors drawing creative entrepreneurs to launch projects in certain regions. Specifically, humid climates in the west have positive net migration of crowdfunding creators, most populous metro regions tend to have lower or negative net migration, and metro areas with many art schools tend to be net exporters of these creators when they also have high cost of living. These results strengthen studies on the location decisions of artists indicating that they do not follow traditional attraction of population and wealth when it collides with cost of living (Lopez 2019). These results can help explain the success of cities such as Berlin and the growing art scene in declining cities such as Detroit (Ewing and Grady 2012).

Overall, we have shown which regional features tend to attract a special population of creative entrepreneurs – those using an online crowdfunding platform to support their creative venture. With a special focus on creators of more arts-related projects, we identified the main factors that lead regions to “gain” creators launching these sorts of projects (or to experience a “drain” of losing these creators to elsewhere). Some regions tend to ‘export’ these creators, while others tend to attract and retain them. The literature on the economic geography of jobs and entrepreneurship points to three broad forces that can explain migration patterns: market conditions, homophily, and amenities. Testing the relevance of these forces for our population of entrepreneurs – those skewing heavily to artistic activities and relying on an online platform for fundraising – highlights a particularly interesting, mobile, and creative group. Our empirical models show *some* support for all three forces, with the strongest and most consistent effects evidence for homophily, although important differences across types of creators remain. Net migration of these creators tends to be drawn to regions that have many other *similar* crowdfunding creators, not just a generally stronger crowdfunding community, more creative class employment, or more jobs in related sectors. Further, net migration tends toward the west, toward more humid summers, and less populous metro areas. Unlike prior studies, wealth and education levels of regions play insignificant

roles here. Combined with the general negative effect of population size, we see little overall support for the hypothesis that market size is an important driver of net migration for these creators.

Because examining creative entrepreneurs working via crowdfunding platforms inevitably pools very different sorts of creators and projects, our analysis decomposes the relocation patterns across different types of creators. The results show some consistency across types of creators as well as substantial heterogeneity. Net migration falls, for instance, with greater regional population, regardless of the category of the ventures. Western regions also tend to have greater net migration for all of these creative types. Interestingly, the null results for income, creative class, brain hub metros, and summer temperatures also persist across all categories. The “brain gain” of regions tends to follow rather narrowly defined peers – i.e., Kickstarter creators are drawn to regions with more Kickstarter projects like theirs, not to regions with more crowdfunding overall or more jobs related to their specialty. Results common to many of the creative types, such as the strength of homophily (in terms of similar Kickstarter creators), negative effect of population, and arts-specialty schools ‘exporting’ crowdfunding entrepreneurs from markets with higher costs of living, point to the power of conventional theory in explaining migration patterns for these new entrepreneurs. In other cases, certain types of creators prove to be exceptions to the rule. This includes musicians (the only group attracted to regions with more music-related jobs), those in publishing (eschewing others in publishing and coasts), and those in fine arts (drawn to warmer summers, not drawn to similar creators).⁵

Through its focus on creators of crowdfunding projects related to arts and culture, our research raises some questions about creative workers in today’s economies. Though creators who fundraise via a crowdfunding platform are not representative of creative workers as whole, and those that undertake multiple fundraising campaigns may be stranger still, studying this group sheds some light on a particularly interesting type of creative worker. The cultural sector has greater frequency of self-employed and more fluidity between employment types (Woronkowitz and Noonan 2019), and crowdfunding can play a role as cultural entrepreneurs shift between gigs, stable income, and other opportunities. These cultural entrepreneurs operating on a crowdfunding platform might treat their project as a secondary consideration or a hobby, even though we focus our attention on creators who use the platform multiple times. Bringing attention to entrepreneurs undertaking secondary or gig activities

⁵ Performers, such as musicians, may have a higher propensity to relocate projects if they tour or temporarily relocate for performances. We split the data by subgroups to help account for this possibility. We remain interested in fundraising for a temporary project that brings economic activity to another city, even if the creator does not permanent relocate.

raises the possibility some of creatives who relocate their projects may be doing it for reasons unrelated to their cultural entrepreneurship (e.g., their or their partner's employer transfers them to a new location). Uncertainty remains about whether our estimated parameters reflect individual entrepreneurs' preferences or strategies related to their crowdfunding endeavors or something coincidental. This, and our focus on metro-level aggregate analysis, limits our ability to directly attribute our findings to entrepreneurs' motivations or mechanisms shaping relocations. Future work could examine this more directly via surveys and interviews of these entrepreneurs. We see our analysis as capturing regional relocation dynamics for an emerging, potentially important, and often difficult-to-measure sort of cultural entrepreneur. Though that entails some uncertainty in classification and interpretation, the messiness also to some extent reflects a reality for this sort of entrepreneurial activity.

Our main concern lies with spurious correlations that might arise when it appears that creators "of a feather flock together" for homophily reasons but rather are independently drawn to another particular, unmeasured factor. If these relocations are driven by thicker labor markets, for instance, then what appears as homophily could be just relocation toward better employment prospects. We mitigate against this concern by explicitly controlling for jobs related to the crowdfunding project (*OwnJob*) and to the broader creative sector (*CreativeClass*). That related employment measures explain little of the regional relocation patterns in most of our models, and that *OwnProjects* tends to explain more, is a remarkable finding considering the potentially high incidence of part-time entrepreneurs in our data. Of course, these entrepreneurs may be systematically drawn to employment prospects unrelated to the industries and other factors that we control for in the models. We cannot rule this out. But the diverse findings across the separate analyses by subgroups of projects suggest that *AllProjects* does not simply proxy for a particular unobservable and that different subgroups ("feathers") flock together differently.

Data limitations also restrict our ability to more directly observe when these entrepreneurs move to new homes. Future research would do well to investigate residential locations of these crowdfunders, especially if the disconnect between residential location and workplace is important. While touring artists or those who temporarily exhibit or produce in distant locations may be more common among creative workers than in other sectors of the economy, the rise of the platform economy and online (digital) distribution may entail even greater potential for mismatch between locations of residence and economic activity. After all, the two largest subsectors of the arts and cultural sector of the US economy in 2017 are 'broadcasting' and 'other information services' (Noonan 2021). More than just crowdfunders, much of the arts and cultural sector's economic activity may be shifting to a digital, cyberspace.

Overall, the identified patterns in net migration suggest potentially useful directions for future research. Similar to Markusen and Schrock (2006), we show strong clustering tendencies among creators using this

crowdfunding platform – where certain metro regions with many creators of one type will tend to gain more of that type via migration. The strong overall support for clustering is broadly consistent with much of the prior literature on migration, including artists. While this is true for many arts-related types of projects, it does not hold for those in publishing nor is it significant for those in fine arts. This contrasts with some prior work, especially regarding visual artists (Kelly and O’Hagan 2007). Given the differences in our sample and the prior work on historical clustering of artists, this raises questions about the roles of modern technology in productivity and location decisions for visual artists, especially when their arts activities are part-time or “gig” work. The weak support for market size hypotheses and the insignificance of income levels raises similar questions about how well those conventional forces explain location decisions today for artists working in an online platform. That sheer size of metro areas does not attract more (net) migration of these creators who operate on online platforms may reflect greater importance of lifestyle amenities (Markusen 2013) for subpopulation. Finally, the overall importance of our geographic and climate amenity factors in explaining net migration points to the need to better unpack the sources of these tendencies. Whether regional biases reflect differences in “people climate” (Borén and Young 2013b) or cultural environments (Backman and Nilsson 2018) and why these arts-related creators tend to be drawn toward colder winters and more humid summers – in contrast to Glaeser and Shapiro (2003) – offer promising avenues for future study.

These results are of particular interest to city and regional leaders seeking to attract certain residents and entrepreneurial activity. Whether they seek to cultivate more of a “creative class,” become the next “brain hub,” or attract more “hipsters” and “geeks,” these results offer some insights as to which sorts of places tend to attract them – and which ones tend to lose them. First and foremost, the findings here point to the need for multifaceted approaches to attract and retain this kind of creative talent. Though similar to the results of Mollick (2014) where the author finds ties between project locations and the nature of projects (such as country music in Nashville, Tennessee), in this analysis the regions that have performed best in attracting (not losing) these creators differ in their characteristics depending on which type of creative activity. Some things, like arts schools or more crowdfunding activity overall can help in general, but different arts appear drawn to different sorts of regions. Musicians are drawn to strong music scenes, but publishing-related creators avoid others like them while favoring denser, more educated regions. Policymakers are unlikely to find a one-size-fits-all solution to attracting these sorts of creative entrepreneurs. Findings here also offer hope to regions outside of metropolises and with arguably worse weather (more humidity, colder winters). These regions can do well in attracting this sort of arts

entrepreneur, especially if they lack infrastructure for selling and exhibiting artistic work and can instead provide the networking and spillovers from other similar creators.

7. Conclusion

The tendency for industry and innovation to cluster in vibrant urban areas is as well-known as it is a key component of many regional economic development strategies. The ‘creative class’ (Florida 2002), ‘hipsters’ (Rodríguez-Pose and Lee 2020), and other creative or artistic workers are often seen as somewhere between helpful and vital to these processes. Cultivating vibrant clusters of this talent involves a mix of home-grown and in-migrating creatives. In this analysis, we focus on the migration side of this clustering process. We seek to identify factors associated with regions better able to attract and retain creatives who use an online crowdfunding platform. The rapid rise of crowdfunding in the cultural and creative industries (Lazzaro and Noonan 2020) makes this group of creatives a particularly interesting population. These potentially “footloose” entrepreneurs, less tied to local markets for raising funds and pursuing risky and innovative ventures, exhibit relocation patterns that only partly resemble migration patterns of broader populations. Tracing their relocations reveals a strong tendency for clustering and some attraction to certain regions. Overall, regional market size and strength does not explain much net migration, but important heterogeneity by artistic type persists. Different categories of creators have different attractors, such as musicians being drawn to music-related employment. Filmmakers appear unconcerned about amenities, while net migration in Fine Arts tends to be influenced more by geography and climate rather than any homophily. In contrast with more technology-oriented creators on the same platform, the arts-related net migration tends to be more influenced by amenities and by the presence of more narrowly defined peers. This heterogeneity highlights the importance of further investigation of how different types of arts entrepreneurs take advantage of networks, markets, and other platforms or institutions. Clearly, peer effects and spillovers from collocation matter even for many of these creators who use an online platform for fundraising. Yet attractive regions in terms of net migration of this sort of creative talent may not translate this “brain gain” into success for the creators or the region.

We have only scratched the surface of better understanding the support needed to develop and sustain a cluster of arts-related entrepreneurs. The hotly debated topics of what drives urban growth and, especially, how to best attract talented, creative workers to a region poses pressing questions for academics and policymakers alike. In this much broader topic, our analysis contributes some empirical evidence on a fairly narrow group of cultural entrepreneurs. Although our crowdfunding creators do not

appear to be uniformly and simply chasing employment opportunities, the dynamics observed here do highlight a few important themes. To the extent that these cultural entrepreneurs are or become employers themselves, relocating their projects to metros that already host similar projects reflects the positive-feedback loop or path dependency of urban growth (Storper and Scott 2009). This “brain gain” associated with urban growth – at least for our cultural entrepreneurs – may not hinge on climate and other amenities, broader creative class employment, or even narrow employment concentrations. Instead, the main drivers here are agglomeration economies, peer effects, and new production systems. The clustering observed follows the use of online crowdfunding platforms rather than traditional labor markets. This raises important questions about how artists and other creative workers sort and cluster outside of conventional classifications and also about how decisions to use crowdfunding platforms and to relocate fit into the life-cycle of these entrepreneurs. Consistent with the effect of arts schools in our models, age and career stage play roles here (Borén and Young 2013b), especially for an emerging fundraising mechanism and younger entrepreneurs building their networks and reputations. How online platforms fit into cultural entrepreneurs’ career paths has implications for which regions they select and what their arrival brings.

References

- Acs, Z. J. (1992). Small business economics: A global perspective. *Challenge*, 35(6), 38-44.
- Acs, Z. J., Desai, S., & Klapper, L. F. (2008). What does "entrepreneurship" data really show? *Small Business Economics*, 31(3), 265-281.
- Basso, G., & Peri, G. (2020). Internal mobility: The greater responsiveness of foreign-born to economic conditions. *Journal of Economic Perspectives*, 34(3), 77-98.
- Blau, J. (1989.) *The Shape of Culture*. Cambridge: Cambridge University Press.
- Borén, T., & Young, C. (2013a). Getting creative with the 'creative city'? Towards new perspectives on creativity in urban policy. *International Journal of Urban and Regional Research*, 37(5), 1799-1815.
- Borén, T., & Young, C. (2013b). The migration dynamics of the 'Creative Class': Evidence from a study of artists in Stockholm, Sweden. *Annals of the Association of American Geographers*, 103(1), 195–210.
- Brail, S. (2020). World cities of ride-hailing. *Urban Geography*, 1-22.
- Breznitz, S. M., & Noonan, D. S. (2018). Planting the seed to grow local creative industries: The impacts of cultural districts and arts schools on economic development. *Environment and Planning A*, 50(5), 1047-1070.
- Breznitz, S. M., & Noonan, D. S. (2020). Crowdfunding in a not-so-flat world. *Journal of Economic Geography*. Advance online publication. doi:10.1093/jeg/lbaa008
- Buettner, T., & Janeba, E. (2016). City competition for the creative class. *Journal of Cultural Economics*, 40(4), 413-451.
- Cebula, R. J., Davis, M. L., Koch, J. V., & Saunoris, J. M. (2020) The relationship between entrepreneurial activity and domestic gross state in-migration patterns in the U.S. *Applied Economics*, 52(41), 4542-4556.
- Chen, Y., & Rosenthal, S. S. (2008). Local amenities and life-cycle migration: Do people move for jobs or fun? *Journal of Urban Economics*, 64(3), 519-537.
- Dalla Chiesa, C., & Handke, C. (2020). Crowdfunding. In *Handbook of Cultural Economics*, Towse, R. & Navarrete Hernández, T. (Eds.). Edward Elgar Publishing, Cheltenham. pp.158-167.
- Ellison, G., Glaeser, E. L., & Kerr, W. R. (2010). What causes industry agglomeration? Evidence from coagglomeration patterns. *American Economic Review*, 100(3), 1195-1213.
- Ewing, H. & Grady, R. (Directors). (2012). *Detropia* [Film]. Loki Films.
- Florida, R. (2002). *The Rise of the Creative Class*. New York: Basic Books.
- Glaeser, E. L. (2010). Introduction. In *Agglomeration Economics*. University of Chicago Press, Chicago. pp.1-14
- Glaeser, E. L. & Maré, D. C. (2001). Cities and skills. *Journal of Labor Economics*, 19, 316–342.
- Glaeser, E. L., & Shapiro, J. M. (2003). Urban growth in the 1990s: Is city living back? *Journal of Regional Science*, 43(1), 139-165.
- Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1360–1380.
- Hansen, H. K. & Nedomysl, T. (2009) Migration of the Creative Class: Evidence from Sweden. *Journal of Economic Geography*, 9(2), 191–206.

- Hoffmann, A. N. (2007). A rough guide to entrepreneurship policy. In *Handbook of research on entrepreneurship policy*, Audretsch, D. B., Grilo, I., & Thurik, R.A. (Eds.), Cheltenham: Edward Elgar, Cheltenham. pp.140-161.
- Holcomb, B. (1999). Marketing cities for tourism. In *The Tourist City*, Judd, D. & Fainstein, S. (Eds). Yale University Press, New Haven, CT. pp.54-70.
- Judd, D. (1999). Constructing the tourist bubble. In *The Tourist City*, Judd, D. & Fainstein, S. (Eds). Yale University Press, New Haven, CT. pp.35-53.
- Kelly, E., & O'Hagan, J. (2007). Geographic clustering of economic activity: The case of prominent western visual artists. *Journal of Cultural Economics*, 31(2), 109-128.
- Kenney, M., & Zysman, J. (2020). The platform economy: restructuring the space of capitalist accumulation. *Cambridge Journal of Regions, Economy and Society*, 13(1), 55-76.
- Kickstarter (2020). <https://www.kickstarter.com/about>.
- Krupka, D. J., & Noonan, D. S. (2013). City air and city markets: Worker productivity gains across city sizes. *International Regional Science Review*, 36(2), 183-206.
- Lazzaro, E. and Noonan, D.S. (2020). A comparative analysis of US and EU regulatory frameworks of crowdfunding for the cultural and creative industries. *International Journal of Cultural Policy*. In press.
- Lee, N. (2014). The creative industries and urban economic growth in the UK. *Environment and Planning A*, 46(2), 455-470.
- Li, G. C. (2019). Kickstarter Structured Relational Database <https://doi.org/10.7910/DVN/EOYBXM>, Harvard Dataverse, V2.
- Lopez, J. C. G. (2019). Cultural workers and the character of cities. *The Annals of Regional Science*, 62(1), 211-246.
- Markusen, A. (2013). Artists work everywhere. *Work and Occupations*, 40(4), 481-495.
- Markusen, A. & Schrock, G. (2006). The artistic dividend: Urban artistic specialization and economic development implications. *Urban Studies*, 43(10), 1661-1686.
- McGranahan, DA (1999) *Natural amenities drive rural population change*. Agricultural Economic Report No. (AER-781). United States Department of Agriculture, Economic Research Service.
- Mendes-Da-Silva, W., Rossoni, L., Conte, B. S., Gattaz, C. C., & Francisco, E. R. (2016). The impacts of fundraising periods and geographic distance on financing music production via crowdfunding in Brazil. *Journal of Cultural Economics*, 40(1), 75-99.
- Minniti, M., & Lévesque, M. (2008). Recent developments in the economics of entrepreneurship. *Journal of Business Venturing*, 23(6), 603-612.
- Mittelstädt, A. & Cerri, F. (2008), Fostering Entrepreneurship for Innovation, *OECD Science, Technology and Industry Working Papers*, No. 2008/05, OECD Publishing, Paris.
- Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, 29, 1-16.
- Moretti, E. (2012). *The New Geography of Jobs*. Houghton Mifflin Harcourt.
- Neal, Z. (2012). Creative employment and jet set cities: disentangling causal effects. *Urban Studies*, 49(12), 2693-2709.

- Noonan, D. S. 2021. The arts and culture sector's contributions to economic recovery and resiliency in the United States: Technical report. Washington, DC: National Assembly of State Arts Agencies. https://nasaa-arts.org/nasaa_research/the-arts-and-culture-sectors-contributions-to-economic-recovery-and-resiliency-in-the-united-states-technical-report/
- Peukert, C. (2019). The next wave of digital technological change and the cultural industries. *Journal of Cultural Economics*, 43(2), 189-210.
- Piore, M., & Sabel, C. (1984). *The Second Industrial Divide*. Basic Books. New York.
- Porter, M. E. (1990). *The Competitive Advantage of Nations*. Free Press, New York.
- Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy* 6(1), 65–78.
- Regner, T. (2020). Crowdfunding a monthly income: an analysis of the membership platform Patreon. *Journal of Cultural Economics*. Advance online publication. doi:10.1007/s10824-020-09381-5
- Rodríguez-Pose, A., & Lee, N. (2020). Hipsters vs. geeks? Creative workers, STEM and innovation in US cities. *Cities*, 100, 102653.
- Scott, A. J. (2005). *On Hollywood: The Place, The Industry*. Princeton University Press, Princeton, NJ.
- Scott, A. J. (2006). Entrepreneurship, innovation and industrial development: Geography and the creative field revisited. *Small Business Economics*, 26(1), 1-24.
- Storper, M., & Manville, M. (2006). Behaviour, preferences and cities: Urban theory and urban resurgence. *Urban Studies*, 43(8), 1247-1274.
- Storper, M., & Scott, A. J. (1995). The wealth of regions: market forces and policy imperatives in local and global context. *Futures*, 27(5), 505-526.
- Storper, M., & Scott, A. J. (2009). Rethinking human capital, creativity and urban growth. *Journal of Economic Geography*, 9(2), 147-167.
- Sleuwaegen, L., & Boiardi, P. (2014). Creativity and regional innovation: Evidence from EU regions. *Research Policy*, 43(9), 1508-1522.
- Sorenson, O., Assenova, V., Li, G. C., Boada, J., & Fleming, L. (2016). Expand innovation finance via crowdfunding. *Science*, 354(6319), 1526-1528.
- Tubadji, A., Osoba, B. J., & Nijkamp, P. (2015). Culture-based development in the USA: Culture as a factor for economic welfare and social well-being at a county level. *Journal of Cultural economics*, 39(3), 277-303.
- Woronkiewicz, J., & Noonan, D. S. (2019). Who goes freelance? The determinants of self-employment for artists. *Entrepreneurship Theory and Practice*, 43(4), 651-672.

Table 1: Frequencies of Crowdfunding Campaigns by Kickstarter Category

	Among repeat-creators only		All projects
	Count	% Share	% Share
Art	2,048	7.95	10.72
Comics	1,812	7.03	3.79
Crafts	540	2.10	3.37
Dance	429	1.66	1.64
Design	2,016	7.82	3.84
Fashion	1,018	3.95	5.54
Film & Video	3,792	14.71	13.79
Food	988	3.83	7.90
Games	3,651	14.16	6.75
Journalism	169	0.66	2.29
Music	3,537	13.72	13.71
Photography	625	2.42	3.43
Publishing	2,820	10.94	10.08
Technology	1,323	5.13	10.33
Theater	1,007	3.91	2.81
Total	25,775	100	100

Table 2: Variable Descriptions

Variable	Description
NetMigration	Number of Kickstarter repeat-creators with project in CBSA <i>and</i> prior project not in CBSA minus number of repeat-creators with project in not in CBSA <i>and</i> prior project in CBSA
Local	<i>NetMigration</i> of only creators with initial projects in a Local subcategory
FineArts	<i>NetMigration</i> of only creators with initial projects in Kickstarter category of Art, Dance, Theater
Arts	<i>NetMigration</i> of only creators with initial projects in Kickstarter category of Art, Dance, Theater, Film & Video, Music
Music	<i>NetMigration</i> of only creators with initial projects in Kickstarter category of Music
Film & Video	<i>NetMigration</i> of only creators with initial projects in Kickstarter category of Film & Video
Publishing	<i>NetMigration</i> of only creators with initial projects in Kickstarter category of Publishing
Technology	<i>NetMigration</i> of only creators with initial projects in Kickstarter category of Technology
AllProjects	Number of Kickstarter projects located in the CBSA, excluding projects by repeat-creators whose prior projects were outside the CBSA
OwnProjects	<i>AllProjects</i> counting only projects of the same type as the dependent variable
Pop ^a	Total population residing in CBSA in millions, 2010
Income ^a	ln(Average household income within CBSA in 2010)
College ^a	Proportion of working-age population with a college degree or higher within the CBSA in 2010
GradsperJob ^a	Number of college degrees divided by number of jobs in CBSA in 2010
ArtSchools	Number of arts-speciality schools in CBSA
CostofLiving ^b	Cost of living index, 2009, with national average = 100; missing values for micropolitan areas imputed using either lowest <i>CostofLiving</i> in that state or 100, whichever is less.
PlatformHub	Dummy variable equal to 1 if CBSA intersects Silicon Valley or Seattle, 0 otherwise
CreativeClass ^c	Proportion of working population employed in the creative class jobs in the CBSA; 0 if missing.
East	Dummy for CBSA is in New England, Mid-Atlantic or South Atlantic census divisions
West	Dummy for CBSA is in Pacific or Mountain census divisions, 0 otherwise
Coast	Dummy for CBSA has a coast
JanTemp	Average temperature (F) in January in the CBSA
JulyTemp	Average temperature (F) in July in the CBSA
Humidity	Average levels of humidity in July in the CBSA
PopDensity ^a	Number of residents per square meter in CBSA in 2010
BrainHub	Dummy for CBSA is amongst the 20 CBSAs with highest share of workers with a college degree (Moretti 2012)
Metro	Dummy for CBSA is a metropolitan area (0 if CBSA is a micropolitan area)
OwnJob	Proportion of employed individuals in the CBSA working in the same category (see Table A5 in appendix) as the dependent variable; 0 if missing.

Sources: (a) United States Census Bureau. (2011). Comparing 2011 American community survey data.

Available online at: <https://www.census.gov/programs-surveys/acs/guidance/comparing-acs-data/2011.html>

(b) Bureau of Economic Analysis. Regional Price Parities by State and Metro Area.

<https://www.bea.gov/data/prices-inflation/regional-price-parities-state-and-metro-area>

(c) Martin Prosperity Institute. (2010). Copy of 3Ts and Class Data for 2010. Toronto, Canada

(d) United States Census Bureau. (2010). *Metropolitan Combined Statistical Areas - 2010 Census*.

https://tigerweb.geo.census.gov/tigerwebmain/Files/bvp20/tigerweb_bvp20_metro_cbsa_2010_us.html

Table 3: Summary Statistics

Variable	All CBSAs (N=942)		CBSAs with NetMigration ≠ 0				
	Mean	Standard Deviation	No. of Observations	Mean	Standard Deviation	Min.	Max.
NetMigration	0.0011	2.8526	430	0.0023	4.2247	-15	54
Local	0.0159	0.7950	121	0.1240	2.2232	-7	12
FineArts	-0.0064	0.8336	165	-0.0364	1.9966	-5	12
Arts	-0.0340	1.8865	341	-0.0938	3.1375	-16	25
Music	-0.0212	1.2874	229	-0.0873	2.6143	-16	23
Film	-0.0064	0.9866	218	-0.0275	2.0544	-5	13
Publishing	-0.0318	0.7427	184	-0.1630	1.6777	-7	7
Technology	0.0287	0.7084	95	0.2842	2.2249	-3	17
AllProjects	189.2081	974.3074	430	380.1791	1415.8450	0	23734
Pop	0.3076	1.0363	430	0.5339	1.3623	0.0167	18.9200
Income	10.6646	0.2357	430	10.7043	0.2063	9.8820	11.3875
College	0.2038	0.1615	430	0.2615	0.1924	0.0281	2.1988
GradsperJob	0.4429	0.2572	430	0.5481	0.2299	0.0981	0.9198
ArtSchools	0.9947	4.0798	430	1.9209	5.3766	0	45
CostofLiving	90.0216	7.4083	430	92.6974	7.6099	73.8	122.6
PlatformHub	0.0074	0.0859	430	0.0093	0.0961	0	1
CreativeClass	0.1780	0.0688	430	0.2083	0.0476	0.1032	0.4262
East	0.3142	0.4645	430	0.3465	0.4764	0	1
West	0.1773	0.3821	430	0.2116	0.4089	0	1
Coast	0.0648	0.2462	430	0.0791	0.2702	0	1
JanTemp	34.3926	12.3119	430	34.4677	12.5902	3.1	72.0
JulyTemp	75.6346	5.6947	430	75.2717	5.7850	55.9	91.1
Humidity	56.4469	15.4613	430	55.9942	16.2627	14	81
PopDensity	0.0001	0.0017	430	0.0001	0.0001	9.34x10 ⁻⁷	0.0009
BrainHub	0.0212	0.1442	430	0.0419	0.2005	0	1
Metro	0.3885	0.4877	430	0.6000	0.4905	0	1

Table 4: Top- and Bottom-ranked Metro Areas Based on Net Migration

Bottom CBSAs	net	Top CBSAs	net
Austin-Round Rock-San Marcos, TX	-15	San Francisco-Oakland-Fremont, CA	54
Boston-Cambridge-Quincy, MA-NH	-11	Nashville-Davidson--Murfreesboro--Franklin, TN	25
San Diego-Carlsbad-San Marcos, CA	-10	Seattle-Tacoma-Bellevue, WA	20
Kansas City, MO-KS	-10	Denver-Aurora-Broomfield, CO	17
Minneapolis-St. Paul-Bloomington, MN-WI	-9	Atlanta-Sandy Springs-Marietta, GA	13
Provo-Orem, UT	-8	Indianapolis-Carmel, IN	11
Baltimore-Towson, MD	-8	Detroit-Warren-Livonia, MI	11
Albany-Schenectady-Troy, NY	-7	Las Vegas-Paradise, NV	11
Bridgeport-Stamford-Norwalk, CT	-7	Milwaukee-Waukesha-West Allis, WI	9
Raleigh-Cary, NC	-6	Asheville, NC	8
Charlottesville, VA	-6	Cleveland-Elyria-Mentor, OH	8
Hartford-West Hartford-East Hartford, CT	-6	Rochester, NY	7
Worcester, MA	-6	Albuquerque, NM	6
St. Louis, MO-IL	-6	Buffalo-Niagara Falls, NY	6

Table 5: Finite Mixture Model Estimates for Net Migration by CBSA

	All	Local	Fine Arts	Arts
OwnProjects		0.0157*** (0.0052)	0.0037 (0.0037)	0.0113*** (0.0023)
OwnJob			-6.8288 (8.7170)	-0.3205 (9.1513)
AllProjects	0.0050*** (0.0043)	-0.0007 (0.0006)	0.0004 (0.0005)	-0.0042*** (0.0013)
Pop	-0.2223 (0.4393)	0.0255 (0.2977)	-0.1489 (0.2751)	0.4538 (0.4693)
Pop ²	-0.2227*** (0.0282)	-0.0900*** (0.0302)	-0.0567** (0.0251)	-0.1344*** (0.0339)
Income	-0.9945 (0.9597)	0.3726 (1.0945)	0.0470 (0.9117)	-0.1494 (0.8901)
College	-0.6943 (1.0673)	0.0556 (0.2833)	0.2233 (0.6281)	-0.5692 (1.1721)
GradsperJob	-0.5460 (0.8897)	-0.3426 (1.0744)	-0.6398 (1.0584)	-0.4954 (1.0184)
ArtSchools	2.4897*** (0.4396)	0.6693** (0.2833)	0.3869 (0.2493)	1.2663*** (0.3735)
CostofLiving	-0.0339 (0.0342)	-0.0745** (0.0375)	-0.0422 (0.0292)	-0.0504 (0.0321)
CostofLiving×ArtSchools	-0.0273*** (0.0042)	-0.0066** (0.0027)	0.2456 (0.5048)	0.5898** (0.07494)
CreativeClass	-2.1870 (4.0487)	3.1330 (3.7596)	1.6553 (2.9383)	1.2984 (3.5012)
East	-1.2282*** (0.3650)	-0.7414** (0.3481)	-0.3403 (0.2772)	-0.7416** (0.3146)
West	2.2763*** (0.7933)	3.3902*** (0.9016)	2.5489*** (0.7099)	2.5734*** (0.7088)
JanTemp	-0.0222 (0.0232)	-0.0662*** (0.0249)	-0.0646*** (0.0190)	-0.0440** (0.0208)
JulyTemp	0.0238 (0.0504)	0.0890* (0.0477)	0.1173*** (0.0401)	0.0619 (0.0443)
Humidity	0.0474*** (0.0168)	0.0756*** (0.0195)	0.0534*** (0.0159)	0.0472*** (0.0154)
Constant	9.9816 (9.8595)	-7.0693 (10.3334)	-0.0041* (0.0024)	-0.0129*** (0.0036)
Regional controls ^a	Yes	Yes	Yes	Yes
No. of Observations	942	942	942	942
Log Likelihood	-1551.4	-418.9	-571.2	-1206.1

(a) Regional controls include *PopDensity* and *Coast, Metro, BrainHub, and PlatformHub* dummy variables. Also includes dummies indicating missing values for *CreativeClass* and, when included in model, *OwnJob*. Standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table 6: Additional Finite Mixture Model Estimates for Net Migration by CBSA

	Music	Film & Video	Publishing	Technology
OwnProjects	0.0113*** (0.0019)	0.0110*** (0.0036)	-0.0101** (0.0048)	0.0111** (0.0045)
OwnJob	1635.3810* (973.0785)	200.4007 (251.5507)	11.6227 (7.0078)	-7.9664 (11.5085)
AllProjects	-0.0023*** (0.0005)	-0.0013* (0.0007)	0.0014*** (0.005)	0.0008** (0.0004)
Pop	0.0429 (0.3117)	0.3840 (0.3069)	-0.3322 (0.2410)	-0.6427*** (0.2476)
Pop ²	0.0249 (0.0196)	-0.0576* (0.0307)	-0.0126 (0.0158)	-0.0255 (0.0193)
Income	-0.2560 (0.9673)	-0.5543 (0.6211)	-1.1544 (0.7080)	0.8759 (1.1549)
College	-1.1903 (0.9900)	-0.4063 (0.6798)	0.9628* (0.5172)	0.2995 (0.7957)
GradsperJob	-0.3142 (1.1010)	-0.1973 (0.7799)	-1.0444 (0.7036)	0.0632 (1.6311)
ArtSchools	0.5261 (0.3201)	0.5292** (0.2269)	0.4369** (0.1924)	0.5206** (0.2480)
CostofLiving	-0.0240 (0.0327)	-0.0138 (0.0225)	0.0022 (0.0221)	-0.0219 (0.0364)
CostofLiving×ArtSchools	-0.0052* (0.0030)	-0.0052** (0.0022)	0.1763 (0.4034)	-1.2642** (0.5125)
CreativeClass	-3.1968 (3.3092)	2.6173 (2.4177)	1.5965 (2.4500)	-3.7647 (3.5275)
East	-0.2718 (0.3116)	-0.3532 (0.2275)	0.0051 (0.2092)	-0.1920 (0.3148)
West	1.7483** (0.7494)	0.6793 (0.4766)	1.0883** (0.4501)	0.9027 (0.7783)
JanTemp	-0.0023 (0.0218)	-0.0098 (0.0134)	0.0067 (0.0134)	0.0090 (0.0219)
JulyTemp	-0.0184 (0.0491)	0.0164 (0.0297)	-0.0042 (0.0284)	-0.0083 (0.0480)
Humidity	0.0258 (0.0162)	0.0153 (0.0102)	0.0081 (0.0095)	0.0248 (0.0172)
Constant	5.1285 (9.7083)	4.4870 (6.1641)	-0.0041** (0.0018)	-0.0059** (0.0023)
Regional controls ^a	Yes	Yes	Yes	Yes
No. of Observations	942	942	942	942
Log Likelihood	-781.2	-728.8	-590.1	-327.1

(a) Regional controls include *PopDensity* and *Coast*, *Metro*, *BrainHub*, and *PlatformHub* dummy variables. Also includes dummies indicating missing values for *CreativeClass* and, when included in model, *OwnJob*. * p<0.10, ** p<0.05, *** p<0.01.

APPENDIX

Table A1: Full Results for Finite Mixture Model Estimates for Net Migration by CBSA

Class 1: Point mass at NetMigration = 0				
	All	Local	Fine Arts	Arts
OwnProjects		-0.0085 (0.0439)	-0.0916** (0.0395)	-0.1287*** (0.0494)
AllProjects	-0.0446*** (0.0152)	-0.0094* (0.0052)	0.0009 (0.0051)	-0.0105 (0.0162)
Pop	-6.1034 (6.5477)	0.7186 (1.6709)	0.3881 (1.8187)	4.1838 (2.5848)
Pop ²	2.8491 (12.8059)	-0.0382 (0.2050)	0.4049* (0.2230)	3.5482*** (0.9199)
Income	0.6853 (0.5990)	2.0236** (0.9039)	2.7275*** (0.8568)	1.7647*** (0.6738)
College	-0.4833 (56.5800)	-1.0419 (1.2049)	-2.8542 (3.3427)	4.9180** (1.9155)
GradsperJob	0.9633 (1.7027)	0.5013 (1.0250)	-0.6482 (1.6339)	-2.4576** (0.9833)
ArtSchools	-0.6339 (0.5522)	0.0583 (0.1275)	-0.1725 (0.1484)	-0.6485 (0.4170)
CostofLiving	-0.0238 (0.0265)	-0.0198 (0.0358)	-0.1100*** (0.0356)	-0.0433 (0.0291)
PlatformHub	1.6302 (1.3639)	13.4959 (712.9451)	21.0687 (14950.8100)	1.0776 (1.5059)
CreativeClass	-4.9671 (3.5174)	-9.8440*** (3.7679)	-7.1298** (3.2993)	-7.7760*** (2.9000)
Missing CreativeClass	47.5822 (562.22)			
East	0.6071** (0.2838)	-0.1935 (0.4138)	0.1517 (0.3637)	0.3767 (0.3035)
West	-0.0710 (0.5765)	-0.6578 (0.8443)	0.0825 (0.7052)	-0.6368 (0.6296)
Coast	0.0070 (0.6196)	-0.4724 (0.7254)	0.8574 (0.7876)	-0.2577 (0.5910)
JanTemp	-0.0080 (0.0188)	0.0387 (0.0244)	0.0189 (0.0216)	0.0041 (0.0196)
JulyTemp	0.0094 (0.0094)	-0.0227 (0.0531)	-0.0421 (0.0480)	-0.0447 (0.0419)
Humidity	-0.0012 (0.01368)	-0.0094 (0.0184)	0.0054 (0.0159)	-0.0166 (0.0151)
Constant	-3.6021	-13.6984	-12.4850	-7.4611

(7.4140) (9.4487) (9.1048) (8.2185)

Class 2: Base outcome of NetMigration

	All	Local	Fine Arts	Arts
OwnProjects		0.0157*** (0.0052)	0.0037 (0.0037)	0.0113*** (0.0023)
AllProjects	0.0050*** (0.0043)	-0.0007 (0.0006)	0.0004 (0.0005)	-0.0042*** (0.0013)
Pop	-0.2223 (0.4393)	0.0255 (0.2977)	-0.1489 (0.2751)	0.4538 (0.4693)
Pop ²	-0.2227*** (0.0282)	-0.0900*** (0.0302)	-0.0567** (0.0251)	-0.1344*** (0.0339)
Income	-0.9945 (0.9597)	0.3726 (1.0945)	0.0470 (0.9117)	-0.1494 (0.8901)
College	-0.6943 (1.0673)	0.0556 (0.2833)	0.2233 (0.6281)	-0.5692 (1.1721)
GradsperJob	-0.5460 (0.8897)	-0.3426 (1.0744)	-0.6398 (1.0584)	-0.4954 (1.0184)
ArtSchools	2.4897*** (0.4396)	0.6693** (0.2833)	0.3869 (0.2493)	1.2663*** (0.3735)
CostofLiving	-0.0339 (0.0342)	-0.0745** (0.0375)	-0.0422 (0.0292)	-0.0504 (0.0321)
CostofLiving×ArtSchools	-0.0273*** (0.0042)	-0.0066** (0.0027)	-0.0041* (0.0024)	-0.0129*** (0.0036)
PlatformHub	1.5219 (1.6153)	-6.0867*** (1.8005)	-4.8304*** (1.7181)	-0.6968 (1.2855)
CreativeClass	-2.1870 (4.0487)	3.1330 (3.7596)	1.6553 (2.9383)	1.2984 (3.5012)
Missing CreativeClass	-1.2445 (4597.7)	0.4557 (5.4992)	0.5412 (4.4284)	1.2984 (3.5012)
East	-1.2282*** (0.3650)	-0.7414** (0.3481)	-0.3403 (0.2772)	-0.7416** (0.3146)
West	2.2763*** (0.7933)	3.3902*** (0.9016)	2.5489*** (0.7099)	2.5734*** (0.7088)
Coast	-0.5880 (0.6536)	-0.2070 (0.6118)	0.7449 (0.5167)	0.5194 (0.5418)
JanTemp	-0.0222 (0.0232)	-0.0662*** (0.0249)	-0.0646*** (0.0190)	-0.0440** (0.0208)
JulyTemp	0.0238 (0.0504)	0.0890* (0.0477)	0.1173*** (0.0401)	0.0619 (0.0443)
Humidity	0.0474*** (0.0168)	0.0756*** (0.0195)	0.0534*** (0.0159)	0.0472*** (0.0154)

PopDensity	4016.8130 (2510.9670)	3625.8760* (1911.2360)	1690.5330 (1560.5600)	398.6170 (2113.8110)
BrainHub	-1.5323* (0.8996)	-0.6151 (0.6074)	0.2456 (0.5048)	0.5898 (0.7494)
Metro			-0.0103 (0.4297)	0.4827 (0.4118)
OwnJob			-83.0821 (72.5102)	-92.6761 (106.3072)
Missing OwnJob			-0.3137 (72.5102)	0.3897 (1.7241)
Constant	9.9816 (9.8595)	-7.0693 (10.3334)	-6.8288 (8.7170)	-0.3205 (9.1513)
AIC	3183.22	917.87	1228.80	2493.39
BIC	3377.14	1111.90	1437.26	2706.71

* p<0.10, ** p<0.05, *** p<0.01.

Table A2: Full Results for Additional Finite Mixture Model Estimates for Net Migration by CBSA

Class 1: Point mass at NetMigration = 0				
	Music	Film & Video	Publishing	Technology
OwnProjects	-0.0939*** (0.0283)	-0.1594** (0.0620)	-0.0839* (0.0466)	-0.1126 (0.0686)
AllProjects	0.0084** (0.0037)	-0.0037 (0.0077)	-0.0073 (0.0072)	-0.0010 (0.0039)
Pop	-1.4093 (1.6889)	1.8381 (2.2287)	-0.0073 (1.8497)	-1.0971 (1.2281)
Pop ²	0.2521 (0.8092)	1.9485*** (0.6435)	1.0112*** (0.3700)	0.4451** (0.1914)
Income	0.6545 (0.7911)	2.4488*** (0.7862)	0.1892 (0.8103)	0.6681 (1.1525)
College	0.0944 (1.2992)	0.6432 (1.980)	1.3994 (1.3022)	-0.3043 (1.1610)
GradsperJob	-2.7581*** (0.8953)	0.1310 (1.0846)	-1.3350 (0.9201)	0.2045 (1.2075)
ArtSchools	0.2269 (0.1414)	0.1211 (0.1535)	0.2295 (0.2091)	-0.0077 (0.1382)
CostofLiving	-0.0150 (0.0286)	-0.0669** (0.0314)	-0.0209 (0.0326)	-0.0709 (0.0438)
PlatformHub	0.1458 (1.3965)	-0.3082 (1.3984)	0.2132 (1.4579)	12.3327 (718.3742)
CreativeClass	-20.4912*** (3.9985)	-8.1389*** (3.1481)	-6.4615* (3.3172)	-11.6266** (4.5792)
East	-0.0134 (0.3152)	0.0700 (0.3447)	0.2280 (0.3703)	0.7004 (0.7004)
West	-0.3398 (0.6566)	-0.1754 (0.6472)	0.5969 (0.7484)	0.3572 (1.0801)
Coast	0.3458 (0.5753)	-0.2373 (0.6318)	-0.7374 (0.5964)	-0.0501 (0.8257)
JanTemp	0.0273 (0.0198)	-0.0005 (0.0207)	0.0146 (0.0227)	0.0398 (0.0302)
JulyTemp	-0.0718 (0.0439)	0.0036 (0.0445)	-0.0505 (0.0505)	-0.0611 (0.0715)
Humidity	-0.0215 (0.0146)	-0.0031 (0.0151)	-0.0027 (0.0159)	-0.0190 (0.0230)
Constant	7.1573 (8.4255)	-16.8049* (8.7876)	7.2829 (9.0090)	9.0026 (12.4980)

Class 2: Base outcome of NetMigration

	Music	Film & Video	Publishing	Technology
OwnProjects	0.0113*** (0.0019)	0.0110*** (0.0036)	-0.0101** (0.0048)	0.0111** (0.0045)
AllProjects	-0.0023*** (0.0005)	-0.0013* (0.0007)	0.0014*** (0.005)	0.0008** (0.0004)
Pop	0.0429 (0.3117)	0.3840 (0.3069)	-0.3322 (0.2410)	-0.6427*** (0.2476)
Pop ²	0.0249 (0.0196)	-0.0576* (0.0307)	-0.0126 (0.0158)	-0.0255 (0.0193)
Income	-0.2560 (0.9673)	-0.5543 (0.6211)	-1.1544 (0.7080)	0.8759 (1.1549)
College	-1.1903 (0.9900)	-0.4063 (0.6798)	0.9628* (0.5172)	0.2995 (0.7957)
GradsperJob	-0.3142 (1.1010)	-0.1973 (0.7799)	-1.0444 (0.7036)	0.0632 (1.6311)
ArtSchools	0.5261 (0.3201)	0.5292** (0.2269)	0.4369** (0.1924)	0.5206** (0.2480)
CostofLiving	-0.0240 (0.0327)	-0.0138 (0.0225)	0.0022 (0.0221)	-0.0219 (0.0364)
CostofLiving×ArtSchools	-0.0052* (0.0030)	-0.0052** (0.0022)	0.1763 (0.4034)	-1.2642** (0.5125)
PlatformHub	0.6372 (1.2747)	0.1175 (0.7568)	1.4970* (0.7907)	1.4260 (1.6696)
CreativeClass	-3.1968 (3.3092)	2.6173 (2.4177)	1.5965 (2.4500)	-3.7647 (3.5275)
Missing CreativeClass	-0.4187 (9.5734)	0.8409 (2.2117)	0.3793 (2.0237)	-0.5215 (5.7178)
East	-0.2718 (0.3116)	-0.3532 (0.2275)	0.0051 (0.2092)	-0.1920 (0.3148)
West	1.7483** (0.7494)	0.6793 (0.4766)	1.0883** (0.4501)	0.9027 (0.7783)
Coast	0.0409 (0.5572)	0.1395 (0.3702)	-0.7488** (0.3281)	-0.8754 (0.5609)
JanTemp	-0.0023 (0.0218)	-0.0098 (0.0134)	0.0067 (0.0134)	0.0090 (0.0219)
JulyTemp	-0.0184 (0.0491)	0.0164 (0.0297)	-0.0042 (0.0284)	-0.0083 (0.0480)
Humidity	0.0258 (0.0162)	0.0153 (0.0102)	0.0081 (0.0095)	0.0248 (0.0172)
PopDensity	1369.0960 (1895.0500)	-1335.4520 (1445.9930)	2587.3790** (1210.9280)	3840.6510** (1551.8410)
BrainHub	0.9298	-0.3411	-0.3332	-0.0901

	(0.6282)	(0.4614)	(0.2988)	(0.7416)
Metro	0.5340	0.3256	1.5865	1.7860
	(0.5340)	(0.3148)	(7.0078)	(0.2376)
OwnJob	1635.3810*	200.4007	11.6227	-7.9664
	(973.0785)	(251.5507)	(7.0078)	(11.5085)
Missing OwnJob	0.1644	0.0381	-0.1969	-0.2549
	(0.4265)	(0.4981)	(0.3661)	(1.2202)
Constant	5.1285	4.4870	-0.0041**	-0.0059**
	(9.7083)	(6.1641)	(0.0018)	(0.0023)
<hr/>				
AIC	1648.56	1537.72	1269.58	742.28
BIC	1857.02	1746.18	1487.74	955.60

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A3: Full Results for OLS Model Estimates for Net Migration by CBSA

	All	Local	Fine Arts	Arts
OwnProjects		0.0118** (0.0051)	0.0014 (0.0036)	0.0097 (0.0081)
OwnJob			-5.8291 (10.2370)	-12.7253 (24.8587)
Missing OwnJob			0.0114 (0.0433)	0.0607 (0.1401)
AllProjects	0.0034** (0.0014)	-0.0009 (0.0007)	0.0002 (0.0006)	-0.0039 (0.0045)
Pop	0.5583 (0.8574)	0.2911 (0.3661)	0.0392 (0.4212)	0.4348 (1.0208)
Pop ²	-0.1288** (0.0637)	-0.0471* (0.0254)	-0.0175 (0.0295)	-0.0845 (0.0814)
Income	-0.2805 (0.2528)	0.0149 (0.0782)	-0.0102 (0.0947)	-0.1055 (0.2047)
College	-0.2834 (1.1629)	-0.1924 (0.5386)	-0.2433 (0.5111)	-0.6753 (1.1452)
ArtSchools	3.3159*** (1.2538)	0.7128* (0.4051)	0.4657 (0.3411)	1.4841* (0.7698)
CostofLiving	-0.0220 (0.0174)	-0.0030 (0.0046)	-0.0063 (0.0059)	-0.0211 (0.0141)
CostofLiving×ArtSchools	-0.0350*** (0.0132)	-0.0073* (0.0044)	-0.0049 (0.0036)	-0.0149** (0.0077)
BrainHub	-0.0461 (1.5761)	-0.1354 (0.5556)	0.4002 (0.5997)	0.7946 (1.2218)
PlatformHub	1.2792 (1.9489)	-0.8180 (0.5814)	-0.6523 (0.4971)	-0.2133 (0.7418)
CreativeClass	-2.3746 (2.1861)	1.0552 (1.0148)	0.4635 (1.0002)	-0.7286 (1.8207)
Missing CreativeClass	-0.1798 (0.4025)	0.1877 (0.1765)	0.1122 (0.1622)	-0.1069 (0.3592)
Metro	-0.4655* (0.2491)	-0.0399 (0.1002)	-0.0069 (0.1102)	0.0593 (0.2309)
PopDensity	22.3981** (11.3477)	1.6718 (4.3777)	2.7992 (4.4333)	6.2384 (10.4656)
East	-0.7611** (0.2938)	-0.1461* (0.0854)	-0.0854 (0.0927)	-0.4106** (0.1838)
West	1.4286*** (0.5249)	0.3824** (0.1699)	0.4707*** (0.1815)	1.2410*** (0.4082)
Coast	-0.4775 (0.4534)	-0.0387 (0.1305)	0.2247 (0.1514)	0.2228 (0.2990)
JanTemp	-0.0031	-0.0042	-0.0107*	-0.0160

	(0.0148)	(0.0043)	(0.0053)	(0.0111)
JulyTemp	-0.0082	0.0024	0.0165	0.0212
	(0.0310)	(0.0108)	(0.0125)	(0.0231)
Humidity	0.0299**	0.0091**	0.0087*	0.0210**
	(0.0131)	(0.0043)	(0.0045)	(0.0093)
Constant	4.2379	-0.6415	-0.8340	0.7571
	(3.8442)	(1.3203)	(1.6181)	(3.4220)
No. of Observations	942	942	942	942
R-squared	0.0836	0.1530	0.0776	0.1644

Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A4: Full Results for Additional OLS Model Estimates for Net Migration by CBSA

	Music	Film & Video	Publishing	Technology
OwnProjects	0.0116** (0.0056)	0.0073 (0.0037)	-0.0095 (0.0095)	0.0150 (0.0102)
OwnJob	580.6636 (567.7886)	45.1599 (36.1383)	-1.6150 (2.3471)	-4.1820 (7.8423)
Missing OwnJob	0.0740 (0.1047)	0.0186 (0.0539)	0.0095 (0.0339)	-0.0010 (0.0288)
AllProjects	-0.0020** (0.0010)	-0.0007 (0.0007)	0.0013 (0.0010)	0.0001 (0.0004)
Pop	-0.0213 (0.2748)	0.0944 (0.4052)	-0.1597 (0.2731)	-0.3510 (0.2721)
Pop ²	0.0034 (0.0166)	-0.0235 (0.0309)	-0.0090 (0.0209)	0.0053 (0.0157)
Income	-0.0061 (0.1146)	-0.0859 (0.1023)	-0.1120 (0.0742)	0.0959* (0.0530)
College	-0.6450 (0.5782)	-0.2087 (0.2479)	0.4233* (0.2161)	-0.0457 (0.1892)
ArtSchools	0.2499 (0.3903)	0.5372** (0.2590)	0.3751 (0.2790)	0.8101** (0.4018)
CostofLiving	-0.0026 (0.0081)	-0.0105 (0.0074)	-0.0032 (0.0045)	0.00001 (0.0036)
CostofLiving×ArtSchools	-0.0027 (0.0039)	-0.0053** (0.0024)	-0.0036 (0.0029)	-0.0086** (0.0043)
BrainHub	0.6282 (0.8173)	-0.4266 (0.5508)	0.3780 (0.3379)	-0.5286 (0.3908)
PlatformHub	0.3560 (0.7855)	0.0752 (0.5515)	0.7600 (0.4685)	0.2970 (0.3279)
CreativeClass	-1.0616 (1.4250)	0.0059 (0.8222)	0.0214 (0.6031)	-0.8849* (0.5115)
Missing CreativeClass	-0.1882 (0.2678)	0.0656 (0.1515)	-0.0080 (0.1042)	-0.1316 (0.0901)
Metro	0.1578 (0.1045)	0.0301 (0.0945)	-0.1566** (0.0718)	0.0046 (0.0533)
PopDensity	3.1268 (3.6710)	2.7763 (3.9946)	7.3280** (3.0330)	5.8785 (3.8981)
East	-0.1350 (0.1053)	-0.1390 (0.0860)	-0.0464 (0.0632)	-0.0614 (0.0531)
West	0.4609* (0.2536)	0.3431** (0.1472)	0.2450 (0.1513)	0.0406 (0.1177)
Coast	-0.0185 (0.1590)	0.0085 (0.1598)	-0.3172** (0.1298)	-0.1790 (0.1096)

JanTemp	-0.0011 (0.0067)	-0.0041 (0.0044)	0.0044 (0.0041)	0.0056 (0.0036)
JulyTemp	-0.0015 (0.0130)	0.0076 (0.0105)	-0.0065 (0.0107)	-0.0121 (0.0095)
Humidity	0.0078 (0.0053)	0.0052 (0.0032)	0.0023 (0.0033)	0.0034 (0.0026)
Constant	0.1352 (1.9506)	1.0114 (1.6161)	1.6176 (1.3074)	-0.2982 (0.8712)
No. of Observations	942	942	942	942
R-squared	0.2244	0.2518	0.1111	0.3791

Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A5: Employment sectors associated with each project category grouping

Category of Project	<u>NAICS code</u>	<u>Description</u>
Fine Arts	711510	Independent Artists, Writers, and Performers
	711120	Dance Companies
	711110	Theater Companies and Dinner Theaters
Music	711130	Musical Groups and Artists
Film & Video	512110	Motion Picture and Video Production
	512131	Motion Picture Theaters (except Drive-Ins)
	711310	Promoters of Performing Arts, Sports and Similar Events with Facilities
Publishing	511199	All Other Publishers
	611310	Colleges, Universities and Professional Schools
Technology	332312	Fabricated Structural Metal Manufacturing
	333244	Printing Machinery and Equipment Manufacturing
	334111	Electronic Computer Manufacturing
	334310	Audio and Video Equipment Manufacturing
	334511	Search, Detection, Navigation, Guidance, Aeronautical and Nautical System and Instrument Manufacturing
	541512	Computer Systems Design Services
	811211	Consumer Electronics Repair and Maintenance