

## **Who Goes Freelance?**

### **The Determinants of Self-Employment for Artists**

#### **ABSTRACT**

This study examines the self-employment behavior of artists. Using data from the Current Population Survey between 2003 and 2015, we estimate a series of logit models to predict transitions from paid employment to self-employment in the arts. The results show that artists disproportionately freelance and frequently switch in and out of self-employment compared to all other professional workers. We also find that artists exhibit unique entrepreneurial profiles, particularly in terms of their demographic and employment characteristics. In particular, artist workers are considerably more likely to attain self-employment status when living in a city with a high saturation of artist occupations.

#### **INTRODUCTION**

Previous studies have documented the link between self-employment and entrepreneurship (Blumberg & Pfann, 2016; Guerra & Patuelli, 2014). While the simplest form of entrepreneurship may be self-employment (Blanchflower & Oswald, 1998), the benefits derived by self-employment that fuel entrepreneurship include workers' exposure to entrepreneurial environments (Chlostá, Patzelt, Klein, & Dormann, 2012) and the capacity to perform many tasks (Lazear, 2005). The extant literature on self-employment often points to self-employment as an engine of economic growth and new venture creation (e.g., Fölster,

---

This is the authors' preprint of the article:

Joanna Woronkowicz and Douglas S. Noonan. "Who Goes Freelance? The Determinants of Self-Employment for Artists." *Entrepreneurship Theory and Practice*. Forthcoming.

2000).<sup>1</sup> This raises critical questions about the drivers of self-employment (e.g., Guerra & Patuelli, 2014) and self-employment career dynamics (Blumberg & Pfann, 2016).

The relationship between self-employment and entrepreneurship, however clear, differs among occupations.<sup>2</sup> Freelance social media strategist or computer programmer may be ascendant occupations in some economies, but this need not hold for other skilled occupations like plumbers.<sup>3</sup> That some of self-employment's fastest-growing occupations involve artistic and cultural pursuits (e.g., design, writing and editing, photography, audio and video) suggests that occupation-specific drivers of self-employment differ in fundamental and important ways.

The need for understanding the self-employment dynamics of specific occupations, as opposed to industries (Markusen 2004; Markusen et al., 2008) is directly related to being able to design effective economic development policies involving the promotion of entrepreneurship. In general, entrepreneurship has been closely tied to economic development (Schumpeter, 1934), particularly at the local level. Primarily due to Florida's (2002, 2003) work on "creative class" workers, several studies have linked artist workers, in particular, to the economic development of urban areas (e.g., Atkinson & Easthope, 2009; Currid, 2007; Grodach, 2013; Grodach & Loukaitou-Sideris, 2007; Markusen, 2006; Markusen & Gadwa, 2010; Zimmerman, 2008). As such, policies that encourage artistic start-ups are already being designed and implemented in various locales.<sup>4</sup>

---

<sup>1</sup> See Simoes, Crespo, and Moreira (2016) for a summary of recent literature on self-employment determinants.

<sup>2</sup> Markusen (2004) discusses how occupational targeting can be a means for detecting potential for entrepreneurship among specific worker groups, and how in general, variations in employment behavior among different types of workers have prompted economists to emphasize the value added from studying occupations as opposed to industries (Markusen, 2004; Markusen, Wassall, DeNatale, & Cohen, 2008).

<sup>3</sup> See Buttonwood's July 15<sup>th</sup>, 2013 article in *The Economist*, "Go Freelance and Work Harder. But Will You Work Better?", and Shannon Gausepoehl's article in *Business News Daily*, "The Six Fastest-Growing Freelance Jobs."

<sup>4</sup> See, for example, the case of Maryland's Arts and Entertainment District program that includes property tax credits and income tax deductions to qualifying artistic businesses and/or individual artists. More information can be found here: <https://www.msac.org/programs/arts-entertainment-districts>. Similar incentive programs exist in Iowa, New Mexico, Louisiana, Rhode Island.

Artists' alignment with entrepreneurship is well-documented (e.g., Agrawal, Catalini, & Goldfarb 2010). Historically, very few artists worked as salaried workers – mainly as court artists in the French, Italian, German, Austrian, and Spanish aristocracies in the middle ages. Other artists essentially acted as freelancers by earning income from serving as heads of workshops designed to take up commissions, and receiving funds from salaried public and clerical offices and even grants. Fairs and street markets were a common way Dutch medieval artists earned income. Finally, artists throughout history have supplemented artistic income through secondary work (Wittkower & Wittkower, 1963). In contemporary times, artists still relate to entrepreneurs on a dimension of characteristics (Barry, 2011; Lindqvist, 2011). For example, like entrepreneurs, artists have a tendency to depart from prevailing norms (de Guillet Monthoux, 2000) and produce innovative and novel products (Wijnberg & Gemser, 2000). These two characteristics have also been applied to entrepreneurs, primarily through Schumpeter's (1942) theory of "creative destruction", which focuses on the creation of new combinations that disrupt the circular flow of an economic market. In other words, artists, like entrepreneurs, are constantly seeking out new forms of idea generation.

In studies of artist entrepreneurs, scholars have implicitly assumed that the term "artist" is synonymous with "entrepreneur" by not only aligning the conception of each type of worker with one another, but also by failing to distinguish between artists whose work takes place in a traditional wage/salary setting versus the artist who works as a sole proprietor, independent contractor, or other form of entrepreneurial work (Essig, 2015; Scherdin & Zander, 2011). While "self-employed" may not be synonymous with "entrepreneur", the reality of the situation is that workers choosing self-employment do so partly to attain the independence associated with being an entrepreneur (Douglas & Shepherd, 2002). Therefore, if we assume that artists are inherently

entrepreneurial (Scherdin & Zander, 2011) it becomes important to try to understand how artist workers move toward what might be their ultimate goal: self-employment. To do this, we focus on the characteristics of the non-self-employed (i.e., the wage/salary worker) artist, and identify what characteristics lead him/her to choose self-employment.

This study examines the self-employment behavior of artists relative to other types of professional workers. Using data from the Current Population Survey (CPS) between 2003 and 2015, we estimate a series of panel logit models to predict transitions from paid employment to self-employment (i.e., freelancing) in the arts. The results show that artists disproportionately freelance and frequently switch in and out of self-employment compared to all other professional workers. We also find that artists exhibit unique entrepreneurial profiles, particularly in terms of their demographic and work behavior characteristics. In particular, the results suggest that married females may use self-employment to pursue arts-related work. Additionally, artist workers are considerably more likely to attain self-employment status when living in a city with a high saturation of artist occupations. The study concludes with discussing how understanding the entrepreneurial profiles of specific occupations can benefit entrepreneurial policies.

### **ARTISTS AND SELF-EMPLOYMENT DETERMINANTS**

Empirical research on artist careers is relatively short-lived. One of the first studies – on performing artists’ perceptions toward risk – traces back to the mid-1970s (Santos, 1976) or the analysis of artists’ income in Baumol and Bowen (1966). Subsequent research has focused primarily on individual artist occupations (e.g., musicians, actors). Furthermore, most studies

utilize cross-sectional data.<sup>5</sup> In sum, very little research on artists' labor markets have been generalizable to a larger population of artists or validated through longitudinal methods.<sup>6</sup>

Within the small set of empirical studies on artists exists an even smaller set of studies on artists' employment decisions. The employment decision of an artist has typically been modeled as an input to other types of labor outcomes, such as earnings (Wassall & Alper, 1992), occupational persistence (Stohs, 1991a, 1991b), and work hours (Robinson & Montgomery, 2000) via a traditional labor supply model. In general, these studies have found that not only is there great variability in artists' incomes, but also that the return on education is lower than in other occupations with otherwise similar characteristics (Filer, 1990). Occupational persistence as an artist varies depending on individual characteristics such as gender, age, and experience. Further, artists' non-pecuniary motives for arts-related work influences time-allocation decisions between arts-related and non-arts-related work.

It is the latter strain of research that suggests that the psychic motivations toward work may differ for artists as compared to non-artists. Throsby's (1994) work-preference model for artists challenges the underlying assumption of the neo-classical labor supply model that work is solely a means to income. In the work-preference model, the artist is partly driven by the satisfaction he receives from creating art. Thus, an artist's labor supply function is comprised of variables measuring both financial and non-financial benefits from work.

Further efforts to distinguish the employment behavior of artists to that of traditional workers has involved using a production function to model artistic output (Throsby, 2006). In this model, creative talent is included as an input to the quantity and quality of artistic output,

---

<sup>5</sup> See Butler (2000) for a full list of artist studies, including those on individual occupations and utilizing cross-sectional methods.

<sup>6</sup> See Alper and Wassall (2006) for a discussion of artist studies that are both generalizable and utilize panel data.

just as technology is an input in the production function of the traditional firm. Therefore, inherent in this production function model of artistic work is the assumption that artists behave not as individual workers, but as small business enterprises through self-employment.

Historically, a large proportion of artists have been self-employed. Data from the 2005-2009 American Community Survey (ACS) show that artists are about 3.5 times more likely to be self-employed than the average U.S. worker (National Endowment for the Arts, 2011). Decennial Census and ACS data from 1990 to 2005 illustrate that about one third of artists are self-employed and that artist self-employment has been on the rise since 1990. About half of writers and fine artists are self-employed, and close to half of photographers and musicians (National Endowment for the Arts, 2008).

There are various reasons that many artists gravitate toward self-employment, many of them having to do with the characteristics of arts work and of being an artist. First, contingent and contractual employment, which many self-employed workers rely on, is suited to the project-based nature of arts work (Markusen, 2006). For example, actors are generally hired for theater or film productions on short-term contracts, and photographers and musicians perform one-off gigs. Self-employment allows artists to perform multiple projects simultaneously. Second, in order to juggle multiple projects, many artists necessitate flexibility in work schedules (Menger, 1999), which self-employment allows. Flexibility is also related to occupational determinants for artists, such as, “a high level of personal autonomy in using one’s own initiative, the opportunities to use a wide range of abilities and to feel self-actualized at work, an idiosyncratic way of life ... a low level of routine, and a high degree of social recognition” (Menger, 2006, p. 777).

Third, self-employment allows artists to pursue “footloose” lifestyles that allow them to move from place to place. Frequently, project-based work for artists makes it necessary for artists to relocate temporarily, or to be mobile (Markusen, 2006). For example, musicians often tour to promote new music, and actors may be part of a touring production. In terms of where self-employed artists choose to locate, scholars have shown that locational advantage has to do with the concentration of similar workers and industries (Markusen and Schrock, 2006). Becker (1982) provides the rationale for this type of “creative clustering” by describing the “network of people whose cooperative activity, organized via their joint knowledge of conventional means of doing things, produce(s) the kind of art works that art world is noted for” (p. x).

Frequent “moonlighting” among artists – where an artist will hold a job in addition to a regular full-time job – also makes self-employment for artists plausible (Alper & Wassall, 2000; Menger, 1999). In terms of how artists allocate their time, there are three distinct labor markets in which artists work: 1) the market for an artist’s creative work; 2) the market for “other arts-related work”; and 3) the non-arts labor market (Throsby, 2010). Of these three labor markets, the first (i.e., creative work) has been shown to be the most preferred among artists (Throsby & Hollister, 2003). Nevertheless, artists tend to toggle between markets in order to supplement income from arts-related work (Menger, 1999), or to secure workplace benefits not available through creative employment. If the income derived from an artist’s arts-related work is greater than from his non-arts labor work, he has a likelihood to be self-employed.

Within the economics and entrepreneurship literature, studies on self-employment choice differ on a range of factors. The self-employment choice literature includes both theoretical (e.g., Katz, 1992; Krueger & Brazeal, 1994) and empirical approaches, uses cross-sectional and longitudinal data, and incorporates objective and psychological determinants (e.g., Douglas &

Shepherd, 2002; Kolvereid, 1996a, 1996b). Within this literature, studies also differ by whether the self-employment choice is modeled as a transition from paid employment, unemployment, or both. This includes examining self-employment entrance (e.g., Guerra & Patuelli, 2014) as well as self-employment retention (e.g., Williams, 2004) (i.e., entrance and exit). Le (1999), de Wit (1993), and more recently, Simoes et al. (2016) provide surveys of this empirical literature from which we draw. For the most part, this study draws from previous empirical work that uses longitudinal data on the objective determinants of entering into self-employment from paid employment.

In estimating transitions to self-employment, longitudinal studies have included variables measuring educational attainment, labor market experience, liquidity constraints, and wage rates. In terms of educational attainment, some studies have found these measures to be insignificant in the self-employment choice equation (Van der Sluis et al., 2008). Others have found educational attainment to be a positive predictor of self-employment (Bates, 1995; Blanchflower, 2004; Blanchflower & Meyer, 1992; Kim, Aldrich, & Keister, 2006; Zissimopoulous, Karoly, & Gu, 2009). A smaller set of studies (e.g., Bruce, 1999) have found education to negatively affect self-employment. Within the set of studies that have found education to be a positive predictor of self-employment, there are various caveats. For example, Bates (1990) attributes the positive correlation between self-employment choice and educational experience to the availability of financial capital, and Evans and Jovanovic (1989) and Evans and Leighton (1989) also find that including capital in the model eliminates the effect of education. Bates (1995) argues that the impact of education is obscured when worker industry is not taken into account in empirical analyses (Blanchflower & Meyer, 1992).

Scholars have demonstrated the overall importance of labor market experience (Evans & Jovanovic, 1989; Lin, Picot, & Compton, 2000) on the propensity to be self-employed.

Individual studies' results differ based on the measure of experience used. Whereas age (and age-squared) are positively and significantly associated with the self-employment choice, actual measures of work experience are not.

The net worth of an individual, both in terms of her family and personal income, have shown to be positively and significantly associated with transitions to self-employment. The relationship between family net worth and self-employment is non-linear, such that individuals with higher family net worth may even be deterred from entering into self-employment. Further, wage matters in the self-employment decision. Lower wages are associated with a higher probability of selecting into self-employment (Evans & Jovanovic, 1989; Evans & Leighton, 1989).

Both longitudinal and cross-sectional studies have included other variables measuring basic individual characteristics and family background that have proved to be influential in the self-employment choice. Males in general have been shown to be much more likely to enter into self-employment in contrast to females (e.g., Blanchflower & Oswald, 1990; de Wit, 1993; de Wit & van Winden, 1989). Age is a positive predictor of self-employment; however, it generally exhibits an inverse U-shaped relationship with self-employment (Caliendo, Fossen, & Kritikos, 2014; Dunn & Holtz-Eakin, 2000; Fairlie, 1999). Being married tends to be a positive predictor in the self-employment choice equation (Ahn, 2010; Brown, Dietrich, Ortiz-Nunez, & Taylor, 2011; Eliasson & Westlund, 2013; Özcan, 2011; Taylor, 1996). Empirical studies of self-employment show mixed results between having children and self-employment propensity; however, a positive correlation predominates (Brown et al., 2011; Lin et al., 2000; Wellington,

2006). Finally, in studies about the U.S. labor market, race (i.e., being white) seems to positively affect an individual's self-employment propensity (Borjas & Bronars, 1989; Brock & Evans, 1986).

## **DATA**

As the previous section makes clear, the literature on self-employment determinants is divided between studies that use cross-sectional data and others that use longitudinal/panel data. Especially in regards to studies that use cross-sectional data, conclusions pertaining to the characteristics of individuals that influence their propensity to be self-employed are frequently countered based on methodological issues. For example, many studies examining the influence of education on self-employment propensity fail to address the endogeneity of education in the process of self-employment selection. If the variable measuring education is correlated with unobserved factors such as ability, then an instrumental variables technique is warranted (Block, Hoogerheide, & Thurik, 2013; Van der Sluis et al., 2008). Similarly, experience measures cannot adequately account for individual characteristics that influence occupational choice (Silva, 2007), again, leading to questions about the effect of labor market experience on self-employment propensity. The use of representative panel data helps eliminate many of the methodological concerns that studies utilizing cross-sectional data present.

To understand the motivating factors for workers choosing artist self-employment, we use panel-formatted data from the 2003 to 2015 Current Population Survey (CPS) March Basic Files. We confine ourselves to the period after 2002 because the CPS went through a number of changes at this time that more or less made data between 2003 and 2015 consistent. The CPS is conducted by the U.S. Census Bureau. The Basic Files are the primary source for labor statistics

in the U.S providing information on employment, earnings, and demographics for individuals in households from all fifty states and the District of Columbia.

The CPS data have frequently been used in a repeated cross-section format to study employment. This study exploits the longitudinal aspect of the CPS by linking individual level observations over a two-year ( $t$  and  $t - 1$ ) period (i.e., March to March). The data are linked using a unique person-level identifier created by IPUMS-CPS (Rivera Drew, Flood, & Warren, 2014).<sup>7</sup> As such, the panel dataset is completely balanced since each observation appears exactly twice. The CPS is conducted on a probability-selected sample of about 60,000 occupied households every month. Households are in the survey for four consecutive months, out for eight, and then return for another four months before leaving the sample permanently. The total linked sample in this study includes 610,520 observations each with two years of data for a total of thirteen years.

We identified artists using a distinct set of codes from the Standard Occupational Classification (SOC) system. SOC codes are used extensively by U.S. Federal agencies to collect and disseminate data on occupations. The method for identifying artists in this study is identical to the methods used in various reports published by the National Endowment for the Arts (National Endowment for the Arts 2008; National Endowment for the Arts 2011). Table 1 provides a list of the SOC codes and artist occupations that are included in this study.

[INSERT TABLE 1 HERE]

In this study, an artist is a worker who identifies in an artist occupation and is not unemployed. Overall, artists make up about 1% of the entire sample. The Census classifies

---

<sup>7</sup> The retention rate of observations in the non-linked CPS sample between 2009 and 2010 is between 74.7% and 78.8% according to Rivera Drew, Flood, and Warren (2014).

artists as “professional and related occupations”; as such, we run regressions that predict entry into arts-related and (non-arts) professional-related self-employment and compare results between the two sets of models.<sup>8</sup> Professional workers, in general, have been shown to have high rates of self-employment compared to other categories of workers (Evans & Leighton, 1989). Overall, all other professional workers (not including artists) make up about 22.8% of the sample.

To measure self-employment, we identified workers in the CPS who indicated being self-employed (i.e., incorporated or unincorporated<sup>9</sup>). Conversely, we defined paid employment by identifying individuals who indicated working for wages or a salary in either the private nonprofit or for-profit sectors, or in government as a federal, state, or local government employee. In total, the sample includes 37.4% of self-employed artists in either period, or both. This compares to 13.1% for all other professional workers.

We first examine overall trends in self-employment for artists and all other professional workers in order to understand how these worker groups compare to others. Hipple (2010) illustrates that while the unincorporated self-employment rate for the U.S. labor force has consistently fallen since at least 1995, rates among specific types of workers have varied.

[INSERT FIGURE 1 HERE]

---

<sup>8</sup> See <http://www.bls.gov/tus/census10ocodes.pdf> for a list of occupations in the “professional and related occupations” major category.

<sup>9</sup> “Incorporated” self-employed individuals refer to workers who work for themselves in a corporate entity, whereas “unincorporated” self-employed individuals refer to work who work for themselves in other legal entities (Hipple, 2010).

Figure 1 shows that for artists the self-employment rate increased between 2003 and 2015; yet for all other professionals the rate tended downwards. Particularly between 2008 and 2011 – the period known as the “Great Recession” (NBER, 2010) – the self-employment rate increased among artist workers.

Trends in self-employment typically relate to shifts in industry. For example, the decline in the share of agricultural self-employment since the late 1960s has been associated with the emergence of large farming operations and the decline in small agricultural businesses (Hipple, 2010). Self-employment rates among construction workers tend to mirror the cyclical nature of the housing market. In other words, workers may shift their behavior (i.e., self-employment versus paid employment) depending on the availability of opportunities in the market (Rissman, 2003). Table 2 illustrates that between 2008 and 2011, the number of employed artists decreased. Further, the percentage of artists no longer in the labor force increased. Thus, the self-employment rate in these years appears to be partly a function of the declining number of working artists, which reflects the lack of opportunities for paid employment in the arts.

[INSERT TABLE 2 HERE]

Transitions to self-employment are defined by identifying workers who indicated being in a paid employment (i.e., arts and non-arts) in the first period ( $t-1$ ) and in a self-employed arts occupation in the second period ( $t$ ).<sup>10</sup> As such, artists can move into self-employed arts work from either arts or non-arts paid employment. Similarly, professionals can move into self-employed professional occupations from either professional-related or non-professional related

---

<sup>10</sup> In this study, we do not include workers who transitioned from unemployment to self-employment.

paid employment. A very small percentage of workers in paid employment switch into self-employed arts occupations – approximately 0.1%. For professionals, approximately 1.0% of paid employees transition into self-employed professional occupations.

Already, we start to see differences between self-employment behavior among artists and all other professionals. If transition rates were proportional to workforce size, we would expect about twenty-three times as many employees transitioning to self-employed (non-arts) professional work than into self-employed arts work. Yet workers transitioning to independent professional contractors outnumber those transitioning to become freelance artists by only a factor of ten. This implies that artists' much higher equilibrium rates of self-employment than other professionals (see Figure 1) accompany disproportionately high rates of entry (and exit) into freelance arts work.

The likelihood of transitioning into a self-employed arts occupation also varies with occupational status. Overall, about 7.5% of workers who transition into self-employed arts occupations come from arts-related paid employment and the remainder come from non-arts paid employment. As Figure 2 shows, the percentage of workers transitioning from arts-related paid employment appears to have slightly increased throughout the recession suggesting that a contraction of the artist labor market may have led some workers to opt for self-employment in the arts instead.

[INSERT FIGURE 2 HERE]

## **METHODS AND RESULTS**

We estimated a series of panel logit models to predict self-employment in  $t$  based on characteristics in  $t - 1$  among employed workers. We ran the models predicting both transitions to self-employed arts occupations and self-employed professional occupations (excluding artists). We used the following model to make these estimations:

$$Y_{it} = \beta x_{it-1} + \alpha(\text{male} * \text{married})_{it-1} + \varepsilon_{it-1}$$

The dependent variable is a dichotomous indicator equal to one if a worker switched from any paid employment occupation in  $t - 1$  to self-employment in  $t$ , and 0 if a worker remained in paid employment in both periods. We ran separate models to predict the propensity to transition to arts- or professional-related self-employment. We regressed the dependent variable on a vector of worker characteristics including age ( $age$ ), age squared ( $age^2$ ), gender ( $male$ ), marital status ( $married$ ), college degree attainment ( $college$ ), Hispanicity ( $hispanic$ ), race ( $white$ ), whether the worker has children (any ( $child$ ) and under the age of 5 ( $childU5$ )), family size ( $famsize$ ), and urban status ( $city$ ). We also included explanatory variables that helped account for job characteristics in  $t - 1$  including the log of weekly earnings ( $earnweek$ ), the total number of weekly hours worked (all ( $hrswork all$ ) and in the worker's main job ( $hrswork main$ ), membership in a union ( $union$ ), and status working part-time ( $part$ ) and holding more than one job ( $multijobs$ ). Finally, we included variables that control for market effects including the proportion of arts workers in the workforce ( $artshare$ ), and regional unemployment rates ( $unemprrt$  and  $dunemprrt$ ), whether or not the state has a homestead exemption law ( $homestead$ )<sup>11</sup>,

---

<sup>11</sup> Fan and White (2002) identify a positive relationship between homestead exemptions and entrepreneurial activity, whereas, Cumming (2013) identifies mixed relations dependent on exemption levels.

and an indicator (*recess*) for whether the observation ( $t - 1$ ) occurs during the Great Recession. Table 3 provides a definition of each variable and how it was constructed. Table 4 lists summary statistics for independent and dependent variables, and correlations between variables are presented in Table 5. Finally, we included an interaction effect between gender and marital status to understand whether the propensity to transition into self-employment varies among married men and women.<sup>12</sup> Models predicting transitions into self-employed arts work include dummies for each artist occupation (*occ*) and all models include year dummies. All models were run as panel data models and utilize robust standard errors with sampling weights from the CPS.

[INSERT TABLE 3 HERE]

[INSERT TABLE 4 HERE]

Table 5 reports marginal effects and standard errors for all explanatory variables in models predicting transitions for arts switchers (models 1 and 2) and for professional switchers (models 3 and 4). The following variables increase the likelihood of a worker transitioning into a self-employed artist occupation in a given year: *male*, *married*, *college*, *white*, *part*, *multijobs*, *city*, and *artshare*. The effect on the interaction variable between gender and marital status is negative and significant. In other words, relative to single females (the omitted category),

---

<sup>12</sup> Previous research has shown that not only are females less likely to persist as artists (Alper & Wassall, 1998), but also that after marriage, they are less likely to be self-employed. An alternative view is that females opt into self-employment after marriage to pursue part-time work (Simoes et al., 2016). Since artist work is often part-time, we would expect that married women would be more likely to opt into self-employment over married men since it could provide an avenue for persisting as an artist.

married workers have somewhat greater propensity to switch to self-employment in the arts, and single men are even more likely.

[INSERT TABLE 5 HERE]

Marginal effects for variables predicting transitions into professional-related self-employment bring to light some interesting similarities and differences between the characteristics that are associated with workers' selection into arts-related versus all other professional-related self-employed occupations. Similar to models predicting transitions into self-employed arts work, the effects of gender, being married, having a college degree, being white, having a part-time job, and having more than one job are all positive and significant. On the contrast, living in a city did not have a significant effect on propensity to select into professional-related self-employment, whereas it did for selecting into arts-related self-employment. Further, models predicting transitions into professional-related self-employment had additional significant predictors, including age (positive relationship), Hispanicity (negative relationship), having children (any (negative) and under five (positive)), working more hours (positive), and being part of a union (negative). None of these effects proved to be significant in predicting transitions into arts-related self-employment.

The economic significance of several predictor variables in the self-employment choice models deserve emphasis as well. By far, the strongest effect was the influence living in a city has on the probability of choosing into arts-related self-employment. A one standard deviation increase in the city variable is associated with a 0.04 percentage point increase in the probability of switching to arts-related self-employment, or an increase of about 53 percent. Similarly, a one

standard deviation increase in the share of artists in the local workforce is associated with a .02 percentage point increase in the probability of switching to arts-related self-employment, or an increase of about 30 percent. In general, demographic characteristics, including gender, marital status, and education, of workers had greater economic significance for selection into professional-related self-employment than arts-related self-employment. Nevertheless, the economic significance of working part-time and holding multiple jobs was greater for selecting into arts-related self-employment than professional-related self-employment.

## DISCUSSION

The first contribution of this research is empirical evidence on the labor market transitioning of professionals into self-employment, especially for creative occupations like artists. The results paint a rich picture of the high degree of self-employment of artists, and some interesting patterns of switching into self-employed arts work. Relative to other professional occupations, artists freelance at a much higher rate, and have a greater share of workers switching into (and thus also out of) freelance in any given year. In short, artists disproportionately freelance *and* have a disproportionate “churn” through freelance status.

“Churning” may be related to labor market contractions for artists. Notably, the Great Recession did not appreciably affect transition rates for these arts and professional occupations, in line with Figure 1. The recessionary increase in (unconditional) self-employed artists in Figure 1 is not so much do to with an increased propensity for workers to switch into freelance artist occupations. Rather, the results here imply a slower rate of switching *out of* freelance artist work during the recession (into either paid employment or unemployment), perhaps due to firms hiring fewer artists during the economic downturn.

Further, when a worker moves into an artist occupation, they are more likely to opt for self-employment than workers switching out of (or remaining in) artist occupations suggesting that new artists often find self-employment a promising avenue at first. Workers leaving artist occupations tend to opt for paid employment than other artist occupations (those moving into or staying in), consistent with the idea that artists often leave arts occupations to obtain the stability of paid employment even if they are non-arts jobs.

The self-employment choice models show patterns that are consistent with the self-employment determinants literature for all professions, as well as some very interesting differences for artist occupations specifically. As with other professional occupations, workers opting for arts-related self-employment since 2003 have tended to be male, married, college-educated, white, and part-time workers with multiple jobs. Among these particular explanatory variables, the effects are in line with the theoretical expectations (e.g., Simoes et al. 2015). Likewise, earnings do not significantly influence the transition rates for artists or other professionals, although that result might be mostly due to poorly estimated earnings in the CPS. Previous studies estimating the effect of wage on self-employment propensity have tended to use either personal income or the minimum wage as measures (Blanchflower & Meyer, 1992; Blau, 1997; Evans & Jovanovic, 1989; Evans & Leighton, 1989), and not weekly earnings as we have done here. Further, wage does not eliminate the effect of education in our models as the previous literature would also suggest (Bates, 1990; Evans & Jovanovic, 1989; Evans & Leighton, 1989).

We learn about the unique profiles of artist entrepreneurs through examining demographic and work behavior differences between workers transitioning into arts-related self-employment and professional-related self-employment. Overall, demographic characteristics tend to matter less for workers transitioning into self-employed arts work than for all other

professionals suggesting that creative workers may be inherently different than other worker types. For example, age, which commonly reflects job experience, is a key influencer of self-employment among professionals. For artists, age is not related to propensity to be self-employed suggesting that traditional work experience is not a prerequisite for self-employment among creative workers. It is either that creative work is particularly well suited to entrepreneurship (Barry, 2011; Lindqvist, 2011) or that creativity is not a function of experience, but of an innate ability possessed by creative workers. Relatedly, the influence of a college degree on self-employment has greater economic significance for professional workers than for artists suggesting that creativity might not be taught, but is rather unleashed through entrepreneurship.

Further, on average, workers' marital status is far more influential for transitions into professional self-employed work than for artists suggesting that artists are inherently riskier individuals and do not regularly rely on spousal support for entrepreneurial ventures. Conversely, self-employment may actually provide avenues for married females to persist as an artist, which is illustrated by the significant effect on the interaction term in the model predicting self-employed arts work. Given that this interaction term is not significant in the model predicting self-employed professional work, nor does previous work on self-employment determinants illustrate this phenomenon, promoting entrepreneurship as an access medium for female representation in the labor market can be a key distinguishing feature of the creative sector.

This study also provides evidence that "hybrid entrepreneurship" might be a useful medium for artist workers to eventually pursue arts-related self-employment as their primary occupation. Hybrid entrepreneurship is when individuals in paid employment are simultaneously making efforts to launch ventures (Folta et al., 2017). While the nature of the CPS data prevent

us from understanding the types of entrepreneurial work being done alongside paid employment, it does allow us to observe whether workers engage in part-time work or hold multiple jobs prior to selecting into self-employment as a primary occupation. For workers switching into arts-related self-employment, the economic significance of part-time work and multiple job holding as a determinant is greater than for workers switching into professional-related self-employment, especially since hybrid entrepreneurship is linked to high-growth ventures (Folta et al., 2017) and business sustainability (Rafiee & Feng, 2014).

The two results that stand out involve *city* – a very strong influence for artists but not for other professionals – and *artshare*. Being in a metropolitan market is key for supporting these artistic freelancers (especially markets saturated with other artists) far more than it is relevant to becoming an independent professional contractor. Previous work has long pointed to the importance of networks in facilitating artistic production in given industries (e.g., Becker, 1982). We now have evidence that particular geographic locations defined by their artist worker concentration enhance the probability of artistic entrepreneurship as well. In other words, agglomeration economies not only exist to create synergies between firms in one industry, but entrepreneurship in industries can be stimulated by co-locating individuals with similar occupational goals.

## **LIMITATIONS AND FUTURE RESEARCH**

While these findings are promising, they are limited by the nature of the data. First, we restrict the analysis to look at employed artists, which limits our ability to speak to switching to or from unemployment and exiting or entering the labor market altogether. Second, while the CPS is one of the more time-tested sources of data available in the U.S., it lacks a longer-term

panel coverage for the workers (i.e., we only see year-over-year changes) and better details about earnings. Furthermore, the CPS data lack convincing candidates for exogenous instruments that might address potential endogeneity in some variables. A cross-sectional analysis of self-employment status would surely be plagued by endogeneity bias in the explanatory variables. By linking consecutive years of the CPS, we can instead explain switching into arts-related self-employment with prior conditions or lagged variables and mitigate concerns about simultaneity bias. Nevertheless, the identification strategy still relies on the assumption that, conditional on all the controls in the models, an individual's unobserved propensity to switch to self-employment is uncorrelated with our lagged independent variables. Possibly, workers select their location, family status, or hours worked going into year  $t-1$  in anticipation of their future switch to self-employment. The remaining risk of endogeneity bias here recommends some caution in interpreting these results causally.

The risk of endogeneity bias is particularly concerning for implications of artist workers' relations to economic development as suggested in various other studies (e.g. Florida, 2002, 2003), but for which there is scant evidence of causality (e.g., Glaeser, 2005). While the models in this study do not explicitly test artist workers' relationship to economic development, the models implicitly suggest that the presence of artist workers is a factor in the employment dynamics in cities by including measures of urban location and artist occupation concentration as explanatory variables. It is important, therefore, to emphasize that the results indicating significant associations between transitions to self-employment and artist workers' location in a city and among other artist workers are not indicative of a causal relationship between artists and economic growth. The results in this study simply add to the debate on whether artists and

creative workers play a role in the economic development of urban areas, especially given the limitations in this study's causal identification strategy.

The early results from this study suggest avenues for future research that have implications for policy design to help stimulate entrepreneurship. First, artist entrepreneurs provide a lens for other occupations that might favor entrepreneurship, but fail to respond to policies meant to stimulate entrepreneurship based on what we know about the typical entrepreneur. For example, artists represent a sufficient share of the economy, especially the emerging self-employed "gig" (Katz & Krueger, 2016), or "platform" (Kenney & Zysman, 2015) economies. If and as digital platforms and other changes foster more "gig"-style work, a closer inspection of occupations with historically high self-employment rates highlights how the self-employment landscape may change. Second, with a better understanding of the nature of specific occupations that have a greater tendency to be entrepreneurs, we can implement policies that lead to outcomes that are more efficient. In other words, by prioritizing some occupations over others in providing opportunities for entrepreneurship, policies can have substantial impacts on the benefits of entrepreneurship. Third, examining entrepreneurial trajectories for specific occupations can inform policies that create employment flexibility that in turn facilitates entrepreneurship. Finally, examining variations in entrepreneurial activity among occupations can help in defining what it means to be an entrepreneur. As the results in this study show, traditional notions of what motivates entrepreneurs may not be generalizable. Therefore, the benefits of entrepreneurship might differ across occupations as well. In-depth analysis of the unique trajectories of entrepreneurs can not only elucidate the different roads workers take to self-employment, but it can also start to uncover the value added from specific occupations.

## REFERENCES

- Agrawal, A., Catalini, C., & Goldfarb, A. (2010). Entrepreneurial finance and the flat-world hypothesis: Evidence from crowd-funding entrepreneurs in the arts. NET Institute Working Paper 10-08.
- Ahn, T. (2010). Attitudes toward risk and self-employment of young workers. *Labour Economics*, 17, 434–442.
- Alper, N.O., & Wassall, G.H. (1998). Artists' labor market experiences: A preliminary analysis using longitudinal data. In Merja Heikkinen and Tuulikki Koskinen (Eds.), *Economics of Artists and Arts Policy*. Arts Council of Finland, Helsinki
- Alper, N. O., & Wassall, G.H. (2000). *More than once in a blue moon: Multiple jobholdings by American artists*. Research Division Report #40. Washington, D.C.: National Endowment for the Arts.
- Alper, N. O., & Wassall, G.H. (2006). Artists' careers and their labor markets. In Victor A. Ginsburg and David Throsby (Eds.), *Handbook of the Economics of Art and Culture* (pp. 813–64). Amsterdam: North-Holland.
- Atkinson, R., & Easthope, H. (2009). The consequences of the creative class: The pursuit of creativity strategies in Australia's cities. *International Journal of Urban and Regional Research*, 33, 64-79.
- Barry, D. (2011). Art and entrepreneurship, apart and together. In M. Scherdin and I. Zander (Eds.), *Art entrepreneurship* (pp. 154-168). Cheltenham, U.K and Northampton, MA.: Edward Elgar.
- Bates, T. (1990). Entrepreneur human capital inputs and small business longevity. *The Review of Economics and Statistics*, 72, 551–59.

- Bates, T. (1995). Self-employment entry across industry groups. *Journal of Business Venturing*, 10, 143–156.
- Baumol, W.J., & Bowen, W.G. (1966). *Performing arts: The economic dilemma*. New York: Twentieth Century Fund.
- Becker, H.S. (1982). *Art worlds*. Berkeley and Los Angeles, CA: University of California Press.
- Blanchflower, D. (2004). Self-employment: More may not be better. *Swedish Economic Policy Review*, 11, 15–74.
- Blanchflower, D.G., & Meyer, B. (1992). A longitudinal analysis of young entrepreneurs in Australia and the United States. In R. G. Gregory and T. Karmel (Eds.), *Youth in the Eighties, Papers from the Australian Longitudinal Survey Research Project* (pp. 63-96). Canberra: DEET and Centre for Economic Policy Research, Australian National University.
- Blanchflower, D. G., & Oswald, A. (1990). What makes a young entrepreneur? Centre for Labour Economics, London School of Economics, Discussion Paper, No. 373. London.
- Blanchflower, D., & Oswald, A. (1998). What makes an entrepreneur? *Journal of Labor Economics*, 16, 26–60.
- Block, J., Hoogerheide, L., & Thurik, R. (2013). Education and entrepreneurial choice: An instrumental variables analysis. *International Small Business Journal*, 31, 23–33.
- Blau, D.M. (1987). A time-series analysis of self-employment in the United States. *Journal of Political Economy*, 95, 445–467.
- Blumberg, B.F., & Pfann, G.A. (2016). Roads leading to self-employment: comparing transgenerational entrepreneurs and self-made start-ups." *Entrepreneurship Theory and Practice*, 40, 335-357.

- Borjas, G. J., & Bronars, S. G. (1989). Consumer discrimination and self-employment. *Journal of Political Economy*, 97, 581–605.
- Brock, W. A., & Evans, D. S. (1986). *The economics of small businesses: Their role and regulation in the US economy*. New York: Holmes & Meier.
- Brown, S., Dietrich, M., Ortiz-Nuñez, A., & Taylor, K. (2011). Self-employment and attitudes towards risk: Timing and unobserved heterogeneity. *Journal of Economic Psychology*, 32, 425–433.
- Bruce, D. (1999). Do husbands matter? Married women entering self-employment. *Small Business Economics*, 13, 317–329.
- Butler, D. (2000). Studies of artists: An annotated directory. Working Paper #12. Princeton, NJ: Center for Arts and Cultural Policy Studies.
- Caliendo, M., Fossen, F., & Kritikos, A. (2014). Personality characteristics and the decision to become and stay self-employed. *Small Business Economics*, 42, 787–814.
- Chlosta, S., Patzelt, H., Klein, S., & Dormann, C. (2012). Parental role models and the decision to become self-employed: The moderating effect of personality. *Small Business Economics*, 38, 121–138.
- Cumming, D. (2013). Public policy, entrepreneurship, and venture capital in the United States. *Journal of Corporate Finance*, 23, 345-367.
- Currid, E. (2007). How art and culture happen in New York: Implications for urban economic development. *Journal of the American Planning Association*, 73, 454-467.
- Donegan, M., Drucker, J., Goldstein, H., Lowe, N., & Malizia, E. (2008). Which indicators explain metropolitan economic performance best? Traditional or creative class? *Journal of the American Planning Association*, 74, 180-195.

- Douglas, E.J., & Shepherd, D.A. (2002). Self-employment as a career choice: Attitudes, entrepreneurial intentions, and utility maximization. *Entrepreneurship Theory and Practice*, 26, 81-90.
- Dunn, T., & Holtz-Eakin, D. (2000). Financial capital, human capital, and the transition to self-employment: Evidence from intergenerational links. *Journal of Labor Economics*, 18, 282–305.
- Eliasson, K., & Westlund, H. (2013). Attributes influencing self-employment propensity in urban and rural Sweden. *The Annals of Regional Science*, 50, 479–514.
- Essig, L. (2015). Means and ends: a theory framework for understanding entrepreneurship in the US arts and culture sector. *The Journal of Arts Management, Law, and Society*, 45, 227-246.
- Evans, D.S., & Jovanovic, B. (1989). An estimated model of entrepreneurial choice under liquidity constraints. *Journal of Political Economy*, 97, 808–27.
- Evans, D.S., & Leighton, L.S. (1989). Some empirical aspects of entrepreneurship. *The American Economic Review*, 79, 519–35.
- Fan, W., & White, M.J. (2002). Personal bankruptcy and the level of entrepreneurial activity. The National Bureau of Economic Research, NBER Working Paper No. 9340.
- Fairlie, R. (1999). The absence of the African-American owned business: An analysis of the dynamics of self-employment. *Journal of Labor Economics*, 17, 80–108.
- Filer, R.K. (1990). Arts and academe: The effect of education on earnings of artists. *Journal of Cultural Economics*, 14, 15–40.

- Flood, S., King, M., Ruggles, S., & Warren, J.R. (2015). *Integrated Public Use Microdata Series, Current Population Survey: Version 4.0*. [Machine-readable database].  
Minneapolis: University of Minnesota.
- Florida, R. (2002). *The rise of the creative class: And how it's transforming work, leisure, community and everyday life*. New York: Basic.
- Florida, R. (2003). Entrepreneurship, creativity, and regional economic growth. In D.M. Hart (Ed.), *The emergence of entrepreneurship policy: Governance, start-ups, and growth in the U.S. knowledge economy* (pp. 39-58). Cambridge, U.K.: Cambridge University Press.
- Fölster, S. (2000). Do entrepreneurs create jobs? *Small Business Economics*, 14, 137.
- Folta, T.B., Delmar, F., & Wennberg, K. (2010). Hybrid entrepreneurship. *Management Science*, 56, 253-269.
- Glaeser, E.L. (2005). *Review of Richard Florida's The Rise of the Creative Class*. Retrieved from [https://scholar.harvard.edu/files/glaeser/files/book\\_review\\_of\\_richard\\_floridas\\_the\\_rise\\_of\\_the\\_creative\\_class.pdf](https://scholar.harvard.edu/files/glaeser/files/book_review_of_richard_floridas_the_rise_of_the_creative_class.pdf).
- Grodach, C. (2013). Cultural economy planning in creative cities: Discourse and practice. *International Journal of Urban and Regional Research*, 37, 1747-1765.
- Grodach, C., & Loukaitou-Sideris, A. (2007). Cultural development strategies and urban revitalization: A survey of US cities. *International Journal of Cultural Policy*, 13, 349-370.
- Guerra, G., & Patuelli, R. (2014). The role of job satisfaction in transitions into self-employment. *Entrepreneurship Theory and Practice*, 40, 543-571.
- de Guillet, M. (2000). The art management of aesthetic organizing. In S. Linstead and H. Hopfl (Eds.), *The aesthetics of organization*. London: Sage.

- Hipple, S.F. (2010). *Self-employment in the United States*. Monthly Labor Review. Washington D.C.: United States Department of Labor, Bureau of Labor Statistics.
- Jovanovic, B. (1982). Selection and the evolution of industry. *Econometrica*, 50, 649–70.
- Katz, J.A. (1992). A psychosocial cognitive model of employment status choice. *Entrepreneurship Theory and Practice*, 17, 29-37.
- Katz, L.F., & Krueger, A.B. (2016). The Rise and Nature of Alternative Work Arrangements in the United States. Retrieved from [https://krueger.princeton.edu/sites/default/files/akrueger/files/katz\\_krueger\\_cws\\_-\\_march\\_29\\_20165.pdf](https://krueger.princeton.edu/sites/default/files/akrueger/files/katz_krueger_cws_-_march_29_20165.pdf).
- Kenney, M., & Zysman, J. (2015). *Choosing a Future in the Platform Economy: The Implications and Consequences of Digital Platforms*. Discussion paper at Kauffman Foundation New Entrepreneurial Growth Conference, Amelia Island, Florida.
- Kim, P., Aldrich, H. & Keister, L. (2006), Access (not) denied: The impact of financial, human, and cultural capital on entrepreneurial entry in the United States. *Small Business Economics*, 27, 5–22.
- Kolvereid, L. (1996a). Organizational employment versus self-employment: Reasons for career choice intentions. *Entrepreneurship: Theory and Practice*, 20, 23-31.
- Kolvereid, L. (1996b). Prediction of employment status choice intentions. *Entrepreneurship: Theory and Practice*, 21, 47-57.
- Krueger, N. F., & Brazeal, D.V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory and Practice*, 18, 91-104.
- Lazear, E. (2005). Entrepreneurship. *Journal of Labor Economics*, 23, 649–680.

- Le, A.T. (1999). Empirical studies of self-employment. *Journal of Economic Surveys* 13, 381–416.
- Lin, Z., Picot, G., & Compton, J. (2000). The entry and exit dynamics of self-employment in Canada. *Small Business Economics* 15, 105–125.
- Lindqvist, K. (2011). Artist entrepreneurs. In M. Scherdin and I. Zander (Eds.), *Art entrepreneurship* (pp. 10-22). Cheltenham, U.K and Northampton, MA.: Edward Elgar.
- Markusen, A. (2004). Targeting Occupations in Regional and Community Economic Development. *Journal of the American Planning Association*, 70, 253–268.
- Markusen, A. (2006). Urban development and the politics of a creative class: Evidence from a study of artists. *Environment and planning A*, 38, 1921-1940.
- Markusen, A., & Gadwa, A. (2010). Arts and culture in urban or regional planning: A review and research agenda. *Journal of Planning Education and Research*, 29, 379-391.
- Markusen, A., & Schrock, G. (2006). The artistic dividend urban artistic specialization and economic development implications. *Urban Studies*, 43, 1661-1686
- Markusen, A., Wassall, G. H., DeNatale, D., & Cohen, R. (2008). Defining the Creative Economy: Industry and Occupational Approaches. *Economic Development Quarterly*, 22, 24–45.
- Menger, P.M. (1999). Artistic labor markets and careers. *Annual Review of Sociology*, 25, 541–74.
- Menger, P.M. (2006). “Artistic labor markets: Contingent work, excess supply and occupational risk management.” In Victor Ginsburgh A. and David Throsby (Eds.), *Handbook of the Economics of Art and Culture* (pp. 766–811). Amsterdam: North-Holland.

- National Bureau of Economic Research (NBER). (2010). US Business Cycle Expansions and Contractions. Retrieved from <http://www.nber.org/cycles.html>.
- National Endowment for the Arts. (2008). *Artists in the workforce: 1990-2005*. Research Report #48. Washington, D.C.: National Endowment for the Arts.
- National Endowment for the Arts. (2011). *Artists and arts workers in the United States: Findings from the American Community Survey (2005-2009) and the Quarterly Census of Employment and Wages*. NEA Research Note #105. Washington, D.C.: National Endowment for the Arts.
- Özcan, B. (2011). Only the lonely? The influence of the spouse on the transition to self-employment. *Small Business Economics*, 37, 465–492.
- Rafiee, J., & Feng, J. (2014). Should I quit my day job? A hybrid path to entrepreneurship. *Academy of Management Journal*, 57, 936-963.
- Rissman, E. (2003). Self-employment as an alternative to unemployment. Federal Reserve Bank of Chicago Working Paper No. 2003-34.
- Rivera Drew, J.A., Flood, S., & Warren, J.R. (2014). Making full use of the longitudinal design of the Current Population Survey: Methods for linking records across 16 Months. *Journal of Economic and Social Measurement*, 39, 121-144.
- Robinson, M.D., & Montgomery, S.S. (2000). The time allocation and earnings of artists. *Industrial Relations: A Journal of Economy and Society*, 39, 525–34.
- Santos, F. P. (1976). Risk, uncertainty and the performing artist. In Mark Blaug (Ed.), *The Economics of the Arts* (pp. 243–59). London: Martin Robinson.
- Scherdin, M., & Zander, I. *Art entrepreneurship*. Cheltenham, U.K and Northampton, MA.: Edward Elgar.

- Schumpeter, J.A. (1934). *The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle*. Harvard University Press. Cambridge, MA.
- Schumpeter, J.A. (1942). *Capitalism, socialism and democracy*. New York and London: Harper and Brothers.
- Silva, O. (2007). The Jack-of-All-Trades entrepreneur: Innate talent or acquired skill? *Economics Letters*, 97, 118–123.
- Simoës, N., Crespo, N., & Moreira, S.B. (2016). Individual determinants of self-employment entry: What do we really know? *Journal of Economic Surveys*, 30, 783–806.
- Stohs, J. (1991a). Intrinsic motivation and sustained art activity among male fine and applied artists. *Creativity Research Journal*, 5, 245–52.
- Stohs, J. (1991b). Moving beyond women's career choices: Factors associated with career continuity among female former art students. *Journal of Career Development*, 18, 92–105.
- Taylor, M. (1996). Earnings, independence or unemployment: Why become self-employed? *Oxford Bulletin of Economics and Statistics*, 58, 253–266.
- Throsby, D. (1994). A work-preference model of artist behaviour. In Alan Peacock and Ilde Rizzo (Eds.), *Cultural Economics and Cultural Policies* (pp. 69–80). Netherlands: Kluwer Academic Publishers.
- Throsby, D. (2006). An artistic production function: Theory and an application to Australian visual artists. *Journal of Cultural Economics*, 30, 1–14.
- Throsby, D. (2010). Economic analysis of artists' behaviour: Some current issues. *Revue d'économie Politique*, 120, 47–56.

- Throsby, D., & Hollister, V. (2003). Don't give up your day job: An economic study of professional artists in Australia. Australia Council for the Arts.
- Van der Sluis, J., Van Praag, M., & Vijverberg, W. (2008) Education and entrepreneurship selection and performance: a review of the empirical literature. *Journal of Economic Surveys*, 22, 795–841.
- Wassall, G.H., & Alper, N.O. (1992). Toward a unified theory of the determinants of the earnings of artists. In Ruth Towse and Abdul Khakee (Eds.), *Cultural Economics* (pp. 187–200). Berlin: Springer.
- Wellington, A. (2006). Self-employment: The new solution for balancing family and career. *Labour Economics*, 13, 357–386.
- Williams, D.R. (2004). Effects of childcare activities on the duration of self-employment in Europe. *Entrepreneurship Theory and Practice*, 28, 467-485.
- Wijnberg, N., & Gemser, G. (2000). Adding value to innovation: Impressionism and the transformation of the selection system in visual arts. *Organization Science*, 11, 323-329.
- de Wit, G. and van Winden, F. (1989). An empirical analysis of self-employment in the Netherlands. *Small Business Economics*, 1, 263–272.
- de Wit, G. (1993). Models of self-employment in a competitive market. *Journal of Economic Surveys*, 7, 367–97.
- Wittkower, R., & Wittkower, M. (1964). *Born under Saturn: the character and conduct of artists*. New York: Random House.
- Zimmerman, J. (2008). From brew town to cool town: Neoliberalism and the creative city development strategy in Milwaukee. *Cities*, 25, 230-242.

Zissimopoulos, J., Karoly, L., & Gu, Q. (2009). Liquidity constraints, household wealth, and self-employment: the case of older workers. RAND Working Papers WR-725, RAND Corporation Publications Department, California.

## TABLES

Table 1. List of Standard Occupational Classification (SOC) Codes and Arts Occupations

SOC Codes	Arts Occupations
1300	Architects, except naval
2600	Artists and related workers
2630	Designers
2700	Actors
2710	Producers and directors
2740	Dancers and choreographers
2750	Musicians, singers, and related workers
2760	Entertainers and performers, sports and related workers, all other
2800	Announcers
2850	Writers and authors
2910	Photographers

Source: Bureau of Labor Statistics, United States Department of Labor

Table 2. Labor Force and Unemployment Totals and Rates for Artist Workers, 2003-2015

Year	In Labor Force	Not in Labor Force (NILF)	NILF Rate	Employed	Unemployed	Unemployment Rate
2003	835093	6426	0.8%	784338	50755	6.1%
2004	1632654	15284	0.9%	1543177	89477	5.5%
2005	1696786	17815	1.0%	1615355	81431	4.8%
2006	1609000	16412	1.0%	1560896	48104	3.0%
2007	1693503	23733	1.4%	1629563	63940	3.8%
2008	1684268	6778	0.4%	1630131	54137	3.2%
2009	1612415	19790	1.2%	1492412	120003	7.4%
2010	1679146	25717	1.5%	1507064	172082	10.3%
2011	1661180	14942	0.9%	1500549	160631	9.7%
2012	1714023	12958	0.8%	1597208	116815	6.8%
2013	1633886	6560	0.4%	1504768	129118	7.9%
2014	1587569	13751	0.9%	1481077	106492	6.7%
2015	783717	6292	0.8%	727130	56587	7.2%

Source: Current Population Survey, (March) Basic Files, U.S. Census Bureau

Table 3. Methods of Construction for Variables

Model Variable	IPUMS-CPS Variable(s)*	Method of Construction
self-employed	classwkr, empstat	= 1 if classwkr = (10, 13, 14) & 01 ≤ empstat ≤ 20 = 0 if 20 ≤ classwkr ≤ 28 & 01 ≤ empstat ≤ 20
earnweek	earnweek	= missing if earnweek ≥ 2884.60
age	age	N/A
male	sex	= 1 if sex = 1 = 0 if sex = 2
married	marst	= 1 if marst = (1, 2) = 0 if 3 ≤ marst ≤ 7
college	educ	= 1 if 111 ≤ educ ≤ 125 = 0 if educ ≤ 111 & educ ≠ 001
hispanic	hispan	= 1 if 100 ≤ hispan ≤ 500 = 0 if hispan = 000
white	race	= 1 if race = 100 = 0 if 100 < race ≤ 830
child	nchild	= 1 if 0 < nchild ≤ 9 = 0 if nchild = 0
childU5	nchlt5	= 1 if 0 < nchlt5 ≤ 9 = 0 if nchlt5 = 0
famsize	famsize	N/A
hrswork all	uhrsworkt	= missing if uhrsworkt ≥ 168
hrswork main	uhrswork1	= missing if uhrswork1 ≥ 168
union	union	= 1 if union = (2,3) = 0 if union = 1
part	wkstat	= 1 if wkstat = (12, 20, 21, 22, 40, 41) = 0 if wkstat = (10, 11, 14, 15)
multijobs	multjob	= 1 if multjob = 2 = 0 if multjob = 1
recess	year	= 1 if year = (2008, 2009, 2010) = 0 if 2003 ≤ year ≤ 2007 & 2011 ≤ year ≤ 2015
city	metro	= 1 if metro = 2 = 0 if metro = (1, 3)
occ	occ	= 1 if occ = (1300, 2600, 2630, 2700, 2710, 2740, 2750, 2760, 2800, 2850, 2910) = 0 otherwise

Note: \*See Flood, King, Ruggles, & Warren (2015) for definitions of IPUMS-CPS variables.

Table 4. Summary Statistics

	Mean	Standard Deviation	Median	Min	Max
switcharts	0.0007	0.03	0	0	1
switchprof	0.01	0.09	0	0	1
logearn^	6.28	0.81	6.33	-4.61	7.97
age	42.25	13.21	42	15	85
age <sup>2</sup>	1964.47	1149.03	1764	225	7225
male	0.51	0.50	1	0	1
married	0.61	0.49	1	0	1
college	0.33	0.47	0	0	1
hispanic	0.14	0.35	0	0	1
white	0.82	0.40	1	0	1
child	0.47	0.50	0	0	1
childU5	0.13	0.33	0	0	1
famsize	2.94	1.54	3	1	15
hrswork all^	39.41	10.68	40	0	144
hrswork main^	38.61	10.22	40	0	99
union	0.04	0.36	0	0	1
part	0.24	0.41	0	0	1
multijobs	0.06	0.21	0	0	1
recess	0.26	0.44	0	0	1
city^	0.31	0.46	0	0	1
artshare	0.02	0.007	0.01	0	.06
unemprrt	6.71	2.30	6.30	1.9	17.7
dunemprrt	0.06	1.34	-0.30	-3.30	8.00
homestead	0.19	0.40	0	0	1
occ1300	0.001	0.04	0	0	1
occ2310	0.02	0.15	0	0	1
occ2600	0.005	0.02	0	0	1
occ2630	0.005	0.07	0	0	1
occ2700	0.00008	0.009	0	0	1
occ2710	0.0007	0.03	0	0	1
occ2740	0.00007	0.008	0	0	1
occ2750	0.0007	0.03	0	0	1
occ2760	0.0001	0.01	0	0	1
occ2800	0.0002	0.02	0	0	1
occ2850	0.0007	0.03	0	0	1
occ2910	0.0004	0.02	0	0	1

Notes: ^Missing values were imputed via multiple imputation of chained equations

Table 5. Correlation Matrix for Dependent and Independent Variables

	switchcharts	switchprof	logearn	age	age <sup>2</sup>	male	married	college	hispanic	white	child	childU5
switchcharts	1.00	.00	.00	.01	.01	.00	.00	.01	-.01	.01	.00	.00
switchprof	.00	1.00	.03	.04	.04	.03	.03	.04	-.02	.01	-.01	.00
logearn	.00	.03	1.00	.22	.15	.19	.22	.35	-.10	.04	.12	.05
age	.01	.04	.22	1.00	.98	-.03	.27	.06	-.11	.03	.03	-.24
age <sup>2</sup>	.01	.04	.15	.98	1.00	-.03	.22	.04	-.11	.04	-.03	-.25
male	.00	.03	.19	-.03	-.03	1.00	.07	-.03	.06	.04	-.04	.05
married	.00	.03	.22	.27	.22	.07	1.00	.10	-.02	.09	.41	.21
college	.01	.04	.35	.06	.04	-.03	.10	1.00	-.15	.00	.02	.05
hispanic	-.01	-.02	-.10	-.11	-.11	.06	-.02	-.15	1.00	.12	.07	.08
white	.01	.01	.04	.03	.04	.04	.09	.00	.12	1.00	.03	.00
child	.00	-.01	.12	.03	-.03	-.04	.41	.02	.07	.03	1.00	.41
childU5	.00	.00	.05	-.24	-.25	.05	.21	.05	.08	.00	.41	1.00
famsize	.00	-.01	-.08	-.19	-.20	.03	.34	-.07	.16	-.04	.58	.29
hrswork all	.00	.04	.58	.11	.06	.20	.13	.13	-.02	.00	.09	.04
hrswork main	-.01	.03	.62	.12	.06	.21	.14	.13	-.01	.01	.09	.04
union	.00	-.03	.14	.09	.07	.04	.05	.03	-.01	-.01	.05	-.01
part	.00	.00	-.47	-.09	-.04	-.15	-.10	-.09	.00	.03	-.07	-.01
multijobs	.02	.02	-.03	-.01	-.01	-.02	-.01	-.04	-.04	.00	.00	.00
recess	.01	-.01	.01	.01	.01	.00	.01	.01	-.04	.00	.00	.00
city	.01	.00	.00	-.05	-.05	.00	-.11	.05	.15	-.16	-.05	.00
artshare	.01	.01	.05	-.01	-.01	.00	-.02	.08	.11	-.07	-.01	.00
unempmt	-.01	-.01	.00	.02	.02	.00	-.02	-.02	.08	-.03	-.01	-.02
dunempmt	.00	-.01	.00	.00	.00	.00	.01	-.01	-.02	.01	-.01	-.01
homestead	-.01	.00	-.01	.01	.01	.01	.01	-.02	.10	.03	-.01	.00

	famsize	hrswork all	hrswork main	union	part	multijobs	recess	city	artshare	unemprrt	dunemprrt	homestead
switcharts	.00	.00	-.01	.00	.00	.02	.01	.01	.01	-.01	.00	-.01
switchprof	-.01	.04	.03	-.03	.00	.02	-.01	.00	.01	-.01	-.01	.00
logearn	-.08	.58	.62	.14	-.47	-.03	.01	.00	.05	.00	.00	-.01
age	-.19	.11	.12	.09	-.09	-.01	.01	-.05	-.01	.02	.00	.01
age <sup>2</sup>	-.20	.06	.06	.07	-.04	-.01	.01	-.05	-.01	.02	.00	.01
male	.03	.20	.21	.04	-.15	-.02	.00	.00	.00	.00	.00	.01
married	.34	.13	.14	.05	-.10	-.01	.01	-.11	-.02	-.02	.01	.01
college	-.07	.13	.13	.03	-.09	-.04	.01	.05	.08	-.02	-.01	-.02
hispanic	.16	-.02	-.01	-.01	.00	-.04	-.04	.15	.11	.08	-.02	.10
white	-.04	.00	.01	-.01	.03	.00	.00	-.16	-.07	-.03	.01	.03
child	.58	.09	.09	.05	-.07	.00	.00	-.05	-.01	-.01	-.01	-.01
childU5	.29	.04	.04	-.01	-.01	.00	.00	.00	.00	-.02	-.01	.00
famsize	1.00	-.08	-.08	.00	.06	-.01	.00	-.06	.04	.00	-.01	-.01
hrswork all	-.08	1.00	.95	.06	-.63	-.06	.00	.01	-.01	-.03	-.01	.02
hrswork main	-.08	.95	1.00	.06	-.64	-.06	.00	.01	-.01	-.03	-.01	.03
union	.00	.06	.06	1.00	-.01	.01	.00	.01	.04	.03	.02	-.08
part	.06	-.63	-.64	-.01	1.00	-.01	.01	-.02	-.01	.02	.01	-.01
multijobs	-.01	-.06	-.06	.01	-.01	1.00	.00	-.01	.00	-.01	.00	-.01
recess	.00	.00	.00	.00	.01	.00	1.00	.01	-.01	.36	.70	.02
city	-.06	.01	.01	.01	-.02	-.01	.01	1.00	.12	.08	-.01	.01
artshare	.04	-.01	-.01	.04	-.01	.00	-.01	.12	1.00	.00	.00	-.12
unemprrt	.00	-.03	-.03	.03	.02	-.01	.36	.08	.00	1.00	.28	-.12
dunemprrt	-.01	-.01	-.01	.02	.01	.00	.70	-.01	.00	.28	1.00	-.02
homestead	-.01	.02	.03	-.08	-.01	-.01	.02	.01	-.12	-.12	-.02	1.00

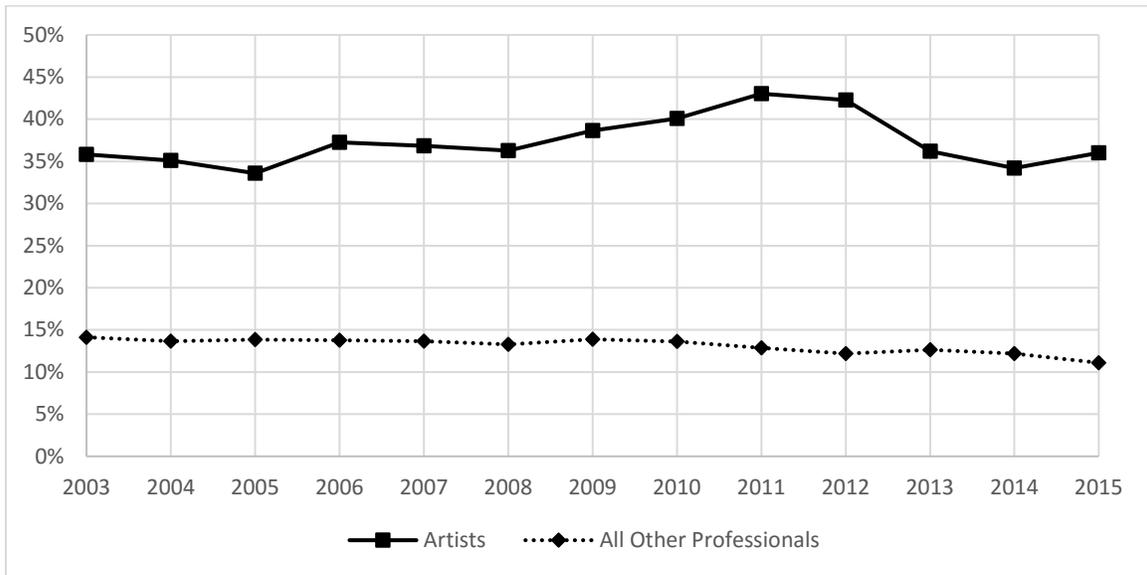
Table 6. Marginal Effects for Models Predicting Transitions to Self-Employment (Arts and All Other Professionals)

	Arts (1)		Arts (2)		Profs (3)		Profs (4)	
	ME	SE	ME	SE	ME	SE	ME	SE
logearn	-.0001	.0001	-.0001	.0001	-.001	.001	-.001	.001
age	.00007	.00004	.00007	.00004	.0004**	.0001	.0004**	.0001
age <sup>2</sup>	-.0000007	.0000004	-.0000007	.0000004	-.000001	.000001	-.000001	.000001
male	.0003*	.0002	.0007**	.0003	.006***	.0005	.007***	.001
married	.00007	.0002	.0004*	.0003	.003***	.0006	.003***	.0009
college	.0005**	.0002	.0005**	.0002	.009***	.0006	.009***	.0006
hispanic	-.0005	.0003	-.0005	.0003	-.004***	.001	-.004***	.001
white	.0006**	.0003	.0006**	.0003	.004***	.0007	.004***	.0007
child	-.0002	.0002	-.0001	.0002	-.001**	.0007	-.001*	.0007
childU5	.00002	.0003	.0004	.0003	.002**	.0008	.002**	.0008
famsize	-.0001	.00009	-.0001	.00009	.0002	.0002	.0002	.0002
hrswork all	.00002	.00002	.00002	.00002	.0001**	.00006	.0002**	.00006
hrswork main	-.00003	.00002	-.00003	.00002	.00008	.00008	.00009	.00008
union	-.0003	.0005	-.0003	.0005	-.01***	.002	-.01***	.002
part	.0005**	.0002	.0005**	.0002	.005***	.0006	.005***	.0006
multijobs	.0009**	.0003	.0009**	.0003	.006***	.001	.007***	.001
city	.0008***	0.0002	.0008***	.0002	.0001	.0005	.0001	.0005
artshare	.03***	.006	.03***	.006				
mar*male			-.0007**	.0003			-.001	.001
Pseudo $R^2$	.19		.19		.07		.07	
$N$	247,820		247,820		245,412		245,412	

Notes: Robust standard errors; models 1 and 2 include occupation dummies; all models include a dummy controlling for whether state has a homestead exemption (bankruptcy) law, a dummy for recession years (2009-2011), controls for the regional unemployment rate, and year fixed effects

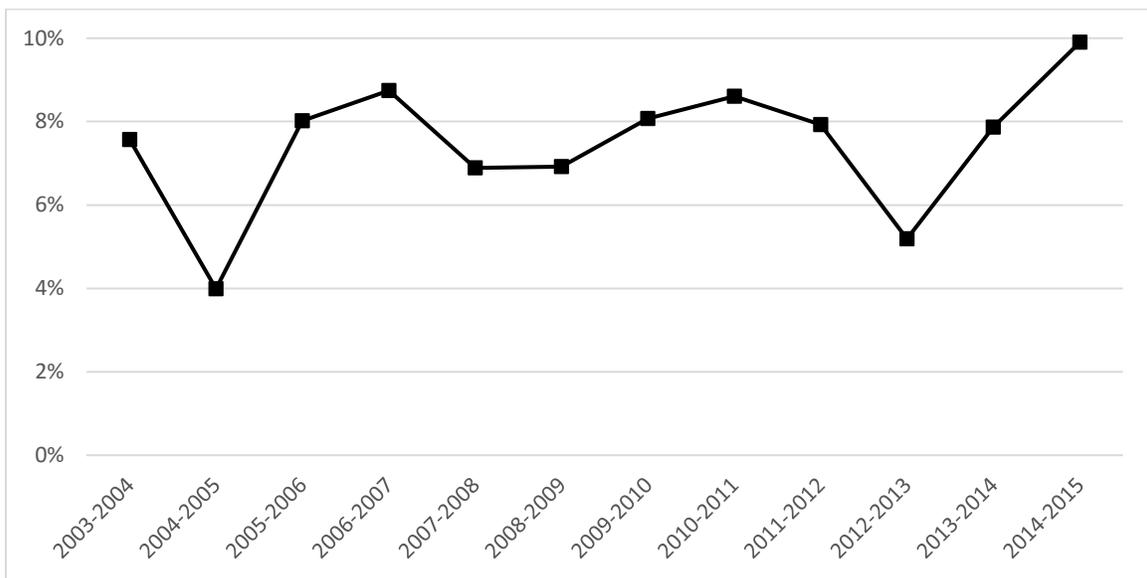
## FIGURES

Figure 1. Self-Employment Rates for Artists and All Other Professional Workers, 2003-2015



Source: Current Population Survey, (March) Basic Files, U.S. Census Bureau

Figure 2. Transition Rates for Workers Moving from Arts-Related Paid Employment, 2003-2015



Source: Current Population Survey, (March) Basic Files, U.S. Census Bureau