

ARTFUL LIVING:

Examining the Relationship between Artistic Practice
and Subjective Wellbeing Across Three National Surveys



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Preface

Leo Tolstoy once wrote that art is “indispensable for the life and progress toward well-being of individuals and of humanity.” I suspect that most of us who care about the arts believe something along the same lines. Belief is one thing, however, and evidence another. According to Earl Lewis, President of the Andrew W. Mellon Foundation, nothing is more urgently needed to combat the sense of crisis that besets the arts and humanities than strong, evidence-based research on the value of these endeavors.¹

Until recently, very little had been done to demonstrate the link between the arts and well-being in everyday life. The report that follows takes an important first step in that direction and issues a challenge to others to undertake further research. From its founding, the Curb Center has explored ways in which the arts enrich and sustain health and human flourishing. Situated at a university with a great medical center, the Curb Center collaborates with doctors, scientists, and researchers to push the boundaries of our understanding of how the arts intersect with science and medicine. In projects with the National Institutes of Health, the Institute of Medicine, the Broad Institute at MIT and Harvard, and the Brain Institute at Vanderbilt, the center has explored the impact of the arts on the public’s attitudes toward death and dying, vaccination, genetics, and well-being. An earlier Curb Center report, “Happiness and a High Quality of Life: The Role of Art and Art Making” (2007), set out compelling hypotheses regarding the link between art, creativity, and quality of life, but empirical studies were hard to come by at that time.

Today, thanks to the work of Steven Tepper and his colleagues, we are closer to establishing the impact of the arts in our lives through the kind of research that will speak directly to policy makers. We are closer to verifying empirically something many of us assumed but couldn’t prove. We are closer to demonstrating something Tolstoy already knew in his heart.

Jay Clayton

Director, The Curb Center for Art, Enterprise, and Public Policy

¹ “Three Cents, Three Senses: Philanthropy, Higher Education, and the Future.” The Harry C. Howard Jr. Lecture at the Robert Penn Warren Center for the Humanities, Vanderbilt University (February 20, 2014).

Executive Summary

Over the past few decades, elected officials and policy leaders have increasingly focused on “quality of life issues,” seeking ways to not only create jobs and grow the economy but also to help people both strengthen family and community life and advance health and happiness. The arts have a role to play in this new agenda. In 2011 the National Endowment for the Arts collaborated with the U.S. Department of Health and Human Services to host a convening examining the relationship between the arts and wellbeing. From that meeting emerged an inter-agency task force involving 13 federal agencies and departments with the goal to encourage more research on how the arts help people develop their full potential at all stages of life. Rocco Landesman helped frame the new initiative when he remarked, “How do the arts help build us as a people and as individuals? We share a fundamental mission—how to improve the quality of life. The arts are central to human development” (Hanna et al., 2011)

This report represents an initial exploration of the thesis that the arts are essential to a high quality of life. Using three national datasets, we examine the correlation between artistic practice and wellbeing among a representative national sample of adults, a sample of undergraduate seniors, and a sample of former arts graduates. Overall, we find strong support that artistic practice is associated with higher levels of life satisfaction, a more positive self image, less anxiety about change, a more tolerant and open approach to diverse others, and, in some cases, less focus on materialistic values and the acquisition of goods. We examine a range of artistic and creative practices, including fine arts, video, music, theater, dance, crafts, gardening, artful cooking, creative writing, designing clothes and composing music. Not only is there a relationship between artistic practice and wellbeing, but this relationship is strengthened with increased frequency of participation. All else equal, the more you participate in artistic activity the higher you will score on a variety of wellbeing metrics. The intensity and frequency of artistic practice is particularly relevant for former arts students. We find that, overall, participating in personal art making (outside of work) does not seem to benefit former arts students; that is, those who make or perform art outside of work are no more satisfied with life than those who do not make or perform art outside of work. But, when we take into account whether people feel like they have *adequate* time to work on their avocational or personal art, the relationship changes. Those former arts students who feel they have adequate time are more satisfied with life than those who have stopped producing personal art altogether. On the other hand, those who continue to produce personal art but *do not feel* they have adequate time are actually less satisfied with life than those who do no personal art at all.

Like other studies of various forms of engagement and wellbeing, we find that artistic practice might benefit some groups more than others. In particular, historically disadvantaged social groups (non-whites and women) who participate in the arts see even greater increases in wellbeing compared to whites and men respectively. To the extent that previous studies have found that creative practice is associated with self-efficacy and resilience, it is not surprising that

the correlation between artistic practice and wellbeing would be stronger for those groups with a history of facing discrimination.

Finally, not all forms of artistic practice are equally related to wellbeing. We find that making fine arts and crafts are consistently related to wellbeing, music is related to wellbeing for some groups and not others, and participating in theater seems unrelated to wellbeing in our data.

While the research is exploratory, it does point to strong and consistent correlations. Future studies should construct measures of wellbeing that are more robust as well as examine whether art making increases people's wellbeing (causation), or whether the relationship is simply reciprocal or the result of other, unmeasured factors. Finally, ethnographic studies can begin to unravel the process by which art making leads to wellbeing. What exactly happens to people cognitively, emotionally, and socially when they make art that might lead them to view themselves and their world differently? Based on the findings from this initial study, we argue that policy makers and scholars must continue to invest in research to better understand how the arts connect to happiness, satisfaction, and wellbeing, and—importantly—what policies might be put in place to help foster the positive benefits of the arts in human development.

Introduction

We are living through a time of financial turmoil and economic uncertainty. Gone are the days of consistent growth and prosperity and the certainty that a child will out-earn his or her parents. Many argue that we are entering, instead, a post-consumerist democracy—a “new normal” where our standard of living, buttressed by cheap consumption, will be considerably lower than in years past. But while economists and financial analysts are concerned with the specific economic consequences of this global downturn, social scientists are focused more on its wider impact. Sociologist Juliet Schor finds that people are working harder and longer hours while their real wages are declining. For many, the American dream of a house in the suburbs, 2 cars, and the promise of a college education for one's children seems to be slipping further and further away. Moreover, recent empirical work has shown a strong negative correlation between income inequality and general levels of perceived wellbeing and happiness in Western societies, leading some observers to question whether increasing levels of inequality in the US will lead to reduced overall levels of wellbeing (Ferrer-i-Carbonell and Ramos, 2013; Shigehiro, Kesebir, and Diener, 2011). Bill Ivey, author and former director of the National Endowment for the Arts (NEA), recently posed a particularly interesting question: “If the dream of a bigger car, grander house or more exotic holiday is taken off the table, how can policy leaders act to advance a high quality of life for all?” (Grantmakers in the Arts, 2009). Ivey suggests that a vibrant expressive life, found through artistic and creative practice, might be one important route for advancing a high quality of life in the future.

This study explores whether a vibrant expressive life is associated with greater perceived wellbeing. Do people who play music, dance, draw, create films, sing, and do crafts report higher

levels of life satisfaction, a greater sense of personal control, and a more positive social outlook? As of yet, no one has examined the complicated relationship between creative practice and wellbeing within the US. This exploratory study uses three existing data sets to identify possible correlations between expressive life—specifically creative practice—and a variety of indicators of wellbeing. The three datasets, which have not yet been previously analyzed with the above question in mind, survey three distinctly different populations: college students, people who graduated with arts degrees, and a general population sample.

Our primary research question is this: does participation in artistic and creative practice correlate with a higher quality of life and overall subjective wellbeing? (Note: we use the terms artistic practice, creative engagement, and creative practice interchangeably throughout this report). Research in positive psychology would suggest a strong, positive correlation. Our data allows us to test this assertion. Overall, we find evidence of a strong correlation between creative practice and wellbeing. However, the relationship is complex and depends on both the frequency and intensity of participation, the type of creative practice, and the demographic characteristics of the participant (gender, race).

Subjective well-being and quality of life, as they pertain to this study, are understood as the cognitive and emotional interpretations that people make of their own lives (Diener, 2000). Although there are many components to both overall quality of life and subjective wellbeing, we are choosing to hone in specifically on measures of life satisfaction, efficacy and sense of control, and emotional health in this study. These social and psychological variables are well-documented components of subjective wellbeing and quality of life (Diener et al., 1999; La Barbera and Gurhan, 1997; Pinqart and Sorenson, 2000). In terms of creative practice, we are examining a range of personal expressive acts, including playing and composing music, dancing, singing, creative writing, theatre performance, making films and videos, gardening, and doing crafts.

The link between artistic and creative practice and quality of life, or subjective wellbeing, seems to be an obvious one. To the extent that pursuing one's interests and passions, whether in the arts or otherwise, brings pleasure and enjoyment, then engagement in the arts should lead to higher levels of satisfaction. However, this remains a widely under-researched area. In 2007, at the Pocantico Conference Center, a group of leading experts in positive psychology, along with arts researchers, historians, artists, and philosophers, convened to discuss the topic "Happiness and a high quality of life: The role of art and art making." Hosted by the Curb Center for Art, Enterprise and Public Policy at Vanderbilt, participants at this gathering concluded that existing theory and research suggests a strong link between art and a high quality of life (Ivey and Kingsbury, 2007). Artistic activity can produce feelings of "flow"—a state discussed by psychologists as central to feelings of efficacy and wellbeing (Csikszentmihalyi, 1991). Moreover, the group discussed the role of art and art making as sources of meaning, purpose, and personal fulfillment (Freedman, 2000; Lusebrink, 2004; Walker, 2004). Creative practice is also

potentially related to self-expression, self-control, self-esteem, confidence, and resilience—all of which are related to wellbeing and happiness (Coulson and Stickley, 2006; Frisch, 2005; Seligman, 2002). The group called for further research and discussion on the topic. The research reported here provides some empirical evidence for the claims that were made at the Pocantico meeting.

In addition to perceived overall sense of wellbeing, others have argued that creative practice should lead to a greater sense of personal control (Runco and Richards, 1997). This may be particularly relevant given that sociologists have found increasing levels of generalized anxiety related to globalization, economic uncertainty, and social, cultural, and technological change (Ungar, 2001). Anthony Giddens (2013) refers to this anxiety and “loss of control” as ontological insecurity. We suspect that a rich and deep engagement with creative practice provides resiliency in the face of unsettling change, lowering people’s fear of change and ontological insecurity.

Arts advocates instinctively discuss the benefits of the arts in terms of their ability to improve lives. But which arts, which types of practices, and for whom are these benefits likely to be the greatest? While our exploration cannot provide proof of how the arts change lives or improve wellbeing, it does demonstrate suggestive and powerful relationships that both researchers and arts advocates should welcome.

There is a robust literature on quality of life and subjective wellbeing from the past twenty years. Religion, socioeconomic status, social capital, career choice, and even participation in sports have all been studied numerous times in conjunction with subjective wellbeing and quality of life (La Barbera and Gurhan, 1997; Lent and Brown, 2008; Srivastava et al., 2001). As noted above, the arts are largely absent from these studies.

There are a few exceptions to this gap in our knowledge about creative practice and wellbeing. First, recent studies have shown that professional artists are among the happiest in their jobs. Data from the Strategic National Arts Alumni Project (SNAAP), a survey of more than 100,000 graduates from arts training institutions in the US and North America, finds generally high levels of job satisfaction among graduates who are working as artists, including satisfaction with their ability to be creative in their jobs (Lindemann and Tepper, 2014). In a study of German workers, Steiner and Schneider (2013) found that artists, on average, are considerably more satisfied with their work than non-artists. While job satisfaction is not the same thing as subjective wellbeing, many studies have found that job satisfaction is among the strongest predictors of wellbeing.

In addition to studies about job satisfaction, much research focuses specifically on the role of the arts as medical therapy. For example, researchers have found that college students who engage in creative writing activities are much less likely to get sick, noting improvements in blood pressure and immune response; they are also more likely to report feeling happier in the months following the writing exercises (see Pennebaker, 1995; Pennebaker, Kiecolt-Glaser &

Glaser, 1988; Richards, 2007, 2010). Other studies have demonstrated that for aging adults, creative practice and art provide a sense of efficacy and social engagement that can delay or mitigate dementia and combat depression (Verghese et al., 2003; Cohen, 2006; Kent and Li, 2013). And, art has been found to help patients with speech disorders, visual impairments, and stroke deficits.

Thus both making art professionally and making art to address acute and long-term illness is associated with higher levels of wellbeing. But, does creative practice and art making also lead to higher levels of perceived wellbeing among the general population—those who are neither professional artists nor working with professional art therapists?

To date, the most serious attempt to answer this question comes from a series of studies in Canada by Alex Michalos and Maurine Kahlke. The authors administered two surveys in 2006 and 2007 that asked a random sample of households in British Columbia an extensive battery of questions about subjective wellbeing, satisfaction with a variety of domains of life and activity, and frequency of participation in a range of different arts events and practices. Their research is based on 1027 adult respondents in 2006 and 708 respondents in 2007. Sixty-six kinds of arts-related activities were listed, and seven scales were used to measure overall life satisfaction. The authors found correlations between playing music and painting/drawing and several quality of life indicators (satisfaction with life, subjective wellbeing). Ultimately, however, in the context of other demographic and motivational variables, these relationships proved relatively weak. While the authors had excellent measures of wellbeing, their small sample size hindered their ability to find robust relationships in their data; only 119 respondents painted/drew, and only 66 played a musical instrument. With such small numbers of active art makers in their sample, the researchers could not adequately test whether the benefits of creative activity mattered more for different types of people—i.e., age, gender, race—nor could they look at a variety of creative practices beyond visual art and music.

In sum, preliminary work has failed to demonstrate a robust relationship between creative practice and wellbeing in part because of limited sample sizes. In contrast, the results presented in this report are based on: a national data set (DDB Needham Life Style Survey) that includes 13,865 people who played a music instrument; a nine-campus student survey (Double Major Student Survey) where 754 students played an instrument, 681 did creative writing, 718 practiced a visual art, and several hundred more either acted in a play or produced a film or media project; and a national survey of former arts graduates (Strategic National Arts Alumni Project) detailing several thousand respondents making or performing art in their free time. With these three surveys (described in greater detail below), we are able not only to investigate the overall relationship between creative practice and wellbeing using multivariate analysis, but we also can begin to examine whether the potential positive effects of the arts on wellbeing are stronger for some groups of people than others. Research on the relationship between wellbeing and other social life arenas (religion, social relations and networks, and physical activity) demonstrates a variety of interaction effects. In other words, different activities benefit some

people more than others when it comes to wellbeing. In particular, relationships between social, leisure, religious and physical activity and wellbeing depend upon where people are in the life course, their gender, their place of residency, and other demographics (George and Landerman, 1984; Ellison, 1991; Krause, 2003). In this study, we look specifically at whether the positive effects of artistic practice are stronger for men or women; we also compare whites and non-whites.

Data Sources

There are three main datasets that we used in our analysis: the DDB Life Style survey, the Double Major Student Survey, and the Strategic National Arts Alumni Project (SNAAP). All three contribute important pieces to our overall project.

DDB Needham Life Style Survey (DDB)

The DDB Needham Life Style Survey (DDB) is the nation's largest and longest-running annual survey of consumer attitudes. In polling American adults, they ask questions about— among other things— attitudes, interests, opinions, activities, product use, and mass media use. We look specifically at responses to creative practice, life satisfaction, and “sense of control” in one's life. Three specific questions address creative practice, including the frequency of participation in craft projects, gardening, and playing a musical instrument over the last twelve months. A series of agree/disagree statements get at the issues of life-satisfaction (e.g., “I'm much happier now than I ever was before”; “I am very satisfied with the way things are going in my life these days”). To get a sense of generalized anxiety (“loss of control”), we examine several questions that address people's sense of personal efficacy (e.g., “Sometimes I feel that I don't have enough control over the direction my life is taking”).

Double Major Student Survey

The Double Major Student Survey, supported by the Teagle Foundation, assesses the link between creativity, interdisciplinarity, and the liberal arts by focusing on undergraduates who have two majors. The survey drew from a sample of approximately 1700 students from four comprehensive institutions and five liberal arts colleges,² and asked them questions about demographics, academic choices, self ratings on skills and competencies, and creativity and innovation. Specifically, students were asked about their positive self image (“Please check all of the adjectives that best describe yourself”— “capable,” “confident,” “resourceful”); their positive social outlook; and materialistic orientation (e.g., “it sometimes bothers me quite a bit that I can't afford to buy all the things I'd like”). Students were also questioned about their participation in

² The schools in the sample include the University of Texas-Austin, Vanderbilt University, Emory University, Dartmouth College, College of Wooster, Ohio State University, Duke University, Trinity University, and Knox College.

artistic and creative practices, including “played a musical instrument,” “painted, drew a picture, or made sculpture,” and “made or designed clothing, costumes, etc.” There were a total of 10 different categories of artistic and creative practices listed among the 23 activities. Students were asked to rate the frequency with which they participated in these activities.

Strategic National Arts Alumni Project (SNAAP)

The Strategic National Arts Alumni project, or SNAAP, is an online survey targeted at graduates of arts institutions, which asks questions about their experiences both during and after their arts schooling. To date, more than 100,000 alumni have been asked questions about their career path, their artistic practice (both professionally and avocationally), and their overall satisfaction with work and life. Specifically, we look at questions from the 2009 pilot survey of 4,031 graduates from across 76 different arts colleges and schools about life satisfaction, including people’s response to the questions, “In most ways my life is close to my ideal” and “I am satisfied with my standard of living.” There are also questions addressing personal artistic practice and the frequency with which it is undertaken. One strength of the SNAAP data is that it allows us to look at people who were once highly involved in the arts through their schooling or career, and who are no longer practicing their artistic craft or are only practicing it avocationally. This may reveal some information about the importance of continued artistic practice for those who valued it highly in the past and who had achieved high levels of proficiency.

Analyses and Findings

To simplify the presentation of our findings, we will discuss our analysis from each of our samples (DDB, Double Major Student Survey, and SNAAP) in separate sections. **Overall we find strong support for our thesis that creative practice is associated with higher levels of perceived wellbeing.** These results differ in part depending on the type of creative practice, different measures of wellbeing, and the particular subgroups under investigation. The main exception to our overall finding is that avocational (non work-related) arts practice does not seem to increase life satisfaction for graduates of arts institutions. In other words, those arts graduates who make and present art outside of their working lives are no more satisfied with their lives than those who have given up their personal artistic practice. Importantly, this finding is mediated by whether or not respondents report they have adequate time to work on their avocational art interests. Those who continue to practice their art outside of work, and report adequate time to do so, are much happier than those who have no artistic practice or those who try to work on their art but feel they do not have adequate time.

DDB Needham Life Style Survey (DDB) Analysis

Our primary research question is whether people who have a personal creative practice report higher levels of life satisfaction and subjective wellbeing. We measure life satisfaction with a scale that adds up responses (from 1 to 6 on a disagree/agree scale) to each of the following four questions:

- I am very satisfied with the way things are going in my life these days
- I dread the future
- If I had my life to live over, I would sure do things differently
- I wish I could leave my present life and do something entirely different

The scale has a Chrobach's Alpha of .65 which refers to how well responses to these questions co-vary with one another, and ranges from 4 to 24. When examining the relationship between artistic practice and life satisfaction, we control for a number of factors that are known to influence perceived wellbeing and satisfaction, including gender (women are more satisfied than men), age (older and younger are more satisfied with life than middle aged), employment status, race (whites are more satisfied than minorities), place of residence, income, marital status, and children at home. Table 1 shows the results of Ordinary Least Squares regression for three different artistic practices: worked on a crafts project in the last 12 months, worked in the garden, and played a musical instrument. **All else equal, all three forms of artistic practice have a strong positive relationship with life satisfaction, with playing music showing the strongest effects.** If we look at the coefficient on music (.45), we can say that playing music is associated with a .45 increase on the life satisfaction scale (which goes from 4 to 24). Because the value of the scale has no readily understandable metric, we can interpret the coefficient based on standard deviations. In this case, the difference between not playing an instrument and playing an instrument is associated with 10 percent of a standard deviation change in life satisfaction. There are many factors that contribute to life satisfaction and our model only explains a small amount of the total variance. But, examining creative practice along side other control variables, we can say that engaging in artistic activity is equal to if not more highly correlated with life satisfaction than being married, having children, and the region of the country where one lives.

Table 1: Life Satisfaction Scale Regressed on Artistic Practice (binary)

	Artistic Practice		
	Craft	Garden	Musical Instrument
Artistic Practice: Yes (ref=no)	0.24 ***	0.32 ***	0.45 ***
Female (ref=male)	0.17 *	0.27 ***	0.27 ***
Age (ref=45-54)			
18-24	1.16 ***	1.24 ***	1.13 ***
25-34	0.66 ***	0.67 ***	0.62 ***
35-44	0.25 *	0.22 *	0.2 *
55-64	1.03 ***	1.03 ***	1.04 ***
65+	2.08 ***	2.04 ***	2.06 ***
Employment (ref=full time)			
part time	0.08	0.1	0.09
retired	0.47 ***	0.53 ***	0.54 ***
not employed	0.13	0.11	0.12
Race (ref=white)			
Black	-1.43 ***	-1.4 ***	-1.46 ***
Latino	-0.56 ***	-0.59 ***	-0.58 ***
Other	-0.91 ***	-0.97 ***	-0.96 ***
R-squared	0.13	0.13	0.13
N	16576	20058	20082

legend: * p<0.05; ** p<0.01; *** p<0.001

Note: Models also include controls for geographic region, income, marital status, presence of children under the age of 5, education, and year of the survey.

Dependent variable: Life Satisfaction scale

Does the frequency of engagement matter when examining the relationship of artistic practice and life satisfaction? In other words, if a little engagement is associated with more satisfaction, does a lot of engagement lead to even higher levels? While we cannot claim a causal connection, if we see a consistent increase in life satisfaction with each increase in the level/frequency of artistic practice, we can feel more confident that artistic practice might actually lead to higher levels of wellbeing. This is precisely what we find in Table 2. When we break artistic practice into 4 categories—none, low (1-8 times a year), medium (9 to 24 times a year), and high (25 to more than 52 times a year)—**we find that across all three types of artistic practice, when people engage in the activity more frequently, they report higher levels of life satisfaction.** For example, in the case of playing a musical instrument, we see an increase of 16 percent of a standard deviation in the life satisfaction scale.

Table 2: Life Satisfaction Scale Regressed on Artistic Practice (frequency)

	Artistic Practice		
	Craft	Garden	Instrument
Frequency of Artistic Practice (ref=none)			
Low	0.12	0.05	0.25 **
Medium	0.32 **	0.42 ***	0.64 ***
High	0.71 ***	0.62 ***	0.72 ***
Female (ref=male)	0.15 *	0.27 ***	0.27 ***
Race (ref=white)			
Black	-1.4 ***	-1.37 ***	-1.45 ***
Latino	-0.55 ***	-0.59 ***	-0.57 ***
Other	-0.9 ***	-0.98 ***	-0.95 ***
R-squared	0.13	0.13	0.13
N	16576	20058	20082

Legend: * p<0.05; ** p<0.01; *** p<0.001

Note: Models also include controls for age, employment status, geographic region, income, marital status, presence of children under the age of 5, education, and year of the survey.

Dependent variable: Life Satisfaction scale

The sophisticated observer might ask whether we are measuring the “do more” thesis—that people who are more active in life, regardless of what they are doing, will report higher levels of satisfaction and wellbeing. Therefore, we examined whether the positive effects of engaging in crafts, gardening, and music persist when we take into account how active a person is, measured by how often she goes to movies, takes walks, and participates in social clubs. Our strong positive results persist even when accounting for people’s general activity levels (results not reported here but available upon request).

Do the potential benefits of artistic practice on wellbeing redound to everyone equally? Or, do some people benefit more than others from playing music, designing gardens, and making crafts? Researchers have found that a variety of factors positively associated with wellbeing—being married, having a job, place of residency, and leisure and social activities—differ based on a person’s personality, prior experiences, and demographic characteristics (George and Landerman, 1984). In particular, race and gender are consistently found to moderate the effects of many of these factors—in other words, their potential benefits for wellbeing depend on whether you are a man or women, or whether you are white or an ethnic minority (Szinovacz and Washo, 1992; Roxburgh, 1999; Marks, 1996; Brown, 2010). Our theory suggests that artistic practice increases wellbeing in part because it is associated with a greater sense of personal control, efficacy, and self-expression. Engaging in a creative practice can be a respite from the daily stresses of life—a safe haven, carving out time from other obligations to focus on oneself and one’s own creative needs—what Janice Radway calls a compensatory activity (Radway, 1991). Thus, we might expect that groups who have historically been discriminated against and who continue to suffer diminished status and esteem in some contexts—i.e., minorities and women—would benefit even more from artistic activities that give them a sense of control,

efficacy, and self-worth. This is precisely what we see in Tables 3 and 4 below, where we examine the “interaction effects” of artistic practice with gender and race. **Women receive a greater boost in life satisfaction (Table 3) than men, especially from making crafts and gardening.** Similar to previous results, this boost equates to approximately 10 percent of a standard deviation change in life satisfaction for women compared to men. They also receive a positive boost for playing a musical instrument, but this positive interaction is only significant at the very highest levels of engagement (model not reported here).

Table 3: Life Satisfaction Scale Regressed on Artistic Practice; interaction effect for gender

	Artistic Practice		
	Craft	Garden	Instrument
Artistic Practice: Yes (ref=no)	-0.03	0.09	0.37 **
Female (ref=male)	-0.08	-0.02	0.24 ***
Art * female	0.5 ***	0.44 ***	0.13
R-squared	0.12	0.12	0.12
N	16621	20132	20107

legend: * p<0.05; ** p<0.01; *** p<0.001

Note: Models also include controls for age, employment status, geographic region, income, marital status, presence of children under the age of 5, education, and year of the survey.

Dependent variable: **Life Satisfaction scale**

We see similar findings for race (see Table 4). Engaging in crafts, gardening, and music are associated with higher levels of satisfaction for both whites and non-whites, but the impact is greater for nonwhites (see interaction effect). **In this case, gardening and playing an instrument seem to benefit minorities most compared to whites;** while crafting has no added advantage. While recent studies have shown that disadvantaged children benefit from being exposed to the arts in school, the findings here suggest that such benefits go beyond institutional settings and may especially benefit minorities and disadvantaged groups in their personal lives as well.

Table 4: Life Satisfaction Scale Regressed on Artistic Practice; interaction effect for race

	Artistic Practice		
	Craft	Garden	Instrument
Artistic Practice: Yes (ref=no)	0.25 **	0.25 ***	0.38 ***
Nonwhite (ref=white)	-1.08 ***	-1.34 ***	-1.15 ***
Art* Nonwhite (ref=white)	0.12	0.51 **	0.42 *
R-squared	0.13	0.12	0.12
N	16576	20058	20082

legend: * p<0.05; ** p<0.01; *** p<0.001

Note: Models also include controls for age, employment status, geographic region, income, marital status, presence of children under the age of 5, education, and year of the survey.

Dependent variable: **Life Satisfaction scale**

In addition to life satisfaction, we examine whether artistic practice helps to reduce people’s general anxiety, worry, and stress. Sociologist Anthony Giddens (2013) refers to this state of anxiety as ontological insecurity, or the stress related to a sense of uncertainty about the constancy of social life, especially in the face of globalization, demographic change, and technological changes. He argues that people increasingly face pressures that undermine routines, social roles, and expectations regarding social and institutional obligations. In fact, in a recent survey of North Carolina and Tennessee residents conducted by the author of this report, 73 percent of respondents say they are “very worried” that “things are changing too fast these days.” For many, a creative practice can be a source of stability in their lives—grounding them in a set of activities and routines that reinforce personal mastery and competence. Thus, artistic practice should reduce ontological insecurity or what other scholars have called “generalized anxiety.” We measure “generalized anxiety” with a scale that adds up responses (from 1 to 6 on a disagree/agree scale) to each of the following four questions:

- Everything is changing too fast today
- Sometimes I feel that I don't have enough control over the direction my life is taking
- I often wish for the good old days
- I dread the future

The scale has a Chrobach’s Alpha of .65 and ranges from 4 to 24. One question, “I dread the future,” overlaps with the life satisfaction scale, so we suspect our measure of generalized anxiety is closely related to life satisfaction more generally with a greater emphasis on concerns with change. Table 5 demonstrates support for our thesis—**people who are engaged in designing gardens and playing a musical instrument report lower levels of generalized anxiety**. They worry less about the future and current changes around them, and they have less desire to return to some idyllic past. Again, in terms of standard deviations, we can say that playing a music instrument (coefficient of -.47) is associated with 12 percent of a standard

deviation **decrease** in the general anxiety scale. This finding supports past research that creative people more generally exhibit greater resilience and are better able to deal with uncertainty (Rouff, 1975; Rubenstein, 2003). Our measure in this study may be picking up this sense of resilience and adaptability, or we might be picking up on people’s perceived efficacy, with artistic practice giving people a sense of self-control in a world that is otherwise changing at a rapid pace. Qualitative interviews might be able to unravel more precisely how playing an instrument or working in the garden might lower a person’s overall levels of worry and anxiety about the future.

Table 5: Generalized Anxiety Scale Regressed on Artistic Practice

	Artistic Practice	
	Garden	Instrument
Artistic Practice: Yes (ref=no)	-0.35 *	-0.47 **
Female (ref=male)	-0.07	-0.06
Race (ref=white)		
Black	0.57 *	0.62 *
Latino	0.99 ***	0.97 ***
Other	1.54 ***	1.54 ***
R-squared	0.08	0.08
N	3473	3480

legend: * p<0.05; ** p<0.01; *** p<0.001

Note: Models also include controls for age, employment status, geograph region, income, marital status, presence of children under the age of 5, education, and year of the survey.

Dependent variable: **Generalized Anxiety Scale**

Double Major Student Survey Analysis

In addition to the measures tested above, we use the Double Major Student Survey to examine whether artistic practice was also related to a positive self-image, which previous studies have found to be highly related to wellbeing. Examining a population of college students offers unique insight into our research question. First, there is evidence that the emotional health of college students has decreased over the past several decades. Students report higher levels of stress and anxiety related to schoolwork and life more generally (Twenge, 2006). Levels of depression and mental illness are at record heights on college campuses (Lewin, 2011). Thus, if creative practice is related to higher levels of self-esteem, then perhaps students who make and present art—whether music, theater, dance, film, or fine arts—will have a more positive self-image and ultimately increased emotional health.

Table 6: Positive Self Image Scale Regressed on Creative Practice (binary) and Creative Practice (number and variety)

	Any artistic practice	# and variety of artistic practices
Creative Practice: Yes (ref=no)	0.06 ***	0.03 ***
Female (ref=male)	-0.07 ***	-0.07 ***
Race		
Black (ref=white)	0.09 ***	0.08 ***
Latino	0.00	0.02
Asian	-0.14 **	-0.15 **
Other	0.03	0.01
Future job in the arts	0.10 ***	0.09 ***
N	1681	1588

legend: * p<0.05; ** p<0.01; *** p<0.001

Note: Models also include controls for parents' education, HS arts credits, credits earned in college, level of extracurricular activity, desire for an arts job after college, GPA, whether English is spoken at home, job during college, race, and gender; SE's adjusted for clustering around the university.

Dependent variable: **Self Image**

We created a scale for positive self-image that includes whether respondents checked “yes” to a number of adjectives that they might use to describe themselves; the adjectives included: self confident, resourceful, capable, individualistic, confident, insightful, intelligent, inventive, and original. The Chronbach’s Alpha for the scale is .69 and it ranges from 0 to 9, and a higher score indicates a more positive self-image. For creative practice, we measured whether students had made or presented any of the following activities over the past 12 months: making films or videos; composing music; designing clothing; doing creative writing; playing music; acting or participating in theater; making visual art; doing crafts (jewelry, pottery, greeting cards, decorations); dancing; and artful cooking. We investigated the following: whether doing any of the above activities was correlated to a higher positive self-image based on our scale (Table 6, column 1); whether doing multiple activities is connected to higher positive self-image (Table 6, column 2); and which activities in particular are positively correlated (Table 7).

In Table 6 (above) we conduct Ordinary Least Squares regression to test whether creative practice (of any type) and the number and variety of creative practices are related to a higher positive self-image. Of course, any positive relationship could be caused by a number of other factors that are related to both self-image and creative practice: how active and achievement oriented the student is (level of extracurricular activity and GPA), whether she has a strong commitment to the arts (whether she earned AP arts credits in high school and whether she intends to pursue an arts job after college), and/or her socio-economic status (parents’ education)

and her race and gender. But even after controlling for these and other factors, **we find (Table 6) a strong relationship between doing ANY arts activities and self-image as well as doing multiple different art activities and self-image.** Engaging in an artistic practice in college is associated with a .06 unit change in positive self-image; or 3 percent of a standard deviation increase.

In Table 7 (next page), we break out specific artistic practices. We find that with the exception of playing a musical instrument, participating in theater, and composing music, **students who participate sporadically/occasionally (low) or weekly/daily (high) in any one of a number of artistic practices report higher levels of positive self-image.** More research is needed to better understand why some artistic practices are more strongly related to positive self-image than others. We might speculate that those activities that allow for maximum personal self-expression (making films, fine arts, crafts, food) seem more highly related to self-image than those art forms adhering to stricter artistic conventions and involving more interpretation than open self-expression (playing an instrument and acting in a play, for example).

Scholars have found that for young adults during transitional years—entering and exiting college for example—subjective wellbeing is strongly related to high levels of tolerance, openness, and empathy (Shanafelt et al., 2005). The Double Major study asks several questions that help us get at this sense of openness to others, or what we call a *positive social outlook*. The positive social outlook scale consists of self-ratings (from 1-7) on the following attributes: understanding of others, ability to see the world from another perspective, tolerance of others with different beliefs, openness to having one’s own views changed, ability to work cooperatively with diverse people, and ability to discuss and negotiate controversy. The Positive Social Outlook scale goes from 6 (low) to 42 (high) and has a Chronbach’s Alpha of .82.

Table 8 (next page) shows **that students who are engaged in making films, composing music, writing fiction, doing fine arts, dancing, and artful cooking score higher on the positive social outlook scale than students who are not involved in these activities.** Similar to self-image, we find that those who participate in music or drama do *not* have a more positive social outlook and in the case of music actually have less positive social outlook. Again, further study is needed to better understand why certain artistic practices are more strongly associated with a positive social outlook than others. Previous studies have found a strong link between creativity and openness and tolerance. Again, perhaps those art forms that emphasize more personal and expressive creativity—i.e., writing, drawing, painting—may be more strongly associated with openness (positive social outlook) than art forms that are more collaborative and more strongly bound by formal conventions and expectations.

Table 7: Self Image Scale Regressed on Creative Practice (frequency); broken down by discipline

	Artistic Practice									
	Film-Video	Compose	Design	Creative Writing	Music	Drama	Fine Art	Craft	Dance	Food
Artistic Practice (ref=none)										
Low	0.03 *	0.03	0.03 ***	0.05 **	0.01	-0.01	0.06 ***	0.01	-0.01	0.04 *
High	0.12 ***	0.12	0.12 **	0.1 ***	-0.04	-0.02	0.14 ***	0.09 *	0.11 *	0.08 **
Female (ref=male)	-0.07 ***	-0.07 ***	-0.07 ***	-0.07 ***	-0.08 ***	-0.07 ***	-0.08 ***	-0.08 ***	-0.08 ***	-0.08 ***
Race (ref=white)										
Black	0.1 ***	0.1 ***	0.1 ***	0.09 ***	0.09 ***	0.09 ***	0.11 ***	0.1 ***	0.08 ***	0.1 ***
Latino	-0.01	-0.01	-0.01	-0.003	-0.01	0.005	-0.01	-0.01	-0.01	0.02
Asian	-0.13 **	-0.13 **	-0.13 **	-0.14 **	-0.14 **	-0.13 **	-0.13 **	-0.13 **	-0.14 **	-0.12 *
Other	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.03	0.03	0.03
N	1570	1570	1570	1570	1579	1572	1572	1568	1568	1570

Legend: * p<0.05; ** p<0.01; *** p<0.001

Note: Models include controls for parents' education, HS arts credits, credits earned in college, level of extracurricular activity, desire for an arts job after college, GPA, whether English is spoken at home, job during college; SE's adjusted for clustering around the university.

Dependent variable: **Self Image Scale**

Table 8: Positive Social Outlook Regressed on Artistic Practice (frequency); broken down by discipline

	Artistic Practice									
	Film-Video	Compose	Design	Creative Writing	Music	Drama	Fine Art	Craft	Dance	Food
Artistic Practice (ref=none)										
Low	0.01	0.01	0.01	0.02 ***	0.01	0.02 *	0.01	0.01	-0.001	0.01
High	0.06 ***	0.05 ***	0.03	0.04 **	-0.02 *	-0.01	0.03 *	0.00016	0.06 ***	0.05 ***
Female (ref=male)	0.02 ***	0.02 ***	0.02 ***	0.02 ***	0.02 **	0.02 ***	0.02 ***	0.02	0.02 **	0.02 **
Race (ref=white)										
Black	0.07 ***	0.06 ***	0.07 ***	0.06 ***	0.06 ***	0.07 ***	0.07 ***	0.06 ***	0.06 ***	0.07 ***
Latino	0.04 ***	0.04 *	0.04 **	0.04 *	0.04 *	0.05 ***	0.04 *	0.04 *	0.04 **	0.05 **
Asian	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.0021	-0.0021
Other	0.05 *	0.05	0.06 *	0.05 *	0.06 *	0.06 *	0.05 *	0.06 *	0.06 *	0.06 *
N	1620	1625	1623	1620	1629	1623	1623	1619	1619	1621

Legend: * p<0.05; ** p<0.01; *** p<0.001

Note: Models include controls for parents' education, HS arts credits, credits earned in college, level of extracurricular activity, desire for an arts job after college, GPA, whether English is spoken at home, job during college; SE's adjusted for clustering around the university.

Dependent Variable: **Positive Social Outlook**

Table 9: Materialism Scale Regressed on Artistic Practice (binary); broken down by discipline

	Artistic Practice									
	Film-Video	Compose	Design	Creative Writing	Music	Drama	Fine Art	Craft	Dance	Food
Artistic Practice: Yes (ref=no)	-0.2	-0.19	-0.28 *	-0.32	-0.33 *	0.07	-0.28	-0.73 *	-0.08	-0.46 **
Female (ref=male)	-0.23	-0.27 *	-0.22	-0.26 *	-0.31 *	-0.26 *	-0.23	0.02	-0.26 *	-0.22
Race (ref=white)										
Black	1.66 ***	1.69 ***	1.67 ***	1.69 ***	1.6 ***	1.64 ***	1.61 ***	1.58 ***	1.67 ***	1.65 ***
Latino	-0.2	-0.13	-0.13	-0.11	-0.2	-0.25	-0.19	-0.21	-0.14	-0.22
Asian	0.93 **	0.91 **	0.93 **	0.91 **	0.93 **	0.94 **	0.91 **	0.8 **	0.93 **	0.87 **
Other	-0.25	-0.24	-0.23	-0.29	-0.24	-0.26	-0.26	-0.25	-0.29	-0.28
N	1555	1559	1558	1555	1564	1558	1558	1554	1554	1556

Legend: * p<0.05; ** p<0.01; *** p<0.001

Note: Models include controls for parents' education, HS arts credits, credits earned in college, level of extracurricular activity, desire for an arts job after college, GPA, whether English is spoken at home, job during college; SE's adjusted for clustering around the university.

Dependent variable: **Materialism Scale**

Finally, our survey of college students allows us to examine the relationship between a materialistic orientation and wellbeing. Prior research has found that material values—associated with placing a high value on the acquisition of material goods—is negatively associated with wellbeing (Burroughs, J. E. & Rindfleisch, 2002; Kasser and Ahuvia, 2002). We measure materialism through a series of questions, including the extent to which students agree/disagree with the statements: “It sometimes bothers me quite a bit that I can’t afford to buy all the things I’d like”; “I have all the material possessions I really need to enjoy life (reverse coded)”; “My life would be better if I owned certain things I don’t have”; “Buying things gives me a lot of pleasure”; and “I believe students should think of their education as a product they are buying.” The materialism scale has a Chronbach’s Alpha of .69 and ranges from 5 to 20. We hypothesize that engaging in artistic practice should be negatively related to materialist values. For one, modernist notions of art are rooted in the idea of “art-for-art sake” which positions artists and artistic expression as free from material and commercial interests. But perhaps more directly, creative and artistic practice is driven by intrinsic motivation and produce a strong sense of efficacy and what Mihaly Csikszentmihalyi refers to as “flow”—positive emotions linked to mastery and self-direction (Csikszentmihalyi, 1997). Therefore, we hypothesize that artistic practice is related to the positive development of a sense of self. In contrast, scholars have found that a materialistic orientation is driven by extrinsic values—such as a desire to impress others or pressures to conform—which stand in contrast to the values promoted by artistic practice (Ivey and Kingsburo, 2008). If we find that artistic practice is negatively associated with materialistic values, then we add additional evidence to our emerging case for the link between artistic practice and wellbeing.

Table 9 (previous page) shows strong support for our hypotheses. **All else equal, we find a negative correlation between four types of artistic practice—designing clothing, playing a musical instrument, doing crafts and artful cooking—and materialistic values.** Similar to previous findings, the percent standard deviation change in our materialism scale ranges from 10 percent for music to almost 20 percent for making crafts (coefficients of -.33 to -.70 respectively).

SNAAP Analysis

We have explored our central puzzle by examining a survey of the general population as well as a survey of college seniors. Analyses support the possibility that artistic practice leads to higher levels of wellbeing—at a minimum we find a strong positive correlation. Arguably, the relationship should be stronger for those who value artistic practice highly in their lives, such as artists or former artists. More specifically, we suspect that people who went to art school and have trained at a high level of artistic practice would seek opportunities to continue to do art throughout their lifetimes. In fact, according to our SNAAP survey, 78 percent of those arts graduates who aspired to be professional artists but ended up in other professions continue to make art in their personal time outside of work (Lindemann, 2013). Discontinuing one’s artistic practice should lead to lower levels of wellbeing as former artists give up activities that were

once important to their self development and self-image and brought them pleasure, pride and recognition.

By examining our 2009 pilot study of arts graduates, we can test our thesis that sustaining an active artistic life is important for former arts students. We examine life satisfaction through a scale that combines two questions: “In most ways my life is close to ideal” and “I am satisfied with my standard of living.” The two-item scale has a Chronbach’s Alpha of .68 and ranges from 2 (low) to 14 (high).

Table 10 shows the results of OLS regression analysis. Accounting for a respondent’s gender, race, marital status, income, age/cohort, and having children in the home, **we find that whether a person continues to make or perform their art outside of work (avocational artistic practice) has no relationship with life satisfaction** (Table 10, column 1). In fact, while not significant, the relationship is in the opposite direction. In column 2 we examine whether increased satisfaction perhaps requires a slightly higher bar—not only practicing art outside of work but also getting a chance to present or perform your work in public. In other words, perhaps, for former arts students, public recognition is particularly important to one’s sense of satisfaction. But even at this higher and more public level of engagement, we find no relationship between artistic practice and life satisfaction.

One explanation for our findings above is that the relationship between practicing art and satisfaction might depend on whether or not the respondent is a professional artist. In other words, working on your art in non-work time might be great for those who went on to become lawyers or accountants or teachers, but has less appeal for those who are already making art for a living day-to-day. NBA basketball players probably gain less enjoyment from playing basketball on the weekends than former high school players who get together on the weekends and rekindle their love of the game. To account for this, we specifically control for whether a respondent is a professional artist either now or in the past. As Table 10 indicates, even with this control, we still find no relationship; (note: even when examining non-professional artists separately, we find no relationship). However, consistent with other research that finds that professional artists are generally happy with their work, we find that arts graduates who are professional artists report much higher life satisfaction than arts graduates who stopped being professional artists or who were never professional artists. So for those early artistic aspirants, (those who trained to be artists), becoming a professional artist—as we might expect—is associated with higher levels of satisfaction. Other analyses of the SNAAP data find that even those who do not become professional artists are generally happy with their lives, jobs, and opportunities to be creative at work (Lindemann and Tepper, 2012). Still, those who trained to be artists are generally more satisfied with their lives when they actually end up working as professional artists.

But, what explains why doing art in one’s spare time is unrelated to increased life satisfaction for former arts students? If one is not a professional artist, is it actually better in terms of life satisfaction to walk away from artistic practice than to dabble on the side? Perhaps

the operative word is dabble—if one tries to pursue art in one’s spare time but finds insufficient time to do the work well or at the level desired, then this might actually lead to lower levels of wellbeing and satisfaction than giving up artistic practice entirely. On the other hand, if one pursues artistic practice outside of work and feels there is adequate time for art, then perhaps one does experience higher levels of life satisfaction. In Table 11, we test this thesis and find dramatically different results: **if a former arts student practices her art outside of work and feels she has adequate time for this activity, she reports higher levels of life satisfaction than those who do not practice their art at all in their free time. On the other hand, if she continues to practice her art and reports that she does not have adequate time for this activity, then her life satisfaction is significantly lower.** In other words, former arts students are happier when they continue to do their artistic work outside of their regular jobs, but only when they feel they have adequate time to do that work at the desired level. Table 11, column 2, finds that exhibiting or presenting one’s non-work related art is also associated with higher levels of life satisfaction; in fact, the increase in life satisfaction is 35 percent higher (coefficients are .42 and .58 respectively) for those who not only continue to make and present art outside of work but who also exhibit or present their art publicly.

Table 10: Life Satisfaction Scale Regressed on Artistic Practice—
Make/Perform & Exhibit Publicly (binary)

	Artistic Practice	
	Make/perform art outside of work	Exhibit art outside of work
Artistic Practice: Yes (ref=none)	-0.09	-0.003
Female (ref=male)	0.57 ***	0.57 ***
Race (ref=white)		
Black	-0.64 **	-0.62 **
Other	-0.12	-0.19
Professional Artist (ref=never)		
Now	0.7 ***	0.7 ***
In past	-0.01	-0.02
N	2039	2030
R-squared	0.13	0.13

legend: * p<0.05; ** p<0.01; *** p<0.001

Note: Models include controls, whether or not the respondent has kids, is married, year of graduation, and income.

Table 11: Life Satisfaction Scale Regressed on Artistic Practice—
Make/Peform & Exhibit Publicly (binary): accounting for time available

	Artistic Practice	
	Make/perform art outside of work	Exhibit art outside of work
Artistic Practice (ref=none)		
Yes, but not adequate time	-0.33 **	-0.32
Yes, adequate time	0.42 **	0.58 ***
Female (ref=male)	0.61 ***	0.59 ***
Race (ref=white)		
Black	-0.68 **	-0.66 **
Other	-0.15	-0.12
Professional Artist (ref=never)		
Now	0.67 ***	0.68 ***
In past	-0.004	0
N	2039	2030
R-squared	0.13	0.13

legend: * p<0.05; ** p<0.01; *** p<0.001

Note: Models include controls, whether or not the respondent has kids, is married, year of graduation, and income.

Finally, as we discovered in our analysis of the general population sample and the college student survey, not all types of artistic practice have the same positive relationship to wellbeing. **Among our sample of former arts students, we find that practicing music appears to be the most strongly related to increased life satisfaction, followed by dance and visual art.** Playing music is associated with 40 percent of a standard deviation increase in life satisfaction. Theater and film do not have a strong positive relationship with satisfaction; in fact, making films seems to be negatively associated to satisfaction, although not significantly from a statistical perspective. Again, this exploratory study cannot parse out how and why different art forms benefit people differently in terms of wellbeing.

Table 12: Life Satisfaction Scale Regressed on Artistic Practice—Make/Peform (binary); broken down by discipline

	Artistic Practice				
	Music	Dance	Theater	Visual Arts	Film
Artistic Practice (ref=none)					
Yes, but not adequate time	0.03	0.2	-0.18	-0.4 ***	-0.19
Yes, adequate time	0.88 ***	0.85 *	0.46	0.47 ***	-0.16
N	2037	2037		2037	2037
R-squared	0.14	0.13		0.14	0.13

legend: * p<0.05; ** p<0.01; *** p<0.001

Note: Models include controls, whether or not the respondent has kids, marital status, year of graduation, female, respondent's status as a professional artist, and income.

Dependent Variable: Life Satisfaction Scale

Conclusion

Over the past 50 years, public funding for the arts has expanded at the national, state, and local levels, fueling an explosion of nonprofit arts organizations across the US. (Kreidler, 1996). In the 1960s, serious art could be found mainly in the largest US cities: New York, Chicago, Los Angeles, San Francisco. These urban centers were destinations for any aspiring artist. Today—thanks to public funding, foundation giving, and increased private support of the arts—almost every city in America can boast several museums, theaters, and orchestras. Today, artists can forge successful careers in off-centered cities like Nashville, Portland, Atlanta, and many others (Shaw, 2014). But, the extraordinary growth of nonprofits—(and their often-expensive facilities and staff)—has created a sector that many feel is over built and stretching available resources for the arts to their limits (Ivey, 2005). As a result, arts leaders and professionals have relentlessly pursued a variety of strategies to advocate for the arts, with the hope of—at best—increasing public and private investment in the sector, or—at worst—keeping resources at comparable levels going forward. Making the case for the arts has involved both traditional arguments—e.g., the arts are intrinsically important for civilization, they are symbols of achievement, they reflect our highest aspirations—and new arguments that focus on extrinsic benefits—e.g., the arts are good for economic development, they help kids perform better in school, they provide therapy to people with mental and physical health problems (McCarthy et al., 2001). Arguments for the intrinsic benefits of the arts are powerful but seem to lose traction in the hard-knuckled pulls and pushes of public policy and the allocation of scarce resources. On the other hand, extrinsic arguments, while effective at some level, ultimately have trouble stacking up against other “interventions” that might bring even greater benefits. For example, an economic impact study of the arts might yield an impressive set of numbers—jobs created, tax revenues received—but the same analysis of a waste treatment facility might produce a better and more efficient “return on investment.”

Future arguments on behalf of the arts require connecting to core public policy concerns without resorting to auxiliary or secondary benefits of the arts. In what ways do the core activities of art making or arts engagement connect to issues that policymakers care about—not simply facilitating public benefits indirectly, but rather driving public benefits directly?

Bill Ivey, former chairman of the National Endowment for the Arts, has argued that future public policy arguments on behalf of the arts will need to account for how the arts contribute to a high quality of life, especially in a context where the material status of rising generations may well be lower rather than higher than the generations before them (Ivey, 2009, 2012). Governments at every level are tasked with trying to advance a high quality of life for their citizens. If active engagement in art and culture are key ingredients for a high quality of life, then perhaps the arts can demand a seat at the policy table where hard decisions about public investments are made.

The research presented here is one of the first attempts to explore the relationship between arts engagement and quality of life across a range of datasets, using diverse metrics of arts engagement and quality of life. We focused explicitly on “artistic practice”—making art—as opposed to attending arts events. To the extent that engagement in the arts leads to higher levels of subjective wellbeing (e.g., a sense that one is satisfied with life, is not overly anxious about the future, is open to new people, has a positive self image, and has a less materialistic orientation), most theories would argue that the benefits come from mastery, self expression, positive feedback, and self-development, all of which are more directly tied to making art rather than simply experiencing art that someone else has made.

Our findings are strong and robust. Across all three surveys investigated here, we find that those who actively engage in an artistic practice report higher levels of wellbeing: they are more likely to say they are satisfied with their lives, feel confident about changes around them as well as future directions, have a positive self image and a positive social outlook, and report being less oriented around materialistic values. We also found that more is better. In general, people who make and perform art more often report even higher levels of wellbeing than those who participate less frequently.

The relationship with quality of life and wellbeing is complex, subtle, and differentiated. Not all arts activities affect all individuals the same way and to the same degree. For example, using the national sample from the DDB Life Style Survey, we found that making or doing art—making crafts, designing gardens, playing music—was more strongly related to wellbeing for women and non-whites. Future research is necessary to sort out why this might be the case. Initially, we suspect that art making is associated with the development of a positive sense of self, as psychologist Tim Kasser has posited (see Ivey and Kingsbury, 2007). Given the lower status roles occupied by women and minorities historically, perhaps the feelings of efficacy and self worth generated by making art brings special advantages.

We also find that, with respect to wellbeing, not all artistic practices share the same strong relationships across all groups. While playing a musical instrument is positively related to wellbeing in both our national sample and among arts graduates, we find no relationship for currently enrolled college seniors. Making fine arts and crafts, in contrast, is positively associated with wellbeing across all the surveys, while participating in theater seems unrelated to positive wellbeing whether we are looking at either current students or graduates of arts training institutions. Making films is positively related to wellbeing for current college seniors, but it is unrelated to wellbeing for arts graduates. Future research needs to parse out these different effects across different disciplines and subpopulations. In this research, we simply offer exploratory, correlational analysis. But, what actually happens when people engage in different artistic practices? How do different contexts for making and presenting art change the way such activity influences wellbeing? Future studies must go beyond correlational analysis to both examine changes overtime in the relationship between artistic practice and wellbeing as well as

use qualitative approaches to better understand how people make connections between the art they make, the lives they live, and their broader aspirations, values, and purposes.

Perhaps one of our most interesting findings is the complicated picture that emerges when we look at former arts students. Through analysis of the SNAAP data we find that practicing art in one's free time has both positive and negative associations with wellbeing. Arts graduates might be better off walking away from their artistic passions than attempting to either make or present art under conditions where they feel they have inadequate time to invest in their artistic practice. On the other hand, for those who are able to carve out adequate time, they report much higher levels of wellbeing than those who have stopped doing art altogether. Arts schools should heed these findings when trying to figure out how to support their graduates, perhaps paying special attention to helping graduates sustain a robust artistic life where there is sufficient time to practice art at a high level. Simply dabbling in the arts might be frustrating and counterproductive for those former students who once trained at a fairly high level.

In addition to the challenge of sorting out the mechanism that might link artistic practice to higher levels of wellbeing, future studies need to design much more valid measures of wellbeing. Because we were using existing data sets not intended for examining wellbeing and quality of life, we were forced to construct scales that might not perfectly measure what we hope to measure. In other words, our scales of life satisfaction—generalized anxiety, positive self image, positive social outlook, and materialism—include questions that are closely related, but perhaps not perfect measures of wellbeing. We suspect that with stronger measures, future studies will be able to dig deeper, use more sophisticated analyses, minimize error, and differentiate the relationship between artistic practice and wellbeing to a much greater extent. Nonetheless, this exploratory study provides strong support that engaging in an artistic and creative practice on a regular basis might indeed be one important pathway to a higher quality of life. Policymakers and scholars would be remiss not to work arduously to clear the brush from this pathway and reveal a future role for the arts in public life.

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“An earlier Curb Center report, ‘Happiness and a High Quality of Life: The Role of Art and Art Making’ (2007), set out compelling hypotheses regarding the link between art, creativity, and quality of life, but empirical studies were hard to come by at that time.

Today, thanks to the work of Steven Tepper and his colleagues, we are closer to establishing the impact of the arts in our lives through the kind of research that will speak directly to policy makers. We are closer to verifying empirically something many of us assumed but couldn’t prove.” —*from the Preface*

