

What Makes Artists Happy in South Korea?

An Empirical Study on Artists' Job Satisfaction

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ABSTRACT

The artistic labour market is often characterized as having the following traits: workers have a relatively low income with a high educational background, relatively high job satisfaction with a low income, multiple job holdings, and a high rate of self-employment. David Throsby's 1994 work-preference model, which articulates these particular features of artistic labour markets, is a widely accepted theory in the academic discipline of cultural economics. He asserts that artists derive more utility from artistic work itself than from income or leisure time. As a consequence, artists still prefer to invest their time in their artistic work - rather than in their non-artistic work or free time - even though the hourly wages for non-artistic work are higher. This stands in contrast to the argument made by standard economists, who assert that workers are more motivated to supply labour when they are paid more.

This contradiction raises two questions: firstly, whether this is an international phenomenon associated with the artistic labour market; and, secondly, whether there are any other aspects that allow artists to become more satisfied with their artistic work, alongside their strong preference for artistic work itself. This study aims to answer these questions by focusing on the job satisfaction of artists in the Asian country of South Korea. In order to do so, this study poses and confronts the following research questions: *To what extent can Throsby's work preference model (1994) explain the artistic labour market in South Korea?* and *what are the major determinants of the job satisfaction of artists?* Data from the 2015 *Survey on Artists and Activities*, conducted by the South Korean Ministry of Culture, Sport and Tourism, is used to identify responses to both of these questions.

The findings of this study demonstrated that the artistic labour market in South Korea supports Throsby's work-preference model, as artists derive a higher job satisfaction from artistic work itself. Moreover, a number of factors were found to have a significantly positive effect on the job satisfaction of artists: income from artistic work, the ratio of working hours

for artistic work to the total amount of working hours, self-employment, the possession of a separate workspace, and an awareness of the value of artistic work. Inversely, an awareness of economic, artistic and external limitations had a significant negative effect on the job satisfaction of artists in South Korea.

KEYWORDS: Artists' labour markets, work-preference model, job satisfaction, 2015 *Survey on Artists and Activities*, South Korea

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1. Introduction

Artists' labour markets are often described as having the following characteristics: relatively high job satisfaction rates with low incomes, multiple job holdings, and a high ratio of self-employment (Abbing, 2002). By researching artistic labour markets, cultural economists seek to understand the extent to which the standard theory of labour economics explains artists' willingness to supply artistic labour (Towse, 2010). The work-preference model, put forward by the cultural economist David Throsby in 1994, is a prominent example of this.

Throsby illustrates how the artistic labour market and standard labour market differ in terms of the worker's degree of preference to spend time working. In standard labour economics, it is assumed that work is viewed as a means of income (Throsby, 1994, p.69), and that a higher hourly wage leads to a greater supply of labour (Towse, 2010, p. 296). However, when their income reaches a certain level, workers tend to reduce their supply of labour and increase their leisure time. As a result, it is believed that workers derive utility from income and leisure time, and disutility from their labour (Throsby, 1994, p.69).

When it comes to the artistic labour market, however, Throsby (1994) asserts that artists derive a greater utility from artistic work itself, more than income or leisure time. According to this model, artists often devote their time to both artistic and non-artistic work, as they are unable to support themselves financially through their artistic work alone. Although hourly wages for non-artistic work are higher, artists prefer to supply more labour into their artistic work than their non-artistic work. This is in direct contrast to the argument presented by standard economists, who believe workers tend to supply labour based on hourly wages.

This contradiction raises two questions: firstly, whether this is an international phenomenon associated with the artistic labour market; and, secondly, whether there are any other aspects that allow artists to become more satisfied with their artistic work, alongside their strong preference for artistic work itself. These questions provide the starting point for this research.

This study investigates the artistic labour market in South Korea, focusing on the job satisfaction of artists. In order to do so, this study attempts to find whether Throsby's work-preference model is applicable to South Korea, and aims to identify the major determinants of job satisfaction for South Korean artists. This study employs quantitative research methods in the form of secondary data collection, using national register data from the 2015 *Survey on Artists and Activities* conducted by the South Korean Ministry of Culture, Sport and Tourism.

The 2015 *Survey* is the first to be carried out after a holistic overhaul of the survey's structure precipitated by the first amendment to the *Welfare Act for Artists* in 2013. This data set is therefore unique material that enables a thorough investigation of the job satisfaction of artists in South Korea.

Existing literature on this topic has been collected exclusively from Western countries. Nonetheless, two studies, conducted by Yoon and Heo (2016) and Park and Kim (2017), have focused on the job satisfaction of artists in South Korea. Both studies, however, are limited in terms of their research methods and research design. For instance, an outdated source from the 2012 *Survey* is used, and working hours for artistic and non-artistic work are excluded. To the best of our knowledge, therefore, this paper is the first to empirically examine the job satisfaction of all types of artists using results from the 2015 *Survey on Artists and Activities*. Consequently, this study aims to contribute towards academic discussions surrounding the artistic labour market of non-Western countries, by shedding light on artists' job satisfaction in South Korea.

The following chapter of this paper examines relevant academic literature on job satisfaction, both in general and specifically with respect to the artistic labour market. Moreover, it develops testable hypotheses. The third chapter introduces the data from the 2015 *Survey on Artists and Activities* and research methods. The results of these research methods are discussed in the fourth chapter, with particular reference to the applicability of the work-preference model and the major determinants of artists' job satisfaction. The fifth chapter draws the conclusion of this paper and provides both theoretical and practical implications alongside relevant suggestions for future research.

2. Theoretical Framework

This chapter provides an overview of recent literature on job satisfaction. These studies include research on job satisfaction in both general and artistic labour markets, as well as job satisfaction in Western and Asian countries, including South Korea. Furthermore, over the course of this chapter, testable hypotheses of this research are developed.

2.1. Studies on Job Satisfaction in Labour Markets

Studies on job satisfaction have long been limited to the domain of psychologists and sociologists; in recent decades, however, economists have paid increasing attention to the subject of job satisfaction (D'Addio et al., 2007, p. 2415; Steiner and Schneider, 2013, p. 230).

Within the field of economics, sporadic research on job satisfaction first emerged in the late 1970s. The amount of research has grown since the 1990s, when there was a renewed interest in the topic. Studies conducted during the 1970s and 1990s mostly argue that there is a strong positive correlation between income and job satisfaction, whereas the number of working hours have a negative relationship with job satisfaction (D'Addio et al., 2007, pp. 2415-2416).

During the past two decades, a large amount of research on the job satisfaction of workers within labour markets has been carried out, such as, D'Addio et al. (2007), Eriksson and Frijters (2007), Benz and Frey (2008), Danish and Usman (2010), Bonsang and van Soest (2012), and Rizwan et al. (2015).

D'Addio et al. (2007) highlighted significant differences in the determinants of job satisfaction between men and women, based on data from Denmark. They conclude that employment in the public sector only has a positive effect on the job satisfaction of females. For male workers, hourly wages have a significantly positive effect, and part-time work and health proxies have negative effects on their job satisfaction. For both female and male workers, newborn children, temporary contracts and age have no effect.

Research conducted by Benz and Frey (2008), based on data from Germany, the United Kingdom and Switzerland, concludes that self-employed individuals have a higher job satisfaction rate than those who work for organizations - regardless of earning and working hours - as they experience and enjoy higher levels of autonomy.

In 2010, Danish and Usman investigated the influence of reward and recognition on job satisfaction rates in Pakistan. They discovered that while *reward* in terms of financial benefits and promotion has a great impact on job satisfaction, *recognition* in terms of the appreciation from colleagues and bosses that workers receive has an impact, but at a low significant level. In efforts to interpret their findings, they attribute their results to the specific cultural context of the Pakistani working environment that is in contrast to the Western environments of previous studies, based on a pair of issues: the matter of earning one's bread

and butter is more important than receiving recognition from others; bosses tend not to appreciate workers who show good performances (Danish and Usman, 2010, p. 163).

Bonsang and van Soest (2012) investigate the job satisfaction of older workers in Europe (between fifty and sixty-four years old). Their research discusses the relationship between job satisfaction and several variables, which included age, years in the educational system, health, alongside higher salaries and working hours. The result of their study reveals that age has a significant positive effect on job satisfaction.

Danish et al. (2015) aim to identify the important determinants of job satisfaction for employees working within organizations, also in Pakistan. In order to do so, they explore four different categories of variables: workplace environment, reward and recognition, teamwork, and training and development. Each category was shown to have a significant positive relationship with job satisfaction.

Furthermore, alongside research into the general labour market, researchers have also investigated specific occupations. While Bodur (2002) investigated the job satisfaction of healthcare staff in Turkey, Sone et al. (2013) explored the job satisfaction of radiologists in Japan, and Azumah et al. (2017) examined the job satisfaction of university staff in Ghana.

Bodur (2002) concludes that low income and unfavorable working conditions have negative impacts on the job satisfaction of healthcare staff, whereas age, gender, workplace (urban or rural) and professional experience do not have any impact on job satisfaction. Sone et al. (2013) find that annual income and the opportunity to work in larger hospitals are the most important determinants of job satisfaction among radiologists in Japan. Azumah et al. (2017) examined which aspects – such as salary, work environment, work autonomy, and workload – have an impact on general job satisfaction. These were found to be the workload (negative relationship) and the salary (positive relationship).¹

As previously mentioned, according to standard theory in labour economics, workers derive utility from their income and leisure time and disutility from their labour. However, Frey (1997) argues that money is not the only reason for working. As Throsby (1994) asserts, workers in specific occupations derive utility from the work itself. This *work-preference model* is not only applied to artists, but also to individuals working in other fields – such as academics, researchers and scientists.

For example, in their investigation of the job (life) satisfaction of economists in European countries, Feld and Frey (2015) conclude that the factors of ‘publication success’ and

¹ Nonetheless, their research lacks information, as their results were solely based on the current situation of every staff members and not the exact figures of their income and working hours.

‘perceived level of external pressure’ –all relevant in academia today- do not have an effect on job satisfaction, while the ‘lack of a tenured position’ has a negative effect. In addition, there is a significant positive relationship between the amount of hours of research and their job satisfaction, which indicates that economists, who spend more time conducting research, have a higher job satisfaction. In other words, economists derive their utility from doing research itself. This result, hence, supports the argument above that the work-preference model is applied not only to artists but also to other fields, such as academia.

2.2. Studies on the Job Satisfaction of Artists

When it comes to research on the job satisfaction of artists, David Throsby’s work-preference model (1994) is a widely accepted theory within the discipline of cultural economics. The research, which Throsby undertook in 1994, indicates that there are two ‘versions’ of work-preference model.

The *strong version* of the work-preference model supports the idea that artists aim to maximize the working hours spent on their artistic work. Artists would extend their working hours for their artistic work even when they receive a pay raise for their non-artistic work. The *weaker version* of the work-preference model demonstrates the similarity between artists’ labour supply and general labour supply while artists derive utility from the artistic work itself. In other words, artists are responsive to changes in the hourly wages of artistic and non-artistic earnings, and make a tradeoff between working hours for artistic and non-artistic work, but they still have a higher preference for artistic work. For instance, when they receive a higher pay for their non-artistic work, artists tend to increase their working hours for non-artistic work, and vice versa (Throsby, 1994, p.74).

Robinson and Montgomery (2002) examine these two different versions of the work-preference model – the strong and weaker version – as well as the relationship between artists’ educational level and income. Based on national statistics in the United States, the results of their research show that the labour supply of artists supports the weaker form of the work-preference model, since artists allocate their artistic and non-artistic working hours in response to the payment of artistic and non-artistic work while having the preference for artistic work. According to their findings, there was no significant effect between education and income from artistic work, meaning that higher levels of education do not lead to a

higher artistic income. Nevertheless, there was a positive relationship between education and income from non-artistic work.

There are more studies that demonstrate the theory put forward by Throsby (1994) through empirical evidence. These studies are based on national statistics in Uruguay (Casacuberta & Gandelman, 2012), Germany (Steiner & Schneider, 2013), forty-seven European countries (Bille et al., 2013) and Norway (Bille, Løyland & Holm, 2017).

Casacuberta and Gandelman (2012) investigate the work-preference model by looking at the labour supply of performing musicians in Uruguay. They examine two groups of artists, full-time and part-time, and include leisure time aspect in their research model alongside artistic and non-artistic working hours, which Throsby (1994) does not.

They conclude that part-time artists tend to *reduce* their non-artistic working hours when their wages for non-artistic work increase. This, surprisingly, has no effect on artistic working hours. In other words, part-time artists tend to substitute their non-artistic labour for leisure time, not for their artistic work. Full-time artists, on the other hand, tend to *increase* artistic working hours when they receive a pay raise for their non-artistic work. In other words, they seem to invest additional income from non-artistic work in artistic consumptions. Their results therefore seem to counter Throsby's work-preference model, as Throsby (1994) demonstrates that the hourly wage of non-artistic work has a negative effect on non-artistic working hours, and at the same time, a positive effect on artistic working hours.

On this issue, Casacuberta and Gandelman (2012) suggest several reasons why their research may not be directly comparable to Throsby's in terms of the different study designs, such as including leisure time in their study designs. Meanwhile, they also assume that the results of their research may support the positive effect of subsidies on artistic work. Nonetheless, it is unclear whether full-time artists were asked about the amount of subsidies they received as the income from non-artistic work or not.

In Steiner and Schneider's examination (2013) of panel data from the German Socio-Economic Panel Survey, they conclude that German artists have a significantly higher job satisfaction rate than average workers (non-artists). They also demonstrate that total income has a positive effect on both the job satisfaction of artists and non-artists, however, the effect of total income on non-artists job satisfaction is much stronger. This study can be considered

one of the first studies, worldwide, that investigates the job satisfaction of artists in comparison with that of non-artists using empirical evidence.²

The impressive research conducted by Bille et al. (2013) on forty-seven European countries also examines the job satisfaction of artists compared with non-artists and shows that artists have significantly higher job satisfaction than non-artists. They investigate several procedural characteristics that could potentially contribute towards job satisfaction. These include being self-employed, flexible working hours and the ability to make one's own decisions. They conclude that being self-employed has a significantly positive effect on artists' job satisfaction, while flexible working hours and the ability to make one's own decision show no significant effect.

Bille, Løyland and Holm (2017) engage in research that tests the work-preference model as well as probes the impact of arts grants on artists' labour supply. Their results show that there is a positive effect of non-artistic wages on artistic working hours and a negative effect on non-artistic working hours, when the wage for non-artistic work belongs to lower wage levels. In contrast, when the wage belongs to higher wage levels, their correlations show the reverse conditions, with a certain turning point.

Their findings reveal that the work-preference model is applicable to the labour supply of artists in Norway till the certain turning point of the income from non-artistic work. They also conclude that arts grants have a positive and relevant impact on artistic work. A particularly interesting aspect of their research is their explicit division of non-labour income into three categories - spouse income, income from financial assets, and social benefits and artistic grants – in order to explore the impact of other sources.

2.3. Studies on Job Satisfaction in South Korea

Remarkably, quite a number of studies have been undertaken as a result of the South Korean government's collection of national register data on the non-artistic and artistic labour market. This section will examine academic literature that looks at the job satisfaction of general workers and artists in South Korea based on these data sets. This includes the following articles: Jung et al. (2007), Lee (2010), Lee (2013), Yoon and Heo (2016), Lee and Kim (2017) and Park and Kim (2017). The first three articles are based on national register

² Nonetheless, their research does not consider the aspect of multiple job-holdings of artists that they supply their labour to both artistic and non-artistic market so that they cannot demonstrate whether artists who spend more time on artistic work show relatively higher job satisfaction or not.

data from the Korean Labor and Income Panel Study (KLIPS) and focus on the general labour market. The latter three articles are based on data from the *Survey on Artists and Activities* conducted by the South Korean Ministry of Culture, Sport, and Tourism, and focus on the artistic labour market.

Jung et al. (2007) explore whether there are significant relationships between job satisfaction and age, gender and service sector. In order to examine this, they use data from the *Korean Labor and Income Panel Study* (KLIPS) from 1998 to 2002. Their results show that age has a positive significant impact on job satisfaction only for the employees working in the public sector, implying that older public service workers have relatively higher job satisfaction. Meanwhile, there is a significant relationship between gender and job satisfaction for all types of employees, with men being less satisfied with their work compared with women. While previous literature introduced in their research demonstrates a higher job satisfaction *in general* among older people (Jung et al., 2007, pp. 127-128), Jung et al. (2007) conclude that there is only a positive relationship between job satisfaction and the age of employees in the public sector.

Research (based on data from the 2006 KLIPS) conducted by In-Sook Lee (2010) focuses on the impact of gender differences on job satisfaction rates. She concludes that women show a higher job satisfaction overall compared with men, which is in line with the result of the study conducted by Jung et al. (2007), as discussed above. She further finds that there are three important determinants of job satisfaction: the worker's health condition, commitment to work, and social welfare benefit.

Bokim Lee (2013) investigates the job and life satisfaction of occupational health nurses as non-standard workers in South Korea. In order to do so, she uses data from the 2008 KLIPS. In her study, Lee compares the job satisfaction of non-standard workers with that of standard workers. She concludes that non-standard workers show a significantly lower job and life satisfaction than standard workers. She also shows that non-standard workers, who are male, younger, married with a higher education level, and income, have a greater job and life satisfaction. According to her definition of non-standard workers, which includes part-time workers and freelancers, artists can be viewed as non-standard workers. Nevertheless, significant differences among various types of standard workers exist. For example, occupational health nurses have a lower job satisfaction rate than standard workers.

Studies of job satisfaction of artists show similarities and differences in results. Lee and Kim (2017) investigate the income structure of artists based on data from the 2015 *Survey on Artists and Activities*. They show that the number of artists on middle-income is significantly

small, while there is a very great difference between the income of artists on high-income and low-income. This results in a greater income disparity among artists in comparison to other job sectors. This is not only applied to artistic income, but also non-artistic income alongside grants and funds. Moreover, Lee and Kim demonstrate the different results of their study in regard to gender, age and residence. Male artists earn much more money than female artists. The artists aged from 35 to 60 years old earn a lot more than the other groups, such as the group aged less than 35 years old. Moreover, artists living in the other areas compared with the capital area earn and receive even much less than the average total and artistic incomes and grants.

Both Yoon and Heo (2016) and Park and Kim (2017) focus on the job satisfaction of artists in South Korea by using data from the 2012 and 2015 *Survey on Artists and Activities* respectively.

The research undertaken by Yoon and Heo (2016) is, to the best of my knowledge, the first empirical study on the work-preference model in South Korea. They examine whether Throsby's work-preference model (1994) fits onto the labour supply of artists in South Korea by demonstrating that there are significantly positive effects of both artistic working hours and artistic income on job satisfaction. In addition, they examine changes in job satisfaction rates in relation to the different ranges of income groups. They conclude that a higher artistic income shows a higher job satisfaction – but only to the point before artistic income exceeds a certain level. In this research, that level is 2,000,000 won. Otherwise, the job satisfaction rate is less than that. They also show how women have a lower job satisfaction rate, which differs to the results from the literature discussed above, such as Jung et al. (2007) and Lee (2010). Furthermore, they also show that artists who live in the capital, with a higher education level, have a lower job satisfaction rate compared with their counterparts living in the rest of the country. Nonetheless, as the 2012 *Survey* does not include information on full-time and part-time division and non-artistic working hours, the results of the study are limited.³

In examining the job satisfaction of artists, Park and Kim (2017) focus on performing arts in terms of five different fields. They do so by using data from the 2015 *Survey on Artists and Activities*. They find several important determinants of job satisfaction, which are as follows: income from artistic work, the number of years in the profession, the possession of a separate working space. These have significant positive effects on job satisfaction. In contrast, gender,

³ The differences between the 2012 and 2015 *Survey* will be discussed further in the chapter on methods.

educational level, the location for artistic work, and non-artistic income have no effect. Age in the total of five fields shows no effect while age of musicians indicates a significantly negative effect on job satisfaction. Importantly, Park and Kim do not include artistic and non-artistic working hours as independent variables in their research. Hence, they are not able to prove the work-preference model using data from the 2015 *Survey*.⁴

2.4. Hypothesis

The previous sections provided an overview of recent studies on job satisfaction. These studies consisted of research on job satisfaction in both general and artistic labour markets, as well as job satisfaction in Western and Asian countries – including South Korea. This study, based on both theoretical and empirical research, develops and tests several hypotheses in order to investigate whether David Throsby’s work-preference model (1994) is applicable to South Korea, and to identify the major determinants of job satisfaction for South Korean artists. These hypotheses are divided into four major categories: The work-preference model (which covers income and working hours), working conditions (which include *reward and recognition*), psychological factors, and socio-demographic variables.

2.4.1. The Work-Preference Model: Income and Working Hours

We will form a hypothesis to demonstrate the applicability of Throsby’s work-preference model (1994) to the artistic labour market in South Korea. In the work-preference model, the income and working hours for both artistic and non-artistic work are looked at in relation to job satisfaction. Income is a demographic factor, while working hours are an aspect of working conditions. Several studies have inspired this hypothesis.

The majority of studies on the general labour market support the significant positive effect of income on job satisfaction. Research conducted by Curall et al. (2005), Bonsang and van Soest (2012), and Sone et al. (2013) reveals the positive effect of higher wages on job satisfaction. On the other hand, Bodur (2002) demonstrates how a low income has a negative impact on the job satisfaction of healthcare staff. Azumah et al. (2017) found that a high satisfaction with one’s salary has a significant impact on a higher rate of job satisfaction.

⁴ According to Park and Kim, they cannot include these working hours, as there is no information on full-time artists’ working hours for their artistic work in this survey.

Nevertheless, when it comes to the artistic labour market, Throsby (1994) showed that artists tend to invest their labour in their artistic work - even though the hourly wage for non-artistic work is higher than that of artistic work. Throsby (1994) concluded that artists derive more utility from *artistic work itself* than from their incomes and non-artistic work.

Hypothesis 1A_1 (Work-Preference Model):

Artists tend to invest more of their labour in artistic work than in non-artistic work, even though the hourly wage for non-artistic work is higher than that of artistic work.

Hypothesis 1A_2 (Work-Preference Model):

Artists who invest more time in their artistic work than in their non-artistic work show a higher job satisfaction.

Empirical studies conducted by Robinson and Montgomery (2002), Yoon and Heo (2016) and Bille et al. (2017) demonstrate how the work-preference model fits the artistic labour market. Park and Kim (2017) found that income from artistic work has a significant impact on the job satisfaction of artists, while income from non-artistic work has no effect on job satisfaction within the field of the performing arts in South Korea.

Meanwhile, Steiner and Schneider (2013) examined both the artistic and non-artistic labour markets. They conclude that total income has a positive effect on the job satisfaction of artists *and* non-artists. However, the income of non-artists has a much stronger impact on job satisfaction than artists' incomes. This, therefore, supports Throsby's work-preference model for artists. Steiner and Schneider's study (2013) is the first to compare, using *empirical* evidence, the job satisfaction of non-artists with the job satisfaction of artists. However, they do not examine the *different sources* of artists' incomes.

Nonetheless, it is important to note how other studies have examined two or three different categories of income, when looking at the correlation between income and the job satisfaction of artists. These categories include income from artistic work, income from non-artistic work, and household or spouse income. For example, Robinson and Montgomery (2002) include a partner's insurance coverage as a proxy for a spouse's earnings, in the assumption that artists would spend more time on artistic work if their spouses supported them with their health insurance.

Bille et al. (2017) divide non-labour income into three categories. These categories are 'spouse's income', 'income from financial assets and social benefits', and 'artistic subsidies'.

Their findings reveal that a spouse's earnings have a significant positive effect on leisure time, and a significant negative effect on working hours for non-artistic work. Furthermore, they demonstrate that a spouse's income has no effect on working hours for artistic work. Yoon and Heo (2016) include living standards for lower, middle and upper classes in their model as a proxy for household income. They conclude that, for middle class artists, living standards have a significant positive effect on job satisfaction. For lower and upper class artists, however, living standards have no effect on job satisfaction.

This study will include the income of spouses or parents as one of the income variables. If the artist's spouse or parents have a higher income, the artist is able to spend more time on their artistic work rather than working part-time to earn a living.

In regard to income, we hypothesize the following in line with the work-preference model:

Hypothesis 1B_1 (Income From Artistic Work):

There is a positive relationship between income from artistic work and the job satisfaction of artists.

Hypothesis 1B_2 (Income From Non-Artistic Work):

The amount of income from Non-artistic work has no effect on the job satisfaction of artists.

Hypothesis 1B_3 (Spouse's Income):

There is a positive relationship between the amount of income from the artist's spouse or parents and the job satisfaction of artists.

As previously mentioned, when it comes to working hours, Throsby (1994) shows that artists tend to invest their labour into their artistic work - even though the hourly wage for non-artistic work is higher than that of artistic work. Nonetheless, Casacuberta and Gandelman (2012) conclude that *part-time artists* tend to reduce their working hours for non-artistic work when their wages for non-artistic work increases. Meanwhile, there is no effect on working hours for artistic work. On the other hand, *full-time* artists tend to extend their workings for artistic work when there is an increase in their wages for non-artistic work. Interpreting these results, part-time artists derive a higher utility from leisure time than from

artistic work or their income. Conversely, full-time artists derive a higher utility from artistic work itself.

Bille et al. (2017) further explore the effects of the different sources of income on the artist's time allocation. This research is based on two categories of artists, part-time and full-time. However, they do not find any qualitative difference between the two groups. Their findings reveal that the work-preference model is applicable to the *labour supply* of artists. It is important to note that both studies by Casacuberta and Gandelman (2012) and Bille et al. (2017) categorize artists' time allocation into three categories: 'arts work', 'leisure', and 'non-arts work'. Casacuberta and Gandelman (2012) and Bille et al. (2017) assume that leisure time is a source of *maximizing* the artist's utility function, like artistic work. Therefore, this study also includes three alternative time allocations: working hours for artistic work, working hours for non-artistic work, and leisure time.

In regard to the effect of working hours on job satisfaction within the general labour market, Clark and Oswald (1996) and Bonsang and van Soest (2012) support the significant negative effect of working hours on job satisfaction. Moreover, findings of the research conducted by Steiner and Schneider (2013) on the artistic and non-artistic labour market reveal that working hours have a significant negative effect on the job satisfaction of non-artists, while they have a significant positive effect on the job satisfaction of artists.

In regard to working hours, we hypothesize the following in line with the work-preference model:

Hypothesis 1C_1 (Full-Time):

Full-time artists have higher job satisfaction than part-time artists.

Hypothesis 1C_2 (Ratio of Working Hours for Artistic Work to Total Working Hours):

The ratio of working hours for artistic work to the total amount of working hours has a positive effect on the job satisfaction of artists.

Hypothesis 1C_3 (Leisure Time):

The amount of leisure time has a positive effect on the job satisfaction of artists.

2.4.2. Working Conditions, Including Reward and Recognition

Many studies on the job satisfaction of non-artists have examined *working conditions* as a major determinant of job satisfaction. However, little research has investigated working conditions in relation to the job satisfaction of artists. Studies conducted by Benz and Frey (2008) and Bille et al. (2013) show the positive effect of self-employment on job satisfaction. Bille et al. (2013) highlight the working conditions for self-employed individuals, such as self-determination and greater autonomy. This argument is in line with Bruno Frey's crowding theory.

According to standard economists, monetary incentives result in a predictable response - an increase in productivity. The basis for this prediction is the 'relative price effect', where volume and intensity are increased when an activity is more highly rewarded (Frey, 2017, p.59). While standard economists remain firmly tied to the concept of the 'relative price effect' and *extrinsic motivation*, Frey negotiates between psychological theories and the standard economic model in order to further elaborate on his ideas surrounding intrinsic motivation (Frey & Jegen, 2001, p. 591). Frey does not completely abandon the idea of the 'relative price effect', looking at the respective situations in which the 'relative price effect' and the 'crowding-out effect' can be applied. His findings reveal exceptional cases in which the 'relative price effect' cannot occur, as a result of the 'crowding-out effect' (Frey & Jegen, 2001, p. 595). Frey demonstrates how the 'crowding-out effect' is generated when *external incentives undermine any intrinsic motivation*. As a result, marginal benefit from the agent's performance is negatively affected (Frey, 1997, p. 22).

In cases where external incentives increase intrinsic motivation, Frey and standard economists follow the same line of thought based on the 'relative price effect' - which Frey calls the *crowding-in effect*. By contrast, a controversial situation arises for both parties when the 'crowding-out effect' subjugates the 'relative price effect' (Frey & Jegen, 2001, p. 589).

Frey and Jegen describe the theoretical possibilities in which the 'crowding-out effect' is able to dominate the 'relative price effect'. For instance, this situation can occur when extrinsic intervention transforms a non-monetary relationship into a monetary relationship (Frey & Jegen, 2001, p. 590). In relation to two psychological processes termed 'impaired self-determination' and 'impaired self-esteem', Frey and Jegen demonstrate how external incentives can crowd out intrinsic motivation if individuals recognize that they are under control. This is the result of a reduction in self-determination and self-esteem, which in turn decreases intrinsic motivation (Frey & Jegen, 2001, pp. 594-595).

On the other hand, Rizwan et al. (2015) and Bodur (2002) explore the positive effect of the *workplace environment* on job satisfaction. In regard to this issue, Park and Kim (2017) conclude that the possession of a *separate space for artistic work* has a significant positive effect on the job satisfaction of artists working within the field of the performing arts in South Korea. In addition, Danish and Usman (2010) and Rizwan et al. (2015) conclude that *reward and recognition* show a significant positive relationship with job satisfaction.

When it comes to grants, Bille et al. (2017) conclude that arts grants have a positive effect on working hours for artistic work as well as motivation. They further explain that receiving grants tends to motivate artists to invest more time in their artistic work. The results of this study is in line with Frey's 'crowding-in effect' that describes the situation in which external incentives increase intrinsic motivation.

In order to test the hypothesis of 'reward and recognition', this study includes several proxies as independent variables. These include the receiving of grants, copyright ownership, and the number of artistic activities.

Hypothesis 2A (Self-Employment):

Being self-employed has a significantly positive effect on the job satisfaction of artists.

Hypothesis 2B (Possession of a Separate Working Space):

The possession of a separate working space for artistic work has a significantly positive effect on the job satisfaction of artists.

Hypothesis 2C (Reward and Recognition):

'Reward and recognition' has a significant positive effect on the job satisfaction of artists.

2.4.3. Psychological Factors

In line with Frey's 'crowding-out effect', which has been previously mentioned, four proxies are considered psychological factors in the job satisfaction of artists. These four proxies are included in this study, depending exclusively on data available from the 2015 *Survey on Artists and Activities*.

Hypothesis 3A (External Restrictions):

There is a significant negative relationship between the awareness of multiple external restrictions and the job satisfaction of artists.

Hypothesis 3B (Limit of Artistic Ability):

There is a significant negative relationship between the awareness of the limits of artistic ability and the job satisfaction of artists.

Hypothesis 3C (Limit of Economic Ability):

There is a negative relationship between the awareness of the limits of economic ability and the job satisfaction of artists.

Hypothesis 3D (Value of Work):

There is a significant positive effect between the awareness of the value of their work and the job satisfaction of artists.

2.4.4. Socio-Demographic Variables

In regard to socio-demographic factors, the commonly-used control variables of age, gender, education level, number of years in the profession, and the place of residence will be investigated in order to look for significant differences in people's behavior and preferences.

The literature is not unanimous when it comes to age and job satisfaction. Results of the study conducted by Bonsang and van Soest (2012) reveal that age has a significant positive effect on job satisfaction, while Bodur (2002) finds that age has no effect on job satisfaction. While previous literature introduced by Jung et al. (2007) demonstrates a higher job satisfaction *in general* among older people, Jung et al. (2007) conclude that there is only a positive relationship between job satisfaction and age for employees in the public sector. Moreover, Park and Kim (2017) conclude that, in the total five fields of the performing arts, age shows no effect while the age of musicians indicates a significantly negative effect on job satisfaction.

Hypothesis 4A (Age):

There is a positive relationship between age and the job satisfaction of artists.

In relation to the issue of *gender*, the literature review for this study provided evidence of gender differences. In examining the non-artistic labour market, D'Addio et al. (2007), Jung et al. (2007) and Lee (2010) indicate different determinants, and conclude that women show a higher overall job satisfaction rate in comparison to men. However, Bodur (2002) finds that gender has no effect on job satisfaction. Meanwhile, Yoon and Heo (2016) show that female artists have a lower job satisfaction rate than male artists, which differs to the results from the research about non-artists. Park and Kim (2017) conclude that gender has no effect on the job satisfaction of artists within the field of the performing arts in South Korea.

Hypothesis 4B (Gender):

Gender has no effect on the job satisfaction of artists.

When it comes to *education level* in relation to job satisfaction, Bonsang and van Soest (2012) show that the number of years in education has no significant effect on job satisfaction. However, Yoon and Heo (2016) conclude that education level has a negative effect on job satisfaction. On the other hand, Park and Kim (2017) find that education level has no effect on job satisfaction. For the following hypothesis, this study follows the conclusion made by Park and Kim (2017).

Hypothesis 4C (Education Level):

Education level has no effect on the job satisfaction of artists.

In regard to the *number of years in the profession*, studies by Bodur (2002) and Park and Kim (2017) conclude that this has no effect on the rate of job satisfaction.

Hypothesis 4D (Number of Years in Profession):

The number of years in the profession has no effect on the job satisfaction of artists.

Lastly, when it comes to *locations for artistic work*, both Bodur (2002) and Park and Kim (2017) find that this has no effect on the job satisfaction of artists. Yoon and Heo (2016), however, conclude that artists who live in the capital area show a lower job satisfaction rate. For the following hypothesis, this study follows the conclusion made by Yoon and Heo (2016).

Hypothesis 4E (The location for artistic work):

There is a negative relationship between the location for artistic work in the capital area and the job satisfaction of artists.

3. Methods

This study employs quantitative research methods based on national register data from the 2015 *Survey on Artists and Activities* conducted by the South Korean Ministry of Culture, Sports and Tourism.

3.1. Data: 2015 Survey on Artists and Activities

Since 1988, the South Korean Ministry of Culture, Sports and Tourism has conducted a survey on artists and activities every three years. The Ministry of Culture, Sports and Tourism has continually improved the survey design over the course of this time period. The 2015 *Survey on Artists and Activities* was the first to be carried out after a holistic overhaul of the survey's structure, which was precipitated by the 2013 first amendment to the *Welfare Act for Artists*, which was established in 2011. As a result of this amendment, data was used from the *Survey on Artists and Activities* as the basis for the establishment and implementation of welfare policies for artists (The National Law Information Center, <http://www.law.go.kr>). Therefore, the revised *Welfare Act for Artists* established the legal grounds upon which to investigate the actual conditions of South Korean artists and their activities in further detail.

To the best of our knowledge, only two studies, conducted by Yoon and Heo (2016) and Park and Kim (2017), have focused on the job satisfaction of artists in South Korea. Both of these studies, however, are limited in terms of their research methods and research design: Yoon and Heo's research is based on an outdated source from the 2012 *Survey on Artists and Activities*; whilst Park and Kim's research only focuses on the performing arts in the 2015 *Survey*, excluding the data for artistic and non-artistic working hours. As a result, this study is the first to empirically examine the job satisfaction of all types of artists using results from the 2015 *Survey on Artists and Activities*.

3.1.1. Noticeable Changes to the 2015 *Survey on Artists and Activities*

Major changes made by the Ministry of Culture, Sports and Tourism to the 2015 *Survey on Artists and Activities* include a restructuring of the scale of interviewees, a new representative sampling frame and more detailed survey questionnaires. While the 2012 *Survey* consisted of 2,000 respondents and ten fields, the 2015 *Survey* consisted of 5,008 respondents and fourteen fields. The 2015 *Survey* is particularly strong in terms of its representativeness, as respondents were collected using a stratified random sampling method. Moreover, the representative sampling of artists in the 2012 *Survey* only drew respondents from the two major Korean artistic organizations: The Federation of Artistic and Cultural Organizations of Korea and The Korean People Artist Federation. In contrast, the 2015 *Survey* used representative sampling, which also drew independent artists from the Korean Artists Welfare Foundation's registration system and the National Culture and Arts Support System, as well as from thirty-four Arts related organizations. This has served to further supplement the representativeness of the 2015 *Survey*.

Furthermore, until 2012, the *Survey on Artists and Activities* had been conducted via mail. However, in order to improve the accuracy of responses, the 2015 *Survey* had been conducted using face-to-face interviews. In 2015, survey questionnaires included the division of employment into full-time and part-time, the division of income into incomes for artistic and non-artistic work, and, in the case of part-time employment, and the division of working hours into hours for artistic and non-artistic work.

It is important to note that the latest version of the 2018 *Survey* was published in April 2019. The 2018 *Survey*, however, does not include data from the 'policy and satisfaction' section. According to the Ministry of Culture, Sports and Tourism, this is because this part of the survey is only related to the policy plan. As a result, they decided to not make this publically available. Moreover, the 2015 *Survey* cannot be compared to the surveys conducted before 2015 in order to perform a longitudinal study on this subject, due to the holistic overhaul of the survey's structure in 2015.

Therefore the 2015 *Survey* is the unique data set that enables a through investigation of the job satisfaction of artists in South Korea. Consequently, this study is solely based on the original data set from the 2015 *Survey on Artists and Activities*.

3.1.2. Outline of the 2015 Survey on Artists and Activities

This survey was conducted for five months, from August to December 2015. It was intended for the questionnaires to be answered within a limited period, from the 1st January to the 31st December 2014. As previously mentioned, the 2015 *Survey* had 5,008 respondents. The detailed distribution of these respondents was determined by the distribution of the whole population of registered artists in terms of fourteen fields and sixteen geographic regions. This was achieved using the stratified random sampling method. The fourteen fields are literature, fine art, crafts, photography, architecture, Western classical music, popular music, Korean traditional music, dance, theater, film, broadcasting, comics, and others.

Missing values and responses that were judged to either respond dishonestly to the questionnaire or enter the data incorrectly were excluded. Therefore, this study includes 4,596 respondents in total.

Table 3.1. *Distribution of Respondents*

Field	Capital Area (Seoul & Gyeonggi)		Other (14 Regions)		Total (16 Regions)	
	N	%	N	%	N	%
Literature	150	8.8	325	11.3	475	10.3
Fine Arts	300	17.6	752	26.0	1,052	22.9
Crafts	60	3.5	167	5.8	227	4.9
Photography	75	4.4	131	4.5	206	4.5
Architecture	97	5.7	109	3.8	206	4.5
Western classical music	110	6.4	285	9.9	395	8.6
Popular music	170	9.9	119	4.1	289	6.3
Korean traditional music	113	6.6	288	10.0	401	8.7
Dance	90	5.3	188	6.5	278	6.0
Theater	144	8.4	294	10.2	438	9.5
Film	138	8.1	65	2.3	203	4.4
Broadcasting	112	6.6	66	2.3	178	3.9
Comics	113	6.6	55	1.9	168	3.7
Others	37	2.2	43	1.5	80	1.7
Total	1,709	37.2	2,887	62.8	4,596	100

Notes. Adapted from Appendix A. Cross tabulation of fourteen fields and the two areas.

Table 3.1 shows the distribution of respondents observed in this study in terms of fields and areas. Regarding the number of questions, the survey consists of five sub-sections with a total of twenty-four questions (sixty-six including sub-questions) (See Appendix B. Content outline of questionnaires from 2015 *Survey on Artists and Activities*).

3.2. Research Design

In order to demonstrate the hypotheses formulated in the previous section, three research models have been designed. The first model aims to test whether Throsby's work preference model (1994) is applicable to the artistic labour market in South Korea. The second and third models have been designed to find the major determinants of artists' job satisfaction. Cross tabulation analysis and Analysis of Variance (ANOVA) are mainly used to examine Model 1, while Multiple Regression Analysis are employed to examine Model 2 and Model 3. The version 25 of IBM SPSS is used as the measurement instrument for this research.

3.2.1. Model 1: Work-Preference Model

In Model 1, the allocation of artists' labour time to their artistic work is examined through replicating the model that Throsby (1994) tests. Table 3.2 shows the variables used for Model 1. The original data set of the 2015 *Survey* consists of data from full-time and part-time artists. However, Model 1 only deals with the data from part-time artists. This is due to the way in which questions about working hours for artistic and non-artistic work were only intended for part-time artists to answer in the 2015 *Survey*. Among the 4,596 respondents, 2,309 respondents answered that they were part-time artists. In this research model, 289 respondents were excluded from the data about part-time artists. There are missing values for artistic and non-artistic incomes; hence, the hourly wage cannot be calculated. There are also unreliable responses, which include answers of *400 hours* for the weekly working hours for non-artistic work. Consequently, the sampling size of Model 1 is 2,020.

In Model 1, part-time artists are divided into three groups. The first group is comprised of artists who show a higher hourly income for their artistic work than for their non-artistic work. The second group is comprised of artists who receive the same amount of hourly wage for their artistic and non-artistic work. The third group is comprised of artists who have a lower hourly income for their artistic work than for their non-artistic work.

Table 3. 2. *Model 1: Variables*

Variables	Description	Calculation
Wa	The hourly wage for artistic work	Income from artistic work / Working hours for artistic work
Wn	The hourly wage for non-artistic work	Income from non-artistic work / Working hours for non-artistic work
La	The ratio of working hours for artistic work to total working hours	Working hours for artistic work / Total working hours (for artistic + non-artistic work)

Moreover, the time allocated for artistic work is examined in terms of the ratio of working hours for artistic work to the total amount of working hours. Throsby (1994) divides this allocation into three groups. For the first group, the ratio is zero. For the second group, the ratio is between zero and one. For the last group, the ratio is one. This research further divides the second group into two groups. As a consequence, there are four groups, including one group where the ratio ranges from zero and over to zero point five, and another group where the ratio ranges from zero point five and over (See Table 3.3). This adjustment shows a more precise result for whether artists spend more time on their artistic work than on their non-artistic work in their total working hours – or vice versa.

Table 3. 3. *Group Division in Model 1*

Category	Group	Criteria
Hourly wage for artistic and non-artistic work	Group 1	$W_a < W_n$
	Group 2	$W_a = W_n$
	Group 3	$W_a > W_n$
Time allocation for artistic work	Group 1	$La = 0$
	Group 2	$0 < La \leq 0.5$
	Group 3	$0.5 < La < 1$
	Group 4	$La = 1$

As a result of applying cross tabulation analysis to the two categories of group compositions above, it can be investigated whether artists tend to invest more of their time

into either their artistic or non-artistic work. Furthermore, it is examined, through an analysis of variance (ANOVA) whether there are significant differences between the groups in terms of the artists' job satisfaction, in order to demonstrate whether artists who invest more time in their artistic work than in their non-artistic work show a higher job satisfaction.

3.2.2. Model 2 and Model 3: Artists' Job Satisfaction

In Model 2 (A and B) and Model 3 (A and B), the major determinants of artists' job satisfaction are identified by the method of Multiple Regression Analysis. The division of Model 2 and 3 is designed due to the way in which questions about working hours for artistic and non-artistic work were only intended for part-time artists to answer in the 2015 *Survey*. Model 2A and Model 3A includes only control variables, while Model 2B and Model 3B include various independent variables as well. Model 2B includes leisure time and the ratio of artistic working hours to total working hours, in conjunction with other independent variables; therefore, the sample size of this model is 2,246 respondents, who are part-time artists. In contrast, Model 3B includes whether the participants are full-time artists or not as one of its independent variables, instead of the ratio of artistic working hours and leisure time. As such, the sample size of this model is 4,596 respondents. Table 3. 4 outlines the variables that are used for Model 2 and 3.

3.2.2.1. Dependent Variable: Artists' Job Satisfaction

The job satisfaction of artists is clarified through a sub-question under question 22 in the 2015 *Survey*: "I am satisfied with my artistic activities." When answering this question, respondents used the Likert scale, which ranges from 1 (*strongly agree*) to 5 (*strongly disagree*). In this study, the Likert scale is reclassified as 1 (*strongly disagree*) to 5 (*strongly agree*).

3.2.2.2. Independent Variables

Income from artistic and non-artistic work. Yearly income from artistic and non-artistic work is investigated in the two sub-questions under question 11 in the 2015 *Survey*: 'How much do you earn through your artistic work out of your total income?' and 'How much do you earn

through your non-artistic work out of your total income?’ Using Multiple Regression Analysis, the natural logs for income from artistic and non-artistic are calculated.

Spouse or parents’ income. Using questions about income from artistic and non-artistic work as well as questions surrounding household income, the artist’s spouse or parents’ yearly income is calculated. These questions include: ‘What is the total income of your household for the past year?’ The artist’s spouse or parents’ income is the result of household income minus the sum of income from artistic and non-artistic work. During the Multiple Regression Analysis, this value is also included as a natural log.

Ratio of working hours for artistic work to total working hours. This variable is used to replace both the working hours for artistic and non-artistic work, since these working hours were suspected of being multicollinear. In the 2015 *Survey*, only part-time artists were asked about their working hours for artistic and non-artistic work in question 15.5: ‘How many hours a week do you spend on artistic and non-artistic activities, respectively?’

Full-time and part-time artists. This variable is investigated in question 14: ‘Are you engaged in artistic work as a full-time artist?’ Respondents were asked to answer 1 for ‘yes’ and 2 for ‘no’. In this study, 0 is reclassified as ‘no’ and 1 as ‘yes’.

Working as a freelancer. In order to define themselves as being self-employed, question 15.1 for full-time artists, and question 15.2 for part-time artists asked the following: ‘What is your employment type?’ For this multiple-choice question, the respondent had to choose one option out of eight options: employer, full-time employee, contract worker or temporary worker, daily employee, part time employee or hourly employee, dispatched worker, freelancer, and the rest. A dummy variable was made for this variable, by combining the two data sets from question 15.1 and 15.2, with the value of 0 as ‘the rest’ and the value of 1 as ‘freelancer’.

Possession of a separate working space. Question 10 was used to investigate this variable, by asking the following: ‘Do you have a personal space for your artistic activities?’ For this study, 0 is reclassified as ‘no’ and 1 as ‘yes’.

Copyright Ownership and Receiving Grants. Questions 5 and 21 were used to investigate these two variables, by asking the following: ‘Do you have copyright (or neighboring rights/related rights)?’ and ‘Do you receive any support from the government, or from a business or personal sponsor for your creative work?’ For this study, 0 is reclassified as ‘no’ and 1 as ‘yes’.

Number of artistic activities. Question 1.2 asks the respondents the following: ‘How many art works did you make public or how frequently did you take part in artistic activities related to your artistic field over the past year?’

Psychological factors. Four sub-questions under questions 22 and 23 examine proxies for psychological factors: ‘I have felt the limit of artistic ability while doing artistic activities’, ‘I have felt the limit of economic ability while doing artistic activities’, ‘There are multiple external regulations on art activities in Korea’, and ‘I think what I do is very valuable.’ Respondents answered these questions using the Likert scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*) in the 2015 Survey. For this study, the Likert scale is reclassified as 1 (*strongly disagree*) to 5 (*strongly agree*).

3.2.2.3. Control Variables

In this study, socio-demographic variables are used as control variables. These include age, gender, education level, number of years in the profession, and the location for artistic work.

Table 3. 4. *Outline of Variables for Model 2 and Model 3*

	Name	Description	
Dependent Variables	ART_SAT	“I’m satisfied with my artistic activities.” (Job satisfaction)	1: strongly disagree 2: disagree 3: neutral 4: agree 5: strongly agree (Five Likert scale)
Control Variables	AGE	Age	
	GENDER	Gender	1: Men 0: Women
	Edu_Middle	Middle school graduates	1: Middle school, 0: the rest
	Edu_Secon	Secondary school graduates	1: Secondary school, 0: the rest
	Edu_College	College graduates	1: College graduates, 0: the rest
	CAREER	Number of years in profession	
	ArtLoca_Cap	Location for artistic work	1: Capital area, 0: the rest
Independent variables	LnINC_Art	Log of yearly income for artistic work	
	LnINC_NonArt	Log of yearly income for non-artistic work	
	LnINC_Partner	Log of yearly spouse or parents’ income	Spouse or parents’ income = household income – (Income from artistic work + income from non-artistic work)
	WHou_Art_ratio	Ratio of working hours for artistic work to total working hours	Total working hours = working hours for artistic work + working hours for non-artistic work
	Hour_Leisure	Leisure time	(24 hours * 7 days) - (working hours for artistic + non-artistic working hours)
	Fulltime	Full-time artists	1: full-time, 0: part-time
	SELF	Working as a freelancer	1: freelancer, 0: the rest
	SPACE_Art	Possession of a separate working space	1: yes, 0: no
	Grants	Receiving grants	1: yes, 0: no
	Copy_Own	Copyright ownership	1: yes, 0: no
	Art_ActNum	Number of artistic activities	
	EX_Restrict	Awareness of external restrictions	(Five Likert scale)
	Lim_Art_abil	Awareness of the limit of artistic ability	(Five Likert scale)
	Lim_Eco_abil	Awareness of the limit of economic ability	(Five Likert scale)
	Value_work	“I think what I do is very valuable.” (Awareness of the value of work)	(Five Likert scale)

4. Analysis and Results

4.1. Descriptive Analysis

While Table 4.1 presents a summary of descriptive statistics, Table 4.2 summarizes the correlation matrix of the variables.

As Table 4.1 shows, the total sample size of this study is 4,596. However, for the four variables related to working hours, the total sample size is between 2,276 and 2,294. This is because these questions were intended only for *part-time artists*. When it comes to the control variables, artists are 59.6% male and 40.4% female. The mean age and number of years in the profession are 51.37 and 21.95 years old respectively. In addition, more than half of artists are graduates (58.9%), while approximately one quarter of artists have completed postgraduate courses or an even higher level of education (26.6%). Amongst the entire range of artists, 37.2% of artists live in the capital area (See Appendix D1).

In regard to the three categories of income - income from artistic and non-artistic work, as well as spouse or parents' earnings - the standard deviations are large, showing that income disparity is severe among artists in South Korea. This income disparity is even more prevalent in artistic work, rather than in non-artistic fields of work. Meanwhile, 50.2% of artists work part-time, and 81.6% are self-employed. In terms of working hours, part-time artists spend more time on their non-artistic work than their artistic work. Lastly, around three-quarters of artists (78.6%) consider their artistic work to be very valuable (See Appendix D2).

Table 4.2 indicates the correlations between the dependent, control, and independent variables for this research. The relation of age, career, non-artistic income, the ratio of working hours for artistic work, working full-time, the possession of a separate working space, receiving grants and the awareness of the value of one's work to the differences in the job satisfaction of artists were positively significant at the 0.01 level. It was found that for those living in the capital area, the awareness of external restrictions and the limits of artistic as well as economic abilities were negatively significant at the 0.01 level. However, these correlations show very weak associations - in the range of less than 0.10. Nonetheless, the awareness of the value of one's work and the limit of artistic and economic abilities show a weak or moderate association with artists' job satisfaction in the range between 0.20 and 0.50.

Table 4.1. *Summary Statistics, Full sample, Both Full-Time and Part-Time Artists*

Name	N	M	SD
Dependent Variable			
ART_SAT (ordinal 1-5)	4596	3.50	.875
Control Variables			
AGE	4596	51.37	14.040
GENDER (male = 1)	4596	.60	.491
Edu_Middle (yes = 1)	4596	.01	.096
Edu_Secon (yes = 1)	4596	.14	.342
Edu_College (yes = 1)	4596	.59	.492
CAREER (no. years)	4596	21.95	12.200
ArtLoca_Cap (Capital = 1)	4596	.37	.483
Independent Variables			
INC_Art (10,000 WON/year)	4596	1298.06	3539.477
INC_NonArt (10,000 WON/year)	4596	1514.78	2352.607
INC_Partner (10,000 WON/year)	4596	1789.13	3337.089
Whou_Art_ratio	2276	.3667	.27481
WHour_Art (hours/week)	2294	14.83	14.554
WHour_NonArt (hours/week)	2291	25.66	16.752
Hour_Leisure (hours/week)	2291	127.5260	19.67053
Fulltime (full-time = 1)	4596	.50	.500
SELF (freelancer = 1)	4596	.8164	.38723
SPACE_Art (yes = 1)	4596	.55	.498
Grants (yes = 1)	4596	.19	.394
Copy_Own (yest =1)	4596	.18	.381
Art_ActNum	4534	9.51	16.233
EX_Restrict (ordinal 1-5)	4596	2.96	.968
Lim_Art_abil (ordinal 1-5)	4596	3.15	1.088
Lim_Eco_abil (ordinal 1-5)	4596	3.63	1.081
Value_work (ordinal 1-5)	4596	4.03	.778

Notes. Adapted from Appendix C. *Descriptive Statistics*

Table 4.2. *Correlation Matrix*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1. ART_SAT	1																							
2. AGE	.082 [*]	1																						
3. GENDER	0.001	.147 ^{**}	1																					
4. Edu_Middle	0.009	-.105 [*]	0.002	1																				
5. Edu_Secon	-0.016	-.126 ^{**}	.037 [*]	-.038 [*]	1																			
6. Edu_College	-0.004	-.130 ^{**}	-.040 [*]	-.116 ^{**}	-.474 ^{**}	1																		
7. CAREER	.071 ^{**}	.653 ^{**}	-.159 ^{**}	.069 ^{**}	0.017	-.099 ^{**}	1																	
8. ArtLoca_Cap	-.074 ^{**}	-.159 ^{**}	0.017	-.014	0.010	-.068 ^{**}	-.071 ^{**}	1																
9. INC_Art	.037 [*]	-0.021	.086 ^{**}	-.023	-.026	-.009	.059 ^{**}	.122 ^{**}	1															
10. INC_NonArt	.040 ^{**}	.145 ^{**}	-.162 ^{**}	-.027	-.092 ^{**}	-.089 ^{**}	.103 ^{**}	-.111 ^{**}	-.101 ^{**}	1														
11. INC_Partner	0.028	-.033 [*]	-.200 ^{**}	-.016	-.012	0.011	-.022	-.051 ^{**}	-.071 ^{**}	-.117 ^{**}	1													
12. Whou_Art_ratio	.092 ^{**}	-.083 ^{**}	-.066 ^{**}	0.005	-.015	-.067 ^{**}	0.018	.213 ^{**}	-.193 ^{**}	-.272 ^{**}	0.025	1												
13. Hour_Leisure	0.002	0.022	-.167 ^{**}	0.002	-.065 ^{**}	0.035	.066 ^{**}	-.038	-.037	-.121 ^{**}	.088 ^{**}	0.009	1											
14. Fulltime	.046 ^{**}	.059 ^{**}	-.046 ^{**}	0.016	.087 ^{**}	.040 ^{**}	.058 ^{**}	.088 ^{**}	.208 ^{**}	-.496 ^{**}	.073 ^{**}	. ^c	. ^c	1										
15. SELF	0.027	.061 ^{**}	-.062 ^{**}	0.005	.041 ^{**}	.061 ^{**}	0.023	-.090 ^{**}	-.256 ^{**}	.097 ^{**}	.039 ^{**}	0.009	-0.001	-.200 ^{**}	1									
16. SPACE_Art	.090 ^{**}	.166 ^{**}	.034 [*]	0.002	-.005	-.094 ^{**}	-.108 ^{**}	-.082 ^{**}	0.015	.045 ^{**}	-.015	-.162 ^{**}	-.031	-.021	.063 ^{**}	1								
17. Grants	.040 ^{**}	-.035 [*]	0.016	-.007	-.010	-.084 ^{**}	-.024	.041 ^{**}	0.011	-.015	-.050 ^{**}	.165 ^{**}	-.025	-.009	-.094 ^{**}	.085 ^{**}	1							
18. Copy_Own	-0.007	-.061 ^{**}	.102 ^{**}	-.021	.080 ^{**}	-.043 [*]	-.022	.232 ^{**}	.057 ^{**}	-.025	-.050 ^{**}	.112 ^{**}	-.132 ^{**}	.040 ^{**}	0.029	.125 ^{**}	.078 ^{**}	1						
19. Art_ActNum	.082 ^{**}	-.062 ^{**}	.040 ^{**}	-.005	.063 ^{**}	-.022	-.010	0.005	.086 ^{**}	-.066 ^{**}	-.013	.127 ^{**}	-.033	.051 ^{**}	-.028	.043 ^{**}	.052 ^{**}	.083 ^{**}	1					
20. EX_Restrict	-.070 ^{**}	-.150 ^{**}	0.008	-.008	0.015	-.045 ^{**}	-.105 ^{**}	.213 ^{**}	.085 ^{**}	-.027	-.071 ^{**}	.064 ^{**}	-.055 ^{**}	.040 ^{**}	-.093 ^{**}	-.015	.106 ^{**}	.129 ^{**}	.072 ^{**}	1				
21. Lim_Art_abil	-.224 ^{**}	-.055 ^{**}	-.070 ^{**}	0.003	0.012	0.005	-.013	.038 ^{**}	-.057 ^{**}	-.032 [*]	0.019	-.022	-.017	-.015	0.007	-.075 ^{**}	0.003	0.003	-.034 [*]	.033 [*]	1			
22. Lim_Eco_abil	-.204 ^{**}	-.179 ^{**}	-.045 ^{**}	0.004	0.028	-.024	-.083 ^{**}	.202 ^{**}	-.093 ^{**}	-.136 ^{**}	-.051 ^{**}	.111 ^{**}	-.004	0.006	-.040 ^{**}	-.016	.101 ^{**}	.101 ^{**}	-.022	.148 ^{**}	.464 ^{**}	1		
23. Value_work	.401 ^{**}	-0.008	0.005	-.018	-.026	-.047 ^{**}	0.016	.078 ^{**}	.034 [*]	0.027	-.013	.093 ^{**}	-.018	.038 [*]	-.031 [*]	.072 ^{**}	.110 ^{**}	.083 ^{**}	.066 ^{**}	.067 ^{**}	-.155 ^{**}	-.005	1	

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

c. Cannot be computed because at least one of the variables is constant.

Regarding the correlations between the control and independent variables, it is *age* that shows the greatest number of significant relationships with other variables. By and large, both the income from non-artistic work and the ratio of working hours for artistic work to the total amount of working hours show a higher number of significant associations with other variables. Nonetheless, it is important to note that the correlation analysis only indicates the *strength of the relationship* - not the *causality* - between the variables (Bryman, 2016, p.339). The causes of job satisfaction for artists will be later analyzed using multiple regression models. Lastly, as Table 4.2 shows, there is a missing correlation between the variable of full-time work and the ratio of working hours for artistic work and leisure time. As a consequence, these are divided into two different regression models in this research, Model 2 and Model 3. This is because full-time artists did not answer questions about working hours in the 2015 *Survey*.

4.2. Model 1: Work-Preference Model

In this section, by replicating the model that Throsby (1994) tests, we test two hypotheses of Hypothesis 1A: Hypothesis 1A_1 (artists tend to invest more labour in artistic work than non-artistic work, even though the hourly wage for non-artistic work is higher than that of artistic work) and Hypothesis 1A_2 (artists who invest more time in their artistic work than their non-artistic work show a higher job satisfaction).

Table 4.3 shows the results of Cross-Tabulation Analysis, based on hourly wages for artistic work (W_a) and non-artistic work (W_n). Table 4.3 also shows the ratio of working hours for artistic work to the total amount of working hours (L_a). For Model 1, the sampling size is 2,020. Among this sampling size, the majority of part-time artists (83.8%) belong to Group 1. This indicates a similar result to that found by Throsby (1994), where 80% of artists belong to the group ' $W^n > W^a$ '.

As previously mentioned in the section on the research design of this study (section 3.2), time allocation groups are divided into four. This is achieved through the separation of group ' $0 < L_a < 1$ ' in Throsby's study (1994) into two groups ' $0 < L_a \leq 0.5$ ' and ' $0.5 < L_a < 1$ '. The reason for this is due to the assumption that part-time artists supply their labour into their non-artistic work, as they wish to continue with their artistic work. Therefore, in order to test the work-preference model in relation to artists, it is reasonable to estimate whether

artists supply more of their labour into their artistic work, even though the hourly wage for their non-artistic work is higher.

The result of these sub-divisions, in accordance with the ratio of working hours for artistic work, shows that there are no artists who supply zero labour ($L_a = 0$) and full labour ($L_a = 1$) to their artistic work. This is partly due to the way in which the data for Model 1 does not include full-time artists. Additionally, it is worth noting that there are one hundred and eighty artists who did not supply their labour either into their artistic work and/or non-artistic work. However, the data for these artists is excluded, as their hourly wages cannot be calculated.

Table 4.3. *South Korean Artists' Time Allocation For Artistic Work in 2014*

		Number of Artists	Percentage of Artists
1. $W_a < W_n$	Total (Group 1)	1693	83.8
	(2) $0 < L_a \leq 0.5$	1166	68.9
	(3) $0.5 < L_a < 1$	527	31.1
2. $W_a = W_n$	Total (Group 2)	33	1.6
	(2) $0 < L_a \leq 0.5$	24	72.7
	(3) $0.5 < L_a < 1$	9	27.3
3. $W_a > W_n$	Total (Group 3)	294	14.6
	(2) $0 < L_a \leq 0.5$	252	85.7
	(3) $0.5 < L_a < 1$	42	14.3
Total		2020	100%

Notes. Adapted from Appendix E. *Model 1: Cross-Tabulation Analysis.*

Table 4.3 shows that part-time artists in South Korea tend to invest more labour into their non-artistic work under all three conditions: $W_a < W_n$, $W_a = W_n$, and $W_a > W_n$. In other words, part-time artists tend to supply more labour into the non-artistic labour market regardless of hourly wages. This result is antithetical to the one expected in Hypothesis 1A_1. Nevertheless, this result is in line with Throsby's findings in 1994, where he examined the mean L^a . According to Throsby, for the group ' $W^n > W^a$ ', the mean of L^a is 0.50, whereas for the group ' $W^n < W^a$ ', the mean of L^a is 0.36 (Throsby, 1994, p.77). This indicates that artists

invest less time, or the same amount of time, into their artistic work - regardless of the hourly wages for artistic and non-artistic work.

At this point, it must be asked the basis upon which Throsby claimed the artists' work-preference model. The sole grounds of his argument for an artists' work-preference model is that artists do not stop investing their time in artistic work - even though the hourly wage for non-artistic work is higher. This is shown through the findings that 98% of artists invest their time in artistic work, regardless of whether they spend more time on their non-artistic or artistic work. However, this can be criticized in terms of the proportion of full-time artists ($L^a = 1$), which comprises 66% out of 98% in the group ' $W^n > W^a$ '. Furthermore, this can also be done in terms of the absence of leisure time, a possible tradeoff option for both part-time and full-time artists. Casacuberta and Gandelman (2012) also point out these limitations in Throsby's study (1994) (Casacuberta and Gandelman, 2012, p.332).

Data for full-time artists, their tradeoff between leisure time and working hours for their artistic work, as well as data for the different sources of their income should be included in a research model. This way, a clearer picture of artists' time allocation for their artistic work can be ascertained. However, we cannot include these two variables in Model 1, since we do not possess data on the working hours of full-time artists. As a consequence, it has been decided to compare the mean job satisfaction rate of artists belonging to different groups, using Analysis of Variance (ANOVA). In this way, it can be investigated whether artists derive job satisfaction from their artistic work, or from their hourly wages.

Table 4.4 shows that there is a significant difference in job satisfaction rates between the two groups ' $0 < L_a \leq 0.5$ ' and ' $0.5 < L_a < 1$ ' ($F=7.860$, $p < 0.01$). The means of the two groups can be interpreted as the following: artists who invest more time in their artistic work than their non-artistic work show a higher job satisfaction. Meanwhile, Table 4.5 indicates that there is no significant difference between the two groups, based on hourly wages for artistic and non-artistic work. Therefore, these findings illustrate that part-time artists derive a higher job satisfaction from their artistic work, regardless of the hourly wages.

Consequently, Hypothesis 1A_1 (artists tend to invest their labour in artistic work, even though the hourly wage for non-artistic work is higher than that of artistic work) is rejected. In contrast, Hypothesis 1A_2 (artists who invest more time in their artistic work than their non-artistic work show a higher job satisfaction) is accepted.

Table 4.4. *Results of Analysis of Variance (ANOVA) 1*

	N	M	SD		
$0 < La \leq 0.5$	1491	3.44	0.847		
$0.5 < La < 1$	591	3.56	0.888		
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5,803	1	5,803	7,860	0,005
Within Groups	1535,681	2080	0,738		
Total	1541,484	2081			

Table 4.5. *Results of Analysis of Variance (ANOVA) 2*

	N	M	SD		
$Wa < Wn$	1693	3.48	0.856		
$Wa = Wn$	33	3.55	0.794		
$Wa > Wn$	294	3.49	0.893		
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0,191	2	0,095	0,129	0,879
Within Groups	1494,131	2017	0,741		
Total	1494,322	2019			

These results raise the following question: Why do part-time artists supply more of their labour to the non-artistic labour market even though they derive their job satisfaction from artistic work itself, regardless of hourly wages? In order to identify the reason for this, Multiple Regression Analysis is used as an additional test of Model 1. This are named Model 1A and Model 1B (See Table 4.6). The variables used in Model 1A and Model 1B are the same as the ones used in Model 2 (See Table 3.4). Model 1A includes the natural logs for income from artistic and non-artistic work, whereas, Model 1B includes hourly wages for both artistic and non-artistic work.

Table 4.6. *Regression Analysis: Model 1A and Model 1B (Part-time Artists)*

DV: Non-artistic working hours	Model 1A		Model 1B	
	<i>b</i> *	t-value	<i>b</i> *	t-value
(Constant)		5,154***		8,690***
AGE	0,073**	2,718	0,152***	5,623
GENDER	0,117***	5,709	0,128***	6,089
Edu_Middle	0,013	0,648	-0,005	-0,260
Edu_Secon	0,071***	3,256	0,045*	1,971
Edu_College	0,052*	2,368	0,023	1,019
CAREER	-0,138***	-5,461	-0,145***	-5,658
ArtLoca_Cap	-0,095***	-4,370	-0,106***	-4,790
LnINC_Art	-0,152***	-7,056		
LnINC_NonArt	0,165***	7,746		
LnINC_Partner	-0,120***	-5,647	-0,174***	-8,274
Wa			-0,019	-0,933
Wn			-0,271***	-13,200
SELF	-0,035 ⁺	-1,740	-0,035 ⁺	-1,727
SPACE_Art	-0,061***	-2,997	-0,079***	-3,763
Grants	-0,052**	-2,582	-0,073***	-3,557
Copy_Own	0,027	1,314	0,021	0,994
Art_ActNum	-0,023	-1,145	-0,052**	-2,570
Lim_Art_abil	0,058**	2,599	0,070***	3,023
Lim_Eco_abil	-0,049*	-2,097	-0,085***	-3,572
Value_work	-0,004	-0,174	0,008	0,375
EX_Restrict	0,017	0,837	0,001	0,031
ART_SAT	-0,040	-1,817	-0,040	-1,768
R ² (Adj R ²)	0.158 (0.151)		0.192 (0.184)	
F	21.111***		24.173***	
Durbin-Watson	1.940		1.879	
N	2264		2056	

Notes. Significance levels: $p < 0.10$ (⁺), $p < 0.05$ (*), $p < 0.01$ (**), $p < 0.005$ (***)

The regression models Model 1A and Model 1B, with part-time artists' working hours for their non-artistic work as the dependent variable, are significant with $F = 21.111, p < 0.000$ and $F = 24.173, p < 0.000$, respectively. The predictive power of these two models is shown with R^2 of 0.158 (adjusted $R^2 = 0.151$) and R^2 of 0.192 (adjusted $R^2 = 0.184$), which is acceptable. The range of the VIF for both models is between 1.041 and 1.915, which does not exceed the reference value of 10. The result of Durbin-Watson test is 1.940 and 1.879. Hence, no violation of both multicollinearity and autocorrelation is detected.

The major determinants of undertaking non-artistic work, shown in these two models, are almost the same in each model. Based on the results of Model 1A and Model 1B, significant control variables are age, gender, being a high school graduate, the number of years in the profession, and the location for artistic work. Meanwhile, significant independent variables are all three sources of income (artistic, non-artistic, spousal or parental), hourly wages for *non-artistic work only*, the possession of a separate working space, grants, the number of artistic activities, and awareness of the limitations of artistic and economic ability.

In regard to the results of socio-demographic factors, it is assumed that artists tend to invest more of their time in non-artistic work, if they possess the following: They are older and male, a high school graduate, they have less years (experience) in their artistic profession, and they live outside the capital area. It is worth noting that living outside the capital area is related to economic factors. In their investigation of the income structure of artists, Lee and Kum (2017) show that, in comparison with their counterparts in the capital area, artists living in other areas earn much less than the average total income, and receive less artistic income and grants. This may be the reason why artists living outside the capital area tend to supply more labour into their non-artistic work.

Moreover, when it comes to economic factors such as income and wages, artists tend to supply less labour into their non-artistic work when artistic income, spousal/parental income, and hourly wages for non-artistic work increase. This finding is in line with the results of a study conducted by Casacuberta and Gandelman (2012), which demonstrates that part-time artists tend to reduce their working hours for non-artistic work when their wages for non-artistic work increase. Nonetheless, Casacuberta and Gandelman (2012) discover that this has no effect on their working hours for artistic work. Hourly wages for non-artistic only have a positive effect on artistic working hours for *full-time artists*.

In contrast, the regression model with part-time artists' working hours for their artistic work as the dependent variable shows that hourly wages for non-artistic work have a significantly positive effect on part-time artists' working hours for their artistic work (See

Appendix F. *Regression Analysis: Part-Time Artists / DV: Working Hours for Artistic Work*). This indicates that artists tend to invest more time in artistic work, and less in non-artistic work, when there is an increase in their hourly wages for non-artistic work. Artists do not allocate their working hours for artistic and non-artistic work in response to payments for artistic and non-artistic work. This result counters the conclusion made by Robinson and Montgomery (2002), in which they demonstrate how the labour supply of artists in the United States supports the *weaker version* of the work-preference model. They do so by showing that artists' time allocation is in response to payments for both artistic and non-artistic work, whilst artists still have a preference for artistic work.

In summary, this section has identified the characteristics of artists' labour supply in South Korea based on results from Cross-Tabulation Analysis, Analysis of Variance (ANOVA), and Multiple Regression Model.

Artists who invest more time in their artistic work than their non-artistic work show a higher job satisfaction rate. They derive a higher job satisfaction from the artistic work itself; not from the hourly wages for this work (See Table 4.4 & 4.5). Moreover, when there is an increase in their hourly wages for non-artistic work, artists prefer to invest more of their time in artistic work, and less time in their non-artistic work (See Table 4.6 and Appendix F.). In this way, it can be maintained that artists' labour supply supports the *strong version* of the work-preference model. This illustrates how artists aim to maximize working hours spent on artistic work, and would extend these hours even if they receive a pay raise for their non-artistic work.

Nonetheless, artists tend to supply more time out of their total amount of working hours towards non-artistic work rather than artistic-work, even though they derive a higher job satisfaction from artistic work itself (See Table 4.3). This was found by conducting Cross-Tabulation Analysis and Analysis of Variance (ANOVA) at the beginning of this section. The reason for this is mainly due to the economic factors discovered in the results of the regression model (See Table 4.6). These findings are in line with the conclusion made by Throsby and Zednik (2011), in which they partly examine the *determinant* of the amount of time artists spend on their non-artistic work. According to Throsby and Zednik (2011), economic factors are a major determinant.⁵

⁵ Throsby and Zednik (2011) also investigate how artists use their artistic skills when supplying their labour to non-artistic markets in terms of different artistic fields and difference industries.

4.3. Model 2 and 3: Artists' Job Satisfaction

In this section, Hypotheses 1B to 4E are tested. These are categorized as the following: income and working hours, working conditions, psychological factors, and socio-demographic variables. Model 2 and Model 3 are both comprised of two sub-models (A and B). The first sub-model (A) has a dependent variable with control variables only. The second sub-model (B) includes independent variables as well as control variables. As mentioned in the chapter on methods, Model 2 (N= 2,246) includes leisure time and the ratio of working hours for artistic work. Instead of these two variables, 'whether the artist works full-time or not' is included as an independent variable for Model 3 (N=4,596).

The possibility of a violation of multicollinearity across all these models was identified prior to conducting these regression analyses. The result of this verification showed the range of the VIF to be between 1.032 and 3.365. This does not exceed the reference value of 10 (Hair et al., 2019, p.316). No violation of multicollinearity was detected in Model 2 and Model 3. Furthermore, the Durbin-Watson test was used in order to see whether there was autocorrelation in the residuals of Model 2 and Model 3 (Field, 2018, p.387). The results of this test show values that are very close to 2. Therefore, no autocorrelation has been detected as well.

These regression analyses are shown in Table 4.7 and Table 4.8. Among Model 2A's control variables, age and the location of artistic work appear to affect the dependent variable ($p < 0.005$). Meanwhile, only the location of artistic work appears to affect the dependent variable in Model 3A ($p < 0.005$). Age has a positive effect on the job satisfaction of artists, and the location of artistic work has a negative effect (working in capital area = 1). The remaining control variables, including gender, level of education and the number of years in the profession do not have an effect on artists' job satisfaction. However, it is worth noting that the explanatory power of Model 2A and Model 3A are negligible ($R^2 = 0.012$ and 0.022 respectively).

The results of the other two models, Model 2B and Model 3B, are acceptable with R^2 of 0.237 and 0.227 respectively (adjusted $R^2 = 0.230$ and 0.224). The significance of F-value in all models is less than 0.005, which is considerably lower than the reference value of 0.05. As a consequence, these regression models are statistically significant.

Table 4.7. *Regression Analysis: Model 2 (N: 2,246, Part-Time Artists)*

DV: Artists' Job Satisfaction	Model 2A		Model 2B	
	<i>b</i> *	t-value	<i>b</i> *	t-value
Control Variables: Socio-Demographic				
(Constant)		37,213***		9,015***
AGE	0,030	1,100	0,012	0,482
GENDER	-0,013	-0,610	-0,005	-0,271
Edu_Middle	-0,001	-0,027	0,016	0,854
Edu_Secon	-0,038	-1,631	0,009	0,442
Edu_College	-0,060	-2,574	0,000	-0,011
CAREER	0,044	1,653 ⁺	0,038	1,579
ArtLoca_Cap	-0,106***	-4,916	-0,088***	-4,196
Independent Variables: Income				
LnINC_Art			0,046*	2,163
LnINC_NonArt			0,038 ⁺	1,869
LnINC_Partner			0,046*	2,256
Independent Variables: Working Hours				
Whou_Art_ratio			0,070***	3,366
Hour_Leisure			-0,007	-0,382
Fulltime				
Independent Variables: Working Conditions				
SELF			0,050**	2,612
SPACE_Art			0,067***	3,408
Grants			0,012	0,622
Copy_Own			-0,034 ⁺	-1,720
Art_ActNum			0,026	1,365
Independent Variables: Psychological Factors				
Lim_Art_abil			-0,086***	-4,001
Lim_Eco_abil			-0,124***	-5,559
Value_work			0,370***	19,253
EX_Restrict			-0,077***	-4,025
R ² (Adj R ²)	0.022 (0.018)		0.237 (0.230)	
F	7.026***		32.848***	
Durbin-Watson			2.016	
N	2246		2246	

Notes. Significance levels: $p < 0.10$ (⁺), $p < 0.05$ (*), $p < 0.01$ (**), $p < 0.005$ (***)

Table 4.8. Regression Analysis: Model 3 (N: 4,596, Full-Time and Part-Time Artists)

DV: Artists' Job Satisfaction	Model 3A		Model 3B	
	<i>b</i> *	t-value	<i>b</i> *	t-value
Control Variables: Socio-Demographic				
(Constant)		56,521***		18,243***
AGE	0,056***	2,805	0,029	1,521
GENDER	-0,010	-0,685	-0,015	-1,062
Edu_Middle	-0,003	-0,177	0,013	0,989
Edu_Secon	-0,029 ⁺	-1,709	-0,001	-0,041
Edu_College	-0,013	-0,745	0,013	0,829
CAREER	0,031	1,573	0,021	1,200
ArtLoca_Cap	-0,063***	-4,247	-0,053***	-3,701
Independent Variables: Income				
LnINC_Art			0,056***	3,450
LnINC_NonArt			0,023	0,979
LnINC_Partner			0,027 ⁺	1,822
Independent Variables: Working Hours				
Whou_Art_ratio				
Hour_Leisure				
Fulltime			0,042 ⁺	1,854
Independent Variables: Working Conditions				
SELF			0,036**	2,561
SPACE_Art			0,041***	3,012
Grants			0,016	1,200
Copy_Own			-0,020	-1,408
Art_ActNum			0,046***	3,358
Independent Variables: Psychological Factors				
Lim_Art_abil			-0,089***	-5,915
Lim_Eco_abil			-0,132***	-8,487
Value_work			0,386***	28,538
EX_Restrict			-0,057***	-4,129
R ² (Adj R ²)	0.012 (0.010)		0.227 (0.224)	
F	7.956***		66.448***	
Durbin-Watson	1.980		2.030	
N	4596		4596	

Notes. Significance levels: $p < 0.10$ (⁺), $p < 0.05$ (*), $p < 0.01$ (**), $p < 0.005$ (***)

4.3.1. The Effect of Income and Working Hours

Based on Model 2B's coefficients, 'Whou_Art_ratio' ($p = 0.005$), 'LnINC_Art' ($p = 0.05$), and 'LnINC_Partner' ($p = 0.05$) have significant positive effects on the job satisfaction of artists. There is a weak positive relationship between 'LnINC_NonArt' ($p = 0.10$) and artists' job satisfaction. In comparison with Model 3B, only 'LnINC_Art' ($p = 0.005$) has a significant positive effect, while both 'LnINC_Partner' and 'Fulltime' ($p = 0.10$) have weak positive relationships with the job satisfaction of artists.

Model 2B's results show that part-time artists, who invest more of their time in artistic work than in non-artistic work, have a higher job satisfaction. This finding is in line with the results of Model 1, which tests Throsby's work-preference model.

Model 2B and 3B show that both full-time and part-time artists partly derive job satisfaction from their income for artistic work. Income from non-artistic work has no effect on the job satisfaction of artists. On the other hand, Only Model 2B shows the significantly positive effect of spousal/parental income on job satisfaction. This can be interpreted as the following: part-time artists are able to spend relatively more time on their artistic work when higher income spouse/parents support them financially, resulting in a higher job satisfaction rate. However, future research must provide empirical evidence in order to support this argument.

In regard to the difference sources of income (artistic, non-artistic and spousal/parental), income from artistic work has a significantly positive effect on the job satisfaction of both part-time and full-time artists. In comparison, income from non-artistic work has no, or a very weak, positive effect on artists' job satisfaction. Therefore, artists also derive utility from the earnings they received for their own artistic activities, as well as from artistic work itself. Nevertheless, it is worth noting that it is difficult for artists to earn enough from their artistic work alone. Research conducted by Lee and Kum (2017) provides an explanation for this. Lee and Kum (2017) point out that, for artists in South Korea, half of their income depends on income from non-artistic work. Moreover, in comparison to other job sectors, there is a greater income disparity among artists. This is not only in terms of income from artistic work, but also from non-artistic work.

Consequently, Hypothesis 1B_1 (there is a positive relationship between income from artistic work and the job satisfaction of artists) and Hypothesis 1B_2 (non-artistic work has no effect on the job satisfaction of artists) are accepted. Contrarily, Hypothesis 1B_3 (there is a positive relationship between the amount of income from the artists' spouse/parents and the

job satisfaction of artists) is accepted for part-time artists, but for part-time and full-time artists, is done at a much less significant level.

In regard to working hours, Hypothesis 1C_2 (the ratio of working hours for artistic work to total working hours has a positive effect on the job satisfaction of artists) is accepted. Meanwhile, Hypothesis 1C_3 (the amount of leisure time has a positive effect on the job satisfaction) is rejected. This is due to the way in which leisure time has no effect. In order to demonstrate Hypothesis 1C_1, an additional t-test is conducted (See Appendix G: *Result of T-Test Between Both Groups of Full-Time and Part-Time Artists*).

The result of the t-test shows that there is a significant difference between the job satisfaction of full-time and part-time artists ($p = 0.002$). The mean job satisfaction rates of full-time and part-time artists are 3.54 and 3.46 respectively. This result supports Hypothesis 1C_1 (full-time artists have a higher job satisfaction rate than part-time artists), and so, this hypothesis is accepted.

4.3.2. The Effect of Working Conditions

When it comes to the impact of artists' working conditions on job satisfaction, both models demonstrate that being self-employed ($p = 0.01$) and possessing a separate workspace ($p = 0.005$) have a significantly positive effect. Indeed, studies conducted by Benz and Frey (2008) and Bille et al. (2013) find that being self-employed has a positive effect on job satisfaction. Moreover, research by Bodur (2002), Rizwan et al. (2015) and Park and Kim (2017) support that the possession of a separate workspace has a positive effect on artists' job satisfaction.

In regard to 'reward and recognition', proxies are the receiving of grants, copyright ownership, and the number of artistic activities. The amount of artistic activities has a significantly positive effect on job satisfaction ($p = 0.005$) for both full-time and part-time artists in Model 3B only. Furthermore, copyright ownership, and the receiving of grants have no effect on job satisfaction. This was an unexpected result. This counteracts the conclusion made by Danish and Usman (2010) and Rizwan et al. (2015), that 'reward and recognition' has a significant positive relationship with job satisfaction in non-artistic labour markets. This can be explained by the differences between the two distinctive, artistic and non-artistic, labour markets.

Additionally, this result may be interpreted as supporting the argument made by Abbing (2002), in relation to governmental grants. Abbing (2002) maintains that the number of artists will not decrease in the face of diminishing governmental grants. In other words, even if government support of the arts is reduced, the number of artists will not decline significantly (Abbing, 2002, pp. 219-220). Indeed, the results of this research show that grants do not have any effect on the job satisfaction of artists. Therefore, artists' satisfaction in continuing their artistic work remains the same – whether they receive grants or not.

In summary, both Hypothesis 2A (being self-employed has an effect on the job satisfaction of artists) and Hypothesis 2B (the possession of a separate workspace for artistic work has an effect on the job satisfaction of artists) are accepted. Hypothesis 2C ('reward and recognition' have a significant positive effect on the job satisfaction of artists) is rejected for part-time artists, as three proxies of this hypothesis are rejected (Model 2B). For both full-time and part-time artists, only one proxy (the number of artistic activities has a significant positive effect on artists' job satisfaction) is accepted (Model 3B).

4.3.3. The Effect of Psychological Factors

In both models, four proxies of psychological factors have a significantly positive or negative effect on the job satisfaction of artists. This shows that artists who feel valued have a higher job satisfaction. Meanwhile, artists who recognize their artistic, economic and external limitations have a lower job satisfaction. As a result, all four hypotheses (3A, 3B, 3C and 3D) are accepted in a significant level ($p < 0.005$). Especially, the finding in relation to the artist's awareness of external limitations is in line with the argument made by Frey and Jegen (2001) that intrinsic motivation is possibly crowded out when individuals recognize that they are in control.

4.3.4. The Effect of Socio-Demographic Variables

In regard to the effect of socio-demographic factors, only the location of artistic work has a significant effect on the job satisfaction of artists. This result shows that artists have a lower job satisfaction when they live in the capital area. This contradicts the results of a study conducted by Park and Kim (2017) which demonstrates that the location for artistic work has no effect on artists' job satisfaction in the field of the performing arts. It can be assumed that

this occurs due to the way in which Park and Kim (2017) only examine one particular field of the performing arts. In this study, fourteen fields are investigated, based on the 2015 *Survey*.

When it comes to age, Model 3A shows the positive significant effect of age on the job satisfaction of artists. However, the effect of age does not appear in Model 3B, in which other independent variables are included. In order to investigate this issue in further detail, an Analysis of Variance (ANOVA) was conducted (See Appendix H: *Result of ANOVA Between Different Age Groups*). The results show that artists older than sixty years old have a significantly higher job satisfaction rate than other age groups. Nonetheless, the results of the regression models Model 2B and Model 3B demonstrate that age has no effect on the job satisfaction of artists. This adheres to the conclusion made by Bodur (2002) and Park and Kim (2017).

Among the hypotheses related to socio-demographic factors, only Hypothesis 4A (Age), which was expected to have a positive relationship with the job satisfaction of artists, was rejected. Hypothesis 4B (gender has no effect on artists' job satisfaction), 4C (educational level has no effect on artists' job satisfaction), 4D (number of years in the profession has no effect on artists' job satisfaction) and 4E (there is a negative relationship between the location for artistic work as the capital area and the job satisfaction of artists) was accepted.

5. Conclusion

This research is an empirical study of Throsby's work-preference model (1994), which focuses on the job satisfaction of artists. This study aimed to answer the following two questions: 'To what extent can David Throsby's work-preference model (1994) explain the artistic labour market in South Korea?' and 'What are the major determinants of artists' job satisfaction?' The 2015 *Survey on Artists and Activities*, which was comprised of South Korean national register data, was used to identify responses to both of these questions.

Firstly, regarding the applicability of Throsby's work-preference model to South Korea, this study found that artists who invest more time in their artistic work than in their non-artistic work showed a significantly higher job satisfaction. In addition, when job satisfaction was examined in relation to the hourly wages of artistic and non-artistic work, no significant differences in job satisfaction rates were observed. This shows that artists derive a higher job and comparatively more utility from artistic work itself, and aim to maximize their working hours spent on artistic labour. The artistic labour market in South Korea, therefore, supports

Throsby's work-preference model. Nevertheless, this study also found that part-time artists in South Korea tend to supply more labour into the non-artistic labour market than the artistic labour market, regardless of hourly wages, which stands in contrast to initial assumptions. When scrutinized further, this phenomenon appears to be the result of part-time artists being incentivized to undertake more non-artistic work due to lower earnings from their artistic work and lower spousal/parental incomes.

Furthermore, with respect to the major determinants of artists' job satisfaction, a number of factors were found to have a significantly positive effect on the job satisfaction of artists: income from artistic work, the ratio of working hours for artistic work to the total amount of working hours, self-employment, the possession of a separate workspace, and an awareness of the value of artistic work. Inversely, an awareness of economic, artistic and external limitations had a significantly negative effect on the job satisfaction of artists in South Korea.

Past research into Throsby's work-preference model (1994) has mostly looked at its applicability to artists in Western countries. The findings of this study, however, support the premise that this work-preference model for artists can also be applied to non-Western countries, such as the Asian country of South Korea. Moreover, this study discovered that there are other determinants that allow artists to become more satisfied with their artistic work, alongside their strong preference for artistic work itself.

In particular, an unexpected result of this research revealed that part-time artists in South Korea tend to supply more labour into the non-artistic labour market than the artistic labour market, regardless of hourly wages. By conducting several additional research models, we discovered that this is not wholly due to the artist's personal choice. Rather, it appears that this decision has been imposed by external factors, such as socio-demographic circumstances or the artist's economic constraints.

In addition, another unexpected result revealed that grants and funds are not vital to the artist's willingness to work or not, but rather to the decisions made by part-time artists regarding the amount of hours to allocate to their artistic and non-artistic work. Indeed, the findings of this research show that when part-time artists receive grants and funds, they tend to supply increased working hours to their artistic work, and decreased working hours to their non-artistic work. This result has a policy implication: grants and funds encourage artists to focus more on their artistic work.

Nonetheless, this research also had several limitations. Firstly, the secondary source was limited: variables related to working hours (artistic / non-artistic / leisure) could not be

included in the investigation of full-time artists' preferences towards artistic work, as the 2015 *Survey* had only asked part-time artists these questions.

Furthermore, it is difficult to identify and control certain omissions and instances of underreporting. Respondents were asked to directly provide their income from artistic/non-artistic work as well as their working hours, which resulted in some unreliable responses, including answers of *400* and *240 hours* as their weekly working hours for non-artistic work. Nonetheless, the 2015 *Survey on Artists and Activities*, conducted by the South Korean Ministry of Culture, Sport and Tourism, was a worthwhile source, as it remains the only large-scale survey on artists and their activities in South Korea.

Lastly, this research is unable to investigate the heterogeneity of the different fields of artistic labour markets, due to time constraints. In addition, this study cannot directly compare the differences between non-artistic and artistic labour markets, as no such data exists to do so. Long-term changes in artists' labour supply along with changes in hourly wages over a specific time period also cannot be investigated, as the 2015 *Survey* only shows data from 2014 that cannot be compared to the previous surveys. Indeed, the 2015 *Survey* was the first to be carried out after a holistic overhaul of the survey's structure. These limitations can provide interesting opportunities for future research.

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Appendices

Appendix A. Cross-Tabulation of Fourteen Fields and Two Areas (Capital Area and Others)

			ArtLoca Cap		Total
			Others	Capital Area	
Q1_1_A	Literature	Count	325	150	475
		% within Q1_1_A	68,4%	31,6%	100,0%
		% within ArtLoca_Cap	11,3%	8,8%	10,3%
	Fine Art	Count	752	300	1052
		% within Q1_1_A	71,5%	28,5%	100,0%
		% within ArtLoca_Cap	26,0%	17,6%	22,9%
	Craft	Count	167	60	227
		% within Q1_1_A	73,6%	26,4%	100,0%
		% within ArtLoca_Cap	5,8%	3,5%	4,9%
	Photography	Count	131	75	206
		% within Q1_1_A	63,6%	36,4%	100,0%
		% within ArtLoca_Cap	4,5%	4,4%	4,5%
	Architecture	Count	109	97	206
		% within Q1_1_A	52,9%	47,1%	100,0%
		% within ArtLoca_Cap	3,8%	5,7%	4,5%
	Western Classical Music	Count	285	110	395
		% within Q1_1_A	72,2%	27,8%	100,0%
		% within ArtLoca_Cap	9,9%	6,4%	8,6%
	Popular Music	Count	119	170	289
		% within Q1_1_A	41,2%	58,8%	100,0%
		% within ArtLoca_Cap	4,1%	9,9%	6,3%
	Korean Traditional Music	Count	288	113	401
		% within Q1_1_A	71,8%	28,2%	100,0%
		% within ArtLoca_Cap	10,0%	6,6%	8,7%
Dance	Count	188	90	278	
	% within Q1_1_A	67,6%	32,4%	100,0%	

		% within ArtLoca_Cap	6,5%	5,3%	6,0%
Theater	Count		294	144	438
	% within Q1_1_A		67,1%	32,9%	100,0%
	% within ArtLoca_Cap		10,2%	8,4%	9,5%
Film	Count		65	138	203
	% within Q1_1_A		32,0%	68,0%	100,0%
	% within ArtLoca_Cap		2,3%	8,1%	4,4%
Broadcasting	Count		66	112	178
	% within Q1_1_A		37,1%	62,9%	100,0%
	% within ArtLoca_Cap		2,3%	6,6%	3,9%
Comics	Count		55	113	168
	% within Q1_1_A		32,7%	67,3%	100,0%
	% within ArtLoca_Cap		1,9%	6,6%	3,7%
Others	Count		43	37	80
	% within Q1_1_A		53,8%	46,3%	100,0%
	% within ArtLoca_Cap		1,5%	2,2%	1,7%
Total	Count		2887	1709	4596
	% within Q1_1_A		62,8%	37,2%	100,0%
	% within ArtLoca_Cap		100,0%	100,0%	100,0%

Appendix B. Content Outline of Questionnaires from 2015 ‘Survey on Artists and Activities’

Sub-Section	Question	Content (Variables)	
Artistic Fields	1	Current art fields (Multiple responses possible)	14 fields
	1-1	Main art field (Only one response)	14 fields
	1-2	Number of artistic activities in 2014	
	2	Introductory year	
	3	Entry path	
	4	Current artistic jobs (Multiple responses possible)	31 choices
	4-1	Main job (Only one response)	31 choices
	5	Copyright ownership	Yes, no
	6	Artistic activities abroad in 2014	Yes, no
	7	Culture and art education activities	Yes, no
	8	Ownership of <i>Culture and Art Educator Certificate</i>	Yes, no
Activities	9	Voluntary work in 2014	Yes, only in the past, no
	10	Possession of separate workspace for artistic work	Yes (at home/not at home), no
	10-1	Size of workspace	m ²
	10-2	Type of ownership of the space	
	11_1	Annual household income/expenditure	Household
	11_2	Annual income from artistic work	Individual income (artistic work)
	11_3	Annual income from non-artistic work	Individual income (non-artistic work)

	11_4	Annual individual expenditure on art education and training	Individual expenditure
	11_5	Annual individual expenditure on artistic activities	Individual expenditure
	12	Main source of artistic income	Manuscript fee, performance fee, product sale fee, copyright income, salary, others, none
	13	Participation in other artistic fields as an audience member	
Employment Type and Working Conditions	14	Full-time artist	Yes (up to 15-1), no (up to 15-2 ~15-5)
	15-1	Form of employment	Employer, full-time employee, contract worker or temporary worker, daily employee, part time employee or hourly employee, dispatched or service worker, freelancer, the rest
	15-2	Form of employment	
	15-3	Write down field of part-time job	
	15-4	Main reason for having another job	Low income/unstable income/lack of job stability/unacceptable working conditions for artistic work
	15-5	Separate weekly working hours for artistic and non-artistic work	
	16	Making contracts	Yes (up to 16-1), no (up to 17)
	16-1	Types of contracts	Verbal contract, written contract

	16-2	Use of the standard form of contract recommended by the Ministry	Yes, no, don't know
	16-3	Inadequate and unfair contracts	Yes, no
	16-4	What were these?	
	16-5	Number of contract fulfillments	(...) out of (...)
Life & Welfare	17	Employment insurance	
	18	Unemployment benefits	
	19	Work-related injuries	
	20	Working in different jobs or unemployed more than one year having given up artistic work	Yes, no
	20-1	How many times has this happened?	
	20-2	Length of time period?	
	20-3	Reason	Study/childbirth/sickness/lack of artistic income/other
Arts Policy and Satisfaction	21	Do you receive grants? If so, how much from the government/public institution/companies/individual sponsors do you receive?	Yes, no
	21-1	If not, what is the reason for this?	Don't know/unrealistic ambition/not a necessity/failed to receive grant/other
	22_1	Awareness of the limit of artistic ability	<u>Five scales (for all 22, 23)</u>
	22_2	Awareness of the limit of economic ability	
	22_3	Satisfaction from artistic activity	(Job satisfaction) "I am satisfied with my artistic work."

	22_4	Overall life satisfaction	
	22_5	Awareness of the value of work	“I think what I do is very valuable.”
	22_6	Feeling happy	
	22_7	Feeling depressed	
	23_1	Satisfaction with arts policy	
	23_2	Satisfaction with social appreciation	
	23_3	Satisfaction with the level of economic compensation for artistic works	
	23_4	Are there many opportunities to present new works?	
	23_5	Is there much support for artistic works?	
	23_6	Awareness of external restrictions	“I think there are multiple external restrictions on artistic activities in South Korea.”
	23_7	Are artists’ opinions well reflected in deciding arts policies?	
	24	Which policy should the government focus on?	10 options and other
Personal Information	DQ1	Gender and birth year (age)	
	DQ2	Residence/location	16 geographic regions
	DQ3	Membership of artist organization	Are you registered with an artist organization? (Yes, no)
	DQ4	Education	Junior/high school/university/graduate school/study abroad (art school, general school/graduated, enrolled, dropped out/14 fields)

	DQ5	Marriage/number of household members/number of children / type of property ownership	
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Notes. Adapted from questionnaire in 2015 *Survey on Artists and Activities*. Retrieved from <http://stat.mcst.go.kr/mcst/WebPortal/public/subject/subject01.html>

Appendix C. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ART_SAT	4596	1	5	3.50	.875
AGE	4596	22	96	51.37	14.040
GENDER	4596	0	1	.60	.491
Edu_Middle	4596	0	1	.01	.096
Edu_Secon	4596	0	1	.14	.342
Edu_College	4596	0	1	.59	.492
CAREER	4596	4	73	21.95	12.200
ArtLoca_Cap	4596	0	1	.37	.483
INC_Art	4596	0	100000	1298.06	3539.477
INC_NonArt	4596	0	30000	1514.78	2352.607
INC_Partner	4596	0	81000	1789.13	3337.089
Whou_Art_ratio	2276	0	1	.3667	.27481
WHour_Art	2294	0	96	14.83	14.554
WHour_NonArt	2291	0	100	25.66	16.752
Hour_Leisure	2291	18.00	168.00	127.5260	19.67053
Fulltime	4596	0	1	.50	.500
SELF	4596	0	1	.8164	.38723
SPACE_Art	4596	0	1	.55	.498
Grants	4596	0	1	.19	.394
Copy_Own	4596	0	1	.18	.381
Art_ActNum	4534	0	108	9.51	16.233
EX_Restrict	4596	1	5	2.96	.968
Lim_Art_abil	4596	1	5	3.15	1.088
Lim_Eco_abil	4596	1	5	3.63	1.081
Value_work	4596	1	5	4.03	.778
Valid N (listwise)	2246				

Appendix D1. Frequency Table of Control Variables

GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	1857	40,4	40,4	40,4
	Male	2739	59,6	59,6	100,0
	Total	4596	100,0	100,0	

AGE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 30s	1148	25,0	25,0	25,0
	40s	1010	22,0	22,0	47,0
	50s	1106	24,1	24,1	71,0
	Above 60s	1332	29,0	29,0	100,0
	Total	4596	100,0	100,0	

Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below Middle School	43	,9	,9	,9
	High School	622	13,5	13,5	14,5
	Graduate	2709	58,9	58,9	73,4
	Above Post-Graduate	1222	26,6	26,6	100,0
	Total	4596	100,0	100,0	

Number of Years in Profession

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 10	690	15,0	15,0	15,0
	10-19	1627	35,4	35,4	50,4
	20-29	1163	25,3	25,3	75,7
	30-39	719	15,6	15,6	91,4
	Above 40	397	8,6	8,6	100,0
	Total	4596	100,0	100,0	

Location of Artistic Work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	The rest	2887	62,8	62,8	62,8
	Capital Area	1709	37,2	37,2	100,0
	Total	4596	100,0	100,0	

Appendix D2. Frequency Table of Dependent and Independent Variables

ART_SAT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	83	1,8	1,8	1,8
	Disagree	483	10,5	10,5	12,3
	Neutral	1527	33,2	33,2	45,5
	Agree	2049	44,6	44,6	90,1
	Strongly agree	454	9,9	9,9	100,0
	Total	4596	100,0	100,0	

Income from Artistic Work (10,000 won / year)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1597	34,7	34,7	34,7
	Below 500	843	18,3	18,3	53,1
	500-1000	485	10,6	10,6	63,6
	1000-2000	696	15,1	15,1	78,8
	2000-3000	363	7,9	7,9	86,7
	3000-4000	249	5,4	5,4	92,1
	Above 4000	363	7,9	7,9	100,0
	Total	4596	100,0	100,0	

Income from Non-Artistic Work (10,000 won / year)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1941	42,2	42,2	42,2
	Below 500	255	5,5	5,5	47,8
	500-1000	330	7,2	7,2	55,0
	1000-2000	657	14,3	14,3	69,3
	2000-3000	506	11,0	11,0	80,3
	3000-4000	336	7,3	7,3	87,6
	Above 4000	571	12,4	12,4	100,0
	Total	4596	100,0	100,0	

Spouse or Parents' Income (10,000 won / year)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2074	45,1	45,1	45,1
	Below 500	79	1,7	1,7	46,8
	500-1000	142	3,1	3,1	49,9
	1000-2000	527	11,5	11,5	61,4
	2000-3000	568	12,4	12,4	73,8
	3000-4000	511	11,1	11,1	84,9
	Above 4000	695	15,1	15,1	100,0
	Total	4596	100,0	100,0	

Working Hours for Artistic Work (Weekly)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	180	3,9	7,8	7,8
	Below 10	1128	24,5	48,9	56,6
	11-20	491	10,7	21,3	77,9
	21-30	251	5,5	10,9	88,8
	31-40	115	2,5	5,0	93,8
	Above 41	144	3,1	6,2	100,0
	Total	2309	50,2	100,0	
Missing	System	2287	49,8		
Total		4596	100,0		

Working Hours for Non-Artistic Work (Weekly)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	47	1,0	2,0	2,0
	Below 10	598	13,0	25,9	27,9
	11-20	458	10,0	19,8	47,8
	21-30	329	7,2	14,2	62,0
	31-40	601	13,1	26,0	88,0
	Above 41	276	6,0	12,0	100,0

	Total	2309	50,2	100,0	
Missing	System	2287	49,8		
Total		4596	100,0		

Leisure Time

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 70	19	,4	,8	,8
	70-100	163	3,5	7,1	7,9
	100-130	1171	25,5	51,0	59,0
	Above 130	941	20,5	41,0	100,0
	Total	2294	49,9	100,0	
Missing	System	2302	50,1		
Total		4596	100,0		

Fulltime

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Part-time	2309	50,2	50,2	50,2
	Full-time	2287	49,8	49,8	100,0
	Total	4596	100,0	100,0	

SELF

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	The others	844	18,4	18,4	18,4
	Freelancer	3752	81,6	81,6	100,0
	Total	4596	100,0	100,0	

SPACE_Art

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not having separate working space	2083	45,3	45,3	45,3
	Having separate working space for artistic work	2513	54,7	54,7	100,0
	Total	4596	100,0	100,0	

Grants

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not receiving the grant	3714	80,8	80,8	80,8
	Receiving the grant	882	19,2	19,2	100,0
	Total	4596	100,0	100,0	

Copy_Own

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 (no)	3788	82,4	82,4	82,4
	1 (yes)	808	17,6	17,6	100,0
	Total	4596	100,0	100,0	

Art_ActNum

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	671	14,6	14,6	14,6
	1-5	2143	46,6	46,6	61,2
	6-10	829	18,0	18,0	79,3
	11-15	207	4,5	4,5	83,8
	More than 16	746	16,2	16,2	100,0
	Total	4596	100,0	100,0	

Lim_Art_abil

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	303	6,6	6,6	6,6
	2	1165	25,3	25,3	31,9
	3	992	21,6	21,6	53,5
	4	1789	38,9	38,9	92,4
	5	347	7,6	7,6	100,0

Total	4596	100,0	100,0
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Lim_Eco_abil

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	138	3,0	3,0	3,0
2	706	15,4	15,4	18,4
3	917	20,0	20,0	38,3
4	1808	39,3	39,3	77,7
5	1027	22,3	22,3	100,0
Total	4596	100,0	100,0	

Value_work

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	23	,5	,5	,5
2	117	2,5	2,5	3,0
3	843	18,3	18,3	21,4
4	2345	51,0	51,0	72,4
5	1268	27,6	27,6	100,0
Total	4596	100,0	100,0	

EX_Restrict

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	235	5,1	5,1	5,1
2	1254	27,3	27,3	32,4
3	1831	39,8	39,8	72,2
4	995	21,6	21,6	93,9
5	281	6,1	6,1	100,0
Total	4596	100,0	100,0	

Appendix E. Model 1: Cross-Tabulation Analysis

			Time Allocation to Artistic Work		Total
			(2) $0 < La \leq 0.5$	(3) $0.5 < La < 1$	
Wa andWn	1. $Wa < Wn$	Count N	1166	527	1693
		Percentage	68,9%	31,1%	100,0%
	2. $Wa=Wn$	Count N	24	9	33
		Percentage	72,7%	27,3%	100,0%
	3. $Wa>Wn$	Count N	252	42	294
		Percentage	85,7%	14,3%	100,0%
Total		Count N	1442	578	2020
		Percentage	71,4%	28,6%	100,0%

Appendix F. Regression Analysis (Part-time Artists / DV: Working Hours for Artistic Work)

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.392 ^a	0,153	0,145	13,270	1,853

a. Predictors: (Constant), ART_SAT, Edu_Secon, GENDER, Edu_Middle, A예술행동시기당임금, Grants, Art_ActNum, ArtLoca_Cap, B예술행동시기당임금, SELF, SPACE_Art, Lim_Art_abil, EX_Restrict, CAREER, LnINC_Partner, Copy_Own, Value_work, Edu_College, Lim_Eco_abil, AGE

b. Dependent Variable: WHour_Art

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	65019,490	20	3250,975	18,463	.000 ^b
	Residual	358853,845	2038	176,081		
	Total	423873,336	2058			

a. Dependent Variable: WHour_Art

b. Predictors: (Constant), ART_SAT, Edu_Secon, GENDER, Edu_Middle, A예술행동시기당임금, Grants, Art_ActNum, ArtLoca_Cap, B예술행동시기당임금, SELF, SPACE_Art, Lim_Art_abil, EX_Restrict, CAREER, LnINC_Partner, Copy_Own, Value_work, Edu_College, Lim_Eco_abil, AGE

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	9,347	3,149		2,968	0,003		
	AGE	-0,159	0,032	-0,139	-5,029	0,000	0,545	1,835
	GENDER	0,560	0,637	0,019	0,878	0,380	0,894	1,119
	Edu_Middle	-2,260	3,209	-0,015	-0,704	0,481	0,958	1,043
	Edu_Secon	0,159	1,084	0,003	0,147	0,883	0,775	1,290
	Edu_College	-1,894	0,676	-0,065	-2,803	0,005	0,766	1,306
	CAREER	0,112	0,034	0,086	3,295	0,001	0,608	1,646
	ArtLoca_Cap	5,351	0,698	0,174	7,664	0,000	0,807	1,238
	Wa	-0,013	0,002	-0,138	-6,558	0,000	0,945	1,058
	Wn	0,002	0,001	0,052	2,458	0,014	0,944	1,060
	LnINC_Partner	-0,215	0,079	-0,058	-2,722	0,007	0,902	1,109
	SELF	1,583	0,998	0,033	1,587	0,113	0,946	1,057
	SPACE_Art	2,934	0,622	0,101	4,714	0,000	0,907	1,103
	Grants	3,022	0,751	0,084	4,027	0,000	0,954	1,049
	Copy_Own	4,423	0,840	0,114	5,268	0,000	0,891	1,123
	Art_ActNum	0,066	0,019	0,072	3,463	0,001	0,961	1,041
	Lim_Art_abil	-0,427	0,320	-0,032	-1,334	0,183	0,744	1,344
	Lim_Eco_abil	0,836	0,330	0,062	2,533	0,011	0,702	1,424
	Value_work	0,307	0,431	0,016	0,712	0,476	0,785	1,275
	EX_Restrict	0,603	0,332	0,039	1,816	0,070	0,920	1,087
	ART_SAT	0,829	0,385	0,050	2,151	0,032	0,774	1,292

a. Dependent Variable: WHour_Art

Appendix G. Result of T-Test Between Both Groups of Full-Time and Part-Time Artists

Group Statistics

Fulltime		N	Mean	Std. Deviation	Std. Error Mean
ART_SAT	part-time	2309	3,46	0,884	0,018
	full-time	2287	3,54	0,865	0,018

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
ART_SAT		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
	Equal variances assumed	2,342	0,126	-3,121	4594	0,002	-0,081	0,026	-0,131	-0,030
	Equal variances not assumed			-3,122	4593,408	0,002	-0,081	0,026	-0,131	-0,030

Appendix H. Result of ANOVA (Incl. Robust Tests and Post Hoc Tests) Between Different Age Groups

Test of Homogeneity of Variances

ART_SAT			
Levene Statistic	df1	df2	Sig.
3,784	3	4592	,010

ANOVA

ART_SAT					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	24,737	3	8,246	10,830	,000
Within Groups	3496,242	4592	,761		
Total	3520,978	4595			

Robust Tests of Equality of Means

ART_SAT				
	Statistic ^a	df1	df2	Sig.
Welch	11,098	3	2498,422	,000

a. Asymptotically F distributed.

Post Hoc Tests

Multiple Comparisons

Dependent Variable: ART_SAT
Scheffe

(I) 연령대		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
less than 30s	2.00	,013	,038	,990	-,09	,12
	3.00	-,055	,037	,528	-,16	,05
	4.00	-,167*	,035	,000	-,27	-,07
40s	1.00	-,013	,038	,990	-,12	,09
	3.00	-,067	,038	,368	-,17	,04
	4.00	-,180*	,036	,000	-,28	-,08
50s	1.00	,055	,037	,528	-,05	,16
	2.00	,067	,038	,368	-,04	,17
	4.00	-,112*	,035	,019	-,21	-,01
more than 60s	1.00	,167*	,035	,000	,07	,27
	2.00	,180*	,036	,000	,08	,28
	3.00	,112*	,035	,019	,01	,21

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

ART_SAT

Scheffe_{a,b}

연령대	N	Subset for alpha = 0.05	
		1	2
2.00	1010	3,43	
1.00	1148	3,44	
3.00	1106	3,50	
4.00	1332		3,61
Sig.		,334	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 1137.628.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

