// MASTER THESIS //

/ WHAT'S NEXT? /

A quantitative research on the labour market of graduated designers working in the Netherlands

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A quantitative research on the labour market of graduated designers working in the Netherlands

ESTHER NIEBOER
Student no. 296269
esthernieb@hotmail.com

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SUPERVISOR: PROF. DR. MARIANGELA LAVANGA
SECOND READER: PROF. DR. CHRISTIAN HANDKE

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// ABSTRACT //

Design as a profession seems to have all the assets to increase influence in the knowledge-based economy. The labour market for designers shows a somewhat different picture. Low earnings, short-term, part-time or self-employed forms of work, multiple job-holdings and a high level of unemployment dominate the labour market. In this market designers are a vulnerable group of workers that are trying to balance the competitive environment with their personal motives regarding work. This thesis investigates the labour market for graduated designers who are working in the Netherlands. By a quantitative method the relative importance of factors that influence the profession that these designers carry out is being researched. By a multiple linear regression the influence of economic, work-related and socio-demographic factors are tested on the time that designers spent working in one or multiple fields. A combination of these three factors is found to effect the profession that designers carry out. Next to the economic aspects of income related to study, the application of creative skills outside the core creative field and job satisfaction are found to be influential. The results of this empirical study reflect that designers not only work in different fields out of economic motives, but also in order to apply creative skills more widely and to create a profession that matches their personal satisfaction.

Keywords: artists' labour market, careers of designers, portfolio career, multiple job-holding, bohemian graduate

//PREFACE //

Good things take time,

♥

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1 // INTRODUCTION //

"The real assets of the modern economy come out of our heads, not out of the ground: imagination, knowledge, skills, talent and creativity"
(Leadbeater & Oakley, 1999, p. 11)

Creativity is an important asset within our knowledge-based economy, that tends to focus on quality, innovation and creativity (Best, 1990). Within this knowledge-based economy creative assets are believed to be responsible for economic growth and development. In order to assess creativity, it needs to be defined. At the moment the definition of creativity remains fuzzy, as scholars differ in the perception of the term. Many of them refer to creativity as a process (Newell, Shaw & Simon, 1959) or as a product (Jackson & Messick, 1965). Others perceive creativity from within the person (Amabile,1983; Csikszentmihalyi,1997). This thesis focuses on a specific group of design creatives and their position in the economy. The economic position of this group awaits enlargement when imagination, knowledge, skills, talent and creativity (Leadbeater & Oakley, 1999) are valued. Some scholars agree on this term and address an increasing influence of the designer in the economy. Julier (2014) acknowledges design as a profession that has the ability to link "the economic to the cultural" (p. 49). Ghassan & Bohemia (2011) emphasise that design as a profession is expanding and gaining influence in society (Davey, Wootton, Thomas, Cooper & Press, 2005).

1.1 / *RESEARCH PROBLEM /*

The labour market for designers shows a different state than the quote from Leadbeater & Oakley (1999) would suggest. A constant stream of aspiring designers produces a substantial oversupply of creative labour (Towse, 2001). This oversupply results in high levels of unemployment, underemployment, part-time work and self-employment (Menger, 2001). On top of this, uncertainties regarding the designers' quality, ability and talent result in an even more challenging presence in the labour market. Comunian, Faggian, Jewell & Kelly (2013) characterise the group of design creatives as the most "vulnerable" group in the artist labour market (p. 196). Vulnerable due to the low average salaries that are not dependent on the level of education, while working both in and outside the creative field. A possible explanation for the negative position of this group of creatives, is the lack of the right human capital. This is supported by Sunley, Pinch & MacMillen (2010) who stress that the quality of design education

has reduced, while more people have entered these courses. Comunian, Faggian & Jewell (2011) stress that transferable skills are more valuable for creatives than the skills specific to the creative sector. Norman (2010) emphasises that the designer is missing the right skills to fit into the modern economy. According to him design must broaden its scope towards science, mathematics, technology or the social sciences.

1.2 / *AIM* /

The aim of this thesis is to empirically study the factors that influence the profession that graduated designers working in the Netherlands carry out. The main assumption underlying this thesis considers the broad range of fields where designers are able to work. This range stretches from work related to the designers' field of study to work outside the arts. Scholars differ in perspective why designers would work outside their core creative field. Some stress this is out of economic necessity in order to survive (Menger 2001, 2006) while others imply the importance of work-related factors that revolve around the portfolio career (Handy, 1985, 1995; Throsby & Zednik, 2011). This kind of career stimulates the broad practice of work and the expansion of skills. This would not only improve the chances on the labour market but also the satisfaction of the worker.

In this thesis the following *"Research question"* is investigated:
What is the relative importance of the factors that influence the profession that graduated designers working in the Netherlands carry out?

The factors that are investigated in this research are divided in the following three categories: economic, work-related and socio-demographic. This research question is the central question of this thesis that tries to find an explanation of this observation.

1.3 / *DEFINITIONS* /

Terms that are frequently used in this thesis are:

+Design: the fields of fashion, graphic (including advertising), interior & product design and architecture. This classification finds its origin in the definition of design from KEA (2006).

+Designer: a person who is graduated in one of the design departments of an Art Academy, Design Academy or Technical University. This definition is based on research that

has been done on the 'Bohemian' graduate (Abreu, Comunian, Faggian & McCann, 2012; Comunian, Faggian & Li, 2010; Comunian *et al.*, 2011, 2013). The 'Bohemian' graduate is part of a subgroup that "interacts between the creative class, creative industries and human capital, namely graduates who obtained a degree in a 'Bohemian' subject (creative arts, performing arts, design, mass communications, multi-media, software design and engineering, music recording and technology, architecture and landscape design)" (Comunian *et al,*. 2010, p. 394). The designer is a specific niche in the group of 'Bohemian' graduates.

+Profession: work that a designer carries out. Important in this definition is the entity work. Work is divided into four categories, based on researches done by Throsby (1992, 1994, 1996). Throsby proposes the following three categories in order to define the different activities that artists are involved in: creative, arts-related and non-arts work. In this thesis a dichotomy in work related to creative activity has been added. This research makes a distinction between creative activity that is related and not related to the field of study, in order to search for relationships between different fields of work, study and cross-overs. Profession is defined in the following four categories: work related to study (creative work in the field of study), work in the artistic field (creative work outside field of study, but within the 'Bohemian' subject), arts-related work (for instance teaching or managing in the field of the arts) and non-arts work. A profession can also be a combination of work in these different categories in order to express forms of multiple job-holdings (Throsby & Zednik, 2011).

1.4 */ACADEMIC RELEVANCE /*

The labour market for artists is researched by many scholars (for instance Alper & Wassall, 2006; Lingo & Tepper, 2013; Menger, 2001, 2006; Throsby & Zednik, 2011). From these researches an image of the artistic labour force can been sketched that shows a younger, better educated workforce that earns less and experiences larger income inequalities and variabilities than other comparable workers (Menger, 2001). This workforce is characterised by high rates of self-employment, unemployment and are more often multiple job-holders. The researches on the 'Bohemian' graduate investigate a specific group of creatives, where designers are a part of but are not the main focus (Abreu *et al.*, 2012; Comunian *et al.,* 2010, 2011, 2013). Substantial academic research on the career paths of designers is missing. Design as a profession

is evolved under the technological developments of the 1980s and 1990s. These developments broadened the range of objects to which design can be applied. Design expanded to the areas of graphic, interior and product design, but also to consultancy, advertising and other service related agencies such as public relations (Julier, 2014). As the designer is able to work in a broad range of fields, little is known about this aspect of the designers' career. Throsby & Zednik (2011) research the multiple job-holdings of artists, which is mainly focused on the non-arts sector and traditional artists. Highlighted in the research is the option for further research regarding the artists motivation in applying their skills outside the arts. They elaborate that further research is also needed to analyse the proposed subgroups of work in order to deplore the possibilities of adding another subgroup. On what kind of multiple jobs designers take on, why they choose these jobs, what kind of designers hold multiple jobs and what kind of skills they use in these jobs is still little known. Therefore research is needed to test these kind of factors that are of influence on the profession that designers carry out.

1.5 */ SOCIETAL RELEVANCE /*

Research shows that the number of jobs in the creative sector in the Netherlands have taken a downward turn from 2013, starting in that year with a decline of 0.4 percent (Rutten, 2014). This results in a increase of people who are self-employed in the creative industries. This increase is also caused by young creatives who often choose for a career as an entrepreneur (Rutten, 2014). This group of young creatives is also subject to change. From 2002 an increase of creative graduates in higher education is found. In eight years' time the number of creative graduates increased from 80.000 till about 140.000 graduates in the Netherlands (CBS, 2014). This increase is mostly coming from new studies in the field of creative industries, such as industrial product design, media technology, engineering and design, game architecture, media, information, communication and media added communication design. The research of CBS (2014) also shows that these young creative graduates take a different position in the labour market. 25% of this group in 2010 was one year after graduation already self-employed. This is more than 3 times the average highly educated graduate. What kind of factors are of influence on the choices designers make regarding their career are not clear. This could have policy implication on terms of funding, job stimulation or education. For instance if these choices are made out of necessity and the creative sector is inadequate in providing enough jobs, policy could adapt to this inefficiency. If these choices are preferred by the workforce this could result in an change in the creative educational environment which could incorporate aspects of self-

employment and a broader range of skills.

1.6 / *STRUCTURE* /

This study is a quantitative research on the relative importance of the factors that influence the profession that designers working in the Netherlands carry out. The "*Literature review*" offers an overview of the existing literature regarding the artists' labour market. It starts with a general outline of studies done on the artists' labour market. Later on studies that zoom in at the specifics of the career paths of artists and their motivation that underlies the choices they make regarding their careers are discussed. The review identifies the different factors that are of influence on the artists' career. The *"Literature review*" closes with a summary that gives an overview of these factors on which the hypotheses for the empirical research are formulated. The next chapter *"The Dutch Case"* is a short chapter to introduce the case of the Dutch designers' labour market. An overview of the Dutch creative industry and the labour market is made in order to sketch an image of the specific case of designers in the Netherlands. The next step in the research process is the adaptation from theory to the operationalisation of the research in order to test the formulated hypotheses. This is done in the "*Methodology"* chapter. This chapter introduces the empirical method that is used for the data analysis. It contains specifics on the units of analysis, method for data collection and sample size. Most relevant part of this chapter is the operationalisation of the different variables that are used to construct the research model. The following chapter "*Results"* will show the findings of the collected data. First a general overview of the sample is been given, in order to offer an overview on the units of analysis. This is followed up by the specific analysis and accompanying results of the regression analysis. The discussion contains an inquiry on how well the data fits the research model and what kind of implications follow from the reliability of the results. The thesis closes with the chapter *"Conclusions"* where the collection of the main findings of this research try to answer the proposed *"Research question"*. The thesis closes with a discussion on the implications for research and theory and a critical reflection is made on the empirical research that has been done to suggest options for further research.

2 LITERATURE REVIEW

In the theoretical framework of this thesis the artists' labour market is reviewed. From a general economic perspective the labour market is perceived as any other market. The artists' labour market differs from a general market by several peculiarities. This *"Literature review"* offers an overview on the characteristics of the artists' labour market, based on the work of different scholars on this topic. The fundament of the review is structured on the studies of: Abreu *et al.*, 2012; Alper & Wassall, 2006; Comunian *et al*., 2010, 2011, 2013; Menger, 2001, 2006; Throsby & Zednik, 2011; Rengers, 2002 and Winkel, Gielen & Zwaan, 2012.

2.1 / STRUCTURE /

The "*Literature review"* starts with an outline of the general characteristics of the artists' labour market. Theories as human capital theory (Towse, 2010), the work-preference model (Throsby, 1994), the winner-take-all model (Frank & Cook, 1995) and a combination of human capital theory and the winner-take-all model (Rengers, 2002) are discussed. The thesis is mostly focused on the supply side of the labour market, which is extensively reviewed in this first paragraph. The core of the review is based on studies on the career paths of artists. This part focuses on topics as the portfolio career (Handy, 1985, 1995), multiple job-holdings (Throsby & Zednik, 2011), the hybrid artist (Winkel *et al.*, 2012) and the 'Bohemian' career (Abreu *et al.*, 2011; Comunian *et al.*, 2010, 2011, 2013). The last paragraph stresses the motivation that lies at the base of the chosen career paths. By defining the artist as a kind of actor aspects as the risks these actors have to assess and the choices they make because of these uncertainties can be studied. In order to submit an outline of the existing literature on the artists' labour market most important findings will be summarised. This overview will be used to formulate hypotheses regarding the proposed "*Research question"*. This analysis forms the core of the factors that will be operationalised in the methodological part of this thesis.

2.2 / THE ARTISTS' LABOUR MARKET /

General economic theory on the labour market is based on the operation of demand and supply. Towse (2010) explains how this market works. The demand side represents the employers, who claim more hours of work as the price per hour of work falls. On the supply side the employees are placed, who request a higher wage rate per hour as the number of hours work increase. Supply and demand meet each other in the equilibrium, which represents a certain wage

rate per hour and a number of working hours. Assumptions that lie at the base of this model are the homogeneous nature of labour and the possibility to substitute work that is done by different workers. In practice homogeneous labour can't hardly be found and differ workers in education, training, experience and so on. The artists' labour market opposes even more from this practiced idea by adding complexities such as creativity and talent. Different scholars have studied how to define the artists' labour market and till what extent general economic theory can be applied to this market.

The artist as a workforce

When looking at such a study Menger (2001) investigates the quantifiable aspects of artists as a workgroup. He concludes that artists are on average younger and although they are better educated, they earn less and are more often multiple job-holders than other workers with comparable age, education and experience. Also higher rates of self-employment, unemployment and several forms of underemployment can be found. Menger (2001) defines the artists' labour market therefore as a model of imperfect monopolistic competition. What characterises this model is the oversupply of labour, the endless differentiation of production and the still growing number of small firms. Dominating in this market is the system of project-based production that relies on short-term assignments. The involved risks, which were previously carried by the organisations are now transferred to the workforce. Long-term employment in the artists' labour market can only been found in "large, heavily subsidised and sponsored organisations" (Menger, 2006, p. 766). Okun (1981) already predicted such a transition. According to him a workers would no longer connect to an individual employer, but to a certain industry. For employers it is hard to find a grasp in this opaque web of workers. Therefore networks are being used to lower the transaction costs of searching for employees (Menger, 2006). The hiring procedures in the artists' labour market operate through network-based processes as for instance patronage or ties among peers. Such relationships are used in order to easily convey reliable information about skills and talents. Reputation and who you know are essential in these selection processes.

Oversupply

Towse (2010) investigates the supply side of the labour market from a general economic perspective. The supply of labour increases when the wage rate per hour is growing. A higher wage rate substitutes for the time that the worker gives up on leisure. For the artists' labour market an important feature is the stock of labour supply. The stock of labour supply resembles

the number of people, who are able to do a certain kind of work at any given point in time. The stock of labour supply incorporates those employed, unemployed and persons that are employed in other occupations but who prefer to work in the occupation. From a theoretical economic perspective the attractiveness of the artistic occupation should be balanced against the risk of failure by the invisible hand of the market. Still a constant oversupply on the artists' labour market can been found. Menger (2006) states this oversupply as "permanent" and "a true structural condition of the arts" (p. 782). Reasons for this imbalance are the openness of the market, that is not restricted by "a guild, an academy or a state system or licensing" in order to enter (Menger, 2006, p. 782). And other factors such as the hopes of prospective artists on a working life filled with autonomy, creativity and freedom, the underestimation of the risks that are involved and the overestimation of chances on success (Lingo & Tepper, 2013) also play a role. Towse (2010) supports this argument by characterising the artists' labour market on the nature of the workers skill and the extent of their talent. For the artist it is hard to estimate his rank on skill and talent in the market. To make it even harder it is also difficult to obtain exact information about the kind of training and education that is needed for an occupation. These factors increase the level of uncertainty the artist is facing, making it hard to assess its actual chances on the labour market.

Human capital theory versus sorting models

A result of the high level of uncertainty is an artistic workforce that is higher-educated that the general workforce (Menger, 2001). Towse (2010) proposes human capital theory and sorting models to explain the high education level of artists. Human capital theory assumes that education, training and experience construct a set of knowledge and skills, that can be used to increase productivity and therefore also income. Towse questions if this theory can be applied to the artists' labour market, because empirical research shows that innate abilities are dominating the earning power of the artist. Therefore a lower investment in schooling could be more profitable in the field of the arts. Another aspect of human capital theory which is hard to apply to the arts is its distinction based on specific and general training. General training is formal training that trains for skills that can be extensively applied. Specific training is also called on-the-job training and is related to one special employer. Within the arts, where short-term and self-employment dominate the market, one employer is almost nowhere to find. This makes connecting with a certain employer by investing in training hard. To contrast human capital theory Towse (2010) introduces theory on sorting models. Sorting incorporates the idea that

education and training incorporate a certain confirmation of the workers qualification. The education system in this model offers transparency regarding the abilities of the worker. Sorting models differ on the idea that education and training provide an increase in productivity, as human capital theory suggests. Sorting models could offer an explanation for the overeducated artistic workforce. When education is assumed to confirm the qualification of the worker the artist is using this kind of qualification to get noticed in the crowded labour market. This is contrasted by the findings of research that show the incidental importance of certificates and diplomas in the artists' labour market. Both theories seem to conflict with the artists' labour market that apparently has different features. Towse (2010) therefore stresses the importance of reputation, professionalism, talent and creativity in the labour market, which is not characterised by succeeding a formal education. This is reinforced by the tendency of cultural and creative organisations, that construct their own screening tests such as auditions or selecting on portfolios. Competition and prizes are also used to indicate quality as this is mostly done by a board of experts (Abbing, 2002).

The work preference model

The result of the permanent oversupply of artists are the low earnings artists face compared to workers of comparable education and skills (Alper & Wassall, 2006). As a response to this feature Throsby (1994) developed a model wherein the artist is driven to create, but will maximise the time spent working as an artist under the constraint of earning a sufficient income. The trade-off in this model is between working time in and outside the arts, as opposed to the balance of working and leisure time that is used in the general economic model (Towse, 2010). In this 'work preference model' the artist will work either inside or outside the arts to establish a sufficient income. Throsby (1996) finds in a later research that investing in education does not affect the earnings in the artistic field, but is of influence in the earnings outside the arts and has therefore an indirect influence on the number of hours the artist can spend on his arts work. Resulting in a worker that is a multi job-holder (this will be elaborated in the following paragraph *"Career paths"*). Rengers (2002) criticises the work-preference-model on deficiency. He notes that high paid artists are also found working in the non-arts and this model doesn't offer an explanation for the skewed income distribution that can be found in the market.

Winner-take-all model

Others address the artists' labour market as superstar markets where the winner-take-all

(Frank & Cook, 1995). This theory is based on the ideas of one of the founding fathers of general economic theory, Alfred Marshall (1890). Rengers (2002) explains that Marshall lied the first base concerning inequality concerning earnings in the arts. Marshall states that in order to pursue an artistic career a special talent or ability is needed. Since this trait is unevenly distributed upon the population, income inequalities in this sector are likely to be higher. His second proposition regards the contrasting form of consumption in the arts that is based on taste. Also quality seems to play a more important role than the trade-off between price and quality. Frank & Cook (1995) elaborate on the ideas of Marshall and state that rewards in the arts are unequal and based on relative performance. Rengers (2002) who investigates both these theories in his research on the Dutch labour market finds that a combination if these theories is needed to investigate the artists' odds on the labour market. He proposes the human capital model as indicator for economic success and the winner-take-all model as indicator for artistic success.

2.3 / CAREER PATHS /

The artist in the labour market operates in a high competitive environment. The competition is coming from two sides. The first is the primary side of the labour market that consists of high skilled and educated workers with non-substitutable characteristics. The second comes from the form of employment, that is constantly changing and implies different skills from the workers. In this competitive environment the artist is trying to manage these risks and uncertainties. Menger (2006) proposes a trichotomy of possibilities to manage risk in the artists' labour market. The first is the support of private or public sources, the second are cooperate-like associations that share income by a sort of mutual insurance scheme and as a third multiple job-holding is considered. Especially this last point is influencing the career paths of artists this thesis focuses on.

Flexible worker

As the labour market for artists is developed towards the function of flexibility, more emphasis is put on flexible specialisation and creativity enhancement (DiMaggio, 2001). These developments ask for different inputs from the workers. The flexible artist is expected to be creative, but also to inhabit commercial, managerial, team working and entrepreneurial competences. According to Powell (1995) the knowledge of the high-skilled worker is not only limited to a specific task, but to a broader scope of activities. The tasks of the worker no longer depend only on their skill, talent and effort, but also on how well they perform in the managerial

and entrepreneurial functions (Aronson, 1991). Menger (2006) offers an overview of the core values that are nowadays centralised in artistic professions. He sums up the following attitudes: "autonomy, responsibility, self-control in teamwork, extended range of competencies enhancing the sense of initiative, creativity-driven commitment to work, individualised reputation based on track records and team project organisation of work" (p. 802). Some scholars agree that skills are taking an expansive trend in the artists' labour market. Lingo & Tepper (2013) highlight this tendency by recalling the importance of "generalisation, flexibility, and broad competencies, rather than discipline-specific skills" (p. 341). Throsby & Zednik (2011) agree on this trend towards a more diverse skill set within the work field of the arts. Another view on the matter is a trend that is combining specialisation and generalisation at the same time. The Institute for the Future (2011) recalls the ideal worker in the creative industries as the T-shaped worker. A t-shaped worker is a worker who is specialised in at least one field, but is able to convert this into a broader range of disciplines and areas. The t-shaped worker resembles the need for workers that next to a certain specialism, also dispose of entrepreneurial and business qualities. Researches from institutions as the DCMS (2015) and the Design Council (2014) support this notion by presenting findings that show a higher level of involvement of the creative workers outside the creative industries and the use of design in wider parts of the economy.

Self-employment

Due to the high rate of self-employment in the arts even more pressure is being put on the diversification of tasks that are incorporated in the artists' profession. Although self-employment has been the prevailing work status in the arts for a long time (Menger, 2006), it still is popular because of attractive features such as independency, freedom and autonomy at work. Behind these attractive work characteristics negative factors on a macroeconomic level can be found. According to a report of CCskills (2015) is self-employment connected to a lower contribution to the economy, lower earnings, hidden unemployment and a form of additional work obligated by the lack in earnings. Also Toft (2014) shows in a research done for RSAblog that self-employment is negatively correlated with per-capita GDP. This relationship shows the connection between a high rate of self-employment and low earnings per head of the population of a country.

Menger (2006) emphasises the versatility of skills the artist must possess in order to make self-employment work. The self-employed artist must be capable to find assignments, to carry them out and to deliver them. In all three of these processes the artist should be keeping track of

budget, time and planning. Therefore a combination of creative, executive and entrepreneurial tasks needs to be made, while balancing those features at the same time. The artists must behave as a creator, but also as an entrepreneur, manager, accountant and so on. The self-employed artist should be adaptable to many forms of work besides its artistic expression. The probability of success relies not only on creative but on a broader set of skills and the ability to work interdisciplinary across multiple platforms (Lingo & Tepper, 2013). This connects to the t-shaped worker, who is able to apply his knowledge in different kinds of areas. A classic example is Andy Warhol who worked in multiple fields, varying from filmmaking to illustration to sculpture and many more. The aforementioned points are not new developments in the world of arts, as multiple historical studies already have shown, but have advanced and added another dimension to the arts due to new technical, economic and managerial scope (Menger, 2001). Another view on the matter is proposed by Winkel, Gielen & Zwaan (2012) who mention this transition as the deskilling of artists and the ability to self define artistry. They highlight that in the contemporary art scene no specific skills are needed to become a visual artist. Concepts are becoming the art form, where the specific labour in order to make the art is outsourced to other workers or artisans. Another classical example is Damien Hirst who works according to this kind of process. Hirst embodies the artist who comes up with an idea or concept, while the manufacturing is done by a group of assistants working in his factory. The gross of his arts works haven't even been touched by him. According to Winkel e*t al.* (2012) these development result in the more similar profession of the artist and the designer. They recall a shift in skills from "autonomy, self-determination, authenticity and idiosyncrasy" to "adaptivity, flexibility, willingness to dialogue, the ability to communicate, and being solution and context-orientated" (p. 23).

Career

Flexibility from the worker side is a reverting theme as the previous developments in the artists' labour market have shown. Menger (2001) makes the connection between flexibility and the short-term contract system. The result of this contract system is according to him the resemblance of a labour market that is characterised by "discontinuity, repeated alternation between work, compensated unemployment, non-compensated unemployment, searching and networking activities, cycling between multiple jobs inside the arts sphere or across several sectors related or unrelated to the arts" (p. 242). This transition towards flexibility affects and changes the career paths of artists. Stohs (1989) have researched different aspects of the career paths of fine arts graduates. She finds that several artists of this group left the fine arts sector for

advertising, teaching or a non-arts occupation. From this group of graduates almost 50 percent was supporting themselves in the fine art field shortly after graduation. Eighteen years later this group has decreased to 6 percent. Stohs also researched the number of related job changes of this group of graduates during this period. She made the distinction between a continuous career (a career path with three or fewer job changes) and an interrupted career (a career with four or more job changes). Stohs finds that men were more likely to experience steady careers than women. Also 75 percent of the males were able to financially support themselves against 50 percent of the females. Alper & Wassall (1998) also researched the stability of the artists' careers and contrast the findings of Stohs. Their research shows that over a period of five year, artists' careers are not significant less stable compared to other occupations. From the group of artists they researched around 75 percent is five years later still working as an artist. They do support the likelihood of a more stable and persistent career for males than for female artists. Rengers (2002) have studied the Dutch labour market for artists in the field of the fine arts. He finds that six years after graduation around two thirds of the artists works exclusively as an artist. From this group about 13 percent works both inside and outside the arts. Factors as age and experience have a positive impact on success in this field. Rengers (2002) was in this same research also able to study the factors that influence the differences in the careers of artists. He acknowledges "the experience of artists, received government grants, arts education, place of residence and gender" (p. 144) as most important factors. Age and experience positively influence success. Living in a large city, preferably the cultural capital of a country also increases the chance on success. Males are more likely to be successful in the arts, despite of the growing number of females entering this field. Concerning arts education he explains that education in the arts has a different effect on the careers and earnings than normally would been expected, due to the "inability to model talent" (p. 145).

Portfolio career

Other studies that have been done on the transition of the careers of artists regard the 'portfolio career'. Handy (1985) was the first to discuss the 'portfolio career' by proposing a representation of experience in a career as the aggregate of paid, unpaid, voluntary work and non-work activities. Later on in 1995 he submits the definition of a portfolio career as "a collection of different bits and pieces of work for different clients" (p. 175). At that time he predicted an increase in portfolio working, which would result in a common and positive move to make during a career. Now, decades later Throsby & Zednik (2011) state that long-term employment in the arts

has been replaced by the portfolio career. The development of skills and abilities are seen as useful assets in the artists' labour market to improve the job opportunities in this market. Artists no longer perceive their career as stationary, but as a collage of projects, jobs, educational experiences and skills (Throsby & Zednik, 2011). The portfolio career ensures the artist to find security in employability instead of long-term employment (Bridgstock, 2005). Others describe the development of career paths towards contingent forms of employment as the 'boundaryless career' (Arthur & Rousseau, 1996). This boundaryless career is just as the portfolio career the aggregation of "career-relevant competencies through multiple new jobs or projects" (Peel & Inkson, 2004, p. 544). Peel & Inkson (2004) highlight in their study the increase in responsibility on the side of the worker regarding his career. This increase in responsibility result in a mobile and entrepreneurial worker. Inkson (2006) later on describes the different capacities that the 'boundaryless' worker should inhabit. This worker should be proactive, self-directed, self-validated, self-initiated, network-oriented and anticipated to change and transform its skills and attitudes when needed. This increase in responsibility also affect the worker in its working experience. Clinton, Totterdell & Wood (2006) study how portfolio working is experienced from the account of the worker. They characterise portfolio working by the features of self-management of work, independent generation of work and income, development of a variety of work and clients and a working environment situated outside any single organisation. Within these features they found that autonomy, uncertainty and social isolation are the three main processes on how the portfolio worker experienced the working life.

Multiple job-holding

Throsby & Zednik (2011) develop the concept of the portfolio career further by researching the non-arts side of the careers of artists. In their empirical study on the Australian labour market for artists the focus lies on the non-arts work, while taking in regard the possibility of multiple job-holding. Multiple job-holding is used by artists to cope with the risks and uncertainties of the labour market. Menger (2006) defines multiple job-holding as: "the diversification of risk through one's own human capital and labour" (p. 794). In their research Throsby & Zednik use a three-way division between different kind of jobs that artists are involved in proposed by Throsby (1992, 1994, 1996). He makes the distinction between creative work (this incorporates the primary creative activities), arts-related work (activities within the art world that do not contribute directly to producing the artistic product but still rely on the skills and qualifications possessed by the artist, such as teaching activities and management tasks in

artistic organisations) and non-arts works (all activities unrelated to the arts). Their study has a two folded aim. The first regards the factors that influence artists to take on work in the non-arts field and the second regards till what extent artists can use their creative skills in this field outside the arts. The participants in the research are categorised by artistic occupation based on engagement in terms of time. In the first part, regarding the factors that influence the artists to take on work in the non-arts field, a division based on three influences that affect the allocation of the working time of the artists is proposed. They differentiate between economic factors, work-related factors and socio-demographic factors. They find that economic factors significant influence the artists to take on non-arts work. Also males, younger artists and artist who are not relying on a partner's income are more likely to involve the non-arts work field. The second part of the research highlights the possibility that artists are not only pursuing non-arts work because of additional income, but also in order to deplore their creative skills in other fields to strengthen their portfolio career. They find that the group that is deploring creative skills outside the arts is a group of younger and freelance artists.

Hybrid artist

Winkel, Gielen & Zwaan (2012) propose another way to define the diversity of work done by artists. They refer to a research done in France by Bureau, Perrenoud & Shapiro (2009) who make a conceptual distinction regarding the diversity of work that is done by artists. They specify between artists that are 'polyvalent', 'polyactive' and 'pluriactive. The 'polyvalent' artist is the multitasking artist, that is for instance working as a painter, but also manages his own accounting and administration. The 'polyactive' artist is a multi job-holder in different fields of the economy, for example a painter who is working also a taxi driver. The 'pluriactive' artist is also a multi job-holder, but is working within the creative field. Think of a painter who is also working as a curator. Winkel *et al.* (2012) build on the concept of the proposed trichotomy by Bureau *et al.* (2009). In their research the effect of plural activities on the creative production of the artists are studied. The second aspect of their research concerns a study on the hybrid artist. The hybrid factor in their research is characterised by artistic and social hybridity that adds up to the trichotomy proposed by Bureau *et al.* (2009). Social hybridity is connected with the mix and overlap of social spheres that come about in the differentiated practice of artists. Artistic hybridity is defined as the mixed practice of fine and applied arts. In this practice there is only a vague or even no distinction at all possible between the two forms of art. As a result they find that an average contemporary artist can't be regarded as hybrid in the artistic definition. Artists still

prefer to distinct between fine and applied form of art in their work. The average contemporary artist can be regarded as social hybrid. Many artist are working in mixed social systems, mainly in order to maintain their artistic autonomy.

Bohemian graduate

Other studies that have been done on the career paths of artists are carried out by Abreu *et al.* (2012) and Comunian *et al.* (2010, 2011, 2013). These studies focus on the 'bohemian' graduate. Bohemians are traditionally viewed in the literature as a group of people who are enjoying a free or liberal way of life (Bell, 1976). While later on a connection to occupation has been added (Leadbeater & Oakley, 1999; Florida, 2002). Comunian *et al.* (2010) propose as a reaction on the criticisms on the 'creative class', a subgroup introduced by Florida, another category of workers that combines the creative class, creative industries and human capital. When Florida in 2002 introduces the creative class, he proposes a measurement of human capital that is based on occupations and talent instead of education. This is questioned by other scholars who stick to the original measurement of human capital that is related to education. Multiple scholars have found a high correlation between categorisation based on the original human capital theory and the creative class (Hansen, 2007; Glaeser, 2006). Another criticism on the creative class is the consistency of this group of people. Markusen (2006) indicates the creative class as a heterogeneous group rather than a systematic class. A more limited definition is proposed in order to analyse the creative field and its possible contribution to the knowledge economy (Florida, Mellander & Stolarick, 2008).

The bohemian graduate has obtained a degree in a 'bohemian' subject, which includes "the creative arts, performing arts, design, mass communications, multi-media, software design and engineering, music recording and technology, architecture and landscape design" (p. 394). Comunian *et al.* (2010) focus on the struggle that bohemian graduates experience in the labour market as they are at the same time held responsible for local economic growth (Stolarick & Florida, 2006). In the research of Comunian *et al.* (2010) a mismatch between occupations and qualifications for bohemian graduates is found. Only about half of the bohemian graduates was able to find a job in the creative sector or found a creative job outside their sector. Within the total number of creative occupations the non-bohemian group takes in 60% of the creative jobs, against 40% of the bohemian group. An explanation for this mismatch according to Comunian *et al.* (2010) can be found in the diverse collection of sectors, which requires a wide range of other

skills next to creative ones. Caves (2000) mentioned such a diverse allocation of skills and diversified between 'humdum' (not creative) and creative tasks that can be found in the creative industries. Another explanation is proposed by Abbing (2002) who suggests that creatives perceive themselves as a misfit for other jobs besides creative ones. This "negative self-selection" process ensures that artists are more likely to end up with non-artistic jobs that are badly paid, such as waiters, cashiers or taxi drivers (Abreu *et al*., 2012, p. 312).

Bohemian versus non-bohemian worker

Comunian *et al.* (2010) also find an overall lower starting wage for bohemian graduates compared to the non-bohemians. This lower starting wage holds for bohemians in creative occupations, but also outside the creative field. In a later research done by Abreu *et al.* (2012) this lower wage rate is studied in terms of time. In this research shows that the salary gap between non-bohemian and bohemian graduates is not just short-term. Three and half year after graduation the wage of the non-bohemians is still higher. Some scholars propose this is due to the oversupply of artists (Towse, 2001). Others acknowledge this difference in salary is due to a longer transition period in order to build contacts, establish a portfolio and relevant experience (Blackwell & Harvey, 1999). Another view on the matter argues that the skills of bohemian graduates are insufficient due to lack of proper education (Oakley, Sperry, Pratt & Bakhshi, 2008). Or that the chances on finding a job would only improve by formal education (Haunschild, 2003) but by combining a bohemian subject with other subjects (Comunian *et al.*, 2010). Another finding from their study shows that bohemians are also less likely to be full-time employed than the non-bohemian group, even later in their career. Contracts in the bohemian workforce are more frequently based on freelance and part-time work than in the non-bohemian group. These findings are in line with the characteristics that Menger (2001, 2006) sketched regarding the artists' labour market. In a later research Comunian *et al.* (2013) highlight the differences between a creative and non-creative profession in the likelihood to enter voluntary or unpaid work. For bohemians it is 27% more likely than for non-bohemians to enter these forms of work. Internships and unpaid work experiences form therefore according to them a part of the career path of bohemians. This notion is supported by other scholars. For instance McRobbie (2002) acknowledges unpaid work as a common part of the creative workforce. Abreu *et al.* (2012) highlight the unconventional career path of the bohemian group. They claim that "creative graduates have to 'invent' their own career, build a portfolio and establish their name before a monetary reward follows" (Abreu *et al.*, 2012, p. 308). This is supported by Kloosterman (2010) who highlights the compromises young

architects make in the Netherlands, such as working long hours and for a low wage rate. These compromises are seen as an investment in the future. The young architects perceive these concessions as a part of their personal learning process, that is linked to the evolution into a successful architect and a possible architectural firm founder.

The arts & design bohemian

Comunian *et al.* (2013) in a later research, distinct for different disciplines within the Bohemian group. They distinct for the disciplines arts & design, media and other creatives. Within these subgroups they find different patterns in full or part-time and unpaid employment, but also regarding salary. They acknowledge that work patterns might be related to the sector that graduates enter. For this thesis the group arts and design creatives is most applicable to the field of design. Comunian *et al.* (2013) find that the arts and design creatives group are the ones with the lowest average salaries when working both in and outside the creative field. Working in this discipline it is most likely to work part-time, self-employed or freelance or have an unpaid job. In this group working freelance or self-employment is associated with a lower salary. Also having a degree does not affect the salary of creatives in the sensitive arts and design group. They state that "bohemian graduates are not rewarded in the labour market, especially in certain sub-disciplines as creative arts and design" (p. 196). A possible reason why this group of creatives is experiencing this difficult position in the labour market is the lack of the right human capital. Sunley, Pinch & MacMillen (2010) put forward that the quality of design education has reduced, while more people have entered these courses. Resulting in a large workforce with a low level of skills. Also Ball (2003) highlights the missing "professional, personal and career management skills" (p. 16) that makes these graduates less attractive on the labour market. At the moment the creative skills these graduates inhabit are not beneficial in the labour market for creatives, but also outside the creative field. In order to improve the position in the labour market it would be essential for creative graduates to receive a broader range of skills that are transferable and adjustable toward their chosen career paths (Comunian *et al.*, 2011).

2.4 */ MOTIVATION /*

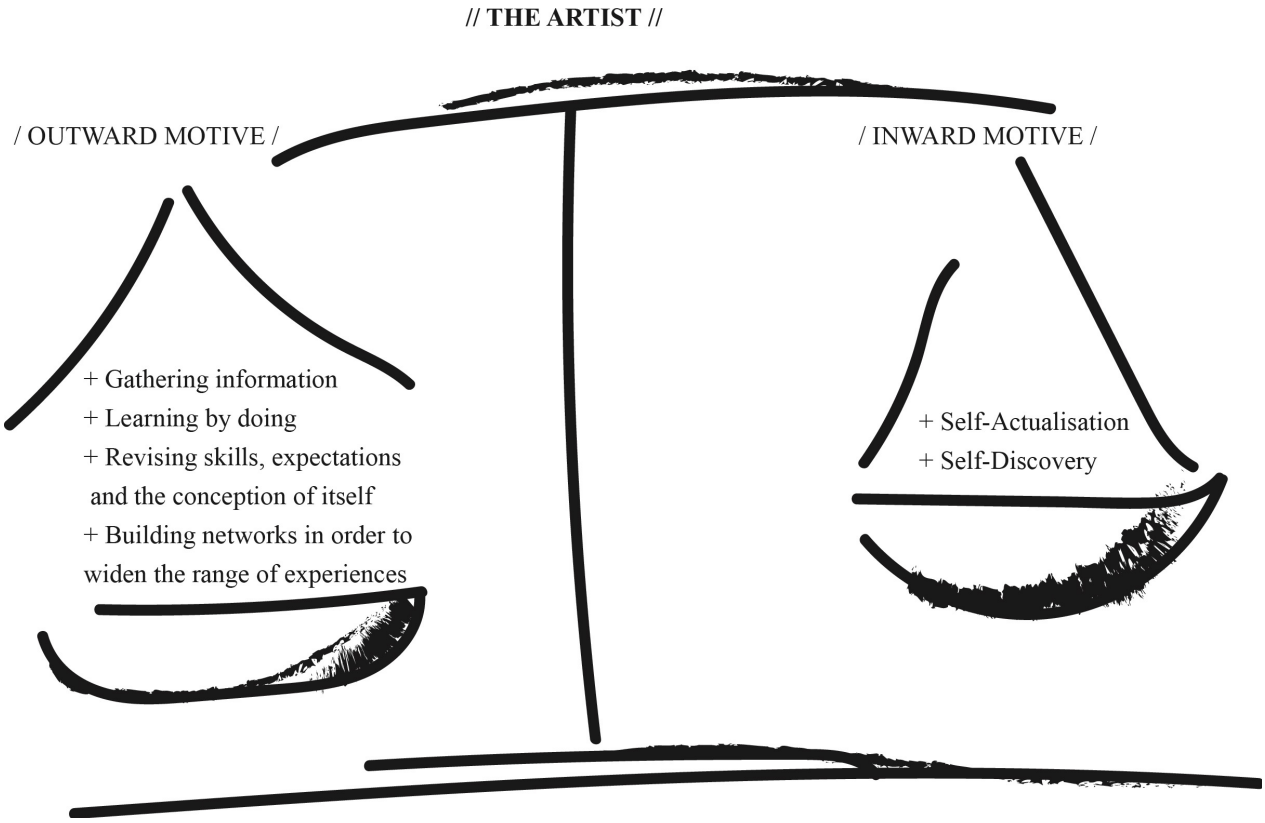
Flexibility is a recurring aspect of the artists' labour market. A result from the flexible market is the high level of uncertainty the workforce has to assess. Workers have found different ways to cope with this risk, such as holding multiple jobs or building of a portfolio career. The question still remains what motives underlie these actions. Scholars differ in the way they

perceive the motivation of artists that are acting upon these risks. Most of them are trying to define what kind of actor the artists is, in order to understand the kind of goals he pursues. Rengers (2002) recalls the theory of Adam Smith in his Wealth of Nations (1776) to define the artist as an actor. Smith describes artists as speculators who evaluate public recognition as part of the rewards for their work. Rengers (2002) connects this non-monetary form of income to the more modern term 'psychic income' that is proposed by Thurow (1978). Characteristics of this kind of income are for instance fame, power or companionship. Santos (1976) points out that most artists are risk-taking actors, an idea that contrasts the neo-classical assumption that people are risk-averse. Other studies on the artistic profession since then portray artists as risk-loving individuals (Alper & Wassall, 1992; Towse, 2000). Abbing (2002) characterises artists as people that flourish in the competition for prizes, awards and commissions. Both these theories are frequently used to declare why the artistic field represent a younger workforce. Once an aspiring artist finds out that superstardom is not obtainable for him, the chances for him to drop out of the artistic profession will increase.

The Bayesian actor

Menger (2001) also searches for a definition for the artist as an actor. He makes the assessment of an artist that can be defined as a rational actor, a bounded-rational actor, a myopic actor or even a causally driven agent. He concludes that the artist can be seen as an imperfect Bayesian actor. This is an actor that is "gathering information, learning by doing and revising his or her skills, expectations and conception of her self, as building networks in order to widen his range of work experiences, and to get new psychic and emotional foods, in a word as self-actualising without knowing who exactly he or she is and what exactly he or she is able to do, or to express in his or her work" (p. 252). The Bayesian actor oppresses two motives, namely the inward and outward-oriented goal (Menger, 2006). The two-sided risk incorporated in the labour market results in an outward-oriented goal that is driven by the competitive environment. The other goal comes from the intrinsic reward that is perceived as a motivator within the arts from the time of Adam Smith (1776). This notion finds its origin in the self-achievement ideals from founding fathers as Marx, Hegel and Aristotle (Menger, 2006). Towse (2010) elaborates further on the idea of the inward-oriented motive by acknowledging the theory of Frey (1997). This theory acknowledges extrinsic reward for artists, for instance with money or bonuses, but also non-instrumental rewards such as the recognition of peers, job satisfaction or self-fulfilment.

Figure 2.1 *Balancing inward and outward motive*



Source: own elaboration based on Menger (2006) & Towse (2010)

The labour market for artists is not functioning as a perfect market from an economic perspective. This imperfection is caused by aspects such as the heterogeneous forms of labour, non-substitutable work and complexities such as talent and reputation. The dichotomy in motives makes this market even more complex, especially for the artists who is trying to balance these two goals. On the one hand there is a fierce competition between the different artists in the labour market in the search for work, assignments and jobs (Menger, 2006). The other hand is occupied by the development of skills and abilities in order to adapt to the constantly changing work, but also to pursue his individual motives. The perfect situation for the artist would be a match between the outward-oriented and inward-oriented motives. In reality the artist is making a trade-off between these different motives. Concessions are made trying to find a balance between these two goals.

Satisfaction

Another study on motivation was a part of the research of Abreu *et al. (*2012). In this study motivation was measured in terms of job satisfaction. A reference is made to Ball (2003) who proposes that artists praise creative expression over extrinsic rewards. This could declare the

lower wages and higher involvement in voluntary work. What Abreu *et al.* (2012) find concerning job satisfaction is a 79% satisfied bohemian workforce against 87% of the non-bohemian group. This difference in satisfaction is explained by the link between the hype of creative occupations, that are promoted as "cool jobs in hot industries" (Neff, Wissinger & Zukin, 2005, p. 307) or as jobs that overlap work and leisure (O'Connor, 2007). When experiencing or looking for a creative job, these hypes rather fall than rise. Abreu *et al.* (2012) conclude that a "creative career cannot be primarily in terms of economic rewards" (p. 318). This is also found by Banks (2007) who emphasises that intrinsic rewards, non-instrumental motives, moral and ethical values are value more than extrinsic rewards by creatives in their profession. Comunian *et al.* (2013) find that job opportunities most close to the field of study are the most rewarding, extrinsic well as intrinsic. Winkel, Gielen & Zwaan (2012) study the hybridisation of visual artists that graduated in 1975 an later on from five different Art Academies in the Netherlands and Flanders (The Flemish speaking part of Belgium). As a result they find that 83% of their sample is satisfied or more or less satisfied with their professional status. Regarding their career they find that 54 percent describes their career as stable against 34 percent unstable. About the development of their career a group of 41% describes an increasing progress in their career, against 38% stable, 10 percent decreasing and 11 percent as different. More time for own artistic work, higher earnings and more assignments are the most frequently used suggestions for ideal changes in the professional work field.

2.5 / SUMMARY /

The *"Literature review"* offers an overview of studies done on the artists labour market, focusing extensively on the career paths of artists. Artists as a workgroup can be defined as a group of workers that is on average younger and better educated than the general workforce, but earn less and experience larger income inequalities and variabilities (Menger, 2001). The difference in education for the artists' workforce is analysed on the base of human capital and sorting models (Towse, 2010), but seems to be divergent from these two theories. The difference in earnings are analysed by the model of work preference (Throsby, 1994), winner-take-all (Frank & Cook, 1995) and a combination of these two theories (Rengers, 2002). The artists' labour market can be best described by the model of imperfect monopolistic competition (Menger, 2001). This model is based on project-based production that relies on short-term assignments (Menger, 2006). Flexibility is key when acting in this market, especially for the workers that have to cope with multiple forms of risk and increasing responsibilities. Different forms of coping with

uncertainty such as additional education, holding multiple jobs, the portfolio career and being self-employed are discussed. In order to act as a flexible worker, the artist is dependent on a specific set of skills. Different trends towards skills are perceived by scholars. Some address a trend towards general and broader skills (Lingo & Tepper, 2013; Menger, 2006; Powell, 1998; Throsby & Zednik, 2011), others name the importance of entrepreneurial, business and management skills (Aronson, 1991) or the deskilling of artists (Winkel *et al.*, 2012). A combination of these trends can be found in the t-shaped worker. This worker is a specialist in a certain area, but is able to apply this to a broader field, which can also lie outside the arts (DCMS, 2015; Institute for the future, 2011; The Design Council, 2014).

Several studies look at the factors that are of influence on the career paths of artists. The number of job changes and job stability are researched by Stohs (1989) and Alper & Wasall (1998). Rengers (2002) recalls the importance of experience, place of residency, gender and education to explain differences in careers. Throsby and Zednik (2011) address the trichotomy of economic, work-related and socio-demographic factors. In their research the categorisation of different work forms the artist can be involved in, proposed by Throsby (1992, 1994, 1996) is being used. Work in the arts can be divided in creative, arts-related and non-arts work. Winkel *et al.* (2012) propose another way to define the diversity of work done by artists. They specify between artists that are 'polyvalent', 'polyactive' and 'pluriactive' (based on Bureau *et al.,* 2009*)* and add the hybrid artist. Another part of the reviewed studies concerned the 'Bohemian' graduate (Abreu e*t al.*, 2012; Comunian e*t al.* 2010; 2011; 2013). They propose to study a smaller and more specific group of the artistic workforce in order to analyse the creative worker and their influences on the economy properly.

The motivations that lie behind the choices that artists make during their career are studied from a perspective of the artists as a risk-loving individual (Towse, 2000; Alper & Wassall, 1992) or a Bayesian actor (Menger, 2001, 2006). Rewards for the artists can not only be found in monetary terms, but also relate to intrinsic of psychic terms of income, such as recognition by peers or the public (Smith, 1776; Menger, 2006), self-actualisation and self-fulfilment (Menger, 2006). Job satisfaction has according to Comunian e*t al.* (2013) to do with the connection between similar fields of study and work. Winkel *et al.* (2012) pursue factors as more time for artistic work, higher earnings and more assignments to describe the ideal working situation for visual artists.

2.6 / CONCLUSIONS /

The "*Research question"* of this thesis concerns the relative importance of the factors that influence the profession that graduated designers who are working in the Netherlands carry out. This "*Literature review"* offers an overview of the different factors that are of influence on the artists' career. In order to derive hypotheses for the analysis of this research an overview and categorisation of these factors that were discussed in this chapter is made.

Table 2.1 *Overview concepts theoretical framework*

/FACTORS /	/SCHOlAR/	/CATEGORY/
Multiple job-holder	Menger, 2001; 2006, Throsby & Zednik, 2011	Profession
Diversity of work	Throsby, 1992, 1994, 1996; Winkel *et al.*, 2012	Profession
Earnings	Menger, 2001; Throsby & Zednik, 2011	Economic
Term of contract	Menger, 2001	Economic
Number of job changes	Stohs, 1989	Work-related
Job stability	Stohs, 1989; Alper & Wassall, 1998	Work-related
Rate of self-employment	Menger, 2001	Work related
Rate of unemployment	Menger, 2001	Work-related
Experience	Rengers, 2002; Throsby & Zednik, 2011	Work-related
Skills	Aronson, 1991; DCMS, 2015; Institute for the future, 2011; Lingo & Tepper, 2013; Menger, 2006; Powell, 1998; The Design Council, 2014; Throsby & Zednik, 2011; Winkel *et al.*, 2012	Work-related
Satisfaction	Abreu e*t al.,* 2012	Work-related
Age	Menger, 2001	Socio-demographic
Education	Menger, 2001; Rengers, 2002; Throsby & Zednik, 2011	Socio-demographic
Gender	Alper & Wassall, 1998; Rengers, 2002; Stohs, 1989; Throsby & Zednik, 2011	Socio-demographic
Place of residency	Rengers, 2002; Throsby & Zednik, 2011	Socio-demographic
Household circumstances	Throsby & Zednik, 2011	Socio-demographic
Importance of income partner	Throsby & Zednik, 2011	Socio-demographic

Source: own elaboration of the "Literature review"

The categorisation used in the table is based on the trichotomy of factors that Throsby & Zednik (2011) use in their research. The division of the factors in economic, work-related and

socio-demographic factors is used to formulate the hypotheses of this thesis.
The hypotheses that can be formulated based on this overview of factors are:

+HP1: Economic factors have a significant influence on the profession that graduated designers working in the Netherlands carry out

+HP2: Work-related factors have a significant influence on the profession that graduated designers working in the Netherlands carry out

+HP3: Socio-demographic factors have a significant influence on the profession that graduated designers working in the Netherlands carry out

3 THE DUTCH CASE

This thesis focuses on graduated designers who are working in the Netherlands. So far only the artist' labour market and the career paths of artists have been discussed in the "*Literature review"*. Until now only the studies on the bohemian graduate are most comparable regarding the field of this research that is focused on designers (Abreu e*t al.*, 2012; Comunian e*t al.* 2010; 2011; 2013). This chapter introduces the characteristics of the Dutch creative industry and the designers' labour market.

3.1 / CREATIVE INDUSTRIES /

Rutten (2014) has analysed the creative industry in the Netherlands. The creative industry in the Netherlands is divided in three subgroups, based on the British mapping of the creative industries. The following groups are acknowledged: arts & cultural heritage, media & entertainment and the creative services. This division is needed in order to measure the economic impact and the factors that mark the different subgroups, as other scholars already proposed before (Abreu e*t al.*, 2012; Comunian e*t al.* 2010; 2011; 2013).

Creative services group

Designers are classified in the research of Rutten (2014) within in the subgroup of creative services. This sector involves services as advertising, communications and all forms of shape and design, architecture and landscape design. The application of the arts in this sector is mostly based on assignments. These services provide a creative input which goes along in a commercial context. Rutten (2014) investigates in his research the development of the creative service sector from 2000-2011 and indicates also for the period of 2008 till 2011to distinguish for the effect of the economic crisis. From 2008 the total added value of the creative service sector has declined from 3.6 till 3.1 billion euro (Nieuwenhuis & Koops, 2013). Also a decline in turnover can be found. In 2011 the turnover from this sector is 8.0 billion euro. A real turnover growth of the period 2000-2010 of 2.9% can be found. When looking at the specific period after the crash from 2008-2010 a decline of 1.5% per year is found. The decline in added value and turnover is connected to a decline in job growth. In 2011 the number of jobs in this sector was 92.280. From 2009-2011 this number was still growing with an average rate of 1.8% per year. In 2013 for the first time a decline in job-growth was be found of 0.4%. Also the average number of workplaces of which a firm consist has been reduced. For the creative business group in 2000 the average

firm consisted of three workplaces, where in 2010 this was declined to two workplaces. As a result the number of companies are increasing. The creative business service group consists in 2011 of 40.903 firms. An increase in the number of firms from 2000-2011 of 7.0 percent per year has been found. When looking at the period after the crash this incorporated a growth rate of 10.3 percent.

3.2 / THE DESIGNERS' LABOUR MARKET /

After reviewing Rutten (2014) it is relevant to analyse who is acting in this specific sector. A research done by Premsela, TNO (2011) on designers in the period 2007-2009 indicate a group of 54.700 designers working in the fields of fashion, graphic and product design. For architects in 2007 a number of 12.124 people were registered in the Netherlands (Architectendata, 2007). This group can be divided in architects (9.142), urban designers (664), garden and landscape architects (644) and interior designers (1.674). The entire group of designers based on these numbers is calculated at 65.224 people. This corresponds with a more recent research done by the CBS (2014) on artists and creative graduates. Their research shows that in 2011 55% of the artists are involved in a designing profession. The group of designers is estimated on 66.000 people. The largest group of designers are the graphic and multimedia designers (43.000) followed by the group of architects (interior architects included) (15.000). Unfortunately the CBS (2014) categorises different fields of design than this thesis does. A rough estimation of total designers working in the Netherlands per field is made in *table 3.1*

Table 3.1 *Number of designers working in the Netherlands*

/FIELD/	*FRQ*	*PCT*
Fashion	1.500	2.3
Graphic	43.000	65.2
Interior	2.000	3.0
Product	4.500	6.8
Architecture	15.000	22.7
Total	66.000	100

Source: own elaboration on Architectendata (2007), CBS (2014) & Premsela, TNO (2011)

Premsela, TNO (2011) indicates that designers (architects excluded) mainly live in the metropolitan areas. Amsterdam is the largest area where about 10.000 designers live, next is

Utrecht (6.000) and closely joined by Rotterdam (5.000). The report of the CBS (2007), that was used as basis for research report of Premsela, TNO (2011), offers even more factors to categorise the designers as a workforce (the field of architecture excluded again). In this report an indication of a younger workforce is made, between the 25 and 40 years old. The division male and female is almost evenly. In more than half of the cases designers have followed no specific education or training. Graphic design is the most popular educational field that covers more than 40% of the educated workforce. Within the group of people that have a degree in the field of design three quarters does not work as a designer. The occupations in which these people are employed are diverse and sometimes relate to the shaping sector. The group of interior designers is found to be most involved as self-employed. The group of architects is a different group within the design workforce. In order to be an architect a diploma is obliged. The division male-female is also different for this group. In 2013 78% is male and 22% is female (CBS, 2015). The group of self-employed architects has grown from the period 2001-2013 from 16.000 till 23.000 persons (CBS, 2015).

4 // METHODOLOGY //

In this chapter the "*Methodology"* of the thesis is outlined. An empirical research starts with a "*Research question"*. This question is the starting point from where different theories of the existing academic literature connected to this question are studied. The theory forms the basis for the hypotheses that are formulated in order to test hypotheses empirically (Field, 2009). This part is covered in the thesis so far. In order to continue the research process the methodology must be explained. This chapter will explain what kind of method will be used to analyse the data, how the data was collected and how theory will be operationalised in order to test the proposed hypotheses. The base of this chapter is formed by the research model that will be used for the data analysis. The chapter closes with a small concluding part.

4.1 / GENERAL RESEARCH METHODOLOGY /

The aim of this paper is to answer the proposed "*Research question": What is the relative importance of the factors that influence the profession that graduated designers working in the Netherlands carry out?* The first decision in order to proceed in the research process is the choice in the method of analysis. Within the areas of social research a choice is made between quantitative and qualitative analysis. The base of this distinction is made on the use of a deductive or inductive method. Qualitative research is used in areas where little is known about the topic. Therefore the inductive method is used. This method first gathers observations and findings in order to generate theory. Quantitative analysis works basically the other way around. This kind of analysis is used in order to measure or quantify the questioned area by the use of statistical methods. Based on existing theory in a specific domain the researcher formulates hypotheses, which will be empirically tested (Bryman, 2012). Quantitative analysis is used when the characteristics of a certain state need to be found or when hypotheses need to be tested (Bryman, 2012). These arguments both relate to this paper. The state of the designers in the labour market is researched. In order to do so predictions have been formulated in the form of hypotheses. The literature on the artists' labour market is reviewed and the general hypotheses have been introduced. The following step is the empirical analysis of the proposed hypotheses.

Quantitative method

In order to empirical analyse the proposed hypotheses data needs to be collected first. For a quantitative analysis there are three options for the method of data collection, namely

observational research, experimentations and surveys (Bryman, 2012). For this study a survey or cross-sectional research is chosen. A cross-sectional research involves the collection of data on more than one case and at a single point in time. This kind of research connects with the aim of this thesis that involves the factors that influence the state of the designers in the labour market. Therefore the purpose of the research is to collect a quantifiable dataset, which will be tested on patterns of relationship between the different variables (Bryman, 2012). The following step is the choice in what kind of survey the research will use. For data collection within a cross-sectional research design there are two options: a self-completion questionnaire or a structured interview (Bryman, 2012). The first option is used in the form of a self-completion questionnaire. The advantage of this method over the structured interview is that it is quicker to administer and absent of interviewer effects and variability (Bryman, 2012). For the participant this method is also convenient, as they can participate at any time in their personal environment (Bryman, 2012).

Units of analysis

Within this research the units of analysis are designers who are working (or willing to work) in the Netherlands and are graduated in a field of design (graphic, fashion, interior, product and architecture). The group of designers is restricted by the requirement of a diploma, work environment and specialisation. The obtainment of a degree ensures that the autodidacts are excluded from the research. The labour market of the arts is characterised by the low entry barrier due to the openness of the market (Menger, 2006). Herein the field of architecture can be indicated as an outsider, as it requires a degree in order to become an architect. The requirement of a diploma offers a solution to create comparable entry barriers for the different fields. Another limit is based on the working area. This research is focused on designers who are working or willing to work in the Netherlands. In this way the environment is held constant as the same rules, regulations and institutions of the nation applies to all of the respondents. The last restriction is based on the field. This paper is interested in designers that are specialised in the fields of graphic, fashion, interior, product design and architecture (KEA, 2006).

Sample size

In order to start with the data collection the sample size needs to be indicated. In *chapter 3* the Dutch group of designers is estimated at 66.000 people. Using the formula proposed by Krejcie & Morgan (1970) a sample size of 381 is needed for a confidence level of 95% and a

confidence interval or margin of error of 5%. For this kind of research a number of that size is too optimistic. Therefore the confidence interval can be extended to the level of 7, which results in a sample size of 195. By extending the confidence interval from 5 to 7, concessions are made regarding the reliability of the results. This is done in order to find a sample size that is more plausible for this kind of research. It is desirable to end up with a sample size above this number, because it would enlarge the confidence interval. This would assure for more credible results. For now a minimal sample size of 195 is aimed at. In the following chapter *"Results"* other implications on the reliability of the sample size will be addressed, based on the actual sample size and the number of variables that will be used in the regression analysis (Bryman, 2012).

4.2 / DATA COLLECTION /

The survey is based on 33 questions divided in four blocks of topics. The survey starts with the block concerning socio-demographic questions such as the participants' gender, age, highest level of education and so on. In order to answer these questions the participant is able to tick a box or to type in an answer for the more open questions such as the city of residency or graduation year. This section is followed up by a second block regarding work-related questions. This block focuses on the participants' experience level, experienced unemployment, experienced job changes, professional status at the moment, profession that is responsible for most income at the moment and the associated professional contract. The participant is able to answer by ticking a box. The next section is devoted to the actual and ideal allocation of work and consist of questions regarding multiple jobholding and the distribution of working hours in four different categories of work (in the educated field, outside the educated field but within the artistic field, art-related and non-arts related). This part is closed by questions regarding average gross monthly income and the distribution of their income in percentages. Then a fourth section regarding the different activities and skills alternates. The participant is asked to indicate the distribution of working hours over different activities (creative, supporting, business, managerial and entrepreneurial activities) for work related and not related to their field of study. Later on in the questionnaire is asked how important the different activities are conceived for the launch and sustainment of their career and how well they were prepared by their study on these activities. Within the last section the participant got the choice to indicate between very, fairly, not very and not at all. This four-level scale is chosen based on the research of Abreu *et al.* (2012) and ensures a transferable indication towards a dichotomous scale. An overview of the entire questionnaire can be found in *Appendix 8.1*.

Distribution of the survey

The survey has been distributed on the internet using the online survey tool Qualtrix (www.Qualtrix.com) from the 14th of April and has been available till the 21st of May this year. During this period, 239 participants took part in the survey. The choice of the online survey tool has primarily a practical reason. This kind of method is convenient for the participant and the researcher, that both can access the survey any time and any place online. In the first three weeks the designers are actively contacted and encouraged by email and social media sites as Linked-in and Facebook to participate in the survey. Alumni platforms of Art Academies, Design Academies and Technical Universities in the Netherlands are contacted to spread the survey. Other platforms for designers in the Netherlands such as the BNO (Beroepsorganisatie Nederlandse Ontwerpers) and BNI (Beroepsvereniging van Nederlandse Interieurarchitecten) have also spread the survey amongst their members. The following art academies have shared the questionnaire with their alumni: WDKA (Rotterdam), HKU (Hogeschool voor de Kunsten Utrecht), ArtEZ (Arnhem/ Zwolle/Enschede), Rietveld Academy (Amsterdam), Piet Zwart Institute (Rotterdam) and the Technical University of Delft for the departments industrial design and architecture and the Academy of Architecture in Rotterdam. Only the Technical University of Eindhoven and the Sint Joost Academy (Breda) have refused the request to spread the survey. In the online post or email next to the survey an extra possibility is mentioned for the participant to spread the survey amongst classmates, colleagues and other relations who meet the requirements. This choice has been made because a more personal approach resulted in a higher response rate. A drawback from this approach is the self-selected aspect of the sample, that decreases the generalisability of the results. For a quantitative research a large sample size is essential, due to the specific target group of this thesis this concession is made in order to fulfil the requirement of an agreeable sample size.

4.3 */ RESEARCH MODEL /*

In order to continue the research process, a translation from theory has to be made into quantifiable variables. The basis for this operationalisation will be the concluding table of the "*Literature review"*. The adaption of this table into operational variables will form the base of the research model. The economic, work-related and socio-demographic categories have already been defined. The operationalisation of the variables divides for ratio and dichotomous or dummy variables. Ratio variables indicate an interval ratio with a true zero point. In this case most ratio variables are based on a certain division of hours spent working. A dichotomous variable is a

variable based on two categories. For instance the variable gender that is divided in the categories male and female. The ratio variables in the model deserve some further elaboration. The dependent variable is the variable "*profession" (PRO).* This variable is computed by dividing the participants' number of working hours related to study with the participants' total number of working hours. Another ratio variable is "*satisfaction" (W_SAT).* This variable is the difference between the participants' ideal and real profession. This is calculated by the difference in ratio of the participants' ideal number of working hours related to study divided by the ideal number of total working hours and the real number of working hours related to study divided by the real number of total working hours. Other ratios are "*creative skills related to the field of study" (WS_CRE_RA)* and "*creative skills not related to the field of study" (WO_CRE_RA).* These variables are the compute of the number of working hours spent on creative activities divided by the total number of working hours related to the field of study or not related to the field of study. The variable *"creative activities" (CRE_RA)* indicates the ratio between number of working hours spent on creative activities related to the field of study and not related to study. The variable "*income study" (INC_STU)* is another ratio variable based on the percentage of total income that is coming from work related to the field of study. A description of the variables in the model is made in *table 4.1* with the name, category, type, description, role and code per variable in the model.

Table 4.1 *Description per variable in the research model*

/NAME/	/CAT/	/TYPE/	/DESCRIPTION/	/ROLE/	/CODE/
Profession		Ratio	Number of working hours related to the field of study/ total number of working hours	Dependent variable (Y1)	PRO
Contract	Economic	Dichotomous	Participant's working contract: + Short term, project-based, freelance, no contract=0 + Long term, fixed term=1	Independent variable (X1)	CON
Income	Economic	Dichotomous	Participants average gross income per month: + Less than modal=0 + Modal and up=1	Independent variable (X2)	INC
Income study	Economic	Ratio	Percentage of income that comes from work related to study	Independent variable (X3)	INC_STU

/NAME/	/CAT/	/TYPE/	/DESCRIPTION/	/ROLE/	/CODE/
Education	Work-related	Dichotomous	Participants' highest level of education: + Bachelor=0 + Master, PhD=1	Independent variable (X4)	EDU
Experience	Work-related	Dichotomous	Participants' level of experience: +5 years or less=0 + More than 5 years=1	Independent variable (X5)	EXP
Unemployment	Work-related	Dichotomous	Participant has experienced unemployment in the last five year: + No=0 + Yes=1	Independent variable (X6)	EMP
Job changes	Work-related	Dichotomous	Participants' experienced job changes during their career: None-three =0 Four or more=1	Independent variable (X7)	JBC
Self-employment	Work-related	Dichotomous	Participant is self-employed: + No=0 + Yes=1	Independent variable (X8)	SELF
Multiple job-holder	Work-related	Dichotomous	Participant is a multiple job-holder: + No=0 + Yes=1	Independent variable (X9)	M_JOB
Satisfaction	Work-related	Ratio	Ideal - real profession	Independent variable (X10)	W_SAT
Creative skills related to the field of study	Work-related	Ratio	Number of working hours spent on creative activities related to the field of study/ total number of working hours not related to the field of study	Independent variable (X11)	WS_CRE_RA

/NAME/	/CAT/	/TYPE/	/DESCRIPTION/	/ROLE/	/CODE/
Creative skills not related to the field of study	Work-related	Ratio	Number of working hours spent on creative activities outside the field of study/ total number of working hours not related to the field of study	Independent variable (X12)	WO_CRE_RA
Creative activities	Work-related	Ratio	Number of working hours spent on creative activities related to the field of study/ number of working hours spent on creative activities not related to the field of study	Independent variable (X13)	CRE_RA
Gender	Socio-demographic	Dichotomous	Participants' gender: + Male=0 + Female=1	Independent variable (X14)	GEN
Age	Socio-demographic	Dichotomous	Participants' age: + Till 30=0 + 31 and up=1	Independent variable (X15)	AGE
Nationality	Socio-demographic	Dichotomous	Participants' nationality: + Dutch=0 + Non-Dutch=1	Independent variable (X16)	NAT
Residency	Socio-demographic	Dichotomous	Participants' place of residency: +City with creative educational institution=0 + Other=1	Independent variable (X17)	RES
Marital Status	Socio-demographic	Dichotomous	Participants' marital status: + Single, relationship=0 + Living together, married=1	Independent variable (X18)	MAR
Children	Socio-demographic	Dichotomous	Participants' number of children: + None=0 + One or more=1	Independent variable (X19)	CHI

Source: own elaboration

4.4 / DATA ANALYSIS /

In order to process and analyse the data on significant results a regression model is needed. The variables list *(table 4.1***)** shows two different types of variables, namely ratio and dichotomous variables. These types of variables have been chosen in order to conduct a linear multiple regression for analysing the data. Multiple linear regression analysis enables the predicting of an outcome variable from several predictor variables. Multiple linear regression means fitting a model to the collected data and using this model in order to predict values of the dependent variable from the other independent variables (Field, 2009).

The standard form of a multiple regression is:

$Y_i = \beta 0 + \beta 1 X_i 1 + \beta 2 X_i 2 + \beta 3 X_i 3 + ... + \beta p X_i p + \varepsilon_i$

Taking in account all variables that are listed in table 4 the following regression equation can be formulated: $PRO_i = \beta 0 + \beta 1 CON_i + \beta 2 INC_i + \beta 3 INC\_STU_i + \beta 4 EDU_i + \beta 5 EXP_i + \beta 6 EMP_i + \beta 7 JBC_i + \beta 8 SELF_i + \beta 9 M\_JOB_i + \beta 10 W\_SAT_i + \beta 11 WS\_CRE\_RA_i + \beta 12 WO\_CRE\_RA_i + \beta 13 CRE\_RA_i + \beta 14 GEN_i + \beta 15 AGE_i + \beta 16 NAT_i + \beta 17 RES_i + \beta 18 MAR_i + \beta 19 CHI_i + \varepsilon_i$

This equation indicates that PRO_i will be predicted by the model ($\beta 0 + \beta 1 CON_i + ... + \beta 19 CHI_i$) and an error term (ε_i). The model that will be fitted is linear and will transform the observed data into a straight line. This is established by the method of least squares (Field, 2009). The method of least squares selects the line that has the lowest sum of squared differences and results in a line that best represents the observed data (Field, 2009).

Hypotheses

This regression model is formulated in order to test the formulated hypotheses. The formulated hypotheses are also called the alternative hypotheses. Every alternative hypothesis comes with an null hypothesis, stating that the suggested effect is absent. The aim of the regression model is to statistically indicate if the null hypothesis can be rejected. The general alternative hypotheses of this paper have already been formulated in the *"Literature review"*. Based on the research model an extensive list of hypotheses can be formulated:

HP1: Economic factors have a significant influence on the profession that graduated designers working in the Netherlands carry out in the proposed model.

+ HP1.1: The factor *"contract"* has a significant *positive* influence

+ HP1.2: The factor *"income"* has a significant *positive* influence

+ HP1.3: The factor *"income study"* has a significant *positive* influence

on the profession that graduated designers working in the Netherlands carry out in the proposed model.

HP2: Work-related factors have significant influence on the profession that graduated designers working in the Netherlands carry out in the proposed model.

+HP2.1 The factor *"education"* has a *s*ignificant *positive* influence

+HP2.2: The factor *"experience"* has a significant *positive* influence

+HP2.3: The factor *"unemployment"* has a significant *negative* influence

+HP2.4: The factor *"job changes"* has a significant *positive* influence

+HP2.5: The factor *"self-employment"* has a significant *positive* influence

+HP2.6: The factor *"multiple job-holder"* has a significant *positive* influence

+HP2.7: The factor *"satisfaction"* has a significant *negative* influence

+HP2.8: The factor *"creative skills related to the field of study"* has a significant *positive* influence

+HP2.9: The factor *"creative skills not related to the field of study"* has a significant *negative* influence

+HP2.10: The factor *"creative activities"* has a significant *negative* influence

on the profession that graduated designers working in the Netherlands carry out in the proposed model.

HP3: Socio-demographic factors have a significant influence on the profession that graduated designers working in the Netherlands carry out in the proposed model.

+HP3.1: The factor *"gender"* has a significant *negative* influence

+HP3.2: The factor *"age"* has a significant *negative* influence

+HP3.3 The factor *"nationality"* has a significant *negative* influence

+HP3.4 The factor *"residency"* has a significant *negative* influence

+HP3.5 The factor *"marital status"* has a significant *positive* influence

+HP3.6 The factor *"children"* has a significant *negative* influence

on the profession that graduated designers working in the Netherlands carry out in the proposed model.

Validity & Reliability

Quantitative research requisites a reflection of the validity and reliability of the measurements. Validity indicates how well the variables have been measured. All variables in the research model are checked on face validity, which means that multiple people (academic teachers and colleague students) have looked at the variables and the content of the concepts (Bryman, 2012). Looking more specific at the variables, most variables are established on the work of Throsby and Zednik (2011). In their research a specific model is used in order to analyse the factors that influence the time allocation of artists. They derive " economic factors (expected income from creative, arts-related and non-arts work), work-related factors (degree of establishment as an artist, the artist's employment arrangement for creative practice, the artist's unemployment experience) and socio-demographic factors (gender, age, education and training, location, household circumstances and importance of spouse's or partner's income for supporting the artist's creative work)" (p.15). In the second stage of the research they add the variable APPL to the research to indicate if the artists has applied creative skills outside the field of the arts. On this content is this papers research model built. Some variables are adjusted to match the aims of this research. Instead of dividing work in to creative, art-related and non-arts as Throsby and Zednik (2011) have done, work is divided in work related and not related to the field of study. This choice is based on the research of Comunian *et al.* (2013) that divides Bohemian' graduates connected to the field of study. Also the APPL variable of Throsby and Zednik (2011) is specified to the application of creative skills related or not-related to study. These factors are measured in ratio instead of dummy and are therefore more specific in terms of measurement. The ratio of creative activities in and outside the field of study is added to test if another indicator of creative skills can be used. The other consideration regarding reliability has to do with the consistency of the measurements. The following three factors are important for the reliability: stability, internal reliability and inter-observer consistency (Bryman, 2012). In contrast to validity can reliability be measured by statistical analysis on correlation. Indicators such as the Pearson's correlation coefficient and plots of residuals and fitted values will be used to explore the reliability of the measurements. In the following chapter *Results* these tests on reliability will be further analysed.

4.5 / CONCLUSIONS /

For this thesis a quantitive method is used in order to analyse the "*Research question"*. Data is collected by a survey in the form of a self-completion questionnaire which was available online from 14th of April till the 21st of May this year. The survey was conducted among

designers, who obtained a degree in the fields of fashion, graphic, interior, product design and architecture and who are working or willing to work in the Netherlands. The designers were approached by email or social media sites through channels of different Art Academies, Technical Universities and other platforms for design. The weakness of the data collection is the self-selecting aspect of the sample that makes the generalisation of the results weaker. Data analysis will be done by a multiple linear regression model. This model is based on dichotomous and ratio variables. The dependent variable *"profession"* will be analysed by the model based on a constant, 19 independent variables and an error term. An extensive list of hypotheses is given, based on the trichotomy of economic, work-related and sociodemographic factors and specified per variable. All the measurement are face valid and find their origin in the research of Throsby & Zednik (2011). Divergent from the research of Throsby & Zednik (2011) are the ratio variables. These variables are measured in ratios of numbers of hours working or as a percentage of total income. The reliability of the measurement will be tested based on statistical correlation analysis in the next chapter *"Results"*.

5 // RESULTS //

The results of the empirical research of the thesis will be presented in this chapter. In the first part of the chapter the descriptive statistics will be displayed and compared to the data of designers working in the Netherlands. The second part covers the findings of the multiple linear regression analysis which is performed in SPSS. Step by step the process of this analysis is explained. After every step, the implications for the hypotheses formulated in the previous chapter "M*ethodology"* are reviewed. The last section creates an overview of the findings of this empirical research and discusses the assumptions that lie at the base of this analysis regarding the reliability of the measurements. This chapter closes with the main findings of the statistical research.

5.1 */ GENERAL FINDINGS /*

The number of the participants in the online survey was 239, whereof a number of 191 valid questionnaires can be exploited. The aimed sample size was 195, which means that 98% of this target has been reached. The sample represents 0.3% of the total population designers in the Netherlands. From the approved questionnaires 22% was not totally completed. Mainly in the last part of the survey the dropouts increased (from 15% till 22%). This is also the reason for different numbers of N per statistical test. The number of N will vary due to these uncompleted files that are excluded when the data is missing for a specific test. *Table 5.1* gives an overview of the socio-demographic variables of the sample. The sample consist of almost half men (48.7%) and half women (51.3%). The average age of the sample is 36 years old. Looking closer at the distribution of age in the sample, a median of 32 can be found. A median lower than the average means a positively skewed sample that tails off to the older part of the sample (Field, 2009). The nationality is overall Dutch, with a small level of Non-Dutch participants (4.7%). More than half of the participants (62.8%) live in cities that houses a creative educational institution. Also more than half of the sample is living together or married (57.6%), which implies a living environment of at least two people. This finding is supported by a percentage of 63.4 that doesn't have children. The proportion Bachelor (47.6%) versus Master/PhD (52.4%) is about evenly distributed.

Table 5.1 *Socio-demographic variables samples (N=191)*

/SOCIO-DEMOGRAPHIC VARIABLES/		*Mo*	*Mdn*	*M, X*	*FRQ*	*PCT*
Gender		1	1.00	.51	191	100
	Male				93	48.7
	Female				98	51.3
Age		1	1.00	0.58	191	100
	till 30 year				81	42.4
	from 31 and up				110	57.6
Nationality		0	.00	.05	191	100
	Dutch				182	95.3
	non-Dutch				9	4.7
Place of residency		0	.00	.37	191	100
	City houses a creative educational institution				120	62.8
	Other				71	37.2
Marital status		1	1.00	.60	191	100
	Single, relationship				77	40.3
	Living together, married				114	59.7
Children		0	.00	.37	191	100
	No				121	63.4
	Yes				70	36.6
Highest level of education		1	1.00	.52	191	100
	Bachelor				91	47.6
	Master, PhD				100	52.4

Source: own elaboration on output SPSS

Comparison sample and population

For this thesis it is interesting to see how the different fields within the sample are distributed, in order to compare the sample with the population of designers in the Netherlands. Not all fields of design are evenly represented in the sample. The field of fashion is represented the least, for only 6.4%, followed by the graphic design field with 13.9%. The fields interior & product design and architecture dominate the sample. *Table 5.2* provides an overview of the data of the sample, the population and the difference between the percentages of the sample and the population (Δ).The fields fashion, interior, product and architecture are overrepresented in the

sample. The field of graphic design is underrepresented. This means that the results of the regression analysis will be biased towards the overestimated group of designers.

Table 5.2 *Department of study (N=187, Mo=5, Mdn=4.00, M,X=3.59)*

/FIELD/	Sample		Population	Δ
	FRQ	*PCT*	*PCT*	*PCT*
Fashion	12	6.4	2.3	4.1
Graphic	26	13.9	65.2	- 51.3
Interior	46	24.6	3.0	21.6
Product	45	24.1	6.8	17.3
Architecture	58	31.0	22.7	8.3
Total	187	100	100	0

Source: own elaboration on output SPSS, Architectendata (2007), CBS (2014) & Premsela, TNO (2011)

Work and income

The distribution of people working for a company (51%) and not working for a company (48.4%) is almost evenly distributed (*N*=172, *Mo*=1 *Mdn*=1.00, *M,X*=.52). The group of self-employed designers is 53.3% of the sample (*N*=182, *Mo*=1 *Mdn*=1.00, *M,X*=.53). Almost nine percent of the sample is (also) a student (*N*=182, *Mo*=0 *Mdn*=.00, *M,X*=.09). Only four percent is working voluntary or unpaid (*N*=182, *Mo*=0 *Mdn*=.00, *M,X*=.04). In the sample eight people are unemployed, which is 4.4% of the total sample (*N*=182, *Mo*=0 *Mdn*=.00, *M,X*=.04). About three quarter of the sample (74.9%) earns below the modal income of the Netherlands that is set on €2.800 gross per month in this analysis (*N*=167, *Mo*=.00 *Mdn*=.00, *M,X*=.25). Within this group 49.1% earns less than €1.900 gross per month. One quarter of the sample (25.1%) earns modal or above modal. *Table 5.6* shows a cross table of the different fields of work and the earnings. The field of work is indicated as the field where the participant spend most time (when even hours where found the field closest to study is chosen). In this sample 69.5% is working in the field related to their study. A group of 14.4% work in the field not related to their study but within the artistic field. This means that 83.9% of the designers in this sample works in the creative field. This is a high percentage compared to Comunian *et al.* (2010) that found a percentage of "50.69%" of the Bohemian graduates that worked in the creative sector or held a creative occupation outside the creative industry (p. 399).

Table 5.3 *Distribution of income (N=167)*

/INCOME/	< Modal		≥ Modal		Total	
	FRQ	*PCT*	*FRQ*	*PCT*	*FRQ*	*PCT*
Study	83	49.7	33	19.8	116	69.5
Artistic	21	12.6	3	1.8	24	14.4
Art-related	4	2.4	2	1.2	6	3.6
Non-arts	13	7.8	4	2.4	17	10.2
Unemployed	4	2.4	0	0.0	4	2.4
Total	125	74.9	42	25.1	167	100

Source: Own elaboration on output SPSS

Skills

The last section of the survey held questions considering the importance of the different skills that the designers exercise in three points of time (during study, start of the career and sustain of the career). From the data appears that the creative skills score highest on all three point in time. The other four skills scored lower on how well study prepared for these skills, but are conceived increasing important over time. Namely the managerial and entrepreneurial skills are perceived for the sustain of the career as very important, while study did not prepare very well for these skills.

Table 5.4 *Importance of skills in preparation by study, start and sustain of the designers' career*

/SKILLS/		*Mo*	*Mdn*	*M, X*	*N*
Creative	Preparation study	1	1.00	1.48	151
	Start career	1	1.00	1.38	150
	Sustain career	1	1.00	1.38	98
Supporting	Preparation study	3	3.00	3.15	151
	Start career	2	2.00	2.18	150
	Sustain career	2	2.00	1.91	149
Business	Preparation study	2	2.00	2.48	151
	Start career	2	2.00	1.89	150
	Sustain career	1	1.00	1.58	149
Managerial	Preparation study	3	3.00	2.81	151
	Start career	2	2.00	1,92	150
	Sustain career	1	1.00	1.49	149

/SKILLS/		*Mo*	*Mdn*	*M, X*	*N*
Entrepreneurial	Preparation study	3	3.00	3.20	151
	Start career	1	2.00	1.83	150
	Sustain career	1	1.00	1.41	149

Note. 1=very important, 2=fairly important, 3=not very important, 4=not at all important

Source: own elaboration on output SPSS

Multiple job-holders

In the survey the participants were able to tick more than one box for answering the question regarding the form of employment. Combinations of studying, working for a company, self-employment and voluntary work are possible to express this way. This provides more insight into the multiple job-holding of the sample. The sample existed of 66 people that are multiple job-holders (36.3%). *Table 5.3* shows in the first column how the multiple job-holders are divided in the sample across the fields of design. The second column shows the percentage of multiple-job-holders per field. Fashion, graphic and interior designers are found more frequently multiple-job-holders compared to product designers and architects.

Table 5.5 *Multiple job-holders and the departments of design (N=182)*

/FIELD/	Sample		Field
	FRQ	*PCT*	*PCT*
Fashion	7	3.8	58.3
Graphic	12	6.6	46,2
Interior	20	11.0	43.5
Product	12	6.6	26.7
Architecture	15	8.2	20.7
Total	66	36.3	

Source: own elaboration on output SPSS

The total number of extra jobs consists of 77. This number is higher than the amount of multiple job-holder, which means that some respondents in the sample practice more than one extra job. Most other jobs are found in the field of study, followed respectively by the artistic, art-related and the non-arts field. *Table 5.4* provides an overview on the multiple jobs designers hold.

Table 5.6 *Multiple jobs (N=77)*

/MULTIPLE JOBS/	*Mo*	*Mdn*	*M, X*	*FRQ*	*PCT*
Study	0	.00	.18	33	42.9
Artistic	0	.00	.10	19	24.7
Art-related	0	.00	.08	14	18.2
Non-arts	0	.00	.06	11	14.3
Total				77	100

Source: own elaboration on output SPSS

Distribution of time

This thesis focuses on the profession designers carry out based on the distribution of time. The average profession (ratio of working hours in the field of study and the total working hours) is calculated on 61.2 (*N*=171, *Mo*=1.00 *Mdn*=.75, *M,X*=.62). Designers spent 61.2% of their working time related to work in the field of study. The median indicates a ratio of 75.5 This means that the sample is negatively skewed. A long tail of low scores are pulling the mean down (Field, 2009). From the time spent in the different fields an average workweek of 41.6 hours is calculated. *Table 5.5* provides an overview on the distribution of time over the fields of work. On average most time is spent on study related work (26.4 hours), followed by artistic work (6.4 hours), the non-arts (5.4 hours) and arts-related (3.4 hours).

Table 5.7 *Distribution of time in hours (N=171)*

/TIME/	*Mo*	*Mdn*	*M, X*
Study	40	30.00	26.4
Artistic	0	.00	6.4
Art-related	0	.00	3.4
Non-arts	0	.00	5.4
Total	40	40.00	41.6

Source: own elaboration on output SPSS

Distribution of income

Within the fields, architecture holds the highest average proportion of working time (70.6%) and income related to the field of study (76.0%). This is lowest in the field of fashion (43.0% and 34.0%). Within the fields of fashion, graphic and interior a higher proportion of working time than of income related to study is found. This means in percentage more time is

spent on working related to study than income is derived from this work. In the fields of product and architecture this is reversed.

Table 5.8 *Distribution of work and income related to study in % (N=164)*

/TIME/	*Fashion*	*Graphic*	*Interior*	*Product*	*Architecture*
Proportion of working time related to study	43.0	58.3	55.3	63.4	70.6
Proportion of total income related to study	34.0	50.8	42.7	62.4	76.0

Source: Own elaboration on output SPSS

Namely in the fields of product design and architecture a larger proportion (67.5% and 52.8%) is working 100% of their time related to study. In these two fields a higher similarity in actual working and preferred working schedule is found. Except for the field of architecture the majority of designers prefers to work more time in the field of study (40-50%). For the group of architects the highest majority prefers the actual working schedule (49.1%). For the sample a percentage of 30.8% is found that prefers work that is only related to study. This percentage is lower than the actual percentage (33.3%) that actually works 100% in the field of study.

Table 5.9 *Actual and preferred working time spend on study related work in % (N=171)*

/TIME/	*Fashion*	*Graphic*	*Interior*	*Product*	*Architecture*	*Sample*
Actual working time related to study:						
Less than 100%	72.7	82.6	72.7	32.5	47.2	66.7
100%	27.3	17.4	27.3	67.5	52.8	33.3
Preferred working time related to study:						
Less than real working time	27.3	21.7	27.3	15.0	24.5	22.8
The same working time	27.3	30.4	25.0	42.5	49.1	37.4
More than real working time	45.5	47.8	47.7	42.5	26.4	39.8
100% of the working time prefered related to study	18.2	21.2	29.5	25.6	43.4	30.8

Source: Own elaboration on output SPSS

5.2 / REGRESSION ANALYSIS /

In the "*Methodology"* chapter the model for the regression analysis has been discussed. An extensive list of eighteen variables have been argued as influencers on the dependent variable *"profession"*. Due to this numerous amount of variables a selection needs to be made in order to

find the most significant influencers. This first step in the analysis has been done by a backward method of multiple linear regression in SPSS. In the backward method the programme starts by placing all independent variables in the model, while calculating the contribution of each variable by looking at their significance value. This significance value is compared against a rejection criterion. If a predictor meets this benchmark, it means it is not making a statistically significant addition in the model. The variable will be removed from the model and the model will re-calculate the significance of the remaining predictors. The contribution of the remaining dependent variables predictors is then recomputed (Field, 2009).

Backwards method

SPPS analysed 14 models of which the model with the highest adjusted R^2 and lowest number of variables is been chosen as best fitting model. The R^2 indicates till what account this model explains the variation in the dependent variable *"profession"*. The best fitted model consists of a $R^2 = .772$ with an adjusted $R^2 = .757$. This shows that 77.2% of the variation in *"profession"* can be explained by this model. The adjusted R^2 shows the value that is able to generalise from the sample to the population. The model with the least variables is chosen, as Field (2009) notes "as a general rule, the fewer predictors the better" (p. 214). In *Appendix 8.2* an overview of the SPSS output of this analysis can be found.

This model includes ten variables, namely *M_JOB, WO_CRE_RA, EDU, W_SAT, RES, MAR, SELF, INC_STU, CHI* and *AGE*. This means that the effect of following variables are not statistically significant to incorporate in our final model: *GEN, NAT, EXP, EMP, JBC, CON, INC, WS_CRE_RA* and *CREA*. Concluded can be that there is no statistical proof for rejecting the Null hypothesis for the following alternative hypotheses:

+HP1.1: The factor *"contract"* has a significant *negative* influence

+HP1.2: The factor *"income"* has a significant *positive* influence o

+HP2.1: The factor *"experience"* has a significant *positive* influence

+HP2.2: The factor *"unemployment"* has a significant *negative* influence

+HP2.3: The factor *"job changes"* has a significant *positive* influence

+HP2.7 The factor *"creative skills related to the field of study"* has a significant *positive* influence

+HP2.9 The factor *"creative activities"* has a significant *negative* influence

+HP3.1: The factor *"gender"* has a significant *negative* influence

+HP4.3: The factor *"nationality"* has a *negative s*ignificant influence
on the profession that graduated designers working in the Netherlands carry out in the proposed model.

Enter method

The next step in the analysis is to test the actual model that now is based on the following variables: *M_JOB, WO_CRE_RA, EDU, W_SAT, RES. MAR, SELF, INC_STU, CHI* and *AGE*. A next multiple linear regression is conducted in SPSS by the Enter method. This method forces all independent variables together in the model (Field, 2009). This model results in a R^2 =.772, which means this model encounters for 77.2% of the changes in the dependent variable *"profession"*. The Durbin-Watson of 2.106 indicates for level of serial correlations between errors in the model. This outcome has a range from 0-4. The closer this outcome is to the value of 2, the less correlated the errors in the model are. The outcome of 2.106 indicates that the errors in the model are relatively independent. In *Appendix 8.3* an overview of the SPSS output of this analysis can be found.

Table 5.10 *Model summary*

R	R^2	ADJUSTED R^2	STD. ERROR OF THE ESTIMATES	DURBIN-WATSON
.879	.772	.757	.18966	2.106

Source: own elaboration from output SPSS

The results from ANOVA show a value of F of 51.445 with a Sig. of .000. This means that the F-ratio is significant at $p < .001$. This means that there is a 0.1% chance that a F-ratio this large would happen if the null hypothesis were true (Field, 2009). This indicates a regression model that predicts the dependent variable *"profession"* significantly reliable (Field, 2009).

Table 5.11 *ANOVA*

	SUM OF SQUARES	df	MEAN SQUARE	F	Sig.
Regression	18.505	10	1.851	51.445	.000
Residual	5.468	152	.036		
Total	23.973	162			

Source: own elaboration from output SPSS

After the model has been analysed, the different variables and their coefficients will be studied. Within the model 5 independent variables are found to have a significant contribution to the dependent variable on the .05 level. The β indicates the change in the outcome associated with a unit change in that particular independent variable (Field, 2009).

Table 5.12 *Coefficients*

	UNSTD. COEFFICIENTS		STD. COEFFICIENTS	t	Sig.
	β	*Std. Error*	*Beta*		
(Constant)	.388	.045		8.620	.000***
AGE	-.129	.039	-.166	-3.295	.001***
RES	.064	.033	.081	1.917	.057
MAR	.076	.036	.097	2.112	.036*
CHI	-0.47	.040	-.058	-1.162	.247
EDU	-.037	.032	-.048	-1.140	.256
SELF	.047	.034	.061	-1.389	.167
M_JOB	-.063	.035	-.079	-1.825	.070
INC_STU	.006	.000	.629	13.178	.000***
WO_CRE_RA	-.186	.059	-.128	-3.138	.002**
W_SAT	-.446	.059	-.342	-7.600	.000***

Note. * Significant at the .05 level

Note. ** Significant at the .01 level

Note. *** Significant at the .001 level

Source: own elaboration from output SPSS

The following variables are statistically significant at the .01 level: *AGE, INC_STU, WO_CRE_RA* and *W_SAT* (*PRO, F*(10, 152) = 51.445, $p < .0001$, $R^2 = .772$). MAR is found to be statistical significant at the .05 level. No significant statistical proof is found to reject the Null hypothesis for the variables RES, CHI, EDU, SELF and M_JOB. The following alternative hypotheses can be rejected:

+HP2.1: The factor *"education"* has a significant *positive* influence

+HP2.4: The factor *"self-employment"* has a significant *positive* influence

+HP2.5: The factor *"multiple job-holder"* has a significant *positive* influence

+HP3.4 The factor *"residency"* has a significant *negative* influence

+HP4.6: The factor *"children"* has a significant *negative* influence

on the profession that graduated designers working in the Netherlands carry out in the proposed

model.

The model found statistical proof to reject the Null hypothesis of the following alternative hypotheses:

+HP1: The economic factor *"income related to study"* has a significant *positive* influence

+HP2: The work-related factors "*satisfaction" and "creative skills not related to the field of study"* have a significant *negative* influence

+HP3: Socio-demographic factors "*age"* has a significant *negative* and "*marital status"* has a significant *positive* influence

on the profession that graduated designers working in the Netherlands carry out in the proposed model.

Taking a closer look at the statistically significant effects of the regression the following can be stated regarding the direction of the found effects.

+The effect of the variable INC_STU (*b*=.006) indicates that when INC_STU (ratio income from work related to study/total income) goes up by .006 units, PRO goes up with one unit.

+The variable W_SAT (*b*=-.446) indicates when W_SAT (difference between ideal and real profession) decreases with .446 units, PRO goes up with one unit. When the difference between the ideal and the real profession diminishes, the hours spend on study related to the working total hours increase. A positive relation between ideal profession and work related to study can be found. This corresponds with the finings of Comunian *et al.* (2013), that found the highest satisfaction for Bohemian graduates that worked in the field related to their study.

+The variable WO_CRE_RA (*b*=-.186) indicates when WO_CRE_RA (ratio creative activities in work not related to study/total hours work not related to study) increases with .186 units, PRO will decrease with one unit. This implies when more hours are spent on creative activities working in a field unrelated with study, the time spent on work related to study decreases. A negative relation between creative activities outside the field of study and working in the field of study therefore can be found.

+ The variable AGE (*b*=-.129) indicates that younger workers spent more time on work related to study.

+ The variable MAR (*b*=.076) indicates that a group with a higher marital status, that means living together of married, spent more time on work related to study.

Next to the significance in the model the standardised *Beta* coefficients and the t-value of the variables indicate the contribution of the variable in predicting the dependent variable. The standardised *Beta* coefficients are all measured in standard deviation units and therefore comparable (Field, 2009). The largest effect is the effect of the factor *"income study"* (+) followed by *"satisfaction" (-)*, "age" (-), *"creative skills not related to the field of study" (-)* and *"marital status" (+).*

Table 5.13 *Coefficients ranked on significance*

	STD. DEV	UNSTD. COEFFICIENTS		STD. COEFFICIENTS	t	Sig.	Effect
		β	*Std. Error*	*Beta*			
INC_STU	42.664	.006	.000	.629	13.178	.000***	+
W_SAT	.295	-.446	.059	-.342	-7.600	.000***	-
AGE	.496	-.129	.039	-.166	-3.295	.001***	-
WO_CRE_RA	.263	-.186	.059	-.128	-3.138	.002**	-
MAR	.492	.076	.036	.097	2.112	.036*	+

Note. * Significant at the .05 level

Note. ** Significant at the .01 level

Note. *** Significant at the .001 level

Source: own elaboration from output SPSS

Control test

In order to test if the socio-demographic factors *"age"* and *"marital status"* are control variables in this model one last test is executed. A linear regression with the enter method is executed with MAR and AGE as independent variables and PRO as the dependent variable (model 1). Followed by another linear regression with the enter method, where WO_CRE_RA, INC_STU and W_SAT are the independent variables and PRO is the dependent variable (model 2). *Table 5.7* shows that model 1, with the socio-demographic variables is not statistically significant. Model 2 with the economic and work-related variables is statistically significant. Therefore the variables *"age"* and *"marital status"* are control variables. See Appendix 8.4 for further model information.

Table 5.14 *ANOVA control variables*

MODEL		SUM OF SQUARES	df	MEAN SQUARE	F	Sig.
1	Regression	.178	2	.089	.597	.552
	Residual	23.795	160	.149		
	Total	23.973	162			
2	Regression	18.136	5	3.627	97.564	0.000
	Residual	5.837	157	37		
	Total	23.973	162			

Source: own elaboration from output SPSS

5.3 / OVERVIEW HYPOTHESES /

Table 5.11 provides an overview of the hypotheses per factor. Step 1 indicates if the variable is excluded or included in the model by the backward method. Step 2 shows if the null hypotheses connected to the alternative hypotheses holds or is rejected. Step 3 indicates the outcomes of the last test in order to check if the variable is a control variable or not.

Table 5.15 *Overview hypotheses per factor*

/NO/	/CAT/	/FACTOR/	Effect	Backward method	Null Hypothesis	Control variable
1.1	Economic	*"contract"*	+	excluded	holds	
1.2	Economic	*"income"*	+	excluded	holds	
1.3	Economic	*"income study"*	+	included	rejected	no
2.1	Work-related	*"education"*	+	included	holds	
2.2	Work-related	*"experience"*	+	excluded	holds	
2.3	Work-related	*"unemployment"*	-	excluded	holds	
2.4	Work-related	*"job changes"*	+	excluded	holds	
2.5	Work-related	*"self-employment"*	+	included	holds	
2.6	Work-related	*"multiple job-holder"*	+	included	holds	
2.7	Work-related	"satisfaction"	+	included	rejected	no
2.8	Work-related	"*creative skills related to the field of study"*	+	excluded	holds	
2.9	Work-related	"*creative skills not related to the field of study"*	-	included	rejected	no

/NO/	/CAT/	/FACTOR/	Effect	Backward method	Null Hypothesis	Control variable
2.10	Work-related	*"creative activities"*	-	excluded	holds	
3.1	Socio-demographic	*"gender"*	-	excluded	holds	
3.2	Socio-demographic	*"age"*	-	included	rejected	control
3.3	Socio-demographic	*"nationality"*	-	excluded	holds	
3.4	Socio-demographic	*"residency"*	-	included	holds	
3.5	Socio-demographic	*"marital status"*	+	included	rejected	control
3.6	Socio-demographic	*"children"*	-	included	holds	

Source: own elaboration on output SPSS

5.4 / *ASSUMPTIONS* /

In order to draw conclusions from the regression analysis several assumptions need to be checked. Berry (1993) provides an overview on these assumptions and how to check them for validation. The first two concerning the variables are included in the design of the regression model, that is based on ratio and dummy variables. The third assumption regarding non-zero variance has been checked in the data set. No perfect multicollinearity is indicated by a Pearson correlation coefficient that is below .9 for all variables. The fifth and sixth assumption need some further elaboration after this overview.

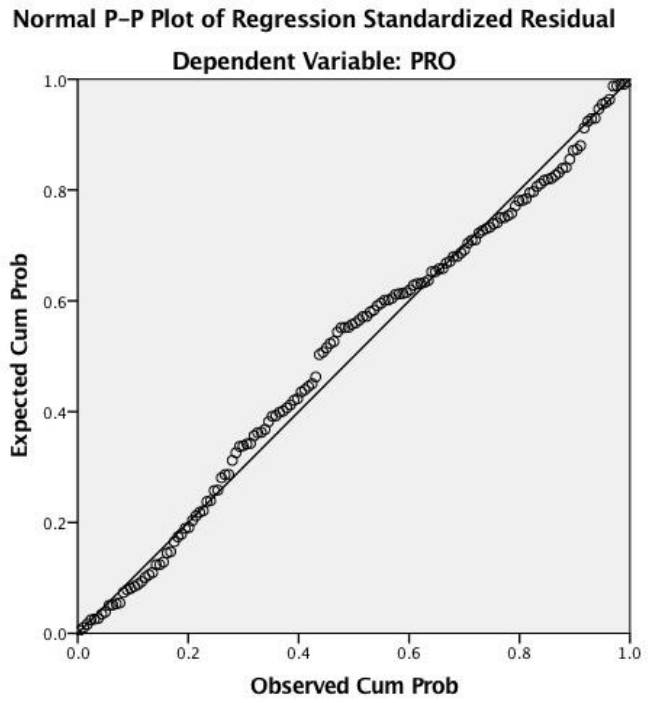
Table 5.16 *Checklist assumptions*

/ASSUMPTION/	/MODEL/	/CHECK/
The predictor variables must be quantitative or categorical (dummy)	quantitative or dummy	∨
The outcome variable must be quantitative, continuous and unbounded	ratio variable based on hours working	∨
Non-zero variance (predictors should have variation in value)	Data set has been checked on variation of value per variable.	∨
No perfect multicollinearity (no perfect linear relationship between the independent variables)	Pearson correlation coefficient never >.9	∨
Predictors are uncorrelated with 'external variables'	see further analysis	x
Homoskedasticity	see further analysis	x

/ASSUMPTION/	/MODEL/	/CHECK/
Independent errors	Durbin-Watson test= 2.106	V
Normally distributed errors	see *Graph 5.2*	V
Independence (all values of the outcome variable are independent)	all data is collected from different participants	V
Linearity (the relationship modelled is linear)	see *Graph 5.1*	V

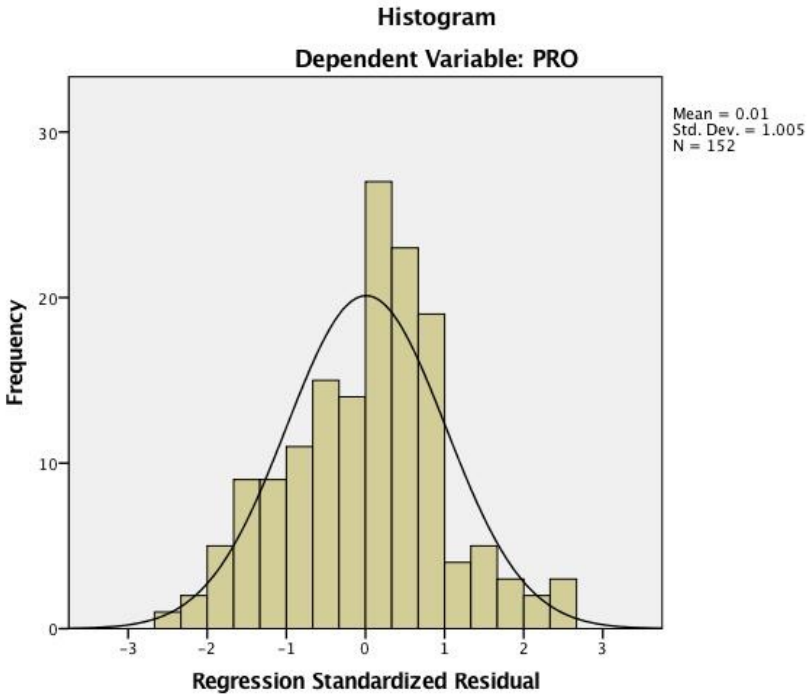
Source: Berry (1993) & own elaboration on output SPSS

The independency of errors in the model are tested by the Durbin-Watson test. This value should be close to 2, the value of 2.106 indicates that the errors are relatively independent. *Graph 5.1* shows the relationship between the model (the line) and the actual data (dots). The dots are relatively close to the model which shows for a linear relationship that is discussed as the last assumption. *Graph 5.2* shows the distribution of errors in the model (blocks) and the normal distribution (line). The comparison of these two figures shows a relatively normal distribution of errors.



Graph 5.1. *Linearity (*ZRESID (Y-axis) against *ZPRED (X-axis))*

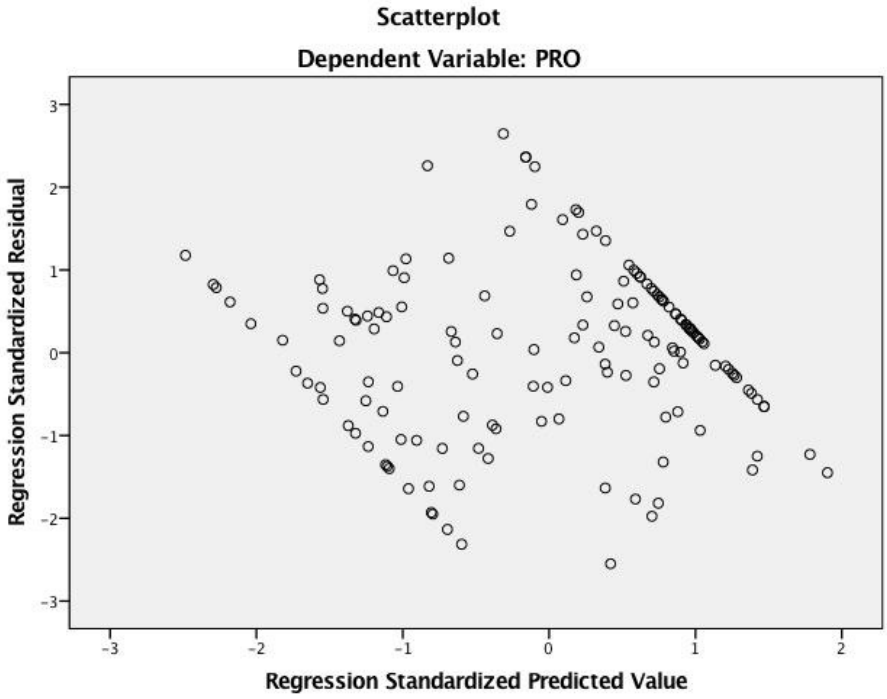
Source: output SPSS from own data



Graph 5.2. *Normally distributed errors*

Source: output SPSS from own data

Although *Graph 5.1.* indicates that the assumption of linearity is met and *Graph 5.2* shows a quite normally distributed relationship of errors, there are reasons to believe not all assumptions can be agreed on. *Graph 5.3* shows a validated assumption on homoskedasticity. Homoskedasticity would become visual as a random distributed cloud of dots in the graph **ZRESID against *ZPRED.* Unfortunately *Graph 5.3* shows another image. This graph indicates that some kind of linear relationship of the error terms in the model exists. This linear relationship could imply that a possible 'third' variable exists that is not incorporated in the model. This makes the model less reliable and biased.



Graph 5.3. *Heteroskedasticity (*ZRESID (Y-axis) against *ZPRED (X-axis))*
Source: output SPSS from own data

Outliers

In order to make sure that the model is not influenced by special cases or outliers an extra test is performed. The measure of Cook's distance is used. This concept measures the overall influence of a case on the model (Field, 2009). Cook and Weisberg (1982) have suggested that values greater than 1 may be cause for concern. All cases in our model have been checked on a Cook's distance smaller than 1. *Appendix 8.5* provides an overview of the SPSS output can be found.

Sample size

In the chapter "*Methodology"* the sample size has been discussed and aimed at a sample of 195. After collecting the data and analysing the results more about sample size can be checked. Field (2009) highlights the following rule of thumb: 10 cases of data for each predictor in the model or 15 cases of data per predictor. In our model we have ten predictors resulting in a sample of 100 to 150 cases This condition is with a sample size of 191 satisfied. Green (1991) stresses two other rules of thumb for calculating a minimum acceptable sample size. One is based on the the overall fit of the model (50 + 8k (k=number of predictors)) and the second on the individual predictors within the model (104 + k). For the overall model a minimum sample of 130 is

calculated. For the second rule of thumb regarding the individual predictors a minimum sample of 114 is indicated. This condition is with a sample size of 191 satisfied in both cases.

5.5 / CONCLUSIONS /

By a quantitative method this chapter analyses the *"Research question"*. Data has been collected from 191 participants of the survey. This sample differs from the population of designers in the Netherlands on the representation of the different fields. The most important general findings include a high rate (83.9%) of designers that work most of their hours in the creative field. Managerial and entrepreneurial skills are perceived as important for the sustain of the career of the designer, but are not well prepared for by study. Architects are found most satisfied with their actual job, while 40-50% of the designers working in the other fields would prefer a higher number of working hours related to study. The results of the multiple linear regression with multiple stages (backward & enter method) shows that the independent variables "*income study", "satisfaction"*, "age", *"creative skills not related to the field of study"* and *"marital status"* have a significant statistical influence on the dependent variable *"profession"* . The result of the socio-demographic factors *"age"* and *"marital"* are well-known characteristics of the artists workforce. The factor *"age"* and the negative relationship with *"profession"* confirms that the creative workforce is in general younger. The positive relationship between *"marital status"* and *"profession"* can be declared by the reliance on the partners income, so more time can be spent on working in the field of study (Throsby and Zednik, 2011). An additional test shows that both these socio-demographic factors can be considered as control variables. The economic variable *"income study"* has the largest influence on the *"profession"* designers carry out. This is according to the previous findings of Throsby & Zednik (2011) an expected result. The positive relationship between the variable *"satisfaction"* and *"profession"* indicate that when the actual profession lies close to the ideal profession, more time is spent on work in the field of study. This is a less expected result than the economic influence. This finding corresponds with the research of Comunian *et al.* (2013) that work or job opportunities closest to the field of study are most satisfying for this group of creatives. The last statistical significant variable is the variable *"creative skills not related to the field of study"*. The negative relation between this variable and the dependent variable *"profession"* shows that when more time can be spent on creative skills outside the field of study, less time is spend to work related to study. This implies some kind of substitution possibility of work in the field of study and creative work outside the field of study.

6 // CONCLUSIONS //

In this thesis, *the relative importance of the factors that influence the profession that graduated designers working in the Netherlands carry out* has been studied. A number of studies on the artists' labour market and the career paths of artists have been reviewed. Topics as the work preference model (Throsby, 1994), winner-take-all (Frank & Cook, 1995), the portfolio career (Handy, 1985, 1995), multiple job-holdings (Throsby & Zednik, 2011), the hybrid artist (Winkel *et al.*, 2012) and the bohemian career (Abreu *et al.*, 2011; Comunian *et al.*, 2010, 2011, 2013) were used to build up a theoretical framework. This framework resulted in a number of economic, work-related and socio-demographic factors that have been found as potential influencers on the profession that designers carry out. In order to answer the relative importance of these factors a quantitative study has been conducted. An online survey was distributed among designers who are working in the Netherlands, through different platforms for designers and the alumni networks of different Art Academies and Technical Universities. Data from 191 respondents has been collected in order to conduct a multiple linear regression. By a statistical analysis with multiple steps the hypotheses regarding the influence of economic, work-related and socio-demographic factors on the dependent variable *"profession"* were tested.

Main findings

The results of the linear regression showed that the variables "*income study", "satisfaction"*, *"creative skills not related to the field of study"* have a significant statistical influence on the dependent variable *"profession"* . The economic variable *"income study"* has the largest influence on the *"profession"* designers carry out. This is not a surprising finding as it implies that economic factors stimulate designers to work inside their field of study. The designers in this research have studied these field in order to earn a living with it. From these designers 75% percent of the sample earns below the modal income. This shows that designers still are a vulnerable group considering earnings and support the findings of Comunian *et al.* (2013).

The other factors *"satisfaction"* and *"creative skills not related to the field of study"* assign that the profession designers carry out not only depends on economic influencers but also on work-related factors. *"Satisfaction"* and *"profession"* are found to have a positive alliance. Actual and preferred profession are connected to work in the field of study. This implies that the

workers' satisfaction goes up as the hours of work related to the study increase. *Table 5.9* concerning the distribution of actual and preferred working time, shows that this does not imply an ideal working schedule where 100% of the time is devoted to work related to the field of study. On average, a larger group of designers prefers to work less than 100% in the field of their study. The outcomes of actual and preferred working hours related to study differ per field. In the fields of fashion, graphic, interior and product design an increase in hours related to work in the field of study are preferred. In the field of architecture the largest group is satisfied with their actual profession. This implies that the effect of the variable *"satisfaction"* also relies on the field of design.

The last work-related variable *"creative skills not related to the field of study"* shows a negative relationship with the profession that designers carry out. This connection implies a substitution possibility of work in the field of study and creative work outside the field of study. This finding connects with the theory on the portfolio career (Handy, 1985, 1995). The portfolio career stimulates a broad and extensive gathering of different work experiences. This relation also shows that designers are able and willing to apply creative skills outside their core creative field. The attractiveness of the designer as a workforce is therefore increasing, as it broadens the possible work fields. A large group of designers (69.2%) prefers to spent less than a 100% of their working time related to the field of study (*Table 5.9*). This shows that designers also prefer to apply their skills outside their core creative fields. Especially for the fields of product and architecture it seems to increase the job satisfaction. Within these two field more income is earned by working in the field of study, than the proportion of time that is spent on this work. This implies that these designers do spent time working outside the field of study, while earning less income with this kind of work. Other motivations than extrinsic rewards must lie at the base of this choice.

Implications for theory and research

The earnings of the group of designers are found to be skewed towards the lower earnings even though the skills of the designer can be used outside their core creative field. Also working outside the field related to study is in a large case preferred. The question still remains why the position of the designer in the labour market is still vulnerable, as the designer is able to work in a broad range of fields and prefers to do so. Is it the case of a mismatch between between occupations and qualifications because of the negative self-selection of designers (Abbing, 2002;

Comunian *et al.,* 2010). Or is the position of the designer weak due to a lack of the right human capital and skills (Norman, 2010; Sunley *et al.* (2010). And if so what kind of human capital and skills are designers missing?

Delimitations & further research

In order to propose options for further research the limitations of this study need to be discussed. On terms of methodology a lot of this research can be improved. After collecting the data, the questionnaire appeared too long. An increasing number of respondents determined the survey towards the end. For future research a shorter, more directed survey is needed. In this research the data that has been collected is simplified. The regression model makes use of a lot of dummy variables, whereby information of the sample has been lost. The analysis of the regression model on the validation of assumptions have shown that not all assumptions could be met. A form of heteroskedasticity shows that the errors in the model have some kind of linear connection. This linear connection could be caused by a missing variable in the model. Therefore the regression model is not complete and less reliable. Further research is needed to test what kind of variable is missing in this model.

The research shows that the implication of the factors *"satisfaction"* and *"creative skills not related to the field of study"* differ per field of design. For namely architects, but also for product designers in general different results can be found than for the remaining fields. Future research is needed to investigate these differences among the fields of design. Also a further elaboration on the research of different skills and the use of these skills among the different fields needs to be done. This research only focussed on the application of creative skills outside the core creative field. Further research is needed to investigate if other skills are transferable outside the core creative skills and if other skills are becoming more important for working in the field of study. This research for instance finds a mismatch between the preparation of study and the importance of different skills to sustain the career of the designer. Research is needed to investigate these kind of mismatches and their relative importance on the designers profession.

// END //

great things happen all at once.

♥ ♥ ♥

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8 *// APPENDICES //*

8.1 / QUESTIONNAIRE/

Welcome,

This survey is part of my thesis for the Master Cultural Economics and Entrepreneurship 2014-2015. Participation will take about 10-15 minutes of your time.
Please only fill in when you have a degree from an Art Academy, Design Academy, Technical University or Academy of Architecture. Try to answer as open and truthfully as possible.

Thank you!

Esther

---

1. What is your gender?
+Male
+Female

2. What is your age?

3. What is your citizenship?

4. What is your place of residence?

5. Wat is uw marital status?
+Single
+Relationship
+Living together
+Married

6. Do you have children?

+No

+Yes, one

+Yes, two

+Yes, more than two

---

7. What is your highest level of education?

+Bachelor

+Master

+PhD

8. Which institution(s) did you graduate?

+Art Academy

+Design Academy

+Technical University

+Academy of Architecture

+Different University/HBO

9. What is the place of the institution(s)?

---

10. What is your field of study?

+Fashion

+Graphic

+Interior

+Product

+Architecture

+ Other

11. What year did you graduate?

12 .Did you experience unemployment in the last 5 years?

+No

+Yes

13. How many job changes have you experienced in your career?

+None

+One

+Two

+Three

+Four or more

---

14. What is your professional status at the moment?

+I am working for a company

+I am self-employed

+I am a student

+I am working voluntary or unpaid

+I am unemployed

---

15 In what field lies the profession which you earn most income with?

+In my field of study

+Outside my field of study but within the artistic field (such as creative arts, performing arts, design, mass communications, multi-media, software design and engineering, music recording and technology, architecture and landscape design)

+Related to the arts (such as teaching, training or managing within the art sector)

+Not related to the arts

+I don’t have a paid profession.

16.What kind of contract for this profession do you have?

+Short-term (for a 1/2 year or less)

+Long-term (for more than 1/2 year)

+Fixed (undetermined term)

+Project-based or freelance

+I don’t have a contract

17. How satisfied are you with this profession?

+Very satisfied

+Fairly satisfied

+Not very satisfied

+Not at all satisfied

---

18. Do you have other job(s) besides this profession?

+No

+Yes, related to my field of study

+Yes, outside my field of study but within the artistic field (such as creative arts, performing arts, design, mass communications, multi-media, software design and engineering, music recording and technology, architecture and landscape design)

+Yes, related to the arts (such as teaching, training or managing within the art sector)

+Yes, not related to the arts.

---

19. How many hours per week are you busy with:

/WORK/	/HOURS/
Related to my field of study	
Outside my field of study but within the artistic field	
Related to the arts	
Not related to the arts	

---

20. How does your ideal working schedule in hours per week look like?

/WORK/	/HOURS/
Related to my field of study	
Outside my field of study but within the artistic field	
Related to the arts	
Not related to the arts	

21.What is the most important reason preventing you to spent more time on work in your field of your study?

+Insufficient income

+Work in occupation not available

+Domestic responsibilities

+Other commitments

+I don't want to work in my field of study

+Other

---

22. What is your average gross monthly income?

+Less than €1.900 (4)

+Between €1.900 and € 2.800 (5)

+More than €2.800 (6)

---

23. What percentage of your income per week comes from:

_____ Work related to my field of study

_____ Work outside my field of study but within the artistic field

_____ Work related to the arts

_____ Work outside the arts

_____ Other sources than work (as income from partner, family, study funds, social security)

---

24. On work related to your field of study, how many hours per week are you busy with:

(When you don't work in the field related to your study, please fill in 0 hours on all subjects)

/ACTIVITIES/	/HOURS/
Creative activities	
Supporting activities (such as administration, time registration, planning)	
Business activities (such as team working, meetings and consultation)	
Managerial activities (such as networking, researching and getting access to information)	
Entrepreneurial activities (such as searching for new assignments, clients, products and markets)	

---

25. How satisfied are you with this work division?

+Very satisfied

+Fairly satisfied (2)

+Not very satisfied (3)

+Not at all satisfied (4)

---

26. On work not related to your field of study, how many hours per week are you busy with:

(When you only work in the field related to your study, please fill in 0 hours on all subjects)

/ACTIVITIES/	/HOURS/
Creative activities	
Supporting activities (such as administration, time registration, planning)	
Business activities (such as team working, meetings and consultation)	
Managerial activities (such as networking, researching and getting access to information)	
Entrepreneurial activities (such as searching for new assignments, clients, products and markets)	

---

27. How satisfied are you with this work division?

+Very satisfied

+Fairly satisfied

+Not very satisfied

+Not at all satisfied

---

28. How well were you prepared by your study on:

/ACTIVITIES/	Very well	Fairly well	Not very well	Not well at all
Creative activities				
Supporting activities (such as administration, time registration, planning)				
Business activities (such as team working, meetings and consultation)				
Managerial activities (such as networking, researching and getting access to information)				
Entrepreneurial activities (such as searching for new assignments, clients, products and markets)				

29. How important where these skills for the launch of your career?

/ACTIVITIES/	Very important	Fairly important	Not very important	Not at all important
Creative activities				
Supporting activities (such as administration, time registration, planning)				
Business activities (such as team working, meetings and consultation)				
Managerial activities (such as networking, researching and getting access to information)				
Entrepreneurial activities (such as searching for new assignments, clients, products and markets)				

30. How important where these skills for sustaining your career?

(When you are less then 5 years graduated: How important do you expect these skills will be for sustaining your career?)

/ACTIVITIES/	Very important	Fairly important	Not very important	Not at all important
Creative activities				
Supporting activities (such as administration, time registration, planning)				
Business activities (such as team working, meetings and consultation)				
Managerial activities (such as networking, researching and getting access to information)				
Entrepreneurial activities (such as searching for new assignments, clients, products and markets)				

31. How stable is your career?

+Very stable

+Fairly stable

+Not very stable

+Not at all stable

32. What would describe your career best?

+Decreasing

+Increasing

+Stable

+Other

33. How satisfied are you with the development of your career?

+Very satisfied

+Fairly satisfied

+Not very satisfied

+Not at all satisfied

Thank you for participating!

When you are interesting in the results of this thesis, please fill in your email address!

END

8.2 / OUTPUT SPPS: BACKWARD METHOD /

Table 8.1 *Descriptive Statistics*

	MEAN	STD. DEVIATION	N
PRO	.6156	.38468	171
GEN	.51	501	191
AGE	.58	496	191
NAT	.05	212	191
RES	.37	485	191
MAR	.60	492	191
CHI	.37	483	191
EDU	.52	501	191
EXP	.44	498	183
EMP	.26	439	182
JBC	.27	899	182
SELF	.53	500	182
M_JOB	.36	482	182
INC_STU	58.2561	42.66442	164
INC	.2515	.43518	167
WS_CRE_RA	.3119	.29155	189
WO_CRE_RA	.1351	.26368	188
CREA	.3977	1.47776	188
W_SAT	.0855	.29540	169
CON	.45	498	182

Table 8.2 *Model Summary*

					CHANGE STATISTICS					
MODEL	R	R^2	ADJ. R^2	STD. ERROR OF THE ESTIMATED	R^2 Change	F Change	df1	df2	Sig. F Change	DURBIN-WATSON
1	.880[a]	.774	.744	.19445	.774	25.842	19	143	.000	
2	.880[b]	.774	.746	.19378	.000	.000	1	143	.983	
3	.880[c]	.774	.748	.19311	.000	.000	1	144	.985	
4	.880[d]	.774	.750	.19245	.000	.006	1	145	.940	
5	.880[e]	.774	.751	.19180	.000	.116	1	146	.898	
6	.880[f]	.774	.753	.19123	.000	.110	1	147	.741	
7	.880[g]	.774	.754	.19074	.000	.242	1	148	.624	
8	.879[h]	.773	.755	.19028	.000	.273	1	149	.602	
9	.879[i]	.773	.756	.18997	-.001	.509	1	150	.477	
10	.879[j]	.772	.757	.18966	-.001	.512	1	151	.475	
11	.877[k]	.770	.756	.18985	-.002	1.300	1	152	.256	
12	.876[l]	.768	.756	.18999	-.002	1.236	1	153	.268	
13	.874[m]	.764	.753	.19104	-.004	2.715	1	154	.101	
14	.872[n]	.761	.752	.19159	-.003	1.894	1	155	.171	2.136

a. Predictors: (Constant), CON, M_JOB, EXP, NAT, WO_CRE_RA, EMP, EDU, CREA, JBC, W_SAT, RES, GEN, WS_CRE_RA, MAR, INC, SELF, INC_STU, CHI, AGE

b. Predictors: (Constant), M_JOB, EXP, NAT, WO_CRE_RA, EMP, EDU, CREA, JBC, W_SAT, RES, GEN, WS_CRE_RA, MAR, INC, SELF, INC_STU, CHI, AGE

c. Predictors: (Constant), M_JOB, EXP, NAT, WO_CRE_RA, EDU, CREA, JBC, W_SAT, RES, GEN, WS_CRE_RA, MAR, INC, SELF, INC_STU, CHI, AGE

d. Predictors: (Constant), M_JOB, EXP, NAT, WO_CRE_RA, EDU, JBC, W_SAT, RES, GEN, WS_CRE_RA, MAR, INC, SELF, INC_STU, CHI, AGE

e. Predictors: (Constant), M_JOB, EXP, NAT, WO_CRE_RA, EDU, W_SAT, RES, GEN, WS_CRE_RA, MAR, INC, SELF, INC_STU, CHI, AGE

f. Predictors: (Constant), M_JOB, EXP, NAT, WO_CRE_RA, EDU, W_SAT, RES, WS_CRE_RA, MAR, INC, SELF, INC_STU, CHI, AGE

g. Predictors: (Constant), M_JOB, EXP, NAT, WO_CRE_RA, EDU, W_SAT, RES, WS_CRE_RA, MAR, SELF, INC_STU, CHI, AGE

h. Predictors: (Constant), M_JOB, NAT, WO_CRE_RA, EDU, W_SAT, RES, WS_CRE_RA, MAR, SELF, INC_STU, CHI, AGE

i. Predictors: (Constant), M_JOB, WO_CRE_RA, EDU, W_SAT, RES, WS_CRE_RA, MAR, SELF, INC_STU, CHI, AGE

j. Predictors: (Constant), M_JOB, WO_CRE_RA, EDU, W_SAT, RES, MAR, SELF, INC_STU, CHI,

AGE

k. Predictors: (Constant), M_JOB, WO_CRE_RA, W_SAT, RES, MAR, SELF, INC_STU, CHI, AGE

l. Predictors: (Constant), M_JOB, WO_CRE_RA, W_SAT, RES, MAR, SELF, INC_STU, AGE

m. Predictors: (Constant), M_JOB, WO_CRE_RA, W_SAT, RES, MAR, INC_STU, AGE

n. Predictors: (Constant), WO_CRE_RA, W_SAT, RES, MAR, INC_STU, AGE

o. Dependent Variable: PRO

8.3 / OUTPUT SPPS: ENTER METHOD /

Table 8.3 *Descriptive Statistics*

	MEAN	STD. DEVIATION	N
PRO	.6156	.38468	171
AGE	.58	.496	191
RES	.37	.485	191
MAR	.60	.492	191
CHI	.37	.483	191
EDU	.52	.501	191
SELF	.53	.500	182
M_JOB	.36	.482	182
INC_STU	58.2561	42.66442	164
WO_CRE_RA	.1351	.26368	188
W_SAT	.0855	.29540	169

Table 8.4 *Pearsons correlation*

	PRO	*AGE*	*RES*	*MAR*	*CHI*	*EDU*	*SELF*	*M_JOB*	*INC_STU*	*WO_CRE_RA*	*W_SAT*
PRO	1.000	.006	.072	.081	.002	.064	-.144	-.354	.803	-.247	-.602
AGE	.006	1.000	.156	.396	.521	.284	.224	-.025	.145	-.027	-.161
RES	.072	.156	1.000	.257	.337	-.047	-.038	-.037	-.004	-.117	.009
MAR	.081	.396	.257	1.000	.448	.135	.110	-.059	.091	.008	.015
CHI	.002	.521	.337	.448	1.000	.095	.065	-.022	.033	-.114	-.118
EDU	.064	.284	-.047	.135	.095	1.000	-.104	-.119	.195	.011	-.091
SELF	-.144	.224	-.038	.110	.065	-.104	1.000	.340	-.159	.128	.096
M_JOB	-.354	-.025	-.037	-.059	-.022	-.119	.340	1.000	-.343	.102	.202
INC_STU	.803	.145	-.004	.091	.033	.195	-.159	-.343	1.000	-.195	-.461
WO_CRE_RA	-.247	-.027	-,117	.008	-.114	.011	.128	.102	-.195	1.000	-.004
W_SAT	-.602	-.161	.009	.015	-.118	-.091	.096	.202	-.461	-.004	1.000

Table 8.5 *Model summary*

					CHANGE STATISTICS					
MODEL	R	R^2	ADJ. R^2	STD. ERROR OF THE ESTIMATED	R^2 Change	F Change	df1	df2	Sig. F Change	DURBIN-WATSON
1	.879[a]	.772	.757	.18966	.772	51.445	10	152	.000	2.106

a. Predictors: (Constant), W_SAT, WO_CRE_RA, MAR, EDU, SELF, RES, M_JOB, CHI, INC_STU, AGE

b. Dependent Variable: PRO

Table 8.6 *ANOVA*

MODEL	SUM OF SQUARES	df	MEAN SQUARE	F	Sig.
Regression	18.505	10	1.851	51.445	.000[b]
Residual	5.468	152	36		
Total	23.973	162			

a. Dependent Variable: PRO

b. Predictors: (Constant), W_SAT, WO_CRE_RA, MAR, EDU, SELF, RES, M_JOB, CHI, INC_STU, AGE

Table 8.7 *Coefficients*

	Unstd. coefficients		Std. Coefficients			95% Conifidence interval for B		Correlations			Collinearity	
	β	*Std. Error*	*Beta*	t	Sig.	Low bound	Up bound	Zero order	Partial	Part	Tolerance	VIF
(Constant)	.388	.045		8.620	.000	.299	.477					
AGE	-.129	.039	-.166	-3.295	.001	-.206	-.052	.006	-.258	-.128	.590	1.695
RES	.064	.033	.081	1.917	.057	-.002	.130	.072	.154	.074	.850	1.177
MAR	.076	.036	.097	2.112	.036	.005	.146	.081	.169	.082	.718	1.393
CHI	-0.47	.040	-.058	-1.162	.247	-.126	.033	.002	-.094	-.045	.593	1.687
EDU	-.037	.032	-.048	-1.140	.256	-.100	.027	.064	-.092	-.044	.856	1.1169
SELF	.047	.034	.061	-1.389	.167	-.020	.113	-.144	.112	.054	.787	1.271
M_JOB	-.063	.035	-.079	-1.825	.070	-.132	.005	-.354	-.146	-.071	.791	1.263
INC_STU	.006	.000	.629	13.178	.000	.005	.007	.803	.730	.510	.658	1.519
WO_CRE_RA	-.186	.059	-.128	-3.138	.002	-.304	-.069	-.247	-.247	-.122	.906	1.104
W_SAT	-.446	.059	-.342	-7.600	.000	-562	-.330	-.602	-.525	-.294	.739	1.353

8.4 / OUTPUT SPPS: CONTROL TEST /

Table 8.8 *Descriptive Statistics*

	MEAN	STD. DEVIATION	N
PRO	.6156	.38468	171
AGE	.58	.496	191
MAR	.60	.492	191
W_SAT	.0855	.29540	169
WO_CRE_RA	.1351	.26368	188
INC_STU	58.2561	42.66442	164

Table 8.9 *Pearsons correlation*

	PRO	*AGE*	*MAR*	*W_SAT*	*WO_CRE_RA*	*INC _STU*
PRO	1.000	.006	.081	-.602	-.247	.803
AGE	.006	1.000	.396	-.161	-.027	.145
MAR	.081	.396	1.000	.015	.008	.091
W_SAT	-.602	-.161	.015	1.000	-.004	-.461
WO_CRE_RA	-.247	-.027	.008	-.004	1.000	-.195
INC_STU	.803	.145	.091	-.461	-.195	1.000

Table 8.10 *Variables Entered/Removed*

MODEL	Variables Entered	Variables Removed	Method
1	MAR, AGE[b]	.	Enter
2	WO_CRE_RA, W_SAT, INC_STU[b]	.	Enter

a. Dependent Variable: PRO

b. All requested variables entered.

Table 8.11 *Model summary*

					CHANGE STATISTICS					
MODEL	R	R^2	ADJ. R^2	STD. ERROR OF THE ESTIMATED	R^2 Change	F Change	df1	df2	Sig. F Change	/DURBIN-WATSON/
1	.086[a]	.007	-.005	.38564	.007	.597	2	160	.552	2.191
2	.870[b]	.757	.749	.19282	.749	161.014	3	157	.000	

a. Predictors: (Constant), MAR, AGE

b. Predictors: (Constant), MAR, AGE, WO_CRE_RA, WO_CRE_RA, INC_STU

c. Dependent Variable: PRO

Table 8.12 *ANOVA*

MODEL		SUM OF SQUARES	df	MEAN SQUARE	F	Sig.
1	Regression	178	2	.089	.597	.552[b]
	Residual	23.795	160	.149		
	Total	23.975	162			
2	Regression	18.136	5	3.627	97.564	.000[c]
	Residual	5.837	157	.037		
	Total	23.973	162			

a. Dependent Variable: PRO

b. Predictors: (Constant), MAR, AGE

c. Predictors: (Constant), MAR, AGE, WO_CRE_RA, WO_CRE_RA, INC_STU

Table 8.13 *Coefficients*

		Unstand. coefficients		Stand. Coefficients			95% Confidence Interval for B		Correlations			Collinearity	
Model		*β*	*Std. Error*	*Beta*	t	Sig.	Lower bound	Upper bound	Zero order	Partial	Part	Tolerance	VIF
1	(Constant)	.586	.053		11.130	.000	.482	.690					
	AGE	-.024	.067	-.031	-.360	.719	-.156	.108	.006	-.028	-.028	.843	1.186
	MAR	.073	.067	.094	1.090	.277	-.059	.206	.081	.086	.086	.843	1.186
2	(Constant)	.379	.038		9,924	.000	.303	.454					
	AGE	-.144	.034	-.186	-4.249	.000	-.211	-.077	.006	-.321	-.167	.813	1.230
	MAR	.080	.034	.103	2.378	.010	.014	.147	.081	.186	.094	.829	1.206
	W_SAT	-.442	.059	-.340	-7.511	.000	-.559	-.326	-.602	-.514	-.296	.758	1.320
	WO_CRE_RA	-.190	.059	-.130	-3.217	.002	-.306	-.073	-.247	-.249	-.127	.949	1.054
	INC-STU	.006	.000	.638	13.918	.000	.005	.007	.803	.743	.548	.737	1.356

8.5 / OUTPUT SPPS: OUTLIERS /

Table 8.14 *Case Processing Summary*

	Cases					
	Included		Excluded		Total	
	N	*PCT*	*N*	*PCT*	*N*	*PCT*
Cook's Distance	163	86.3%	28	14.7%	191	100%

Table 8.15 *Case Summaries*

Case	Cook's Distance	Case	Cook's Distance	Case	Cook's Distance	Case	Cook's Distance	Case	Cook's Distance	Case	Cook's Distance
1	.00583	33	.00067	65	.01484	97	.01022	129	.03546	161	.00549
2	.00720	34	.00013	66	.00022	98	.04762	130	.00119	162	.00760
3	.01968	35	.00455	67	.00002	99	.00067	131	x	163	x
4	.00275	36	.00000	68	.00415	100	.01022	132	.00034	164	.00000
5	.00090	37	.00129	69	.00013	101	x	133	x	165	.00084
6	.00301	38	.00041	70	.03180	102	.00858	134	x	166	.01086
7	.00160	39	.02149	71	.00009	103	.00067	135	.00191	167	x
8	.00687	40	.00428	72	01638	104	.08169	136	.01079	168	.00006
9	.00084	41	.00222	73	.01117	105	x	137	.00002	169	x
10	.00039	42	.01293	74	.00000	106	.01638	138	.00654	170	x
11	.00218	43	.00093	75	.00013	107	x	139	.00513	171	.00084
12	.00707	44	.00251	76	.001991	108	.01018	140	x	172	.00527
13	.03152	45	.00366	77	.00181	109	.00000	141	x	173	.00039
14	.00018	46	.00105	78	.00313	110	.00260	142	x	174	.00453
15	.00075	47	.00313	79	.00421	111	.00292	143	x	175	.04080
16	.00065	48	.00191	80	.00007	112	.00032	144	x	176	.00422
17	.01845	49	.00135	81	.00084	113	.02132	145	x	177	.00009
18	.00021	50	.00032	82	.00209	114	.00067	146	.00407	178	.00069
19	.00942	51	.00027	83	.00039	115	.000237	147	.00039	179	.01063
20	.00181	52	.01270	84	.00235	116	.01844	148	x	180	x
21	.00475	53	.00063	85	.00238	117	.01638	149	.00067	181	.00023
22	.00090	54	.00101	86	.01356	118	x	150	.00196	182	.00004
23	.01714	55	.00281	87	.00654	119	.00517	151	.00084	183	x

Case	Cook's Distance	Case	Cook's Distance	Case	Cook's Distance	Case	Cook's Distance	Case	Cook's Distance	Case	Cook's Distance
24	.00169	56	.00006	88	.00045	120	x	152	.01243	184	x
25	.00346	57	.01302	89	.00209	121	.00693	153	x	185	x
26	.00608	58	.00035	90	.00268	122	.00067	154	x	186	.00880
27	.00030	59	.03367	91	.00654	123	.01844	155	x	187	.00297
28	.00933	60	.00031	92	.00006	124	.01618	156	.00377	188	.01805
29	.00003	61	.02761	93	.00010	125	.00074	157	.00166	189	.00074
30	.00366	62	.00050	94	.11346	126	.01004	158	x	190	.00034
31	.00010	63	.00097	95	.00536	127	.11001	159	.00206	191	.01725
32	.00000	64	.00009	96	.01717	128	.00861	160	x		
Total N	163										