



Private or Public?

How Dutch Visual Artists Choose between Working for the Market and the Government

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Abstract. This paper concerns the consequences of subsidizing art production. Once a government offers grants and subsidies, artists can decide between public and private funding. A joint model of this choice-situation and the related earnings is derived. The model is tested for the case of visual artists in the Netherlands. The analyses show that subsidizing artists enhances a winner-takes-all tendency for the market at large. Financial success on both the private and the public market appears to be not particularly related to human capital, but to personal characteristics, government recognition and (unobserved) talents.

Key words: artists' labor market, art subsidies, winner-takes-all

1. Introduction

Strong government influence in the affairs of art sectors is a widespread custom of late twentieth-century western democracies. Although the magnitude of state support differs significantly between countries and art-disciplines (Throsby, 1994b; Zimmerler and Toepler, 1996; Schuster, 1985; Hofecker, 1995), there are in general two strategies that governments use to finance and promote the creative arts. On the consumption side, access to the arts is encouraged by subsidizing prices of cultural goods, events and activities. Commissioning cultural productions, buying works of art and subsidizing and giving grants to individual artists stimulates the production of the arts.

Academics and policy-makers alike have shown a keen interest in understanding and evaluating these art-related government policies and reforms.¹ The main problem however is the availability of appropriate data. More often than not, the data are lacking or far from perfect. This frustrates the evaluation of the policies, since the assessment of the outcome of the policies ultimately requires some form of measurement. Consequently, the debate on policy implementation is largely dom-

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inated by ideological arguments. “Subsidizing the Muse” is seen as either “good and necessary” or as “bad and destructive” on the grounds of ideology, conjecture or preconception.

This paper presents new data on arts production. These data enable the study of the impact of several public policies on the supply of creative arts and artistic services more carefully than was previously possible, both in theoretical and in empirical terms. The question under study is how policies of the Dutch government for visual artists influence the labor market situation and allocation decisions of the visual artists. The analysis centers around the theory of artists’ labor markets, building on a distinguished tradition within the economics of the arts.² The theory is applied to the specific situation of visual artists in the Netherlands and is extended with a model of choice. This approach allows for a breakdown of the question into two levels. The paper will draw conclusions on the behavior of individual visual artists, and on the visual arts market at large.

The Dutch situation is relevant for various reasons. First, the Dutch government plays an active role in the market for visual art with special “art-focused” policy instruments. These can be beneficially compared with alternative instruments. Secondly, the policies of the government and their impact on the private market are closely monitored. This is helpful for identifying the part of the market for visual art that is directed by the government, as opposed to the part of the market that is driven privately. Ultimately, this monitoring provides measures of the *impact* of government intervention. These measures are hard to obtain in countries such as the U.K. or the U.S.A., where the role of the government on markets for the arts is smaller and less well documented. The Dutch situation can therefore reveal useful information on government intervention in the arts that is not discernable in other settings or countries.

Two segments of the market for visual arts in the Netherlands will be distinguished: the “private” and the “public”. The “private market” is represented by the total demand of all individuals, firms, commercial galleries and non-governmental institutions involved in the arts sector. The “public market” for art production consists of all government measures, aimed at promoting art production and providing earnings to artists, including commissions, acquisitions, grants, subsidies and the public program of art lending. In general, these public measures are not exclusive. Apart from a few prestigious subsidies only available to “top artists”, the measures are targeted non-specifically at the entire population of visual artists. In total, government funding makes up about 43 per cent of the total income earned by all artists in the visual arts. The remaining 57 per cent are earned on the private market.

The paper has the following structure. After an introduction of the Dutch market and the policies applied by the Dutch government (Section 2), artists’ labor supply is decomposed into time spent on publicly funded arts production and time spent at privately funded arts production (in Section 3). Then, disaggregated earnings functions are estimated, following Throsby (1996a, 1996b). The estimation procedure and the specification of the model are specified in Section 4. Artists are depicted as

earnings maximizers and the earnings estimates are used to model artists' choice between each of the two markets, public and private. The data are described in Section 5 (from a recent Dutch survey of visual artists for the period 1993–1996). Section 6 examines the results of the analysis. Finally, Section 7 discusses policy implications and draws conclusions for the arts market at large.

2. The Dutch Market for Visual Art and the Impact of the Government

This section looks at the involvement of the Dutch central government in the working lives of visual artists. After describing Dutch visual arts policies, estimates of the size of market for visual art and of the share of the government in this market are presented and discussed.

2.1. VISUAL ART POLICY

The Dutch government has a long tradition of involvement in the visual arts. In earlier days, the government purchased and commissioned works of art to show its splendor and power to the people. Patronizing the arts was seen as a status-increasing activity for the Dutch government, as was the case in surrounding countries. However, the Dutch government slowly changed its role to one of a “guardian” for artists. Government policies with a social character started to replace the old, status-driven approach. These policies were aimed at alleviating financial deprivation among artists.

After World War II, the *Beeldende Kunstenaars-Regeling* (BKR), or “Measure for Visual Artists” was introduced. The BKR meant to provide the participating visual artists with a secure income that would enable them to work as visual artists without having to suffer from the vulgarities of the market. In return, BKR participants were required to provide works of art to the government. Some BKR works were used for decoration and furnishing of government buildings, while the remaining works were stored and kept away from the market place. The private visual arts market was left relatively free.

This situation of a “normal” private market and a special income measure from the government existed until the 1980s, when the policy came under fire. The number of artists making use of the BKR had increased dramatically during the 1970s, as did the stockpile of art-works produced under the program. The rise in the number of artists using the measure was due to lax qualification criteria and a growth in the number of art students during the 1970s, when the idea that “everybody is an artist” gained popularity. The government had, furthermore, begun to doubt its own (if not anyone's) authority to judge between “good” and “bad” works of art, and failed to halt the rise in artist demand for the BKR by tightening the criteria. This resulted in a large inflow of new “artists” in the scheme and an increasing swell of opposition to the policy. Abroad, the BKR was derided as an example of leftist political correctness in artist policy (Hughes, 1993, pp. 200, 201).

From 1983 onwards, the BKR was broken down by the liberal-conservative administration that had little sympathy with the social artist measure. Instead, a raft of alternative policy instruments was implemented. The two main grants in the new system are professional costs subsidies and individually granted subsidies. Professional costs subsidies are low-profile subsidies meant to partly cover costs associated with artistic production such as materials and studio rental. Individually granted subsidies are more prestigious. These are meant for special art projects, traveling and exchanges. The selection procedure is similar to, but significantly more strict than, the procedure for professional costs subsidies. Furthermore, individually granted subsidies generally involve more money.

Apart from these new subsidies, an extensive system of commissions and government acquisitions developed over the 1980s. In accordance with the new policy aims, the policies no longer provide assistance regardless of artistic quality. Instead, quality is the decisive criterion: the policy has switched from an *artist policy* to an *art policy*. Artists compete for government funding, rather than being part of a bureaucratic scheme with regular financial transfers. The decisions concerning government funding are decentralized to autonomous foundations that are financed by the state. In the application procedure, artists send in a curriculum and examples of their work and a group of experts then decides on subsidization. These experts come from inside the artist community: mainly artists, but also critics, gallery-owners and art historians. Their decision is based on artistic criteria, such as artistic value, innovative quality and topicality, although there is a great deal of flexibility in the interpretation of these criteria.³

The role of the government in the Dutch visual arts sector has thus changed entirely. The BKR was a lump-sum measure with relatively few drawbacks on the rest of the visual arts market, since the works were stockpiled and did not compete with “market-art”.⁴ The new policies do, however, influence the private market. An artist, who is working on a government assignment, cannot produce for the market. Artists now compete for subsidies, and the requirements for receiving these may very well be different from the criteria for receiving market recognition.

2.2. SIZE AND STRUCTURE OF THE MARKET

Before turning to the analysis, it is important to get some basic insight into today’s market for visual arts in the Netherlands: which artists are participating on the market, and how much money is involved? Visual artists in this paper are defined as actively working Dutch visual artists who sought government recognition at least once during their career.⁵ The total value of sales of art products and services by visual artists in the Netherlands in 1995 – the year for which we have earning figures – was about 190 million Dutch guilders. This market – on which visual artists rely for their income – breaks down into two broad categories: the “private market” and the “public market”.⁶

The private market for visual art functions as any unregulated market: the visual artists produce works of art and try to sell these to the public and to companies. They also lobby for commissions. Visual artists do so individually, or use intermediaries (galleries, collectors) to match their supply with the demand on the market. The sum (in money terms) of all the commissions and works sold through the private market can be thought to represent the total value of works and services by private parties at the intersect of supply and demand on the market.

Apart from working for the private market, artists can also target their effort to the government. They may be able to sell to the state, to receive grants or subsidies, or to get a commission from the government. The sum of all the government activities can be interpreted as total government demand for the services and works of the visual artists.⁷ Since the government yearly spends its entire budget for the visual arts, this amount is – at the same time – the monetary value of total supply of services and works of art to the government.

Figure 1 presents a breakdown of the total value of these activities on the market into several broad categories, under the heading of either private market or government. The dividing principle is the kind of product or service that is provided. The figure for instance shows the total (percentage) value of commissions on the private market and the total (percentage) value of commissions on the public market.

As can be seen from Figure 1, the government is responsible for 43 per cent of total market value on the market for visual arts in the Netherlands in 1995. In terms of total value, the largest part of the market (37 per cent in 1995) consists of acquisitions by individuals and firms, through galleries, intermediaries and directly from the artists' studio. The second largest income source for visual artists (19 per cent) consists of the subsidies of the government, which account for the largest part of government expenditures. Commissions on the private market and from the government are the third major source of income. Art lending, both by private institutions and by subsidized agencies, makes up for only a small part of the market.

3. Decomposition of the Artists' Earnings

In this section the benefits of a focus on the economic theory of artists' labor markets to explain the policy issues discussed are outlined. Models of multiple job-holding of artists are particularly suitable when studying earnings of visual artists on the private and the public part of the market. These models can also provide insight into market structures and the behavioral consequences of art-related interventions.

The theory of the labor market is the most suitable candidate to study the impact of government intervention for at least three reasons. First, in economic terms the artists' labor market is the supply-side of the visual arts market. Second, labor supply models and Mincerian equations are among the most often used tools in labor economics and, therefore, may be viewed as a point of reference. Hence, the

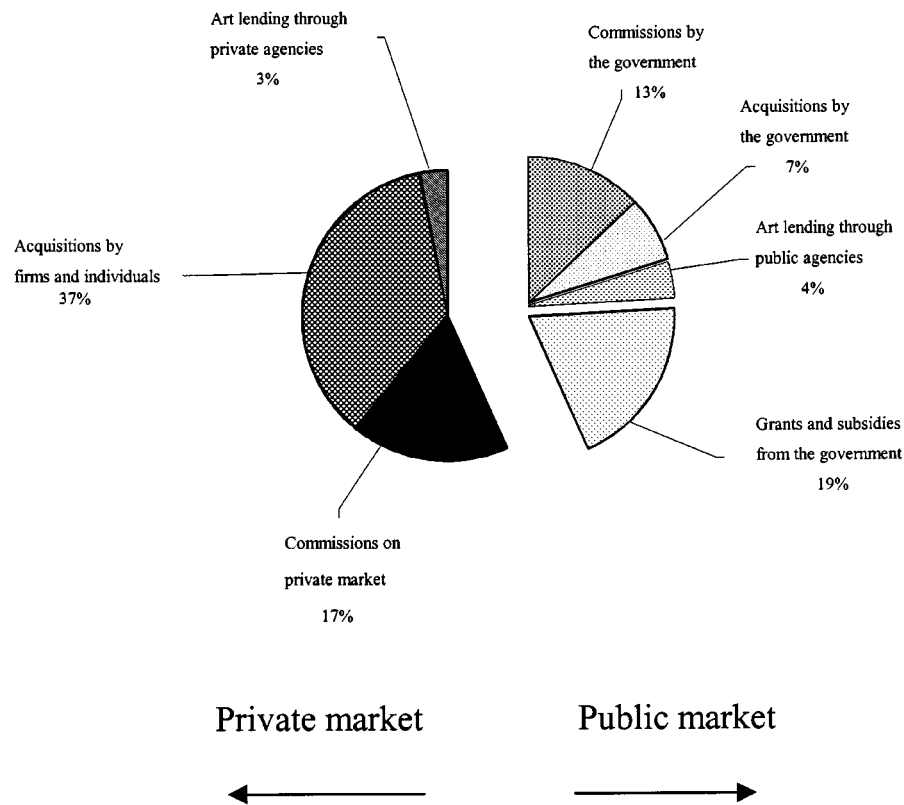


Figure 1. The market for visual art in the Netherlands in 1995: public and private sources (see also Rengers (1998) or Rengers and Meulenbeek (1997)).

use of data on artists' earnings and labor supply will provide insights in differences between artists and other professionals. The final argument is that models of labor supply and earnings among artists have an intrinsic value and are therefore able to provide insights in the mechanisms of art markets.

The existing formulations of labor market theories in cultural economics do, however, need some rephrasing in order to fit the problem under study in this paper. This section starts off with the theories on multiple job holding, which are applied to the choice situation between working for the government and working for the private market. The section concludes with some remarks on the consequences of artists' behavior for the arts market at large.

3.1. MULTIPLE JOB HOLDING

Most researchers agree that professional artists have low average earnings in comparison with equally educated workers. This finding is robust over several countries and holds for almost all art disciplines (Towse, 1993; Jeffri, 1989; Throsby and

Mills, 1989; Elstadt, 1997). Nevertheless, the idea of the starving artist appears to be nothing more than an *idée fixe*. Although artists' earnings may in general be lower than for equally educated workers and more unequally distributed (Wassall and Alper, 1992), artists are known to have various sources of income. By holding several jobs, artists spread the risk of income uncertainty and meet a minimal income constraint. This "multiple job-holding" by artists is typically broken down into the job categories "art-work", "art-related work" and "non-art-work" (Throsby, 1994, 1996a,b).⁸ The income distributions of both art-related and non-art earnings are less skewed than that of direct earnings through artistic activities. Artists may not be starving, but they do face low earnings in the labor market for their artistic work.

A similar picture is evident in a human capital setting. Estimates of earnings-functions show that returns to education are in general much lower for the arts than for other professions. Towse (1996b) reports on zero or negative individual returns to schooling. Artists do, however, build up some human capital on-the-job.⁹ Another typical finding is that standard earning-functions have a low predictive value in the arts. Traditional human-capital models in artists' labor markets cover the actual process of income gathering less adequately than in other, "regular", labor-markets.

Disaggregation of artists' earnings (Throsby, 1994, 1996a,b) decomposes these effects for the three relevant labor markets. This shows for instance that the effect of schooling is larger for art-related work and non-art work than for art-work. The same holds for the effect of (on-the-job) training and experience.

3.2. EARNINGS FROM PRIVATE VERSUS PUBLIC SOURCES

This disaggregation appears to be a useful step in analyzing the labor market situation for artists. Not only does it take the peculiarities of the working life of artists into account, it also shows the underlying mechanisms that lead to a specific combination of jobs and time spent at these jobs. Artists for instance appear to vary their labor supply on the three markets in response to differences in wage-rates, minimum income-constraints, risk attitudes or preferences for different types of work (Throsby, 1994; 1996a,b; Wassall and Alper, 1992). With this in mind, the method of disaggregating activities appears to be a good candidate for studying the (similar) decision of visual artists on how to distribute time and effort across the public and the private market. Therefore, this paper will proceed by applying the model of how artists' switch between labor markets to the allocation decision between private and public art markets.¹⁰

In order to do so, one extra assumption is introduced, being that *the distribution* between work on the public and the private market is independent of the hours worked on the non-arts and the arts-related labor market.¹¹ There are two arguments in favor of this assumption. First, the preferences of artists are clear in that artists prefer to allocate their time to the artistic labor market (*ceteris paribus*).

Second, Dutch government policies are aimed at art production and do not take other labor market activities into consideration.¹² If we are interested in the effects of these policies on art production, the impact is best observed in the upper part of the artists' set of job holdings (that is, in art-work).

With respect to the policies on art production, one may raise the question of whether the artists really choose to participate in the public market. In many countries only a small group of (successful) artists qualifies for government funding.¹³ However, in the Netherlands this is a justifiable approach; almost all policies are open for the entire population of artists. Consequently, the overwhelming majority of artists use the governmental measures. It is therefore not the question whether artists use the measures, but rather how much or how often they use them, and how this affects the activities on the private market.

3.3. APPLYING THE MODEL

This question can be rephrased using economic parlance. Activities on the two markets can be seen as either substitutes or complements. If working on one market leads to a decrease in the activities on the other market, the artist apparently substitutes one type of work for the other. If, on the other hand, working for the private market enhances activities on the public market (or vice versa) these activities can be seen as complements. A third possibility is that working on one market contains no information on the efforts on the other.

These individual outcomes translate into structures for the market at large. Three outcomes at the level of the entire market can be hypothesized. Artists' behavior can be viewed as the outcome of either specialization (substitution dominates), a winner-takes-all principle (complementarity dominates), or the outcome of a fully independent market structure (a balance between the two). These (hypothesized) processes are briefly introduced below.

(1) *A specialized market*: If this were the case, visual artists would have a comparative advantage in one of the two markets (private or public) and specialize in producing for that market accordingly. The comparative advantage may result from differences in information and technology. Both getting information and getting acquainted with certain techniques require investments and search costs. These costs decrease over time, and thereby may create or strengthen initial comparative advantages. Specialization could result in persistent differences in individual wage-rates between the two markets, thereby reinforcing initial conditions that caused disparity. As such, the market will function in an exclusive way; artists will be found to gravitate toward just one of the two markets.

(2) *Winner-take-all*: The second possibility is that government policies reinforce the preferences of the private market. That is, rewards on both the private market and the government market flow to the same artists. If this were the case, a "winner-takes-all" structure would dominate the aggregate arts market, with certain artists – "winners" – being successful in both markets.¹⁴ The wage-rates in each market

would, however, differ sharply between artists who are considered “winners” and artists who are considered “losers”.

(3) *Independent market structure:* If the market has an independent structure, financial success in the private market is not related to success in the public market. Both markets follow their own logic. This possibility does not, contrary to the first two, predict exclusiveness. Because earnings in each market prove not to be substitutes or complements, the artists choose private art production if that is more profitable, and public funding if that pays better. In an independent market structure, we are likely to find little association between earnings in each market; success (or failure) on the one market contains little information on performance on the other market.

The analysis in Section 6 eventually shows which of the three likely outcomes is in fact observed in the data, by looking at correlation between earnings and differences and similarities in earning determinants for both markets.

4. The Model

In this section the model and its relation to the problem under study is introduced. The choice by the artist between the two markets is explained and, given this choice, the associated earnings are modeled. The model and the estimation procedure, which is related to Heckman’s selection models (see Maddala, 1983), are briefly introduced.

Like in most economic exercises, the assumption is that choice has hedonic motivations: individuals choose a particular path to gain utility. In this paper utility is indicated by (potential) earnings. If the artist chooses the public sector, his or her annual public earnings (y_p) are explained by a vector of personal characteristics (X) and unobservables, represented by the error term (ε_1):

$$\ln y_p = X\beta_1 + \varepsilon_1 . \quad (1)$$

If artists have earnings from the private market only, the annual market earnings (y_m) read as:

$$\ln y_m = X\beta_2 + \varepsilon_2 . \quad (2)$$

If earnings depend on both private and public funding, yearly earnings on both markets are defined as:

$$\ln y_p = X\beta_1 + \varepsilon_1, \quad \ln y_m = X\beta_2 + \varepsilon_2 . \quad (3)$$

Being a utility (earnings) maximizer, the artist will choose to work in the private market if y_m exceeds y_p . If y_p exceeds y_m the artist will be found in the public sector. If there is no clear distinction between the earnings in either of the two markets, he or she opts for both.¹⁵ Neither public nor private earnings are constrained in the model, for two reasons. First: the constraints are not a correct assumption from an

empirical point of view.¹⁶ Second: artists face uncertainty in both markets and do not know their chances of being successful in either the public or the private track on beforehand.

Together with earnings, the decision variable is considered an endogenous variable, which will be estimated simultaneously. The choice the artist faces can be represented by a linear decision function. The ratio between the earnings of the two alternatives can be defined in terms of a latent decision parameter I^* :

$$I^* = \alpha_0 + \alpha_1[\ln y_m - \ln y_p] + \alpha_3 z + \eta. \quad (4)$$

A constant α_0 , a vector z and error η are added to the right hand side of the decision equation to allow for further observed and unobserved heterogeneity among artists. A negative value of I^* indicates specialization towards the public market and a positive value of I^* implies specialization towards the private market. Because alternative earnings for those who have chosen for one particular market are not defined, the decision function expresses earnings in terms of expectations.

$$I^* = \alpha_0 + \alpha_1 E[\ln y_m - \ln y_p] + \alpha_3 z + \eta. \quad (5)$$

The variable I^* determines to which of the three categories (public only, private only, or a mixture) the artist belongs.¹⁷ An ordered probit technique is applied where an artist falls in one of these categories, depending on his or her score on the decision parameter and two critical values Θ_1 and Θ_2 . This reads as:

$$\begin{array}{lll} y_p \text{ observed,}^{18} & y_m \text{ not observed,} & \text{if } I^* \leq \Theta_1 \\ y_p \text{ observed,} & y_m \text{ observed,} & \text{if } \Theta_1 < I^* \leq \Theta_2 \\ y_p \text{ not observed,} & y_m \text{ observed,} & \text{if } I^* > \Theta_2 \end{array} \quad (6)$$

The model is estimated in two stages. First, a reduced-form model is presented, in which the two earnings functions and the decision function are estimated jointly; the decision function is defined in x and z variables only. This is estimated using a maximum-likelihood function, in which the possible correlation between earnings and the decision function and between y_p and y_m are considered.¹⁹ This correlation provides insight into which of the hypothesized outcomes at the level of the entire market is most likely to occur. The second stage is the estimation of the structural model where we add the differences between explained earnings to the right hand side of the decision variable equation and test whether (potential) earnings influence the allocation decision directly.

The covariance matrix of the error distribution indicates which of the three structural relationships between the public and private markets might dominate: positively correlated earnings indicate a winner-takes- all structure; a negative correlation (and opposite earning functions) suggest specialization. Little or no correlation and unrelated earning functions would suggest unrelated markets and a generalized strategy among artists.

5. Data and Description

The data that are used in this paper are gathered by the Foundation for Economic Research of the University of Amsterdam on behalf of the Dutch Ministry of Education, Culture and Sciences. The aim of this data collection is twofold. First, to obtain a clear picture of the size and composition of the market for modern visual art in the Netherlands. Second, to gain insight into the development of individual earnings. This is achieved by following a group of visual artists over time. The research project, which started in 1993, has a panel design. In a yearly questionnaire, visual artists are asked to provide information on their different sources of income, their professional costs and their main achievements. The analysis here uses data from the collection for the years 1993 to 1996.

The visual artists in the panel are a sample of the whole population of visual artists in the Netherlands.²⁰ After an indicative questionnaire, about 700 artists were asked to participate at the first wave in 1993, of which 481 replied. Applicants for government subsidies were slightly over-represented among these respondents. In the following years, some artists did not respond again. Additional artists were invited to participate with the aim of maintaining the number of respondents at around 500. Descriptive statistics for the artists in 1996 appear in Table I.

The table shows some clear differences in average income between artists. The government seems to be the most lucrative employer for artists. The earnings on the public market are less equally divided. Taking the standard deviation of log earnings as an indicator for earnings inequality, it appears that there is greater inequality of earnings in the public market than in the private market. The figures also show that the public market is more restrictive than the private market: 129 artists received earnings from the public market only, while 209 artists received earnings exclusively from the private market. We take 1996 as the relevant year for our model; for those artists who did not report for this year, we took the most recent year in which they had previously filled out the questionnaire (1993, 1994 or 1995). That said, 1996 data was available for more than 50 per cent of artists.

Turning to the human capital variables, little variation is found. Two findings deserve some attention. First, a relatively large proportion of artists with no education related to the arts have only market income, which implies that art schools form part of the “official”, government-oriented art world. Second, artists with earnings on both markets have (statistically not significant) on average one more year of experience than artists with earnings from only one of the two markets. Here it should be noted that experience, rather than age is used as a human capital variable. Underlying assumption is that artists with the same level of experience have more in common than artists of similar age. In artists’ professions, this is a useful assumption, because the variance in the age at which people enter the profession is large.²¹

With respect to the institutional variables, we find that artists who have chosen the public track are more likely to have a history of subsidized creation. This holds

Table I. Descriptive statistics for visual artists in the Netherlands

	Public income		Market income		Both incomes	
<i>Monetary variables</i>						
Market income divided by 1000			14.712	28.923	14.139	27.480
Public income divided by 1000	16.287	16.078			17.023	22.266
Log market income			8.479	1.573	8.632	1.422
Log public income	8.822	1.708			8.936	1.501
Estimated log market income	8.657	0.362	8.594	0.381	8.675	0.386
Estimated log public income	9.099	0.644	8.610	0.607	8.967	0.646
Estimated earnings differential	-0.441	0.742	-0.015	0.660	-0.291	0.752
<i>Human capital variables</i>						
Effective years of schooling	15.856	1.500	15.514	2.005	15.658	1.917
Experience	12.751	9.705	12.997	8.773	13.907	9.046
Time spent in promotional activities	0.107	0.079	0.100	0.070	0.101	0.078
No education related to arts	0.031		0.095		0.074	
<i>Household characteristics</i>						
Female	0.434		0.478		0.412	
Single person household	0.581		0.382		0.455	
Children	0.217		0.315		0.310	
<i>Institutional variables</i>						
BKR	0.240		0.191		0.269	
Subsidies for professional costs	0.635		0.263		0.520	
Individually granted subsidies	0.472		0.191		0.426	
<i>Artists</i>						
Painter	0.325		0.382		0.451	
Sculptor	0.186		0.138		0.149	
Other	0.488		0.478		0.398	
<i>Year of observation</i>						
Year 1993	0.155		0.114		0.133	
Year 1994	0.116		0.129		0.113	
Year 1995	0.162		0.210		0.163	
Year 1996	0.565		0.545		0.589	
Number of observations	129		209		509	

Standard deviations are in italics; data come from the Foundation for Economic Research of the University of Amsterdam (Meulenbeek et al., 1998).

for all three subsidy types: the BKR, professional cost subsidies and “individually granted” subsidies. The difference in prestige between latter two subsidy types is reflected in differences in frequencies, with fewer people receiving individually provided subsidies.

Table II. Reduced and structural form model of decision to specialize and earnings: Maximum likelihood estimates

	Reduced form Decision function	Public income	Market income	Structural form Decision function
Intercept 1	-2.107 (0.565) ^c	9.259 (0.792) ^c	7.691 (0.645) ^c	-2.070 (0.506) ^c
Intercept 2	-0.269 (0.560)			-0.235 (0.503)
<i>Human capital variables</i>				
Years of schooling	-0.032 (0.030)	-0.046 (0.044)	-0.019 (0.036)	-0.030 (0.027)
No education related to the arts	0.072 (0.222)	-0.246 (0.282)	0.065 (0.242)	0.098 (0.205)
Experience	0.015 (0.017)	0.014 (0.027)	0.054 (0.022) ^c	0.011 (0.017)
Experience squared	-0.052 (0.035) ^a	-0.004 (0.062)	-0.051 (0.046)	-0.045 (0.034) ^a
Effort	0.610 (0.587)	-0.036 (0.882)	-0.440 (0.951)	0.619 (0.564)
<i>Personal characteristics</i>				
Female	0.098 (0.084)	-0.313 (0.125) ^c	-0.264 (0.118) ^b	0.102 (0.082) ^a
Single person household	-0.323 (0.099) ^c	0.144 (0.130)	0.300 (0.123) ^c	-0.269 (0.086) ^c
Children	-0.003 (0.102)			0.049 (0.096)
<i>Institutional variables</i>				
BKR	-0.211 (0.133) ^a	-0.310 (0.187) ^b	0.065 (0.163)	-0.188 (0.133) ^a
Subsidies for professional costs	-0.556 (0.176) ^c	0.880 (0.245) ^c	-0.240 (0.251)	-0.539 (0.215) ^c
Individually granted subsidies	-0.384 (0.189) ^b	0.950 (0.234) ^c	0.410 (0.237) ^b	-0.381 (0.193) ^b
Subsidies for prof. costs × exper.	0.007 (0.012)	-0.028 (0.014) ^b	0.003 (0.016)	0.007 (0.012)
Individual subsidies × exper.	0.003 (0.013)	-0.008 (0.013)	-0.017 (0.014)	0.004 (0.012)
<i>Art types (reference painter)</i>				
Sculptor	-0.072 (0.124)			-0.071 (0.123)
Other	-0.003 (0.092)			-0.000 (0.089)
<i>Year of observation (ref. 1996)</i>				
1993	-0.146 (0.161)	-0.417 (0.211) ^b	0.453 (0.202) ^c	
1994	0.145 (0.135)	-0.698 (0.233) ^c	0.117 (0.185)	
1995	0.031 (0.112)	-0.450 (0.157) ^c	-0.030 (0.148)	
<i>Expected income</i>				
$E(\ln w_p) - E(\ln w_m)$				0.024 (0.130)
<i>Other parameters</i>				
Variance of public earnings (σ_1)	1.396 (0.042) ^c			
Variance of private earnings (σ_2)	1.411 (0.036) ^c			
Corr. public earnings/ I^* (ρ_1)	0.097 (0.068) ^a			
Corr. public earnings/ I^* (ρ_2)	-0.075 (0.057) ^a			
Corr public/private earnings (ρ)	0.126 (0.052) ^c			
Mean loglikelihood	-3.687			-0.884
N	847			847

Standard errors are in italics; ^a significant at 10% level; ^b significant at 5% level; ^c significant at 1% level.

6. Results

Our analysis of different creative careers derives from Table II. The first two columns present the results of applying an ordered probit technique to the reduced form choice Equation (5). Negative values of the parameters indicate a higher likelihood of an artist focusing effort on the public market, a positive value indicating

a higher chance of an artist focusing effort on the private market. The other parameters produced in the table, are the correlation between public income and market income (ρ), the correlation between the reduced form decision function and both public income (ρ_1) and market income (ρ_2), and the variance of public earnings (σ_1) and market earnings (σ_2).

The observed effects for the reduced form decision function reflect the differences described in Table I. The human capital variables have no significant effects on the career-track chosen by artists. However, a successful previous encounter with the government increases the probability that an artist chooses the public track later in their career.²² This is the case for all three subsidy types. Furthermore, artists who live alone are more likely to opt for public earnings. This may be explained by the fact that single artists face a smaller minimum income constraint and are therefore more likely to forgo pure economic motives.

Two earnings functions are simultaneously estimated with the ordered probit. It turns out that most of the traditional human capital variables have little effect on earnings in either the private or the public market. The only exception is the experience variable in the private market earnings function. The government does not use experience as a criterion for funding, whereas income on the private market partly depends on experience. The gender effect is quite strong; in this sample women's artistic earnings are close to 30 per cent lower than men's.

The impact of (formerly obtained) grant variables is strongest in the public sector. Artists who received BKR subsidies perform financially worse on the public market than other artists. The reputation of this "social" measure is apparently a disadvantage for artists who have at some time received a BKR subsidy. For professional cost and individually granted subsidies, however, this "reputation" effect is positive in the public market. Artists who received either of these subsidy types have higher earnings on the public market.

This implies that getting government recognition leads to positive feedback effects on the public market. An earlier grant or purchase by a public committee generates a positive signal towards experts and commissions today and tomorrow. Moreover, it appears that artists who received individually granted subsidies also have higher earnings on the private market (contrary to artists who received the other types of subsidies). This suggests that these public instruments also have a positive signaling effect in the private market. Apparently, these subsidies end up among the more successful artists. Therefore, subsidizing artists can partly explain the winner-takes-all tendencies on the market at large.

The residuals of the earnings and the decision function are positively correlated ($\rho = 0.126$). In both the publicly and the privately funded art market, unobserved talents and other noise in the earnings functions produce a small but positive income effect. With respect to the total visual arts market, this result points to a winner-takes-all structure. Correlation between earnings and the decision function is small and only significantly different from zero at a 10 per cent level of significance.

The final step in the analysis is the estimation of the structural decision function in Table II. This specification is presented in the final two columns. The year dummies have been excluded to obtain an identified structural model. These identifying variables were chosen because they were insignificant in the first stage. The first observation is that the empirical findings appear robust; there is no significant difference between the structural equation and the reduced form equation. With respect to the anticipated earnings gains, the relevant earnings differential variable shows up insignificantly in the decision function. This suggests that artists do not behave rationally in a strict economic sense: they do not anticipate financial gains in their decision to allocate effort on the two markets, or they fail to correctly anticipate their financial opportunities.²³

Furthermore, human capital variables do not show up significantly in the structural form decision equation. The important determinants of specialization are, therefore, certain individual characteristics (particularly living as a single person household) and grants and subsidies received earlier in an artistic career.

Finally, with respect to potential market structures, the findings suggest a winner-takes-all structure for two reasons. First, there is no significant impact of the financial success variables in the decision variable. If artists are successful in either market no structural income difference exists and a winner-takes-all structure applies. Second, the observed correlation between earnings on the two markets, and the fact that most of the observed variables in the earning functions point in the same direction, also suggests a small but significant “winner-takes-all” tendency. On the other hand, the effects of subsidies earlier in the career may point to some specialization, or signaling-effect: those artists who have been rewarded earlier in their career are more likely to obtain government funding in the years afterwards. Unobserved ability in the public earnings function and the positive signal of earlier government recognition explain this tendency. However, the specialization is not exclusive: the “specialists” also work for the private market, where they are often among the “winners” as well.

7. Conclusion

This paper has discussed some of the consequences of subsidizing the arts by looking at the determinants of the allocation of time and effort on public and private markets for the arts. The earnings on these two markets were analyzed using a joint model of choice and earnings. This model produces valuable insights into a number of observed characteristics of artists’ labor markets. The extension of the disaggregated earning-functions with a model of choice furthermore enables the simultaneous study of choices and outcomes.

Three possible types of dual-market structures were posited: specialized, winner-takes-all and independent. The winner-takes-all hypothesis received the strongest support. Success was found to “spill over” from the private to the public market and vice versa. Artistic financial success is not well explained by human

capital characteristics. Schooling has no effect at all, whereas experience only has a small effect on earnings through the private market. When looking at the determinants of winners and losers, it appears that single men are more often winners. Prestigious subsidies can trigger success on both the public and the private market.

The decision artists take to allocate time and effort in either of the two markets is only a very weak determinant of their financial success. This may be because there are little, if any, financial or intrinsic differences between the markets. But, more likely, it indicates either that artists are not influenced by discernible differences in potential earnings, or that they fail to accurately estimate the financial opportunities available from the two markets. It should be stressed, however, that in the economic model of choice a restrictive utility measure is used. Equating utility with earnings implies that investment motives outweigh motives based on other considerations, such as consumption motives and idealism. Consumption factors and idealism are, however, likely to be other important considerations for an artist throughout their career.

Even though individual artists are not entirely lead by financial incentives, the Dutch way of subsidizing the production of visual art has clear consequences for the allocation of time and effort of visual artists. To a small extent, the government reinforces the outcomes of the private market, thereby crowding out a part of private initiative. Also, the government enforces specialization: some artists have persistent higher earnings through the public market than others. On the other hand, the largest part of government funding does not interfere with private activities, and allows visual artists to provide artworks and artistic services that would otherwise not appear. This is in fact underlined by the fact that artists do not seem to anticipate financial benefits in producing either for the government or for the private market. It is a political question, rather than an economic one, which impact of subsidies is desirable. The Dutch way, however, seems reasonable, also from the point of view of an economist.

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Appendix: The Likelihood

Before the likelihood function is defined, the error structure should be determined first. The errors ε_1 , ε_2 , associated with the earning functions $\ln y_p$ and $\ln y_m$ are correlated with η , the error term of the decision equation I^* , because of omitted variables. Of course, for those who earn both y_1 and y_2 the correlation (ρ) is considered also. The correlation between the reduced form decision function

and public income is represented by ρ_1 ; ρ_2 stands for the correlation between the decision function and market income. The other relevant statistics are the variance of public earnings (σ_1) and the variance of market earnings (σ_2).

The errors ε_1 , ε_2 , η follow a trivariate normal distribution with expectations of 0 and a covariance equal to:

$$\Sigma = \begin{pmatrix} \sigma_1^2 & \sigma_{12} & \rho_1\sigma_1 \\ \sigma_{12} & \sigma_2^2 & \rho_2\sigma_2 \\ \rho_1\sigma_1 & \rho_2\sigma_2 & 1 \end{pmatrix}.$$

This system of equations can be estimated through a maximum likelihood procedure, where the likelihood L reads:

$$L = \left[\int_{-\infty}^{\alpha_1} f(\varepsilon_1, \eta) d\eta \right]^{l_1} \left[\int_{\alpha_2}^{\infty} f(\varepsilon_2, \eta) d\eta \right]^{l_2} \left[\int_{\alpha_1}^{\alpha_2} f(\varepsilon_1, \varepsilon_2, \eta) d\eta \right]^{l_3}.$$

See also Rengers (1998).

Notes

¹ For introductions to the economic approach to the arts, see the classic book by Netzer (1978) or, more recently, Heilbrun and Grey (1993) and Peacock and Rizzo (1994).

² For example: Throsby (1994a, 1996a,b); Wassall and Alper (1992); Towse (1992, 1996a,b); Singer (1981); Waits and McNertney (1984).

³ The foundations and committees that decide on the allocation of government funding have a large degree of autonomy over their own budget. For instance, they vary the number of grants and commissions from year to year in order to match the quality of the applicants. The government therefore has no exact control over the amount of public money spent yearly. Instead, the control focuses on a longer time-period. This said, the *criteria* for being successful on either the public or the private market may very well differ. It is for instance likely that the government prefers a different kind of art. Because of the focus on earnings, rather than aesthetic choices and actual works of art, this question remains unanswered in this paper. Interesting as it is, it would require a different study.

⁴ When, after the breakdown of the BKR, the government decided to sell the preserved BKR works of art on the private market, there was upheaval among artists and their pressure groups. It was claimed that the sell-off would cause a dramatic fall in visual art prices, destroying the market (by, presumably, unnaturally distorting the price mechanism) and leaving many “genuine” contemporary artists suffering. As a result, the government has adopted other means of disposing of the excess art, such as returning works to the originating artist and donating works to art-lending institutions.

⁵ This definition follows from the data that are introduced in Section 5. In order to contact the visual artists, government registrations were used. This definition is hardly restrictive in the Dutch situation. Almost every artist turns to the government at some stage in his career. Therefore, the sample may have a small bias towards older artists. Due to the structure of the data, this potential bias cannot be modeled.

⁶ The focus is on Dutch artists and the Dutch market, which implies that foreign artists selling to Dutch buyers and Dutch artists with earnings from abroad are excluded from the market-definition used here. Resale of works is excluded. The few “superstars” among Dutch visual artists are not represented in the study. Modeling the market mechanism for these superstars would, anyhow, require a different type of approach. See also Rengers and Meulenbeek (1997).

⁷ Sales and commissions lead to the transfer of a work of art from the artist to the new owner; subsidies and grants don't. However, in a labor market setting, subsidies and grants can be thought to represent the transfer of a certain amount of artistic effort or hours worked from the artist to the government.

⁸ Art-work concerns time spent on activities that are directly related to the artistic profession, such as sales, commissions and subsidies for visual artists. Art-related work concerns activities such as teaching and giving advice on artistic matters. Non-art work relates to all labor market-activities outside the sector of the arts (Throsby, 1996a,b).

⁹ This finding may partly be due to a higher attrition rate in artistic professions, with more artists changing professions after only a couple of years compared to other tertiary educated professions. Distinguishing this selection effect from a "learning-on-the-job effect" would require a longitudinal study (Alper and Wasall, 1998).

¹⁰ See Section 4 for a formal representation of the model.

¹¹ Off course, the *number of hours worked* as a visual artist remains dependent on the other labor market activities.

¹² This only holds for art policy. Many general policies in the Netherlands, as well as in other welfare states – such as welfare and pensions – include transfers to artists. These fall outside the topic of this paper.

¹³ Think for instance of the large subsidies that are given to a privileged group of established artists in most Scandinavian countries (Elstad, 1997).

¹⁴ An overall discussion of the winner-takes-all phenomena can be found in Frank and Cook (1995). Possible underlying mechanisms are for example introduced by Adler (1985), Rosen (1981) and McDonald (1988).

¹⁵ When the (potential) earnings, associated with the various career tracks are comparable, there is little to gain from specialization, due to uncertainty in pay-off and the risks associated with specializing.

¹⁶ The public earnings are empirically not constrained. Some of the measures on the public market are open-ended (like art lending). The amount spent on other schemes yearly varies in response to the quality of the applicants and new policy-aims.

¹⁷ As per definition, I^* does not depend on non-arts earnings, art-related earnings or spouse's earnings, because it is defined as the decision between market and public earnings in the upper part of job holdings. These other earnings influence total earnings in the arts (and thereby the actual amounts earned), but they do not influence *the choice* between public and private.

¹⁸ Observed/not observed coincides with zero/non-zero yearly earnings in the observed data.

¹⁹ The likelihood function appears in the Appendix.

²⁰ The source for names and addresses is administered on behalf of the Ministry of Education, Culture and Sciences. It keeps track of the use of all government grants in the visual arts. As a result this source contains almost all suppliers in the visual arts market. The underlying assumption (which proves to be realistic) is that all artists apply at least once for one of the grants. For a more detailed description of the data see Meulenbeek et al. (1998).

²¹ The original formulation of human capital theory also uses experience, rather than age.

²² Cross-products between government transfers and experience were introduced to see whether learning effects were apparent. That is, are people more likely to opt for public income when they have been granted at *a certain moment* in their career? The data does not support the existence of a learning effect.

²³ Of course, if there were no structural earnings differential no effect would be observed as well. Table I indicates that the estimated earnings differential is on average zero. The standard deviation of this earnings differential is large, which suggests that the fact that the earnings differential shows up insignificantly is better explained by the argument outlined in the body of the text.

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