

Título: The non-monetary effects of education on the consumption of cultural services in Spain.

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Abstract

Este artículo analiza los efectos no monetarios de la educación sobre el consumo de diversos servicios culturales, como el cine, teatro y eventos musicales, así como en llegar a ser un “omnívoro” cultural (es decir, consumir los tres productos culturales citados), con datos que provienen de la Encuesta Continua de Presupuestos Familiares de 1998. Los resultados muestran que la educación aumenta la probabilidad de consumir los servicios culturales considerados, salvo el cine, así como en generar una “omnivoracidad” cultural. Asimismo, en este artículo se sugieren explicaciones a los resultados observados que provienen de la escuela institucionalista, cuestionando el marco de análisis neoclásico y la teoría del capital humano.

1. Introduction

The non-monetary effects of education are its effects on factors not connected with obtaining income in the labour market, such as consumption, savings, health, crime, fertility, etc. Although the non-monetary effects of education have received little attention in the literature, Wolfe and Zuvekas (1997) suggest that they are of the same magnitude as the monetary ones. This article analyses in particular the non-monetary effects of education on the consumption of cultural services.

2. Conceptual issues

Within the neoclassical approach, Becker (1965), Michael (1972, 1973, 1975), and Michael and Becker (1973) consider consumption as a productive activity whereby utility maximizing individuals combine some inputs (such as time, market goods and human capital) to produce some outputs ('commodities' in Becker's terminology) that satisfy their needs, given some restrictions of income and time. In this model, education generates non-monetary benefits because it increases individuals' efficiency (that is, individuals get more commodities with the same amount of input or, alternatively, they obtain the same amount of output with less input).

Although this has been the dominant approach in economic theory, we believe that it oversimplifies the analysis because it reduces the non-monetary effects of education on consumption exclusively to increases in efficiency. Although no alternative economic theory exists, the analysis of consumption by authors from the institutionalist school provide a set of theoretical tools that allow the non-monetary effects of education on consumption to be studied on the basis of more realistic assumptions and from a broader perspective.

The institutionalist analysis of consumption deals with the study of the preferences of individuals and the effect of the social, cultural and family environment, as well as that of the producers. As Veblen (1899) points out, the motive that lies at the root of consumption is social emulation, since individuals want to show the economic and social level achieved (what he calls 'conspicuous' consumption). Although all social classes try to emulate that of the high class, there is a distinct pattern of consumption for each because individuals are aware of what are expected to consume depending on their position in the social ladder (determined basically by their income). In this context, while Duesenberry (1949) emphasizes that individuals consider others' consumption when deciding on their own lifestyle, Galbraith (1971) stresses the role of advertising and firms' strategies on people's taste.

Moreover, institutionalist authors also consider the effect of education on consumption. Thus, Congleton (1989), Rauscher (1993), Chao and Schor (1996), and Schor (1999) indicate that although the more educated should be more familiar with intrinsic product attributes, and therefore ‘better’ consumers, they are more likely to be driven by status or conspicuous consumption (through which they achieve social benefits). As DiMaggio (2001) states, empirical evidence shows that schooling is a far better predictor of taste than income. However, research also supports status-competitive over cognitive explanations of class differences. As DiMaggio (2001: 543) points out: “Tastes cluster more by the prestige of goods (e.g., liking fine art and classical music) than by their formal similarities (e.g., liking all kinds of music).”

Regarding the consumption of cultural products, López and García (2002) suggest that consumers belonging to the dominant class –with high cultural-educational and financial capital, in Bourdieu’s terminology (see Bourdieu, 1984),– have more choices concerning the consumption of cultural products that, in addition, differentiate them from those with less capital belonging to a lower social class. In their empirical research for Spain, they show that educational level is associated with the consumption of high-culture products, such as opera, theatre, ballet, and classical music. (The same result is also found in other studies related to Spain and other countries).¹

To sum up, all the theoretical approaches show that education increases the consumption of cultural services. However, from an institutionalist approach it should be stressed that education particularly increases the consumption of those related to high culture and social emulation.

3. Research design

3.1. Hypothesis

The hypotheses are related to the effect of education on the consumption of some cultural services, such as cinema, theatre and musical events. They are the following:

1. Education increases the probability of going to the cinema.
2. Education increases the probability of going to the theatre.
3. Education increases the probability of going to any musical event.
4. Education generates cultural ‘omnivoracity’.²

3.2. Data and analysis

The data used to test the hypotheses postulated come from the ‘*Encuesta Continua de Presupuestos Familiares*’ [Household Budget Continuous Survey] for 1998 requested by the Spanish National Statistics Institute (see INE, 1998).³ As was suggested in section 2, supply is important when analysing consumption. In our case, since individuals that reside in high-density population municipalities are more able to choose than those living in low and medium-density population municipalities (because the former have a significantly larger supply of cultural events), hypotheses are tested considering two samples: on the one hand, households placed in the first kind of municipalities, and, on the other hand, those in the second one. Thus, the sample used in the empirical study contains 3,554 households (93.8% of all households), 1,772 in high-density population municipalities, and 1,782 in low and medium-density population municipalities (see tables A1 and A2 of the appendix).

The Household Budget Continuous Survey, hereafter HBCS98, allows the following independent variables, which are used in the empirical analysis (see details in table A3 of the appendix):

- Personal: age, marital status, and years of schooling of the main wage-earner.
- Geographical: regions where the individuals reside.
- Socioeconomic: family income, number of individuals in the house, the presence of children and labour-active members, and social class of the main wage-earner.

With regard to the dependent variables, the following should be pointed out. The variables ‘cinema’, ‘theatre’, ‘music’, and ‘omnivore’ are of a dichotomous nature, in such a way that they take the value ‘1’ if any household member reports that s/he spends money to consume these services and ‘0’ if s/he does not. Since it is only considered if households consume some cultural products (not the amounts spent), it can be assumed that consuming depends on the willingness to consume and not on the household’s income, (except maybe for those with very low purchasing power).

The technique of analysis in the testing of hypotheses 1 to 4 consists of the application of logistic regressions, given the dichotomous nature of the dependent variables. It is important to note that in the logistic regressions used to estimate the non-monetary effects of education both income and education should be included as independent variables in order to separate the monetary and non-monetary effects.

4. Results

Since empirical research shows that education is not significant in the analysis related to low and medium-density population municipalities, results in this paper refer only to households located in high-density population municipalities.

4.1 Hypothesis 1: education increases the probability of going to the cinema

As can be seen in table 1, years of schooling of the main wage-earner do not affect the relative probability of going to the cinema of any household member. (The educational variable is not shown since the ‘forward-step’ method of estimation is used).⁴ Therefore, hypothesis 1 is rejected.

Table 1. Results of the logistic regression analysis: relative probability of going to the cinema in high-density population municipalities

Variables	B		Wald	Exp(B)
AGE	0.037**	(0.005)	52.510	1.037
MEMBERS	0.600**	(0.055)	119.630	1.822
ACTIVE	0.923**	(0.205)	20.277	2.516
CA02	1.571**	(0.244)	41.529	4.810
CA03	1.484**	(0.242)	37.678	4.413
CA06	0.757*	(0.344)	4.833	2.132
CA08	1.261**	(0.163)	59.541	3.527
CA11	2.237**	(0.170)	173.488	9.369
CA12	0.773*	(0.333)	5.386	2.165
CA13	1.790**	(0.208)	73.796	5.990
CA15	1.020**	(0.348)	8.588	2.773
INCOME	0.000*	(0.000)	4.026	1.000
Constant	-5.904**	(0.430)	188.459	0.003
N	1,772			
R ² -Nagelkerke	0.33			

**Significant at the 0.01 level. *Significant at the 0.05 level.

Notes: Categories of reference: MSTATUS2, CA01, SOCIAL5; B= regression coefficient; standard error in parentheses; Exp (B)= exponential B= e^B.

4.2. Hypothesis 2: education increases the probability of going to the theatre

Table 2 shows that the variable ‘schooling’ is significant (with a positive sign). Thus, one more year of education of the main wage-earner increases the relative probability of members of a typical household going to the theatre by 8.2% –see exp(B)–. Since education is significant only in high-density population municipalities, this hypothesis is only partially accepted.

Table 2. Results of the logistic regression analysis: relative probability of going to the theatre in high-density population municipalities

Variables	B		Wald	Exp(B)
SCHOOLING	0.079**	(0.022)	13.439	1.082
AGE	0.033**	(0.008)	18.302	1.034
MEMBERS	0.419**	(0.083)	25.543	1.521
CA03	2.613**	(0.465)	31.639	13.642
CA04	3.218**	(0.479)	45.221	24.982
CA09	1.131*	(0.512)	4.872	3.098
CA13	4.435**	(0.362)	150.115	84.387
CA15	2.760**	(0.560)	24.316	15.801
CA17	2.114**	(0.694)	9.283	8.282
Constant	-8.664**	(0.770)	126.592	0.000
N	1,772			
R ² -Nagelkerke	0.45			

**Significant at the 0.01 level. *Significant at the 0.05 level.

Notes: Categories of reference: MSTATUS2, CA01, SOCIAL5; B= regression coefficient; standard error in parentheses; Exp (B)= exponential B= e^B .

4.3. Hypothesis 3: education increases the probability of going to musical events

In table 3 it can be seen that education of the main wage-earner raises the relative probability that individuals of a typical household attend musical events by 6.0%. As it has been pointed out before, education is significant only for high-density population municipalities, and, therefore, hypothesis 3 is partially accepted.

Table 3. Results of the logistic regression analysis: relative probability of going to any musical event in high-density population municipalities

Variables	B		Wald	Exp(B)
SCHOOLING	0.058*	(0.024)	5.728	1.060
AGE	0.032**	(0.007)	18.587	1.033
MEMBERS	0.288**	(0.077)	14.060	1.334
CA08	1.538**	(0.299)	26.380	4.654
CA09	1.302**	(0.351)	13.739	3.675
CA11	2.881**	(0.247)	135.658	17.840
SOCIAL3	0.492*	(0.227)	4.690	1.636
Constant	-7.139**	(0.675)	111.703	0.001
N	1,772			
R ² -Nagelkerke	0.27			

**Significant at the 0.01 level. *Significant at the 0.05 level.

Notes: Categories of reference: MSTATUS2, CA01, SOCIAL5; B= regression coefficient; standard error in parentheses; Exp (B)= exponential B= e^B .

4.4. Hypothesis 4: education generates cultural ‘omnivoracity’

Here it is analysed whether education increases cultural ‘omnivoracity’, that is, if education increases the consumption of all cultural products considered in the previous sections by any member of the household.

As can be seen in table 4, one more year of schooling of the main wage-earner raises the relative probability, in a typical a household, of consuming all three cultural services (cinema, theatre, and music events) by 9.6%. Since education is significant only for high-density population municipalities, this hypothesis is only partially accepted.

Table 4. Results of the logistic regression analysis: relative probability of being a cultural ‘omnivore’ in high-density population municipalities

Variables	B		Wald	Exp(B)
SCHOOLING	0.092*	(0.036)	6.623	1.096
AGE	0.050**	(0.011)	20.925	1.051
MEMBERS	0.325**	(0.116)	7.821	1.384
CA11	4.751**	(0.443)	115.006	115.732
SOCIAL3	1.346**	(0.390)	11.897	3.842
SOCIAL4	0.736*	(0.370)	3.943	2.087
Constant	-10.930**	(1.075)	103.388	0.000
N	1,772			
R ² -Nagelkerke	0.54			

**Significant at the 0.01 level. *Significant at the 0.05 level.

Notes: Categories of reference: MSTATUS2, CA01, SOCIAL5; B= regression coefficient; standard error in parentheses; Exp (B)= exponential B= e^B.

5. Conclusions

Results presented in section 4 allow us to conclude that education of the main wage-earner increases the relative probability of members of the household going to the theatre and musical events as well as encouraging cultural ‘omnivoracity’. However, education does not affect the relative probability of going to the cinema.

Using the neoclassical approach it could be said that more educated individuals have a lower ‘cost of production’ (i.e. they are more efficient consumers) and, *ceteris paribus*, they consume more cultural services. Although this explanation cannot be totally rejected from the empirical

study presented here, except for cinema, we suggest an alternative institutionalist explanation based on more realistic assumptions.

First, since we consider education of the main wage-earner and consumption of all members of the household it does not seem appropriate to analyse the results in terms of efficiency. These are best explained considering the influence of the main wage-earner on the behaviour of all household members due to a process of family socialization.

Second, it should be considered that education encourages a preference for cultural services since both items are complementary. As it can be assumed that the more educated are prone to socialize with more educated people, their social environment favours the consumption of cultural services. We believe that the positive effect of education on the consumption of ‘elitist’ cultural services (theatre and musical events) as well as on being a cultural ‘omnivore’ reinforces this idea and, moreover, validates the institutionalist approach.

Finally, although it is debatable that emulation generates social benefits, the results presented here, about the effect of education on the consumption of cultural services, can be considered as positive. Therefore, these non-monetary effects of education may increase private and public rates of return of education that only consider monetary effects. However, other factors should also be considered, such as the importance of supply, (e.g., education is only significant in municipalities of high-density population).

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Notes

1. However, these studies do not differentiate between the non-monetary effects of education on the consumption of cultural services and the monetary ones (through income), since, in

the empirical analyses, income is not included as an independent variable in the regression equation together with the educational variable (see section 3.2).

2. The term ‘omnivoracity’ is used by Peterson and Simkus (1992) and Peterson and Kern (1996). These authors consider that ‘omnivoracity’ is the preference of high-class individuals to consume not only products of their social condition but of middle and low class as well, expanding the number of items they consume. Here, this term indicates the consumption of the three cultural services considered (cinema, theatre and musical events).
3. The Household Budget Continuous Survey is a quarterly survey in which only one term can be selected to carry out the proposed empirical study, since data does not allow us to follow the expenses of households through the year. (Here, the first term is chosen because it is the one in which more individuals consume the selected cultural services).
4. See different methods of estimation for SPSS (the statistical software used in the empirical analysis) in Norusis (1997). Following the ‘forward-step’ method, in all the tables of results only significant variables are shown. With regard to the statistics presented, the chi-squared test permits the conclusion that all models proposed are significant and, although the values of R^2 are not high (0.27-0.54), they are in accordance with the usual values in this type of study. Furthermore, there are no problems of multicollinearity or heteroscedasticity.

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Appendix

Table A1. Description of variables: sample in high-density population municipalities

Variables	Number of households	Mean	Standard Deviation	Lowest value	Highest value
CINEMA (yes=1)	1,772	0.469	0.499	0	1
THEATRE (yes=1)	1,772	0.100	0.301	0	1
MUSIC (yes =1)	1,772	0.087	0.282	0	1
OMNIVORE (yes =1)	1,772	0.054	0.226	0	1
AGE (years)	1,772	51.583	14.092	20	95
MEMBERS (number of individuals)	1,772	3.296	1.287	1	9
MSTATUS1 (Single)	136	0.077	0.266	0	1
MSTATUS2 (Married)	1,425	0.804	0.397	0	1
MSTATUS3 (Divorced)	76	0.043	0.203	0	1
MSTATUS4 (Widow/er)	135	0.076	0.265	0	1
SCHOOLING (years of schooling)	1,772	9.023	4.476	3	17
CA01 (Andalucía)	153	0.086	0.281	0	1
CA02 (Aragón)	98	0.055	0.229	0	1
CA03 (Asturias)	101	0.057	0.232	0	1
CA04 (Balears)	71	0.040	0.196	0	1
CA05 (Canarias)	81	0.046	0.209	0	1
CA06 (Cantabria)	45	0.025	0.157	0	1
CA07 (Castilla-León)	96	0.054	0.226	0	1
CA08 (Cataluña)	264	0.149	0.356	0	1
CA09 (C. Valenciana)	191	0.108	0.310	0	1
CA10 (Galicia)	82	0.046	0.210	0	1
CA11 (Madrid)	305	0.172	0.378	0	1
CA12 (Navarra)	47	0.027	0.161	0	1
CA13 (País Vasco)	151	0.085	0.279	0	1
CA14 (La Rioja)	44	0.025	0.156	0	1
CA15 (Ceuta and Melilla)	44	0.025	0.156	0	1
INCOME (euros)	1,772	11,986.05	8,042.29	1,819.85	86,031.04
SOCIAL1 (Capitalists)	82	0.046	0.210	0	1
SOCIAL2 (Patrimonial middle classes)	97	0.055	0.227	0	1
SOCIAL3 (Middle classes in M&HA)	463	0.261	0.439	0	1
SOCIAL4 (subordinate middle-classes)	339	0.191	0.393	0	1
SOCIAL5 (Workers)	791	0.447	0.497	0	1
ACTIVE (yes=1)	1,772	0.817	0.387	0	1
CHILDREN (yes=1)	1,772	0.649	0.477	0	1

Table A2. Description of variables: sample in low and medium-density population municipalities

Variables	Number of households	Mean	Standard Deviation	Lowest value	Highest value
CINEMA (yes=1)	1,782	0.254	0.435	0	1
THEATRE (yes=1)	1,782	0.028	0.165	0	1
MUSIC (yes =1)	1,782	0.027	0.163	0	1
OMNIVORE (yes =1)	1,782	0.000	0.000	0	0
AGE (years)	1,782	53.442	15.157	18	95
MEMBERS (number of individuals)	1,782	3.377	1.412	1	10
MSTATUS1 (Single)	120	0.067	0.251	0	1
MSTATUS2 (Married)	1,487	0.835	0.372	0	1
MSTATUS3 (Divorced)	28	0.016	0.124	0	1
MSTATUS4 (Widow/er)	147	0.082	0.275	0	1
SCHOOLING (years of schooling)	1,782	6.806	3.859	3	17
CA01 (Andalucía)	280	0.158	0.364	0	1
CA02 (Aragón)	81	0.045	0.208	0	1
CA03 (Asturias)	75	0.042	0.201	0	1
CA04 (Balears)	69	0.039	0.193	0	1
CA05 (Canarias)	47	0.026	0.160	0	1
CA06 (Cantabria)	37	0.021	0.143	0	1
CA07 (Castilla-León)	169	0.095	0.293	0	1
CA08 (Castilla-La Mancha)	170	0.095	0.294	0	1
CA09 (Cataluña)	128	0.072	0.258	0	1
CA10 (C. Valenciana)	118	0.066	0.249	0	1
CA11 (Extremadura)	129	0.072	0.259	0	1
CA12 (Galicia)	183	0.103	0.304	0	1
CA13 (Madrid)	25	0.014	0.118	0	1
CA14 (Murcia)	136	0.076	0.265	0	1
CA15 (Navarra)	41	0.023	0.150	0	1
CA16 (País Vasco)	52	0.029	0.168	0	1
CA17 (La Rioja)	42	0.024	0.152	0	1
INCOME (euros)	1,782	9,354.95	5,885.65	2,254.68	66,139.25
SOCIAL1 (Capitalists)	108	0.061	0.239	0	1
SOCIAL2 (Patrimonial middle classes)	315	0.177	0.381	0	1
SOCIAL3 (Middle classes in M&HA)	287	0.161	0.368	0	1
SOCIAL4 (subordinate middle-classes)	202	0.113	0.317	0	1
SOCIAL5 (Workers)	870	0.489	0.489	0	1
ACTIVE (yes=1)	1,782	0.768	0.422	0	1
CHILDREN (yes=1)	1,782	0.580	0.494	0	1

Table A3. Description of the variables

Variable	Description
AGE	Age of main wage-earner.
MSTATUS (Marital Status of main wage-earner)	MSTATUS1 (Single); MSTATUS2 (Married); MSTATUS3 (Divorced); MSTATUS4 (Widow/er).
CHILDREN	1 (there are children in the household); 0 (no children).
MEMBERS	Number of members of the household.
SCHOOLING (years of schooling of the main wage-earner)	To generate the educational variable in years of schooling the following equivalence scale was used: those with EDLEVEL1 are given 3 years of schooling; EDLEVEL2 (5 years); EDLEVEL3 (8 years); EDLEVEL4 (12 years); EDLEVEL5 (15 years); EDLEVEL6 (17 years).
EDLEVEL (educational level of the main wage-earner)	EDLEVEL1 (no education); EDLEVEL2 (primary education); EDLEVEL3 (lower secondary education); EDLEVEL4 (upper secondary education); EDLEVEL5 (university first stage); EDLEVEL6 (university second stage and doctorate).
CA (Spanish Regions for high-density population municipalities)	CA01 (Andalucía); CA02 (Aragón); CA03 (Asturias); CA04 (Balears); CA05 (Canarias); CA06 (Cantabria); CA07 (Castilla-León); CA08 (Cataluña); CA09 (Comunidad Valenciana); CA10 (Galicia); CA11 (Madrid); CA12 (Navarra); CA13 (País Vasco); CA14 (La Rioja); CA15 (Ceuta and Melilla). The regions of Castilla-La Mancha, Extremadura and Murcia are excluded because there are not high-density population cities.
ACTIVE	1 (at least one member of the household is active in the labour market); 0 (no active individuals in the household)
INCOME	Monetary and non-monetary income of the household. Income is the highest value of revenues or expenses of the household, following a simplification of the method proposed by Alcaide and Alcaide (1983). Income is 'individualized' following the method proposed by Buhman et al. (1988) that is similar to the OECD equivalence scale.
SOCIAL (social class of the main wage-earner). This classification is suggested by Torres (1991).	SOCIAL1 (Capitalists): employer; SOCIAL2 (Patrimonial middle classes): self-employed not being technician or managers; SOCIAL3 (Middle classes in management and higher administration): managers, technicians and professionals either employed or self-employed; SOCIAL4 (Subordinate middle-classes): administrative and service employees; SOCIAL5 (Workers): qualified and non-qualified workers in agriculture, industry and some services.