

## Patterns and drivers of cultural economy in Spain's extra-metropolitan small towns

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**ABSTRACT:** Research on the location of cultural and creative firms has traditionally focused on large cities, but small towns are also likely to hold them. This work investigates which factors determine cultural specialisation in a group of 46 extra-metropolitan Spanish towns with 30-50,000 inhabitants.

We consider factors related to markets and government policies —*hard factors*— and new factors related to amenities, tolerance, and the local climate —*soft factors*—. When we check them statistically, the greatest explanatory power is attributed to some *hard*-type factors such as economic activity and human capital, as well as the distance to urban markets. In contrast, the expectations raised by the *soft factors* are not confirmed.

**JEL Classification:** Z10; R12; L80.

**Keywords:** cultural economy; cultural clusters; extra-metropolitan areas; small towns; Spain.

### Patrones espaciales y determinantes de la economía de la cultura en las pequeñas ciudades extra-metropolitanas de España

**RESUMEN:** La investigación sobre empresas culturales y creativas ha estado tradicionalmente centrada en las grandes ciudades, pero las pequeñas también son capaces de albergarlas. Así, en nuestro trabajo, tratamos de averiguar los factores que determinan la especialización cultural de las ciudades españolas entre 30 y 50.000 habitantes, ajenas a las áreas metropolitanas.

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Consideramos factores relacionados con mercados y políticas públicas —«factores duros»— y nuevos determinantes asociados a amenidades, tolerancia y ambiente local —«factores blandos»—. De su contraste estadístico se deduce que el mayor poder explicativo lo detentan algunos factores «duros» como el nivel económico y el capital humano, así como la distancia a mercados urbanos. En cambio, las expectativas cifradas en los factores «blandos» no han sido confirmadas.

**Clasificación JEL:** Z10; R12; L80.

**Palabras clave:** economía de la cultura, clústeres culturales, áreas extra-metropolitanas, pequeñas ciudades, España.

## 1. Introduction

In this work we analyse the specialisation in cultural activities of 46 small towns located outside Spain's official large urban areas. Specifically, we study which factors determine such specialisation, and how it relates to the health of the local economy. This analysis forms part of a wider-ranging research project, both spatially and in terms of the types of economic activities considered. Since 2012, the authors have been studying the location of creative companies outside Spanish metropolitan areas, in villages and small towns, obtaining relevant conclusions (see Escalona-Orcao *et al.*, 2015; Escalona-Orcao *et al.*, 2016). The study sample is very large, comprising over 7,000 municipalities. There is also an extensive and heterogeneous set of creative activities, ranging from those rooted in traditional culture – Heritage, Arts - to those which produce creative content for large audiences, including in the field of Communications, via the «functional creations», which provide goods and services (software, advertising, engineering, consulting, architecture) with a high creative content (UNCTAD, 2010; Méndez *et al.*, 2012).

However, these results demonstrated that in such a large sample, small towns behaved differently to other rural municipalities, and the cultural activities too showed differences of location and structure from other creative activities. Consequently, we decided to begin new research, in a «spin-off» from the original project, with much more specific explanatory hypotheses and better definitions in terms of sectors and geography, configuring a combination of subjects that has been less studied: the cultural economy of Spain's small towns.

Research on the location of cultural firms has traditionally focused on the large cities which can combine the agglomeration economies typical of industrial districts with the talent-attracting factors associated with neighbourhoods with a high quality of life. In contrast, smaller towns, especially those located outside the large urban areas, could be expected to have basic difficulties on one side or the other of the demand-supply relationship, leading to a marginal cultural economy which would hardly be worth studying.

In Escalona *et al.*, (2016) we show that this omission is unjustified, given that *life exists* outside the big cities, with municipalities likely to hold creative clusters,

and in some cases, a strong cultural profile. The specific methodology we developed to detect them has enabled us to identify 514 creative municipalities in extra-metropolitan areas, noting that in the largest, with 30-50,000 inhabitants, the sub-set of firms linked to the cultural economy showed outstanding performance which could respond to a specific dynamic.

Given the previous literature, the unique role of cultural activities within creativity, and the part that towns of this type play in the structuring of extra-metropolitan territory, in this work we try to find out which patterns and drivers determine cultural specialisation in this group of Spanish municipalities with 30,000 to 50,000 inhabitants. As well as giving continuity to a series of questions which emerged as we carried out our analysis and culture in the territory described above, we believe that our research sheds some light on the possible role of culture in smart and inclusive growth (European Commission 2012; Musterd and Gritsai, 2013). In this way, we think that we could contribute to an important social debate on local development, where new approaches are being taken at the European and domestic levels.

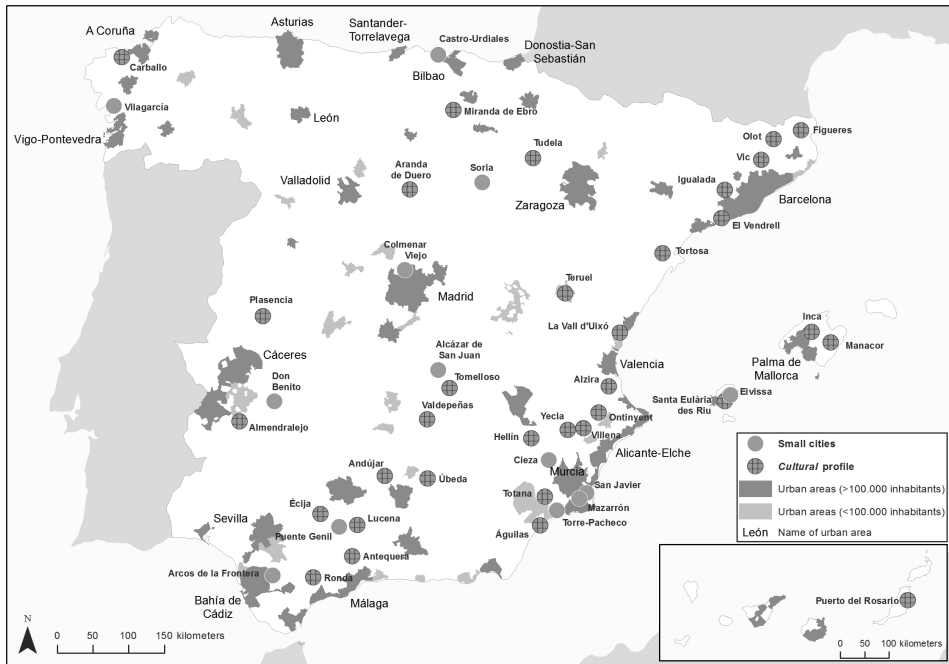
These issues are developed in the following sections of the document: in the first, we characterise the towns under study; in the second we establish our conceptual framework and the hypotheses used; next, we explain the results obtained, and finally, we present our conclusions and points for discussion.

## **2. Small cultural towns in extra-metropolitan areas. Location and characterisation**

In Spain there are 7,367 municipalities with fewer than 50,000 inhabitants located outside the large urban areas (Ministerio de Fomento, 2006), 46 of which have more than 30,000 inhabitants, placing them above the threshold that the Ley para el Desarrollo Sostenible del Medio Rural/Spanish Sustainable Rural Development Act (2007) establishes to define rural areas (Map 1). The administrative criteria of the cited areas of Government, both of which are relevant to territorial management, set up/define that these 46 municipalities are small towns, a category which is also connected to the significant and interminable theoretical debate on urban typologies and the definition of the small and medium town or city (Capel, 2009).

These small towns perform different functions in the territory depending on the urban system they form part of, apart from their population size. Thus, some of them, although they do not strictly belong to a metropolitan area, do come under its wider area of influence in a more diffuse and polynuclear city-region model of the territory (Boisier, 2006), as in the case of Barcelona and the rest of Catalonia, or Valencia and the neighbouring towns on and near the coast. In other urban systems, especially in inland Spain, the extra-metropolitan small towns structure a larger space and their functions are higher-ranked, due to low population density and the weak settlement system. In all cases, these are cities of great interest, as they occupy intermediate levels in the urban hierarchy, facilitate the generation of innovation dynamics —as

**Map 1.** Location of the extra-metropolitan small towns



Source: By the authors, with Social Security affiliation data and information from the Digital Atlas of Spanish Urban Areas.

they offer a sufficient threshold for scale and agglomeration economies to appear—and contain metropolitan macrocephaly (Méndez *et al.*, 2008). In this specific field, small towns favour a dissemination of culture by connecting large cities with rural areas.

Finally, we should note that many of Spain’s small towns were once larger and more dynamic. This is the case, for example, of the Castilian towns of Spain’s Golden Age, which have an important cultural heritage from that period (Ringrose, 1983). This suggests additional hypotheses on their potential for cultural activities.

As Map 1 shows, the spatial distribution of the small towns in the study is not homogeneous, as two-thirds of the total are in the Mediterranean regions, Andalusia, and the Canary Islands, areas which also concentrate more than half Spain’s population and GDP. In contrast, in large swathes of the interior and the Cantabrian coast, extra-metropolitan small towns are much less numerous, making it more difficult to generate the innovation dynamics explained above in towns occupying the intermediate levels in the urban hierarchy.

The map distinguishes 33 of the 46 towns as having a cultural specialisation or profile. To establish this specialisation, we calculated the horizontal localisation quotient (HLQ), a measure close to the conventional quotient but taking into account

the size of the activity in the town (Fingleton *et al.*, 2004)<sup>1</sup>. The HLQ denotes the existence of relative specialisation when it gives a positive value, as occurs in the 33 towns mentioned. The data used to calculate the index are the number of firms in the activities included in the cultural sector according to the Satellite Account on Culture in Spain (Ministerio de Educación, Cultura y Deporte, 2008). These activities and their headings in the NACE rev. 2 are: 91. Libraries, archives, museums and other cultural activities; 90. Creative, arts and entertainment activities; 18. Printing and reproduction of recorded media; 58. Publishing activities; 59. Motion picture, video and television programme production, sound recording and music publishing activities; and 60. Programming and broadcasting activities. The source for the data is the General Treasury of the Social Security.

When interpreting the initial data and the results of their subsequent modelling, we must take into account the biases arising from the limitations of NACE information. This statistic is deficient in measuring artisan and cultural activities, because these may be incorporated during different stages of the production chain through many tasks, which can currently be decentralised and with very creative specific procedures, without being shown in a differentiated form, by sector, under the corresponding fiscal and employment heading (Markusen and Schrock, 2006). Meanwhile, the activities performed by the public sector in the cultural sphere, which are very important in terms of investment and employment and as a solution to «market failures» (Albi, 2003), usually appear underestimated insofar as the organisations effectively providing them do not, for the most part, have a differentiated fiscal and legal personality (Ministerio de Educación, Cultura y Deporte, 2008). This means it is practically impossible to define precise figures for the public sector employees and organizations outside the market whose jobs and functions relate to culture. This is why the information used does not include cultural infrastructure and public agencies relevant to the creation and consumption of culture (Guerrero and Navarro, 2012: 79).

If we return to the map and look at the distribution of towns specialising in cultural activities, we also see a *cultural primacy* of the Mediterranean, as the percentage of towns with a cultural profile in this area is noticeably higher than in the rest of Spain. Cultural specialisation could be induced by their productive structure and market capacity, with services and particularly tourism as the leading sector, which leverages multiple externalities from cultural activities, some originating in the public sector, others in the market. We can add to this economic hypothesis some others suggested by their demographical, younger and better-educated population, and sociological features, greater social capital manifested in collective festivities and cul-

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<sup>1</sup> In fact, it defines the number of firms or jobs in an activity which exceeds the expected number, this being the existing number when the activity in the town has the same importance as a reference space producing a LQ equal to 1. It is calculated for jobs by first obtaining the LQ expressed as  $LQ = (E_{ij}/E_j)/(E_i/E)$ , with LQ being the location quotient of activity *i* in municipality *j*;  $E_{ij}$  are the jobs from activity *i* in municipality *j*;  $E_j$  are all the jobs of *j*;  $E_i$  are the jobs from the activity *i* in the entire study area; and  $E$  is the total number of jobs in the study area. Then,  $E_j$  is replaced by  $\hat{E}_j$  to obtain  $LQ = (\hat{E}_{ij}/E_j)/(E_i/E) = 1$ , with  $\hat{E}_{ij}$  being the number of jobs necessary for  $LQ = 1$ , given the other values. Finally HLQ is obtained by calculating  $HLQ = E_{ij} - \hat{E}_{ij}$ . With the variable for firms, the process is the same (Fingleton *et al.*, 2004).

tural societies (Koster *et al.*, 2013). We will test these and other possible hypotheses more precisely in the next section.

### 3. Cultural specialisation in small towns. Factors and hypotheses

Determining the conditions which extra-metropolitan municipalities must meet to facilitate the existence of cultural ecosystems or clusters requires first evaluating the factors which are most analysed in the literature (Törnqvist, 2011; Boix and Lazeretti, 2012; Freire-Gibb and Nielsen, 2014; Murphy *et al.*, 2014; Roberts and Townsend, 2015). On one hand, there are notable features classified as «hard factors» (Murphy *et al.*, 2014), easily monetisable ingredients found in the local production function modelled by the more conventional theories of local development. This is the case of infrastructure, income level, purchasing power, productive structure, business typology, and firms diversity. Alongside the qualitative and intangible factor of human capital, they contribute to the existence of industrial districts with positive externalities and various kinds of agglomeration economies (Lafuente *et al.*, 2010; Méndez *et al.*, 2012). These hypotheses have been confirmed by evidence that cultural and creative firms are more dynamic where capital accumulates (Törnqvist, 2011; Grodach *et al.*, 2014). Although some of the studies mentioned refer to urban contexts, the effects described can also be found in rural areas, where it is common for towns with larger economies to perform better than the smaller ones (Porter, 2004; Lafuente *et al.*, 2010), suggesting that the municipal economic dimension and the size of its market do matter. In relation to infrastructure, there is plenty of evidence of business opportunities opening up in remote towns with good connectivity (Cooke and Lazeretti, 2008; Bell and Jayne, 2010; Mateos-García *et al.*, 2014; Vallance, 2014; Lafuente *et al.*, 2010).

On the other hand, as the economy has metamorphosed, the literature on local development has gradually included other types of drivers linked to knowledge and social capital, such as elements which improve the efficiency of production, and other variables relating to the quality of life of the place of residence, not always quantifiable through markets and prices. This new economic reality is reflected by different explanatory hypotheses, known as «soft factors» (Murphy *et al.*, 2014) because they refer to intangible and idiosyncratic characteristics of the places that make for an attractive environment, and thus become a source of competitive advantages, stimulating demographic and economic development (Argent *et al.*, 2013). The most referenced example of these intangibles are «amenities» —elements of the environment, landscape, and culture which favour quality of life; a lively local atmosphere, ethnic and social diversity, a welcoming and tolerant population, and so on. In his theory of the three «Ts» of economic development, Florida (2002) includes tolerance alongside technology and talent. For his part, Törnqvist (2011) emphasizes the role of variety and heterogeneity in cultures and disciplines in his statement that spaces that encourage the informal exchange of ideas will stimulate creativity. As soft factors are aspects valued by stakeholders, their consideration introduces a perspective

of *demand side* into the analysis, complementing the *supply side* represented by most of the hard factors noted above.

Although soft factors seem appropriate for justifying the extra-metropolitan location of those creative and cultural activities that mainly produce services or intangible goods, their pertinence as explanatory variables has not been sufficiently proven. Studies in rural areas of North America and Australia have confirmed the relationship between the presence of creative classes and the high environmental quality of the towns (McGranaham and Wojan, 2007; McGranaham *et al.*, 2010; Argent *et al.*, 2013; Grodach, *et al.*, 2014). However, other works consider that although rural areas are a good place for culture to emerge, they are not so well suited for business development, due to the existence of structural obstacles that make difficult their economic viability (Anderson *et al.*, 2015) and would confirm the perverse consequences of the «rural idyll» (Terluin, 2003). This would bring into question the promising expectation of a «creative countryside... culturally inspired and entrepreneurially driven, where...place matters more» (Anderson *et al.*, 2015: 2).

As well as hard and soft factors, some authors have verified that certain characteristics of towns (settlement factors) which are structural in origin, such as their recent demographic path trajectory or their proximity to an urban market, influence the presence of cultural firms (McGranaham and Wojan, 2007; De Propriis *et al.*, 2009). It has also been observed that competitiveness in these towns is greater, the closer they are to metropolitan areas with strong economies (Porter, 2004). In contrast, no locational influence has been detected for institutional factors, which are found to be non-expressive in studies of small towns (Lafuente *et al.*, 2010).

Among our hypotheses, we introduce a variable that not belongs to any of these two categories, but which could be fundamental, given the dominant role of the public sector in the provision of multiple services meeting intense demand from citizens, and in heritage conservation. That is, we have considered the expenditure on culture by local or regional governments. Insofar as culture is considered by Public Economy as a *merit want* and a positive externality (Towse, 2014; Albi, 2003), governments could induce a higher demand (addictive consumers and Keynesian multipliers) and, on the supply side, governments could generate backwards linkages to the cultural firms and qualified services. So, calibrating the role that local public activism may play in the cultural function is an interesting element of the study.

### **3.1. Variables, data and methods**

This section presents the regression analysis performed to explain the importance of culture in extra-metropolitan small towns. We worked with the entire set (46 towns) and with the 33 towns specializing in culture because their HLQ is positive. As a dependent variable in both cases we used the HLQ values of the cities. The independent variables are introduced and explained in Table 1. The analysis is completed by evaluating the contribution of cultural activities to the respective local economies, in this case using HLQ values as an additional independent variable.

**Table 1.** Factors, themes and variables for the explanatory analysis of the cultural specialisation of small towns in extra-metropolitan areas

<i>Factor</i>	<i>Theme</i>	<i>Variable</i>	<i>Measure</i> * <sup>s</sup> [ <i>expected sign</i> ]
<i>Hard factors</i>	Infrastructure	Broadband lines	Number of broadband lines in 2012 <sup>1</sup> [+]
	Urbanisation economies	Economic activity index	Economic activity index* in 2012 <sup>1</sup> [+]
		Market share	Market share index* in 2012 <sup>1</sup> [+]
		Diversity of total firms	Theil index of the number of firms in 2012 <sup>2</sup> [-]
		Diversity of total jobs	Theil index of the number of jobs in 2012 <sup>2</sup> [-]
		Bank branches	Bank branches/population*1000 in 2012 <sup>1</sup> [+]
	Localization economies	Diversity of creative firms	Theil index of the number of creative firms in 2012 <sup>2</sup> [-]
		Average size of firms	Number of total firms/Number of total jobs) <sup>2</sup> [+]
		Production services	Number of firms in the production services* sectors/total firms* 100) <sup>2</sup> [+]
	Human capital	High School rate	% of adult population* <sup>3</sup> [-]
College rate		% of adult population* <sup>3</sup> [+]	
<i>Soft factors</i>	Amenities	Protected cultural sites	Number of protected cultural sites/population <sup>4</sup> [+]
		Tourism index	Tourism index* <sup>1</sup> [+]
		Restaurants index	Restaurants and bars index* <sup>1</sup> [+]
	Tolerance	Diversity of population	Theil index of the number of residents according to their geographic origin* <sup>3</sup> [-]
	Local atmosphere	Voter turnout	% of participation in the 2011 general elections <sup>5</sup> [+]
		Unemployment rate	Unemployment rate <sup>1</sup> [-]
<i>Public factors</i>	Public spending on culture	Regional spending	Regional expenditure on chapter 33 of the functional fiscal classification <sup>6</sup> [+]
		Local spending	Local expenditure on chapter 33 of the functional fiscal classification <sup>6</sup> [+]
<i>Settlem. factors</i>	Demographic dynamism	Population variation	Population 2011 - population 2001/ population 2011 * 100 <sup>3</sup> [+]
	Proximity to urban areas or markets	Distance to the capital	Distance to the province capital (minutes) <sup>7</sup> [+ , -]
	Commuters to the municipality	Commuters	Non-resident workers and students/resident population*100 <sup>3</sup> [+]

\* Definition in Annex 1; S = Sources: 1. *Anuario Económico de España*, 2012; 2. *Tesorería General de la Seguridad Social*, 2012; 3. *Censo de la población* 2011; for the variable *Population variation*, also the 2001 edition; 4. *Cultura\_base* 2014; 5. *Ministerio del Interior*; 6. *Ministerio de Hacienda y Administraciones Públicas. Secretaría General de Coordinación Autonómica y Local*, 2012; 7. Google maps.



The independent variables refer to some of the *hard*, *soft*, settlement and expenditure factors mentioned above. The descriptions of the hard factors are intended to capture the towns' potential to generate, at their scale, the different types of agglomeration economies. The index of economic activity, obtained from the taxes levied on all companies except for agricultural ones, summarises the size of the internal economy, while the market share weighs the amount of products and services the towns can absorb, which would be their purchasing power<sup>2</sup>. Both indicators usually appear correlated, but not on this occasion. We also include the diversity of jobs and firms (McGranaham and Wojan, 2007; McGranaham *et al.*, 2010; Argent *et al.*, 2013; Grodach *et al.*, 2014), considering them to favour the generation of positive externalities in the towns, à la Jacobs, as cross-pollination is usually more fruitful, less risky and more creative than monoculture. Meanwhile, the diversity of creative firms may denote the existence of localization economies for the creative sector itself, and cultural activities as a part of them, together with the characteristics of the human capital or the existence of service companies. The three diversity situations mentioned above are measured using the Theil index, so that the sign expected for the three variables is negative<sup>3</sup>.

The choice of variables describing the *soft factors* requires adjustment to the cultures and peculiarities of the areas studied, establishing consistent links between the phenomenon studied and the variable which describes it, and dealing with the statistical restrictions which exist for places with small populations and, in general, for qualitative or no standardized data. To capture the effect of amenities, we did not rely on landscape or climate, the usual variables found in the North American literature, where they have been studied in the most depth (McGranaham and Wojan, 2007; McGranaham *et al.*, 2010; Argent *et al.*, 2013) as we considered them to discriminate too little for a country of the size and characteristics of Spain. Instead, we introduced other indicators of the quality of the place, such as built heritage and tourism facilities. We tried to approximate tolerance with a variable referring to the diversity of nationalities in the population, similar to the proposals of other authors (McGranaham and Wojan, 2007; Grodach *et al.*, 2014). We understand that stable coexistence of people with different customs allows us to infer that the society is open-minded and comfortable with its heterogeneity and pluralism. We described public participation and commitment, elements contributing to social capital, with two variables that we thought were expressive: voter turnout (OECD, 2015) and unemployment. Although there is a clear economic component to the unemployment rate, we believe that in small towns like those studied, it is also a good indicator of cohesion and the inclusion, through employment, of the whole

<sup>2</sup> This and other indicators are taken from the *Anuario Económico de España*, La Caixa (2015). The definitions for the variables taken from this source are specified in Annex 1.

<sup>3</sup> The Theil's coefficient expression for firms' data is the following:  $Th_i = 1 - (\sum z_{si} \times \log(1/z_i) / \log k)$ , where  $Th_i$  is Theil's coefficient for municipality  $i$ ;  $z_{si}$  denotes the number of firms in each of the activity sectors in the municipality  $i$ ; and  $k$  is the number of activity sectors considered. With the variable for jobs, the process is the same. The coefficient has a value of 0 when diversification is at its maximum level and 1 in the opposite case.

of the society (Florida *et al.*, 2013). Bars and restaurant index is not so frequently used in academic literature, but in recent research about talent and tolerance in urban areas it is considered as a good proxy of social capital and social vibrancy (Phillips and Webb, 2014). So places where bars and restaurants abound are usually considered as having a good neighbourhood and a pleasant, inclusive and enjoyable atmosphere.

The expected sign in all these variables is positive, except for the unemployment rate. In public spending on culture, the two descriptive variables chosen are the expenditure of the municipality and of the region it belongs to. The expected sign for both is positive, so that higher spending is indicative of the acquisition of more cultural services, better conservation of «public assets» of this kind, which far from replacing or displacing private demand by negatively influencing business initiative, should lead to synergies and positive externalities in the culture market.

Finally, with the descriptive variables of the *settlement factors* we followed the most widely accepted literature and proposed, as well as the variation in population in the preceding decade, the distance in travelling time from the provincial capital and the proportion of commuters the municipality receives (McGranaham and Wojan, 2007; Florida *et al.*, 2013). These last two variables are intended to verify how much proximity to a more important cultural urban market or integration in its job market influence the existence of cultural clusters. The expected sign for these three variables is positive. For the first and the third, more people imply greater demand, particularly in cultural services, as their elasticity usually is greater than 1 (Devesa *et al.*, 2009). Commuting also facilitates cultural activities, providing the skilled jobs that they need. Proximity to a central place such as a provincial capital is known to be a factor which can debilitate the local cultural industry, due to spillovers between neighbouring towns (Werck *et al.*, 2008) and also because the potential users may prefer what is on offer in the capital (Boter *et al.*, 2005). In contrast, when small towns are outside the sphere of influence of a larger city, the local cultural offer is stronger, because it lacks competition and has a captive market.

Before embarking on the econometric analysis, we examined the linear correlations between the variables. As the restoration index showed a strong correlation with the market share ( $r = 0.93$ ) we opted to eliminate it. For some municipalities we decided to skip specific variables such as the number of cultural assets, due to their being much higher than the rest. The problem of collinearity was taken into account and monitored by observing the variance inflation factor (VIF). Finally, in the interpretation of the models we took into account the number of variables making them up, in the order in which they appear and the proportion of the explanation each one contributes, details which are not usually specified but which in our opinion are essential for a full understanding of the results.

The values taken by the selected explanatory variables are described in Annex 2.

### 3.2. Drivers of the cultural specialisation of small extra-metropolitan towns

The regression models presented in this section were obtained with the step-wise technique, which automatically looks for the explanatory variables, taking into account the  $p$ -value of the coefficient. The first model shown in Table 2 correspond to the set of 46 small towns, and although the R value is not high (47,0), it makes clear, first, that the relative importance of cultural activities is associated positively and only with variables describing hard factors and linked to production and the size of the economy, with the peculiarity that the internal diversity of creative firms appears as the first explanatory element. In this case we find an argument shared by most studies, which indicate that both creative (Coll and Arauzo, 2015) (Méndez *et al.*, 2008), and cultural activities (Boal and Herrero, 2015) follow similar patterns to conventional industries, although some territorial aspects may help to mark fine differences, depending on the sub-sectors and places (Sánchez, 2016). In our sample, a broad diversity of creative firms would stimulate a concentration of cultural activities, lending weight to the argument frequently put forward that plurality leads to greater creativity and cultural entrepreneurship (Hospers, 2003). Meanwhile large companies are also more likely to demand culture, either as part of their production function, in which some aspects of R&D may come from activities and services which can be classified in these sectors, or as part of building their brand and business reputation, as large companies usually sponsor cultural events (Kirchberg, 2003; McNicholas, 2004; Comunian, 2009).

If we stay with the subset of 33 towns with a cultural specialisation ( $HLQ > 0$ ), the conclusions of the analysis (second model in Table 2) are similar to those of the whole set in terms of the value of R (43,8) and the unique explanatory capacity of the hard factors. However, the variables associated positively with cultural specialisation let us add nuances which suggest more transversal issues. Thus, if a high education level of residents is a determinant, this underlines the role of education in improving the efficiency of the cultural sector, and how its demand depends on the qualifications of residents, who also consume services (Prieto and Fernández, 2004). That is, the level of education acts as input and a demand factor at the same time. This is a clear example in which elements of one side or another of the economy are interdependent and create a feedback loop. The average size of the firms, the other variable in the equation, implies a positive correlation with the offer of cultural companies. Normally, large companies have a greater proportion of skilled jobs than smaller firms (Sánchez, 1991; Casado, 2015), and more educated professionals are more likely to demand cultural services (Katz-Gerro, 2002). The tendency to salaried workers and shorter working days in this type of company also facilitates more available leisure time, which is scarcer in the case of the self-employed and small or family-type companies, without such a clear-cut difference between working time and private time.

**Table 2.** Regression results for extra-metropolitan small towns, specialised or not in cultural activities

Variables (dependent in rows and independent in columns)	Hard Factors										Soft factors							Public spending factors		Settlement factors			(1)	R <sup>2</sup> (number of data)		
	Broadband lines	Economic activity index	Market share	Diversity of total firms	Diversity of total jobs	Bank branches	Diversity of creative firms	Average size of firms	Production services	Htgh School rate	College rate	Protected cultural sites	Tourism index	Restaurants index	Diversity of population	Voter turnout	Unemployment rate	Regional expenditure	Local expenditure	Population variation	Distance to the capital	Computers				
HLQ	3 47.0 (+)			1 26.7 (-)					2 41.2 (+)																47.0 (46)	
HLQ								2 43.7 (+)		1 37.7 (+)															43.8 (33)	
Models for cultural specialisation																										
Economic Activity Index			1 39.1 (+)					2 45.9 (+)																		45.9 (46)
Economic Activity Index			1 60.2 (+)					2 63.1 (+)											3 65.8 (+)							65.8 (33)
College Rate			1 24.4 (+)	3 42.1 (+)	2 32.7 (-)																					42.1 (46)
College Rate			3 54.6 (+)			2 51.9 (+)																		1 39.5 (+)	54.6 (33)	
Local Expenditure						2 30.1 (+)									1 22.8 (-)											30.2 (46)
Local Expenditure																								3 56.4 (+)	56.4 (33)	

Models for impact of culture (using cultural specialisation index –HLQ– as independent variable)

(1) Cultural specialisation.

In this work, with the prudence required by the methodological and conceptual conditions mentioned above—incomplete and skewed statistics, inadequate availability of data for the public sector in a cultural milieu in which it is dominant—we must indicate, first, that public spending on culture has not been confirmed as a factor influencing the importance of culture in the towns studied. Similarly, neither have the variables associated with qualitative factors and residential amenities, nor soft factors, confirmed our expectations of their capacity to explain the cultural economy in these extra-metropolitan small towns. The implicit discourse in the theoretical models following in the wake of Florida (2002) would seem to favour the quality of life of small towns, many of them in historical settings, with built heritage, and less congested public spaces. But we have not found an explicit, clear and obvious relationship with this kind of amenities, so that the point of view of demand, of the citizens who appreciate and *consume* that higher quality space, is not found to be significant, unlike the point of view of supply, where we find most of the explanatory variables. So this presents an invitation to refine the selected variables in order to better approximate the determining factors proposed by the theory.

To complete this sketch of the potential factors influencing the cultural specialisation of the small towns studied, we performed an inverse analysis, looking to capture whether any of the characteristics explaining culture—the size of the local economy, human capital and cultural expenditure—could be sensitive to the higher or lower cultural specialisation of the 46 small towns in general, and the 33 with cultural profiles in particular. The models obtained are shown in the lower rows of Tables 2 and 3. Only for the set of 33 towns, the level of education seems to be driven by cultural firms' activity. Finally, local public spending on culture is not the consequence of the level of business activity in the sector. Neither does cultural specialisation contribute to explain the local economy, its size (shown in the index of economic activity) or its internal purchasing capacity or market. This is logical, given that its proportion in jobs and the number of companies is very small, even if it has all the multiplying and spill over effects mentioned above. While relevant, they do not appear to manifest explicitly in monetary terms in the urban economy of these small towns. They would consist more of Jacobs-style externalities, transversal and not monetisable, which are not accounted for in the regressions, rather than Marshallian ones, which would lower costs and be more visible.

#### **4. Some first conclusive considerations**

This research has revealed that in 33 of Spain's extra-metropolitan small cities (see Map 1) the firms belonging to cultural sector activities have an above-average relative weight, giving these towns a specialisation differentiating them from others with the same population size. Culture appears as a relevant factor in the configuration of the intermediate levels of Spain's urban hierarchy, and its concentration gives a higher rank to towns presenting a relative specialisation in these business activities.

In the light of the results obtained so far, and in the context of our research into creative and cultural activities outside metropolitan areas, the research presented in this work leads, in our opinion, to the following conclusions:

1. Specialisation in cultural business activities, in small towns outside metropolitan areas, is largely but not conclusively explained by the conventional theories of local development, and more specifically, by the usual variables used to justify the importance of classic economic sectors, such as Market share, the Economic activity index, and economic diversification. Only when dealing with the subset of small cities specialising in culture does the educational level appear as one of the explanatory variables. But in general, our research seems to indicate that culture behaves much like any other commodity.

2. In contrast, theories inspired by more qualitative aspects, linked to the local quality of life, to which cultural entrepreneurs may apparently be more sensitive, along the lines suggested by models in the style of Florida (2001), do not provide the hoped-for explanation.

3. We must admit that this research may suffer from a vague conceptualisation of the activities being studied, as the headings for cultural activities in the commonly used statistics do not have much space for cultural initiatives, which are also transversal and can be found classified in other categories. Also, the organisations included in the Public Administrations which provide cultural services are not differentiated in any statistics. Finally, there are no standards or references for the choice of variables describing soft factors which could be shared by researchers, unlike the variables referring to hard factors. For all these reasons, although the results of the analysis seem to indicate that the cultural specialisation of small towns is due to non-soft factors, the set of restrictions described above means we cannot state this conclusively. Consequently, we must leave for future research the task of more precisely evaluating the incidence of the determinants discussed in our results.

4. Although political debates often include the argument that synergies are generated between public and private cultural activities, we have not found any causal relationship between spending on culture by the regional and local governments of the towns studied and their specialisation in cultural activities.

5. Finally, specialisation in cultural activities does not seem to be a decisive element for driving the local development of these towns, their level of human capital, or public spending on culture. Their relative importance in terms of employment and added value is consistent with these conclusions.

Due to the above, we believe we can state that the explanation for specialisation in cultural activities does not differ from that for other economic activities, even though their content refers to qualitative areas, and they supposedly benefit from a more educated typical consumer. The location of companies offering these goods and services responds to similar stimuli to those of most commodities.

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## Annex 1. Definitions of some indicators and indices included as independent variables in the regression analysis

**College completion rate** refers to people with a university-level education, i.e., who have completed a diploma course, architecture or technical engineering course, university 3- or 4-year degree course, official Master's degree, medical specialisation course, or doctorate in 2011.

**Diversity of population.** Figures for 2011 for the following nationalities: Spain, other European Union member states, EU27, other European states outside the European Union, Africa, Maghreb, rest of Africa, North America, rest of the Americas, Asia, Oceania.

**Economic activity index.** Obtained based on business tax on total business activities, except agricultural (which are not subject to business tax). The index value indicates the participation (per 100,000) corresponding to each municipality over a national base of 100,000 units (total euros collected in tax = 100,000). *Source: Anuario Económico de España.*

**High school completion rate.** In Spain, students are considered to have completed high school when they have finished ESO, EGB or *Bachiller Elemental*, or if they have an Education Certificate or Primary School Certificate. *Bachiller* (LOE, LOGSE), BUP, *Bachiller Superior*, COU, PREU, middle grade FP (vocational training), FP I, *Oficialía industrial* or equivalent, middle grade in Music and Dance, certificates from Official Language Schools, upper grade FP, FP II, *Maestría industrial* or equivalent.

**Market share.** Index expressing the comparative purchasing power of consumption capacity of the municipalities on 1 January 2012. It is based on the population plus five other variables representing its purchasing power: number of landline phones, cars, lorries, bank branches and retail activities. The index value indicates the participation (per 100,000) corresponding to each municipality over a national base of 100,000 units (total euros collected in tax = 100,000). *Source: Anuario Económico de España.*

**Production services.** The NACE Rev. 2 codes and activities considered are: 58. Publishing activities; 59. Motion picture, video and television programme production, sound recording and music publishing activities; 60. Programming and broadcasting activities; 61. Telecommunications; 62. Computer programming, consultancy and related activities. 63. Information service activities; 68. Real estate activities; 69. Legal and accounting activities; 70. Activities of head offices; management consultancy activities; 71. Architectural and engineering activities; technical testing and analysis; 72. Scientific research and development; 73. Advertising and market research; and 74. Other professional, scientific and technical activities.

**Tourism index.** Figures for 2011, obtained based on business tax corresponding to tourism businesses, which is based in turn on the category of the tourist establishments, number of rooms and annual occupancy, making it practically an indicator of the tourism offer. The index value indicates the participation (per 100,000) corresponding to each municipality over a national base of 100,000 units (total euros collected in tax = 100,000). *Source: Anuario Económico de España.*

**Unemployment rate** collects the number of firings recorded at the State Public Service of Employment (formerly the INEM) in each municipality on July 1, 2012, relativized by the potentially active population (15 to 64 years of age), referring to the Standard of January 1, 2012 (Recorded unemployed/Population 15 to 64) \* 100.

## Annex 2. Descriptive statistics

Variable	N	Mean	StDev	Minimum	Maximum
HQL	46	3,843	6,690	-7,029	22,825
Population variation	46	22,90	17,58	3,60	70,13
Diversity of crea. firms	46	0,3663	0,1464	0,1206	1,0000
Broadband lines	46	0,23186	0,04306	0,16360	0,31924
Bank branches	46	0,7780	0,1824	0,4744	1,1708
Tourism index	43	24,81	27,86	0,00	128,00
Economic activity index	45	58,87	20,05	28,00	107,00
Voter turnout	46	0,64854	0,06473	0,48492	0,75677
Average size of firms	45	7,457	1,157	4,826	9,903
Diversity of firms	46	0,13532	0,02858	0,09430	0,24026
Diversity of jobs	46	0,13000	0,04114	0,06762	0,23251
Production services	46	0,07960	0,02161	0,05362	0,13455
Distance	46	35,30	18,41	0,00	82,86
Market share	46	78,87	12,34	57,00	119,00
Commuters	45	0,2854	0,1874	0,1131	0,8810
Diversity of population	46	0,7766	0,1219	0,4917	0,9569
High school rate	46	0,45687	0,03582	0,37193	0,51451
College rate	46	0,12219	0,03295	0,06329	0,19755
Protected cultural goods	44	0,000271	0,000270	0,000000	0,001276
Unemployment rate	46	15,820	4,113	6,200	29,300
Reg. expend. on culture	46	0,03920	0,02052	0,01485	0,10622
Local expend. on culture	46	45,02	23,76	7,75	99,58

Variable	N	Mean	StDev	Minimum	Maximum
HQL	33	6,49	5,93	0,41	22,82
Population variation	33	19,58	13,91	3,60	68,47
Diversity of crea. firms	33	0,3178	0,0791	0,1206	0,4622
Broadband lines	33	0,23113	0,03909	0,16360	0,31015
Bank branches	33	0,8049	0,1792	0,5113	1,1708
Tourism index	31	23,42	25,09	2,00	126,00
Economic activity index	32	61,59	20,95	29,00	107,00
Voter turnout	33	0,6471	0,0653	0,4974	0,7395
Average size of firms	32	7,544	1,137	5,445	9,903
Diversity of firms	33	0,13027	0,02205	0,09430	0,18073
Diversity of jobs	33	0,12630	0,04102	0,06762	0,23251
Production services	33	0,08268	0,02368	0,05362	0,13455
Distance	33	33,89	17,44	0,00	64,40
Market share	33	80,88	12,24	63,00	119,00
Commuters	33	0,2740	0,1736	0,1131	0,8126
Diversity of population	33	0,7812	0,1084	0,5760	0,9569
High school rate	33	0,45879	0,03250	0,40654	0,50588
College rate	33	0,11833	0,02843	0,06329	0,17333
Protected cultural goods	31	0,000260	0,000230	0,000000	0,000955
Unemployment rate	33	16,255	3,401	9,200	21,900
Reg. expend. on culture	33	0,04083	0,02214	0,01485	0,10622
Local expend. on culture	33	45,76	25,85	7,75	99,58

