

**Unrewarded careers in the creative class: The strange case of Bohemian graduates**

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## 1. Introduction

*'Our cultural and creative sectors are one of our great success stories. We are seen as leaders in many aspects of cultural life. Culture not only helps define and give meaning to our lives as individuals, it also makes a significant contribution to our nation's prosperity'*  
(Margaret Hodge, MP – UK Minister for Culture, 2008<sup>1</sup>)

On November 11th 1998, the Department for Culture, Media and Sport (from now on referred to as DCMS) launched its "Creative Industries Mapping Document" (DCMS 1998). The aim of report, drafted with the help of multi-millionaire and tycoon Richard Branson, was to provide a definition of 'creative industries' while, at the same time, give them the recognition and legitimacy they deserved as an important component of the UK economy.

The document, updated in 2001, defined creative industries as *"those industries that have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property"* (DCMS 2001, p.5). They include advertising, architecture, the art and antiques market, crafts, design, designer fashion, film, interactive leisure software, music, the performing arts, publishing, software and television and radio.

Since the publication of the DCMS document the attention to the creative economy in UK has been growing fast. The creative industries have been praised as one of the UK fastest growing sectors (with an average annual growth of 8.0% - three times more than the overall economy - between 1997 and 2001<sup>2</sup>) and the attention of policy makers, both at the national and regional level, has been shifted towards fostering and supporting them. In 2005 Gordon Brown, then Chancellor of the Exchequer, made available £12 million (over a period of two years) to develop leaders in the 'cultural and creative sectors' (see Devlin et al. 2008). His commitment to support the creative sector was re-affirmed in his 2007 speech launching his bid to become Labour leader and then again, as Prime Minister, in April 2009 when he pointed at the creative industries as a means to *'pull Britain out of recession'*<sup>3</sup>.

While in the UK growing attention was devoted to the 'creative industries', in the US a new wave of research, led by the work of Richard Florida, was pointing out the importance of the 'creative class' and 'creativity' as a *'driving force in regional economic growth and prosperity'* (Florida 2002a, 2002b, 2002c, Stolarick and Florida 2006). In Florida's own words at the core of the creative class there are *'people in science and engineering, architecture and design, education, arts, music and entertainment, whose economic function is to create new ideas, new technology, and/or new creative content'*, but also *'the creative professionals in business and finance, law, healthcare and related fields. These people engage in complex problem*

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<sup>1</sup> In Devlin et al. (2008, Preface)

<sup>2</sup> See DCMS (2003)

<sup>3</sup> For a summary of his speech see <http://www.campaignlive.co.uk/news/899097/Digital-Britain-Summit-Gordon-Brown-pledges-support-creative-industries/> (last accessed 20<sup>th</sup> June 2009).

*solving that involves a great deal of independent judgment and requires high levels of education or human capital* (Florida 2002c, p.8). The creative class was also seen as a non-traditional occupation-based measure of human capital (or ‘talent’), alternative to the standard educational attainment measure (Florida et al. 2008).

The question, however, is: how do ‘creative’ industries (i.e. the firm side) relate to the concept of ‘creative’ class (i.e. the employee side)? Although both making use of the adjective ‘creative’, the definition of ‘creative’ class encompasses most of the professions which require some sort of ‘intellectual ability’ and it is much wider than the ‘creative’ industries referred to by the 1998 DCMS. In fact, the ‘creative industries’ - focus of the UK policy – represent a shift from the traditional ‘cultural industries’ towards a new ‘intellectual property’ (Garnham 2005) and R&D based (Cunningham 2002) definition of the cultural production. In the work of Florida this category of occupations, which are only a small sub-sector of the larger creative class, are more closely related to the concept of ‘bohemians’. Traditionally viewed as people who favour more libertine lifestyles (see Bell 1976) and in general refused middle-class (bourgeois) conventions (Murger 1988), more recently similar terms (such as neo-bohemia or ‘bobos’) has been developed to encompass a broader artistic but also economic driven category of workers (Brooks 2000, Eikhof and Haunschild 2006, Leadbeater and Oakley 1999, Lloyd 2002). The ‘bohemians’, as defined by Florida (2002a), include the more ‘artistic’ part of the ‘creative class’ and more specifically: *‘authors, designers, musicians and composers, actors and directors, craft-artists, painters, sculptors, artist printmakers, photographers, dancers, artists, performers and related workers’* (p. 59). While most economists would agree with the idea that ‘creativity’ (especially in its wider understanding, often overlapping with innovation and research & development) and the ‘creative class’, in general, plays a vital part in fostering national and economic development (partly because it overlaps with the concept of human capital, with which economists are more familiar), there is still some scepticism about the role of the ‘bohemians’ (as defined by Florida, 2002a) and ‘creative industries’ on the overall economy.

‘Bohemians’ and ‘creative industries’ are the focus of this paper. In particular, we focus on the sub-group of highly educated bohemians (or *‘Bohemian graduates’*) who obtained a degree in ‘artistic subjects’ (as defined by Florida 2002a) from UK-based higher education institutions (from now on referred to as HEIs). We will present evidence of the role of ‘Bohemian graduates’ in the development of the ‘creative industries’ but also focus on what kind of career profiles (including salary and job level) these Bohemians graduates are likely to achieve. We will also briefly discuss the role of London as a hub for the UK creative economy and attraction pole for the ‘Bohemian graduates’.

The paper is organised as follows. Section 2 introduces the theoretical framework and definitions used in our analysis. Section 3 describes the micro-individual data at our disposal. Section 4 presents the main results followed by a discussion in Section 5. Finally, Section 6 presents some preliminary conclusions and avenues for further research.

## **2. Theoretical background**

The term 'creative economy' has become very popular over the last decade (Howkins 2001, Rantisi et al. 2006). Yet, while there is little disagreement that somehow creativity is important for economic growth, there is considerable more confusion on what this 'creativity' entails and what the contribution of the 'creative economy' really is. This confusion seems to stem mainly from two problems:

1. The supply and demand side of the 'creative economy' are variously defined and do not overlap. Moreover, there has been a proliferation of new terminologies (creative industries, creative class, creative cities, creative clusters etc.).
2. There is a need of better defining the linkages between the 'creative economy' and concepts such as human capital and talent to reconcile the view of geographers and economists.

### **2.1. Labour supply and demand in the creative economy: creative class vs. creative industries**

The definition of 'creative industries', which represent the labour demand side of the creative economy, is a lot more restrictive than the definition of 'creative class', which represent the labour supply side. However, while the definitions of 'creative class' and 'creative industries' do not overlap, they do have in common the attention towards the added economic value derived from knowledge and creativity. Moreover, both concepts have been criticised for being either too narrow or too broad.

Markusen (2006) sees the definition of 'creative class' (Florida, 2002c) as an artificial construction which merges together different occupations (e.g. artistic occupations with engineering, science and technology ones) with very little in common. She also questions the relationship between the idea of 'creative occupations' and the creative class discourse as a whole. Markusen and Schrock (2006) highlight the need to use a narrower definition of creative class (i.e. limited to artistic occupations) to understand the core dynamics of the creative sector and better estimate its contribution to local and regional development. This is also the view of Montgomery (2005) which is an advocate of the importance of creative industries rather than creative class in local development.

The DCMS definition of creative industries did not remain without criticism either. From a methodological perspective, it proved difficult to implement and the data available show the centrality of some sectors, but cannot effectively map others (Creight-Tyte 2005). From a theoretical perspective, Galloway and Dunlop (2006) question the use of the term 'creative industries'. It implies, they argue, that their contribution and value has to be measured only in economic terms, while this is not always compatible with their role and mission as part of the cultural sector. Similarly, Garnham (2005) questions the shift from cultural industries to creative industries as linked to a new emphasis of the government on intellectual properties and copyright industries, so more on the economic value of culture. While these limitations and contradictions remain, the aim of the new framework was to bring new centrality of arts and culture in society (Smith 1998) and has been praised as a new vital step

towards assessing the role of these sectors (Cunningham 2002, Hartley and Cunningham 2001).

Our view is that, indeed, the ‘creative class’ as defined by Florida, is too broad to enable a meaningful empirical analysis. It includes very different occupations (such as physicists and artists which can hardly be thought of as having similar characteristics) and this unaccounted heterogeneity can lead to misleading results. As Hansen and Niedomysl (2009) point out, the creative class so defined accounts on average for around 35% of the total workforce and it encompasses very different occupations whose contribution to regional growth is considerably unequal. Florida himself underlines that *‘there is good reason to believe that some occupations and specific types of skill play a relatively larger role in regional development’* (Florida et al. 2008, p.19) and proceeds in analysing ten sub-groups<sup>4</sup> of the creative class separately. However, the ten sub-groups are treated equally and no mention is made to the fact that the ‘Arts, design, entertainment, sports and media’ sub-group (the ‘bohemians’) has a stronger link with the ‘creative industries’ and should therefore be given special attention (although a short section on the ‘cultural economy’ is added at the end). The results prove that the ‘bohemians’ are strongly correlated with both regional wages and income, although the model for this sub-group is not strictly comparable with the models for the other nine sub-groups as the ‘tolerance index’ has to be substituted by the ‘gay index’ for multicollinearity problems.

## **2.2. Creative class, creative industries and human capital: the Bohemian graduate.**

The relationship between creative class and creative industries is complicated even further when we introduce the concept of human capital in the picture.

Mellander and Florida (2007) and Florida et al. (2008) argue that two are the main issues regarding human capital. One is how to best measure it, the second is what are the factors influencing its distribution over space. Following Florida (2002a, 2002b, 2002c) they also argue that the best human capital measure is not the traditional educational attainment, but rather an alternative measure based on the set of occupations that make up the ‘creative class’. They also argue that this measure outperforms the conventional human capital measure in explaining regional growth as it accounts for utilised skills rather than just potential talent.

However, this view is not universally accepted and the debate is still very much open. Hansen (2007) shows that the correlation between creative class and human capital (traditionally measured in terms of educational attainment) is 0.94. A very high correlation is also found in Finland, Denmark and Norway (respectively 0.96, 0.84 and 0.85<sup>5</sup>). These high correlations pose some doubts about how much the Floridian creative class add to the traditional human capital theory. As Glaeser (2005) observes, if the creative class has an effect over and above the traditional measure of human

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<sup>4</sup> These sub-groups are: 1. Business and financial operations, 2. Computer and mathematical occupations, 3. High end sales and sales management, 4. Arts, design, entertainment, sports and media, 5. Management, 6. Architecture and engineering, 7. Legal, 8. Life, physical and social sciences, 9. Healthcare and 10. Education and Training.

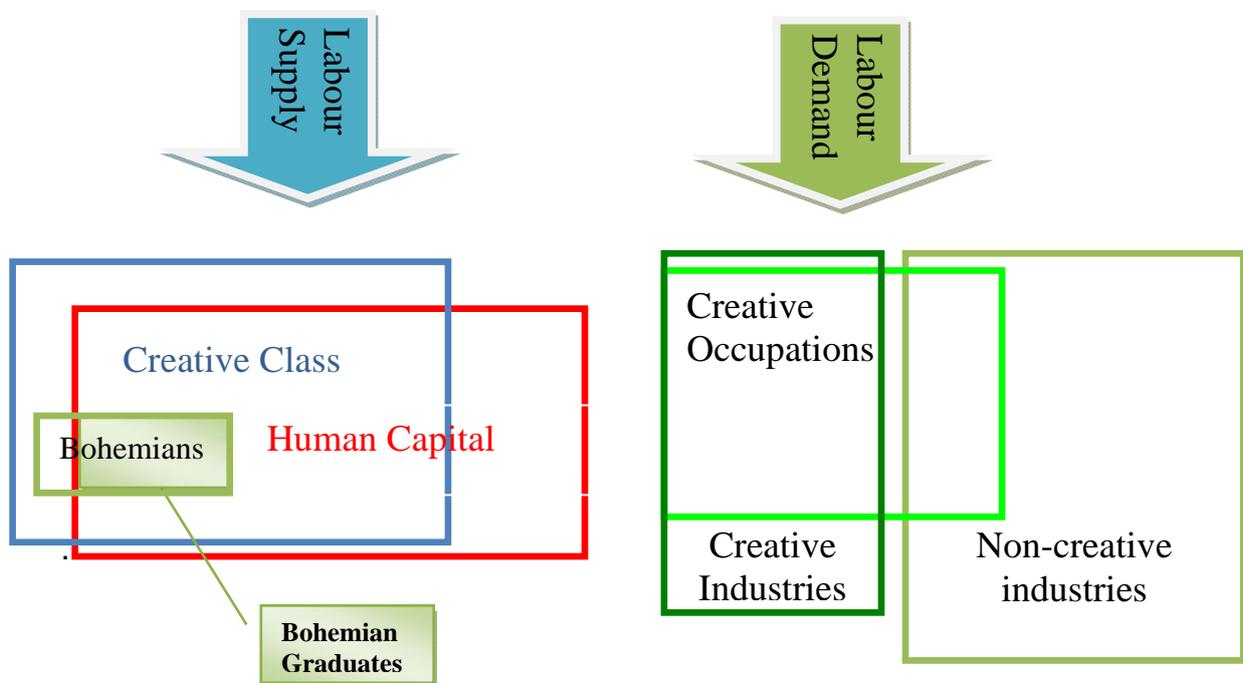
<sup>5</sup> See Andersen et al. (2008)

capital, then it should be positive in a model in which both variables are included. However, by running a simple regression, he finds that while the percentage of adults with a college education has a positive and statistically significant impact on growth, the share of workers in the ‘super-creative core’ is statistically insignificant when the schooling variable is included. The two variables are also highly correlated (0.75). Other contributions, such as Wojan et al. (2007), Rauch and Negrey (2006) and Donegan et al. (2008), also show that the creative class measure of human capital performs very similarly to the traditional educational attainment measure (in fact sometimes better, but sometimes even worse).

The relationship between creative industries and human capital has also been proved to be particularly strong. A report by NESTA (2003) showed the DCMS-defined creative industries in the UK are a ‘highly educated’ sector, with 43% of the employees having a tertiary degree qualification or higher (compared to an average of 16% for the workforce as a whole).

In this paper, we focus specifically on people who are at the intersection between creative class, creative industries and human capital, i.e. graduates who obtained a degree in a ‘bohemian’ subject (creative arts, performing arts, design, mass communications, multi-media, software design and engineering, music recording and technology, architecture and landscape design). As they combined both creativity and human capital, their role in contributing to the local economy should be almost unanimously accepted by both the advocates of the creative class theory and the human capital theory.

Figure 1: The ‘Bohemian’ graduate



As Figure 1 shows, the concept of creative class and human capital (traditionally measured) are largely overlapping. Bohemians are one of the sub-groups of the creative class and in turn, the bohemian graduates are highly educated bohemians (i.e.

with high ‘formal’ human capital). On the labour demand side of the creative economy, there are creative and non-creative industries. Creative industries are a much narrower concept than the creative class and are strictly related to the concept of bohemians in reference to the sector that they include. However, as Higgs et al. (2008) have shown, occupations which characterise the creative industries sector, can now often be embedded in other sectors of the economy, therefore creative occupations represent both occupations in the creative industries and creative (in bohemian terms) occupations in other industries.

There is now a large amount of literature on both the link between human capital and economic growth and creative class and economic growth. The focus of our paper is not, therefore, to provide yet another contribution on this theme. Rather, our main focus is to analyse how bohemian graduates, who are both creative and highly educated, contribute to the creative economy through their ‘creative occupation’. Moreover, as it has been argued that knowledge spillovers and spillacrosses (Stolarick and Florida, 2006) arise from both creative and highly educated people, we are interested in analysing the job outcomes of bohemian graduates. Despite their role in fostering local development, bohemian graduates seem to struggle in finding well-paid and stable positions in the labour market.

Our paper provides the first detailed micro-individual analysis of bohemian graduates and their careers. It is the first attempt to assess their role in the creative industries sector in the UK and also to test whether they are, indeed, at a ‘salary disadvantage’ when looking for jobs. If it is true that the contribution of bohemians to local economic growth is central, this should somehow be recognised by employers and internalised in their salaries by a perfectly functioning labour market. However, although at present there is no detailed quantitative micro-economic analysis on bohemian individuals (mainly because of the lack of data), there have been, within the cultural studies and sociology fields, more qualitative studies, which identified the problems faced by artists as an occupational group.

Menger (1999), for instance, finds that artists, compared to the general work force, are on average younger, better educated, more concentrated in a few metropolitan areas, have higher rates of self-employment, but also they have “*higher rates of unemployment and of several forms of constrained underemployment [...] they earn less than workers in their reference occupational category, that of professional, technical, and kindred workers, whose members have comparable human capital characteristics*” (Menger 1999, p. 545). Throsby and Hollister (2003) study on around a thousand artists in Australia finds that three quarter of all artists are either freelance or self-employed with 63% holding more than one job. McRobbie (2002) contribution on fashion designers highlights the job insecurity and unsettled career pattern of people entering this sector. Similarly, other authors focus on the importance of ‘portfolio careers’ and the risk and uncertainty characterising creative jobs (Blair 2001, Ekinsmyth 2002).

### **3. Data and methodology**

Our empirical analysis is based on data collected by the Higher Education Statistical Agency (from now on referred to as HESA) on students who graduated from British

HEIs at the end of the academic year 2006/07. To build our dataset we combined two different HESA data streams: the ‘Students in Higher Education’ and the ‘Destination of Leavers from Higher Education Institutions’ (also known as DHLE).

The 2006/07 students’ survey includes records on 2,362,815 students in all the British HEIs (169 institutions overall). For each student information on personal characteristics (such as age, gender, ethnicity), course characteristics (including subject studied at 4-digit JACS code<sup>6</sup>, mode of studying, i.e. full-time or part-time, institution attended, final grade achieved for finalists) and location of parental domicile (at unit postcode level<sup>7</sup>) was collected. The DHLE provides us with information on graduate employment between six and eighteen months after graduation. In 2006/07 information on 332,110 graduates was collected and it included not only the salary and location of their job, but also a brief description of their tasks and the SOC4 and SIC4 codes of their occupation. In the final combined database we had 242,469 ‘valid’ cases (i.e. with no missing information).

We based our definition of ‘creative industries’ on DCMS definition which includes the following sectors: Advertising, Architecture, Art and antiques markets, Computer and video games, Crafts, Design, Designer fashion, Film and video, Music, Performing arts, Publishing, Software, Television and radio. DCMS (2009, p. 9-11) provides us with the exact SIC4 codes included in the definition of creative industries, so we could match them with the SIC4 codes of the occupations entered by graduates and collected in the DHLE survey.

Identifying the ‘bohemian graduates’ was a considerably more difficult task. We based our definition on the JACS 4-digit subject codes and included three main categories of graduates<sup>8</sup>:

- a) Creative *arts and design* graduates: all JACS codes starting with W<sup>9</sup>;

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<sup>6</sup> For more information on the Joint Academic Coding System (or JACS) see [http://www.hesa.ac.uk/index.php?option=com\\_content&task=view&id=158&Itemid=233](http://www.hesa.ac.uk/index.php?option=com_content&task=view&id=158&Itemid=233)

<sup>7</sup> There are approximately 1.78 million unit postcodes in the UK (see [http://www.statistics.gov.uk/geography/postal\\_geog.asp](http://www.statistics.gov.uk/geography/postal_geog.asp)). Each postcode contains up to 100 addresses, but 15 is a more typical number, so this is a very fine spatial resolution.

<sup>8</sup> The paper does not attempt to identify in which way these three groups are cohesive or what difference emerge among these three sub- groups. This could be the focus of future research.

<sup>9</sup> These include: *Fine Arts*: W110 Drawing, W120 Painting, W130 Sculpture, W140 Printmaking, W150 Calligraphy, W160 Fine Art Conservation, W190 Fine Art not elsewhere classified; *Design*: W210 Graphic Design, W211 Typography, W212 Multimedia Design, W213 Visual Communication, W220 Illustration, W230 Clothing/Fashion Design, W231 Textile Design, W240 Industrial/Product Design, W250 Interior Design, W260 Furniture Design, W270 Ceramics Design, W280 Interactive and Electronic Design, W290 Design studies not elsewhere classified; *Music*: W310 Musicianship/Performance studies, W330 History of Music, W340 Types of Music, W350 Musicology, W360 Musical Instrument History, W390 Music not elsewhere classified; Drama: W410 Acting, W420 Directing for Theatre, W430 Producing for Theatre, W440 Theatre studies, W450 Stage Management, W451 Theatrical Wardrobe Design, W452 Theatrical Make-up, W460 Theatre Design, W461 Stage Design, W490 Drama not elsewhere classified; *Dance*: W510 Choreography, W520 Body Awareness, W530 History of Dance, W540 Types of Dance, W590 Dance not elsewhere classified; *Cinematics and Photography*: W610 Moving Image Techniques, W611 Directing Motion Pictures, W612 Producing Motion Pictures, W613 Film & Sound Recording, W614 Visual and Audio Effects, W615 Animation Techniques, W620 Cinematography, W630 History of Cinematics and Photography, W631 History of Cinematics, W632 History of Photography, W640 Photography, W690 Cinematics and Photography not elsewhere classified; *Crafts*: W710 Fabric and Leather Crafts, W711 Needlecraft, W712

- b) Creative *media* graduates: JACS codes starting with P<sup>10</sup>;
- c) Creative *others*: Multi-media Computing Science (JACS code G450); Software Engineering (G600); Software Design (G610); Audio Technology (J930); Music Recording (J931); Musical Instrument Technology (J950); Architecture (K100); Landscape Design (K300).

In terms of how our definition relates to the main body of literature, the JACS codes we selected are a proxy for the sub-group of the creative class, which has been identified with the term ‘bohemians’ (Florida 2002a, Florida et al. 2008a). There is also a strong correspondence between our JACS subjects and the DCMS (2009) definition of creative industries. Students who studied ‘combined subjects’ of which only one was ‘creative’ were classified as ‘partially bohemians’.

After having defined ‘creative industries’ and ‘bohemian graduates’ for the purpose of this paper, our methodology followed three main steps:

1. Firstly we used some simple descriptive statistics, to draw a *picture of the ‘bohemian graduates’* in our sample and their relationship with the creative industries;
2. Secondly, we used a binary logit model to identify what factors affect the probability of getting *a job* in creative industries (for both undergraduates and postgraduates). Formally:

$$\Pr(y = 1 | \mathbf{x}) = \frac{1}{1 + e^{-x\beta}} \quad (1)$$

3. Finally, we used a multinomial logit model to examine how certain student or course characteristics influence the probability of getting *a particular type of job* in creative industries. Following Elias and Purcell (2004a) we identify five possible types of jobs: traditional graduate, modern graduate, new graduate, niche graduate and non-graduate. The following multinomial logit model was then estimated:

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Dressmaking, W713 Soft Furnishing, W714 Weaving, W715 Leatherwork, W720 Metal Crafts, W721 Silversmithing/Goldsmithing, W722 Blacksmithing, W723 Clock/Watchmaking, W730 Wood Crafts, W731 Carpentry/Joinery, W732 Cabinet making, W733 Marquetry and Inlaying, W734 Veneering, W740 Surface Decoration, W750 Clay and Stone Crafts, W751 Pottery, W752 Tile Making, W753 Stone Crafts, W760 Reed Crafts, W761 Basketry, W762 Thatching, W770 Glass Crafts, W771 Glassblowing, W780 Paper Crafts, W781 Bookbinding, W782 Origami, W790 Crafts not elsewhere classified; *Imaginative Writing*: W810 Scriptwriting, W820 Poetry Writing, W830 Prose Writing, W890 Imaginative Writing not elsewhere classified; *Others in Creative Arts and Design*: W990 Creative Arts and Design not elsewhere classified.

<sup>10</sup> These include: *Information Services*: P110 Information Management, P120 Librarianship, P121 Library Studies, P130 Curatorial Studies, P131 Museum Studies, P132 Archive Studies, P190 Information Services not elsewhere classified; *Publicity Studies*: P210 Public Relations, P290 Publicity studies not elsewhere classified; *Media studies*: P301 Television studies, P302 Radio studies, P303 Film studies, P304 Electronic Media studies, P305 Paper-based Media studies, P310 Media Production, P311 Television Production, P312 Radio Production, P313 Film Production, P390 Media studies not elsewhere classified; *Publishing*: P410 Electronic Publishing, P411 Publishing on audio/video tape, P412 Publishing on CD-ROM, P413 Publishing via the World Wide Web, P420 Multi-media Publishing, P430 Interactive Publishing, P490 Publishing not elsewhere classified; *Journalism*: P510 Factual Reporting, P590 Journalism not elsewhere classified; *Others in Mass Communications and Documentation*: P990 Communications and Documentation not elsewhere classified.

$$\Pr(y = m | \mathbf{x}) = \frac{e^{\mathbf{x}\beta_{mb}}}{\sum_j e^{\mathbf{x}\beta_{jb}}} \quad (2)$$

Equation 2 gives the estimated probabilities of individual (i.e. a bohemian graduate) getting a certain ‘graduate job type’ ‘*m*’ (compared to the ‘base type’ ‘*b*’ which in our case is a non-graduate job) as a function of a series of characteristics (vector  $\mathbf{X}$ )<sup>11</sup>.

## 4. Results

### 4.1 Summary descriptive statistics on bohemian graduates and creative occupations

#### 4.1.1 Supply and demand of bohemian graduates

In the year 2006/07 around 12% of students obtained a degree in a ‘bohemian’ subject (as defined in section 3). Around another 2% graduated in combined subjects which included a ‘bohemian’ component. In absolute numbers, this means that over 33,000 bohemian graduates were produced by British HEIs to be allocated to the job market (see Table 1).

Table 1: Number of graduates in the sample by subject

Subject	No. graduates
Non bohemian subjects	208,481
<i>% over total</i>	85.98
Partially bohemian subjects	4,299
<i>% over total</i>	1.77
Bohemian subjects	29,689
<i>% over total</i>	12.24
<b>Total valid obs.</b>	<b>242,469</b>

However, as creative industries and the creative economy are a relative modern phenomenon, bohemian subjects are not considered ‘hard core’ academic disciplines and hence they are mainly taught in colleges or ‘new’ universities (i.e. ex polytechnics which achieved university status after the end of the ‘binary divide’ in 1992). The more prestigious universities in the UK (so-called ‘Russell group’) still prefer less artistic and more science-based courses (Table 2).

Table 2: Number of bohemian graduates by HEI type

HEI Type	No. of	% of UK	Subject (%)
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<sup>11</sup> These characteristics might be individual, course or location characteristics, but they might be ‘invariant’ to the chooser (in our case the graduates), in other words they cannot be characteristics of the choice (in our case the job type).

	<b>HEIs</b>	<b>students taught</b>	<i>Non bohemian</i>	<i>Partially bohemian</i>	<i>Bohemian</i>
Russell Group	20	20.90	94.30	1.14	4.56
Other 'old'	42	23.41	91.38	1.51	7.11
'New'	57	47.99	82.70	2.07	15.23
Colleges	50	7.70	67.44	2.43	30.13
<b>Total</b>	<b>169</b>	<b>100</b>	<b>85.98</b>	<b>1.77</b>	<b>12.24</b>

As Table 2 shows, only around 4.5% of graduates from Russell group universities studied a bohemian subject, compared to 7.1% in other old universities and 15.2% in 'new' universities. Colleges remain, however, the most-established HEIs in teaching bohemian subjects, with around a third of their students attending these courses. The fact that bohemian subjects are relegated to HEIs which, on average, are considered less prestigious might have implications for the employability of bohemian graduates. The quality of the HEI attended is in fact a 'signal' (à la Spence 1973) of the quality of the graduates themselves over and above their final degree classification and it is often crucial in landing a high paid job in the labour market. This point will be explored further in the discussion of our results.

To identify the demand side of the bohemian graduate labour market, we used the SIC4 and SOC4 codes defined by the DCMS document (2009). We refer to this labour market made by jobs in creative industries and creative jobs in other industries as 'creative occupations'. As Table 3 shows, this definition includes 41,700 jobs in our 2006/07 sample which represents just over 17.2% of all our observations. This confirms the general policy acknowledgement that the creative industries have become a significant sector in the UK economy accounting for 6.4% of Gross Value Added (GVA) in 2006 (DCMS, 2009). Employment in the creative sector has also shown a growing trend from 1.6m in 1997 to 2m in 2007, an average growth rate of 2% per annum, compared to 1% for the whole of the economy over the same period (DCMS, 2009).

Table 3: Creative Occupations in our sample (based on DCMS, 2009)

<b>Sector</b>	<b>No. of jobs</b>
Non Creative Occupations	200,512
<i>% over total</i>	<i>82.78</i>
Creative Occupations	41,700
<i>% over total</i>	<i>17.22</i>
<b>Total valid obs.</b>	<b>242,212</b>

By comparing the figures in Table 3 with the figures in Table 1, there seems to be a reasonable alignment between the supply (14.01% of graduates) and demand (17.2% of jobs) of bohemian type skills. It is interesting, however, to investigate how well these two sides match.

#### 4.1.2. Matching bohemian graduates and jobs in creative **occupations**

Table 4 shows the relationship between the numbers of creative occupations taken up by students who graduated in 2007 and the subject they studied.

Table 4: Matching between bohemian graduate and creative occupations

<b>Graduates</b>	<b>Jobs</b>	
	<i>Non Creative Occupations</i>	<i>Creative Occupations</i>
<i>Non bohemian</i>	183,168 87.96	25,070 12.04
<i>Partially bohemian</i>	2,700 62.86	1,595 37.14
<i>Bohemian</i>	14,621 49.31	15,033 50.69
<b>Total no obs.</b>	<b>200,489</b>	<b>41,698</b>

As it is clear from Table 4, there seems to be a considerable mismatch between occupations and qualifications. While the large majority of non-bohemian graduates (almost 88%) is employed in non creative industries as expected, only just over half of the bohemian graduates (50.69%) find a job in the creative industries or in a creative occupation outside the creative industries. If we then look at the total number of creative occupations taken by bohemian (or partially bohemian) graduates vs. non-bohemian graduates, we notice that around 60% of the jobs are taken by non bohemian graduates.

There might be various explanations behind this ‘mismatch’. It is widely acknowledge, for instance, that the creative industries are a very diverse collection of sectors which includes more business service oriented sectors (such as advertising or design), but also some strongly technological driven sectors (such as the game industry or the media sector) which require a wide range of technical skills alongside purely creative ones. Caves (2000) argues that one of the main characteristics of creative industries it is, in fact, this requirement for a very diverse range of skills. This could explain the large number of non-bohemians graduates employed in the creative industries. As Higgs et al. (2008) argue, however, it is also true that creative skills are employed widely in all sorts of sectors, above and beyond the creative industries sector. Although this would not explain why almost half our bohemian graduates find a job in a non creative occupations, it can be argued that some of creative skills mastered by creative graduates have a wider application in the knowledge economy (Oakley et al. 2008).

One result of the mismatch between subject studied and industry of employment might be a lower entry salary. We calculated the average entry salary by subject studied and occupations (creative vs. non creative). The results are reported in Table 5.

Table 5: Mean (and median) salaries by subject studied and occupations

<b>Graduates</b>	<b>Occupations</b>		
	<i>Non Creative Occupations</i>	<i>Creative Occupations</i>	<i>All (row)</i>
<i>Non bohemian</i>	22,831 (20,000)	21,218 (19,000)	22,644 (20,000)
<i>Partially bohemian</i>	17,519 (17,000)	17,859 (18,000)	17,651 (17,000)

<b><i>Bohemian</i></b>	17,521 (16,000)	17,483 (17,000)	17,503 (17,000)
<b><i>All (column)</i></b>	<b>22,449</b> <b>(20,000)</b>	<b>19,935</b> <b>(18,000)</b>	<b>22,053</b> <b>(20,000)</b>

Although, following from the arguments summarised in the theoretical background, we expected the bohemian graduates to be at a salary disadvantage compared to the non-bohemian graduates, some of the results in Table 5 are still quite surprising. Non-bohemian graduates have a higher salary than non-bohemian graduates irrespective of the industry they enter. Even when they are employed in creative occupations they command a salary which is, on average, almost £4,000 more than bohemian graduates (despite bohemian graduates being a better ‘match’ to creative occupations).

Without further investigation it is impossible to identify exactly the causes of this salary discrepancy, but some hypotheses can be advanced. One such hypothesis is that the HEI attended by graduates influence the entry salary they can command. The fact that bohemian graduates are more likely to study in ‘new’ university or colleges and less likely to come from Russell group universities might harm their career prospects (at least initially).

Some authors (e.g. Towse, 2001) highlight that the willingness for so many students to undertake artistic training creates an oversupply of artists, in particular where HEIs entry in these subjects is not capped or filtered (Abbing, 2002). In the UK context specifically, Oakley et al. (2008) report a 60% increase in the number of art and design graduates in the last decade. Moreover, as McRobbie and Forkert (2009) point out, entry to some courses offered by HEIs in this field still does not require A-level qualifications.

Others (such as Blackwell and Harvey, 1999) argue that this difference in salary and job level might be a consequence of the fact that there is a longer transition period for the graduates in these disciplines that requires them to build contacts, establish a portfolio or relevant experience. McRobbie (2002) further highlights the difficulties for creative graduates to enter the networks and social contexts which facilitate their employability. This low income profile is still present, however, in the longitudinal study of Oakley et al. (2008) looking at alumni and graduates from the University of the Arts where the gross annual income of respondents was in 30% of cases below £ 10,000 a year. This trend reflects what McRobbie had previously defined as ‘jobs without capital’ in the designer fashion sector (McRobbie 1998); similarly Ross (2003) studying the new media workers and considering their working conditions uses the terms ‘net slaves’.

Another hypothesis to explain the lower salary of bohemian graduates, as suggested by Oakley et al. (2008) might be that the pedagogic model used in teaching bohemian subjects does not prepare students for the wider knowledge economy and needs to be changed. In 2008 a forum of academics involved in arts and design teaching GLAD (Group for Learning in Art and Design) have called for a change in the skills offered to graduates in arts and design subjects (University of the Arts 2008 ) with greater emphasis on problem-solving skills and involvement of businesses “reflecting the multidisciplinary nature of the creative industries”.

### 4.1.3 Location of creative jobs: the role of London

The creative economy is well-known to be a highly concentrated sector (Scott 2000) with specific local clusters (Pratt 2004, Turok 2003, Wu 2005) and a major presence in major conurbations and global cities (Olfert and Partridge 2008).

The recent work by the DCMS and BERR (2008) mapping firms belonging to the creative industries in the UK shows the dominant role of London, with few other cities, such as Birmingham, Manchester and Leeds, also playing an important role. The role of London as hub for the creative industries as a whole is shown by (Clifton 2008, Oakley 2006, Pratt 1997), while other authors (for example Reimer et al. 2008) describe the role of London for specific sub sectors of the creative economy (such as design).

While the centrality of London and the South East is always acknowledged, the potential for other UK regions to emerge as second-tier hubs in the creative economy has been critically questioned by the literature (Chapain and Comunian forthcoming, Oakley 2004), despite being the focus of many policy initiatives (DCMS 1999, DCMS and BERR 2008),

Our data also show a strong attraction of bohemian graduates towards London (Table 6). Bohemian graduates working in creative occupations are twice as likely to be in London than non-bohemian graduates working in non creative occupations (36% vs. 18%).

Table 6: Percentage of graduates working in London by subject studied and occupations

<b>Graduates</b>	<b>% working in London</b>	
	<i>Non Creative Occupations</i>	<i>Creative Occupations</i>
<i>Non bohemian</i>	18	29
<i>Partially bohemian</i>	19	34
<i>Bohemian</i>	21	36

## 4.2 Who gets a creative job? A logit model

So far we have presented a series of descriptive statistics on the supply and demand side of the bohemian graduate labour market and how the two sides matched. In this section we will try to draw a picture of what kind of individuals are more likely to enter the creative industries. In order to do so we will employ a simple binary logit model in which the dependent variable is the likelihood of having a job in a creative occupation (inside or outside the creative industries) and the independent variables are a series of individual and course characteristics. Results for undergraduate students are presented in Table 7<sup>12</sup>.

<sup>12</sup> We estimated the same model also for postgraduates, but results were similar to undergraduates and not worth a separate discussion. Results on postgraduates are available upon requests from the authors.

Some of the results confirm what we found in the previous section. Graduates from Russell group universities are less likely to enter a creative occupation and so are graduates in science subjects. Despite some of the mismatch between bohemian graduates and creative occupations (Table 4), graduates in bohemian or partially bohemian subjects are more likely to enter a creative job than other students. Among the ‘partially’ bohemian subjects the combination with social sciences (either 50-50 or as a major) is more likely to lead to a job in creative occupation than the combination with other subjects. As far as location is concerned, London, as expected, as the highest positive coefficients (i.e. increasing the chances of getting a creative job) followed by the South East. Wales is the worst performing region (being the only one for which the negative coefficients is actually significant). Looking at personal characteristics, male graduates are more likely to enter a job in creative occupation than female graduates (Blackwell and Harvey 1999, Gill 2002, Karenjit 2008), while older graduates are less likely (hence confirming the findings by Menger, 1999). Graduates of black ethnicity are less likely to enter the creative industries than white graduates (McRobbie 2002), while Asian are, maybe surprisingly, more likely (Smallbone et al. 2005). Finally, graduates with the top mark of a first are more likely to enter a creative occupations than graduates with lower marks. This is not surprising given the role of London and the fact that top graduates tend to migrate towards London, while worse graduates are more likely to make a corrective migration movement after graduation and return home (see Faggian 2005, Faggian and McCann 2009a, 2009b, Faggian et al. 2006, Faggian et al. 2007).

Table 7: Modelling the probability of getting a creative occupation, undergraduates, 2006/07

<i>Dependent variable:</i> <i>Job in creative industries = 1</i>	$\partial \hat{p} / \partial x$	<b>z-value</b>	<b>Means</b>
<b><i>Personal characteristics</i></b>			
<b>Male</b>	<b>0.065***</b>	<b>32.13</b>	<b>0.396</b>
Full time	0.001	0.25	0.836
Age band~21	0.002	0.74	0.267
Age band~22	-0.006**	-2.00	0.164
Age band~23	-0.016***	-4.35	0.074
Age band~24	-0.027***	-5.59	0.037
Age band~25+	-0.102***	-37.63	0.277
<b>Black</b>	<b>-0.014***</b>	<b>-2.76</b>	<b>0.038</b>
<b>Asian</b>	<b>0.012***</b>	<b>3.29</b>	<b>0.077</b>
Mixed ethnicity	0.005	0.72	0.018
Ethnicity unknown	0.007	1.19	0.029
Disability	0.006*	1.74	0.082
Disability unknown	0.010	1.37	0.031
1st class degree	0.024***	6.98	0.098
2:2 class degree	-0.019***	-8.57	0.238
3rd class degree & pass	-0.014***	-3.19	0.046
Other degree class	-0.075***	-29.18	0.234
<b><i>Course characteristics (university type, subject)</i></b>			
Post-1992 university	0.010***	2.83	0.517
Other old university	-0.001	-0.21	0.206
<b>Russell Group university</b>	<b>-0.016***</b>	<b>-4.11</b>	<b>0.198</b>
Social science subject	0.003	0.95	0.236
Science subject	-0.029***	-8.69	0.396

Arts & humanities-led combined studies	0.053***	7.17	0.036
Social science-led combined studies	0.002	0.30	0.062
Science-led combined studies	-0.003	-0.57	0.054
Subject unknown	0.068***	5.64	0.012
<b>Partially bohemian subject</b>	<b>0.176***</b>	<b>11.30</b>	<b>0.022</b>
<b>Bohemian subject</b>	<b>0.322***</b>	<b>53.37</b>	<b>0.135</b>
Social science X bohemian subject	0.052***	6.96	0.031
Science X bohemian subject	-0.040***	-5.02	0.008
Arts_humanities-led X partially bohemian subject	-0.067***	-6.38	0.008
Arts_humanities-led X bohemian subject	-0.077***	-8.74	0.004
Social_science-led X partially bohemian subject	0.068***	3.93	0.008
Science-led X bohemian subject	-0.048***	-4.36	0.004
Subject unknown X bohemian subject	-0.031*	-1.72	0.001
<b>Location</b>			
North West	0.019***	3.23	0.117
Yorkshire & Humberside	-0.003	-0.58	0.082
East Mid	-0.004	-0.70	0.062
West Mid	-0.004	-0.69	0.076
East	0.015**	2.33	0.063
<b>London</b>	<b>0.113***</b>	<b>17.01</b>	<b>0.196</b>
<b>South East</b>	<b>0.034***</b>	<b>5.59</b>	<b>0.129</b>
South West	0.005	0.79	0.072
Wales	-0.016**	-2.55	0.047
Scotland	0.018***	2.75	0.086
Northern Ireland	0.021**	2.59	0.029
<b>No. of observations</b>	<b>166373</b>		
<b>Log pseudo-likelihood</b>	<b>-70182.43</b>		
<b>LR: <math>\chi^2(46)</math></b>	<b>24918.72</b>		
<b>Pseudo R<sup>2</sup></b>	<b>0.15</b>		

Notes: \*\*\* significant > 1%, \*\* significant > 5%, \* significant > 10%; Probit estimation with marginal effects reported – in the case of a dichotomy variables, this refers to its discrete change from 0 to 1.

### 4.3 What kind of jobs are bohemian graduates getting? A multinomial logit model

While we did present the average salaries for different types of graduates and industries, we did not mention the ‘level’ of job the graduates found (i.e. graduate vs. non graduate jobs). Whether a graduate lands a graduate job or a non graduate job after graduation has serious implication for his/her long term career and hence it is worth further investigation.

Are bohemian graduates not only at a salary disadvantage but also more likely to enter non-graduate dead-end jobs? As Table 8 shows, while matching the subject studied with the right occupation does not seem to be crucial in terms of average salary, it does play a role in the kind of jobs bohemian graduates find. Bohemian graduates who do find a creative occupation are a lot more likely to be at a ‘graduate’ level than bohemian graduates who have a more ‘traditional’ occupation (79% vs. 49%). The sector entered, on the opposite, is not so critical for non-bohemian graduates even though non-creative occupations seem to be slightly better (77% vs. 72%).

Table 8: Percentage of ‘graduate’ jobs by subject studied and occupation

<b>Graduates</b>	<i>Non Creative Occupations</i>	<i>Creative Occupations</i>
<i>Non bohemian</i>	77	72
<i>Partially bohemian</i>	50	73
<i>Bohemian</i>	49	79

Although the results in Table 8 are encouraging for bohemian graduates, they are at odd with the results in Table 5, which showed that bohemian graduates in creative occupations were the worst paid. So, our next step was to ask: what kind of ‘graduate’ jobs do bohemian graduates get, if they are paid so little for them?

Elias and Purcell (2004a, 2004b) proposed a more detailed break-down of graduate jobs into four different categories: traditional, modern, new and niche (2004a, p. 61). Using their classification, we estimated a multinomial logit model to identify what kind of graduate jobs bohemian graduates are more likely to get after controlling for a series of personal, course and location characteristics. The results are presented in Table 9.

Table 9: Multinomial logit model of the type of graduate job (undergraduates)

<i>Base category: non-graduate job</i>	<b>RRR</b> <i>Niche</i>	<b>z- value</b>	<b>RRR</b> <i>New</i>	<b>z- value</b>	<b>RRR</b> <i>Modern</i>	<b>z- value</b>	<b>RRR</b> <i>Traditional</i>	<b>z- value</b>
<b><i>Personal characteristics</i></b>								
Male	0.991	-0.63	1.367***	19.32	1.119***	6.24	1.191***	8.87
Full-time	1.008	0.33	0.524***	-23.68	0.859***	-5.31	0.863***	-4.68
Age band~21	1.375***	15.97	1.305***	11.82	1.580***	17.02	1.698***	16.24
Age band~22	1.514***	18.10	1.549***	16.98	2.135***	25.45	2.991***	32.20
Age band~23	1.633***	16.00	1.710***	15.34	2.361***	21.78	4.970***	40.32
Age band~24	1.735***	13.51	1.772***	12.10	2.759***	19.93	5.330***	33.55
Age band~25+	3.653***	56.05	2.338***	29.99	4.857***	51.76	3.991***	38.70
Black	0.670***	-11.43	0.462***	-16.39	0.694***	-7.72	0.614***	-8.45
Asian	0.669***	-14.99	0.601***	-16.15	0.691***	-10.27	1.716***	16.69
Mixed ethnicity	0.757***	-5.48	0.754***	-4.87	0.770***	-4.01	1.050	0.72
Ethnicity unknown	0.898***	-2.67	0.750***	-5.73	0.835***	-3.45	0.887**	-2.12
Disability	0.852***	-6.50	0.934**	-2.39	0.943*	-1.95	0.839***	-4.91
Disability unknown	1.386***	7.12	0.752***	-4.79	1.708***	10.05	0.615***	-7.66
1st class degree	1.160***	5.49	1.676***	19.08	1.751***	19.24	2.003***	21.05
2:2 class degree	0.854***	-9.02	0.656***	-21.26	0.729***	-14.68	0.629***	-16.39
3rd class degree & pass	0.697***	-11.17	0.431***	-21.01	0.469***	-17.38	0.574***	-10.85
Other degree class	1.485***	19.65	0.450***	-30.00	0.448***	-28.38	1.863***	23.14
<b><i>Course characteristics (university type, subject)</i></b>								
Post-1992 university	1.042	1.56	1.155***	4.28	0.584***	-18.40	0.905**	-2.31
Other old university	1.053*	1.75	1.380***	8.75	0.578***	-16.37	2.075***	15.91
Russell Group university	1.255***	7.50	1.775***	15.29	0.563***	-16.05	4.435***	32.92
Social science subject	2.806***	36.70	3.427***	35.22	0.451***	-27.23	0.552***	-14.79
Science subject	5.504***	64.31	4.571***	44.86	0.575***	-20.51	2.501***	29.07
Arts & humanities-	1.305***	4.95	0.937	-0.91	0.474***	-13.44	0.678***	-5.60

led combined studies								
Social science-led combined studies	3.009***	29.16	2.800***	22.54	0.125***	-28.51	0.511***	-10.74
Science-led combined studies	2.405***	21.32	2.557***	18.97	0.484***	-15.11	1.680***	10.65
Subject unknown	0.901	-1.37	1.834***	6.67	0.609***	-6.48	0.989	-0.13
<b>Partially bohemian subject</b>	<b>0.969</b>	<b>-0.34</b>	<b>0.818*</b>	<b>-1.81</b>	<b>0.819**</b>	<b>-2.06</b>	<b>0.773</b>	<b>-1.59</b>
<b>Bohemian subject</b>	<b>1.285***</b>	<b>7.13</b>	<b>0.771***</b>	<b>-6.01</b>	<b>0.306***</b>	<b>-31.07</b>	<b>0.693***</b>	<b>-6.61</b>
Social science X bohemian subject	0.506***	-11.36	0.975	-0.42	3.725***	19.81	3.279***	14.20
Science X bohemian subject	0.440***	-9.83	0.429***	-7.07	3.466***	14.63	0.266***	-6.72
Arts_humanities-led X bohemian subject	0.834	-1.54	0.867	-0.93	1.954***	5.00	1.465*	1.63
Social_science-led X partially bohemian subject	0.688***	-3.07	0.845	-1.22	1.506***	2.63	1.131	0.54
Social_science-led X bohemian subject	0.467***	-6.29	0.505***	-4.80	5.643***	11.63	1.488*	1.66
Science-led X partially bohemian subject	1.168	1.21	0.965	-0.23	2.016***	5.22	0.855	-0.71
Science-led X bohemian subject	0.931	-0.44	0.518***	-2.67	1.638**	2.20	0.758	-0.80
Creative job	3.179***	32.08	5.892***	40.68	1.877***	15.69	0.285***	-13.52
Social science X creative job	0.312***	-21.74	0.538***	-11.11	0.956	-0.73	8.057***	19.19
Science X creative job	0.146***	-37.48	0.120***	-35.73	1.949***	12.54	0.877	-1.19
Arts_humanities-led X creative job	0.443***	-8.70	0.744***	-2.89	1.267**	2.49	1.136	0.60
Social_science-led X creative job	0.272***	-16.71	0.522***	-8.50	2.534***	8.57	3.776***	8.23
Science-led X creative job	0.324***	-13.41	0.247***	-15.02	1.535***	4.92	0.590***	-2.69
Subject unknown X creative job	0.297***	-5.63	0.337***	-5.42	1.084	0.45	0.545	-1.37
<b>Location</b>								
North West	1.031	0.80	0.974	-0.57	0.862***	-2.98	0.758***	-5.22
Yorkshire & Humberside	1.127***	2.93	1.035	0.71	0.956	-0.86	0.686***	-6.71
East Mid	1.227***	4.74	1.196***	3.53	1.114**	1.97	0.908*	-1.65
West Mid	1.077*	1.79	1.136***	2.62	1.197***	3.44	0.896*	-1.94
East	1.094**	2.08	1.079	1.50	1.204***	3.46	1.028	0.48
<b>London</b>	<b>1.537***</b>	<b>11.35</b>	<b>1.421***</b>	<b>7.98</b>	<b>1.211***</b>	<b>3.98</b>	<b>0.933</b>	<b>-1.34</b>
<b>South East</b>	<b>1.067*</b>	<b>1.68</b>	<b>1.158***</b>	<b>3.25</b>	<b>1.152***</b>	<b>2.90</b>	<b>0.834***</b>	<b>-3.47</b>
South West	0.869***	-3.36	0.921*	-1.68	0.949	-0.99	0.760***	-4.81
Wales	0.714***	-7.39	0.684***	-6.95	0.785***	-4.17	0.574***	-8.89
Scotland	0.926*	-1.87	1.003	0.07	1.116**	2.08	0.679***	-7.05
Northern Ireland	0.933	-1.31	0.686***	-5.99	1.093	1.35	0.551***	-8.41
<b>No. of observations</b>	<b>166373</b>							
<b>Log pseudo-likelihood</b>	<b>-223706.8</b>							
<b>LR: <math>\chi^2(212)</math></b>	<b>58503.52</b>							
<b>Pseudo R<sup>2</sup></b>	<b>0.12</b>							

Results are presented in ‘relative risk ratios’ (RRR) terms. A RRR above one means that a variable positively affects (i.e. increases the chances) of being in that particular graduate job type (compared to the base category which in our case is a ‘non-graduate’ type of job). So, for instance, being a male graduate increases the chances of being in a ‘new’ graduate job by about 36%, in a ‘modern’ one by around 12% and in a ‘traditional’ one by around 19%, while there is no significant gender difference in ‘niche’ graduate jobs.

Among all the results presented in Table 9, some are worth noticing. As far as personal characteristics are concerned, apart from the gender differences described above, the probability of getting a graduate job increases with age for all types of jobs but the ‘traditional’ one, for which being slightly younger (i.e. 23 or 24) is an advantage. Graduates from an ethnic minority are normally less likely to have a graduate job, with the only exception of ‘traditional’ graduate jobs for Asian students. The degree classification variables perform as expected, i.e. better students with higher marks are more likely to have graduate jobs (of all types). This is in line with the human capital theory (Becker 1964).

Graduates from more prestigious (Russell group) universities are generally more likely to get a graduate job than a non-graduate one, but this is true especially for ‘traditional’ graduate jobs where the RRR is well over 4 (i.e. they are 4 times as likely than students from other HEIs to get a traditional graduate job). The only type of graduate job where graduates from Russell group HEIs are at a disadvantage is the ‘modern’ type, which includes “*newer professions, particularly in management, IT and creative vocational areas*” (Elias and Purcell, 2004b, p. 6).

The most interesting result for us is that bohemian graduates do get graduate jobs but mainly of the ‘niche’ type. In the words of Elias and Purcell (2004b, p. 4) this is an occupational area in which *‘although the majority of those employed ... do not have degrees, and most of the jobs classified within the unit group do not normally require a degree, there are undoubtedly significant groups of occupations within them that do require degrees or provide ample scope for the exercise of degree level skills and knowledge’*. Combining a bohemian subject with other subjects, however, changes this result. For instance, combining a bohemian subject with social sciences make the ‘traditional’ and ‘modern’ types more likely, while combining it with sciences increases the chances of getting a ‘modern’ type of graduate job.

Finally, a quick look at the results on locations show that London, as expected, maximises the chances of getting a graduate job in all the categories, but the traditional one (for which the coefficient is insignificant). Other regional patterns also emerge. In Yorkshire, for example, ‘niche’ graduate jobs are more likely. Niche occupations are also important in East Midlands, while in the South East and West Midlands ‘new’ and ‘modern’ graduate jobs are more common.

## 5. Discussion

Our findings on the lower salary level and poor career prospects of both bohemian graduates in general and non bohemian graduates with creative occupations seem to

contradict most of the literature on the creative economy and economic development, which sees these as an ‘engine’ for local growth (Florida et al. 2008).

Two are the possible views on this. On one side, it might be argued that the link between bohemians and economic growth still needs to be convincingly demonstrated. Boschma and Fritsch (2007), for example, while largely confirming the relation between creative class and economic growth by applying the Florida (2002c) creative class framework to various European regions, point out that the correlation coefficient between the share of bohemians and the number of patents (one of the measure of economic growth) is not significant. As such, while the creative class as a whole might play a critical role on local and national development (partly because largely overlapping with the concept of human capital), there would be some doubts on the importance of the bohemian sub-group.

On the other side, it might be argued that bohemians play a crucial role in fostering growth even though the labour market does not fully reward them for this. So the real question is: why do they not have a proper monetary reward? Several possible explanations can be found for this:

1. One explanation might be linked to the *‘time-horizon’* of our data. It has been suggested (Aston 1999, Blackwell and Harvey 1999, McRobbie 1998, Oakley et al. 2008) that creative careers follow a less conventional pattern and people need to ‘invent’ their own career and established their name to become successful in the sector. Self-employment is also more important than in other sectors (DCMS 2006). All this requires a long term investment. As the HESA data are collected between 6 and 18 months after graduation, this might explain why bohemian graduates seems to be doing less well.

2. Another explanation, of a more sociological nature, is linked to the *‘value system’* of bohemian graduates. Ball (2003) suggests that creative workers in general “*operate on a value system that prizes creative expression over financial rewards, with a higher degree of involvement in voluntary work or unpaid work experience which they see as career enhancing*” (p. 21). This is echoed in the literature by other studies across different sub disciplines of the creative arts (Abbing 2002, Galloway et al. 2002). It might simply be that in the utility function of bohemian graduates salaries do not carry much weight.

3. Towse (2001) questions the role and value of higher education for artists’ training. She recognises, however, that part of the value of the higher education system is providing a *‘screening’* device for employers (Spence, 1973). If this is the case, the fact that the most prestigious HEIs do not play a significant role in providing bohemian courses could be part of the reason of the lower salary level. The link between the low salary level and the under representation of these subjects within the leading universities might be a factor affecting the kind of economic rewards which these students can experience.

4. Alternative to the screening hypothesis, the *‘human capital’* (Becker, 1964) hypothesis would simply underline that employers ‘vote with their wallets’ so they pay less people who they perceive to be of lower ability and/or ‘quality’. In this sense, it could be that the current bohemian courses do not provide students with the

necessary generic skills to be successful in the job market (e.g. high standard literacy and numeracy skills) and that ‘creativity’ alone is not enough.

5. The spillovers and spillacrosses produced by bohemians (Stolarick and Florida, 2006) are positive ‘*externalities*’ which are not given the recognition or monetary reward they deserve.

6. Finally, some economists would probably simply argue that lower salaries are a consequence of ‘*oversupply*’ of bohemian graduates. Abbing (2002) questions whether there is ‘*an oversupply of art and artists*’ and also adds that “*whether the arts are just too attractive, depends on the notion of whether poverty is due to misinformation and therefore real, or is compensated for by non-monetary rewards*” (p.149). Our data, however, do not fully support the oversupply hypothesis as the number of creative occupations seemed to be high enough to absorb the supply of bohemian graduates (assuming they had the necessary skills).

## 6. Conclusions and further research

The main aim of the paper was twofold. On the theoretical side, it was an attempt to summarise and clarify some of the terminology surrounding the ‘creative economy’ debate and how it relates to other concepts such as human capital. On the empirical side, the paper represents the first detailed micro-individual study on career prospects of ‘bohemian graduates’, i.e. individuals with high human capital (graduates) in the field of core creative and cultural disciplines (bohemian subjects).

The paper has shown that while highly skilled labour and migration patterns have been linked to regional development and growth (Florida et al. 2008, Trippl and Maier 2007, Faggian and McCann 2009c) there is a need for more research to look into different categories of highly skilled as not all labour markets reward skills equally.

Our findings highlight the difficulties encountered by ‘bohemian graduates’ in the job market, which are reflected in the salary level and type of job offered to them. Although our results are in line with some more qualitative studies on the same subject (McRobbie 2002, Menger 1999, Oakley et al. 2008), they do pose the question: *if* bohemians are so important for economic growth (Florida 2002a, 2002b, 2002c) and such a significant part of the UK economy - as much public policy claims (DCMS and BERR 2008, Higgs et al. 2008, The Work Foundation 2008), why are they not rewarded by the labour market? Several possible explanations have been discussed.

The paper presents just a snapshot of the bohemian graduate labour market in the year 2006/07, but further research could extend the time horizon over a longer period to test for the robustness of our results. Moreover, as Aston (1999) suggests that the short term perspective could prove quite limited for bohemian graduates who might experience longer ‘transition periods’ after graduation before finding a relevant job which match their qualifications, it would be useful to integrate a more longitudinal perspective by using the new ‘longitudinal DHLE’ survey by HESA which follows graduates three years after graduation.

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