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An Empirical Analysis of Wage Differentials in the Italian Cultural and Creative Sector

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Introduction

The Culture and Creative sector accounts for 6.1% of the global economy and employs more than 30 million people (UNESCO, 2022). The sector is recognized as an essential resource driving economic growth, development and innovation, as it fosters creative skills that spill over the whole economy and promotes social inclusion, individual well-being and generally exerts a beneficial impact on society (OECD, 2024). A study conducted on European countries by Kalfas et al. (2024) proved, through regression analysis, that there is a strong association between the presence of the CCS and regional development. The European Parliament and the European Commission have adopted several policies to promote and protect the sector, due to its strategic relevance (e.g. Creative Europe program (2012), the New European Agenda for Culture (2018), or The Work Plans for Culture).

In Italy, the CCS plays an especially critical role, as the country's history and legacy have always been intertwined with arts and culture. According to the study conducted by Symbola (2020), in 2019 in Italy the sector contributed to 3.8% of GDP and employed 1.5 million people (6.4% of total employment).

However, despite its recognized significance, workers in the sector (both in Italy and globally) often face precarious employment conditions, lower wages than other professionals with comparable education and skill level, and a general lack of job security.

A report by the OECD (2022) highlights how employment in the CCS is more likely to be atypical, with a higher degree of autonomous work (which is often imposed on workers by employers and disguised as self-employment, as shown in FIA, 2016), as well as a lower degree of permanent contracts, which forces workers to face periods of unemployment or underemployment between projects. While many international organizations called for an

improvement of job security for cultural and creative workers and several sectoral organizations flagged the issue of wages in the arts (AWI, "Mi riconosci?") and even provided guides for fair remuneration fees, not a lot of attention was given to fair remuneration at a policy level.

The sector seems to suffer from a wage penalty, with below-average salary levels. Throsby's (1994) developed the "work preference model", a variant of the theory of compensating differentials, whereby artistic work is intrinsically valued, rather than a burden needed to earn a living, to explain artists' wage structure. The idea, although originally applied only to artists, might apply to most cultural and creative professionals, who might be willing to accept low pay, despite their education and skill level, in exchange for the intrinsic rewards of creative and cultural work. This phenomenon seems to suggest a discrepancy between the value that society places on culture and creativity and the average compensation that workers in the sector usually receive, resulting in cultural and creative labor being often deemed a luxury or hobby, rather than a legitimate profession deserving a fair remuneration.

While the economic contribution of the CCS to the broader economy is a theme often discussed within the academic literature, few empirical studies have been conducted on Italy's cultural and creative employment, especially focusing on wage differentials between the CCS and other sectors. The gap in literature hinders an understanding of the economic realities faced by cultural workers, which in turn is key for informing policy and improving the working conditions of those employed in the sector.

This thesis seeks to fill this gap, by offering an empirical analysis of wage differentials in Italy between workers in the CCS and other workers, utilizing data from the Italian Labor Force Survey developed by the Italian Institute of Statistics (ISTAT). Through a regression analysis, which allows to control for

several confounding factors and compare workers with similar characteristics, the research confirms that Italian cultural and creative workers experience a wage penalty. This evidence is in line with the hypothesis of compensating differentials (i.e., a preference for creative work may lead to the acceptance of lower wages). Furthermore, it explores two other reasons that might account for the wage differentials experienced by CCS workers, namely a field-of-study mismatch (Montt, 2015) and the role of trade unions.

The thesis is structured into three chapters. The first chapter provides a theoretical basis for the concepts laying behind the research. We begin by discussing the complexities and challenges faced by scholars and researchers in defining the sector, following with an overview of the frameworks employed to measure and produce statistical data on it. Moreover, the chapter describes employment within the CCS, also by discussing the methods used to measure it, with a focus on the Trident Model (Higgs & Cunningham, 2008). We then provide a general outlook of the characteristics and challenges of cultural employment in the EU and in Italy, by examining the socio-demographic profile of cultural workers. We stress the high levels of education and the significant proportion of workers who face job insecurity and low wages despite their qualifications. Finally, within a review of the literature about cultural and creative employment, we touch upon the work preference model developed by David Throsby.

In the second chapter we focus on the issue of inter sector wage differentials, outlying three main theories to account for the presence of a wage penalty for cultural workers. We first explore the possible imbalances of the labor market and how they might affect remuneration and review the work by Montt (2015) on the issue of field-of-study mismatch and field saturation. We then examine the role of compensating differentials and non-pecuniary remuneration. We

expand the theory by considering as "job attributes" factors as passion for the job done or alignment with personal values, conjecturing that they might compensate for lower wages. We also present a review of the literature on job satisfaction, with a particular focus on wage differentials of non-profit workers. Furthermore, we outline the issue of voluntarism in the CCS, by stressing how in Italy volunteers are often used as substitute for paid workers. Finally, we focus on the relevance of unions and collective bargaining, illustrating how trade unions and sectoral organizations are taking action to try to address the issue of low remuneration and job security, especially in Italy.

The third and final chapter presents the results of the empirical analysis conducted using the Labor Force Survey, a yearly national survey on which official statistics on the Italian labor market are based. The survey provides, along with demographic characteristics of the respondents, information on their occupation. Through a quantile regression analysis (to deal with the issue of top coding of the data on wages) and controlling for a vector of individual and job characteristics, the research finds that Italian CCS workers suffer from a substantial wage penalty. We find that this penalty is larger for those who chose an educational path which we believe reveals a clear preference for working in the sector: those who have an Artistic Diploma. Conversely, for those who work in the CCS but do not perform jobs with cultural or creative content, the wage penalty essentially disappears. This is understandable, as those kinds of workers could have chosen a different sector. While so far, our analysis has shied away from subjective, self-reported measures of job satisfaction, trying to detect observables that might explain the wage penalty, we also look at self-reported satisfaction levels. In particular, we regressed the satisfaction level on broadly the same observables used in the previous

regression, to assess the satisfaction levels of workers in the CCS earning the same wage of workers in other sectors. We find that working in CCS has a positive impact on satisfaction as soon as the monthly salary is above 1345 euros. Finally, we investigate the theory of imbalances of the labor market, through a descriptive analysis on the degree of saturation and field-of study mismatch in our sample, refining the measures proposed by Montt (2015).

This thesis contributes to the discussion on the difficulties faced by cultural and creative workers, especially regarding fair remuneration and income level. There is a need to implement measures addressing the sector's economic challenges, and the findings of this research aim to serve as a guide for stakeholders and policymakers committed to developing the sector in a socially sustainable way.

Chapter 1

Employment in the Cultural and Creative Sector

1.1. The (non) definition of the Cultural and Creative sector

There is no universal definition of the Cultural and Creative Sector because it is characterized by a particular complexity deriving from the breadth, plurality, and evolution of the meaning of art and culture. These concepts are themselves nearly impossible to define, as they change over time and space, for example with geographical, anthropological, and political differences and/or with the emergence of innovations and technological developments that might inform the ways of cultural fruition. Particularly a quote by Robert Borofosky captures how difficult it is to define culture by saying that attempting it is "akin to trying to engage the wind" (Brofosky, 1998, p.64). Nevertheless, scholars have endeavored to provide a definition of culture, from different perspectives and fields of study. Using an anthropological and sociological framework, culture can be defined as the "set of values, symbols, myths, rituals and images on which a group bases its identity and its interpretation of the world" (Morin, 1962). Culture can also be understood as a way to attribute meaning to the world, as explained by McCracken (1986), it is both a lens through which an individual views phenomenon, and a blueprint that determines how people will undertake social actions and, therefore, permeates all aspects of human life. In this sense "culture" is a noun, rather than an adjective, and has a vast meaning. If we think of culture as the latter, i.e., an adjective, according to David Throsby (2001), the word assumes a functional meaning: denoting certain activities, and thereafter the products of those activities as "cultural". In his view, to be defined as "cultural", those activities must necessarily meet all three criteria: they need to involve a certain form of creativity in their production; they need to be concerned with the creation and communication of symbolic meaning; their output must embody,

at least at a potential level, some form of intellectual property, and therefore of potential "excludability" in access.

Starting from this brief outline of what the word culture could potentially mean and noting that it is almost impossible to give a precise definition, is clear that there can be no common agreement on what activities constitute the cultural and creative sector.

Generally speaking, a sector is a section of the economy that comprises a set of institutions and companies that share the same product, the same technology, and the same group of customers.

When talking about the cultural sector we need to consider all those institutions, organizations, and companies whose activities are based on cultural values, or other artistic individual or collective creative expressions (OECD, 2022). But it is no longer feasible to talk about the cultural sector, referring merely to those activities aimed at the enhancement and use of works and expressions of art and human ingenuity. Thus, it's not possible to continue dividing it only into museums and cultural heritage, visual arts, performing arts, and literature, as it's an outdated vision that focuses only on traditional cultural institutions, and does not include all those activities that: «combine the creation, production, and commercialization of contents which are intangible and cultural in nature» (UNESCO, 2000, pp. 11-12).

In the 1990s, the significance of culture and creativity as essential resources driving economic growth and development was internationally recognized. The focus was turned towards what is now called the 'creative economy.' This shift in terminology reflects a broadening of what has been considered at the heart of this new economic driver. Before only the "cultural institutions" were considered part of the cultural sector, namely all of those - usually not-for-profit - institutions whose main activities are focused on the cultural object itself and comprise the arts as traditionally thought, (these include for example museums, opera houses, theatres, etc.); then "cultural industries" were considered part of the sector as well, reflecting the growing interest in the economic benefit they provide, since they are enterprises whose output is a cultural product, however their main focus is the generation of economic value. Finally, by the early 2000s some of the studies on the sector were concerned as well with the "creative industries", companies whose object

of activity cannot be configured as a cultural product in the strict sense, to which, however, it is possible to associate cultural connotations (e.g., communication, tourism, design and architecture).

Concerning the terminology, “cultural industries” and "creative industries” are sometimes interchangeably used, yet in other instances, they refer to different sub-sectors, partly due to the never-ending disagreement on the distinction between the meaning of “cultural” and “creative” (Throsby, 2007).

The term “cultural industry” was coined by the Critical theorists Adorno and Horkamier and was initially intended to have a very negative connotation because they intended to denounce how culture, under capitalist society, had become a commodity and cultural products were standardized and produced for mass consumption (Adorno, 1979). Although the strictly accusatory connotations have gradually diminished over the years, the concept of 'cultural industries' may still evoke a dichotomy between highbrow and lowbrow culture. For a significant period, “culture” and “industry” seemed worlds apart and could not overlap. Nevertheless, the definition provided by UNESCO in 2008 - early cited in the chapter - stresses this “twofold” nature of these industries, whose distinctive characteristic is the very combination of the cultural and the economic aspects.

While we have previously used “creative industries'' to define a specific type of enterprise (namely those whose final output is not strictly cultural, but entices a creative process in the making), it is also used to identify the whole sector, comprehensively of the more “cultural” activities. The term emerged in the mid-90s’. (Creative Nation, Australia 1994) and was famously used in the pivotal study conducted by the UK Department of Culture Media and Sport, titled “Creative Industries Mapping Document 1998”, which became a template for many more studies that came after (Higgs & Cunningham, 2008).

The DCMS model defines “creative industries” as those «grounded in individual creativity, skill, and talent, with potential for wealth and job creation through generation and exploitation of intellectual property» (DMCS, 2001, p.4), and is an umbrella term, which effectively avoids the possible high-culture implications of the term “culture” (Garnham, 2005).

1.1.2 On the path to creating a taxonomy.

The growing importance of the creative economy urged policymakers and researchers to better understand the boundaries, structures of the sector, and the mechanics of the creative economy itself. Therefore, there have been several attempts to provide a taxonomy, most of which were conceived between the late 90s and the early 2000s. Behind each of those lies a different conceptualization of the sector, hence some industries are included in one but excluded in another (Throsby, 2008a).

The DCMS model:

In the late 1990s the UK wanted to reframe its economy as one driven by creativity and innovation, therefore it was commissioned by the Department of Culture, Media, and Sports a policy document meant to understand and map the sector in the country. Thirteen segments of the economy were chosen to be included as part of the "creative industry" and while there are segments that could be considered as traditionally cultural, the inclusion under the broader term "creative industries" has the purpose of stressing how creativity, seen as the input of the production process, has the power to generate wealth and job creation. Since this is a government policy work, it is given great importance to the spillover effect of these economic segments, even more so in light of the change in the economy that was occurring at that time: the shift towards a knowledge-based economy (Garnham, 2005).

Each segment had its focus which reported data on the number, size, and turnover of the firms in the segment, on the level of employment generated, and focuses on the output and general estimate of the Gross Value Added. Nevertheless, the limitations of the study were many. First and foremost, the data used and reported was not collected by the DCMS itself, therefore it was all secondary data, which made it inconsistent, with gaps and overlaps and too aggregated. Hence the Mapping Document did not develop a rigorous framework for analysis and was more aligned with government portfolio responsibilities (Higgs & Cunningham, 2008). Notwithstanding, it was a crucial document whose influence can be seen in many studies that came afterward and, it gave great importance to the creative industries as a whole within the greater context of the economy.

The Symbolic text model

David Hesmondhalgh is the main scholar who conceptualized the symbolic text model on which the cultural industries are examined within the broader social, political, and economic context. Because cultural industries are the places of cultural production and dissemination, they are where the meaning and identity of a society are constructed, nevertheless are influenced by the power dynamics that rule broader society, and often contribute to perpetuating them. As a matter of, fact all artifacts are considered symbolic texts in a broad sense, as they carry meaning and significance within society. This model gives prominence to those sectors where "popular culture" is formed and transmitted, like films, broadcasting, and press, whilst the traditional places where "high culture" is produced are considered peripheral (Hesmondhalgh, 2002).

The concentric circle model

Another model that has been used to classify creative industries has been proposed by David Throsby in 2008. The assumption at the base of this framework is that cultural value is the distinctive characteristic of cultural goods, but that different types of cultural goods have different degrees of cultural content, which stems from the incorporation of creative ideas into the production. This creativity must be artistic creativity, which is different from scientific creativity. Thus, the industries that produce cultural objects with greater cultural content are at the center of the model, whereas the ones whose output has lesser cultural content/value are more peripheral.

There are essentially four levels. At the center core creative arts (e.g. visual arts, performing arts, literature, and music), then as artistic/creative ideas expand and permeate new industries, beyond the individual forms of arts, we find successive layers: the closer to the center is the "other core cultural industries" (e.g. film, museums, galleries, libraries, photography); then "wider cultural industries" (e.g. heritage services, publishing and print media, sound recording, television and radio, video and computer games); and lastly there is the "related industries" layer (composed by advertising, architecture, design, fashion). In this model creative ideas stem from the center and get

diffused to the outer layers, generating «cultural content in the output of these industries» (Throsby, 2008b, p. 150).

Is noteworthy hat in this framework, cultural production is intentionally captured as static, where each phase is pertinent to a singular industry that uses creative ideas in their output, that have been originally produced in the center, and are propagated outwards.

The model inversely relates cultural content and commercial value (UNCTAD, 2008) therefore, in my opinion, is still very linked to the high culture vs mass culture dichotomy.

The WIPO copyright model

The WIPO model was initially developed as a regulatory tool by the International Organization on Intellectual Property in 2003. The creative industries are categorized according to the degree of intellectual property that is generated by the output of that industry: the more the product has to be protected by copyright, the more an industry is "core" in this framework. This occurs because intellectual property is seen as the embodiment of creativity and is proportional.

Therefore, the creative industries are divided into three groups. The industries that produce and distribute works of art that are directly protected by copyright are the "core copyright industries" (e.g., visual arts, performing arts, music, film and television, and publishing). Then there are the "interdependent copyright industries", whose activity is involved in manufacturing, wholesaling and retailing those copyrighted artworks (e.g., art galleries, or enterprises that are involved in the factual recording of music). Lastly there are the "partial copyright industries" which are all those whose activity is, in minor part, dependent on copyright, such as architecture and design, or fashion design (WIPO, 2003).

The UNCATD model:

The United Nations Conference on Trade and Development recognized the growing importance of the creative economy and the role of culture and creativity as a development agent. However, it was well understood that, to deal with the topic, a more systematic framework, which proposes to definitions and structure, was needed.

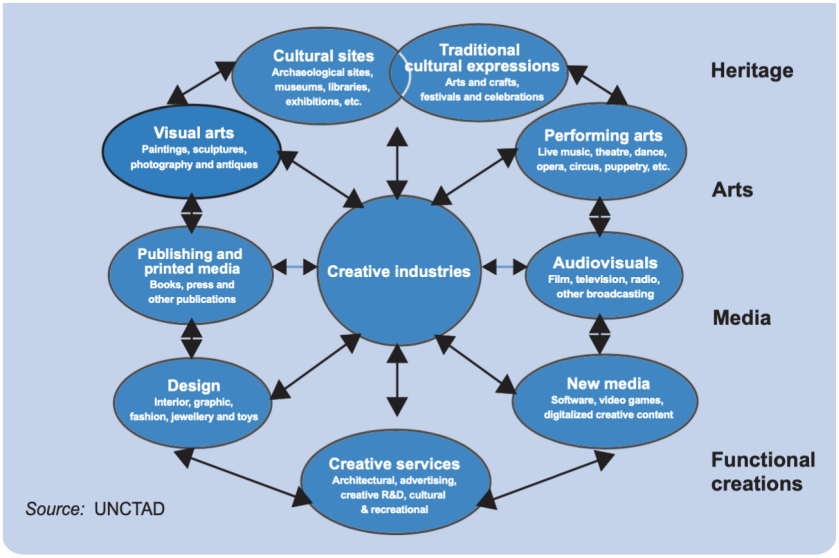
The UNCTAD approach, developed in the document Creative Economy Report, enlarges the concept of "creativity" from activities having a strong artistic component to «any economic activity producing symbolic products with a heavy reliance on intellectual property and for as wide a market as possible» (UNCATD, 2008, p. 13), defines the "Creative industries" as:

> The cycles of creation, production and distribution of goods and services that use creativity and intellectual capital as primary inputs. They comprise a set of knowledge-based activities that produce tangible goods and intangible intellectual or artistic services with creative content, economic value and market objectives. (UNCATD, 2008, p.4)

All those economic activities that respond to this definition are divided into four main domains, each subsequently divided into sub-sectors, all of which interplay, as Figure 1 shows. The first domain individuated is "heritage" and is considered as the starting point through traditional cultural expressions (e.g., arts and crafts, festivals and celebrations) and cultural sites (e.g., archaeological sites, museums, libraries, exhibitions), thus identified as the base layer, even if the UNCATD approach does not have a structural tiered system like the concentric circles model.

Then there is the "arts" domain, divided into visual arts and performing, is composed by all of those industries whose output is the artwork in the traditional sense. The third domain is the "media", composed by those industries that produce creative/cultural products that are meant to be communicated with large audiences and is divided into publishing and printed media and audiovisuals. The last domain is the "functional creations" as they put it «more demand-driven and services-oriented industries» (p.14), (e.g. *Design:* interior, graphic, fashion, jewelry, toys; – *New media:* software, video games, and digitalized creative content; and *Creative services*,

Figure 1. UNCATD classification of creative industries



From: UNCATD, 2008

architecture, advertising, cultural and recreational, creative research and development (R&D), digital and other related creative services).

As Throsby points out in his paper "Modelling the cultural industries", it's not possible to identify a common core in all these various taxonomies. Figure 2 provides a synoptic view of the classification systems previously mentioned, under each a list of industries considered to be part of cultural and creative sector.

Figure 2: Classification systems for the creative industries derived from different models.

1. UK DCMS model	2. Symbolic texts model	3. Concentric circles model	4. WIPO copyright model
Advertising Architecture Art and antiques market Crafts Design Fashion Film and video Music Performing arts Publishing Software Television and radio Video and computer games	**Core cultural industries** Advertising Film Internet Music Publishing Television and radio Video and computer games **Peripheral cultural industries** Creative arts **Borderline cultural industries** Consumer electronics Fashion Software Sport	**Core creative arts** Literature Music Performing arts Visual arts **Other core cultural industries** Film Museums and libraries **Wider cultural industries** Heritage services Publishing Sound recording Television and radio Video and computer games **Related industries** Advertising Architecture Design Fashion	**Core copyright industries** Advertising Collecting societies Film and video Music Performing arts Publishing Software Television and radio Visual and graphic art **Interdependent copyright industries** Blank recording material Consumer electronics Musical instruments Paper Photocopiers, photographic equipment **Partial copyright industries** Architecture Clothing, footwear Design Fashion Household goods Toys

From: UNCATD, 2008

1.2. Measuring the sector: limitations and attempts

The urgency to formulate policies for the sector has been accompanied by the need to provide data on the sector itself, as starting with hard data is a basic prerequisite for good policymaking, but the attempts to acquire such data have not been easy. The issues encountered by statisticians, researchers, and policymakers have been plenty. First and foremost, the definitional conundrum, namely the non-consensus on the boundaries and structure of the sector, has implications for data collection (Bakhshi, 2020). Since each country considers different industries as part of the sector, the statistics produced also differ which, in turn, has major consequences on international comparative analysis.

1.2.1. International frameworks for measurement of culture

Notwithstanding the complications embedded in creating a reliable and internationally comparable method to measure the sector, many were the attempts to provide precise statistics and indicators on how culture translates into the social and economic spheres. Thus, cultural participation, consumption and production, the impact of the sector on the communities and how it may affect the quality of life were investigated. Most prominently the performance of cultural enterprises, their contribution to national GDPS and employment were analyzed and highlighted. These frameworks apply international standard classifications (ISCO, ISIC, NACE) to distinctly mark out the edges of the sector, which will be further analyzed in the next subchapter.

There is a recurring structure, with variations on what is included and excluded: a matrix where n. domains are crossed with m. functions. This approach is particularly useful for the collection of data because it allows a match between the singular activities and a statistic (Deroin, 2011).

One of the first frameworks on the matter is the result of a joint endeavor by UNESCO and Economic Commission for Europe Working Group on Cultural Statistics, that in the conference held in Geneva in 1974 understood the importance of formulating a comprehensive and integrated method to

measure culture in all its aspects. Thus, in 1979 the Framework on Cultural Statistic (FCS) was created (Horowitz, 1981). The matrix structure is present: on the vertical axis there were 10 "subject categories" (namely the sub-sector into which culture was divided), and on the horizontal axis five functional classification were placed (see Figure 3 below).

The framework had many problems and is no longer usable, mainly because of the many changes that occurred in the field (Gordon & Beilby-Orrin, 2007). It is also interesting to notice that cultural employment is a statistic that is completely missing from it, while nowadays is one of the most important and measured aspects.

Figure 3: The UNESCO Framework for Cultural Statistics, 1980

	Functional Classifications				
Subject Categories	Creation/ Production	Transmission/ Dissemination	Reception/ Consumption	Preservation/ Registration	Participation
0. Cultural Heritage					
1. Printed Matter and Literature					
2. Music					
3. Performing Arts					
4. Plastic Arts					
5. Cinema and Photography					
6. Radio and Television					
7. Socio-cultural Activities					
8. Sports and Games					
9. Nature and Environment					
10. Public Administration of Culture					

Source: Horowitz, 1981

The awareness of the importance of cultural statistics, yet the lack of them, pressured the European Commission into establishing the Leadership Group on Culture Statistics (LEG) in 1997, which had the mission of conducting a three-year project aimed at defining the European concept of cultural sector, improving the statistical tools for taking account of culture and producing new indicators to assess employment, financing, and participation in the cultural field (KEA, 2006). Like with FCS (it was indeed a starting point), a matrix (shown in Figure 4) was developed: 8 cultural domains and 6 functions were individuated to outline the field of study (see image). For each domain, the corresponding NACE Rev.1 codes were identified. As for the production of

new indicators, which was a key objective for the LEG, four Task Forces were created, each dealing with one aspect.

Figure 4: LEG framework for Cultural Statistics

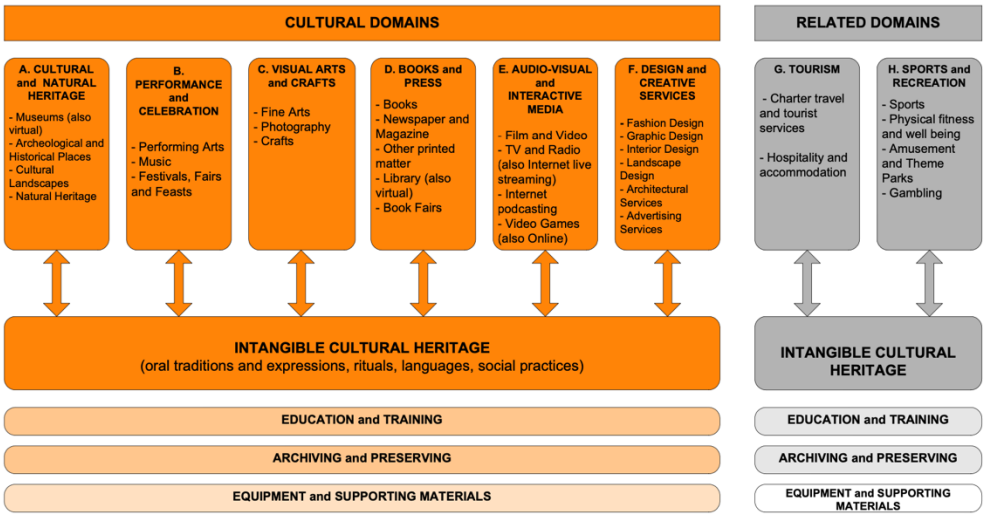
	Preservation	Creation	Production	Dissemination	Trade / sales	Education
Cultural Heritage - M.H. - Museum - Archaeological sites - Others	Activities for the protection of monuments Museums activities Archaeological activities Other heritage-related activities			Event organising and awareness-raising		Educational activities
Archives	General and specialised archives			Event organising and awareness-raising		Idem
Libraries	Conservation and reading libraries			Event organising and awareness-raising		Idem
Books and press - book - press		Creation of literary works Drafting of articles for newspapers and periodicals	Production of books Newspaper and periodical production Activities of press agencies Activities of literary agents	Organisation of festivals and fairs for books / reading Event organising and awareness-raising	Trade/sales in books Trade/sales in press publications	Idem
Visual arts - Visual arts (inc. design) - Photography - Multidisciplinary	Restoration	Creation of visual works	Production of visual work (publication of printed reproductions, production of casts, etc...)	Exhibitions of visual works Organisation of festivals Event organising and awareness-raising	Trade/sales in visual works (art galleries) Trade/sales in reproductions and casts	Idem
Architecture		Architectural creation (activities of firms of architects)				Idem
Performing art s - Music - Dance - Musical theatre - Theatre - Multidisciplinary - Other performing arts		Creation of: musical works choreographic works musical theatre works drama theatre works, etc.	Production of live entertainment Activities of orchestras, theatre, opera, dance companies, etc. Services linked to production of live entertainment (inc. artistic agents)	Dissemination activities of concert halls, dance theatres, musical theatres, drama theatres, etc. Organisation of festivals music, dance, theatre, ... Event organising and awareness-raising		Idem
Audio and audiovisual / multimedia - film - radio - television - video - sound recordings - multimedia		Creation of cinematographic works and audio-visual (non-cinema) works Creation of multimedia works	Film production for cinema Film production (non- cinema) Production of radio programmes Production of television programmes Production of sound and audio-visual recordings Production of multimedia works	Film distribution Cinema management Organisation of festivals Radio broadcasting Television broadcasting	Trade/sales in sound and audio-visual recordings Trade/sales in multimedia works	Idem

Source: EUROSTAT, 2000

Also, the OECD in 2007 launched a project to develop an international method for cultural measurement, having found many inconsistencies in national frameworks (OECD,2022).

In 2009 the 1986 FSC has undergone an updating process, due to the changes in the field: what is considered cultural and/or creative, which is the new perception of the role of culture. Thus, the 2009 UNESCO Framework for Cultural Statistics aims to address and resolve the dichotomies that are regularly occurring in the field. To achieve this objective the 2009 FCS is a bit more complex than its predecessors: there are identified 6 cultural domains, directly derived from previous frameworks, 4 transversal domains, and 2 related domains, these are then related to 5 stages of the "culture cycle", an analytical tool to identify the phases of cultural production and dissemination, seen as an interconnected process (UNESCO, 2009), see Figure 5

Figure 5: UNESCO Framework for Cultural Statistics, 2009



Source: UNESCO, 2009

Meanwhile, at the European level, Eurostat launched a call for proposals for an update of the LEG-culture framework for cultural statistics. In 2009 the ESS-net Culture Project was launched, with the aim of renewing the old framework to respond to the changes in the field. Thus, the LEG-culture was taken as a starting point but, by the time they initiated the process, the 2009 FSC had been released, and was then considered. Like the previous methods, it still relies on a matrix structure (see Figure 6): 10 domains are crossed with 6 functions. The necessity for an update was also connected with the need to harmonize it with the most recent versions of the international standard classifications: namely NACE Rev. 2.1, revised in 2008 and ISCO-08).

Figure 6: ESS-net Culture Statistics Framework

	CREATION	PRODUCTION/ PUBLISHING	DISSEMINATION / TRADE	PRESERVATION	EDUCATION	MANAGEMENT / REGULATION
HERITAGE *– Museums* *– Historical places* *– Archeological sites*		– Museums sciences activities (constitution of collections) – Recognition of historical heritage	– Museums exhibitions – Museography and scenography activities – Art galleries activities (incl. e-commerce) – Trade of antiquities (incl. e commerce)	– Operation activities for historical sites – Preservation of intangible cultural heritage – Restoring of museums collections – Restoring of protected monuments – Archeological activities – Applied research and technical preservation activities	– Formal and non formal: artistical, cultural teaching activities	– Administrative management (State, local or other bodies)
ARCHIVES		– Acquisition of documents	– Consultation of archives – Archives exhibitions	– Archiving activities (incl. Digitization)	– Formal and non formal: artistical, cultural teaching activities	– Administrative management (State, local or other bodies)
LIBRARIES		– Acquisition and organizations of collections	– Lending activities	– Preservation activities	– Formal and non formal: artistical, cultural teaching activities	– Administrative management (State, local or other bodies)
BOOKS & PRESS	– Creation of literary works – Writing of cultural articles for newspapers and periodicals – Translation and interpretation activities	– Publishing of books (incl. by Internet) – Publishing of newspapers and magazines (incl. by the internet) – News agency activities	– Organization of book conventions and event-organizing activities, promoting services – Galleries & other temporary exhibitions – Trade of books an press (incl. e-commerce)	– Protection activities for books and newspapers – Restoring of books	– Formal and non formal: artistical cultural teaching activities	– Supporting activities for managing rights and royalties – Administrative management (State, local or other bodies) – Artistic agents and engagement agencies
VISUAL ARTS *– Plastic/Fine arts* *– Photography* *– Design*	– Creation of graphical & plastic art works – Creation of photographical works – Design creation	– Production of visual art works – Publishing of photographical works	– Organization of visual arts conventions and event-organising activities – Galleries & other temporary exhibitions – Trade of visual arts works/Art market (incl. e-commerce)	– Protection activities for visual arts works – Restoring of visual arts	– Formal and non formal: artistical, cultural teaching activities	– Supporting activities for managing rights and royalties – Administrative management (State, local or other bodies)
PERFORMING ARTS *– Music* *– Dance* *– Drama* *– Circus* *– Cabaret* *– Combined arts* *– Other live shows*	– Creation of musical, choreographic, lyrical, dramatic works and other shows – Creation of technical settings for live performance	– Performing arts production & organization – Support and technical activities for producing live performance	Live presentation activities – Booking services	– Restoring of musical instruments	– Formal and non formal: artistical, cultural teaching activities	– Supporting activities for managing rights and royalties – Administrative management (State, local or other bodies) – Artistic agents and engagement agencies
AUDIOVISUAL & MULTIMEDIA *– Film* *– Radio* *– Television* *– Video* *– Sound recordings* *– Multimedia works (incl. videogames)*	– Creation of audiovisual works – Creation of multimedia works	– Motion picture, video and audiovisual programme production – Television programme production (incl. Internet) – Publishing of sound recordings, films, videotapes (incl. by the internet) – Publishing of multimedia works – Publishing of computer games – Radio programme production – Audiovisual post-production activities	– Organization of film/video conventions and event-organising activities – Radio and TV broadcasting (incl. by the internet) – Film projection – Film/video distribution – Renting of video tapes and disks – Trade of audiovisual works (incl. e-commerce) – Temporary audiovisual exhibitions	– Protection activities for audiovisual and multimedia works – Restoring of audiovisual and multimedia works	– Formal and non formal: artistical, cultural teaching activities	Supporting activities for managing rights and royalties – Administrative management (State, local or other bodies) – Artistic agents and engagement agencies
ARCHITECTURE	– Architectural creation		– Temporary architectural exhibitions – Galleries exhibitions	– Architectural preserving activities	– Formal and non formal: artistical, cultural teaching activities	– Administrative management (State, local or other bodies) – Supporting activities for managing rights and royalties
ADVERTISING	– Creation of advertising works		– Distribution of advertising designs		– Formal and non formal: artistical, cultural teaching activities	– Supporting activities for managing rights and royalties
ART CRAFTS	– Artistic crafts creation	– Production of artistic craft	– Artistic craft exhibitions and trade (incl. e-commerce)	– Restoring of art crafts	– Formal and non formal: artistical, cultural teaching activities	– Administrative management (State, local or other bodies)

source: ESS-net Culture, 2012

Eurostat has since established a working group on culture statistics that works towards an improvement of the methodology, which was most recently updated in 2018 (Eurostat, 2018). The working group issues regularly data on the sector, which are published online in the issue "Culture Statistics".

We briefly mentioned the acronyms that stand for crucial tools, without which we could not identify the sector nor who is employed in it: the "International Standard Industrial Classification of All Economic Activities" (ISIC) and the

"International Standard Classification of Occupations" (ISCO). In the next subchapter the history and the structure behind these classification systems will be outlined.

1.2.2. International (and National) Standardized classification systems

These two classification systems (ISIC and ISCO) have fundamental tools to collect, analyze, and disseminate statistics on labor and economics. They were both first developed in the second post-war period and have since undergone many revisions.

The *International Standard Industrial Classification of All Economic Activities* was first adopted in 1948 and was developed by the United Nations Statistics Division (UNSD). Its main purpose is to provide a uniform and comprehensive framework for classifying economic activities, from broad industry sectors up-to specific activities. The latest revision (Rev. 4), adopted in 2008, should represent the current structure of the world economy, and a major effort was put into harmonizing the links between ISIC and other regional activities classification systems (e.g. the *General Industrial Classification of Economic Activities within the European Communities* - NACE - or the *North American Industry Classification System* - NAICS -), to further improve data comparison (UNDESA, 2008). However, it is not consistent to the same degree throughout all tiers: ISIC is compatible with other systems at a 2-digit level of disaggregation, and there are many differences when it comes to more disaggregated levels (OECD, 2022). To understand this information is crucial to comprehend its structure: it is a four-level hierarchy, and each provides a progressively more detailed breakdown of the activities. First, we have 21 "SECTIONS" (denoted by alphabetical characters) that categories general sectors of the economy; these are then divided into DIVISIONS, two-digit numerical codes from 01-99; then these are further divided into GROUPS (three-digit codes from 011-9900) and finally, the most detailed: the CLASSES, denoted by four-digit codes. There is no dedicated broad category for the cultural sector: many activities are not easily classifiable or are distinguishable from other activities only at the most granular level, consequently, is particularly difficult to measure the sector, and especially to make

international comparisons. For what concerns the European Union, the system that has been adopted since 1970 is called NACE, from the French *Nomenclature statistique des activités économiques dans la Communauté européenne,* and the latest revision (Rev. 2.1) was implemented in 2007, with a similar four-layer structure. The Italian National Institute for Statistics (ISTAT) has adapted the NACE system to the specificity of the country, thus it is directly derived from it. The ATECO (that stands for the Italian *ATtività ECOnomica*) is used both as a system of classification for the production of statistics and as an administrative tool. The latter function ignited the need for a revision of the system in order to harmonise it with the current economic system in Italy, thus in 2022 was adopted a new update of the ATECO 2007 (which is the latest revision, from 2008)[1]. It is slightly different because it has a more in depth degree of specificity, having 6 layers: "sections" (in alphabetical order), "divisions" (2-digits), "groups"(3-digits), "classes" (4-digits), "categories" (5-digits), "subcategories" (6-digits).

The *International Standard Classification of Occupations (*ISCO) is another crucial tool when it comes to measure and classify employment. It was originally developed by the International Labour Organization (ILO) in 1957 and the current version (ISCO-08) is the fourth revision. It provides an international framework for «organizing jobs into a clearly defined set of groups according to the tasks and duties undertaken in the job» (ISCO, 2010). Like the ISIC there are up to four-digit codes that identify specific professions, categorized through a four-level system, from the broadest to the most specific. First, there is the level of "MAJOR GROUPS", specifically it denotes 10 broad occupation categories coded 0-9, then these are further divided into "SUB-MAJOR GROUPS" (2-digit codes), then into MINOR GROUPS, and finally into "UNIT GROUPS", specifically in ISCO-08 there are 436-unit groups. Two main concepts lay behind the classification, namely "skill" and "job", defended as such:

> A "job" is defined in ISCO-08 as a set of tasks and duties performed or meant to be performed by on person, including for an employer or in self employment;

[1] There is a difference between "revision" and "update". While the former are very laborious processes, whose necessity is defined at the international and European level and can not be to close in time, "updates" are more frequent and are usually at latest digits

> A "Skill" is defined as the ability to carry out the tasks and duties to be performed in an occupation.

The "skill" is further declined into two dimensions that are essential to capture and categorize the complexity of today's occupations. On one hand we have the "skill level", which is a function of the complexities of the task that are performed in an occupation and is measured by the level of formal education[2], the amount of informal on-the-job training needed, and on the nature of the work performed; on the other hand there is the "skill specialization" which is conceptualized in accordance to following four concepts: the field of knowledge required; the tools and machinery used; the materials worked on or with; and the kinds of goods and services produce (ILO, 2012). While there have been identified four skill levels that are usually assigned to Major Groups, the subdivision in ISCO-08 are arranged according to skill specialization.

The *International Standard Classification of Occupations* (ISCO) has been adopted by Eurostat, the European agency for statistics, and thus was recommended by The Commission Of The European Communities, to each country member of the union to adopt it as well for the national surveys on Structure of Earrings and on Labor Force (2009). Italy has its own classification system, directly retrieved from the ISCO-08, called the *Classificazione delle Professioni* (CP), now at its second revision in 2021 after the CP2011, that has been adopted to further harmonize with the international classification, but the hierarchical structure is divided into 5 levels, not four, thus the last level (the "professional units") that comprises 813 units is denoted by a five-digit code.

1.2.3. The trident model: ISCO* NACE

The brief outline of the cultural statistics frameworks and the international standard classification systems was instrumental in preparing the ground for the main topic of this chapter: cultural employment. All the mentioned frameworks specifically focused on the measurement of cultural employment, by establishing dedicated task forces on the topic. Employment in the sector is a crucial part of the cultural/creative economy: understanding and measuring

[2] In terms of the International Standard Classification of Education (ISCED-97) required for a competent performance of the tasks and duties involved

it is fundamental for effective policy-making, even if the complexity and nuances of the workforce are not to be underestimated, since in this sector jobs can take all sorts of forms and statuses (form self-employed to bogus self-employment, to dependent work, from long periods of unemployment to tenure) (Eurostat, 2000).

To tackle the issue, a new approach was proposed by the European Union Leadership Group (LEG) on Cultural Statistics, and it was further developed by the ESS-net Culture Project, and simultaneously in Australia by Higgs and Cunningham (2008), that denoted this method as the "Creative Trident".

According to this approach, to measure employment it is necessary to concurrently analyze employment in all those economic entities whose activity is considered cultural or creative (looking at the NACE codes), and then to look at employment in cultural occupations (looking at ISCO codes). Therefore, cultural employment can be defined as «the total of active workers having either a cultural profession or working with an economic unit within the cultural sector» (Higgs & Cunningham, 2008, p.15).

Accordingly, creative/cultural employment can occur in three different situations:

1. Cultural/creative occupations in the cultural/creative sector
2. Cultural/creative occupations outside the cultural/creative sector
3. Non-cultural/creative occupations in the cultural/creative sector

There is no specific Minor Group or Sub-minor group that groups cultural occupations, they are indeed spread out across the classification system for occupation and are, for the most part, only identifiable at the 4-digit level (Deroin, 2011). Therefore, it was necessary, to find a definition for what constitutes as cultural occupation, and Task Force 3 in the ESS-net Culture Project did so:

> "Cultural occupations include occupations involved in the creative and artistic economic cycle *i.e.* creation, production, dissemination and trade, preservation, education, management and regulation, as well as heritage collection and preservation. These occupations involve tasks and duties undertaken:
>
> - for the purpose of artistic expression (e.g. visual arts, performing arts, audiovisual, etc.);
> - to generate, develop, preserve, reflect cultural meaning;
> - to create, produce or disseminate cultural goods and services, generally protected by copyright."
>
> (ESSNET PROJECT, p. 143-144)

The task force then individuated all the ISCO-08 codes pertinent to this description: 32 four-digit codes of professions that are solely cultural, and 14 other four-digit codes for professions that can be cultural but not always are, as seen in figures 7a and 7b.

FIGURE 7a: List of Cultural Occupations

ISCO-08 4-digits level	Units group
2161	Building architects
2162	Landscape architects
2163	Product and garment designers
2166	Graphic and multimedia designers
2354	Other music teachers
2355	Other arts teachers
2621	Archivists and curators
2622	Librarians and related information professionals
2641	Authors and related writers
2642	Journalists
2643	Translators, interpreters and other linguists
2651	Visual artists
2652	Musicians, singers and composers
2653	Dancers and choreographers
2654	Film, stage and related directors and producers
2655	Actors
2656	Announcers on radio, television and other media
2659	Creative and performing arts artists not elsewhere classified
3431	Photographers
3432	Interiors designers and decorators
3433	Gallery, museum and library technicians
3435	Other artistic and cultural associate professionals
3521	Broadcasting and audio-visual technicians
4411	Library clerks
7312	Musical instrument makers and tuners
7313	Jewellery and precious-metal workers
7314	Potters and related workers
7315	Glass makers, cutters, grinder and finishers
7316	Sign writers, decorative painters, engravers and etchers
7317	Handicraft workers in wood, basketry and related materials
7318	Handicraft workers in textile, leather and related materials
7319	Handicraft workers not elsewhere classified

SSource: ESS-net Culture, 2012

Figure 7b: List of Partially Cultural Occupations

ISCO-08 4 digits level	Class
1222	Advertising and public relations department managers → *Advertising manager (art manager)*
1349	Professional services managers not elsewhere classified →*Archives manager, art gallery manager, library manager, museum manager* → *Managers of cultural enterprises and institutions*
1431	Sports, recreation and cultural centre managers → *Cinema manager, theatre manager, concert hall manager, manager of cultural center*
2164	Town and traffic planners → *Town planner (only if related to architecture)*
2310	University and higher education teachers → *Arts teachers*
2320	Vocational education teachers → *Arts teachers*
2330	Secondary education teachers → *Arts teachers*
2341	Primary school teachers →*Arts teachers*
2513	Web and multimedia developers →*Webdesigners*
2632	Sociologists, anthropologists and related professionals → *Researchers related to cultural heritage (archaeologist etc.)*
2633	Philosophers, historians and political scientists → *Researchers related to cultural heritage (semiotic etc.)*
3339	Business services agents not elsewhere classified → *Literary agent, theatrical agent*
5113	Travel guides → *Museum guide, art gallery guide*
7522	Cabinet-makers and related workers → *Handicraft workers*

Source: ESS-net Culture, 2012

To analyze cultural employment at the European level, Eurostat makes use of data sources that are regularly collected by national statistical agencies and Eurostat as well: the structure of business statistics (SBS) and the labor force survey (LFS).

The SBS, provides a comprehensive picture of market-oriented enterprises: what is their structure, what is their economic activity, and their performance. Since the economic activity of businesses is classified at a four-digit-level, is very detailed and helpful when drawing the boundaries of the sector, however, it does not cover the R section, hence many market-oriented cultural activities cannot be analyses using this data source (namely performing arts, artistic creation, library and archives activities, museums activities and historical heritage) and to make up for this deficiency, statisticians resort to national business registers (ESS-net, 2012).

The LFS is a large sample survey among private households and provides pieces of information on both the respondent (age, gender, education attainment, occupation status) and the economic entities for which he/she works. However this survey has many limitations: many countries foreword aggregated data, at best at three-digit level NACE Rev. 2., which is an issue because many cultural and creative activities are discernible only at the highest level of disaggregation; it surveys the respondents only on their main activity, which is problematic because in the sector many individuals hold two or more jobs; it does not capture voluntary work (OECD, 2022).

The ESS-net recommended that data should be submitted at a high level of granularity (ISCO4*NACE3) to accurately estimate cultural employment, but not all countries can send data as detailed. It was then proposed by the French Ministry of Culture, within a project funded by Eurostat in 2003, to calculate Cultural Coefficients. Using a coefficient matrix, the proportion of cultural jobs in each less detailed paring is estimated.

1.3 Understanding Cultural Employment

In this subchapter, we will focus on the matter of cultural employment. Starting by presenting a general overview of the current figures on the subject, then understanding why cultural employment has become so relevant in the

public discourse, and which are its peculiarities and issues, finally touching upon the policies adopted to try to solve these problems. Ultimately there will be a focus on the Italian situation.

1.3.1. Data from Europe: an overview of cultural employment in the Union

The latest issue of Culture Statistics, provides a picture of European cultural employment as of 2022, using data from EU-LFS and following the NACE*ISCO method provided by the ESS-net Culture, thus it should consider cultural/creative occupations in the cultural/creative sector, cultural/creative occupations outside the cultural/creative sector and non-cultural/creative occupations in the cultural/creative sector.
However, the statistics obtained are hampered by the limitations that the EU-LFS entails, hence it adopts a conservative approach when estimating cultural employment. Indeed, it was not always possible to distinguish cultural occupations or activities in those categories that are only partially cultural. Moreover, is possible that total cultural employment is underestimated because the LFS does not provide sufficient information on respondent's second and tertiary jobs.
While cultural employment has been significantly affected by COVID-19, 2022 was the first year in which there was a general change in direction and it seems to have partially recovered, as a matter of fact there was an average +4,5% annual growth across European states (Eurostat, 2023), and the cultural end creative employment accounted for 3.8% of total employment, which equals to 7.7 million people. Of course, this growth was not equally spread out across all member states: while in 19 countries there has been an increase (in some cases, like Cyprus, a very significant one), in 8 member states we have seen a decrease. As for Italy, it seems to be almost aligned with European averages: the annual rate of change in 2019-2020 was -5.2%, in 2020-2021 -2.5%, finally in 2021-2022 an increase of +5.7%, nevertheless in real numbers never fully recovered: before the pandemic in 2019, 835.000 people were employed in the sector representing 3.6% of total employment, in 2022 there are 815.000 occupied in the sector, which accounts for 3.5% of total employment.

For what concerns the socio-demographic characteristics of cultural workers, they are not so far distant from the total of European employment, as noticeable when the data is broken down by age and sex. However, a relevant difference is in the educational attainment structure (Eurostat, 2023): individuals employed in the cultural and creative sector generally possess higher levels of education compared to the overall workforce. Specifically, 60.6% of cultural workers hold tertiary education qualifications (ISCED 5-8), whereas only 37.1% of the total workforce shares the same educational background. The data collected by Symbola and UnionCamere (2023), shows that the occupational characteristics of the Italian Cultural and Creative sector, mirror the European distribution. In Italy as well the most significant statistic is the high educational level of cultural and creative workers, 44,7% have a higher education degree, whilst only 24,3% of the total workforce have it.
For a focus on the relationship between education and cultural employment see Chapter 3, paragraph 3.4.1.

1.3.2. Perceived importance vs persistent vulnerabilities

Many accounts on cultural employment stress the disparity between the significance of cultural employment as a strategic asset for the economy, and the vulnerability that workers in this sector need to face (OECED, 2022; Bellini et al., 2018).
The pivotal essay by Richard Florida (2002) has established the notion of the creative class, whose presence in a region is seen as a driver of economic growth, attributable to many factors such as the creative class's propensity for innovation and "creative capital", a key resource in what is now called knowledge economy. Notwithstanding the urban policy implications of Florida's work[3], it reinforced the idea that culture, and especially cultural workers, are of crucial importance for the economic well-being of an area. Nevertheless, in all of the studies on the sector (KEA, 2006; OECD, 2022; UNESCO, 2022; European Commission, et al., 2023) the precariousness, lack of job security, the status of atypical worker, and the low wages are marked as

[3] It was criticised by many because his work was behind a wave of urban policy planning that, in order to attract the creative class, lead to gentrification and homogenisation phenomena in many cities.

persistent issues (even if they might seem as embedded features) of cultural employment. Compared to the total in OECD countries, cultural and creative workers are more often found in non-standard[4] occupations and to be self-employed (2022). Focusing on European data (Eurostat, 2023) when comparing cultural and creative workers with the total of workers, in selected labor market characteristics, they are more likely not to have a permanent job, not to work full time and to hold multiple jobs.

The category in which the difference is most significant is the self-employment status: 31.7% of cultural workers in the EU are self-employed vs. 13.8% in the rest of the economy. While it may seem natural to think that autonomous work is the preferred type of employment for artists and creative people, because it allows for high degrees of independence and time flexibility, Feder and Woronkowicz (2023) found that these motivations are not stronger in artists rather than other non-cultural self-employed people. According to the study, artists often choose self-employment because external circumstances, such as the precariousness of their work, force them to do so. Behind the high percentage of self-employed workers, often there are dependent employment arrangements disguised as self-employment, which is a phenomenon that too often is imposed on cultural workers (FIA, 2016)[5]. This has major implication in terms of social security for cultural workers because, when self-employed they are not entitled to paid sick leave, or unemployment benefits, whilst still having to work for a single employer. According to the survey conducted by Mi riconosci? (2023), among the respondents 31.9% were autonomous workers, of which 63.8% stated that they were forced to be, and 53.3% did not believe that that was the optimal contractual solution for their occupation.

A very common feature for cultural workers, especially for artists and authors is a practice that has been referred to as "moonlighting" (Alper & Wassall, 2000), which consists of having a main job outside the CCS (usually salaried) and combining it with a second creative job. Possibly, behind the multiple-job holding, the high level of temporary work and high level of part-time work, is

[4]Non-standard occupations are work arrangements that deviates from the standard form of employer-employee. They include temporary employment, part time and on call employment, multi-job holding and dependent employment disguised as self employment.

[5]Further on this in Chapter 2, paragraph 2.3.1. Industrial relations in the cultural sector

the project-based pattern in which the cultural and creative sector often operates (OECD, 2022).
The evident vulnerability of cultural and creative workers as a category, and especially of artists and writers (in 2022, only 73.3% of artists and writers had a permanent work contract, which is 12.6 p.p. lower than the average of EU workers) is recognized by all international organizations dealing with culture or labor, and there have been several attempts to enforce a policy to overcome these issues.

1.3.3. The international framework on job security for the sector

During the 21st General Conference of UNESCO, held in Belgrade in 1980, the *Recommendation on the Status of the Artist* was adopted, to protect artists' freedom of expression, fostering their mobility and improving their working conditions and access to social and economic rights. The issue was brought up already in 1974, during the International Symposium on the Role and Place of the Artist in Contemporary Society, which highlighted the difficulties that artists had to face, and the fundamental importance of protecting and strengthening their role in society (UNESCO, 1974). Thus, in 1976 preliminary studies by the Working Group on the Status of the Artist began, in collaboration with the International Labor Organization and various NGOs. The results were then presented in 1978 to the UNESCO General Conference, during which the decision was made to create a project to develop a formal recommendation on the status of the artist, which was finally approved two years later.
The 1980 Recommendation consists of a preamble and 9 parts. The preamble emphasizes the importance of art and culture in society, as well as the role of artists as key players in the dissemination of these; it also recalls the fundamental function of international cooperation to improve work and living conditions of artists. In the first, second and third parts, we find respectively the definitions of Artist and Status, the scope of applicability and the guiding principles; the fourth part focuses on the role that states should have in promoting the talent of artists and guaranteeing their right to professional training. The fifth part focuses on the social status of artists, urging member

states to protect it by providing economic subsidies and recognizing their rights as equal to other workers. The sixth part addresses employment, and artists' working and living conditions, moreover draws attention to professional and trade union organizations, urging Member States to adopt specific laws to protect the rights of artistic workers, like implementing specific pension funds and social security systems. The seventh part deals with cultural policies and urges Member States to take into account the requests made by artists and their associations in the process of formulating them. Finally, the eighth and ninth parts focus respectively on international cooperation to promote the status of artists and warn that the Recommendation does not diminish any existing benefits for artists. (UNESCO, 2022). From 1983 onward, 5 consultations were held to monitor how the principles stated in the Recommendation were implemented in member states.

In 2007, the European Parliament passed a *Resolution on the social status of artists* (2006/2249(INI)), following a study conducted by the European Institute for Comparative Cultural Research (2006). In addition to providing a comparative overview of the measures of the individual states with respect to crucial points (i.e., social status, labor relations, income levels, professional organizations, social security systems, taxation and transnational mobility), the study highlighted the precariousness of the working conditions of artists in Europe. It was concluded by a series of recommendations: on one hand to Member States, urging them to develop measures to combat precariousness including providing special unemployment benefits, tax relief measures for artists and incentives for cultural entrepreneurship; on the other hand it calls for the drafting of a *Community Charter on the Status of the Artist*, addressing the above issues in a systematic way, and an *Information Guide* providing practical and helpful information on social security systems, taxation for artists. Nevertheless, since 2007 the *Community Charter on the Status of the Artists* has not been redacted, and many of the issues mentioned are still a problem. However, in the Council Work Plan for Culture 2019-2022 (European Union,

2018)[6], the promotion of an "ecosystem supporting artists, cultural and creative professionals and European content" is listed as one of the 5 priorities, that European cultural policies must pursue. It is interesting to observe that the terminology used, explicitly refers not just to the category of artists, but to cultural and creative professionals as well, whose role is equally important yet precarious as that of artists.

A very recent European parliament's resolution (2023) stresses the urge to make available access to social protection for all CCS workers. The provision clearly aims at broadening the scope of the protection to the entire category, so as not leave uncovered all of those workers that, despite not being commonly recognized as vulnerable, still suffer from the atypical work patterns of the sector.

Moreover, the proposal is concerned with the remunerations of cultural and creative professionals: they must be paid according to their level of education, their competencies, and their professional experiences, to ensure a decent standard of living. It is not always the case, as a matter fact the motion cites a statistic by Eu Labor Survey: the cultural and creative sectors are considered low-wage sectors, and 38 % of CCS professionals are in the lowest three wage deciles.

1.3.4. The Italian context

In a study conducted by EENCA (2020), a comparative overview of the legislative frameworks of the various European member states is presented, and Italy's shortcomings on the subject can be noted, however, at present, the situation is changing. After COVID-19, entertainment workers demanded greater protection from the state after the health emergency, and as a consequence of their complaints within the 2023 budget law, a discontinuity allowance for entertainment workers was approved. This measure had already been presented in DDL 2039, then was approved by law delegation law 106/2022, and was finally included in the budget law after the amendment

[6] European cultural policy is guided by multiannual Work Plans for Culture, and by the Commission's European Agendas for Culture, the European Framework for Action on Cultural Heritage and the Joint Communication 'Towards an EU strategy for international cultural relations'.

signed by the deputy Matteo Orfini. However, the discontinuity allowance is intended only for workers in the entertainment sector (e.g., musicians, actors, authors and technicians), while other workers in the visual arts sectors are left out (e.g. artists, curators, project managers, producers, graphic designers, and illustrators, set designers, artists' studio assistants, archivists, photographers and video-makers, museum educators and cultural mediators and many others).

Nonetheless, Italy is trying to update its regulations and to adapt to the international framework, which calls for specific measures of protection for workers in the sector: something is moving, albeit with some delay compared to other European states.

By December 2020 a bill was in the making, initially drafted by senator Verducci (DDL n. 2039, 2020): *Statuto sociale dei lavori nel settore creativo, dello spettacolo e delle arti performative,* then brought to the Chamber by Orfini. In the early months of 2021, another bill was then drafted on the topic of performing arts professionals (DDL n. 2090, 2021) and in March of the same year, another bill was drafted to formulate provisions on the recognition of the professional figure of the artist and the creative sector (DDL n. 2127, 2021). The latter, seems to be intended as a 'Statute for Artists', at least that is the title of the dossier compiled by the Senate Study Service (Fucito & Frati, 2021b) on it, which identifies the principles of the discipline to be introduced, starting from the definition of the terms 'artist', 'artistic profession', 'performing arts activity', and then outlining the 'creative sector'. Then the bill provides for the establishment of a permanent round table on the Performing arts and creative sector, with the objective of creating a place where workers from the sectors and policy maker can dialogue, and eventually solve, the critical aspects of the sector. Specifically, the intent was to better define employment contracts in the performing arts and creative sector; to examine social security and insurance conditions of workers in the performing arts and creative sector, and suggest ways to improve the current regulations; to thoroughly analyze the peculiarities of artistic performance resulting from the atypical nature of the artist's working methods; to monitor and recognize new professions related to the performing arts sector (Fucito & Frati, 2021b). While this place of dialogue between workers of the sectors and the lawmaker would have been a great

opportunity, it is not possible to find documents relating to the works of the Round Table, nor is it entirely clear whether it is currently active. Alongside the previously mentioned round table, another one was established for workers in institutes and places of culture; however it was only established to tackle the issues that arose from the COVID-19 emergency and was never intended to carry out long-term work. The general intention of these law-decrees is to make up for the lack of legislation to protect workers in the creative sector, both self-employed and subordinate, an attempt that has not yet been completed because the focus was mainly on performing arts workers. In this regard, the AWI (Art Workers Italia) "the first association, autonomous and non-partisan, born to give voice to the contemporary art workers in Italy" formed in 2020, has taken action. They presented the demands of the sector in a letter addressed to the then Minister of Culture, Dario Franceschini. In said letter, they suggested many improvements to the sector, beyond the issues caused by the healthcare emergency (AWI, 2020). They were then invited to participate in the round table for workers in institutes and places of culture, and to the Senate commissions on "Culture and cultural heritage, public education, scientific research, entertainment, and sport" (VII) and "Public and private labor, social security" (XI) to bring proposals for amendments to the Ddl "*Disciplina del lavoro nel settore artistico e creativo*" - AA.SS. 2039, 2090, 2127, 2218, which is constituted as a kind of unified text. They asked for the use of the term "artistic sector", under which all activities peculiar to the field of visual arts are included (such as the organization of exhibitions, public programs, festivals, projects, and interventions in public space). Then is stressed the lack of a national contract to refer to when working with the public. Another important ask is to give credit and protect, through fair remuneration, those moments fundamental for artistic creation, such as artistic research and curatorship. Surely the most important request that is brought forward is in the area of social security and social protection: a request is made for an extension of the subjects included in the Performing Arts Workers' Pension Fund, so as to also include workers in the visual arts, and thus a consequent renaming of the fund to the *Fondo Pensionistico Lavoratori dell'Arte e dello Spettacolo* (FLPAS), and that contributions previously paid into different funds be reconjugated. (AWI, 2021)

Alongside the lobbying and the litigation work, AWI has issued a guide for fair remuneration, has drawn up different types of labor contracts, to fill the legal gaps and to give proper recognition to the work of the different figures working in the sector, and is in the process of issuing an ethical guideline for cultural institutions. Moreover, a very interesting and important work was achieved in the sector inquiry, through which a clear picture of contemporary art workers in Italy is painted.

The survey was conducted in 2019, following the Respondent-Driven Sampling methodology and the statistics were extrapolated on 440 interviews (Soru, 2021). What is very noticeable is the high prevalence of higher education, 85,9% have a master's degree or more. Nevertheless, the remuneration is often very low, and not commensurate with the level of education: in 2019 almost half of the respondents earned less than 10.000 euro in the year, only 26% earned between 10.000 and 20.000, whilst only 8.4% earned more than 30.000 euro in 2019. The study underlines the correlation between income and type of contracts: permanent dependent workers have the highest incomes, however, is known that there is a very high percentage of autonomous workers in the sector, according to this study 46.7% are autonomous workers, while 31.7% are dependent, of which only 17.9% has a permanent long-term job (Soru, 2021).

After pinpointing the socio-economic profile of workers cultural workers, identifying which kinds of professions and relative types of contracts, analyzing the average salary and the number of hours worked, the questionnaire dwells on the difficulties and on reasons for satisfaction related to the occupation within the sector.

The two items that were mostly identified as sources of difficulties were the lack of social security and welfare and the lack of fair remunerations. However, it seems that most of the respondents were very satisfied when it comes to fulfillment in their own job and recognition of their work. The factors on satisfaction and difficulties were then standardized for a cluster analysis, which has identified three, almost equally distributed, groups: the relatively satisfied, the passionate but struggling, and the disappointed (Soru, 2021). It is noticeable that both the first two categories still cite remuneration and lack

of social security as a big problem, nevertheless higher importance is given to non-pecuniary compensation features of their job[7].

Another industry survey was conducted on cultural workers by the association *Mi riconosci*?, it focuses mainly on the contractual status and the remuneration of workers in the museum industry but covers some similar places of work. It is remarkable how 54% of dependent workers and 57% of autonomous workers do not believe that what they earn in a year is enough to live autonomously (Mi riconosci?, 2023).

1.4. Review of the previous literature on specific studies on cultural employment

We have now established that cultural and creative workers, on average, have low incomes, despite being a category characterized by high levels of education. However, most of the studies (empirical and non) conducted on employment in the CCS, are focused on artists. It seems natural to focus on this specific, yet non-homogenous, category because they are the core of the sector (if we choose to employ the concentric cycle model as our framework). But who do we need to consider as artists? Like everything in the sector, there is no clear definition and no precise boundaries on this category, but several criteria have been identified to understand who can be designated as an artist and who can't (Frey & Pommerehne 1989): the amount of time spent on artistic work; the amount of income derived from artistic activities; if the general public designates them as an artist; the reputation among peer artists; the quality of their work (particularly complex to define); belonging to a professional artists' group or association; a professional title as artist given by formal education; and lastly self-appoint as artists. These are not the only criteria used in literature to define who is an artist and who isn't, for example, a very valid is having received in the near past an artistic grant (Throsby & Petetskaya, 2017; Baldin & Bille, 2021), and of course, looking at ISCO codes.

Baldin and Bille (2021) in their empiric study on visual artists in Denmark decided to define as artist those who meet two out of three criteria: "a) membership of one of the two main artists' associations in Denmark, b) receipt

[7] More on elements of job satisfaction and non pecuniary compensation in chapter 2.

of arts grants from the Danish Arts Foundation, and c) graduation from an arts academy" (p. 592) and they defined 6 different sub-categories: the aim was in to prove the heterogeneity of artist's category, in the context of cultural policy. However, we define them, most of the studies on the topic (Alper and Wassall, 2006; Bille 2012; Throsby and Petetskaya, 2017) show that generally artists work under poor income conditions, suffer from higher unemployment and could earn more if they worked non-arts jobs.

1.4.1. Work preference model

The prevailing theory employed to explain artist's earning penalty is Throsby's Work Preference Model (1994, 1996) and it been used as a theoretical framework by many empirical studies. According to it, the artists' primary motivation to work is their intrinsic desire, thus standard labor theory cannot be applied to them, because it provides that, generally, workers' main driver is income. Therefore, artists are prone to prioritize their artistic fulfilment over financial gain.

It is widely recognized that a distinctive characteristic of artists' labor markets is the prevalence of multiple-job holding (Benhamou, 2011) to make ends meet, thus Throsby (1994) imagines in his model that the artist can supply labor to artistic labor market and to the non-arts labor market, so she must allocate her time between artistic work (L^a) and non-artistic work (L^n), in order to maximise her utility (1) (where x is the amount of consumption goods) while still adhering to a budget constraint (2) and provided that the amount of consumption does not fall short than a subsistence level $x*$ (3) .

(1) $U = U(L^a, x)$

(2) $w^a L^a + w^n(1 - L^a) - p^x x = 0$

(3) $x \geq x^*$

The time availability is standardized as a unit so that $L^a + L^n = 1$ and the earnings from the two labor markers are respectively $w^a L^a$ and $w^n(1 - L^a)$.

The key assumption on which the model is solved is that the partial derivative of the utility function, with respect to consumption, is zero, or very close to zero, in any case is much smaller than the partial derivative with respect to to

L^a. This is clearly an extreme position because it implies corner solution for consumption, i.e. $x = x^*$.

Given this, the artistic labor supply is immediately obtained from the budget constraint as $L^a = \frac{w^n - p^x \cdot x^*}{w^n - w^a}$. From this Throsby obtains that the time allocated for artistic work increases whether there is an increase in wage of non-artistic work (w^n) or in wage of artistic work (w^a). In the first case, if w^n goes up then income constraint is easier met end is more affordable to dedicate more time to artistic work; in the second case the base income is earned through w^a. This happens even if $w^a < w^n$, and the difference in the rate of payment represents the opportunity-cost of working in the arts, or the psychic income of the artist (Bille, 2020).

Empirical tests (Bille et al., 2013; Steiner & Schneider, 2012) focused on satisfaction derived from work backed the work preference: artists are on average considerably more satisfied than non-artists. Steiner and Schneider (2012) conducted an analysis using data from the German Socio-Economic Panel Survey from 1990-2009 and found that, even when controlling for unobserved individual characteristics, artists are found to enjoy higher utility form their work compared to non-artists and their study suggest that a possible explanation for the higher job satisfaction is due to aspects of the artistic work itself (e.g. not having a monotonous job and having the possibility to learn new things). They also tested the effect of increased working hours on job satisfaction for artists and non-artists and found that for the former group, the effect is positive.

However, Casacuberta and Gandelman (2012) point out that Throsby's work preference model does not account for leisure time, as he assumes that artists are overwhelmingly motivated to create thus have a strong preference for (arts) work, whilst Casacuberta and Gendelman include leisure time as separate argument in the time constraint, allowing for a more comprehensive analysis of artists' time allocation. Their model differs from Throsby's also in considering arts wage non-linear function of arts hours and of market perceived artist quality.

Starting from the model developed by Casacuberta and Gandelman, another empirical study on Norvegian artists tested both the effects of arts and non-

arts wage and the effects of non-labor income (Bille, et al. 2017), which was not treated as a single variable but unbundled into three different sources, whose various nature produced a different effect on arts hours: spouse's income, income from financial assets and social benefits and arts grants and subsidies. Whilst the first two income sources do not have a significant effect on the allocation of time towards artistic work, the income coming from arts grants and subsidies has a positive effect on it, because it affects the artists' motivation (Bille, et al. 2017).

The studies have only been conducted on the subcategory of artists, that is not representative of the broader category of cultural and creative workers. As understood from the Trident model, cultural and creative workers are also those individuals who do not perform inherently cultural or creative jobs but are employed in cultural or creative economic entities. Can we infer that these individuals experience comparable job satisfaction to artists, despite not sharing the same inclination to create? Moreover, could the possible higher satisfaction be the sole explanation behind the wage penalty that cultural and creative workers seem to suffer from?

Chapter 2

Theories on wage differentials

In the previous chapter, we provided an outlook on the condition of Creative and Cultural Sector (CCS) employment in Europe and Italy, mostly based on *ad-hoc* surveys, highlighting the difficulties faced by workers in this sector. Particularly noteworthy is the issue of remuneration, which seems *prima facie* low and inconsistent with the high levels of education characteristic of cultural workers.

In this Chapter we will provide some background to the empirical analysis, by reviewing some of the theories that have been proposed to account for the presence of wage differentials among similar workers working in different sectors.

Dale Mortensen, in a series of influential lectures (2003), identified four main reasons contributing to explain the ample wage inequalities across economic sectors observed in most developed economies. The first is the simple and inherent productivity differences among different workers. The second is the need for employers to increase the wage in order to compensate workers for job characteristics that imply a disutility (or to pay less workers in jobs characterized by utility increasing amenities). The idea of the so called "compensating differentials" was first explored in an explicit way by Rosen (1986).[8] The third is the wage dispersion caused by frictions in the search for a job; this is Mortensen's (as well as C. Pissarides and P. Diamond) own contribution, that was rewarded by the Nobel prize in economics, in 2010. The fourth is the value of the specific match between a worker and a firm, an idea that was pioneered by Becker (1973) and further explored by Sattinger (1993). Indeed, with the availability of matched employee-employer longitudinal data, starting with the work of Abowd, Kramarz and Margolis (1999) a host of studies have decomposed the wage differentials in factors attributable to the workers, factors attributable to the firm, and factors pertaining to the match

[8] The idea in itself is much older, and appeared already in Chapter X of Adam Smith's Wealth of Nations, where he wrote: "The whole of the advantages and disadvantages of the different employments of labour and stock must, in the same neighbourhood, be either perfectly equal or continually tending to equality."

between the worker and the firm, finding that all of this matter. Indeed, this multifactor explanation of wage differentials is likely to be particularly relevant for the cultural sector, which has its own specificities and is very complex and nuanced.

A systematic review of these different factors, theories and empirical results is beyond the scope of our work. Rather, we will selectively mention some of them, focusing on those that we believe are potentially more relevant for the cultural sector.

In particular, we will explore possible imbalances in the cultural labor market: how many are graduates with cultural degrees in comparison to the jobs in the sector? Is the labor market saturated? What are the skills that cultural workers need to have that they don't learn in the education system?

In line with the compensating differential theory, we will also consider the relevance of non-pecuniary compensation in the cultural sector, the intrinsic motivations and interest for the job itself, and then touching upon the question of the blurred boundaries between voluntary work and unpaid labor.

Finally, we'll explore how unionization might influence wage differentials and how industrial relations in the creative sector are structured and presenting some case studies of new strategies implemented by both trade unions and organizations in Italy.

2.1. Labor market equilibrium

The simplest, neoclassical model of the labor market postulates a perfectly competitive market, with a large enough number of homogeneous firms and workers who are price takers, have perfect information about available opportunities, there are no barriers to entry and exit nor institutional constraints on the speed of adjustment of relative prices (i.e., real wages) and quantities traded (employment and/or total hours worked) and there is costless mobility of workers between jobs (Brucchi Luchino, 2001). The model clearly implies that all workers are paid equally and is therefore of little use (except as a benchmark from which to depart) in explaining wage differentials. Nonetheless, the model can be used to interpret the situation of a particular sector of the economy in which, at least temporarily, there is oversupply,

which according to the model would lead to a wage decrease. Since we conjecture that in the cultural sector there might be conditions of oversupply (or saturation), the textbook model would offer one simple explanation of the wage gap in the cultural sector compared to other economic sectors.
A minimal departure from the neoclassical model, allowing for productivity differentials among workers, would yield wage differentials in equilibrium , but this would not be enough to explain the structure of wages in industrialised counties (Rycx, 2002). Several studies have examined the role of industry affiliation in wage determination. In particular, a seminal study by Krueger and Summers (1988) showed that wage disparities persisted among workers with similar individual characteristics and working conditions but employed in different sectors. The explanation proposed by Krueger and Summers relied on the theory of efficiency wages, according to which the wage might affect the productivity of a worker (for several different motives), so that imperfectly competitive firms, able to set the wage, might choose one that, while maximizing their profits, could be too high to ensure full employment. Efficiency wages were initially proposed to explain the possibility of equilibrium unemployment but can also offer an explanation for wage differentials among sectors if they differ in the intensity of whatever factor generates the link between wages and individual productivity (for a survey of this line of inquiry see Katz (1986)).
The existence and persistence of sectoral effects on wages have become widely accepted, through various empirical studies which investigated the theme in different industrialised countries (mainly OECD countries) and found a correlation in the structure of wages (Zweimüller & Barth, 1994; Rycx ,2002). A recent analysis for Italy is in Briskar, Di Porto, Rodriguez-Mora and Tealdi (2024).

2.1.1. Field saturation and field of study mismatch

As mentioned above, one potential determinant of wage differential is the quality of the match between a specific worker's skills and the job's skill demands (Becker, 1973, Sattinger, 1993), according to what is often called the assignment theory (from the work of Sattinger, titled "*Assignment Models and*

the Theory of Jobs"). The general idea is that a match of lower quality will earn a lower wage, due to lower productivity or the fact that badly matched workers need to acquire field-specific skills. As a result, the same worker might be paid differently in different jobs if the match between her skills and the skills required by the alternative jobs is different.

One particular instance of this phenomenon, which we believe is of special relevance for the CCS, concerns the possibility of a field-of-study mismatch, i.e. a situation in which of a worker, trained in a particular field of study, ends up working in an occupation that corresponds to other fields of study.[9] The issue has been recently studied by Guillermo Montt, in *"The causes and consequences of field-of-study mismatch: An analysis using PIAAC"* (2017). In this paper Montt computes, for a number of countries and fields of study (with corresponding occupational groups) the field-of-study mismatch[10], and shows how it results from demand factors, proxied by field saturation[11] --- which occurs when the number of workers with a specific field of study (be they employed or unemployed) exceeds the number of job available in the occupational group corresponding to the said field of study (irrespective of whether the jobs are matched or unmatched) --- and from supply factors, proxied by skill transferability --- which occurs when workers with a particular field of study can be employed, without qualification or skill mismatch, in an occupation belonging to occupational groups different from the ones corresponding to the said field of study. Using logistic regression Montt shows that field saturation has a strong positive effect on the likelihood of field-of-study mismatch, which remains largely unchanged as various controls are included in the regression as expected. The effect of skill transferability, which is expected to be negative (as more transferable skills

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9 This is a distinct phenomenon from qualification mismatch, when a worker's occupation requires a level of education below or above his/hers schooling, and is also

10 distinct form skills mismatch, when a worker does not possess the key information-processing skills required for the job. In fact, there could be field-of-study mismatch with or without qualification or skill mismatch.

11 Since a given occupation (as specified by 3 digit ISCO-08) might correspond to more than one field of study, the indicator constructed by Montt has no interpretable scale and is normalized so that positive values indicate high saturation in a field compared to the average field across all countries. The indicator is standardized to have a standard deviation of 1 across fields and countries so that a value of 1 (-1) indicates that the saturation is one standard deviation above (below) the average observed across all fields and countries.

should reduce the likelihood of mismatch) is more sensitive to the inclusion of controls and gets the expected sign only when country fixed effects and other country level controls are includeed. In addition, Montt shows that a field-of-study mismatch is associated to a wage penalty.

What is most interesting, for the purpose of our work, is to note that the field "Humanities, language and arts" is highly saturated in all countries (particularly so in Italy, with a value 3 times the standard deviation, see Table 1), has one of the two highest field-of-study mismatch **by field of study** (on average across all countries, 72.7% of the workers with that field of study are mismatched; 75.6% in Italy), and has one of the lowest field-of-study mismatch **by occupational group** (on average across countries, only 18.5% of the workers in the occupational group corresponding to the field "Humanity, language and arts" are mismached; 17.6% in Italy), see Figure 8. These results suggest that there are too many graduates in the "Humanities, languages and arts" field compared to the jobs in the same occupational group, so that many of them must find a job in a different occupational group (high mismatch by field of study) and employers do not need to search among graduates from other field of study to fill their vacancies (low mismatch by occupational group).

Hence, the low wage in the CCS might be the result of an excess supply of workers aiming for a job in the sector.

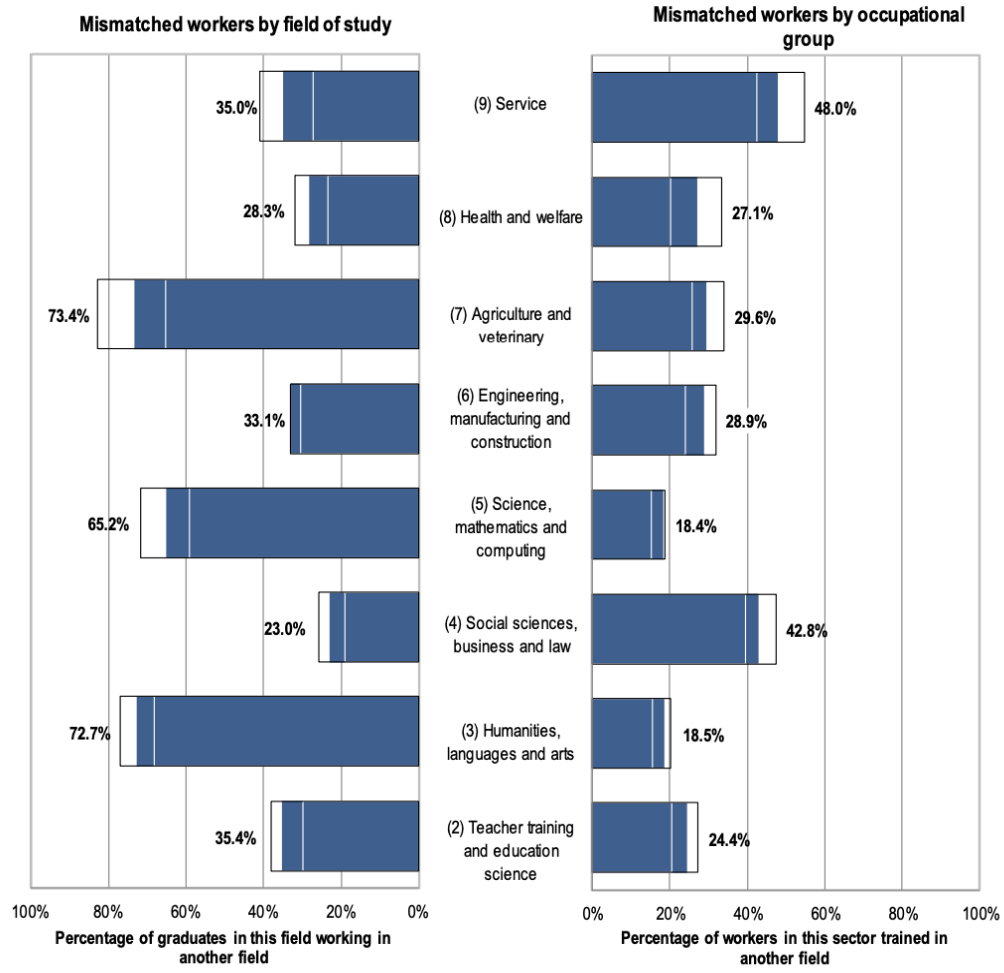
Table 1 : Field Saturation

	Field saturation							
	(2) Index	(3) Index	(4) Index	(5) Index	(6) Index	(7) Index	(8) Index	(9) Index
Australia	1.2	-0.3	-0.1	-0.2	0.5	-1.2	0.5	-1.
Austria	0.3	-0.5	0.0	-1.2	1.1	-0.4	-0.5	-0.
Canada	0.2	0.9	-0.7	0.7	-0.3	-1.2	-0.1	-1.
Cyprus*	0.3	1.1	-0.8	0.9	0.2	-1.2	-0.7	-1.
Czech Republic	0.9	0.6	-0.3	-1.0	1.1	0.8	-0.9	-0.
Denmark	0.7	0.4	-0.5	-0.1	0.2	-0.4	-0.3	-0.
England/N. Ireland (UK)	-0.1	5.1	-0.4	1.3	0.0	-1.0	-0.6	-1.
Estonia	0.1	0.1	-0.5	-0.5	0.4	0.1	-0.5	-0.
Finland	0.1	-0.2	-0.3	-1.1	0.7	-0.3	0.3	-1.
Flanders (Belgium)	0.5	0.6	-0.7	0.8	0.7	-0.5	0.2	-1.
France	-0.2	0.0	-0.6	0.5	0.1	-0.2	0.1	-0.
Germany	-0.1	-0.3	0.0	-0.5	1.0	-0.8	0.3	-1.
Ireland	0.4	1.1	-0.3	1.9	0.2	-0.4	-0.1	-1.
Italy	-0.3	3.1	-0.6	1.4	-0.2	-0.2	-0.5	-1.
Japan	2.0	1.6	-0.9	-0.9	0.2	-0.4	-0.5	-1.
Korea	-0.1	1.6	-0.9	2.8	0.2	-0.1	-0.5	-1.
Netherlands	0.3	-0.5	-0.2	-0.1	0.5	-0.1	0.5	-1.
Norway	0.0	0.1	-0.3	0.1	1.2	-0.7	-0.2	-1.
Poland	0.5	1.0	-0.7	0.2	0.9	-0.3	-0.8	-0.
Russian Federation**	1.1	1.1	-1.0	0.4	0.4	0.3	-0.8	-1.
Slovak Republic	0.7	0.9	-0.7	0.3	0.8	1.1	-0.5	-0.
Spain	0.1	1.9	-0.4	1.0	0.6	-1.0	-0.1	-1.
Sweden	0.4	0.4	-0.2	-0.8	0.7	-0.4	0.0	-1.
United States	0.8	1.0	-0.4	1.3	-0.3	-1.3	0.2	-1.
Country Average	0.4	0.9	-0.5	0.3	0.5	-0.4	-0.2	-1.

(2) Teacher training and education science
(3) Humanities, languages and arts
(4) Social sciences, business and law
(5) Science, mathematics and computing
(6) Engineering, manufacturing and construction
(7) Agriculture and veterinary
(8) Health and welfare
(9) Service
Source: OECD, PIAAC (2012).

Source: Montt (2015)

Figure 8: Mismatch by field of study and mismatch by occupational group



Source: Montt, 2015

2.1.2. Are culture-related graduates equipped with the right skills?

Entering the labor force after finishing the long and laborious studies, does not seem a straightforward process for graduates in culture-related fields. Graduates in culture-related fields are likely to experience difficulties in matching what they have learned in academia to the actual needs of the Cultural and Creative Sector. The *Green Paper* by the European Commission *Unlocking the potential of cultural and creative industries* (European Commission, 2010) identified this particular skill mismatch as one of the core issues of the sector, a problem that needs to be addressed to boost innovation. Similarly, the United Kingdom's Department of Education survey on skills needed by

employers (2020) reported how cultural graduates are often ill-equipped for the transition to work. In Italy the professional needs of the sector are investigated by the repor*t I fabbisogni professionali e formativi delle imprese culturali 2020* (ANPAL, Sistema informativo Excelsior, & Unioncamere, 2022). The report highlights the difficulties that cultural institutions and firm face in finding suitable professional figures, and stresses that these challenges are due to the lack of necessary skills rather than an insufficient labor supply. According to the report, institutions and firms in the sector need, in addition to vertical/hard skills (i.e., the specific competencies that are necessary for the job and may be acquired during the studies), also, and increasingly, soft skills such as flexibility, adaptation, teamwork capacities and especially problem-solving, often acquired with field experience. Moreover, communication skills in languages other than Italian are needed, due internationalization of the CCS, as well as digital competencies. On a positive note, several universities are developing Digital Humanities courses, which focus on how digital tools can be applied to the various branches of the humanities. These courses seem to be effective: five years from graduation, students enrolled in them were more likely to be employed compared to graduates in other humanistic courses (83.8% vs. 78.6%, respectively, Almalaurea, 2021).

Apart from digital competencies, the soft skills highlighted by the ANPAL report are the ones often acquired on the job. It is clear that the possibility to undertake an internship or a stage during the formation years is a precious opportunity to develop them and to gain an understanding of the world beyond education, as proven by the cross European study on Arts and Humanities graduates by Comunian *et al.* (2023).

Despite this, too often internships and stages are employed by cultural and creative industries to make-up for the shortages in staffing (Taormina, 2021), and not only in Italy. Martin Shultz, during a debate for the position of president of the European Union in 2014 stressed how big of an issue this is in Europe: "unpaid internships are one of the biggest problems that we have, […] this is a modern style of exploitation."(Euronews, 2014) The problem persists, notwithstanding various European resolutions and provisions and the Italian *"Linee guida in materia di tirocini formativi e di orientamento" (*2017).

Within the context of the economic crisis of the early 2010s many movements of art workers and students emerged (Kompatsiaris, 2015), addressing the exploitation of labor in the art world, particularly focusing on the issue of unpaid internships, through a combination of public actions, counter-information, and media engagement. To cite a couple of these: Carrotworkers Collective published in 2011 *Surviving Internships: A Counter-Guide to Internships in the Art*, which was aimed at debunking commonly held myths about internships and creative careers; the Ragpickers, a group inspired by WikiLeaks, aspired to create an "archive of the oppressed" by collecting personal stories from ex-interns; and Future Interns, a group that organized a public action against the Serpentine Gallery in December 2013, denouncing the famous gallery's unfair internship practices while dressed as Santa Clauses and chanting to the chorus "All that we want for Christmas is pay".

When entering the labor market cultural and creative graduates seem to face, therefore, a double challenge. On one hand, a saturated market, in which they have to fight to find a place and are often forced out, seeking work in other fields, and in which they are in many cases ill prepared, lacking those skills that need to be acquired on the job, rather than through academic studies. On the other hand, when they have the possibility of undertaking an internship, they are often exploited as cheap labor (or in the worst scenario as free labor), which exerts further pressure on lowering the wages.

This leads us to formulate our first hypothesis:

H_1: Imbalances in the CCS labor market, including field saturation and high levels of field-of-study mismatch, contribute to underemployment and wage penalties, as many workers are forced into jobs outside their area of study.

H_1 will not be empirically tested through a regression analyisis, however we will assess the presence of field saturation and fiel-of-study mismatch within our sample.

2.2. The importance of job satisfaction features

As mentioned at the beginning of this chapter, another factor that economists believe contributes to wage differentials (among observably equivalent workers) is the possible presence of compensating (or equalizing) differentials

(the standard, classical reference here is Rosen, 1986). The idea is that a job is characterized, besides its wage, by a host of features and attributes that can be differently appreciated by different workers, who are as a result willing to take that job if the wage is enough to compensate the features that they consider as detrimental or, conversely, if some appealing features compensate a lower wage than what they could earned in a different job. As a result, each labor market transaction can be interpreted, from the worker point of view, as the simultaneous sale (or rent) of the services of her labor and the purchase of the job attributes; conversely, from the firms' point of view, as the simultaneous purchase of the services of the labor of a worker and the sale of the job attributes. Hence, the equilibrium wage is the sum of two transactions: one for labor services, another for job attributes.

There is a large literature, both before and after Rosen's work, that studied the role of compensating differentials in explaining wage differentials among different sectors, with somewhat mixed results. While some features of the job have been found associated with wage differentials of the expected sign (negative for amenities and positive for nuisances), other features correlate with wage differentials of the wrong sign (e.g., repetitive work should be associated with a positive sign, since could be considered a detrimental job attribute, however Brown (1980) finds that it has a negative sign), however suggesting the presence of unobserved and unaccounted characteristics of workers. It is worth stressing that the economic literature is typically focused on features and attributes that are objectively observable and quantifiable, reflecting a general skepticism with self-reported, subjective measures (Bertrand & Mullainathan, 2001)

This is relevant, for the purpose of our research, as we believe that jobs in the cultural and creative sector typically entail an element of passion and ideological alignment, which might well be the basis of compensating wage differentials, but which is however hard to objectively measure.

For this reason, we will focus in the following on works in fields like sociology, psychology, management and organization, as well as behavioral economics, which is the economic school of thought that tries to understand how the economic behavior of individuals differs from the "rational" and "optimal"

decisions that they should've taken according to neoclassical theory (Witynski, 2021).

In these works, wage differentials have been associated with the notion of job satisfaction, a concept that has been conceived as a specific goal in human resources management policies due to its correlation with higher effort level on the job (Depedri, Tortia, & Carpita, 2010).

The theory on job satisfaction does not have a specific origin, but some early contributions to the theme were very important for subsequent developments. The first is Frederick Herzberg's Two-Factor Theory, also known as the Motivation-Hygiene Theory or Dual-Factor Theory (1966; 1982; 1991), which links job satisfaction to external factors, called Hygiene factors (e.g. working conditions, salary, company policies, and interpersonal relations) that, if present, do not necessarily cause satisfaction but, if lacking, cause dissatisfaction, and internal factors, called Motivator factors (e.g. achievement, recognition, the work itself, responsibility, and advancement), that are linked to job satisfaction. Therefore, in his theory the satisfaction and dissatisfaction are caused by different elements.

A second important early contribution is Abraham Maslow's Hierarchy of Needs, originally developed in his *A Theory of Human Motivation* (Maslow, 1943/2019), a psychological theory that structures human needs in a hierarchical order, like a pyramid with five levels. At the basis there are physiological needs, then safety needs, then social needs, and at the higher levels esteem needs and self-actualization. This framework can be utilized to understand how, by meeting those needs, a job might be satisfying for an individual. The first two levels are concerned with basic needs, like adequate compensation or job security and sample employment; the social needs are met when, for example, there are positive workplace relationships; finally, and of particular importance for our focus on cultural jobs, the top two levels contributing to overall job satisfaction might be those that can compensate for wage differentials. Esteem needs include recognition at work, opportunities for advancement, and a sense of accomplishment; and lastly, jobs that provide opportunities for personal growth, to express creativity, and the pursuit of challenging tasks that might be in line with the individual's identity can be referred to the self-actualization level of Maslow's theory.

Clearly, it is not necessarily the case that individuals seek to satisfy all levels, as they might be more concerned with some of them. We conjecture that cultural workers are more focused on the last two levels and place a lower weight on job aspects that are related with the first two levels, such as high salary and job security. We can argue that those who chose a carrer in the CCS reveal that they place a high value to art, culture and creativity, which are more likely to satisfy the needs stated in top two levels of the Maslow's Pyramid and can hardly satisfy the lower levels.

2.2.1 Measures of job satisfaction

Another author whose work was fundamental in understanding motivation and job satisfaction is the organizational psychologist Edwin A. Locke (Association for Psychological Science, 2006). The chapter in the *Handbook of Industrial and Organizational Psychology*, titled *"The Nature and Causes of Job Satisfaction"* (1976), provides a focus on both the extrinsic and the intrinsic factors that might influence job satisfaction. The determinants of job satisfaction are classified into three main categories: context, rewards, and work. The context refers to the working condition, both from the perspective of the physical environment (broadly including the hours worked and the sector of activity), and from the perspective of social relationships with colleagues, supervisors, etc. Rewards refers to economic benefits provided by the job (namely wage levels, bonuses, overtime policy, pay security, and so on) but also to non-monetary factors, like social approval and fairness of the organization. Finally, there is the work dimension, which encompasses intrinsic aspects of the job, from the types of tasks that the worker must perform, to the responsibility he/she is given, to how interesting the job content itself is perceived (Locke, 1976). Depedri, Tortia, and Carpita (2010) point out how these intrinsic aspects of the work are linked to the satisfaction of the top tier levels of the Maslow pyramid: self-esteem and self-actualization. They also stress that for workers who are employed in sectors in which the work itself and the context are highly relevant, the wage does not influence job satisfaction, even after controlling for the contextual variables (Borzaga & Depedri, 2005). While the work of Depedri et al. (2010) focuses on the social

services sector in Italy, and more broadly on non-profit workers, we conjecture that their conclusion about the low relevance of the wage on job satisfaction holds for cultural workers as well. Our conjecture is also based on the fact that cultural organizations often belong to the non-profit sector (ISTAT, 2017, 2019).

Locke's conceptualization of job satisfaction as a weighted sum of different job characteristics inspired Clark's (1998) cross-country study on job satisfaction, using data from the 1989 Work Orientation Survey conducted by the International Social Survey Programme (ISSP). In the original survey workers from nine counties, all part of the OECD, were asked to evaluate different aspects of a job, ranking them based on how important/unimportant they werein their assessment. The categories envisaged in the survey were (ISSP, 1991):

1. job security
2. high income
3. good opportunities for advancement
4. job that leaves a lot of leisure time
5. interesting job
6. job that allows someone to work independently
7. job that allows someone to help other people
8. job that is useful to society
9. job with flexible working hours

For the purpose of our research, the categories concerning the interest towards the job itself and the usefulness of the job for the society are of particular relevance. The contribution of arts and culture to the wellbeing of both individuals and the whole society has been well established by many studies. According to the World Health Organization arts have a major role in preventing illness and promoting health, as well as in treating illnesses (Fancourt & Finn, 2019). As for the societal impact, it is generally acknowledged that culture is crucial for social cohesion and inclusion (OECD, 2021). Especially in the perspective of development, the creative economy is considered society-inclusive, because it brings together all segments of society as stakeholders, since «*people from all social classes participate in this economy, in*

some cases as producers but always as consumers of different creative products on different occasions» (UNCATD, 2008, p. 36).

In his study, Clarks aggregates some of these categories and identifies six broad groups of job attributes to comprehend all the aspects of work:

1. Pay
2. Hours of work
3. Future Prospects
4. How hard or difficult the job is
5. Job content: interest, prestige and independence
6. Interpersonal relationships

Having an interest in the job content is reported by Clark, and confirmed in other studies (Sousa-Poza and Sousa-Poza 2000; Skalli *et al*. 2007), as one of the most important characteristics for job satisfaction. In Clark's analysis (1998), the category also implies that the job is perceived as useful, because helps other people or society. Among respondents to the ISSP survey, 48.7% classified job content as "Very important" (the fraction is 51.8% among Italian respondents). More in detail, Clark's analysis aims at understanding the relationship between the before-mentioned categories and job satisfaction, using ordered probit regression techniques. The dependent variable (i.e., overall job satisfaction) assumes ordinal values from one to seven and it is regressed on a dummy variables with seven possible outcomes (high income, want to spend less time in job, good promotion opportunities, job security, hard work, good job content, good relationships at work) that all assume values (1,0), facilitating direct comparison based on the magnitudes of the regression coefficients. (See Table 2).

Table 2 Overall Job Satisfaction Regressions on the Separate Components of Job Quality

	All	Women	Men	16-29	30-44	45-65
High Income	0.376	0.276	0.450	0.269	0.355	0.479
	(0.037)	(0.062)	(0.046)	(0.068)	(0.059)	(0.068)
Want to Spend Less Time In Job	-0.293	-0.355	-0.250	-0.357	-0.260	-0.301
	(0.031)	(0.048)	(0.040)	(0.059)	(0.047)	(0.057)
Good Promotion Opportunities	0.385	0.412	0.390	0.457	0.464	0.263
	(0.036)	(0.060)	(0.046)	(0.062)	(0.058)	(0.076)
Job Secure	0.250	0.264	0.241	0.251	0.250	0.243
	(0.033)	(0.053)	(0.043)	(0.060)	(0.052)	(0.063)
Hard Work	-0.188	-0.194	-0.150	-0.077	-0.201	-0.249
	(0.030)	(0.046)	(0.040)	(0.054)	(0.046)	(0.056)
Good Job Content	0.547	0.530	0.556	0.539	0.543	0.492
	(0.031)	(0.047)	(0.040)	(0.056)	(0.048)	(0.058)
Good Relations at Work	0.669	0.701	0.643	0.601	0.704	0.691
	(0.033)	(0.052)	(0.043)	(0.058)	(0.051)	(0.064)
N	5593	2334	3259	1671	2301	1621
Log Likelihood	-7037.27	-2920.67	-4100.52	-2199.75	-2820.82	-1978.89
Log Likelihood at zero	-7908.88	-3265.97	-4631.84	-2452.45	-3203.14	-2215.81
Pseudo-R^2	0.110	0.106	0.115	0.103	0.119	0.107

Source : 1989 International Social Survey Program Data

Source, Clark, 1998

In the regression good job content (i.e., intrinsic interest in the job) is the second most important aspect, after good relations at work. To further measure the impact that the different categories have on satisfaction, Clark calculated how much the predicted probabilities of a respondent to say they are satisfied (answering from 5 to 7) would change if one of the 7 categories were switched (either on or off). Again, the largest effect is obtained when switching the relationships in the workplace from good to bad, with a drop in the probability of job satisfaction of nearly 25 percentage points, and the second largest effect emerges when switching the job content from good to poor, with a drop of 20 percentage point (see Table 2a)

Table 2a: Predicted probabilities of overall job satisfaction from Table 2.

	All		*Women*		*Men*	
	P(Completely Satisfied)	P(Completely or Very Satisfied)	P(Completely Satisfied)	P(Completely or Very Satisfied)	P(Completely Satisfied)	P(Completely or Very Satisfied)
Base*	15.8	51.8	17.9	56.2	14.2	48.5
Base+high income	26.6	66.3	26.0	66.7	26.8	66.0
Base+ want to work less	9.8	40.2	10.1	42.1	9.3	38.7
Base+ high promotion opportunities	26.8	66.7	30.6	71.5	24.8	63.8
Base+ low job security	10.5	41.9	11.8	45.7	9.5	39.1
Base+ not difficult job	20.8	59.2	23.4	63.6	17.9	54.5
Base+ not good job content	6.1	30.8	7.3	35.4	5.2	27.7
Base+ not good relations at work	4.7	26.7	5.2	29.3	4.3	24.8

* Low income, do not want to work less, low promotion opportunities, high job security, difficult job, job with good job content and good relations at work.

Source: Clark, 1998

2.2.2. Wage differentials of non-profit workers

The first, and probably the most straightforward, of the four reasons that Mortensen listed as possible explanations of wage differentials, mentioned at the beginning of this chapter, is the possibility that workers differ as to their productivity. The latter, in turn, might be the result of differences in the human capital. The simple idea is that the more the worker invests in his/her education, accumulating human capital, the higher will be his/her wage. This is the idea underlying the so-called Mincer earning equations (Mincer, 1974). The model, which is *"one of the most widely used models in empirical economics"* (Lemieux, 2006), explains wage as a function of both schooling and experience. On the left side of the equation we have the natural logarithm of wage (w), and on the right side the number of years of schooling (s), the number of years of experience (t), often together with the same variable squared (t^2), to account for the concavity of the age-earning profile (Borjas, 2020), and other observables (for example, gender, race, place of residence…):

$$\ln(w) = \alpha + \beta_0 s + \beta_1 t + \beta_2 t^2 + \gamma X_i + \varepsilon_i$$

The intercept α, the coefficient β_0 estimates the percent increase in earnings resulting from one additional year of schooling, which is typically interpreted as the rate of return to schooling; the coefficients on experience (β_1) and experience squared (β_2) allow to estimate the rate of growth in earnings resulting from one additional year of labor market experience and are typically interpreted as measuring the impact of on-the-job training on earnings (Borjas, 2020). Therefore, unskilled and recently employed workers earn less than skilled workers with a long tenure, due to their lack of schooling and experience. The standard procedure in empirical studies to identify wage differentials is to estimate Mincerian wage functions by OLS (Wetzels, 2007). But, as noted by Mosca, Musella, and Pastore (2007), the non-profit sector presents a negative wage differential compared to the for-profit sector, even after controlling for human capital, as well as other covariates. Their research suggests that other factors, most likely linked to non-pecuniary compensation, influence the wage gap. The relevance of non-economic aspects in evaluating a job is more significant for workers in the non-profit sector, whose motivation and satisfaction stem form intrinsic aspects of their work, non-self-regarding components, and who place greater importance on non-pecuniary incentives, as suggested by other studies, both empirical and theoretical (Preston, 1989; Rose-Ackerman, 1996;).

Preston, in the wake of the theory of compensating differentials, elaborates on what she calls the "labor-donations" model of the non-profit labor market, according to which non-profit workers provide labor to non-profit organizations at lower-than-market wage because the wage differential is compensated by the possibility of providing goods with positive social externalities, a feature of the job at which the non-profit workers attach a positive utility value. Clearly, Preston's assumption on the utility function of non-profit workers has a similar flavor than Throsby's (1994) work-preference model, in which artists derive utility from the content of their work, rather than disutility from the effort it requires.

Preston's empirical research (1989) is based on the US 1980 Survey on Job Characteristics (SJC), while the studies previously cited (Mosca, Musella & Pastore, 2007; Depedri, Tortia, & Carpita, 2010) on non-profit workers look at Italian data for the service sector. There are no studies focusing on non-profit cultural workers, but cultural organizations represent in Italy a sizeable fraction of the non-profit sector (ISTAT, 2022), and this lends support to the conjecture that the conclusions found for non-profit workers continue to hold when restricting the focus to workers in the cultural and creative sector.

2.2.3. The cultural non-profits and the problem of voluntarism in Italy

According to the *Censimento permanente delle istituzioni nonprofit*, published by Istat every year, the non-profit sector in Italy is growing, from 343,432 organizations in 2016 to 363,499 in 2020 (ISTAT, 2021), with a total growth rate of 5.84%. The survey profiles the organizations based on the scope of their activities and to which sector they pertain. Previous surveys used to aggregate culture, sport, and recreational activities, which together accounted for 64.5% of the non-profit sector in 2017 (ISTAT, 2017). The last published survey (ISTAT, 2022), with data for 2020, disaggregates the categories and shows that non-profit organizations that are related to cultural and artistic activities are in total 57,615, representing 15.9% of the total. This is the second most relevant sector, after the sport-related organizations.

It should be noted that 90% of the organizations in the culture, sport, and recreation sector operate without employing paid staff to carry out their activities: there is widespread use of volunteers, as noted by Calvano (2021) in her contribution on opportunities and challenges of voluntarism in cultural organizations. This links back to the question of unpaid internships. The dire state in which many Italian organizations in the CCS find themselves leads them to resort to volunteers to make up for shortcomings in staffing, as denounced by Raimo (2017) and Coin (2017).

What is the legislative framework that enables paid work to be frequently replaced by voluntarism?

First and foremost, the law 4/1993, also known as Legge Ronchey, on urgent measures concerning the functioning of public museums. The Ronchey Law

mandates cultural institutions such as museums, archives, and state libraries to supplement their staff by entering into agreements with voluntary associations. The rationale for the involvement of voluntary associations was to ensure that the opening schedule of cultural institutions could be extended to a daily frequency and covering longer hours. Nevertheless, the law was pivotal for the inclusion of volunteers as personnel, and the subsequent broadening of the tasks that these associations can perform in this field. The latter was formally established by the Article 112 of the *Codice dei Beni Culturali e del Paesaggio* (2004), which allowed cultural organizations to employ volunteers in instrumental services for the fruition and enhancement of cultural heritage.

Calvano (2021) documents the criticisms raised by cultural workers on these provisions: the complaint is that they have been frequently used to substitute, rather than supplement, paid work, using volunteers that are often lacking adequate training in the field or are trained professionals that in the absence of suitable job openings offer their skilled labor for free, so as to maintain an attachment to the labor force and do not dissipate their human capital through long periods of inactivity.

To sum up, the analyses reported in this Section lead us to formulate the following hypotesis:

H_2: The wage differentials in cultural and creative workers depend on their intrinsic preference for the content of their work, which represents a sort of non-pecuniary compensation and make them more likely to accept a lower wage remuneration.

H_2 will be verified in the next chapter through a regression analysis.

2.3. The role of industrial relations in wage differentials

In the previous two paragraphs we tried to outline two possible, not mutually exclusive, reasons why the cultural sector seems to suffer from a wage gap. Another situation that could contribute and concur to the occurrence of lower wages is the poorly regulated condition of cultural work and the limited enforceability of sectoral contracts, also due to the large presence of self-employment (or what we call bogus self-employment) (FIA, 2016).

An important economic agent in the labor market are worker's unions, associations whose primary objective is to improve the welfare of their members by playing a representative role in the struggle of wage determination. Therefore, their presence can influence the behavior of economic agents and shift the economic equilibrium, because their actions can have effects (both direct and indirect) on workers that do not subscribe to the union (Brucchi Luchino, 2001). The way in which the presence of unions influences the industrial relations and the economic governance of a country depend on several factors: a) high bargaining coverage rate; b) high union density rate; c) centralized level of wage bargaining; d) presence of a mandatory extension clause of collective agreements to non-organized employers; e) involvement of unions and employers in the social dialogue (Bellini *et al.* 2018). In particular, the degree of centralization of collective bargaining and the degree of coordination between social partners are important ingredients in defining corporatism, which can be described as an integrated institutional framework in which a centralized setting allows unions not to be driven by aggressive local rent sharing, so that their action results in a reduction of non-competitive wage differentials (see Teulings and Hartog (1998)).[12] As Rycx (2002) points out, several studies explore the effects that corporatism has on sectoral wage differentials, all agreeing on the result that countries with little corporatism have a greater inter-industry wage differentials.

Calmfors and Driffill (1988) focused on the narrower concept of centralization---which is almost invariably an ingredient of corporatism--- in examining the relationship between wage bargaining and macroeconomic performance. The level of coordination between unions and employers in the negotiation of wage and role of the government policies and negotiations are factors that determine the extent of centralization in a country. Calmfors and Driffill (1988)

[12] In fact, As noted by Calmfors and Driffill (1988) the concept of corporatism has no official definition (as noted by Calmfors and Driffill, 1988). In general it refers to the extent to which broader interests influence the determination of individual wages, but each definition refers to various aspects that might have different effects. Some definitions include institutionalizsed negotiation, bargaining, collaboration, and accord about wages and "income policies" between representatives of the major economic groupings, while others refer to the integration of trade unions in economic policy making in exchange for their incorporation of capitalist growth criteria in union wage policy and their administration of wage restraint to their members.

rank different countries and compare their ranking to other compiled by different studies (see table z).

As evident from the table, Italy is considered by all the studies on the decentralization side of the rankings.

Table 3: Rank orderings of countries according to their degree of centralization

	Ours		Schmitter		Cameron		Blyth		Bruno–Sachs
1	Austria	1	Austria	1	Sweden	1	Austria	1	Austria
2	Norway	2	Norway	2	Norway	2	Norway	2	Germany
3	Sweden		Sweden	3	Austria	3	Sweden	3	Netherlands
4	Denmark	4	Denmark	4	Belgium	4	Denmark	4	Norway
5	Finland		Finland	5	Finland	5	Finland		Sweden
6	Germany	6	Netherlands	6	Denmark	6	New Zealand	6	Switzerland
7	Netherlands	7	Belgium	7	Netherlands	7	Australia	7	Denmark
8	Belgium	8	Germany	8	Germany	8	Germany	8	Finland
9	New Zealand	9	Switzerland	9	UK	9	Belgium	9	Belgium
10	Australia	10	US	10	Australia	10	Netherlands	10	Japan
11	France	11	Canada	11	Switzerland	11	Japan	11	New Zealand
12	UK	12	France	12	Italy	12	France	12	UK
13	Italy	13	UK	13	Canada	13	UK	13	France
14	Japan	14	Italy	14	US	14	Italy	14	Italy
15	Switzerland			15	France	15	US	15	Australia
16	US			16	Japan	16	Canada	16	Canada
17	Canada							17	US

Source: Calmfors Driffill, 1988

Barth and Zweimüller (1994), conducted a cross country study and found through regression analysis that a more centralized bargaining structure tends to narrow wage differentials across industries. However, they also found a fairly homogenous wage pattern across countries, suggesting that labor market institutions may not be the main driving force underlying the inter-industry wage structure.

The Italian collective bargaining system is based on the principle of trade union pluralism, with three central union confederations: the General Italian Confederation of Labour (CGIL), the Italian Confederation of Workers' Unions (CISL) and the Italian Union of Labour (UIL). Since 1993 bargaining has been articulated hierarchically in two levels: first, and most important, are the national industry-level collective labor agreements (in the cultural sector there

is the CCNL Federculture); then there are company-level agreements or territorial agreements, if firms are too small or to supplement the industry-level agreement. The system was defined by the European Commission in its 2016 country's report on Italy as "unclear and unspecified" because collective agreements are uncertain and have a limited impact. Since they are acts of private law, according to the Civil code, they are not extended *erga omnes* and are only binding signatory parties (Leonardi, Ambra & Ciarini, 2018). Nevertheless, they act as an embodiment of the principle stated in Article 36 of the Italian Constitution on "fair pay" and *de facto* are (or should be) extended to all workers and employers, beyond the organized ones. According to ISTAT's trimestral reports on collective agreements and retribution (September 2023), 42 national collective agreements covering 46.0% of employees are in place and 31 are in process of being renewed (collective agreements last on average three years). There are no specific data on bargaining coverage at the sectoral level, particularly within the CCS (Bellini *et al.*, 2018).

2.3.1. Industrial relations in the cultural sector

In the previous Chapter we outlined the international legal frameworks that has been put in place for the protection of artists and cultural workers, i.e., the 1980 UNESCO's Recommendation on the Status of the Artist and the European Parliament resolution of 7 June 2007 on the social status of artists (2006/2249(INI)). Although these provisions are in place, it is up to the single nations to implement regulations. As seen before, not all nations do. Moreover, even in countries who have social provision for cultural workers, the category still reports high vulnerability of working conditions.

Collective bargaining is important in achieving good remunerations and labor security, but since in the creative sector the incidence of freelance work is high, it is harder for workers to associate and to bargain (OECD, 2019). Gherardini (2017) reports that collective action or traditional industrial relations tools are barely used by creative workers, in part because in some sectors of the CCS, for example in the performing arts and audio-visual sector, there is a high number of unions, with small membership adhesion, that compete against

each other and do not seem to be able to coordinate. This low union density in the sector is also due to the fact that the lack of mandatory extension clauses of collective bargaining agreements makes it difficult to implement them and many companies chose to apply other agreements that are more convenient for them.

The first contract specific for cultural workers was signed by F.P CGIL, FIST CISL e UIL EE.LL. in 1999 and is the CCNL Federculture, promoted by Federculture, which is an employers' association composed by companies and entities whose activity is aimed at promotion, production and management of culture, tourism, sport and leisure.

As shown by the data collected by the association "*Mi Riconosci?*" on the work condition in the cultural sector, specifically on museums and galleries, only 6.10% of employed workers were actually under the sectoral contract and the vast majority was under the "Multiservizi" CCNL, which is actually meant to cover cleaning and guard services.

The study was conducted within the IR-CREA Project (Bellini *et al*., 2018) that, through a comparative approach, analyzed both traditional and innovative forms of collective representations of creative and cultural workers in Italy, Denmark and The Netherlands, highlighting how traditional tools of collective bargaining have a limited power in reducing the vulnerability of creative workers. Unions, employers' associations and professional organizations face several challenges when trying to represent high-skilled cultural workers, since the sector employs a lot of sub-contractors and freelance worker and "*[M]arket governance prevails on corporate hierarchy, and workers share a high level of uncertainty and straddle between self-employment and economically dependent employment*" (Bellini *et al*., 2018, p. 53).

The self-employment is in principle characterized by independence and autonomy, for example choosing the number of hours worked and the projects to be undertaken, but the real picture of the cultural and creative sector is much more nuanced and complex. The status of self-employment is too often imposed on cultural workers, without *de facto* granting them independence and autonomy. There are several conditions that, according to FIA (2016), are becoming more and more common: bogus self-employment, dependent self-employment and other intermediate forms.

Bogus self-employment is actually a subordinate employment relationship which is disguised as autonomous work, without a formal contract, that the employer forces on the worker in order to avoid paying social security. The dependent self-employment is a work relationship in which the work conditions are similar to those of dependent employees, namely the hours and the task required are rigidly specified, yet the worker is formally autonomous. Moreover, these workers usually provide their services to a single main employer, which makes them economically dependent, without the employment security that is in general entailed by an employment relationship. The intermediate forms between dependent self-employment and bogus self-employment "*are employment relationships which have gained importance in recent years, following the deregulation of labour markets and the spread of reorganisation policies, which have often included outsourcing of non-core activities and 'downsizing' of the organisational structure*" (FIA, 2016, p. 52)

Thus, in a sector where non-standard work is fairly common, unions have tried to develop new strategies to adapt to the changing labor market. For example, they opened branches for self-employed workers and non-standard workers, and adapted their bargaining practices to be more inclusive (OECD, 2019). In Italy, the three main trade unions opened Nidil-CGIL, Felsa-CISL and Uiltemp-UIL**,** to include atypical workers and freelances. An 'inclusive bargaining' practice was implemented by SLC-CGIL (the communication workers union) which aims at regulating the use of freelance work through the definition of minimal fees and is being employed by other creative categories (e.g. actors, writers, cartoonist) (Bellini, *et al.* 2018).

The previously mentioned studies (Bellini et al, 2018; OECD, 2019) highlight how workers in the CCS are trying to develop new strategies to address their labor issues, because traditional tools are not quite as effective, due to structure of the sector itself, that has no prices boundaries, and involves many categories with different needs.

This leads us to the third conjecture of our work:

H_3: The difficulties that cultural and creative workers encounter in gaining the job securities that apply in other sectors, in having the sectoral collective contract applied and more generally in being represented by labor unions, could be regarded as a possible reason for the wage differential in the CCS.

Unfortunately, we are not able to verify H_3, as the dataset used for the empirical analysis does not provide information about unionization.

In the next Chapter we will explore more systematically, for the Italian case, the possible presence of a wage penalty for the CCS workers, controlling for workers' socio-economic characteristics according to the data availability. Our analysis will provide some support for the hypothesis that workers in the CCS who revealed their preference for artistic activities (through their field of study) are willing to accept a wage penalty, as presumably they find an intrinsic value in their job. Interestingly, for workers in the CCS employed in non-cultural activities there seems to be no wage penalty.

Chapter 3

Empirical analysis

In this Chapter we will conduct an empirical analysis, based on the Italian Labor Force Survey, of the possible presence and potential explanations of a wage penalty for workers in the cultural and creative sector (CCS).

By controlling, in a multiple regression framework, for a large number of individual characteristics, including age, gender, education, experience and position in the profession, we will estimate a wage equation and first of all confirm that workers in the CCS earn a lower wage than similar workers, i.e., with the same individual characteristics, employed in different sectors of the economy.

Moving to potential explanations of this wage penalty, we face the difficulty that we do not have detailed data on the features and attributes of the various jobs. At the same time, as argued in the previous Chapter, we believe that the intrinsic content of the work conducted in the CCS, having a positive utility value, might be one key factor that compensates for a *ceteris paribus* lower wage. However, the intrinsic content of the work in the CCS is part and parcel of being employed in that sector and is therefore difficult to identify which aspects of the job, if any, compensate for a lower wage.

Still using the wage equation, and therefore within a multiple regression framework, we will tackle this difficulty in two, somewhat indirect ways.

We will verify that the wage penalty is indeed larger for workers in the CCS who have revealed a preference for the subject matter of the CCS, having pursued studies that are clearly indicative of such a preference, namely having an art diploma (*Diploma di Accademia, or Artistic Diploma*).[13] While this diploma covers only a subset of the topics tackled in the CCS, it has the advantage of being rather specific and hardly useful in other sectors of the economy. This means that the number of workers for whom we will be able to detect such a

[13] Our approach here is in line with the tradition in economics (in particular, the revealed preference approach), since we leverage an observed action to infer a preference, rather than relying on subjective and unverifiable statements concerning the preference.

revealed preference is relatively small, but for them the signal concerning their preference is fairly sharp.

The second way in which we will try to support our conjecture that the wage penalty reflects, at least in part, a preference for the content of the work done in the CCS, is to look at workers in this sector who do not perform a culture-related job. Presumably, a truck driver should not care much whether he is transporting refrigerators or paintings, and the same likely indifference goes for an accountant keeping the books of a museum or of a fashion design shop. Therefore, we should observe little or no wage penalty for these workers. This is what we find.

We will complement the evidence provided by the wage equation by verifying, again in a multiple regression framework, whether the subjective level of satisfaction concerning the job is positively affected, other things equal (and in particular for equal wage), by working in the CCS.

Alongside the compensating differentials theory, in Chapter 2 we proposed two additional theories to account for the presence of wage differentials for cultural workers: the possible saturation of the sector, and the role of unions. As to the first, we will briefly conduct a descriptive analysis to quantify for Italy the relative size of supply (graduates in culture-related fields) and demand (occupations available in the sector). As to the second, due to the lack of information on unionization in our dataset, we will not be able to examine how it can potentially influence wages in the sector, and we leave the issue for future research.

3.1 The source of the data: the labor force survey

Our empirical analysis is based on the Italian Labor Force Survey (LFS) for the year 2019. The LFS, which is harmonized at the European level, provides statistical information on the labor market and is base for the official estimates on employment and unemployment. It provides information on the respondents' occupation, sector of activity, position in the profession, as well as demographic characteristics.

The survey has been systematically conducted in Italy by the National Statistical Institute (Istat) since 1959; in 2004 underwent a major

transformation to be harmonized with the other similar surveys conducted in each country of the European Union. The most significant change was the requirement to conduct the interviews continuously throughout each week of the year, which entailed a radical reorganization of the sampling protocol. During each year more than 250,000 households are sampled, randomly selected from the National Register of Resident Population (Anagrafe Nazionale Popolazione Residente), with a rotation system that works on quarters. Each quarterly sampling is the result of a two-stage process: first the municipalities are sampled, then the families within each municipality. The municipalities are divided in two different groups, the self-representative, which are included with certainty, and the non-self-representative, selected with probability proportional to population size. (ISTAT, 2006).

Each household is interviewed four times within fifteen months. The first two interviews take place in two consecutive quarters, then there is an interruption of two quarters, and then again, they are interviewed in the following two quarters. The quarterly sample of households is divided into three groups randomly assigned to the months of the quarter to ensure monthly representativeness, while the municipalities sampled, remain unchanged over time. This design enables a reliable and representative estimate, reducing fluctuations thus allowing an accurate comparison of changes over time.

However, in our analysis we will not utilize the panel component of the dataset, as the focus of this thesis is to investigate preferences for job characteristics that are considered to be essentially stable over the panel's short horizon.

From 2009 onwards the data is published by Istat quarterly. However, in compliance with the European IESS Regulation 1700/2019, since 2021 data on employees' net income has been replaced with gross income and is available only 18 months after the end of the reference year.

We utilized data from 2019 for our estimates for two reasons: it provides the net monthly income, which is a better gauge of the workers' purchasing power and avoid using data collected right after Covid-19, which has had a major impact on the sector. Moreover, the income data for the most recent years is yet to be available for consultation.

The survey records demographic information about all members of each family interviewed, and for those that are over 15 years old it ascertains whether the respondents meet the EU requirements to be considered employed.[14] Those absent from work (e.g., due to holidays or illness) are also considered employed.[15]

For those employed, the survey collects information on the respondent's main job and, if present, on her secondary job. The information on the main occupation is the most useful for our research because it includes the ISCO code (identifying the type of job), the ATECO code (identifying the sector of activity), the position in the profession, the working hours, and the monthly earnings. Importantly, earnings are top-coded at 3000 euros.

Moreover, specific information is provided to address and better understand different work situations, i.e., dependent employment, autonomous employment, work performed under the terms of coordinated and continuous collaboration or occasional employment.

3.2 The sample and the main variables

To avoid including in our sample the same household twice, we used the second and fourth quarters of the LFS. The sample size for each quarter is, respectively, 99,334 and 94,122, with a total of 193,456 respondents. However, earning data are often missing, which cuts down the sample size to 50,957.

We can categorize the information obtained from the dataset into macro categories. First, there are the demographics (e.g., gender, marital status, citizenship), which also include the highest educational attainment. Next, there is information about the main occupation (hours worked, retribution level, economic activity, position in the profession) and the possible presence of a second job, to account for the fact that workers in the cultural and creative

[14] To be employed an individual must be over 15 years old and must have worked at least one hour in any activity involving remuneration or must have performed at least one hour of unpaid work in the business of a family member in which he/she habitually collaborates.

[15] Employees absent from work are considered employed if the absence does not exceed three months, or if they continue to receive at least 50 per cent of their salary during the absence. Self-employed persons absent from work, with the exception of family workers, are considered to be employed if, during the period of absence, they continue to work. Family helpers are considered employed if the absence does not exceed three months (ISTAT, 2006).

sector often have a second occupation; then information on the work experience (specifically, the duration of the respondent's current job, to compare workers with similar seniority), and on the region in which the main job is located. Including the latter is important in our wage equation, to control for the local labor market conditions, which might affect the wage independently from all other individual characteristics. However, the information about the region is often missing, and this resulted in another significant shrinkage of the sample size, cutting it down to 25,422 units. For a more detailed view of the variables, see Annex 1.

As mentioned, we will also estimate a different model, regressing a self-reported information on the satisfaction level, which captures on a scale from 1 to 10 the overall satisfaction, on whether the job is in the CCS, on the interaction between these two variables, and on almost all the other controls included in the wage equation. We will leave out the region in which the work is located, as we directly control for the wage level and in this way, we can expand the sample to 48624 observations.

This variable is based on a self-reported subjective measure of overall satisfaction. Along with the general satisfaction, respondents are asked score their satisfaction level on specific topics regarding their job. However, we could not use the measure on job interest because we would lose a substantial number of observations.

Before presenting the analysis, it is useful to highlight a few characteristics of our sample. About 47% of the respondents are women. The average age is 46 years; 16.3% are between 25 and 34 years of age; 24.2% between 33 and 44; 31.6% between 45 and 55; 20.9% between 55-64. The great majority of the respondents has Italian citizenship (88.8%), only 3.9% have EU citizenship and 7.3 % are extra EU citizens.

As for the highest educational attainment, 39.7% have a high school diploma whereas only 21.1% have a university degree (5.2% only have a bachelor and the rest have a master's or a higher-level education).

We considered also the field of study: among those with a higher education, around 16% have a degree in a broadly defined culture-related field, in total 3761 observations. In accordance with the cultural fields described by Eurostat and outlined in chapter two, we selected four codes of the LFS categorization,

each encompassing multiple subjects.[16] We will also consider a narrower and admittedly partial art-related field (the so called *Diploma di Accademia*, a university level 3-4 year degree, which will be called in our regression as "Artistic Diploma"). As mentioned at the beginning of the Chapter, this has the advantage of reflecting a clearly defined and strong preference for a future job in a culture-related field, since the *Artistic Diploma* is unlikely to lead to a profession outside the CCS.

To define the cultural and creative sector we faced a difficulty since the LFS provides ATECO codes at the four-digit level, and some of the activities that the ESSnet (see Chapter 1, paragraph 1.2.1.) classified as belonging to cultural and creative industries could only be enucleated within the ATECO five or six-digit levels. Rather than including spurious activities, we opted for a narrow definition of the CCS, focusing on core cultural activities typically found in the non-profit sector (the detailed activities included are provided in the Appendix to this chapter). The activities in the narrow selection were included with consideration of the Concentric Circle Model (see Chapter 1, Figure 2), incorporating the first two circles: core creative arts and other core cultural industries, but leaving out the activities related to Film production. We chose to restrict the analysis to those activities within the CCS that are usually associated with non-profit, since we lack in the LFS a variable that distinguishes between for-profit and non-profit organizations and as mentioned in the previous Chapter, there seems to be a relationship between non-profit enterprises and wage penalties.

Following the ESSnet's classification of cultural and creative occupations, we also created a dummy variable that allows us to identify workers employed in the cultural and creative industries who do not perform inherently cultural or creative jobs (again, details on the activities included are provided in the Appendix). As mentioned at the beginning of this Chapter, this specific category of workers is of interest because, to the extent that the wage penalty in the CCS reflects a preference for the intrinsic content of work with cultural

[16] Art, music, dance, directing, acting, audiovisual and multimedia communication, drawing; archival, library and information (documentary) sciences; humanities, linguistics, history, philosophy, archaeology, religion, cultural heritage and art history; architecture and urban planning.

and creative traits, we should observe a lower wage penalty (if any at all) for those workers who, despite being employed in the CCS, do not perform creative and cultural activities.

3.3 The empirical analysis

3.3.1 The Wage Equation

We used Multiple Linear Regression. Regression analysis is a statistical tool whose purpose is to establish a relationship between a dependent variable of interest and independent variables, also known as explanatory.
Our wage equation is:

$$ln\,(w_i) = \alpha + \beta_1 CCS_i + \sum_j \beta_{2j} \times HD_{ij} + \sum_j \beta_{3j}\, CCS_i \times HD_{ij} + \beta_4 NAJ_i + \beta_5 CCS_i \times NAJ_i + \gamma X_i + \varepsilon_i,$$

where the index *i* refers to a particular worker.
In our analysis, the dependent variable is w, the natural logarithm of hourly wage.[17] As to the explanatory variables, *CCS* is a dummy that identifies the cultural and creative sector. HD_j is a categorical variable that identifies the highest achieved degree, with 7 possible realizations.[18] *NAJ* is a dummy that identifies a non-creative, non-artistic job. X is a vector of individual characteristics: gender, age, citizenship status, experience (measured by the number of years worked at the current job), whether the job is part-time or full-time, whether it is a permanent or a fixed-term contract, whether there is a second job, the rank position in the profession, the sector (ATECO 12), the activity (ISCO 1), the region where the main job is located. As usual, ε is the stochastic error and is assumed to have mean zero conditional on the covariates present in the model.

[17] Taking the log of wages is common in wage regression analyses because it reduces the heteroscedasticity and allows an easier interpretation of coefficients as percentage changes. Since the LFS survey only provides net monthly wages, to ensure comparability between workers with different working hours we constructed the hourly wage, using the information on the number of hours worked in a week.

[18] Elementary school, junior high school, high school, vocational school, art diploma, bachelor degree, master's degree or higher.

The coefficient β_1 captures the wage penalty/premium associated to working in the CCS, other things equal (i.e., when comparing workers with the same values of the other explanatory variables). The coefficients $\beta_{2j}, j = 1, ...7$, capture the effect on wage of having one of the seven levels of education, irrespective of whether one works in the CCS. The coefficients $\beta_{3j}, j = 1, ...7$, correspond to the interactions between working in the CCS and having one of these levels of education. Of particular interest for us is $\beta_{35}$the coefficient corresponding to the interaction with the art diploma: the effect on the wage of working in the CCS for someone who holds an art diploma, and by this revealed a strong preference for working in that sector, is $\beta_1 + \beta_{35}$. The coefficient β_4 captures the effect of working in a non-culture-related occupation, irrespective of whether one works in the CCS. The coefficient β_5 is also of particular interest for our analysis, as it captures the interaction between working in the CCS with a non-culture-related occupation. As before, the effect on the wage of working in the CCS but without a culture-related occupation is given by $\beta_1 + \beta_5$.

Before presenting the estimates of our baseline model, it should be mentioned that, since the wage is top coded, the standard approach to estimation, that minimizes the sum of squared residuals from the mean of the dependent variable (the so called Ordinary Least Square, OLS) is biased. One alternative approach is to estimate a so-called Tobit model, which is unbiased but only under rather restrictive assumptions on the distribution of the variables in the model. A second alternative, which is more robust and easier to interpret, is to estimate a quantile regression, minimizing the sum of squared residuals from one (or several) quantiles of the distribution. In particular, we present below the estimates that minimize the sum of squared residuals from the median.[19]

The estimate confirms a clear wage penalty on average for workers in the CCS. The coefficient β_1 is negative, large in absolute value (-.602) and statistically significant, with a *t*-statistic (in absolute value) of almost 3 (the conventional threshold of statistical significance, at 5%, obtains when the *t*-statistic is 1.96).

[19] The results of the OLS regression are qualitatively similar, though the estimates are less precise.

This translates into a 43% decrease in income if the individual is employed in the CCS[20]. Most interesting, for our purpose, is the estimate of the interaction between the CCS and the Artistic Diploma (β_{35}), as we argued it represents an indirect test of our conjecture that the wage penalty is (at least in part) a reflection of a compensating differential, due to the preference for the intrinsic content of the job expressed by (at least some of) the workers in that sector. The coefficient of the interaction is negative (-.44) and (in absolute terms) large. It implies that the wage penalty of those workers in the CCS who revealed, through their previous choices, a strong preference for being employed in that sector, face a wage penalty that is considerably larger than the average. Taking the estimated coefficients at face value, those workers could have earned twice as much had not chosen to work in the CCS. Interestingly, the interaction with the art diploma is the only statistically significant one, among all the interactions with the highest degree obtained.[21]

The second interesting result of our analysis, which also offers indirect support to our conjecture, is the positive value of the interaction between working in the CCS and having an occupation non-culture-related (β_5). Indeed, with a value of .685 (statistically highly significant), the interaction virtually offset the unconditional wage penalty (-.602). In other words, there seems to be no wage penalty for those workers in the CCS who are not employed as "cultural workers" (and in fact, taking the estimates at face value, there seems to be a small wage premium). This, as we argued before, is in line with the idea that the wage penalty reflects an idiosyncratic preference for the content of the job, since for those jobs in the sector that do not have the "cultural content", the wage penalty vanishes.

As for the control variables, the results confirm that gender pay gap is present, with women, all things equal, earning 7.85% less compared to men.

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[20] With the dependent variable being the ln (w)the regression coefficients are not interpreted directly as the unit increase of w, but rather in percentage terms as follows:

$$(e^x - 1) \times 100$$

[21] Two of the interactions are automatically omitted by the software used (Stata). This is because one must be dropped, to avoid collinearity with the constant, and another turned out to correspond to an empty cell.

Table 1: Estimates of the wage equation, median regression

Variables	Coefficients	Standard error
CCS (Cultural & Creative Sector)	-0.602***	(0.203)
NAJ (Non Artistic Job)	-0.170***	(0.00890)
CCS x NAJ	0.685***	(0.194)
HIGHEST DEGREE x CCS		
Junior High	-0.0767	(0.114)
Vocational School	0.0686	(0.142)
High School	0.0401	(0.0851)
Artistic Diploma	-0.441***	(0.137)
Bachelor's Degree	0.0653	(0.191)
SEX	-0.0818***	(0.00391)
AGE	0.00294***	(0.000190)
HIGHEST DEGREE		
Elementary School	-0.00166	(0.0359)
Junior High	0.0593*	(0.0337)
Vocational School	0.0797**	(0.0341)
High School	0.0924***	(0.0338)
Artistic Diploma	0.303***	(0.0413)
Bachelor's Degree	0.117***	(0.0346)
Higher Degree	0.144***	(0.0342)
Constant	2.473***	(0.0414)
Number of Observations	25,422	
Pseudo R2	0.2661	
Raw sum of deviations	3.179.538	
Min sum of deviations	2.333.421	

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The detailed results for all the controls are presented in Annex 2, table 5, which also provides the results for an additional regression. The same wage equation was estimated using a broader definition of CCS (see Annex 3 table 8).
While the first regression used a narrow definition of the CCS, the broader definition includes ATECO codes that may identify cultural and creative activities but could also capture not specifically cultural or creative activities. At a more detailed level of classification (e.g., 5-digit), it is possible to separate these activities more precisely; however, the LFS only provides economic activity codes at 4-digit level, which does not allow for such distinction. Additionally, in this broader selection, we included also for-profit cultural and activities that, sill following Throsby's Concentric Circles Model, belong to the outer circles.

We chose not to present the results in the main text because most, if not all the coefficients are not statistically relevant. However, it is notable that the coefficient β_1, which captures the wage penalty/premium associated to working in the CCS, for the broader definition of the sector is positive, albeit not large in absolute vale nor statistically significant. Nonetheless this suggests that the wage penalty is particularly associated with the narrow definition of the CCS, characterized by the presence of non-profits.

3.3.2. The Satisfaction equation

As mentioned above, we also consider a different model, in which we aim to verify whether a subjective, self-reported measure of satisfaction with its own job, is affected by being employed in the CCS. We therefore consider as independent the categorical variable, SL_j (Satisfaction Level), with 10 possible values, as well as its interaction with the dummy variable CCS:

$$SL_i = \alpha + \beta_1 \, ln\,(w_i) + \beta_2 CCS_i + \beta_3 CCS_i \times ln\,(w_i) + \gamma X_i + \varepsilon_i.$$

The coefficients β_1, capture the effect on income of level of satisfaction, and we clearly expect it to be positive. The coefficient β_2 captures the average level of satisfaction of those employed in the CCS, irrespective of the level of income. The main coefficient of interest for us is s β_3, which captures how the level of satisfaction of a worker with a given wage would vary when she is

employed in the CCS. Again *X* is a vector of individual characteristics for which we control: gender, age, citizenship, experience (measured by the number of years worked at the current job), whether the job is part-time or full-time, whether it is a permanent or a fixed-term contract, whether there is a second job, the rank position in the profession, the sector (ATECO 12), the activity (ISCO 1). As to the estimation technique, the top coding of wages poses different problems now that wages are an explanatory variable. As shown by Rigobon and Stoker (2007), if censoring is not correlated with the dependent variable, dropping all the observation at the threshold were censoring occurs would produce consistent estimates. Since in our case the censoring is based on the level of income, and it is arguably independent of the satisfaction level, we will simply retain in the estimation sample all the observation for which the monthly wage is strictly lower than 3000 euros. This

Table 2: Estimates of the Satisfaction equation

VARIABLES	Coefficients	Standard Error
ln(wage)	0.560***	(0.0267)
CCS (Cultural & Creative Sector)	-4.510**	(2.053)
ln(w) x CCS	0.626**	(0.292)
HIGHEST DEGREE		
Elementary School	0.723***	(0.120)
Junior High	0.658***	(0.110)
Vocational School	0.670***	(0.113)
High School	0.516***	(0.111)
Artistic Diploma	0.294*	(0.160)
Bachelor's Degree	0.301***	(0.116)
Higher Degree	0.207*	(0.114)
SEX	0.0883***	(0.0180)

AGE	-0.00748***	(0.000849)
Constant	3.696***	(0.246)
Observations	48,624	
R-squared	0.042	

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

means dropping 1034 observations.

In Table 2 the result of the regression. The coefficients β_1 is indeed positive and strongly significant, 0.560. Also, the coefficient β_3 is positive (and statistically significant), 0.626. The effect of wage on satisfaction for workers in the CCS is given by, since CCS is a dummy, when CCS=1, the positive effect on job satisfaction of higher wages would be boosted for workers in the CCS. This is consistent with our claim that workers in the CCS attach a positive value to the content of their job. Interestingly, the coefficient β_2 is negative (-4.507) and significant. The assessment of CCS workers of their working condition is however given by $\beta_2 + \beta_3\ log\ w_i$. At the median level of wages (conditional on monthly wages being strictly smaller than 3000 euros, as imposed in our estimates) the positive second term in the expression roughly offsets the first negative one, so that the satisfaction of CCS workers (earning the median wage) is broadly in line with the average among other workers. [22]

Another way of reading the results is that cultural and creative workers whose monthly income is less than 1345€[23], tend to be less satisfied than their counterparts, who earn a similar income but are not employed in the CCS. This could be attributed to factors such as overqualification or mismatch considering that, statistically workers in the cultural and creative sector are, on average, more highly educated than others (e.g., cultural mediators in museum often earn modest wages despite their qualifications).

[22] Specifically, $\beta_2 + \beta_3\ lnw_i = -4.51 + (0.626 \times 7.17012) = -0.02$, where $\text{med}(ln(w)) = 7.17012$

[23] Value obtained by solving $\ln(w) = \frac{-\beta_2}{\beta_3} = \frac{4.51}{0.626}$, $e^{\frac{4.51}{0.626}} = 1345$

As one might expect, some variables that one thinks would be linked to a higher level of satisfaction, have indeed a positive coefficient, such as the variable linked to having a permanent job contract or full time, which are usually an indicator of job security. Other variables are trickier to interpret, e.g., the coefficients corresponding to the Highest Degree are all positive, however when leveling up, the effect on satisfaction of a higher educational attainment s increasingly smaller. Since in this regression we control for income level, we can assume that this decreasing growth is likely because, individuals with a higher level of education might expect a higher remuneration, given their investment in human capital, hence they might be less satisfied because their investment has not paid off.

3.4 Field mismatch and field saturation: A Descriptive Analysis

3.4.1 Graduates in culture-related fields

As a preliminary to our empirical analysis, which will focus on tertiary education in culture fields, we need to specify which are the fields related to culture. We will do so following the 2011 international standard classification of education (ISCED). In ISCED the levels of higher education are level 5, Short-cycle tertiary education; level 6, Bachelor's or equivalent level; level 7, Master's or equivalent level; level 8, Doctoral or equivalent level. The fields considered to be culture-related by Eurostat are: arts, humanities and languages, journalism and information, architecture and town planning. According to Eurostat, in 2021 14.1% of all students in tertiary education were enrolled in one of these fields, approximately 2.6 million students. In Italy the fraction was well above the European average, at 20.2%, and growing compared to 2018 (by 1.4 percentage points). As a background, note that the share of population with a higher degree in Italy is below the European average, with 20.3% of people in the age range 25-64 against 34.3% in Europe (data for 2022, ISTAT, 2023b).

The data used by Eurostat comes from Italy's Ministry of Education, as stated in the metadata section, and comprises all, both enrolled and graduates of all levels. When using the data visualization tool provided by Eurostat on the dataset: students enrolled in tertiary education by education level, sex, and field of education (online data code: educ_uoe_enrt03), and selecting all the

culture-related courses, Italy has 350.000 students enrolled in all the levels of education.

A comprehensive study on Italian graduates is conducted each year by AlmaLaurea, an Inter-university consortium composed of 80 universities in Italy, which surveys graduates and their work opportunities. The analysis of the employment status of graduates can be consulted and graduates are divided into 4 disciplinary areas: STEM[24]; sanitary and agro-veterinary; economics, social sciences, and law; arts, humanities, and education. Focusing on the category relevant for this thesis (namely arts, humanities, and education), there is a further split: art and design; education and training; literary humanities; and linguistics. These categories are not perfectly aligned with those used by Eurostat to identify the culture-related field, which is a symptom of the difficulty of giving a clear definition and boundaries to the cultural sector.

For the cultural and creative sector the consortium published an *ad hoc* analysis of the data, which were initially presented at the conference *"Università e mercato del lavoro nell'ambito dell'industria culturale e creativa"*, held in Matera on July 2019. The sample is smaller than the one surveyed annually, because it includes only graduates in 2018 (not all enrolled students), but we have a discrepancy in the percentage of graduates in culture-related fields with the data available on Eurostat, because it reports 30.000 graduates which, accordingly to Almalaurea, are just 10.4% of the total in the reporting year.

The number of students choosing an educational path in culture-related fields is growing. In the USA most universities started offering curricula in these fields since the sixties (Dubois, 2015), and also in Europe there has been an increase in the offer of art management programs, (Radaelli, 2012). Against the background of this general positive trend, in Italy the occupational status in the CCS offers a grim picture, as the number of available positions is most likely too small given the material and immaterial heritage that the country detains. Moreover, the retributions are considerably lower than the national average, both in the short and the medium term: monthly wages are 6.3% lower than those of other graduates (AlmaLaurea, 2019, Taormina, 2021). In

[24] STEM stands for science, technology, engineering, and mathematics.

line with this data, the percentage of expatriates in culture-related fields, 8.4%, is higher than those in other fields (6.7%). As Antonio Taormina (2021) states «[this]"brain drain" [which] testifies to the value of our humanistic reach, but also to the lack of investment in young professionals who could foster and incentivize innovative processes» (p.124)

3.4.2. Measures of mismatch and saturation in the Italian 2019 LFS

Following Montt (2017), we compute in the following two measures of field-of-study mismatch and field saturation for cultural and creative workers, based on the Italian LFS usen in the previous sections of this chapter. Our analysis differs from Mont's study as we considered more detailed, 4-digit ISCO-codes, which allow a more accurate definition of the occupational group that correspond to the cultural and creative field of study, as previously identified. Moreover, the occupational group that Montt associated to the field of study *Humanities, languages and arts* includes social and religious occupations (ISCO 263, 341), but excludes craft occupations (ISCO 731). We do the opposite, at the 4-digit level. Another difference with Montt's analysis is that we focus on our work on graduates. Hence our definition of the cultural and creative field of study is somewhat hybrid, as is restricted to graduate level courses.

To construct a measure of field-of-study mismatch for the cultural and creative workers we started from our identification of the graduate courses in Art and Culture, as well as the '*Diploma di Accademia*' (see Annex 3, Table 7), and we selected all the graduates in those courses present in the LFS that are currently working. These culture-related graduates are, in our dataset, 4260. We have already identified, and used in our regression analysis, a set of culture-related occupations (see Annex 3, Table 9), as well as its complement, i.e., all the occupations that are not culture-related (the dummy variable *NAJ* in our regressions). We also constructed a broader definition of this occupational group, including ISCO codes that, at the 4-digit level, also contains occupations that, at a further level of specification, are considered as cultural and creative, but at 4-digit level might not be (again, see Annex 3). While in our regression analysis we focused on the narrower definition of culture-

related occupations, we will consider here both the narrow and the broad definitions. Since we need to single out, among the culture-related working graduates, those whose occupation is not among those that are culture-related, we need to know the occupation code of the culture-related gradates. Unfortunately, this information is not available for all the culture-related graduates, hence we needed to restrict our sample to those graduates for which we know the occupation (i.e., they are currently working and have provided the ISCO-code). They are, in our dataset, 2446 individuals.

To estimate the mismatch by field of study for the culture-related (graduate) workers we then count how many of the 2446 culture-related working graduates are mismatched, i.e., have an occupation that is **not** cultural or creative (in other words, whose ISCO-code occupation does not belong to the selection of ISCO codes that we identified). We do this for both, the narrow and the broad definitions of the cultural and creative occupational group. In the first case we count 2277 mismatches (169 are matched), in the second 1735 (711 are matched). Hence, we compute our narrow and broad measures of the field-of-study mismatch for the culture-related (graduate) workers by taking the ratio between the two numbers of mismatched workers and the total of the culture-related working graduates. In the first case the mismatch is 93%, in the second case is 71% (see Table 3). Interestingly, our broad measure turns out to be close to the one Montt computed for Italy. Not surprisingly, with a narrower definition of the occupational group, the mismatch is higher.

To estimate the saturation in the cultural and creative field we take the ratio between the total number of working graduates in culture-related fields (as mentioned before, 4260 individuals) to the total number of workers with an occupation in the culture/related occupational group, irrespective of whether they are matched or unmatched. The latter can, again, be computed for the narrow and the broad definitions of the culture-related occupational group. In the first case, there are in our dataset 1587 individuals, in the second 3195. Our two measures of saturation, narrow and broad, are therefore 2.68 and 1.33, respectively, see Table 4.

Table 3: Measure of Field-of-study Mismatch

Measure	Narrow Definition	Broad Definition
Total Culture-Related Graduates	4260	4260
Total Working Graduates	2446	2446
Total Mismatched Graduates	2277	1735
Total Matched Graduates	169	711
Mismatch Rate (%)	93%	71%

Table 4: Field of Study Saturation

Measure	Narrow Definition	Broad Definition
Total Culture-Related Graduates	4260	4260
Total Workers in Cultural and Creative Occupations	1587	3195
Saturation Ratio (Total Working Graduates / Total Workers)	2.68	1.33

Conclusions

This study set out to empirically investigate whether, and if so why, workers in the cultural and creative sector (CCS) experience a wage penalty, with a focus on Italy and broadening the analysis to include also workers whose job is not intrinsically cultural or creative. The empirical analysis, based on the Italian Labor Force Survey and conducted with multiple regression techniques, confirms that workers in the Italian CCS on average earn less than other workers with comparable education and skill level, controlling for a range of individual and job characteristics. These results are in line with those found by previous studies on wages and employment of cultural workers (Merger, 2006; Abbing 2008; Throsby, & Zednik, 2011). We find that the wage penalty varies with the level of type of education, and with the type of job. Interestingly, the wage differential is particularly sharp, and indeed the largest, for those workers who revealed, through their previous educational choices (namely, having an art diploma), a clear preference for cultural and creative topics. This provides indirect support for the hypothesis that the wage penalty reflects a compensating differential, according to which workers who find intrinsic value in their job accept a lower pay (Rosen, 1986). Additional evidence with a similar interpretation is our finding that the wage penalty for workers performing non-culture-related tasks within the CCS essentially vanishes, confirming that, in the absence of an intrinsic preference for the cultural or creative content of the job, employers in the CCS have to pay the same wage paid by employers in other sectors for similar kinds of jobs.

Of course, it remains an open question whether the private benefit obtained by workers in the CCS from a job that aligns with their values and preferences fully compensate them for the lower pay or only partially do so, in which case they would end up facing a trade-off between a fair remuneration and cultural

and creative fulfillment. In other words, it remains an open question whether or not a strong preference for cultural and creative work comes at a subjective cost for those having it. The large wage penalty found in our estimates suggests that the answers is likely to be in the affirmative.

For the wage equation, in the regression we did not use the satisfaction level as an independent variable, since we could've incurred in a reverse causality problem. However, we analyzed the self-reported measure of job satisfaction, again adopting a multiple regression framework. We find that workers in the CCS report higher satisfaction for their job, compared with workers in other sectors with comparable characteristics and the same wage, but only when the wage exceeds a certain threshold (1345 euros a month). This result is broadly consistent with our previous analysis and points at a positive subjective value associated to work in the CCS. It also highlights that this positive value is not unbounded: when the level of pay is sufficiently low, workers in the CCS are indeed less satisfied than their peers working in other sectors.

Conducting a descriptive analysis on the degree of saturation and field-of-study mismatch, we were also able to explore another theory proposed in the second chapter to explain the wage penalty suffered by cultural workers. The high number of graduates in culture-related fields, compared to the limited availability of corresponding jobs, likely contributes to downward pressure on wages, since labor demand and offer are misaligned. Additionally, a large proportion of individuals seem to be unable to find a job in the CCS, despite having a degree in a culture-related field.

Overall, our empirical investigation has tried to shed light on the complex dynamics of wage determination in the CCS in Italy. The data we had available suffer from several limitations, such as insufficient granularity in key variables, missing information on unionization and job attributes (e.g., the

specific tasks performed by the respondent), top-coded wages, and the impossibility to capture informal and voluntary labor—both of which are very common in the CCS. Nonetheless, the results confirmed the presence of a wage penalty of the sector, as well as the presence of non-monetary rewards associated with cultural and creative work, which offset, most likely only partially, the said wage penalty.

The findings of this study call for the development of a comprehensive policy framework related to the economic challenges of cultural and creative employment. We suggest the introduction of a minimum wage in the sector aimed at protecting workers from insufficient remuneration. It is imperative that national collective agreements in the sector are enforced, and monitoring is required to ensure that employers do not apply contracts that are not relevant to the work performed. In addition, cultural institutions must be closely monitored to prevent the exploitation of bogus self-employment contracts, that are forced onto workers by employers to avoid paying social security and pension contributions to their employees.

Future research should explore the role of trade unions and sectoral associations and how they could contribute to policymaking, addressing the issue of pay, to foster socially sustainable growth in the CCS. Additionally, future research should consider the idea of analyzing wage differentials of CCS workers in other European countries, to develop a comparison study.

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ANNEX 1 – Descriptive table of variables used in the regression

Tabulation of SEX

	Freq.	Percent	Cum.
Male	26931	52.85	52.85
Female	24026	47.15	100.00
Total	50957	100.00	

Tabulation of AGE

Variables	Obs	Mean	Std. Dev.	Min	Max
Age	50957	44.716	11.528	16	75

Tabulation of CCS - narrow

	Freq.	Percent	Cum.
0	50802	99.70	99.70
1	155	0.30	100.00
Total	50957	100.00	

Tabulation of CCS - broad

	Freq.	Percent	Cum.
0	50,252	98.62	98.62
1	705	1.38	100.00
Total	50957	100.00	

Tabulation of Non Artistic work

	Freq.	Percent	Cum.
0	2982	5.85	5.85
1	47975	94.15	100.00
Total	50957	100.00	

Tabulation of Citizenship

	Freq.	Percent	Cum.
Italian	45243	88.79	88.79
Foreign	5714	11.21	100.00
Total	50957	100.00	

Tabulation of Highest Degree

	Freq.	Percent	Cum.
No Title	233	0.46	0.46
Elementary school	1118	2.19	2.65
Junior High	14188	27.84	30.49
Vocational school	4218	8.28	38.77
High school	20221	39.68	78.45
Artistic diploma	213	0.42	78.87

Bachelor degree	2660	5.22	84.09
Higher degree	8106	15.91	100.00
Total	50957	100.00	

Tabulation of Professional Rank

	Freq.	Percent	Cum.
Manager	1052	2.06	2.06
Middle Manager	3415	6.70	8.77
Employee	21610	42.41	51.17
Laborer	24460	48.00	99.18
Apprentice	406	0.80	99.97
Autonomous worker from home	14	0.03	100.00
Total	50957	100.00	

Tabulation of Permanent Contract

	Freq.	Percent	Cum.
Fixed-term contract	8918	17.50	17.50
Permanent contract	42039	82.50	100.00
Total	50957	100.00	

Tabulation of Full Time

	Freq.	Percent	Cum.
Part Time	10835	21.26	21.26
Full time	40122	78.74	100.00
Total	50957	100.00	

Tabulation of Years worked in current job

Variables	Obs	Mean	Std. Dev.	Min	Max
YEARS IN CURRENT JOB	50352	13.497	11.237	1	66

Tabulation of Region

	Freq.	Percent	Cum.
Piemonte	3075	11.78	11.78
Valle d'Aosta	722	2.77	14.55
Lombardia	3873	14.84	29.38
Trentino	1873	7.18	36.56
Veneto	2551	9.77	46.33
Friuli	1279	4.90	51.23
Liguria	771	2.95	54.19
Emilia-Romagna	2181	8.36	62.54
Toscana	1406	5.39	67.93
Umbria	598	2.29	70.22
Marche	1153	4.42	74.64

Lazio	1495	5.73	80.36
Abruzzo	759	2.91	83.27
Molise	230	0.88	84.15
Campania	613	2.35	86.50
Puglia	384	1.47	87.97
Basilicata	435	1.67	89.64
Calabria	591	2.26	91.90
Sicilia	1291	4.95	96.85
Sardegna	823	3.15	100.00
Total	26103	100.00	

Tabulation of Working ABROAD

	Freq.	Percent	Cum.
0	50632	99.36	99.36
1	325	0.64	100.00
Total	50957	100.00	

Tabulation of ATECO Classes 12

	Freq.	Percent	Cum.
Agriculture	1513	2.97	2.97
Industry	11794	23.15	26.11
Construction	2368	4.65	30.76
Trade	5690	11.17	41.93
Hotels & Restaurants	3005	5.90	47.82
Transport and storage	2788	5.47	53.30
Information and Communication Services	1082	2.12	55.42
Financial and insurance activities	1318	2.59	58.01
Real estate activities	4108	8.06	66.07
Public administration	3777	7.41	73.48
Education, health and other social services	9703	19.04	92.52
Other service	3811	7.48	100.00
Total	50957	100.00	

Tabulation of ISCO1

	Freq.	Percent	Cum.
Senior Management	535	1.05	1.05
Intellectual professions	6838	13.42	14.47
Technical professions	8599	16.88	31.34
Desk work	7185	14.10	45.44
Trade professions	9229	18.11	63.56

Craftsmen, skilled workers, machine operators	6175	12.12	75.67
Plant operators	5088	9.98	85.66
Unskilled professions	6704	13.16	98.81
Armed forces	604	1.19	100.00
Total	50957	100.00	

ANNEX 2 - Detailed results for the regression

Table 5 : Estimates of the wage equation, median regression

Variables	(1) Narrow Definition of CCS	(2) Broad Definition of CCS
CCS (Cultural & Creative Sector)	-0.602***	0.0613
	(0.203)	(0.0683)
NAJ (Non Artistic Job)	-0.170***	-0.168***
	(0.00890)	(0.00897)
CCS x NAJ	0.685***	-0.0403
	(0.194)	(0.0640)
HIGHEST DEGREE x CCS		
Elementary School		0 -0.600**
		0 (0.259)
Junior High	-0.0767	-0.0160
	(0.114)	(0.0530)
Vocational School	0.0686	0.0641
	(0.142)	(0.0654)
High School	0.0401	-0.0235
	(0.0851)	(0.0392)
Artistic Diploma	-0.441***	-0.275***
	(0.137)	(0.0821)
Bachelor's Degree	0.0653	-0.00187
	(0.191)	(0.0545)
SEX	-0.0818***	-0.0818***
	(0.00391)	(0.00392)
AGE	0.00294***	0.00295***
	(0.000190)	(0.000190)
CITIZENSHIP	-0.0126**	-0.0125**
	(0.00627)	(0.00628)
HIGHEST DEGREE		
Elementary School	-0.00166	-0.00298
	(0.0359)	(0.0359)
Junior High	0.0593*	0.0580*
	(0.0337)	(0.0338)
Vocational School	0.0797**	0.0781**
	(0.0341)	(0.0341)
High School	0.0924***	0.0918***
	(0.0338)	(0.0339)
Artistic Diploma	0.303***	0.308***

	(0.0413)	(0.0419)
Bachelor's Degree	0.117***	0.116***
	(0.0346)	(0.0347)
Higher Degree	0.144***	0.143***
	(0.0342)	(0.0343)
RANK POSITION		
Middle Manager	-0.153***	-0.150***
	(0.0159)	(0.0159)
Employee	-0.297***	-0.295***
	(0.0156)	(0.0156)
Laborer	-0.385***	-0.382***
	(0.0167)	(0.0168)
Apprentice	-0.478***	-0.478***
	(0.0235)	(0.0236)
PERMANTENT JOB CONTRACT	0.0675***	0.0671***
	(0.00491)	(0.00492)
FULL TIME CONTRACT	-0.0982***	-0.0971***
	(0.00480)	(0.00481)
REGION OF EMPLOYMENT		
Valle d'Aosta	0.0469***	0.0459***
	(0.0108)	(0.0108)
Lombardia	0.0226***	0.0225***
	(0.00626)	(0.00628)
Trentino	0.0959***	0.0965***
	(0.00765)	(0.00767)
Veneto	0.00816	0.00776
	(0.00693)	(0.00694)
Friuli	0.0280***	0.0279***
	(0.00864)	(0.00866)
Liguria	-4.39e-05	-0.000464
	(0.0105)	(0.0106)
Emilia-Romagna	0.0120*	0.0121*
	(0.00726)	(0.00727)
Toscana	0.00266	0.00275
	(0.00840)	(0.00842)
Umbria	-0.0264**	-0.0266**
	(0.0116)	(0.0116)
Marche	-0.0311***	-0.0313***
	(0.00894)	(0.00896)
Lazio	-0.0157*	-0.0160*
	(0.00828)	(0.00830)
Abruzzo	-0.0351***	-0.0353***
	(0.0106)	(0.0106)
Molise	-0.0313*	-0.0316*

	(0.0182)	(0.0182)
Campania	-0.0322***	-0.0322***
	(0.0117)	(0.0117)
Puglia	-0.0495***	-0.0488***
	(0.0142)	(0.0142)
Basilicata	-0.0329**	-0.0331**
	(0.0134)	(0.0134)
Calabria	-0.0822***	-0.0830***
	(0.0120)	(0.0121)
Sicilia	-0.0496***	-0.0485***
	(0.00876)	(0.00878)
Sardegna	-0.0375***	-0.0397***
	(0.0104)	(0.0105)
EMPLOYMENT ABROAD	-	-
YEARS WORKED IN CURRENT JOB	0.00346***	0.00348***
	(0.000200)	(0.000200)
SECOND OCCUPATION	0.0315**	0.0348**
	(0.0143)	(0.0143)
ATECO 12 CLASSES		
Industry	0.134***	0.135***
	(0.0125)	(0.0125)
Construction	0.131***	0.133***
	(0.0142)	(0.0142)
Trade	0.0816***	0.0837***
	(0.0132)	(0.0132)
Hotels & Restaurants	0.0578***	0.0609***
	(0.0147)	(0.0147)
Transport and storage	0.143***	0.145***
	(0.0137)	(0.0137)
Information and Communication Services	0.0850***	0.0863***
	(0.0162)	(0.0163)
Financial and insurance activities	0.270***	0.271***
	(0.0158)	(0.0158)
Real estate activities	0.0454***	0.0467***
	(0.0134)	(0.0134)
Public administration	0.152***	0.154***
	(0.0143)	(0.0143)
Education, health and other social services	0.155***	0.156***
	(0.0131)	(0.0131)
Other service	-0.000206	0.00264
	(0.0147)	(0.0146)
ISCO 1 DIGIT		

Intellectual professions	0.0976***	0.0964***
	(0.0195)	(0.0195)
Technical professions	-0.0351*	-0.0363*
	(0.0201)	(0.0201)
Desk work	-0.106***	-0.107***
	(0.0204)	(0.0204)
Trade professions	-0.0984***	-0.1000***
	(0.0208)	(0.0208)
Craftsmen, skilled workers, machine operators	-0.0840***	-0.0855***
	(0.0213)	(0.0213)
Plant operators	-0.0727***	-0.0741***
	(0.0213)	(0.0214)
Unskilled professions	-0.134***	-0.136***
	(0.0215)	(0.0215)
Unskilled professions	0.0247	0.0191
	(0.0247)	(0.0247)
Constant	2.473***	2.469***
	(0.0414)	(0.0415)
Number of Observations	25,422	25,422
Pseudo R2	0.2661	0.2662
Raw sum of deviations	3.179.538	3.179.538
Min sum of deviations	2.333.421	2.333.272

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 6: Estimates of the Satisfaction equation

VARIABLES	Coefficients	Standard Error
ln(wage)	0.560***	(0.0267)
CCS (Cultural & Creative Sector)	-4.510**	(2.053)
ln(w) x CCS	0.626**	(0.292)
HIGHEST DEGREE		
Elementary School	0.723***	(0.120)
Junior High	0.658***	(0.110)
Vocational School	0.670***	(0.113)
High School	0.516***	(0.111)
Artistic Diploma	0.294*	(0.160)

Bachelor's Degree	0.301***	(0.116)
Higher Degree	0.207*	(0.114)
SEX	0.0883***	(0.0180)
AGE	-0.00748***	(0.000849)
CULTURAL PROFESSION	0.0591	(0.0406)
RANK POSITION		
Middle manager	0.123	(0.0970)
Employee	0.137	(0.0959)
Laborer	-0.0267	(0.100)
Apprentice	0.209	(0.130)
Autonomous worker	0.671	(0.447)
CITIZENSHIP	-0.0205	(0.0258)
PERMANTENT JOB CONTRACT	0.0850***	(0.0227)
FULL TIME CONTRACT	0.000227	(0.0235)
YEARS WORKED IN CURRENT JOB	-0.00323***	(0.000918)
SECOND OCCUPATION	0.0967	(0.0632)
ATECO 12 CLASSES		
Industry	-0.0690	(0.0489)
Construction	-0.0288	(0.0581)
Trade	0.0291	(0.0524)
Hotels & Restaurants	0.114**	(0.0574)
Transport and storage	-0.105*	(0.0563)
Information and Communication Services	-0.0950	(0.0708)
Financial and insurance activities	-0.247***	(0.0682)
Real estate activities	-0.165***	(0.0528)
Public administration	0.140**	(0.0568)
Education, health and other social services	0.242***	(0.0517)
Other service	0.210***	(0.0545)
ISCO 1 DIGIT		
Intellectual professions	-0.0944	(0.124)
Technical professions	-0.337***	(0.125)
Desk work	-0.440***	(0.126)
Trade professions	-0.433***	(0.127)

Craftsmen, skilled workers, machine operators	-0.356***	(0.130)
Plant operators	-0.454***	(0.130)
Unskilled professions	-0.564***	(0.129)
Armed Forces	0.0128	(0.143)
Constant	3.696***	(0.246)
Observations	48,624	
R-squared	0.042	

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

ANNEX 3: Table of codes

Table 7: Codes used in the LSF to identify culture related field of study

Code	University degree: Bachelor, Mater, Phd
2	Art, music, dance, directing, acting, audiovisual and multimedia communication, industrial drawing
3	Humanities, linguistics, history, philosophy, archaeology, religion, cultural heritage and art history
7	archival, library and information (documentary) sciences
21	architecture and urban planning.

Code	Academy Diplomas
1	Academy of Fine Arts
2	Higher Institute of Artistic Industries
3	Academy of Dramatic Arts
4	Conservatory of Music
5	Institute of Applied Music
6	Academy of Dance
7	Other AFAM Institutes (Academy of Fashion; Siena Jazz Foundation; Institute of Applied Arts and Design (IAAD); Pantheon Institute of Design & Technology; Saint Louis College Music Center; Fiesole School of Music, Academy of Costume and Fashion; Italian Academy of Art, Fashion and Design; European Institute of Design; Civic School of Music in Milan)

Table 8: Cultural and Creative Sector (ATECO 4 digits codes)

Code	Description	Borad or Narrow
47.61	Book trading activities	Broad

47.62	Newspapers and periodicals trading activities	Broad
47.63	Music and video recordings trading activities Audiovisual and films trading activities Multimedia works trading activities	Broad
47.78	Other products (excluding second-hand goods) trading activities in specialized stores - Art galleries activities - Visual arts works trading activities	Broad
47.79	Second-hand goods trading activities in specialized stores - Art galleries activities - Visual arts works trading activities	Broad
58.11	Book publishing	Broad
58.13	Newspaper publishing	Broad
58.14	Publishing of magazines and periodicals	Broad
58.21	Publishing of computer games	Broad
58.29	Publishing of other software	Broad
59.11	Motion picture, video, and television program production activities	Broad
59.12	Motion picture, video, and television program post-production activities	Broad
59.13	Motion picture, video, and television program distribution activities	Broad
59.14	Motion picture projection activities	Broad
59.20	Sound recording and music publishing activities	Broad
60.20	Television programming and broadcasting activities	Broad
63.91	News agency activities	Broad
71.11	Architectural activities	Broad
73.11	Advertising agencies	Broad
74.10	Specialized design activities	Broad
74.10	Specialized design activities	Broad
74.20	Photographic activities	Broad
74.30	Translation and interpretation activities	Broad

77.22	Rental of video tapes and discs	Broad
85.52	Cultural education	Broad
90.01	Performing arts	Broad
90.02	Support activities for performing arts	Narrow
90.03	Artistic and literary creation	Narrow
90.04	Operation of arts facilities	Narrow
91.01	Library and archive activities	Narrow
91.03	Operation of historical sites and buildings and similar visitor attractions	Narrow

Table 9: Cultural and Creative Professions (ISCO-08, 4 digit codes)

Code	**Description**	**Broad or Narrow**
1222	Advertising and public relations managers	Broad
1349	Professional services managers not elsewhere classified	Broad
2161	Building architects	Narrow
2162	Landscape architects	Narrow
2163	Product and garment designers	Narrow
2164	Town and traffic planners	Broad
2166	Graphic and multimedia designers	Narrow
2310	University and higher education teachers	Broad
2320	Vocational education teachers	Broad
2330	Secondary education teachers	Broad

2354	Other music teachers	Narrow
2355	Other arts teachers	Narrow
2513	Web and multimedia developers	Broad
2621	Archivists and curators	Narrow
2622	Librarians and related information professionals	Narrow
2642	Journalists	Broad
2632	Sociologists, anthropologists and related professionals	Broad
2633	Philosophers, historians and political scientists	Broad
2643	Translators, interpreters and other linguists	Narrow
2651	Visual artists	Narrow
2652	Musicians, singers and composers	Narrow
2653	Dancers and choreographers	Narrow
2654	Film, stage and related directors and producers	Narrow
2655	Actors	Narrow
2656	Announcers on radio, television and other media	Narrow
2659	Creative and performing artists not elsewhere classified	Narrow
3339	Business services agents not elsewhere classified	Broad
3431	Photographers	Narrow

3432	Interior designers and decorators	Narrow
3433	Gallery, museum and library technicians	Narrow
3435	Other artistic and cultural associate professionals	Narrow
3521	Broadcasting and audio-visual technicians	Narrow
4411	Library clerks	Narrow
5113	Travel guides	Broad
7312	Musical instrument makers and tuners	Narrow
7313	Jewellery and precious-metal workers	Narrow
7314	Potters and related workers	Narrow
7315	Glass makers, cutters, grinders and finishers	Narrow
7316	Sign writers, decorative painters, engravers and etchers	Narrow
7317	Handicraft workers in wood, basketry and related materials	Narrow
7318	Handicraft workers in textile, leather and related materials	Narrow
7319	Handicraft workers not elsewhere classified	Narrow