

# The Tightening of Employment Conditions and Access to Jobs in Artistic Occupations in France – The case of Dance and Circus Arts (2006-2016)

Samuel Julhe\* and Émilie Salaméro\*\*

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**Abstract** – The aim of this article is to analyse the degree of segmentation and restriction within the French artistic jobs system by studying the example of dance and circus arts. On the basis of the distribution of job structure and volume of work, it investigates the conditions of inclusion within a “professional core”, including the associated effects on continued activity. We use data from Pôle Emploi relating to monthly employer statements (AEM) and single simplified declarations (DUS). These data allow us to exhaustively process the 8.5 million employment contracts for the 100,000 individuals who worked in one of the two selected artistic fields during the 2006-2016 period. In both fields, albeit in varying proportions and at varying rates, we see more restrictive conditions of employment and access to the segment of artists likely to benefit from the “intermittent” status, an unemployment benefit system specific to artistic workers due to the irregular nature of their work. And yet, trends show that potential workers are being increasingly excluded from these two labour markets.

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JEL codes: J21, Z11

Keywords: intermittent workers in the entertainment industry, cohorts, employment conditions, employment contract, professional career

\* Université Clermont Auvergne, LESCORES ([samuel.julhe@uca.fr](mailto:samuel.julhe@uca.fr)); \*\* Centre de Recherches Sciences Sociales Sports et Corps, CRESCO EA 7419 ([emilie.salamero@univ-tlse3.fr](mailto:emilie.salamero@univ-tlse3.fr))

The authors would above all like to thank Sophie Garcia and Snjezana Smetisko of Pôle Emploi for their support and guidance on the use of the intermittent artistic workers databases. They would also like to thank everybody on the team for the S2S programme (ANR-13-JSH1-0010-01) from which this work originates (Marie-Pierre Chopin, Marine Cordier, Marina Honta, Florence Soulé-Bourneton), as well as two anonymous reviewers. The authors are nevertheless solely responsible for any errors or deficiencies in this work.

Received in November 2019, accepted in July 2020. Translated from “Le Durcissement des conditions d'accès et d'emploi dans les professions artistiques en France – Les cas de la danse et du cirque (2006-2016)”

The opinions and analyses presented in this article are those of the author(s) and do not necessarily reflect their institutions' or Insee's views.

Citation: Julhe, S. & Salaméro, É. (2021). The Tightening of Employment Conditions and Access to Jobs in Artistic Occupations in France – The case of Dance and Circus Arts (2006-2016). *Economie et Statistique / Economics and Statistics*, 526-527, 93–111. doi: 10.24187/ecostat.2021.526d.2054

The system of intermittent employment specific to the live performing arts sector has given rise to many social science-related studies since the 1990s. More of these works appeared during the first half of the 2000s, particularly following the high tensions surrounding the renegotiation of Annexes VIII and X to the unemployment insurance convention in 2003 (hereafter Annexes VIII & X). The most well-known published works include those of Menger (1989; 2011) and of researchers affiliated with the CSA/CESTA/CESPRA laboratory (P. Coulangeon, M. Jouvenet, O. Pilmis, V. Cardon, ...). These works, in particular, used statistics to paint an unprecedented picture of the sector, labelling it “hyper flexible”, “uncertain” and even “disorganised” compared to other sectors, and they highlighted certain “dead ends” present in its approach to insurance (Menger, 2011). Investigations have also covered more diverse questions, ranging from an analysis of the effects of multi-jobs employment (Pilmis, 2007) to studies into lifestyles (Sinigaglia-Amadio & Sinigaglia, 2017) or the entry into retirement of artists (Cardon, 2017). Nevertheless, quantifying the employment system and its developments seems to have been put on the backburner in research circles to some degree and consigned to entities affiliated with the social partners.<sup>1</sup> At the same time, given the data available in the early 2000s, the statistical observations made at that time were not without blind spots, which may have stirred up major controversy (Grégoire, 2010). As noted by Menger, for example: “A detailed longitudinal study would be the only way to measure more directly the respective effects of both cyclical variations in employment in the entertainment sector and changes in insurance regulations on the composition of the workforce by age and experience level, and it would lead to an investigation of whether, in times of shrinking growth in a given entertainment sector, intermittence acts more as an accelerator of turnover or whether, on the contrary, it offers a degree of flexibility and a variety of possible arrangements that provide greater protection, whereas less flexible employment contracts, once broken, lead to a more resounding exclusion from the labour market.” (Menger, 2011, p. 239). This article intends to answer this line of questioning.

Based on changes to the statistical recording system that Pôle Emploi has been using since 2004, our aim is to describe the evolution of one segment of the artistic jobs system and to understand the factors that influence individuals’

positions and career paths – whether assisted by Pôle Emploi or not. The analysis will therefore focus on dance and circus arts – two sub-fields of live performing arts which have been the subject of fewer studies than other sub-fields, especially statistical studies (Rannou & Roharik, 2006; David-Gibert *et al.*, 2006). More precisely, the analysis will examine the nature of segmentation of these employment sectors, a process that is addressed in the social science literature in two distinct yet complementary ways.

Following an initial approach, the theory of segmentation broadly proposes a dual vision of the labour market (Doeringer & Piore, 1971; Amossé *et al.*, 2011), illustrated in the example of the employment system for the live performing arts in France through the contrast between a primary segment – made up of insiders whose volume of work enables them to benefit from social protection under a specific scheme – and a secondary segment – made up of outsiders who are not able to claim such benefits because they do not carry out enough work. However, the sole criterion of the volume of work and associated degree of social protection is not enough in itself. Indeed, it has also been demonstrated that professional segments are distinguished as much by the “shared situational structure” (statutes, places of employment, types of public, etc., see Bucher & Strauss, 1961) as by the “subjective meaning” given to the professional activity (Hénaut & Poulard, 2018). In this respect, although the Pôle Emploi data make it difficult to understand the meaning given to a particular job, it is still possible to approach it through its structure (Gouyon, 2011; Perrenoud & Bataille, 2017), either within a clearly identified artistic speciality or its dilution across multiple jobs within the sector, as is common in the entertainment sector (Rannou & Roharik, 2006; Bureau *et al.*, 2009). On these grounds, our analyses aim to understand these two aspects of the segmented artistic labour market – job structure and volume of work – whereby the challenge lies in understanding the relevance of these segmentation factors and the determinant factors that place individuals in a given segment. Furthermore, we also seek to measure the level of porosity between segments. The hardships encountered when coping with the “triple challenge” presented by “attempting, returning, and staying” – stages that mark all career paths – is a

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1. See the annual employment-related publications issued by the Commission Paritaire Nationale Emploi Formation du Spectacle Vivant (the French joint committee for the live performing arts sector, CPNEF-SV), for example.

visible manifestation of this partial permeability in the arts sector (Buscatto, 2008).

In terms of methodology, this article is based on data from Pôle Emploi's information system (Box 1).<sup>2</sup> These data cover all employment contracts falling within the scope of Annexes VIII & X prior to 2017 for anyone who held at least one contract relating to the “dancer” and/or “circus artist” professional group(s) (see Appendix) between 2006 and 2016. This period was selected because consistent methods were applied to calculate the artists' working time.<sup>3</sup> This has resulted in a ‘de-duplicated’ file that includes all information relating to 8,550,938 employment contracts, 201,537 employers and 100,007 employees. The structure of the original file, with only the characteristics of the 8.5 million contracts, was first modified so that the information on employers and employees could be extracted and then arranged in chronological order. In other words, a matrix (8,550,938×58)

presenting a “series of contracts” (contract dates, type of employment, employer location, wages paid, etc.) has been matched to a matrix (100,007×374) detailing information on the volume of work and job structure for each individual over the 2006-2016 period (date of entry into the artistic employment system,<sup>4</sup> activity status over the various years, annual working time, breakdown of work by artistic type, types of employer, wages, etc.). This allows us to not only analyse the annual demographic changes for both sectors over the reference period, but to carry out a cohort-based analysis as well.

2. All of the graphs and tables in this article are based on this source.

3. The data do not include any information regarding unemployment compensation. This is specifically covered by the Fichier national des allocataires (national file of unemployment compensation recipients) held separately from the AEM and DUS databases.

4. Although we are focusing on the 2006-2016 period, the available data nevertheless provide information about intermittent work that individuals may have held prior to 2006, which helps to create “new entrant” cohorts or to calculate “seniority” within the sector (see Box 2 for further details).

### Box 1 – System of Information for Contracts of Intermittent Workers in the Entertainment Industry

Any employer in France calling upon the services of an employee covered by Annexes VIII and X to the general regulations annexed to the Unemployment Insurance Convention has to declare each customary fixed-term employment contract for temporary work to Pôle Emploi, together with the Nominative Social Declarations (formerly DADS), since 1979 and following the inclusion of performers in those annexes, which were established in 1964 and 1967, respectively (Grégoire, 2013). Depending on the nature of the principal activity conducted by the employer (APE), these declarations are fed into two separate databases:

- the AEM database, corresponding to monthly employer statements made by employers whose sector of activity falls within the field of entertainment (e.g. NAF code 90.01Z “Live performing arts”, 90.02Z “Support for live performing arts” or 90.04Z “Management of entertainment venues”);
- the DUS database, corresponding to the single simplified declarations made by employers whose sector of activity does not fall within the entertainment sector and which use the *Guichet Unique du Spectacle Occasionnel* (GUSO, the Agency for irregular entertainment administration) to declare the employment of performers or technical staff.

The fields of these two databases are similar and provide detailed information about each employment contract:

- identity of the employee (the NIRPP, with no possibility of duplicate entries or ambiguity due to use of the employee's social security number), date of birth, post code of residential address, etc.;
- identity of the employer (SIRET, with no possibility of duplicate entries or ambiguity due to use of the computerised system for company registrations in France for legal entities or the NIRPP for persons), NAF/APE code, post code of registered office, etc.;
- period of the contract (start and end dates of the employment contract) and the associated workload (number of hours worked and/or the number of shifts);
- gross salary paid before and after deduction of professional expenses;
- the “simple” name of the job held (e.g. guitarist, fire-eater, tango artist, etc.), this field being subsequently coded by Pôle Emploi in order to correspond to one of the 1,388 codes in the jobs classification system created by Pôle Emploi together with CPNEF-SV (see Appendix).

Among this information, the information relating to the length of the contract is essential. In order to be eligible for unemployment compensation, performers and technical staff in the entertainment industry must be able to prove that they have carried out the equivalent of 507 hours of declared work over a given period – the calculation window having shifted from 10 months (between 2004 and 2016) to 12 (before 2004 and after 2016) due to changes in regulations. Although it depends on the circumstances, the AEM and DUS declarations may directly include a number of hours worked or indicate a number of *cachets* (shifts remunerated at a flat rate), which can in turn be converted into hours worked. This is why Pôle Emploi distinguished between two types of *cachet* up until 2016: “isolated” shifts for periods of work for the same employer that are shorter than 5 consecutive days, and “grouped” shifts for periods lasting longer than 5 consecutive days. “Isolated” shifts equated to 12 hours of work and “grouped” shifts equated to 8 hours. Since 2017, all *cachets* have been counted as 12 hours of work. In the article, everything relating to contract length has been converted into working hours, as Pôle Emploi also does, in order to estimate both volume of work and eligibility for unemployment compensation.

The first section of the article focuses on the analysis of the annual characteristics of the populations working in the fields of dance and circus arts; the second section focuses on modelling of the variables that influence the individual “employment profiles”; the third section presents a modelling of eviction rates of the sector using a cohort-based approach.

## 1. Demographic Growth and More Restrictive Employment Conditions

Based on a very broad definition that includes anybody on a dance or circus arts contract who worked for at least one hour during the year (see Appendix), we observe an increase in the number of people in both fields. Between 2006 and 2016, the dance population increased from 10,899 to 19,361 and the circus arts population from 2,231 to 4,845 (Figure I). With an overall increase of +77.6% and +117.2% in 10 years and an average annual growth rate of +5.9% and +8.1%, respectively, dance and circus arts follow the general trend for the live performing arts sector (Pôle Emploi, 2018). However, the differing growth rates show the discrepancy between the two fields in terms of how well established they are. Nevertheless, it is notable that this growth appears much more sustained between 2007 and 2009, a period during which the *Fonds de Professionnalisation et de Solidarité* (FPS, a specific professional and social fund) was introduced<sup>5</sup> and which preceded a period of more gentle growth up until 2016.

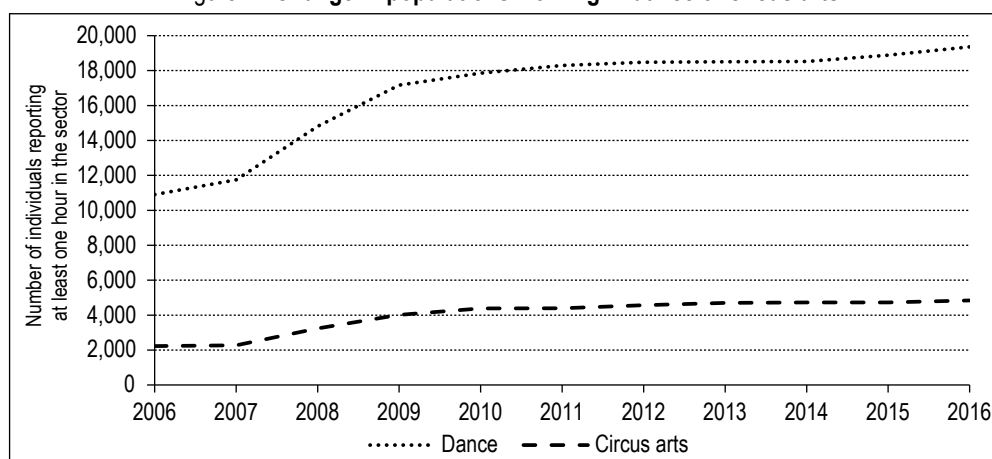
The socio-demographic characteristics of the populations in both dance and circus arts are also changing in a number of ways (Table 1). Although distribution by gender remains particularly stable throughout the decade studied, with the proportion of women hovering around

62% in dance and 37% in circus arts, there are two significant changes in the geographical distribution of the workers’ areas of residence and their age. On the geographical front, a very large proportion of dancers live in the region of Île-de-France (between 40% and 47%, depending on the year), similar to what has already been observed (Rannou & Roharik, 2006, pp. 110-121). This is far less pronounced for circus arts workers (between 18% and 29% reside in Île-de-France, depending on the year). This can be explained by the fact that the work of the circus companies has always been nomadic in nature (David-Gibert *et al.*, 2006). A steady decline in the proportion of workers residing in Île-de-France can be seen over this period, particularly for the circus arts sector, where the proportion of individuals having worked in this sector who lived in Île-de-France fell from 28.6% in 2006 to 19.9% a decade later. This can be explained by a regional model network that is built around the development of professional schools and national circus hubs established at regional level (Salaméro, 2018).

The significant increase in average age in both fields is more unexpected. This increases from 32.8 to 35.6 years in dance and from 33.7 to 36.3 years in circus arts over the 2006-2016

5. In 2004, the French government established a Fonds provisoire (Provisional fund) designed to alleviate the exclusionary impact resulting from the calculation methods used. These methods derived from the 2003 agreements reforming Annexes VIII and X to the unemployment insurance convention. The fund offsets lower compensation or compensates performers and technical staff whose unemployment insurance rights have lapsed. This initial fund was replaced by a Fonds transitoire (Transitional fund) in 2005, which in turn was replaced by the FPS in 2006, which the Minister for Culture consequently wanted to render permanent. The FPS, which entered into force on 1 April 2007, includes a mechanism to compensate performers and technical staff in a position of “professional vulnerability” and a professional and social mechanism designed to support career development.

Figure I – Change in populations working in dance or circus arts



Sources and Coverage: Pôle Emploi, monthly employer statement (AEM) and single simplified declaration (DUS) databases. All workers who claimed to have completed at least one hour of dance or circus-related work during the year.

Table 1 – Socio-demographic characteristics

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Number of people											
Dance	10 899	11 750	14 807	17 171	17 856	18 291	18 476	18 502	18 525	18 886	19 361
Circus arts	2 231	2 272	3 241	4 012	4 387	4 390	4 565	4 701	4 727	4 724	4 845
Average age (years)											
Dance	32.8	33.0	33.0	33.2	33.5	33.7	33.7	34.0	34.3	35.1	35.6
Circus arts	33.7	34.2	35.2	35.1	34.8	35.1	35.3	35.6	35.9	36.7	36.3
Proportion of women (%)											
Dance	61.6	61.5	62.1	62.2	61.7	62.6	61.7	62.4	61.7	60.1	61.0
Circus arts	36.0	36.8	35.5	36.5	37.3	36.4	36.4	37.4	38.6	39.8	38.7
Area of residence (%)											
Dance											
Île-de-France	46.0	46.8	44.2	42.3	41.3	42.2	40.3	40.8	40.9	44.0	45.2
Other regions	54.1	53.3	55.8	57.7	58.7	57.8	59.7	59.2	59.1	56.0	54.8
Circus arts											
Île-de-France	28.6	29.1	24.7	22.0	21.0	22.6	22.4	20.9	20.9	18.7	19.9
Other regions	71.4	70.9	75.3	78.0	79.0	77.4	77.6	79.1	79.1	81.3	80.1

Reading Note: In 2006, the average age of the 10,899 workers who claimed to have completed at least one hour of work in the dance sector was 32.8 years. Of these, 61.6% were women and 46.0% lived in Île-de-France.

Sources and Coverage: Pôle Emploi, monthly employer statement (AEM) and single simplified declaration (DUS) databases. All workers who claimed to have completed at least one hour of dance or circus-related work during the year.

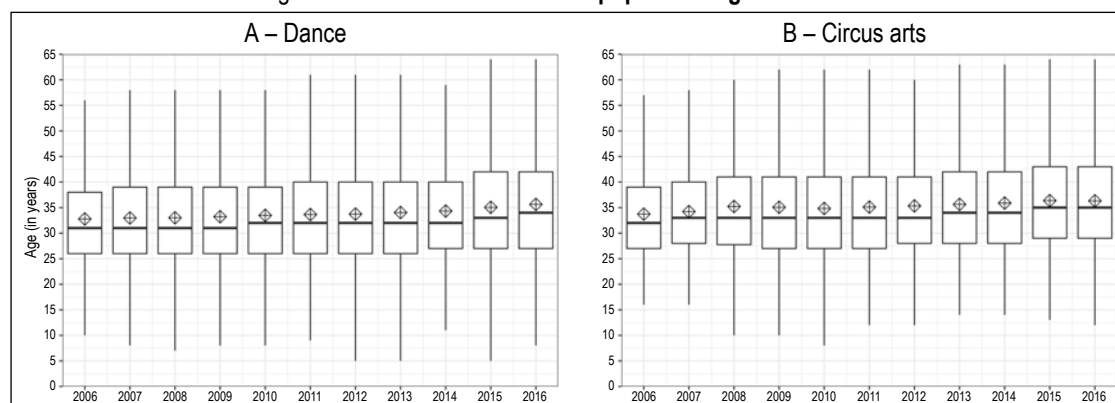
period, producing relatively constant interquartile ranges (Table 1 and Figure II). As we shall see later, this ageing of both populations has no direct link to either prolonged careers in the arts, as was the case in the 1980s (Ministère de la culture, 2003), or the general ageing of the French population. Rather, a better explanation is a decrease in the number of young “new entrants” over the course of the decade studied.

In terms of employment, the first observation concerns the distribution of the volumes of work associated with dance and circus arts. Only a small fraction of individuals reached 500 annual hours of declared work from these types of contracts alone. Between 13.5% and 18.0% of dance workers achieved this figure, depending on the year, resulting in an average volume of work in dance ranging from 208 to 247 hours.

For circus arts workers, this achievement rate was between 11.0% and 15.4%, resulting in an average volume of work ranging from 171 to 225 hours (Figure III and Table 2).

In other words, the proportion of individuals who can claim intermittence for working in only one of the fields in the entertainment industry is relatively small. We can therefore assume that jobs and contract types covered by Annexes VIII and X need to be diverse in order to maximise the volume of work, which is in line with the studies conducted on the performance of multiple jobs in the arts (Bureau *et al.*, 2009) and which is examined below. The persistent nature of other phenomena observed in previous work is also notable, in particular the fact that the number of available jobs (number of individuals) is outstripping demand (number of working hours)

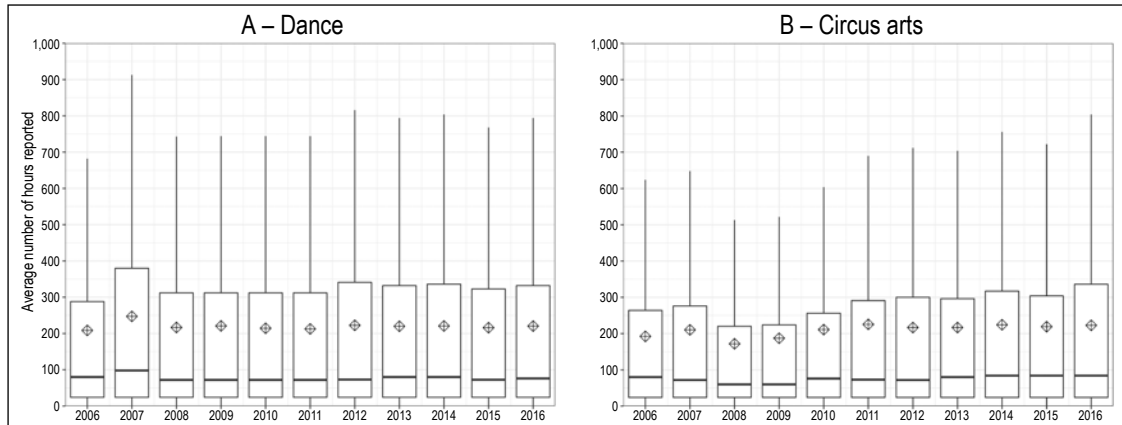
Figure II – Dance and circus arts population age distribution



Reading Note: In 2006, the average age of the 10,899 workers who claimed to have completed at least one hour of work in the dance sector is 32.8 years, whereby Q1 = 26; Q2 = 31; Q3 = 38.

Sources and Coverage: See Figure I.

Figure III – Distribution of the volumes of dance and circus arts work (2006-2016)



Reading Note: In 2006, the 10,899 workers who claimed to have completed at least one hour of work in the dance sector worked for an average of 208.4 hours in this field. The quartile values are as follows: Q1 = 24; Q2 = 80; Q3 = 288.  
Sources and Coverage: See Figure I.

Table 2 – Volume of work carried out in dance and circus arts (2006-2016)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>A – Dance</b>											
Volume of work (hours)											
Median	80	98	72	72	72	72	73	80	80	72.5	76
Mean	208.44	247.13	216.55	220.87	214.35	212.58	222.50	219.92	220.71	215.94	220.38
Proportion of individuals who carried out ≥ 500 hours of dance-related work (%)											
	13.5	18.0	15.7	15.6	15.8	15.9	16.8	16.1	16.2	16.1	16.1
<b>B – Circus arts</b>											
Volume of work (hours)											
Median	80	72	60	60	76	73	72	80	84	84	84
Mean	192.33	210.23	171.78	187.18	210.92	225.34	216.65	216.68	224.23	219.00	222.75
Proportion of individuals who carried out ≥ 500 hours of dance-related work (%)											
	13.1	13.6	11.0	11.2	12.6	14.9	15.4	14.4	14.8	14.7	15.2

Reading Note: In 2006, 13.5% of workers who claimed to have completed at least one hour of dance-related work completed at least 500 hours of work based exclusively on dance-related contracts.  
Sources and Coverage: See Table 1.

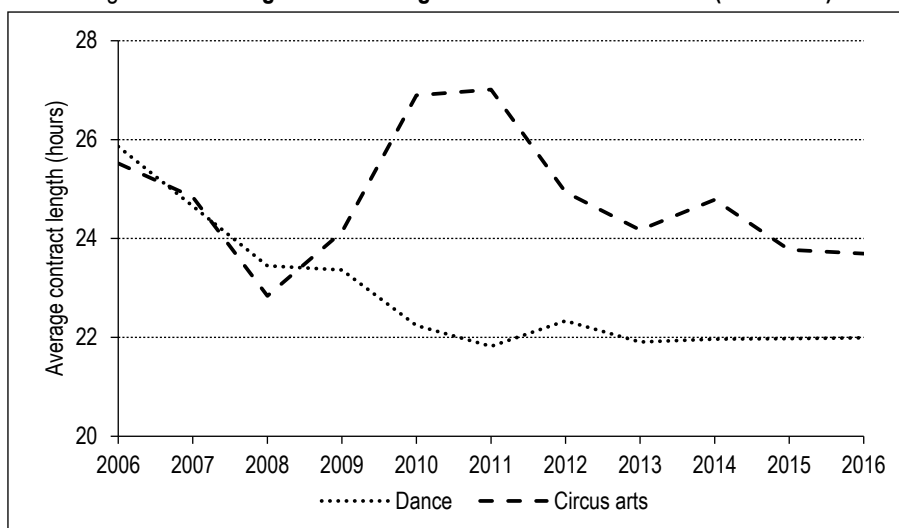
and number of contracts), resulting in a shortening of average contract length over the years (Gouyon & Patureau, 2014). This means that more and more contracts need to be concluded in order to achieve the same volume of work from one year to the next. As a result, the average contract length fell from 25.9 hours to 22 hours for dance-related jobs between 2006 and 2016, which equates to an average annual decrease of -1.1%. The same trend is seen in the circus arts sector, albeit at a different rate, with the average contract length falling from 25.5 hours to 23.7 hours over the same period, which equates to an average annual decrease of -0.5% (Figure IV).

In addition, there is a change in wages that does not offset the effects of inflation (Figure V). Prior to a reversal in the trend in 2014, the analysis of the work income breakdown by type of employment, in constant euros (2006 as the base year), effectively shows a relative decline in the levels of hourly pay in both fields studied, although this fall is not as steep in dance (-0.3% average annual

decrease over the period studied) as it is in circus arts (-1.2%). For an individual who achieves a consistent volume of work and focuses exclusively on dance or circus arts, the trend is therefore that their work income has fallen gradually. However, much like the overall volume of work, which sets the conditions for access to any compensation, hourly pay is important because it is included in calculations to determine compensation levels. Again, heightened pressure to diversify work falling within the relevant scope of Annexes VIII and X can be assumed.

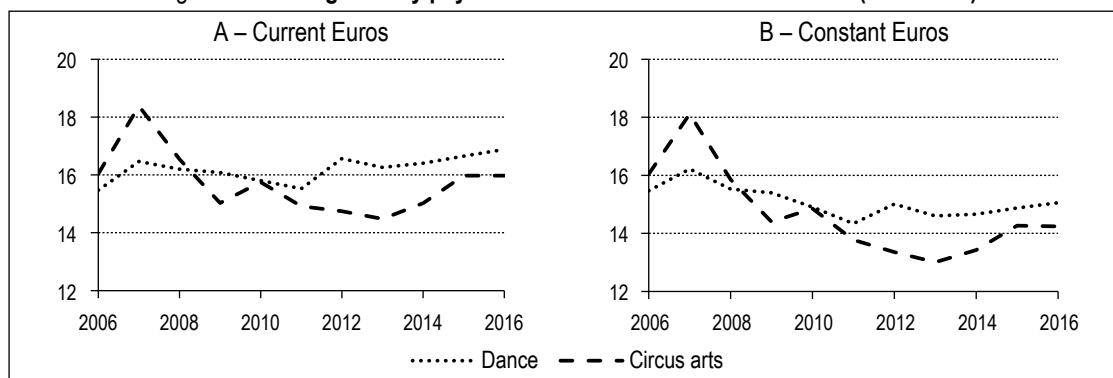
Like other artistic fields, dance and circus arts are therefore characterised over the ten-year period from 2006 to 2016 by a set of cumulative employment-related restrictions, which are growing in magnitude: volumes of work, the distribution of which only allows a small minority to claim “intermittence” based on these specialities alone; a shorter average contract length leading to a more frenzied “race to sign contracts”, reduced hourly pay that can have a negative impact on

Figure IV – Average contract length in dance and circus arts (2006-2016)



Reading Note: In 2006, the average length of a dance contract is 25.88 hours.  
Sources and Coverage: See Figure I.

Figure V – Average hourly pay under dance or circus arts contracts (2006-2016)



Reading Note: In 2006, the average hourly pay for a dance contract is €15.47 (gross).  
Sources and Coverage: See Figure I.

the whole work income and the level of any compensation. In this context, where employment tends to be more fragmented while paying less, it seems relevant to question the way in which the population is divided by their overall volume of work – as a criterion distinguishing outsiders and insiders with respect to intermittence – and by the structure of their job, i.e. the proportion of time that they commit to work in the field of dance or circus arts – as a criterion distinguishing outsiders and insiders with respect to the “dancer” and “circus artist” professions.

## 2. Access Factors for the “Core Professional” Segment

One approach to the segmentation of the artistic labour market is to look at the distribution of annual workloads and the share of work related to the selected arts sector. Although 70% to 75% of people in the “dance” population carry out fewer than 500 hours of work per year (combining all

types of employment falling within the scope of Annexes VIII and X) and this work mainly relates to dance (70 to 80%) (Table 3), there is nevertheless a very wide range of personal situations (Figure VI). The space for alternative situations is just as diffuse among the “circus arts” population. 58% to 70% of individuals in this group carry out fewer than 500 hours of work per year, most of which relates to circus arts (80%).

To go further, it is possible to categorise the position of individuals in this space by combining job structure and volume of work. For this purpose, and in order to enable a chronological comparison, it seemed more relevant to use a categorisation based on discretisation and concatenation of variables instead of an automatic classification system (Gouyon, 2011). The job structure takes into account all contract types carried out (dance, circus arts, other arts, technical professions) and distinguishes between “dance specialists” (carrying out more

**Table 3 – Volume of work and proportion of work committed to dance or circus arts (2006-2016)**

A – Dance	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Individuals within the sector	10,899	11,750	14,807	17,171	17,856	18,291	18,476	18,502	18,525	18,886	19,361
Total volume of work (hours)											
1 <sup>st</sup> quartile	44.0	48.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	42.0	48.0
Median	204.0	216.0	144.0	156.0	168.0	168.0	180.0	184.0	192.0	216.5	240.0
Mean	318.5	329.1	285.0	287.2	294.0	302.5	304.3	302.2	313.7	333.4	348.1
3 <sup>rd</sup> quartile	550.5	564.0	508.0	504.0	522.0	536.0	538.0	528.0	544.3	576.0	588.0
Proportion of individuals who carried out ≥ 500 hours of work in total (%)	29.3	30.5	25.5	25.3	26.8	27.6	28.1	27.5	28.6	31.6	32.4
Proportion of subjects who carried out ≤ 48 hours of work in total (%)*	28.5	26.7	32.0	31.6	31.2	31.4	31.2	30.1	29.6	27.8	26.6
Proportion of work committed to dance (%)											
1 <sup>st</sup> quartile	42.9	59.6	70.6	66.7	66.7	62.0	63.5	63.6	60.0	50.0	40.8
Median	95.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	72.2	77.0	80.6	79.8	79.2	78.6	78.9	78.6	77.8	75.3	73.2
3 <sup>rd</sup> quartile	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Proportion of individuals for whom the proportion of dance-related work is ≥ 50 (%)	71.1	77.5	79.9	78.9	78.5	77.5	77.9	77.7	77.0	74.2	71.8
<b>B – Circus arts</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Individuals within the sector	2,231	2,272	3,241	4,012	4,387	4,390	4,565	4,701	4,727	4,724	4,845
Total volume of work (hours)											
1 <sup>st</sup> quartile	84.0	104.0	60.0	52.0	60.0	60.0	60.5	64.0	72.0	72.0	69.0
Median	346.0	404.0	252.0	223.0	252.0	300.0	324.0	292.0	320.0	331.5	336.0
Mean	387.4	419.3	341.3	329.8	342.0	363.0	371.6	356.4	373.9	378.2	378.2
3 <sup>rd</sup> quartile	624.0	659.0	576.0	564.0	581.8	603.0	612.5	592.3	610.0	612.0	620.0
Proportion of individuals who carried out ≥ 500 hours of work in total (%)	37.9	42.7	33.4	30.5	32.6	35.0	36.3	34.3	37.7	37.5	37.3
Proportion of individuals who carried out ≤ 48 hours of work in total (%)	20.2	16.5	24.0	24.5	22.9	22.0	21.8	21.5	20.1	19.7	21.4
Proportion of work committed to circus arts (%)											
1 <sup>st</sup> quartile	19.2	14.0	22.7	25.0	25.6	24.5	24.5	24.6	22.7	23.1	25.9
Median	72.2	57.1	72.8	77.3	80.0	80.9	79.6	79.4	76.9	78.1	80.0
Mean	60.5	56.0	62.0	63.7	64.5	64.4	63.8	64.2	63.1	63.2	64.7
3 <sup>rd</sup> quartile	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Proportion of subjects for whom the proportion of circus-related work is ≥ 50 (%)	84.4	80.0	82.1	82.7	80.2	80.1	80.0	81.8	80.4	79.6	79.7

\* The threshold that enables the proportion of individuals with a "low" level of activity in the intermittence sector to be measured varies according to the work. In this table, we have selected the threshold used in CPNEF-SV and Pôle Emploi publications.

Reading Note: In 2006, one quarter (Q1) of the workers in the dance field claimed to have completed fewer than 44 hours of work in total over the year and one quarter (Q3) claimed to have completed more than 550.5 hours, which produced a median value of 204 hours and a mean value of 318.5 hours.

Sources and Coverage: See Table 1.

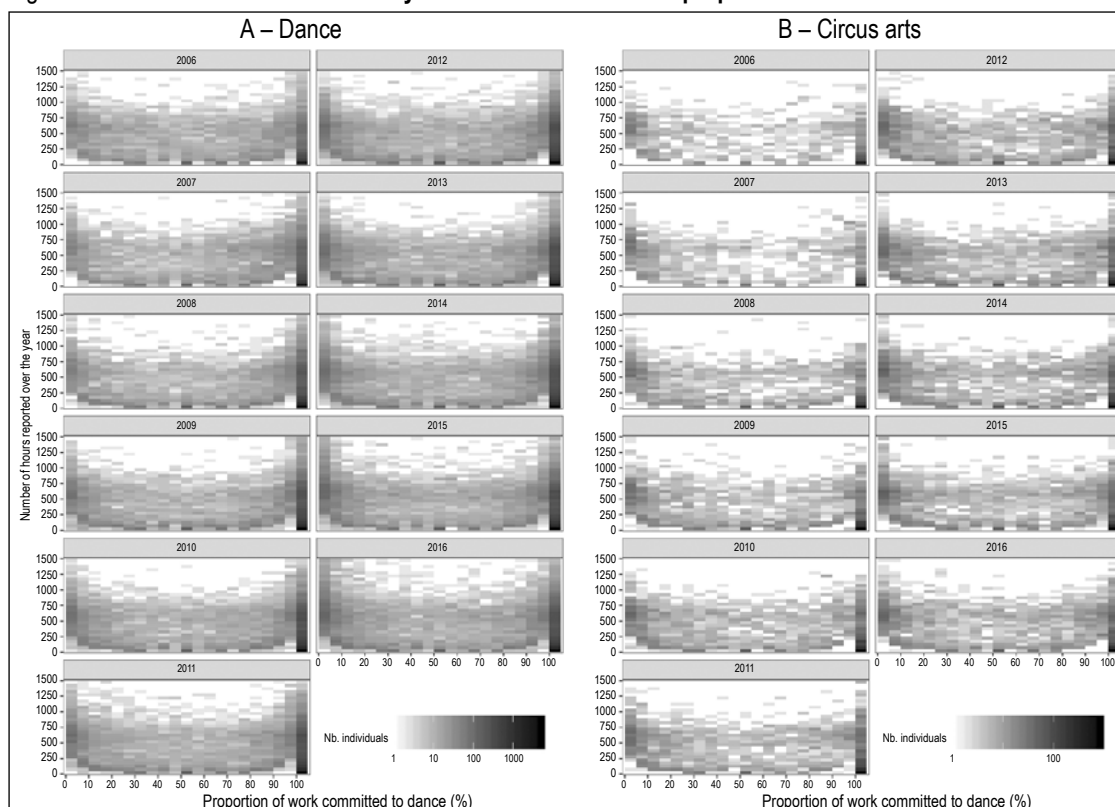
than 50% of their working hours in this field, labelled "D"), "circus specialists" (labelled "C"), "specialists in another art" (labelled "A"), "technical specialists" (labelled "T") and cases whereby the job structure has no precedent (labelled "Z"). Volume is split into four groups: [1;250], [250;500], [500;750] and [750;+ ∞], denoted as categories "1", "2", "3" and "4" in the tables and graphs that follow. By linking these two variables, we can establish an employment profile in 20 categories, the distribution of which

shows the main segmentation lines for these two fields and their evolution over time (Figure VII).

The "professional core", consisting of individuals who combine a high volume of work with a high degree of specialisation (categories D3|D4 for dance and C3|C4 for circus arts), remains relatively marginal across both fields, regardless of the year studied. Between 18% and 22% of people in the field of dance carry out more than 500 hours of work each year of which at least 50% are carried out in the dance sector. This



Figure VI – Concentration of workers by total volume of work and proportion of work committed to the sector

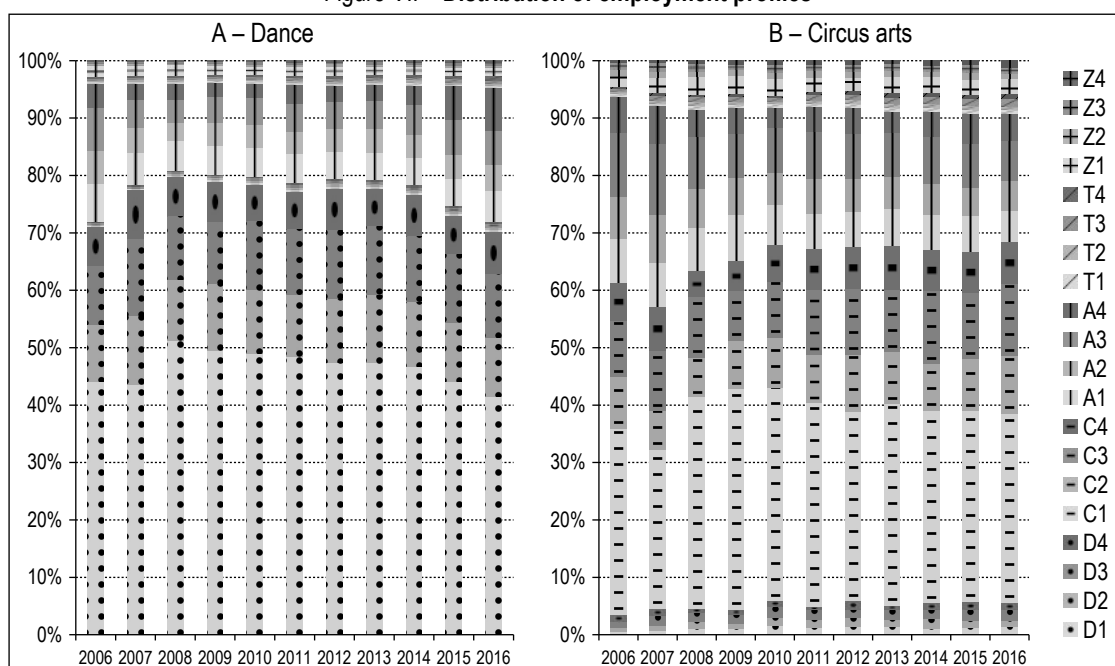


Reading Note: The density diagrams show the distribution of the workers according to their coordinates on the plane that intersects total annual volume of work and the proportion of work committed to dance (VI-A) or circus arts (VI-B). The darker the cell, the more workers it contains. Outliers are not shown on these graphs to aid overall comprehension.  
Sources and Coverage: See Figure I.

figure is between 14% and 20% for those in the circus arts. Various peripheral strands of activity can be seen alongside this relatively

low-key segment. On the one hand, we see a concentration of individuals with “specialised reduced activity” profiles (fewer than 500 hours

Figure VII – Distribution of employment profiles



Reading Note: In 2006, among all workers who claimed to have completed at least one hour of work in the dance sector, 44.1% claimed to have worked for fewer than 250 hours whereby more than 50% of the hours involved dance related work (category D1).  
Sources and Coverage: See Figure I.

per year yet at least 50% of hours falling within the dance or circus arts sector, i.e. segments D1|D2 or C1|C2), which, depending on the year, account for between 55% and 64% of people in dance and between 36% and 49% in circus arts. On the other hand, some carry out multiple jobs for whom their dance or circus-related work is supplementary to their main job in another artistic discipline (segments A1, A2, A3 and A4). Between 15% and 24% of individuals in dance and between 23% and 35% in the circus arts fall into this category. Describing people falling into this category as “circus artists” or “dancers” would appear to be objectively more difficult because their main artistic activity tends to be that of “actor” or “dramatic artist”. Given this variety in employment profiles, our aim is to understand the factors that explain whether or not they belong to the “professional core”. Multinomial logistic regression was used to model this. The results of this modelling are given in Table 4.

The first thing we see is that gender plays a significant role in the likelihood of belonging to the “professional core”: there is a higher proportion of men in specialised segments with a high volume of work. In dance, they account for 44.3% and 45.1% of those in segments D1 and D2, compared to 49% and 52.6% for segments D3 and D4. In circus arts, the gender gap is slightly less pronounced but still remains significant, with men representing 61.9% and 60.0% of those in segments C1 and C2, compared to 61.5% and 67.2% for segments C3 and C4. Similarly, workers are more likely to be included in the “professional core” by virtue of having worked for a large-scale employer specialising in the field<sup>6</sup> during the reference year, a criterion that is somewhat an indicator of the individual’s reputational credit (Menger, 2011, pp. 58-59). 52.5% of those in segment D1, 83.3% of those in segment D2, 88.9% of those in segment D3 and 91.4% of those in segment D4 had previously worked for a large-scale employer on at least one occasion. For the circus arts segments C1-C4, these percentages are 43.3% (C1), 71.6% (C2), 76.7% (C3) and 78.8% (C4). This indicates an interaction between age and experience within the profession. This means that inclusion within the youngest age group (under-25s) combined with prior experience (more than two years in the sector) strongly increases the probability of belonging to the “core”. However, the change in the odds-ratios shows that experience stops compensating for advanced age beyond a certain point. For dance workers of equal experience, the probability of being included in segments

D3|D4 therefore dips after the age of 50. Both of these trends are also observed in the circus arts field. Lastly, there is a notable relative decrease in the odds ratios over the period studied. All else being equal, workers are therefore increasingly less likely to join the D3|D4 or C3|C4 segments, year by year. Given the marginal and heterogeneous variation of the proportion among both populations over time (18% to 22% in dance; 14% to 20% in circus arts), we can deduce that the “professional core” increasingly gathers the most qualified individuals (men, those already recognised in the sector, those working for the most prominent employers, etc.), as employment conditions become more restrictive. For example, in the data for the dance field at the beginning of the period studied, 80% to 85% of individuals in segments D3|D4 have at least two years of experience in the sector. By the end of the period, this figure is between 85% and 90%. These ranges are generally consistent with those of the C3|C4 segments in the circus arts field. In this respect, however, it must be considered that changes over time logically give rise to a form of selection bias among the population, in the sense that, among experienced men and women, only those with a sufficient level of activity and volume of work (i.e. granting continuous access to unemployment compensation) remain and continue to work. This assumption is confirmed by the longitudinal analysis of the “new entrant” cohorts, which is presented in the following section.

### 3. Greater Difficulties Faced by “New Entrant” Cohorts in Terms of Integration

The cohort-based approach aims to track the development of individuals who entered the field under given circumstances (Box 2). From this point of view, the size of the various cohorts is an initial indicator that allows us to see how the number of new entrants in both dance and circus arts has changed. In other words, it allows us to determine how many are “attempting” to enter the world of work in the arts (Buscatto, 2008). Following a period of strong growth between 2007 and 2008, the volume of new entrants is steadily declining, with an average annual decrease of -7.3% for dance between 2008 and

6. The 201,537 employers surveyed were categorised on the basis of the total number of working hours offered over the 2006-2016 period and the level of specialisation required to complete the work covered by the contracts offered. The first variable is split into four categories according to a logarithmic scale – [1;100]; [100;1,000]; [1,000;10,000]; [10,000;+∞], denoted as categories “1”, “2”, “3” and “4”, respectively – while the second variable distinguishes between “dance specialists” (those carrying out more than 50% of their working hours in this field), “circus specialists”, and “others”. 12 distinct “types” of employer emerge as a result.

Table 4 – Odds ratios from the multinomial logistic regression model\*

	Dance population Employment profile: D1 D2 vs...			Circus arts population Employment profile: C1 C2 vs...		
	... D3 D4	... other profiles 1 2	... other profiles 3 4	... C3 C4	... other profiles 1 2	... other profiles 3 4
Constant	0.07 ***	0.18 ***	0.03 ***	0.11 ***	0.46 ***	0.14 ***
Period (Ref. 2006-2007)						
2008-2009	0.30 ***	0.39 ***	0.14 ***	0.25 ***	0.45 ***	0.12 ***
2010-2011	0.27 ***	0.33 ***	0.13 ***	0.24 ***	0.35 ***	0.08 ***
2012-2013	0.25 ***	0.31 ***	0.12 ***	0.21 ***	0.30 ***	0.07 ***
2014-2016	0.23 ***	0.33 ***	0.16 ***	0.20 ***	0.27 ***	0.07 ***
Gender (Ref. Female)						
Male	1.16 ***	1.80 ***	2.11 ***	1.08 *	1.00	1.12 ***
Area of residence (Ref. Île-de-France)						
Other regions	1.14 ***	0.78 ***	0.77 ***	1.10 *	0.81 ***	0.68 ***
Age (Ref. Under 25)						
25-29 years	1.21 ***	1.50 ***	2.50 ***	1.08	1.45 ***	2.43 ***
30-34 years	1.23 ***	1.56 ***	4.01 ***	1.49 *	1.61 ***	3.23 ***
35-39 years	1.24 ***	1.77 ***	5.00 ***	1.68 **	1.71 ***	3.74 ***
40-44 years	1.48 ***	2.21 ***	6.85 ***	1.73 *	1.64 ***	4.48 ***
45-49 years	1.66 ***	2.08 ***	6.50 ***	1.53 *	1.63 ***	2.63 ***
50+ years	1.24 **	2.00 ***	5.94 ***	0.64	1.33 *	1.55 ***
Experience within the sector (Ref. Less than one year)						
One year	3.32 ***	2.18 ***	1.79 ***	4.08 ***	2.86 ***	6.48 ***
Two or more years	6.34 ***	3.64 ***	11.98 ***	6.01 ***	4.01 ***	25.61 ***
Experience × Age						
One year of experience and aged...						
... 25-29 years	0.83 **	0.72 ***	0.63 **	0.45 **	0.63 **	0.55 *
... 30-34 years	0.88	0.81 *	0.51 ***	0.58 *	0.57 ***	0.44 **
... 35-39 years	0.92	0.74 **	0.49 ***	0.68 *	0.69 *	0.51 **
... 40-44 years	0.99	0.71 **	0.44 ***	0.80	0.75	0.45 **
... 45-49 years	1.06	0.88	0.54 ***	0.79	0.90	0.74
... 50+ years	0.92	0.81	0.62 ***	0.70	0.75	0.72
Two or more years of experience and aged...						
... 25-29 years	1.07	0.77 ***	0.70 **	1.22	0.77 *	0.60 *
... 30-34 years	1.19 *	0.87	0.74 *	1.31	0.84	0.66 *
... 35-39 years	1.36 ***	0.90	0.80 *	1.41 *	0.91	0.74
... 40-44 years	1.70 ***	1.26 **	1.06	2.28 **	1.05	0.72
... 45-49 years	1.38 **	0.95	0.86	1.37	1.11	1.16
... 50+ years	1.34 ***	0.83 *	0.69 **	1.23	1.01	1.26
Has been employed by a size 3 or 4 organisation specialised in the dance sector (Ref. No)						
Yes	4.59 ***	0.84 ***	1.79 ***	2.86 ***	3.45 ***	6.20 ***
Has been employed by a size 3 or 4 organisation specialised in the circus arts sector (Ref. No)						
Yes	2.53 ***	5.79 ***	11.98 ***	4.08 ***	0.72 ***	1.44 ***

\* For both populations studied, the model presented has been selected following a step-by-step procedure that aims to avoid using the Akaike information criterion to compare quality across models as far as possible.

Notes: \*\*\*, \*\*, \* corresponds to  $p < 0.001$ ,  $p < 0.01$ ,  $p < 0.05$ .

Reading Note: All else being equal (i.e. once the estimated effects for the other variables introduced into the model have been tested), a man is 1.16 times more likely to be included in the D3|D4 segment rather than the D1|D2 segment compared to a woman. In other words, all else being equal, a man working in dance is 16% more likely to be part of the "professional core" segment than a woman.

Sources and Coverage: See Table 1.

2016, and of -5.2% for circus arts over the same period (Figure VIII). In other words, while both populations continue to grow, the turnover rate seems to be stalling, which implies that the populations are ageing.

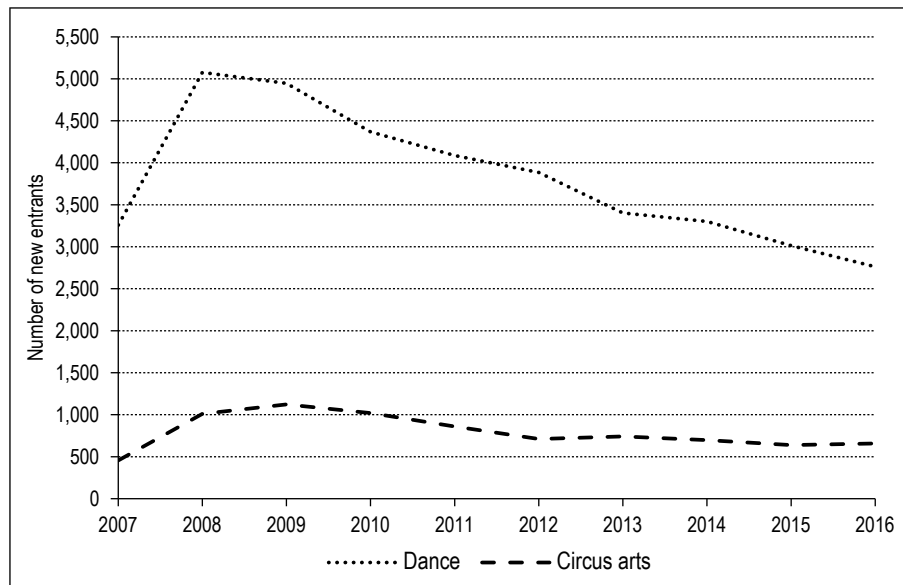
Looking at it in greater detail, we see that the average age increases in both sectors studied. For

dance, it rises from 33 years to 35 years, with an average annual increase of +0.6%. For circus arts, it rises from 34.2 years to 36.4 years, with an average annual increase of +0.8% (Table 5). However, this observation needs to be qualified with regard to the general ageing of the French population. Between 2007 and 2015, this

## Box 2 – Structure and Characteristics of the Cohorts

The cohort for year  $N$  is composed of subjects who carried out at least 1 hour of work covered by Annex VIII or Annex X during year  $N$  but no work at all during the years prior to this. In this respect, the available data make it possible to limit left-censorship bias to a huge extent as we have information about contracts prior to the observation period (2006-2016) and more specifically the date of the first contract registered with Pôle Emploi (with the oldest contracts dating back to 1997). However, the retrospective nature of the data is only fully ensured from 2007 onwards, when the AEM and DUS databases were consolidated. In fact, the 2006 cohort was excluded from the analysis because no guarantee can be given that this cohort is exclusively composed of “genuine” new entrants, unlike cohorts for subsequent years. Likewise, 2016 is only given as an estimate, as the outcome for individuals in 2017 is only partially known. On this basis, the dataset allows us to create 20 cohorts of varying size, composed exclusively of “genuine” new entrants and designed on the basis of the following indicators: a) subjects present for the first time in year  $N$  (2007 to 2016, i.e. 10 annual cohorts); b) subjects carrying out at least one hour of work in the dance or circus arts sector during year  $N$  (i.e. 2 fields of activity).

Figure VIII – Change in the volume of new entrants



Reading Note: In 2007, the number of workers not included in the database in previous years who claimed to have completed at least one hour of dance related work is 3,257. This figure is 3,014 in 2016.

Sources and Coverage: Pôle Emploi. All workers covered by Annexes VIII & X for the first time who claimed to have completed at least one hour of work relating to the dance or circus arts sector during the year.

population’s average age rose from 39.6 years to 40.9 years, with an average annual increase of +0.4% (INSEE, 2020). The trend observed in the population of arts workers is therefore part of this general movement, even though other factors are at play. Furthermore, these prospective arts workers have specific characteristics compared to those who are already active in the field. While the average age of new entrants is, unsurprisingly, 5 to 7 years lower than the overall population and remains stable over the period studied, we also see that women are slightly over-represented among these cohorts, with differences ranging from +0.5 to +5%. However, the main difference relates to the employment profiles, as the extreme majority of prospective arts workers are confined to the “specialised reduced activity” segments (fewer than 500 hours worked over the year of which more than 50% in the selected field), which is the case for 85% to 90% of new entrants in the dance

labour market and 75% to 85% of new entrants in circus arts. The proportion of those entering the “professional core” directly from their first year of work is therefore very limited, which highlights how seldom new entrants quickly integrate themselves fully into the profession.

Given the propensity of new entrants to be peripheral figures in the arts labour market – at least initially – we need to understand what proportion of them manages to last in the sector despite all the challenges they face. For descriptive purposes, a series of length-of-service curves was constructed for each of the cohorts using the Kaplan-Meier method (figure IX).<sup>7</sup> As a

7. Anyone who claimed to have completed at least one hour of work during year  $N$  and zero hours during subsequent years is considered to be excluded from the scope of Annexes VIII & X. The end date of the last known contract can be used to determine effective exit dates. This makes it possible to measure working periods using continuous time (fraction of a year in which the worker was active) rather than discontinuous time (full year in which the worker was active).

Table 5 – Characteristics of the entrant cohorts with regard to annual populations

A – Dance	2007	2008	2009	2010	2011	2012	2013	2014	2015
Individuals in the sector	11,750	14,807	17,171	17,856	18,291	18,476	18,502	18,525	18,886
Entrants during year <i>N</i>	3,257	5,076	4,946	4,368	4,087	3,885	3,403	3,302	3,014
Entry rate during year <i>N</i> (%)	27.7	34.3	28.8	24.5	22.3	21.0	18.4	17.8	16.0
Average age									
Individuals in the sector	33.0	33.0	33.2	33.5	33.7	33.7	34.0	34.3	35.1
Entrants during year <i>N</i>	29.1	30.4	29.9	29.0	28.9	28.5	28.9	28.6	28.2
Proportion of women (%) among									
Individuals in the sector	61.5	62.1	62.2	61.7	62.6	61.7	62.4	61.7	60.1
Entrants during year <i>N</i>	62.9	66.5	66.7	65.4	67.2	65.6	64.8	64.1	60.8
Employment profile of individuals within the sector (%)									
D1 D2	55.6	61.8	61.2	60.2	59.3	58.7	59.3	58.1	54.4
D3 D4	21.9	18.0	17.7	18.3	18.0	19.1	18.4	18.5	18.6
Other 1 2	12.8	11.7	12.4	12.2	12.3	12.4	12.2	12.1	12.2
Other 3 4	9.7	8.5	8.7	9.3	10.5	9.8	10.1	11.3	14.9
Employment profile of entrants during year <i>N</i>									
D1 D2	86.6	89.7	88.6	90.6	91.4	90.8	89.7	90.9	89.8
D3 D4	4.6	2.9	4.2	4.0	3.0	4.1	4.4	3.9	4.6
Other 1 2	8.0	7.1	6.7	4.9	5.0	4.6	5.2	4.9	4.9
Other 3 4	0.9	0.3	0.5	0.5	0.7	0.4	0.7	0.3	0.7
Retention rate of year <i>N</i> entrants during year <i>N</i> +1 (%)									
	56.7	66.3	59.1	55.5	53.3	53.3	49.7	47.0	46.6
B – Circus arts	2007	2008	2009	2010	2011	2012	2013	2014	2015
Individuals in the sector	2,272	3,241	4,012	4,387	4,390	4,565	4,701	4,727	4,724
Entrants during year <i>N</i>	456	1,010	1,123	1,020	860	711	741	698	639
Entry rate during year <i>N</i> (%)	20.1	31.2	28.0	23.3	19.6	15.6	15.8	14.8	13.5
Average age (years)									
Individuals in the sector	34.2	35.2	35.1	34.8	35.1	35.3	35.6	35.9	36.4
Entrants during year <i>N</i>	30.6	36.0	32.0	30.2	30.9	29.9	29.7	30.2	29.8
Proportion of women (%) among									
Individuals in the sector	36.8	35.5	36.5	37.3	36.4	36.4	37.4	38.6	39.8
Entrants during year <i>N</i>	37.5	34.4	38.7	36.0	36.1	36.0	39.5	41.7	43.5
Employment profile of individuals within the sector (%)									
C1 C2	34.5	43.8	46.9	45.9	43.9	42.8	44.1	41.6	42.3
C3 C4	18.1	15.1	13.9	16.2	18.5	18.8	18.4	19.8	18.8
Other 1 2	22.1	22.1	21.7	20.6	19.8	19.7	20.0	19.1	18.8
Other 3 4	25.4	19.1	17.5	17.4	17.9	18.8	17.5	19.4	20.2
Employment profile of entrants during year <i>N</i>									
C1 C2	74.6	81.7	81.2	80.9	82.8	80.3	83.3	85.0	86.5
C3 C4	5.9	2.9	2.4	5.9	7.1	7.2	5.3	4.9	5.2
Other 1 2	17.1	14.2	14.6	12.2	8.8	11.0	10.8	9.2	7.4
Other 3 4	2.4	1.3	1.8	1.1	1.3	1.6	0.7	1.0	0.9
Retention rate of year <i>N</i> entrants during year <i>N</i> +1 (%)									
	62.1	69.4	65.6	60.7	57.6	56.6	53.4	44.3	43.5

Reading Note: In 2007, 11,750 individuals completed at least one hour of work in the dance sector, 3,257 (27.7%) of whom were new entrants. During the following year, 56.7% of the workers in this latter group were still carrying out work covered by Annexes VIII & X (whether in dance or another art). This was the case for 33.4% of the workers five years later. The remainder had not completed any declared work in the sector at that point in time. Sources and Coverage: See Table 1.

result, we see that the rate of exclusion increases steadily over the years, with the exception of 2008 – an outlier in which retention rates are at their highest levels.<sup>8</sup> This acceleration is more pronounced during the first year of work. In other words, while the number of new entrants tends to decrease, which could theoretically

limit the phenomena created by competition between prospective arts workers, the probability of remaining in the sector decreases over the period, in line with a trend that remains rarely

8. This year was marked by the full entry into force of the FPS (see above).

documented in the literature. To understand this phenomenon in greater detail as well as the conditions under which individuals can continue working on a long term basis, and avoiding right-censoring bias, only the cohorts from 2007 to 2011 have been retained for the remainder of the analysis. To make the cohorts fully comparable, they were first shortened by including only the first five years of work (Figure X). These five cohorts were then subjected to double modelling to determine which factors maximise “longevity” in the entertainment sector (Box 3).

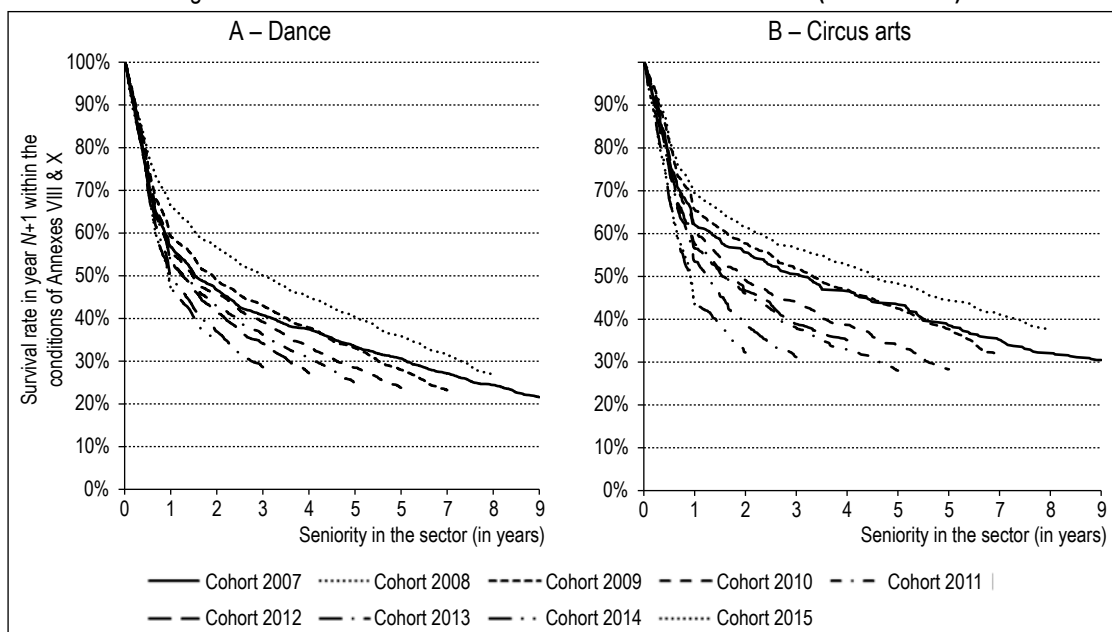
The parameters of the accelerated failure time (AFT) and proportional hazard (PH) models with time-dependent effects and covariates<sup>9</sup> converge and confirm the finding derived from the Kaplan-Meier curves (Table 6). The exclusion phenomena are accelerating across the cohorts, an acceleration that is greater in the circus arts than in dance, even though the average exclusion rates are more marked within the dance sector. Compared to the 2007 cohorts taken as a reference, the probability of employees ceasing work during the first five years is 1.5 times higher for the 2010-2011 dance cohorts and 2.2 times higher for the 2010-2011 circus arts cohorts. Furthermore, as evidence of the variability of the covariates’ effects over time, it appears that the returns to belonging to the “professional core” increases during the first years of employment. This then falls as of the fifth year in the sector. According to a ratio approaching +0.5, compared to inclusion

in segments D1|D2 or C1|C2, inclusion in segments D3|D4 or C3|C4 during the first year of work is a factor that lowers the probability of exclusion during the following year. In the dance sector, 50% to 64% of new entrants belonging to the D1|D2 segments during the first year continue to work in their second year, compared to 74% to 84% of those in the D3|D4 segments. In the circus arts sector, these figures range from 52% to 64% and from 68% to 85%, respectively. This protective effect increases further in years 2 to 4, logically demonstrating that a worker’s rapid and strong professional integration protects them from exclusion. However, this effect dissipates in the fifth year of work, implying that the employment profile is no longer the only variable to influence retention within the sector, with other factors (such as advancing age, type of employer, reputation, health, maternity/paternity) visible in our data to varying degrees coming into play from year 5 (Bourneton *et al.*, 2019).

In a nutshell, employment conditions which are becoming more restrictive year on year mean that “new entrant” cohorts are finding it increasingly difficult to stay in employment even though there are fewer of them. The lower level of competition between those who are “attempting” to access

9. The Schoenfeld residuals-based analysis (not presented here) on PH models carried out in accordance with the standard method, show that the proportional relative hazards-related assumption is incorrect for the data used, which makes it necessary to use more complex models.

Figure IX – Survival rates of the dance and circus arts cohorts (2007 to 2015)



Reading Note: of the 3,257 workers who entered the field of dance in 2007, 21.6% are still carrying out work covered in Annexes VIII & X nine years later, in 2016.  
Sources and Coverage: see Figure VIII.

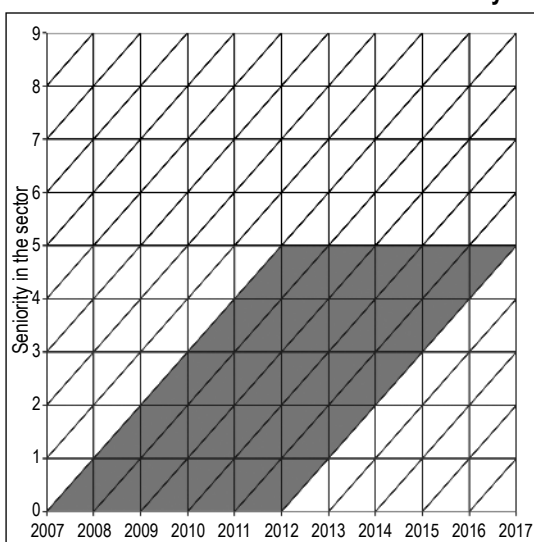
**Box 3 – Parametric and Semi-parametric Event History Analysis Models**

Event history analysis is used to statistically model the time factor ( $t$ ) in the likelihood of a given event (death, marriage, birth, exit from labour market, etc.) occurring before the end of the observation phase at time  $T$ , such that  $S(t) = Pr\{T > t\}$ . It distinguishes between two main groups of continuous time-based methods:

- parametric methods (such as accelerated failure time (AFT) modelling) which model the time preceding a given event (Kalbfleisch & Prentice, 2002); and
- semi-parametric methods (such as the Cox proportional hazards (PH) model) which model the occurrence of the event (Therneau & Grambsch, 2002).

While AFT models can be interpreted intuitively, one drawback is that they have to rely on the *a priori* specification of the basic instantaneous risk distribution function ( $\lambda_0$ ). This function, which may follow a Weibull, exponential, logistic or log normal distribution, among others, is unknown in most cases, which leads to a process of trial and error and a comparison of models based on different distribution laws. Conversely, PH models refrain from any guesswork with regard to the distribution of the basic hazard ( $\lambda_0$ ) but they have the drawback of being based on the assumption of proportionality of the effects of the co-variables as a function of time and temporal invariability of the value of those co-variables. However, this is not always the case. PH models of greater complexity (stratified and/or with time-dependent explanatory factors) can be used to overcome this problem, as this analysis has done.

**Figure X – Lexis Diagram illustrating the cohorts selected to model continued activity**



Note: The data and outcomes for the cohort entering the scope of Annexes VIII & X in 2007 are available up until the end of 2016. However, the data kept for the continued activity analysis relate only to the first five years of activity in the sector (2007 to 2011). The same monitoring time-frame of five years is used for subsequent cohorts, up until the cohort for 2011 (i.e. 2011 to 2015).

the sector therefore has no impact on competition with those already active and “established” in the sector. In other words, competition within the secondary segments is coupled with competition between secondary and primary segments, the latter tending to operate as a form of internal market (Doeringer & Piore, 1971).

\* \*  
\*

The aim of this article was to describe two of the segmentation factors in the artistic jobs system – job structure and volume of work – and to observe how these have changed over

time in the fields of dance and circus arts in France. While highlighting the fact that employment conditions have generally become more restrictive throughout the 2006-2016 period, the results presented also clearly illustrate the division between the primary segment – which includes the “established” artists – and the secondary segment – composed of the most vulnerable artists, primarily those who are “attempting” to enter the sector (Buscatto, 2008). The two artistic fields studied are stuck in a kind of paradox. The overall number of artists continues to grow, yet turnover rates are falling and the conditions for new entrants to remain in work are becoming increasingly challenging. While it is difficult to provide a direct answer to the question put forward by Menger (2011) concerning the respective effects of cyclical variations and regulatory changes, the fact remains that the 2007-2008 period – which was marked by the entry into force of the FPS – appears to be unique in terms of both the observable employment profiles and the high retention rates of workers who entered the sector in this context. There appears to be a lag as the data for subsequent years “catch up” with what went before. The subsequent question, which we still cannot answer due to the lack of a sufficient observation window and long series data, concerns the possible existence of cyclical effects, where there is a high influx of new entrants benefiting from an “advantageous” regulatory system, followed by a decline of this influx in so far as the prospective workers would be faced with competition from “established” artists from the previous phase, followed by relatively large-scale turnover due to the end of the performance careers of artists from the first phase, etc. This would thus add a procedural and temporal aspect to the analysis of the

Table 6 – Estimation of the continued activity of the 2007-2011 cohorts

	Dance population		Circus arts population	
	Generalised gamma AFT (exp <sup>coef</sup> )	Cox model (exp <sup>coef</sup> )	Generalised gamma AFT (exp <sup>coef</sup> )	Cox model (exp <sup>coef</sup> )
Time of entry into the sector (Ref. 2007)				
2008-2009	0.96	1.05	0.78*	1.33*
2010-2011	0.67***	1.49***	0.49***	2.21***
Gender (Ref. Female)				
Male	1.02	0.99	1.00	1.00
Age at point of entry into the sector (Ref. Under 25)				
25-29	0.99	1.02	1.03	0.98
30-34	1.00	1.00	1.03	0.97
35-39	0.95	1.06	0.87	1.17
40-44	1.00	1.00	0.87	1.19
45-49	0.96	1.04	0.94	1.08
50 or over	0.77***	1.29***	0.79**	1.32**
Area of residence at point of entry into the sector (Ref. Île-de-France)				
Other regions	1.00	1.00	1.10	0.90
Employment profile during year N (Ref. D1 D2 or C1 C2)				
D3 D4 or C3 C4 – Year 1	2.16***	0.44***	1.50*	0.65*
Year 2	4.75***	0.20***	1.69**	0.55**
Year 3	8.86***	0.11***	4.94***	0.17***
Year 4	11.11***	0.09***	6.94***	0.13***
Year 5	7.29***	0.16***	2.04*	0.47*
Other 1 2 – Year 1	2.55***	0.37***	2.65***	0.33***
Year 2	4.28***	0.23***	2.73***	0.34***
Year 3	4.04***	0.26***	1.89***	0.51***
Year 4	3.95***	0.28***	1.66**	0.60**
Year 5	3.04***	0.37***	1.37	0.72
Other 3 4 – Year 1	3.68***	0.24***	2.41*	0.36*
Year 2	5.04***	0.19***	4.21***	0.21***
Year 3	9.41***	0.10***	6.35***	0.13***
Year 4	17.02***	0.06***	6.82***	0.13***
Year 5	10.11***	0.11***	2.81*	0.33*
Has been employed by a size 3 or 4 organisation specialised in the dance sector (Ref. No)				
Yes	1.20***	0.83***	1.30*	0.76*
Has been employed by a size 3 or 4 organisation specialised in the circus arts sector (Ref. No)				
Yes	1.67***	0.59***	1.00	1.01
Number of subjects	21,734		4,469	
Number of right-censored subjects	7,038		1,750	

Note : significant at  $p < 0.001$  \*\*\*,  $p < 0.01$  \*\*,  $p < 0.05$  \*.

Reading Note: The AFT models presented use a generalised gamma link function with the parameters  $\mu = 1.01$ ;  $\sigma = 1.10$ ;  $k = 0.72$  for dance data and  $\mu = 1.48$ ;  $\sigma = 1.00$ ;  $k = 0.78$  for circus arts data. With all else being equal (i.e. workers from the 2007 cohort, under 25 years of age, living in Île-de-France, etc.), the length of time a man remains in work is 2% (1.02-1) higher than for a woman within the dance sector. And yet, the probability of a man exiting the sector within the first 5 years of employment is 1% (1-0.99) higher than for a woman. These two example deviations are not statistically significant.

Sources and Coverage: Pôle Emploi. All workers covered by Annexes VIII & X for the first time who claimed to have completed at least one hour of work relating to the dance or circus arts sector during the year.

segmentation of these labour markets. Beyond the data processing already carried out, the data used could also be examined using sequence analysis (Robette, 2011) that aims to produce indicators of “stability” for the career paths and a typology of these paths in order to test how their distribution is altered by the changes in regulation. If “multiple disciplines” are part and parcel of artistic professions (Bureau *et al.*,

2009; Gouyon, 2011; Perrenoud & Bataille, 2017), it can then be assumed that this is more or less encouraged, favoured, or even caused by the regulatory framework and the restrictive nature of the conditions of access to the “professional core” segment. This sheds light on the underlying mechanisms for implementing a support policy for artists, in a country that regularly declares its commitment to culture and its



actors, stating, for example, that “culture cannot exist without creation. And nothing gets created without artists. We need culture, which means we need artists”.<sup>10</sup> Rhetoric aside, defining the conditions that enable professional artistic work

to be carried out over the long term is the real issue here. □

10. Speech to promote French creative endeavours delivered by F. Riester, Minister for Culture, at the Cité internationale des arts artist residency centre on 19 March 2019.

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## APPENDIX

## NOMENCLATURE OF ARTISTIC AND TECHNICAL JOBS IN THE ENTERTAINMENT INDUSTRY

In the early 2000s, Pôle Emploi and the CPNEF-SV, with the assistance of a team from the Marcel Mauss Institute (formerly CSA and CESTA, then CESPRA), produced a classification system for jobs in the entertainment industry. The purpose of this system was to promote standardised statistical recording of working situations (Menger *et al.*, 2001).

In order to achieve a more or less fine “grain” of definition, this nomenclature, which has been revised yet is still in force, lists the following organisational hierarchy: 3 branches (artists, technical staff, administrative staff); 18 fields of activity (professionals in props, professionals in the circus and visual arts, choreography professionals, etc.); 60 professional groups (sound technician, costume designer, musician, lighting director, circus artist, etc.); and 1,388 job codes that cover the smallest work unit identified in the AEM and DUS databases (ballet dancer, music hall dancer, variety show dancer, juggler, trapeze artist, high-wire artist, etc.).

The job codes that correspond to the professional groups of “dancers” and “circus artists” and which set the limits of our survey are as follows:

Professional group	Job code
Dancer	Choreographer or choreographic artist
	Revue performer
	Entertainer
	Music hall performer
	Ballet artist
	Dancer
	Ballet or company dancer
	Music hall dancer
	Variety show dancer
	Solo dancer
	Ballet extra
	Principal dancer
	Stripper
	Circus artist
Foot juggler	
Circus artist	
Falconry artist	
Bolas juggler	
Boleadoras circus artist	
Circus rider	
Clown	
Contortionist	
Tamer	
Trainer	
Stilt-walker	
Equilibrist	
High-wire artist	
Tightrope walker	
Juggler	
Trapeze artist	
Acrobat	

