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# French Decentralisation of the Performing Arts and Regional Economic Disparities

**DANIEL URRUTIAGUER**

**Abstract.** Standard deviation, the Gini coefficient, entropy measures and Atkinson's indexes are used to study the French regional inequalities for per capita subsidies to the performing arts, as compared to GDP per worker, from 1992 to 2002. The two former indexes are more sensitive to transfers around average, while the others are more sensitive to transfers at the lower end of the distribution scale. Whereas regional disparities remained stable for GDP per worker, they decreased for per capita subsidies to institutions and companies but increased for festivals. State subsidies are less unequal than local grants, so that a balanced decentralisation seems to rely upon some State control.

**Key words:** decentralisation, inequality measures, subsidies, performing arts

## 1. Introduction

The French public authorities' policies may contribute to reducing regional economic disparities. Martin-Houssard and Tabard (2002) note that public facilities have a spatial distribution that is less unequal than commercial services. Davezies (2001) explains that income gaps between the French Regions regularly decreased from 1965, primarily because peripheral regions attracted enterprises owing to their lower wages. Since the 1980s, however, the role of income redistribution with social security benefits and subsidies has been growing.

Decentralisation of the performing arts combines these distribution channels with a setting up of public theatres outside Paris, and production or investment subsidies. From 1946, Jeanne Laurent was the first to boost the process as Director of Shows and Music at the Ministry of National Education. French governments were claiming their leadership in cultural policies, especially in appraising the artistic quality of shows. From the seventies, the financial involvement of local authorities increased so much that the State had to share its control of artistic criteria. In 1982 the decentralisation laws gave more financial autonomy to local authorities<sup>1</sup>, while the Culture Ministry's budget doubled. As a result, local subsidies increased substantially during the eighties. From 1992 a law forced government administrations to engage in a process of more extensive devolution. The Ministry of Culture now plays a role of co-ordination, essentially, whereas its Regional Divisions (DRAC) are in charge of subsidy distribution and artistic recognition.

Subsidies account for around 80% of the income of those French performing arts organisations that are officially approved on a national scale. The share is about 40% for the theatrical, choreographic and musical companies which are grant-aided<sup>2</sup>. As the artistic supply depends on the development of subsidies, I have chosen them as a good proxy for the possible output of performing arts organisations. First, I propose to study the disparities in the distribution of their State and local subsidies, as compared to regional economic inequalities. The Gross Domestic Product per employed worker (GDPpw) is more suitable than the usual GDP per capita to measure the economic

capacity of a Region because some workers commute from outside their Region. The GDP per worker can thus avoid significant distortions in some Regions. The age structure of the regional residents also influences the GDP per capita, which is less relevant to measure the real inequality in regional value added. (Canaleta, Arzoz and Gárate, 2004, p. 76). Per capita subsidies indicate the financial commitment of public authorities in the possible regional production and programming of the performing arts<sup>3</sup>.

I will therefore compare the regional inequalities of Gross Domestic Product per worker and subsidies per capita from 1992, when the devolution law was passed, to 2002, a year for which far more data on local subsidies are available. The data on GDP, employment and population were provided by INSEE, the French statistics institute, and are provisional for 2002.

As Dalton (1920) noted, it is necessary to rely upon the corroboration of several measures of inequality since their diagnosis does not always converge. Standard deviation, the Gini coefficient, entropy measures and Atkinson's indexes are the four main kinds of measurement used in this study.

The measurement of regional inequalities in subsidies is presented here in two steps. I first define the meaning of the various standard indexes and then break down the data that I collected on the budgets of French performing arts organisations (§ 2). In the next section I compare the evolution of the inequality indexes for GDP per worker and subsidies per capita to performing arts institutions, companies and festivals, for the period from 1992 to 2002 (§ 3). To evaluate how far the subsidies distribution may have corrected the regional inequalities requires breaking down the different public authorities' grants and the subgroups of nationally approved organisations (§ 4).

## **2. Measurement of regional inequalities for performing arts subsidies**

In this section I first present the four types of inequality measures. I then specify the characteristics of the subsidised organisations which produce or programme performing arts shows in mainland France and overseas Regions.

## 2.1 THE INEQUALITY MEASURES

Different indexes of inequality are based on alternative ethical assessments (Atkinson, 1970). Hence, the four types of measure should be taken into account with their contributions and limitations.

Two indexes refer to standard deviation. The first is the usual coefficient of variation ( $V$ ), which is the ratio between the standard deviation and the average of a distribution. I chose to use the square of this coefficient ( $V^2$ ) since this measure, unlike the former, is both additive and decomposable<sup>4</sup>. (Bourguignon, 1979; Shorrocks, 1980)

Another index is the standard deviation of the logarithms of the selected variable. *Sigma* is given by

$$\sigma = \sqrt{\sum_i p_i (\ln x_i - \ln \bar{x})^2} \quad (1)$$

where  $x_i$  is the GDP per worker (or subsidy per capita) in region  $i$ ,  $\bar{x}$  is the national GDP per worker (or the national subsidy per capita) and  $p_i$  is the ratio of regional employment (or population) to national employment (or population). However, the standard deviation of the logarithms of income levels is not S-concave, and so a higher Lorenz curve may be considered to be worse (Dasgupta, Sen, and Starrett, 1973, p. 187).

A second kind of measure is the Gini coefficient  $G$ , which corresponds to twice the area included between the Lorenz curve and the line of perfect equality. It is given by

$$G = 1/2\bar{x} \sum_i p_i \sum_j p_j |x_i - x_j| \quad (2)$$

Whereas the standard deviation is more sensitive to transfers lower down the distribution scale, the Gini coefficient compares each Region with those that are better off and attaches more weight to transfers affecting the Regions ranked in the middle. A social welfare function which ranks income distributions in the same way as the Gini coefficient cannot be additive (Newberry, 1970, p. 264) or strictly quasiconcave (Rothschild and Stiglitz, 1973, p. 199). Another problem with the Gini coefficient is that the marginal social rate of substitution between incomes accruing to two regions is

independent of the actual income difference between them (Dasgupta, Sen and Starrett, 1973, p. 186).

The third type of inequality indexes concerns entropy measures. The generalised entropy index with a parameter  $\beta$ , for a population of  $n$  members  $i$  who each earn an income  $x_i$ , is given by

$$I_{\beta} = \frac{1}{n\beta(\beta+1)} \sum_i \frac{x_i}{x} \left[ \left( \frac{x_i}{x} \right)^{\beta} - 1 \right] \quad (3)$$

Theil's coefficient  $T$  (Theil, 1967) is the generalised entropy index when  $\beta$  tends towards 0. By applying (3) to GDP per worker or subsidies per capita,  $T$  can be expressed as

$$T = \lim_{\beta \rightarrow 0} I_{\beta} = \sum_i p_i \frac{x_i}{x} \log \left( \frac{x_i}{x} \right) \quad (4)$$

When  $\beta$  tends towards 1, the generalised entropy measure is equivalent to the Hirschman-Herfindhal index  $HH$ . It is given by

$$HH = \lim_{\beta \rightarrow 1} I_{\beta} = \frac{1}{2} \sum_i p_i \frac{x_i}{x} \left( \frac{x_i}{x} - 1 \right) \quad (5)$$

The square of the coefficient of variation and  $HH$  give redundant information since we may infer from (5) that  $HH = 1/2V^2$ . I will therefore keep only  $V^2$  and consider it as an entropy measure.

Bourguignon (1979) proves that the only inequality measure which is differentiable, symmetric, decomposable and homogeneous at degree zero in all incomes is given by

$$L = \log(\bar{x}) - \sum_i p_i \log(x_i) \quad (6)$$

Dagum (1998) infers from (6) that this difference between the logarithms of the arithmetic mean and the geometric mean is the limit of the generalised entropy index when  $\beta$  tends towards  $-1$ .

Atkinson (1970) computes a measure of inequality from a utilitarian social welfare function, which is assumed to maximise welfare when incomes are equally distributed. He proposes a fourth type of

index  $A(\varepsilon)$ , for which  $\varepsilon$  is a positive measure of the degree of inequality aversion in the society.  $A(\varepsilon)$  can be expressed as

$$A(\varepsilon) = 1 - \left[ \sum_i p_i \left( x_i / \bar{x} \right)^{1-\varepsilon} \right]^{\frac{1}{1-\varepsilon}} \quad \text{when } \varepsilon \neq 1$$

and 
$$A(1) = 1 - \exp \left[ \sum_i p_i \log \left( x_i / \bar{x} \right) \right] \quad (7)$$

I will choose two levels of aversion to inequality, a low one when  $\varepsilon = 1$  and a medium one when  $\varepsilon = 2$ . Dagum (1998, p. 182) proves that Atkinson's indexes are more sensitive to the transfers lower down the distribution.

## 2.2 SUBSIDISED PERFORMING ARTS ORGANISATIONS

The subsidy distribution to performing arts organisations depends on the label that public authorities grant to acknowledge the artistic quality and/or social utility of their production. There are three main types of organisation: national institutions, which have a seasonal programme, companies, and festivals.

### 2.2.1 The national institutions

There are five categories of nationally approved institutions, for which I give the main budget characteristics in 2002: opera houses, national theatres, permanent orchestras, national drama or choreographic centres and *scènes nationales*. I then present the available information on the town cultural establishments, some of which have recently received national approval

The largest institutions are the 13 opera houses<sup>5</sup>, which are mainly subsidised by the city councils, except for Paris, and the five national theatres, which benefit only from state subsidies and receive a

quarter of the grants that the Ministry of Culture dedicates to theatre. Their average annual budget was €14.6 million in 2002.

Following them are the 24 permanent orchestras with an average budget of €6m, for which the city councils and State provide respectively 45% and 29% of their subsidies.

Next in line are the 42 drama centres<sup>6</sup> (NDC), of which the manager directs theatrical shows and buys outside programming. They are mainly subsidised by the State, with an average budget of €3.2m. The 19 national choreographic centres (NCC) are also specialised in the production and diffusion of dance. The State provides half of their subsidies and their average budget is €2.1m.

The *scènes nationales* (SN) stand out owing to their multi-field programming although it is mainly composed of theatrical plays. Their status is lower since their manager is not usually a director and they are mainly subsidised by local authorities. Their average budget was around €3.2m in 2002. Their number increased from 57 in 1992 to 70 in 2002.

Subsidies accounted for 81% of the opera houses', orchestras' and national theatres' income in 2002. The ratio was 69% for NDC and 63% for SN and NCC.

About 130 town cultural establishments recently received a national label as a '*scène conventionnée*' or a '*scène de musiques actuelles*'. Nevertheless, the Ministry of Culture and its Regional Divisions (DRAC) do not always have the same information on the issue of official approval. Furthermore, the data of these establishments are too partial for 1992. Hence, the evolution of grants to these organisations cannot be compared. A detailed spatial distribution of the subsidies to the town cultural establishments is only available in 1994. The inventory of the Ministry of Culture has shown that 667 organisations were regularly programming professional shows with identified prices. Their multi-field programming gave priority to theatre. The town councils provided three quarters of the subsidies, and their average budget was about €90,000. (Rouchard, 1996). I can therefore only use these data of 1994 as a reference to compare how the State and local authorities are involved in supporting regional cultural organisations.



### 2.2.2 The companies and festivals

In 2002 the DRAC recorded 618 professional theatrical troupes, 231 dance companies, and 255 vocal and musical groups that received subsidies from government and local authorities.

The three-year convention, which defines minimal duties<sup>7</sup> and regular subsidies for this period, had been granted to 334 companies. The revision of subsidies each year concerned 110 groups whereas 661 companies received subsidies for a 'creation plan' only. Their mean subsidy was €141,500, €62,700 and €28,900, respectively.

The State, town councils, Departments and Regions provided 51.1%, 16%, 13.2% and 19.7% of their subsidies, respectively. The share of State subsidies is highest for the dance companies with a convention (63.5%) and lowest for the vocal and musical groups with a grant for a 'creation plan' (34.6%).

The DRAC recorded 335 grant-aided metropolitan performing arts festivals in 1992 and 360 in 2002. Data are unavailable for the overseas Regions. Music is the main discipline for 60% of the festivals. The mean subsidy was €230,000 in 2002. Unlike the companies, festivals are mainly subsidised by the local authorities. The State, town councils, Departments and Regions provided 23.6%, 35.9%, 22.7% and 17.8% of the grants, respectively. The share of state subsidies is a little higher for theatre and dance festivals (28.8%).

Unfortunately, data on companies and festivals are available only for State subsidies in 1992.

### 3. Regional disparities in GDP and subsidies to the performing arts

In this section I first compare, for 1992, the inequality measures for the Gross Domestic Product per worker and the regional distribution of the subsidies per inhabitant to the approved performing arts organisations. The available data concern all grants to the institutions, but only State subsidies to the companies and dance, music, theatre festivals. I then analyse trends in regional disparities from 1992 to 2002. My study covers the French Regions, except for Corsica where the Ministry of Culture does not subsidise theatre.

TABLE I. Indexes of regional inequalities for GDP per worker and subsidies per capita to the performing arts in 1992 and 2002

	<i>Sigma</i>	<i>Gini</i>	<i>Theil</i>	$V^2$	<i>L</i>	<i>A(2)</i>	<i>A(1)</i>
GDP pw 1992	0.1546	0.0828	0.0126	0.0261	0.0124	0.0235	0.0126
GDP pw 2002	0.1548	0.0834	0.0096	0.0271	0.0124	0.0235	0.0123
Sub. pc institutions 1992	1.729	0.267	0.127	0.265	0.269	1	0.252
Sub. pc institutions 2002	0.858	0.205	0.087	0.184	0.122	1	0.114
State sub. pc festivals 1992	0.875	0.417	0.316	0.843	0.326	0.472	0.278
State sub. pc festivals 2002	1.358	0.457	0.382	0.953	0.509	0.854	0.399
State sub. pc companies 1992	0.97	0.438	0.349	0.865	0.351	0.992	0.296
State sub. pc companies 2002	0.475	0.261	0.108	0.229	0.109	0.189	0.103

GDP pw = Gross Domestic Product per worker;

Sub. pc = subsidies per capita

Table I reports the seven indexes of regional inequalities presented above: Sigma, the Gini coefficient, Theil's index, the square of the coefficient of variation  $V^2$ , Bourguignon's index  $L$ , and Atkinson's indexes  $A(2)$ ,  $A(1)$ .

### 3.1 REGIONAL DISPARITIES IN 1992

All the indexes show that the distribution is more unequal for performing arts subsidies per capita than for GDP per worker. Thus, decentralisation in the performing arts is an incomplete process. One reason is the rejection of the plan for a rationally balanced grid on the territory from the 1960s, because of the better visibility afforded by establishments set up in big cities. Urban concentration and the growing number of car owners weakened the profitability of tours in rural districts. Furthermore, the government was becoming more pragmatic and preferred being the partner of only those local authorities that wanted co-operation. (Goetschel, 2000, p. 265)

For 1992 all the indexes, except for Sigma and  $A(2)$ , show that subsidies to the institutions are more equally distributed than State subsidies to companies and festivals. Sigma and  $A(2)$  are different because their computation overweighs the absence of institutions in two overseas Regions in 1992 (La Réunion and Guyana) whereas all the mainland Regions offered festivals and only Guyana did not subsidise companies.

Whereas the cumulated State subsidies to festivals and troupes in seven Regions did not exceed 7%, the share of Ile de France was 38.7% for festivals and 53.5% for companies, compared to 31.8% for the institutions. This concentration around Paris, especially for the companies, results from positive externalities linked to demand and producers' proximity.

Attendance at shows is positively correlated not only with social position and academic qualifications but also with town size. For instance, the last inquiry on French cultural practices in 1997 shows that 9% of the people who live in a rural area attended a theatrical performance at least once during the

year, compared to 48% of Parisians (Donnat, 1998, p. 253). Building up a reputation requires artists to present shows in Parisian theatres in order to attract critics and programmers. Furthermore, directors in Paris can more easily hire artists because so many of them are drawn to the city by the opportunities it affords to combine jobs in the performing arts, media and films. Finally, we can infer from Hotelling's model (1929) that there are two contrasting effects. The will to increase the market area encourages producers to set up their company in the middle of the market, whereas the risk of a price war prompts them to seek differentiation. As price competition is weak in the performing arts, there is pressure to concentrate around the main market. (Gérard-Varet, Mougeot, 2001, pp. 54-55)

### 3.2 TRENDS FROM 1992 TO 2002

Six out of seven indexes show that regional inequalities were relatively stable for GDP per worker from 1992 to 2002. Growth was fairly similar for the Regions of mainland France, but more contrasted for overseas Regions. Theil's coefficient is an exception, with a diagnosis of decreasing disparities. This difference results from the fact that Theil's index gives more weight to the two Regions, Provence and Alsace, for which GDP per worker dropped from above to below average.

Almost all the indexes show a substantial decrease of inequalities for the per capita subsidies to the institutions and companies. The only exception is A(2) for the institutions, as its computation overweighs the remaining lack of recognised institutions in Guyana. The creation of companies and institutions in mainland France is actually more balanced in 2002. From 1992 to 2002, Ile de France's share in State subsidies decreased from 53.5% to 33.5% for the companies, and from 31.8% to 20.8% for the institutions.

Compared to the institutions, Regional inequalities are smaller for the companies, according to Sigma, A(1) and A(2), fairly similar for Theil and Bourguignon's indexes, and greater for  $V^2$  and the Gini coefficient. Sigma, A(1), A(2), T and L are more sensitive to the lower dispersion of the per capita State subsidies to companies, which are close to average.  $V^2$  and G give more weight to the

Regions for which subsidies per inhabitant are between 20 and 40% below average, the number of which is higher for the companies than for institutions.

In contrast, all the indexes show a more or less substantial increase of the regional inequalities for the State subsidies to festivals from 1992 to 2002. The dispersion around the average is much greater. Half of the Regions in mainland France have State subsidies per capita less than forty per cent below average, whereas two Regions have them more than two hundred per cent above average.

Festivals are typical cases to illustrate the consumption and production externalities according to the local spending multiplier (Dupuis, 1992; Greffe, 2000). As the French local authorities are financing three quarters of their subsidies, we may expect a dynamic towards a more egalitarian decentralisation process. However, their driving force has caused increasing regional inequalities. Even though State subsidies are now close to average in Ile de France, the State has followed the pattern of sharply contrasting commitments by the local authorities.

#### **4. Decomposition of regional subsidies per capita to the performing arts**

In this section the analysis is refined by measuring inequalities within subgroups<sup>8</sup>. I first decompose the subsidy distribution in relation to the different public authorities. I then measure the regional inequalities for the different types of recognised organisations. Since the data are more complete for companies and festivals in 2002, I analyse the allocation of grants in that year.

##### 4.1 REGIONAL INEQUALITIES IN RELATION TO PUBLIC AUTHORITIES

We may wonder if State and local authorities contributed to the same extent to more balanced decentralisation. Table II reports the inequality indexes for the global subsidies per inhabitant to the performing arts, in relation to the different public authorities.

TABLE II. Indexes of regional inequalities for subsidies per capita to the performing arts in relation to the different public authorities in 2002

	<i>Sigma</i>	<i>Gini</i>	<i>Theil</i>	$V^2$	<i>L</i>	<i>A(2)</i>	<i>A(1)</i>
State subsidies	0.329	0.163	0.045	0.088	0.049	0.101	0.048
Municipal subsidies	1.082	0.350	0.200	0.421	0.277	0.996	0.242
Departmental subsidies	0.731	0.239	0.099	0.183	0.136	0.980	0.127
Regional subsidies	0.662	0.228	0.102	0.255	0.111	0.985	0.105
Total subsidies	0.360	0.177	0.059	0.116	0.059	0.125	0.057

All the indexes show that the State distribution of subsidies per capita to performing arts organisations is more equal than local authorities' grants. Municipal subsidies per inhabitant are the most unequal, according to all the indicators. The indexes rank regional subsidies per capita second, except for the square of the coefficient of variation, which estimates smaller inequalities for the Departmental grants.

The distribution of State subsidies is more balanced for the institutions and companies. As compared to local authorities, State subsidies are also far less unequal for the town cultural establishments in 1994. However, festivals are an exception since here the disparities are, by contrast, highest for State subsidies and lowest for regional grants.

In their review of literature on the role of the State in decentralisation, Canaletta and alii (2004) contrast the public choice theory with the 'Keynesian' perspective. In the former, a weaker State should lead to less regional disparity, whereas 'Keynesians' believe that decentralisation may weaken the effects of government policies to balance the distribution of production and employment among Regions. The French case shows that the administrative devolution of the State allowed a more balanced distribution of subsidies to performing arts institutions and companies from 1992. The

Ministry of Culture and its regional Divisions were instrumental in partially counterbalancing the spontaneous market concentration around Paris. We can conclude that decentralisation requires co-operation between the State and local authorities, for which the State should attend to territorial cohesion.

#### 4.2 REGIONAL INEQUALITIES IN RELATION TO TYPES OF ORGANISATION

Here I focus on the inequalities within groups of performing arts organisations in order to study how far the regional inequalities in subsidy distribution have been corrected. This should enable me to infer which factors may decrease disparities among recognised organisations.

Table III reports the inequality measures for the three kinds of institution: the permanent orchestras, the national theatres and dramatic or choreographic centres (NDCC) and the *scènes nationales* (SN). The computations are given for 1992 and 2002, as complete data are available.

TABLE III. Indexes of regional inequalities for subsidies per capita to performing arts institutions in 1992 and 2002

	<i>Sigma</i>	<i>Gini</i>	<i>Theil</i>	$V^2$	<i>L</i>	<i>A(2)</i>	<i>A(1)</i>
Orchestras 1992	6.103	0.361	0.313	0.529	2.137	1	0.919
Orchestras 2002	6.225	0.359	0.286	0.471	2.525	1	0.920
NDCC 1992	3.357	0.394	0.278	0.581	0.912	1	0.589
NDCC 2002	3.180	0.203	0.092	0.138	0.685	1	0.496
SN 1992	2.722	0.323	0.212	0.364	0.559	1	0.494
SN 2002	1.825	0.275	0.135	0.263	0.336	1	0.285

Sigma, Theil, Bourguignon and Atkinson's indexes show a more unequal distribution of subsidies per inhabitant for the permanent orchestras. They outweigh the absence of subsidised orchestras in overseas Regions and six Regions of mainland France. However, the square of the coefficient of variation and the Gini index rank the national theatres and dramatic or choreographic centres first in 1992. This classification results from a much higher concentration of their subsidies around Paris. Ile de France's share of subsidies to national theatres and dramatic or choreographic centres was 42.6% in 1992 compared to 21.3% for orchestras and 25.8% for *scènes nationales*.

The measures of the evolution from 1992 to 2002 give a clear diagnostic picture. All the indexes show that, in 2002, subsidy distribution is most unequal for the permanent orchestras and least unequal for the *scènes nationales*. Since the public authorities granted this label to thirteen new establishments during this period, they are better distributed on the national territory. They are still absent in only two overseas Regions.

The smallest gap is shown by the Gini index, as the concentration of subsidies decreased significantly for national theatres and dramatic or choreographic centres. Ile de France's share in their grants decreased from 42.6% to 18.9% from 1992 to 2002, whereas half of the Regions increased their share more than 50%. The shares of governmental and local grants were moving slightly closer together for all the institutions. This trend illustrates the positive effects of a greater commitment by local authorities under governmental supervision.

Table IV reports the inequality measures for the metropolitan festivals of music, theatre and dance, and for the different kinds of companies. I present the measures for the dramatic troupes, choreographic companies and vocal or musical groups, which benefit from a regular subsidy revised annually or every three years, or a grant for a 'creation plan'. In 2002, the data included state and local subsidies.

All the indexes show that those festivals specialised in theatre or dance have a more unequal distribution of subsidies per inhabitant than music festivals. Theatre and dance festivals are



concentrated more in the South-East and, compared to music festivals, their subsidies are very low in more Regions.

TABLE IV. Indexes of regional inequalities for subsidies per capita to performing arts festivals and companies in 2002

	<i>Sigma</i>	<i>Gini</i>	<i>Theil</i>	$V^2$	<i>L</i>	<i>A(2)</i>	<i>A(1)</i>
All the festivals	1.093	0.307	0.173	0.299	0.306	0.736	0.264
Music festivals	1.134	0.344	0.221	0.384	0.363	0.694	0.304
Dance or theatre festivals	3.576	0.449	0.372	0.694	1.294	1	0.726
Theatrical companies	0.375	0.188	0.060	0.116	0.064	0.126	0.062
Choreographic companies	0.787	0.275	0.141	0.281	0.196	0.515	0.178
Vocal, musical groups	0.635	0.467	0.221	0.403	0.741	1	0.523
Theatrical with RS	1.214	0.273	0.136	0.232	0.248	0.999	0.219
Theatrical with SPC	0.644	0.337	0.198	0.486	0.194	0.310	0.177
Choreographic with RS	3.420	0.332	0.732	0.386	1.143	1	0.681
Choreographic with SPC	0.705	0.324	0.197	0.494	0.207	0.374	0.187
Vocal, musical with RS	5.590	0.590	0.397	0.709	2.431	1	0.912
Vocal, musical with SPC	4.557	0.587	0.448	1.071	1.794	1	0.834

*RS: regular subsidies; SPC: subsidies for a 'creation plan'*

With the companies, all the indexes except sigma show the highest disparities for the vocal and musical groups. They are set apart from the theatrical and choreographic troupes in a greater number of Regions with or without low subsidies per capita.

All the indexes show that the distribution of regular subsidies to companies is more unequal for dance than for theatre. Four Regions do not agree to a three-year convention or a yearly grant to the choreographic groups, against only one for theatre, whereas regular subsidies per inhabitant are more than 40% above average in nine Regions for dance, compared to five for theatre. Among the theatrical companies, Sigma, Bourguignon and Atkinson's indexes estimate the distribution of subsidies per capita at less unequal for support to a 'creation plan' than regular grants, whereas with the other indicators the ranking is the opposite. For the regular theatrical subsidies per capita, the former indexes are more sensitive to their very low level in three Regions whereas the Gini coefficient, Theil's index and the square of the coefficient of variation take into account a more concentrated distribution around average in the other regions.

## 5. Conclusion

The diagnosis of the impact of decentralisation on regional disparities should rely upon the diverse inequality measures. Sigma, Bourguignon and Atkinson's indexes are more sensitive to the transfers at the lower end of the distribution scale, whereas the Gini coefficient, Theil's index and the square of the coefficient of variation weigh the transfers more around average.

Decentralisation in the performing arts is a process which is far from accomplished. Subsidies per capita are less equally distributed than the GDP per worker. However, from 1992 to 2002, regional inequalities remained stable for GDP, decreased for subsidies per inhabitant to institutions and companies, and increased for grants to festivals, which are mainly subsidised by local authorities.

The dispersion is lowest for State subsidies, which since 1992 have gradually been falling under increased control of the regional Divisions of the Ministry of Culture. The temptation to shift from State to local authorities' dominance, to strengthen decentralisation, may therefore actually increase regional disparities. Granting more national approval to performing arts organisations has also helped to decrease regional inequalities, especially for the *scènes nationales* and theatrical companies.

Whereas, in the sixties, the Ministry of Culture claimed a monopoly on judging artistic legitimacy on the basis of excellency, the growing cultural expenditures of local authorities changed the deal. As Town subsidies are now twice as high as State subsidies, central and local authorities are trying to cooperate in adjusting their cultural governance to local districts. Different goals may justify cultural subsidies, from enhancing artistic innovations to increasing cultural accessibility. However, economic and artistic goals are combined to boost local development.

Thus, using subsidies per capita as a policy tool to evaluate regional inequalities has some limitations, since efficiency matters are neglected. Understanding the performing arts worlds<sup>9</sup> seems to require an analysis of the relationship between regional demand and artistic supply. For instance, the reputation of some institutions may attract visitors from both other regions and overseas. An appraisal of the programming networks (Latarjet, 2004; Urrutiaguer, 2004) and some qualitative analyses of the relationships between the different types of organisation and their audiences should be helpful in illuminating this debate.

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## Notes

<sup>1</sup> The decentralisation law recognised the Region as a new administrative authority. There are 22 Regions in mainland France and 4 overseas. Similar to the Town and Department councils, a local assembly can govern the Region to some extent, provided that its decisions comply with the national laws.

<sup>2</sup> In 2002, the budget of the Ministry of Culture for performing arts accounted for about 0,25% of the global state public expenditures. The last published data on the local authorities cultural commitments are from 1996. The local public expenditures for performing arts accounted for 1% of their global budget.

<sup>3</sup> Subsidies per visitor should be a less relevant ratio for my inquiry since it provides other information on the share of artistic income between audiences' spending and public grants.

<sup>4</sup> An additive and decomposable inequality measure is one which can be expressed as a weighted sum of the inequality values calculated for population subgroups plus the contribution arising from differences between subgroup means.

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<sup>5</sup> The data for the opera houses are missing for 1992. My category ‘institutions’ does therefore not include them for a comparison of subsidies per capita from 1992 to 2002.

<sup>6</sup> Even though the overall number of establishments remained the same from 1992 to 2002, the structure of dramatic centres changed. The number of national dramatic centres (NDC) increased from 25 to 33, especially because four out of the six centres specialised in children’s theatre have been transformed into NDC. The number of regional dramatic centres decreased from 11 to 9.

<sup>7</sup> The minimal duties are primarily to produce two shows and give 120 performances during the three-year period.

<sup>8</sup> Economists analysing income distribution propose to decompose the measures of the inequalities for population subgroups and the contribution arising from differences between subgroup means. The computation of regional subsidies per inhabitant is unfitted to this approach. A decomposable inequality measure should be applied to the organisations according to their status.

Shorrocks (1980) estimates that the most satisfactory of the decomposable measures is given by

$$I(x) = 1/n \sum_i \log(\bar{x}/x_i)$$

For a number of subgroups  $g$  with the population shares  $n_g/n$  as decomposition coefficients,  $I(x)$  allows total inequality to be unambiguously split into the contribution due to the differences between subgroups with

$$B = 1/n \sum_g n_g \log(\bar{x}/\bar{x}_g)$$

and the sum of the contributions due to inequality within each subgroup  $g$

$$C_g = 1/n \sum_{i=1}^{n_g} \log(\bar{x}_g/x_i^g)$$

For instance, the decomposition applied to the institutions, which are divided into three groups (*scènes nationales*, national theatres and dramatic or choreographic centres, and orchestras) shows that, in 2002, 15.7% of the total subsidy disparities resulted from the differences between subgroups, compared to 84.3% for the inequalities within subgroups.

<sup>9</sup> Howard Becker (1982) defines an art world as a network of co-operation which associates all the people who are involved in artistic production, from artists to the material providers, backers, and intermediaries in diffusion. All these actors refer to conventions to co-ordinate their practices.