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DEPARTAMENT D’ECONOMIA”

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Document de treball n° -3- 2010

**DEPARTAMENT D’ECONOMIA**  
**Facultat de Ciències Econòmiques i Empresarials**



UNIVERSITAT  
ROVIRA I VIRGILI

*Edita:*

Departament d'Economia

[http://www.fcee.urv.es/departaments/economia/public\\_html/index.html](http://www.fcee.urv.es/departaments/economia/public_html/index.html)

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Dipòsit Legal: T - 1460 - 2010

ISSN 1988 - 0812

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## Gender gap index in Spain by regions

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### 0. Abstract

Every year, the World Economic Forum publishes the World Gender Gap Report mainly based on the results of the Global Gender Gap Index (GGGI) computed by country. This index is made out of four subindexes to capture the magnitude of the gender gap in 4 areas: educational attainment, economic participation and opportunity, political empowerment, and health and survival; its methodology was reformed in 2006.

In this paper we adapt the GGGI to construct a Regional Gender Gap Index (RGGI) and we compute it by regions (Comunidades Autónomas) in Spain with 2006 data. The RGGI could be applied to other regions. Results of the RGGI show that not only are there gender gap differences between Spanish regions in Spain, but that there are at the political empowerment and economic participation and opportunity categories that those differences are strongest. Geographic distribution of the gender gap shows that the deepest gaps are, in general, located in the northern regions (Euskadi, with a high score, and Murcia and Extremadura, with low scores, being exceptions); this is mainly due to the poor participation in politics of women in those regions.

### 1. Introduction

Nowadays, at least in most academic workplaces environments, gender discrimination against women based on their inferiority to perform some work is no longer accepted. Then, as John Stuart Mill already pointed out in "The Subjection of Women" (1869): *The second benefit to be expected from giving to women the free use of their faculties... would be that of doubling the mass of mental faculties available for the higher service of humanity*<sup>1</sup>. In this sense, gender discrimination

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\* Forthcoming (Spanish version) in PÉREZ de la FUENTE, Oscar (Ed.) (2010): *Mujeres: luchando por la igualdad, reivindicando la diferencia*. Dykinson (Madrid).

<sup>1</sup> *The second benefit to be expected from giving to women the free use of their faculties, by leaving them the free choice of their employments, and opening to them the same field of occupation and the same prizes and encouragements as to other human beings, would be that of doubling the mass of mental faculties available for the higher service of humanity. Where there is now one person qualified to benefit mankind and promote the general improvement, as a public teacher, or an administrator of some branch of public or social affairs, there would then be a chance of two.* MILL, John Stuart (1869): *The Subjection of Women*. Chapter 1. See, for instance, <http://www.constitution.org/jsm/women.htm>

would restrain growth. However, gender discrimination can exist even though women participate in economic, social or political life; discrimination such as having lower wages is not evidently negative for growth, at least in the short term. In a quite known paper by Seguino (2000) there was some evidence that female low wages in semi-industrialized export-oriented countries might be good for exports and economic growth; this conclusion, as the author explained, is for a very specific case. In fact, the relationship between gender inequality and growth is not clear enough yet, but more general studies reverse the conclusion. Recently, Schober and Winter-Ebmer (2009), using data from a meta-study, have found that, if anything, the impact of gender inequality is negative for growth. Mason and King (2001) consider that the reduction of the gender gap is positive for economic growth. On the long-run, Lagerlöf (2003) suggest a positive contribution of gender equality (measured as the female-to-male human capital ratio) on growth. On the other hand, in the 2006 World Bank Report it was strongly pointed out that equality can contribute to economic efficiency; this idea has been theoretically developed [see Bourguignon, Ferreira and Walton, 2007]. In this sense, economic reasons suggest that it would be good to reduce gender gaps; not to mention that other reasons could be cited to reduce this gap, too.

Nevertheless, there are still strong gender differences in Spain. This form of inequality is being studied mostly in the work environment where huge differences persist [see, for instance, De la Rica, Dolado and Llorens (2008) for wage differences or Iglesias and Llorente (2008) for a recent study of gender segregation at work in Spain]<sup>2</sup>. Women empowerment is another area where gender differences are important. As an illustrative example, it can be said that although in 2004, for political purposes, there were as many women as men in charge of ministries, the percentage of women in the subsequent posts of responsibility decreased drastically (in posts just below ministry positions there were only 22,6% of women)<sup>3</sup>.

However, it should be said that some differences have been strongly reduced in recent years. As an example let's say that Spain is the OECD country in which women employment tax compared to men employment tax has grown faster between 1991 and 2004 [Blades, 2006, p. 16]. However, gender segregation at work has increased recently according to the results of Iglesias and Llorente (2008). Segregation contributes to explain the wage gender gap.

On the other hand, neither gender discrimination, nor its evolution are homogeneous within the Spanish territory [see, for instance, Cabo and Garzón (2007, p. 166) or Aláez and Ullibarri (2000 and 2001) for wage differences].

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<sup>2</sup> Gender gaps exist all around the World. In general, it is at work where it has been most studied anywhere (see Weichselbaumer and Winter- Ebmer (2005) for an international study on gender wage gaps).

<sup>3</sup> See the report *Mujeres y hombres en España* 2008, p. 73-74.

To sum up what has been said, there is a need to continue doing gender politics in Spain. To do so effectively it is necessary to keep studying gender gaps at a local level for two main reasons: 1) There are gender differences between regions, so politics have to be adapted to region specificities; 2) Local institutions are already doing actions against gender discrimination; these actions should be evaluated. This paper will offer a radiography of gender gap in Spain split by regions.

For each region (Comunidad Autónoma) we compute a Regional Gender Gap Index (RGGI). The RGGI is an adaptation of the Global Gender Gap Index (GGGI) that has been developed by the WEF and is actually (2008 report) calculated for 130 countries. We have tried to keep the RGGI as simple as possible for two main reasons: 1) Following the objectives of the GGGI to make its interpretation easy so as to be useful for politicians; 2) To be able to use the RGGI for other regions and to be able to recalculate it for other periods in order to study the gender gap's evolution. For this last reason we have chosen to include only "easy-to-get-variables". Nevertheless, simplicity has its costs: the RGGI as well as the GGGI shows a general situation of gender discrimination but does not allow a deep study of any of the four categories it includes (educational attainment, economic participation and opportunity, political empowerment, health and survival). To do so specific studies have to be designed and, in fact, at least in Spain, there exist specific ones, although mainly in the work environment.

In the next section we will present the data and the methodology: which variables are included and how the index is calculated. In the third section we present and discuss the results of the index. The fourth section is reserved, as a conclusion, to synthesize the main results and to discuss the limitations of this paper.

## **2. Data and methodology**

### *Regional Gender Gap Index*

The Regional Gender Gap Index (RGGI) is an adaptation of the Global Gender Gap Index (GGGI) developed by the World Economic Forum in 2006 to regional specificities. Therefore, we follow their methodology and their explanation<sup>4</sup>. Nevertheless, we will discuss the differences between both indexes.

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<sup>4</sup> *Global Gender Gap Report 2006*, p. 3-8.

As them, first we will explain the three basic concepts that underlie the construction of those indexes which condition their construction and the results' interpretation. Then, we will present the subindexes the index is made out of and the data. Finally, we explain the construction of the RGGI.

***a) The 3 underlying concepts***

1) The RGGI as well as the GGGI measures gaps instead of levels. To do so it computes ratios of women levels (numerator) over men levels (denominator) instead of differences that would depend on the global level of every region. 2) The aim of the index is to reflect the present situation of the gap instead of the effort regions do to solve it; that is why we concentrate in results variables instead of introducing input variables. 3) The index reflects the gender gap existing against women; we are not interested in the possible situation where "women have won the battle of sexes". Therefore, ratios are truncated at their bench level which is 1 for all ratios but for survival and health variables for which we take the natural value of the ratio for parity.

***b) The four subindexes***

The RGGI as well as the GGGI is a simple arithmetic mean of four subindexes which, on their turn, are weighted arithmetic means of two to five ratios of the women level of the variable used for that ratio over the men level of the same variable. Most of these ratios are the same for the GGGI and for the RGGI, but some have been transposed from country to regional data (for instance, instead of country ministries we take the corresponding post at regional level) and some have been adapted. In the last case we have chosen variables as simple and comparable as possible. We have to note that it is not easy to find data stratified by sex in all regions, in particular if we are looking forward to doing a historical record<sup>5</sup>. For each region (there are 17 regions<sup>6</sup>), the four subindexes are:

***1) Educational attainment:***

We have computed 5 ratios, each one corresponding to a level of education according to the Spanish official classification of level of education (CNED-2000) attained by people over 15

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<sup>5</sup> In the report *Informe hombre y mujeres en España 2006* Rosa Maria Peris Cervera, who was the Chief of the Spanish Statistical Institute, wrote that until recently women only appear scarcely in official statistics; there were only few indicators that gender was taken into account, and the few where gender was include were very general or referred to sexuality, health or family areas.

(primary education which is compulsory (at least up to 11-12 year old in Spain: 6 years of regular classes - these category also includes uncompleted primary studies), first level secondary education (4 years of regular formation) or the equivalent professional education, second level secondary education (2 years of regular education) or the equivalent professional education, university studies without doctorate and philosophical doctors.<sup>78</sup> The GGGI only computes 3 different levels. For each level the ratio is: Percentage of women/percentage of men.

## 2) *Economic participation and opportunity*

In this area we compute five ratios; all of them refer to gaps in the work market. The first aims to capture the level of participation of women in economic life: it is the ratio of women and men in active population<sup>9</sup>. The second and the third refer to wages: we have the ratio of women mean wage over men mean wage (differences can be due to differences in wages for the same work as well as to the kind of works women do), and a specific ratio to compare wages for the same work. To compute the last ratio we have used the national classification of activities (CON-94) grouped in three categories (work of high skill –categories 1 to 3-, of medium skills – 4 to 7- and of low skills –8 and 9-)<sup>10</sup>. Having computed more disaggregated categories would give, at least potentially, more precise results, but the samples used to obtain these data would diminish, so results would in fact be less representative. Moreover, it would complicate the finding of data to compute a historical series of the index. Finally, last two ratios show the gap existing in the access of women to responsibility posts; the fourth variable refers to decision posts and the fifth to technical posts. For these two variables it has been impossible to follow strictly the GGGI as there were not always reliable data at local level and because for some variables there is no good comparable post at local level (in Spain, for instance, it is the case for legislators). Not being possible to replicate those ratios we have decided to simplify them, so we have taken representative variables available for earlier periods and for many regions. The two ratios are the number of female judges over male judges<sup>11</sup> and the number of female university

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<sup>6</sup> In Spain there are 17 Comunidades Autónomas with regional government institutions and two autonomic cities (Ceuta and Melilla). The cities are not included.

<sup>7</sup> We have omitted a marginal category (Formación e Inserción Laboral con título de secundaria (2<sup>ª</sup> etapa)) that only has few students in some communities.

<sup>8</sup> Source: INE, Encuesta de Población Activa.

<sup>9</sup> Source: INE, Encuesta Población Activa.

<sup>10</sup> Source: INE, Encuesta Nacional de Estructura Salarial 2005.

<sup>11</sup> Source: Memoria del Poder Judicial 2006.

teachers over male university teachers<sup>12</sup> as at universities we can find all high skilled professional sectors.

### *3) Political empowerment*

This subindex measures the existing gender gap in political decision-making. It includes, as the GGGI, the ratio of women to men in the highest post of government (years of presidency of regional government since democracy<sup>13</sup>), the ratio of women to men in minister-level positions of regional government<sup>14</sup> and the ratio of women to men in regional parliamentary positions<sup>15</sup>.

Moreover, having information at city-council level, we have included women to men ratio in city government positions<sup>16</sup>. This is an improvement with respect to the GGGI as it is not included in the GGGI because of the lack of information, while authors consider information at local governmental levels should be included if available<sup>17</sup>.

### *4) Health and survival*

For this subindex the RGGI includes the same two variables as the GGGI: (1) women to men ratio of life expectancy<sup>18</sup> and (2) number of female babies over the male babies in official statistics<sup>19</sup>. Those ratios can show huge differences in different countries, that is why they are relevant at World level. In Spain, regions are quite similar, but we have included this subindex with the aim to replicate the GGGI index at regional level. Nevertheless, for finer comparisons in the health area among similar regions, having in mind that for many developed countries a lot of health information is available, it could be interesting to develop in the future a subindex adapted to these regions.

## *c) Index computing*

The index is constructed in four steps:

i) For each variable we compute the women to men ratio

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<sup>12</sup> Source: INE, Estadística de la Enseñanza Universitaria en España. Curso 2005-2006. (Distance universities -UNED and UOC- have not been included).

<sup>13</sup> We have taken the year of the first elections in the majority of regional governments which was 1983 (13 regions). For the other 4 regions elections were earlier. The percentage is calculated for all regions for the period 1983-2005.

<sup>14</sup> Source: Instituto de la Mujer, data from Fichero de Altos Cargos, F.I.C.E.S.A.

<sup>15</sup> Source: Instituto de la Mujer, data from regional parliaments.

<sup>16</sup> Source: Instituto de la Mujer, data from Ministerio para las Administraciones Públicas. Data for local administration is for the year 2003.

<sup>17</sup> *Global Gender Gap Report 2006*, p. 7.

<sup>18</sup> Source: INE, Tablas Completas de Mortalidad.

<sup>19</sup> Source: INE, Revisión del padrón municipal 2006 (data 1/1//2006). Population of 0 year old. The variable includes babies' mortality, but it is very low in Spain.



ii) All ratios are truncated at the bench level that is equal to 1 for all variables but survival and health variables. For those two variables we have used the same bench levels than the GGGI (for life expectancy the bench level is equal to 1,06 and for new-borns it is equal to 0,944). Bench levels represent that there is no gap. For each variable, the distance between the value of the ratio and the bench level measures the gender gap.

iii) We compute the value of each subindex as a weighted arithmetic mean of the truncated values of the ratios included in each subindex. Weights are included in order to not give more influence to ratios that show more variability. So, as in the calculus of the subindex of the GGGI, we first normalise the variance of the ratios by equalling their standard deviation (for each ratio we compute its SD, then we divide it by 0,01 to obtain a measure of the change in the SD when the ratio changes 1%, and we use this measure as a weight for the ratio in terms of per one weight). At the end all ratios have the same relative influence on the subindex.

Within the health and survival subindex, the life expectancy ratio, once truncated, has an SD equal to zero. For this ratio we have calculated the SD before truncating the variable. Although this is not optimum, it is not relevant as there is no health and survival gap in Spain for any region according to the subindex. Table I shows the weights for each ratio.

	SD		
Educational attainment	SD	change 1%	Weight
Primary education	0,0097	1,0306	0,5010
First level secondary education	0,0209	0,4789	0,2328
Second level secondary education	0,0368	0,2715	0,1320
University studies (without doctorate)	0,0435	0,2300	0,1118
Philosophical doctors	0,2170	0,0461	0,0224
			1,0000
	SD		
Economic participation and opportunity	SD	change 1%	Weight
Active population	0,0532	0,1881	0,2382
Mean wage	0,0471	0,2123	0,2689
Mean wage for equivalent work	0,0508	0,1968	0,2493
Judges	0,2145	0,0466	0,0590
University teachers	0,0686	0,1457	0,1846
			1,0000
	SD		
Political empowerment	SD	change 1%	Weight
Years of presidency of regional governments	0,1670	0,0599	0,0904
Regional ministerial posts	0,2406	0,0416	0,0628
Regional parliaments	0,0224	0,4463	0,6739
Local government	0,0874	0,1145	0,1729
			1,0000

Health and survival (Scores before truncation)	SD	SD change 1%	Weight
Life expectancy	0,0065	1,5348	0,7978
Female babies	0,0257	0,3889	0,2022
			1,0000

**Table I: Variables' weights for each subindex**

SD = standard deviation.

iv) Final scores of the RGGI are obtained as an unweighed arithmetic mean of the value of the four subindexes for each region. Final results are between 0 and 1, "1" meaning no gender gap.

### 3. Results and Discussion

Table II shows the results of RGGI for each region ranked from more equalitarian regions according to the RGGI to regions with deeper gaps. This table also includes the results of the subindexes and the rank of each region according to each subindex (Rank number 1 is for the most equalitarian region). We have omitted the scores for the health and survival subindex as for all regions it is equal to 1.

Region	RGGI	Rank RGGI	Subindex 1. Education	Rank (1)	Subindex 2. Labor	Rank (2)	Subindex 3. Political	Rank (3)
Com. Madrid	0,7215	1	0,9443	13	0,7084	5	0,2333	1
Islas Baleares	0,7211	2	0,9598	6	0,7516	1	0,1731	5
Euskadi	0,7161	3	0,9270	16	0,7325	3	0,2050	3
Canarias	0,7160	4	0,9636	3	0,7477	2	0,1526	9
Castilla la Mancha	0,7138	5	0,9465	12	0,6959	9	0,2128	2
Andalucía	0,7048	6	0,9488	8	0,6673	12	0,2029	4
Com. Valenciana	0,7042	7	0,9542	7	0,7056	6	0,1568	7
Extremadura	0,6973	8	0,9439	14	0,7009	7	0,1443	11
Galicia	0,6969	9	0,9616	5	0,7254	4	0,1007	17
La Rioja	0,6943	10	0,9623	4	0,6904	10	0,1245	12
Navarra	0,6928	11	0,9802	1	0,6835	11	0,1075	16
Cataluña	0,6915	12	0,9488	9	0,6994	8	0,1178	14
Castilla León	0,6879	13	0,9685	2	0,6637	13	0,1194	13
Cantabria	0,6854	14	0,9475	10	0,6492	15	0,1448	10
R. Murcia	0,6837	15	0,9474	11	0,6282	17	0,1594	6
Princ. Asturias	0,6781	16	0,9229	17	0,6340	16	0,1556	8
Aragón	0,6760	17	0,9413	15	0,6507	14	0,1119	15

**Table II: RGGI scores ranked from lower to major gap and scores for the educational attainment, economic participation and opportunity and political empowerment subindexes.**

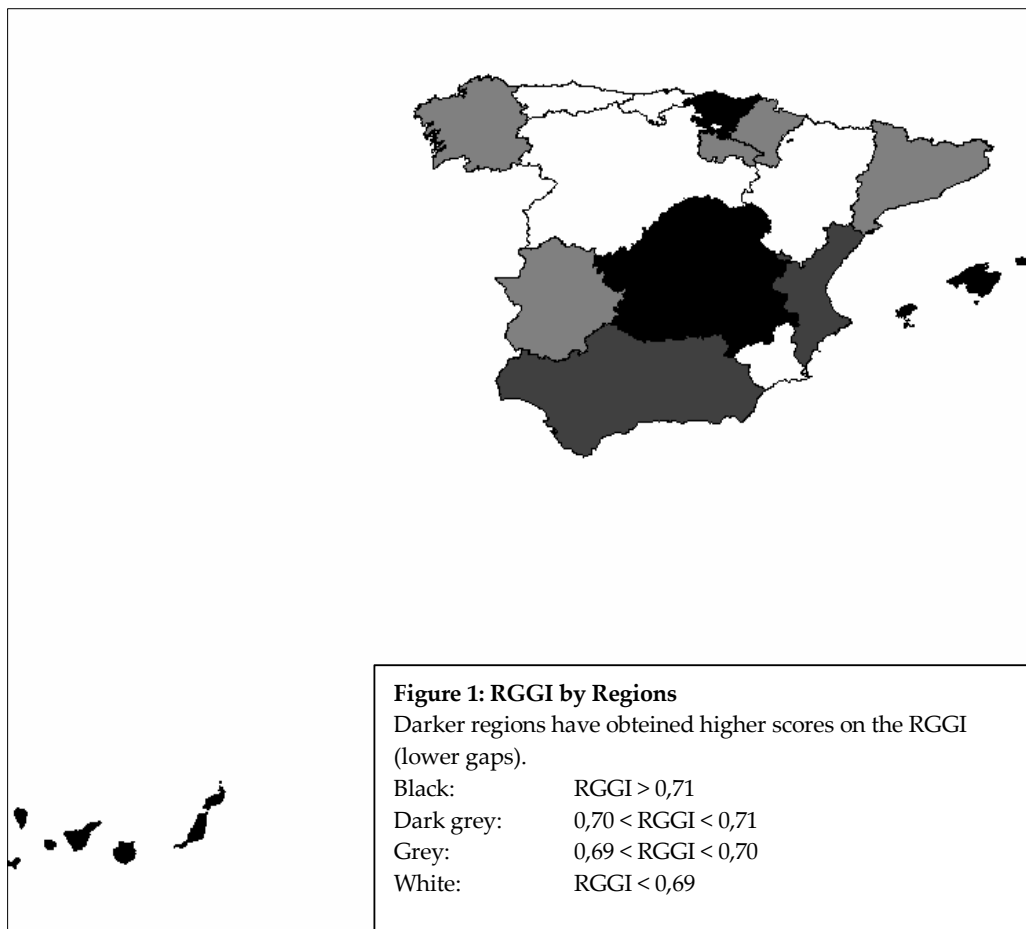
As we can see from the results, there exist differences in the gaps between regions, although minor ones. The rank between the regions that show the biggest gap (Aragón) and the smallest gap (Madrid Community) is equal 0,0555. The clues for those differences have to be searched on the values of the subindexes.

For the Educational attainment subindex two major features have to be stated. 1) Results are high for all regions so the gap is small (the lower results is 0,9229). 2) Dispersion among results is small too (the rank between the maximum and the minimum is equal to 0,0573, Standard deviation=0,0138), that means that educational attainment is similar in all regions. So, in Spain women are, finally, having an educational attainment close to men (there still exists a small gap and it should be noted that there is no educational attainment gap at all for many countries<sup>20</sup>). Then, from the educational point of view women are nearly as capable as men to enter the labour market and politics.

However, the results of the economic participation and opportunity and the political empowerment subindexes show deeper gaps than the educational attainment subindex. Therefore, neither the participation in the economic life, nor the participation in politics is proportional to women ability; on the contrary it is inferior. There exist a clear gap between men and women in the labour and political sectors (the mean of the economic participation and opportunity subindex is equal to 0,6903 and the mean of the political empowerment subindex lows to 0,1543). The deepness of those gaps cannot be explained by differences in their education.

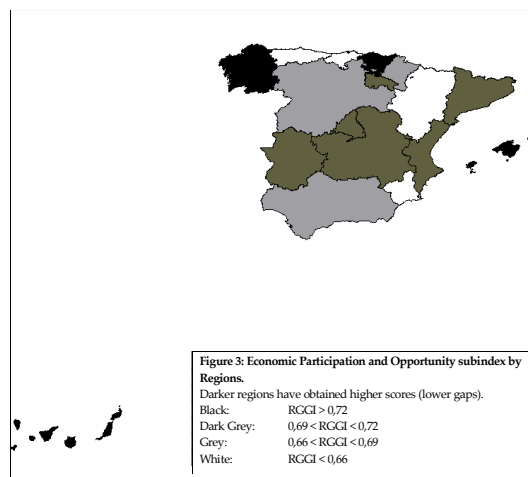
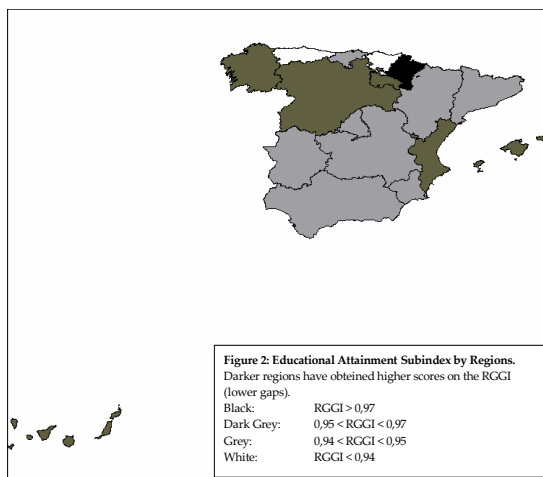
Also, it must be said that labour and political gaps are found in all regions, although there are notorious differences between regions. Subindex dispersion is larger for labour (rank=0,1234 and DE=0,0363) and for the political empowerment subindex (rank=0,1327 and DE=0,0387) than for educational attainment subindex. Gap disparity between regions is stronger in the labour and the political sector than in the educational one. As the RGGI is an unweighed arithmetic mean, those two subindex have a stronger impact on the final score. In fact, the Spearman correlation coefficient of the rank number of the RGGI and the economic participation and opportunity subindex is equal to 0,821 (bilateral p-value<0,001) and the Spearman correlation coefficient of the rank number of the RGGI and the political empowerment subindex is equal to 0.680 (bilateral p-value=0,003), while the Spearman correlation coefficient of the rank number of the RGGI and the educational attainment subindex is not significatively different from zero.

On the other hand, gaps' geographical distribution has to be discussed. Figure 1 shows regions according to the score obtained by the RGGI: the darker the regions the higher their scores on the RGGI. So black regions have the lowest gaps, this does not mean that there is no gap, while white regions have the deepest gaps. Although, there is not a perfect cluster by regions, it must be noted that according to the RGGI the north of Spain has, in general, the deepest gaps (Euskadi being an exception) while the south and centre have the lowest gaps (Murcia and Extremadura being the exceptions). Islands have comparatively small gaps. To understand the geographical distribution of the gap it is important to keep in mind that in northern Spain, in general, the political empowerment of women is very low.

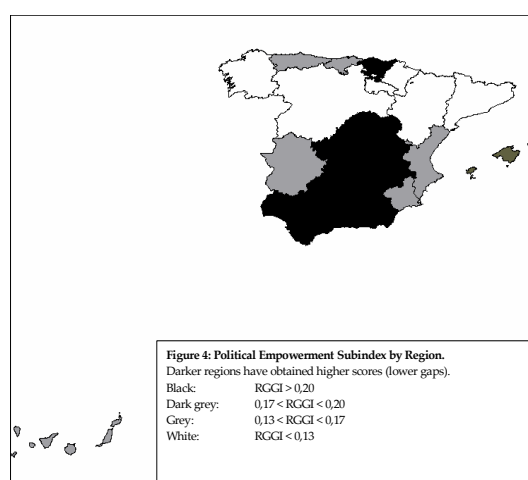


Figures 2, 3 and 4 show the results of the scores of the educational attainment subindex, the economic participation and opportunity subindex and the political empowerment subindex. As in Figure 1, the higher the score, the darker the region is coloured. As it can be seen in those maps, there exist differences between the regions that score high in each subindex.

<sup>20</sup> The educational attainment subindex of the GGGI for Spain in 2008 was in the fifty-eighth position of 130; there were 24 countries that scored 1 in that subindex.



On the Economic Participation and Opportunity sector, there is still an important gender gap. However, it must be noted that Spain is making some progress. It has already been said that women activity rate in the labour market has increased a lot recently. Nevertheless, in Spain children care has still an extremely negative effect on women carrier<sup>21</sup>. Being aware of this fact, since 2003, central government offers to



working mothers 100 euros monthly per child aged up to three years old. Rocio Sánchez-Mangas and Virginia Sánchez-Marcos<sup>22</sup> said that according to their results, this politic seems to have positive results in particular for less qualified female workers. There are some general financial support per children given by regional governments, too. These financial support can vary from one region to another but are not in any case proportional to children care costs. Children care facilities (such as good and cheap kindergarten...) vary quite a lot within regions as are quite often organized by city governments.

The profile of the work women do is also changing as women are nearly as qualified as men so they can have posts with high responsibilities. For instance, if we analyze the number of female judges with data from the 1st of January 2006, in Spain, for younger judges (25-40 years old) in all regions there is at least as many female as male judges (at college there are many more women studying law than men). But for older judges the proportion of female judges lowers. Similarly, the proportion of women teaching at Spanish universities is growing, although

<sup>21</sup> Maria Gutiérrez-Domènech (2005) explains that in Spain, compared to other OECD countries, women's work lowers a lot after the first child birth.

globally women are only the 37% (Scholar year 2006-2007). From the wage point of view, in Spain there is a huge gap with their own specificities which has been specifically studied in detail by some researchers<sup>23</sup>. Nevertheless, it must be said that this gap is in part due to the lack of women in higher responsibilities posts, but there is also a wage gap for equal posts. The wage gap for similar posts is, in part, due to salary complements. Labor inequality has social consequences; Coral del Rio, Carlos Gradín and Olga Canto explain that the reduction of wage gap would lower somehow the general poverty level in Spain and, for single women with children, this reduction would imply that the 38% of those women who are under the poverty line would overcome it<sup>24</sup>. Finally, it must be pointed out that the most recent studies are warning of the deterioration of the improvements achieved in Spain.

As for political empowerment, there is an enormous gender gap in Spain. The gap is so deep that presumably it is going to be there for a while. In fact, in a democratic country in which governments, at all levels, are supposed to be representative, this is a serious drawback: although there are not many studies, the ones that have studied which subjects are considered more relevant by men and by women layed stress upon that there are very strong differences<sup>25</sup>. In that sense, more paritarian governments would probably reflect better the priorities of the whole population. On the other hand, Gloria Solsona Gilabert has pointed out that in Spain too often is found the opinion that gender politics is “a female concern”<sup>26</sup>.

#### **4. Main contributions, conclusions and limitations of the paper**

In this paper we have developed the RGGI, which is an adaptation of the GGGI at regional level, and we have computed it for the 17 Spanish regions (Comunidades autónomas). Results of the RGGI by region confirm:

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<sup>22</sup> SANCHEZ-MANGAS, Rocio; SANCHEZ-MARCOS, Virginia, Balancing family and work: the effect of cash benefits for working mothers, mimeo, 2007.

<sup>23</sup> See DE LA RICA, Sara; DOLADO, Juan J.; Llorens, Vanesa, “Ceiling or floors?: Gender wage gaps by education in Spain”, *Journal of Population Economics*, 2008 and SIMÓN, Hipólito, “Diferencias salariales entre hombres y mujeres en España. Una comparación internacional con datos emparejados empresa-trabajador”, *Investigaciones Económicas*, vol. 30, nº 1, 2006, pp. 55-87.

<sup>24</sup> DEL RIO, Coral; GRADÍN, Carlos; CANTO, Olga, “Pobreza y discriminación salarial por razón de género en España”, *Hacienda Pública Española*, núm. 184, 1/2008, (67-98), pp. 86-87.

<sup>25</sup> Augusto López-Claros and Saadia Zahidi discuss a study done in Bolivia, Camerún and Malasia which shows that women would spend more money than men in social areas (health, education), in community infrastructures and in poverty politics (LOPEZ-CLAROS, Augusto; ZAHIDI, Saadia, *Women's empowerment: measuring the global gender gap*, World Economic Forum, 2005, p. 4). In fact, as research subjects, economist women, in mean, chose more social areas than men (DOLADO, Juan J.; FELGUEROSO, Florentino; ALMUNIA, Miguel, *Do men and women economist choose the same research fields?: Evidence from top-50 Departments*”, mimeo, 2005).

<sup>26</sup> SOLSONA GILABERT, Gloria, *Introducció de la perspectiva de gènere en els processos de participació ciutadana*, Diputació de Barcelona, 2007, p. 39.

- 1) There is no region in Spain in which there is no gender gap. In all Spanish regions we find a gender gap.
- 2) There are differences in gender gap between regions: some regions are more equalitarian (according to the results of the index) than others.

The RGGI as well as the GGGI is compounded by four subindexes. Each subindex addresses a sector where there can be a gender gap (educational attainment, opportunity and economic participation, political empowerment, health and survival). Gaps in the RGGI have to be searched in the analysis of each subindex by region. This analysis allows us to say that:

- 3) According to the health and survival subindex there is no gender gap in any Spanish region. This only means that according to the variables included, which are very general variables, there is not. Perjudice, if there is any, is not present in those vital variables but in more subtle ones.
- 4) According to the educational attainment subindex, gender gap is small in all regions. Nevertheless, there is still a gap in all regions. Differences between regions are small too.
- 5) There is a gap in economic participation and opportunity in all regions; gender gaps differ from one region to another. The gap is due to differences in participation, differences in wages and differences in the posts women and men have.
- 6) There is a huge gap in political empowerment in all regions; nevertheless, differences between regions are quite important.
- 7) Scores of the four subindexes are ranked equally in all regions: the gap is very deep in political empowerment, deep in economic participation and opportunity, low in educational attainment and non-existent in health and survival.
- 8) There is no region that has the highest scores for all subindexes.
- 9) Northern regions, with Euskadi as an exception, have lower scores in the RGGI (deepest gaps). Extremadura and Murcia have also low scores. This is in part due to the low political empowerment of women in those regions.

The paper offers a radiography of the actual gender gap in Spanish regions. The simplicity of the methodology used generates easy-to-read results and allows the possibility of doing the same study in other countries or in other periods, in order to see the evolution. However, the RGGI has some limitations to that must be stated.

- 1) It is a general index, so its results are useful for doing a global discussion of the areas it includes. But it does not look into any of the four areas.

2) The RGGI gives a photography of the situation, but it does not study the causes of the gender gap.

3) The RGGI is constructed with result variables and, therefore, it does not measure the efforts regions do to overcome it as long as there are no yet results.

4) The RGGI does not include variables that reflect the cultural tradition of each region, since it is not its aim. Nevertheless, it should be pointed out that in many cases those traditions are responsible of the impact the politics to overcome gender discriminations have. Without them it is difficult to understand the sources of discrimination. As Johannes Jütting and Christian Morriison said: “Valid indicators that capture various aspects of gender inequality are indispensable for informed policy making. These should not only include gender disparities related to access to education, health care, political representation, earnings or income and so forth, but also institutional frameworks that govern the behavior of people and hence the treatment of women”<sup>27</sup>.

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<sup>27</sup> JÜTTING, Johannes; MORRISSON, Christian, “Culture, gender and growth”, OECD Development Centre, Policy Insights, nº 15, 2005, p. 1. The first problem is to get reliable homogeneous information for all regions. At country level the OECD has some data, see JÜTTING, Johannes; MORRISSON, Christian; DAYTON-JOHNSON, Jeff; DRECHSLER, Denis, *Measuring gender (in)equality: Introducing the gender, institutions and development data base (GID)*, OECD Development Center, working paper nº 247, 2006 o JÜTTING, Johannes; MORRISSON, Christian; DAYTON-JOHNSON, Jeff; DRECHSLER, Denis, *The gender, institutions and development data base*, OECD Development Center, Policy Insights, nº 16, 2006.



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