

Presentation of Social Barometer of Spain

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The *Social Barometer of Spain* is a continuous assessment of the social situation of Spain, developed by Colectivo Ioé, team specialized on social research and supported by the private foundation Peace Research Center (CIP-Ecosocial). With indicators and indexes we aim to offer work tools to think over and debate about the social issues in Spain. The Social Barometer includes on top of the database compiled in the Website and updated on a yearly basis, a book with broader analysis and interpretations (*Barómetro Social de España*, coedited by CIP-Ecosocial and *Traficantes de Sueños*). Both, database and the book are available in the site www.colectivoioe.org. The website of the Social Barometer is www.barometrosocial.es

11 Spheres, 34 dimensions, 180 social indicators

The database proposes a 180 social indicators system, almost all from official sources, and synthetic indexes transparently developed by the authors and open to an active intervention for all users, corresponding to eleven social spheres, offering a global vision of important questions related to welfare. The eleven spheres are: two for socio-economic conditions of welfare, Income and wealth, and Employment; four for personal welfare conditions, Health, Education, Housing and Social protection; another four for collective welfare conditions, Security and justice, Environment, Social participation and International situation; and finally there is a transversal sphere, Gender equality.

The start point in this Social Barometer was an exploration of the methodology used in other countries, and also in Spain, to evaluate society's wellness or unease. Taking this into account, we developed a methodological proposal that makes possible to elaborate synthetic indexes of the main dimensions of social life from a broad selection of indicators. The election of the indicators has been made possible because of a systematic search of the most adequate statistical sources in order to cover the chosen social spheres. The indicators should bear three qualities: to be accessible, to be reliable and to count with temporal series since 1994. Finally, 180 indicators have been used, distributed in different numbers according to the information available. As the evolution of each indicator in an isolated way is not sufficient to capture more complex tendencies, some synthetic indexes have been developed: one for each studied sphere (up to 11) and others for its subspheres or more specific social life dimensions (34 dimensions).

For each one of the 11 researched spheres there are two ways to access the data: a) *online search* clicking on the menu on the left over the field of your interest; it will take you to the listing of all the indicators and synthetic indexes it is composed of and, starting from there, you can access the corresponding data and charts. And b) *downloading the spreadsheet files*; for each one of the 11 spheres you can download the complete information, either in .xls format (Excel) or as .ods (Open Office). This will

let you work offline on the information, including the possibility of modifying the synthetic indexes weighting, if you do not agree with our proposal.

In the database, each indicator is shown on a standard sheet, including a statistical series with the evolution between 1994 and 2007 (to be updated on a yearly basis), together with a number of links to access the indicator's information sources, and in its case, linked to the operations used to obtain the series, together with the charts – published in the book- related with the indicator (and that also will be updated every year).

Synthetic indexes

The *Social Barometer of Spain* has elaborated 45 synthetic indexes, being 34 of them corresponding to social dimensions, fed by the 180 indicators, and 11 to the general spheres, fed by the preceding 34 dimensions.

The dimensions indexes are developed from the combination of some indicators related to some socially relevant issue, for instance the *Poverty synthetic index* (Income and Wealth sphere) or the *Working Conditions synthetic index* (Employment sphere) or the *Housing Access synthetic index* (Housing sphere). The process used has been tested many times, together with a contrasting of the information with experts, before deciding the definitive adopted formula. Its operations are the following:

- For first instance, each series of secondary data (for example the temporary rate of the salary earners) is normalized, reducing it to a 0 thru 10 scale. The “0” mark is attributed to the worst value of the series, and “10” is given to the best value. The rest of the values in the series are attributed from 0 to 10, using a simple rule of three, referred to the scale of the series obtained from the secondary sources (interval between the series' best and the worst values). In our database, after each indicator's sources series (referred to the time period 1994-2007 in the present version of the Barometer), the normalized series is colored blue, and on its right it shows the data to normalize the series (the best and worst numbers of the series and the interval between them).
- For second instance, we proceed to the aggregation of the normalized indicators for every specific dimension. For example, “Working conditions” (including 6 indicators, among them the temporary rate of Salary Earners), we give each one of these indicators a given weight, which addition must result in 10 (as the result is obtained in the scale 0 to 10).

The operations in order to result into synthetic indexes of the eleven social spheres is similar to the one explained before, except that in this case the values added are the synthetic indexes of the dimensions corresponding to each sphere (when referred to “Employment” there are two dimensions: Employment Access and Working Conditions), giving to each of them a determined weight (using the same mechanics explained for the dimensions indexes). The resulting chart shows the general tendency between 1994 and 2007 of the corresponding sphere, and will be updated on a yearly basis.

In the lower part of the pages, referred to the synthetic indexes of the eleven spheres, a link grants access to a chart that lets you see the time evolution of the general

index (thick black lined) and of the indexes of the dimensions there are made of (colored thin lines). This way it can be seen which are the dimensions that influence on increases or decreases of the general index along the years. In case of modifying the indexes weight, the chart automatically changes, evidencing the new changes effect.

The main advantage of the chosen procedure to produce synthetic indexes is its great sensitiveness to variations along time, as it moves between 0 and 10 differences between the best and the worst datum. So it works for knowing the tendency; in other words, if a given matter is doing better or worse, and the oscillations it has gone through a period of time. Nevertheless, it has two cons, not frequent, but not to be forgotten: on the one hand, the result of normalization when existing variations are very small, will be shown as huge differences (we will always find a “very good” and a “very bad” case). On the other hand, as combining indicators to produce a synthetic index, each one of them will be homogenized (“0” thru “10”), not showing if most of the database is positive, negative or intermediate. When trying out which would be the best procedure, we tested other methods that tried to avoid the disadvantages before described, but we encountered some difficulties and/or more important application problems.

All things considered, the indexes used are useful to detect trends but must be interpreted with caution, always referring to the base indicators and taking into account, whenever possible, broad reference frameworks (historical series, the position of Spain amidst the European context, the theories explaining phenomena) so we can value in a qualitative way the temporary trends that the data shows us.

How to modify the indexes weighting

The indicators aggregation stage necessary implies an element of subjectivity, as it must be decided which weight is attributed to each indicator. To mitigate the risk of the authors’ slipped into arbitrariness, the user is granted the opportunity to change the weight given to each indicator, as long as the adjustments as a whole add up 10. While doing this, results and charts are automatically updated. It was also possible to detract or to add indicators, but this operations are more complex, as it requires the user to re-write the formulae so in one hand the series will normalize, and on the other hand, to calculate the indexes.

On top of this, it would be possible to aggregate the results of all the spheres, in order to obtain a global view of the evolution of life quality in Spain since 1994. Nevertheless, the operation at this level includes so many different spheres (and also not sufficient) that we have opted not to make it, writing instead general comments based on the ratio between the spheres’ indexes and specific dimensions. In any case, when applying the methodology shown here, users may elaborate a unique synthetic index, which synthesizes the information given in each one of the eleven analyzed spheres.

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