

A message from the Co-Executive Directors

Reality often sends us warning signals. Because of our concern for our future, we are making every effort to interpret and understand these signals and to contextualize them within the previous trends which we have monitored. We are certain that it is not sufficient to point out the existence of these trends and only to study and analyze them, but that we must act with determination to change the reality for the better.

Recently, the situation in Israel has, with increasing frequency, provided us with a wide array of unfortunate events that are damaging to the status of the Arab-Palestinian public in Israel, to equality between all the citizens, Jews as well as Arabs, and to the relations between the two national groups – Arabs and Jews – living in Israel. These events are clear signals of a deterioration that might take place in the future.

We cannot mention all the events in the context of this foreword, but we should point out at least the most prominent among them, beginning with the influence of the war in Gaza on the relations between Jews and Arabs, and including the delegitimization of Arab citizens who protested against the war, and the election campaign for the 18th Knesset, its outcome and its current consequences.

In regard to Arab citizens, the recent election campaign was characterized by two dangerous trends: another attempt to outlaw the Arab parties, and the strengthening of Yisrael Beitenu and its worldview. The outlawing of the Arab parties, Balad and Ra'am-Ta'al, by the Central Elections Committee was another attempt by the Knesset to prevent the participation of the Arab parties in the elections. This rejection undermines the basic principles of democratic government and the right of citizens to choose their representatives, and is a sign of the tyranny of the majority. We see these repeated attempts at delegitimization as a disturbing process that threatens the relations between the Arab citizens and the state, and believe that outlawing these parties is liable to lead to a very grave deterioration in these relations.

In addition, the election campaign was characterized by a threat to the Arab citizens and their rights, a trend that was reflected in the election propaganda of Yisrael Beitenu, headed by Avigdor Lieberman. This propaganda incited against Arab citizens and threatened to deny their citizenship in various ways. Yisrael Beitenu conditioned citizenship on a loyalty oath – a step that is typical of benighted regimes and is diametrically opposed to the concept of citizenship as a basic right. Even more regrettable is the fact that this demagogic trend found many supporters among the voters, turning Yisrael Beitenu into the third largest faction in the Knesset and the second largest in the coalition. Recently we received proof of the danger inherent in this party's ideology – a series of draft bills, statements and actions by party members.

For example, the draft bill of Member of Knesset (MK) Alex Miller, prohibiting the

commemoration of Nakba Day – a proposal that was approved by the Ministerial Legislation Committee and was later passed by the Knesset in a different version. Another example is the draft bill of MK David Rotem that would require Arab citizens to declare loyalty to the State of Israel as a Jewish and Zionist state. This proposal has been tabled by the government for the time being as a result of public pressure and international criticism.

It is also unfortunate that some government ministers exploit their position in order to promote a discriminatory policy and to make racist declarations against Arab citizens. We have recently encountered an abundance of racist actions and not only from marginal groups. For example: Transportation Minister Yisrael Katz recently decided to Hebraicize the names of the cities on road signs; Minister of Construction and Housing Ariel Atias recently said that “the spread of Arabs in Wadi Ara must be stopped.” And now, as though that were not enough, Education Minister Gideon Saar decided to remove the word “Nakba” from the curriculum in Arab schools.

Immediately after the elections Baruch Marzel and Itamar Ben Gvir entered the city of Umm al-Fahm at the head of a gang from the extreme right, in order to intimidate, incite against and provoke the residents of the city. This led to serious confrontations between the police and Arab citizens, who took to the streets to protest the visit that was inspired by hatred and racism. We should point out that Jewish citizens also came to Umm al-Fahm to express their solidarity with the city residents. Baruch Marzel and a group of his cronies continued their hate campaign in the southern city of Rahat. These provocations were preceded by the events of October 2008 in Acre and the violent confrontation between Jewish and Arab residents of the city – incidents that remind us once again of the explosiveness of the relations between Arab and Jewish citizens, particularly in the mixed cities. These events make it clear why there is a need for immediate attention to the situation of the Arab communities living in those cities.

Despite the growing tension between the two peoples and the continued racism, discrimination and inequality between Arabs and Jews, the government, in its basic guidelines, refrained from any mention of its policy towards Arab citizens. We are very concerned about this evasion because it is clear to us that the government must introduce an immediate and comprehensive change in its policy toward Arab citizens. In light of the urgency of this issue we call on the government to conduct a continuing dialogue with representatives of the Arab public in order to understand the aspirations and needs of the Arab population and to involve it in determining policy. This should be done in the context of determining and implementing a comprehensive policy for attaining equality between Jewish and Arab citizens.

Sikkuy regards the following goals as burning issues that require immediate intervention: improving the level of the Arab school system by allocating the necessary resources; implementing changes in structure and content in the institutions of higher learning and making them accessible to Arab citizens. In addition, the government must grant the local councils special assistance for building and renovating the infrastructure in the Arab communities, act to strengthen Arab local government, improve individual and community welfare in the Arab communities, and supplement the social welfare budgets for the Arab local authorities.

Land is one of the core issues of contention between the government and the Arab citizens, who suffer from blatant and ongoing discrimination in the allocation of state lands. This discrimination reinforces the shortage of land in Arab society, and therefore the government

must ensure that public lands are made available to Arab citizens as they are to Jewish citizens and must guarantee the participation of the Arab population in planning processes and deliberations about its needs. The government must expand the municipal boundaries of Arab communities and add public lands to them for the purpose of building new residential neighborhoods, approve the establishment of new Arab communities, encourage the construction of public housing for those in need, in a manner culturally appropriate to the Arab population, end discrimination against the Arab residents of the mixed cities, and recognize the unrecognized Arab communities in the Negev, according to just and egalitarian criteria. We call on the government to assume responsibility for the housing shortage in the Arab sector and to use the means at its disposal to alleviate this shortage.

The Arab communities are prominent on the list of communities suffering from poverty and unemployment. In light of the global economic crisis, which is expanding the circle of unemployment, the government must promote the creation of jobs for Arab citizens, establish industrial and employment zones in the Arab communities, partner Arab local authorities with existing regional industrial zones and absorb Arab citizens in the civil service. The government is also responsible for integrating Arabs into those branches of the private sector from which they are effectively excluded.

Beyond the material resources, there is also a need for action on the symbolic level. The government must afford Arab citizens the opportunity to express their Arab culture and must allocate the necessary resources as well. Its correspondence, publications and conduct must reflect the fact that Arabic is an official language in the State of Israel. Parallel to all these, the government must formulate a comprehensive plan to check racism and incitement against the Arab public and its leadership and act to implement the recommendations of the Or Commission regarding the rights of the Arab population. In this context we must again mention that we should not accept the decision to close the files of the policemen guilty of killing the 13 Arab youths during the events of October 2000. We support the demand of the Higher Arab Monitoring Committee to establish a neutral committee of inquiry to thoroughly investigate the killing of the Arab demonstrators.

The Israeli government under Ehud Olmert, whose term ended in March 2009, made several positive decisions and even implemented a number of positive steps concerning to Arab citizens. Worthy of mention are the following: a government decision to pro-actively make government services accessible to the Arab population and government decisions to promote fair employment of Arabs in government ministries. On the level of implementation we can note the significant progress in the preparation of master plans for Arab communities and the establishment (in the Prime Minister's Office) of the Authority for the Economic Development of the Arab, Druze and Circassian Sectors and the allocation of budgets to this authority.

However, these are preliminary and very limited steps. The scope of discrimination against the Arab population obligates the present government to take dramatic and powerful steps to deal with the issue of inequality. Although this government did not state its policy toward Arab citizens in its basic guidelines, it is still not too late to correct this. The government must immediately and diligently embark on planned, comprehensive and budgeted action and must not ignore the clear warning signals.

Sikkuy, a shared organization of Arab and Jewish citizens, is not satisfied with analyzing and publicizing the situation; it is an action-based organization that aspires to change the situation by implementing various projects on three levels: vis-à-vis the central government,

in local government and among the general public. These initiatives are designed to promote an egalitarian policy, to create permanent frameworks for action and to persuade the public to support equality and to be seriously concerned about the issue of citizenship.

It is not easy to work in the difficult situation we have described, but we believe in the possibility of changing it and we are determined, as people committed to the principles of justice, equality and freedom, to carry on with our efforts to bring about real changes.

We hereby present the third Equality Index, which is the work of many people – both experts and staff members. This is an authoritative index based on scientific methodology, prepared with the assistance of Israeli professionals who are leaders in the relevant fields of research.

The 2008 Equality Index demonstrates again that the inequality between Jews and Arabs is increasing. This means that the declarations made by various Israeli governments in the past decade and the steps that have been taken have not been translated into even the slightest reduction in the inequality between Arab and Jewish citizens. This fact should cause us sleepless nights. The grave findings of the index should be seen as a warning of the destructive results of government policy; the analyses and the insights in the index serve as a platform for changing this policy.

We would like to thank the Sikkuy staff, which worked and contributed to this index, and especially Ms. Manar Mahmoud and Mr. Yaser Awad, who invested a great deal of time and thought to improving the index, gathering and processing the data, and writing this report. In addition, we thank Mr. Alaa Hamdan, who recently joined the Sikkuy research department and contributed significantly to the process of producing the index.

We also would like to thank the members of the steering committee for developing the index – Prof. Mohammad Haj-Yihye, Prof. Rassem Khamaisi, Prof. David Nahmias, Prof. Yossi Yahav – who accompanied the work of the staff members and contributed significantly to the completion of the third index.

In addition, we would like to thank the team of content experts, who spared no attention, comment and advice: Dr. Khaled Abu Asbah, Dr. Anat Ben Simon, Dr. Nihaya Daoud, Dr. John Gal, Dr. Ravit Hananel, Prof. Yossi Katan, Prof. Rassem Khamaisi, Mr. Mohammad Khatib, Dr. Sami Miari and Dr. Shlomo Swirsky.

Finally, we would like to thank Shalom (Shuli) Dichter, who at the end of last year concluded a decade of service as co-executive director of Sikkuy. Shuli made a significant and invaluable contribution to strengthening the organization and disseminating its messages. We are certain that his insights, efforts, professionalism and belief in the justice of our cause will continue to guide us in the future. We thank him for all of these and wish him continued success.

Sincerely,
Ali Haider, Adv. and Ron Gerlitz
 Co-Executive Directors

Abstract

Sikkuy, a shared organization of Jewish and Arab citizens of Israel which works to achieve full equality between Jewish and Arab citizens, has taken upon itself the civic responsibility for the development and presentation of the Equality Index of Jewish and Arab Citizens in Israel, for the third consecutive year. The Equality Index is the product of the work of many well-known experts in Israel, both Arabs and Jews, who contributed a great deal of their time and knowledge to constructing this unique index. During the third year of the index we learn of a continuing deterioration in the state of inequality between Arabs and Jews; in other words, a widening of the gaps between the two groups, to the detriment of the Arab population.

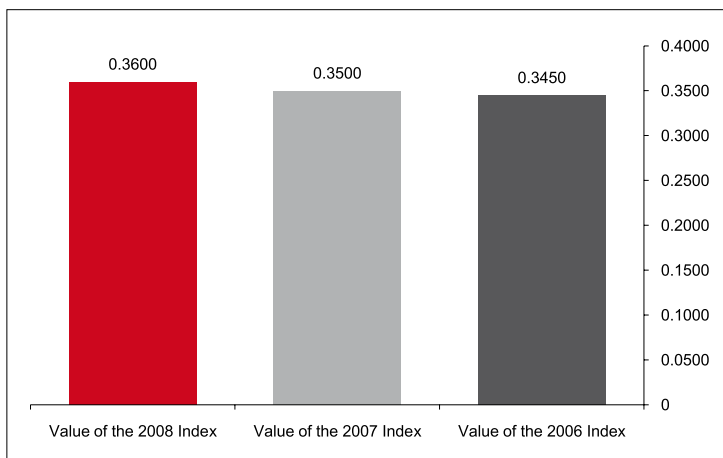
The Equality Index between Jews and Arabs is the first aggregate index in Israel that systematically analyzes the gaps between Jewish and Arab citizens of the country. By means of the index we aspire to present as broad a picture as possible of the state of equality between Jews and Arabs in various areas. This is, of course, subject to the limitations of the data at our disposal. The present index, like those published in previous years, focuses on the socio-economic aspect only. The index serves as a tool for comparing Jews and Arabs in the following areas: health, housing, education, employment and social welfare.

In order to carry out a quantitative assessment of the level of equality between Jews and Arabs in each of the selected areas, with suitable integration of the indicators and variables, there is need of an aggregate index, with which it is possible to combine all the variables and to weight them into one overall value. The aggregate index gives weight to each population group in accordance with its percentage in the general population, and takes into account the degree of difference between the two population groups in relation to each variable. In other words, the basic assumption is that in conditions of equality, each group's share in the overall resource pie corresponds with its percentage in the general population. The five aggregate indexes are combined into one weighted index. The weight of each of the areas (health, housing, education, employment and social welfare) in the Weighted Index is determined in accordance with its share in the total national expenditure on all five areas.

The range of values of the index ranges from (-1) to (1). A value of zero indicates complete equality. A value tending towards 1 indicates inequality in favor of the Jewish population, and a value tending towards (-1) indicates inequality in favor of the Arab population.

The value of the weighted Equality Index for 2008 indicates an increase in the level of inequality between Jews and Arabs, in other words, a widening of the gap between the two populations, to the detriment of the Arab population. The value of the 2008 Equality Index is 0.3600 – relatively higher than the 2007 index (which was 0.3500) and the 2006 index (0.3450). In other words, between the years 2006 and 2008 there was a distressing increase of 4.3 percent in the overall Equality Index between Jews and Arabs (see Diagram A, p. 12).

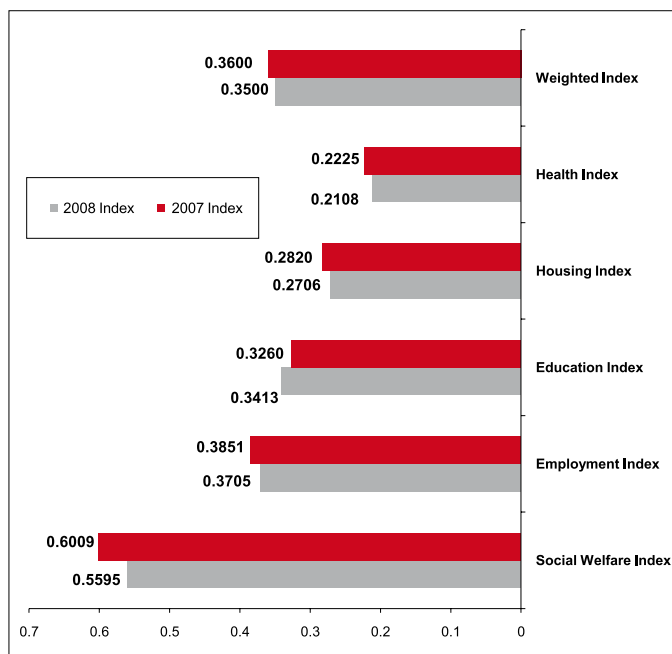
Diagram A: The values of the Weighted Indexes¹ 2006-2008



Unfortunately, the present index testifies to increasing inequality in four of the five areas examined (the exception is education). This continues the trend of an increase in the gap, which has been evident since the preparation of the first index in 2006.

Below are the changes in the index between 2007 and 2008 in the various areas:

Diagram B: The values of the aggregate indexes in health, housing, education, employment and social welfare and the weighted Equality Indexes 2007-2008



¹ In order to enable a comparison between the 2006 index and those of 2007 and 2008, we have merged the basis for calculation by means of a moving average, so that the 2006 index was recalculated in the format of the 2007 index in the following manner: The calculation was done only for the Housing Index and the Social Welfare Index (for which there was a change in the basis of calculation beginning in 2006) for 2006 in the 2007 format, by reducing the value of the 2007 index in these two areas by the percentage of the increase in these indexes between the 2006 index and the 2007 index in the 2006 format.

◆ **The value of the 2008 Health Index**

This is the lowest of all five indexes. However, this is the third year in which there has been an increase in the value of this index – an increase that indicates the widening of the gap in favor of the Jewish population. The 2008 Health Index is 0.2225 as compared to 0.2108 (the 2007 index) and 0.2076 (2006). These findings indicate a worsening of the situation, in other words, an increase of about 7.1 percent in inequality in the area of health, beginning in 2006, to the detriment of the Arab population.

◆ **The value of the 2008 Housing Index**

The index is significantly higher relative to previous years: 0.2820 as compared to 0.2076 (2007 index) and 0.2678 (2006)². These findings indicate a worsening of the situation and an increase of about 5.3 percent in the inequality between Arabs and Jews in the area of housing, beginning in 2006, to the detriment of the Arab population.

◆ **The value of the 2008 Education Index**

Indicates a decrease in recent years: 0.3260 as compared to 0.3413 (2007 index) and 0.3420 (2006). These findings indicate a decrease of about 4.7 percent in inequality between Arabs and Jews, beginning in 2006.

◆ **The value of the 2008 Employment Index**

The index indicates an increase: 0.3851 (2008) as compared to 0.3705 (2007) – an increase of about 3.9 percent. This is as compared to a decline of about 4.7 percent between 2006 and 2007 – from 0.3882 to 0.3705. The general trend indicates stability in the Employment Index.

◆ **The value of the 2008 Social Welfare Index**

This is the highest of all the aggregate indexes, and this year is 0.6009 as compared to 0.5595 (2007) and 0.5386 (2006)³. This is the third consecutive year in which the value of the Social Welfare Index has increased; in other words, the gaps between Arabs and Jews are widening in favor of the Jewish population. There was a steep increase of 11.5 percent between 2006 and 2008.

Summary

The 2008 Equality Index presents a harsh picture to the public and to decision makers in the country. The inequality between Jews and Arabs stems from the gap between government inputs and from the gap between the results of implementation of government policy over time for Arabs and Jews – in other words, the results of the quality of implementation⁴ of this policy. This gap is reflected in the following areas:

- ◆ In the area of health, the quality of government implementation for a single Jew is the same as for 1.28 Arabs.
- ◆ In the area of housing, the quality of government implementation for a single Jew is the same as that for 1.39 Arabs.
- ◆ In the area of education, the quality of government implementation for a single Jew is the same as for 1.48 Arabs.

² See footnote 1.

³ See footnote 1.

⁴ The quality of implementation is reflected in the value of the index variables, whether they are variables reflecting direct investment of inputs (such as the budget of the welfare bureaus, teaching manpower et al) or variables reflecting outputs (such as education level, poverty, employment et al).

- In the area of employment, the quality of government implementation for a single Jew is the same as for 1.62 Arabs.
- In the area of social welfare, the quality of government implementation for a single Jew is the same as for 2.5 Arabs.
- Overall, the quality of government implementation for a single Jew is the same as for 1.56 Arabs.

The results of this index, after three years of follow-up, unfortunately indicate an increase in the inequality between Arab and Jewish citizens for the third consecutive year. The index shows that in the past year the inequality has increased in every area except for education. The picture we receive from these findings is a matter of great concern, and should serve as a warning signal to decision makers and to the general public. We call on the government to act immediately to narrow the gaps.

The 2008 Equality Index Introduction and Explanation

The value of equality stems from the basic assumption that the value of life is a common denominator for all human beings, which endows them with a natural right to live in dignity. The right to live in dignity is the right of every person, regardless of differences such as wealth, ethnic origin, nationality, religious belief, gender, sexual proclivity, heredity, health and culture. However, that same basic human right to live in dignity requires a consideration of all the components of differences among people. People are born into various life circumstances, and their degree of control over their lives depends on these circumstances. Therefore, implementing basic rights requires attention to the sum total of resources at the disposal of society and to the way in which these resources are allocated among its members⁵.

The vital importance of equality as a human value stems from both moral-ethical and utilitarian considerations. From the moral-ethical aspect equality is seen as a natural right of all the individuals and groups in society. From the utilitarian aspect, equality is a basic condition for a democratic regime. Moreover, it is a crucial means of advancing the level of human ability and performance in the various spheres, such as economics, education and health. Studies have shown that discrimination and profound economic and social gaps undermine achievements in all areas⁶. Moreover, equality is vital for consolidating and maintaining the social consensus, while a sense of deprivation erodes social stability and solidarity⁷.

The commitment of countries and organizations to the principle of equality, as one of the values to be taken into account when making decisions and formulating policy, has led to a growing need for monitoring and follow-up of the state of equality between individuals and various groups in the population. The United Nations developed the Human Development Indexes, which assess the gaps in the level of human development between countries. In the United States, the National Urban League initiated an equality index between blacks and whites. The European Union has been working on a gender equality index, and in the wake of the increase in immigration they are now developing a European Inclusion Index, which enables a follow-up of immigration policies in the various European countries.

The Equality Index between Jews and Arabs is the first aggregate index in Israel that systematically analyzes the gaps between its Jewish and Arab citizens. By means of the index

⁵ Edward N. Zalta (Ed.) Stanford Encyclopedia of Philosophy, Stanford CA: Center for the Study of Language and Information, Stanford University, 1998.

⁶ United Nations Development Programme, "Inequality and Human Development," Human Development Report, 2005.

⁷ Report of the State Commission of Inquiry into the October 2000 clashes between the security forces and Israeli citizens, Jerusalem, September 2003, p. 43.

we aspire to present as broad a picture as possible of the state of civic equality between Jews and Arabs in Israel in the three primary components of citizenship: legal, political and socio-economic equality, within the limitations of the data at our disposal. At present the index focuses on the socio-economic aspect only, serving as a tool to compare Jews and Arabs in the areas of health, housing, education, employment and social welfare .

In order to make a quantitative assessment of the level of equality between Jews and Arabs in each of the selected areas, while properly integrating the indicators and the variables, we created an aggregate index, which enables us to combine all the variables into one overall value. The index gives weight to each population group in accordance with its percentage in the general population, and takes into account the degree of difference between the two groups relative to each variable. In other words, the basic assumption is that in conditions of equality, the share of each group in the overall pie of resources is commensurate with its percentage in the general population. The five aggregate indexes are combined into one Weighted Index, in which the weight of each area (health, housing, education, employment and social welfare .) was determined by the percentage of each area in the total national expenditure on all five.

Aims of the index

The Equality Index is designed to serve four main purposes:

- To serve as a tool for tracking government policy and its results.
- To monitor the state of the gaps between Jews and Arabs in a given time period and over a period of time.
- To influence public opinion by raising awareness, and to promote commitment to equality.
- To determine goals for closing the gaps between the two population groups.

The target audiences

The two principal target audiences of the index are government institutions and the general public. In addition to keeping track of government institutions and putting pressure on them, we need to deepen public awareness of the destructive results of discrimination and inequality, and to empower the populations that suffer from discrimination, so that they will be able to protect themselves from it more effectively.

Uses of the index

The index serves as a tool for diagnosing and pinpointing situations of inequality, for measuring the extent of inequality, and for monitoring progress or regression in the state of equality over time. In later stages we will be able, by means of the index, to point to possible links among variables on the one hand and results in the field on the other.

Population examined by the index

Most of the data in the index come from the Central Bureau of Statistics (hereinafter the CBS), which publishes its data in three categories of population groups:

1. Arabs who are citizens of the State of Israel and residents of East Jerusalem.
2. Jews who are citizens of the State of Israel;
3. others, i.e. citizens of the State of Israel who are neither Jews nor Arabs. The Equality Index relates to two groups: Arabs and Jews. The first category includes all Arabs who are Israeli citizens, including residents of East Jerusalem⁸, while the latter is composed of Jews and others – non-Arab members of other faiths.

⁸ In many of its measurements the Israeli CBS does not differentiate between Arab citizens of Israel and East Jerusalem residents.

Data sources for the index

The data on which the Equality Index is based are taken from off-the-shelf data, which are published by the Central Bureau of Statistics, the National Insurance Institute and government websites, as well as from data provided to us by the Freedom of Information departments in the various government ministries.

The quality of the index's findings depends largely on the number and quality of variables it includes. We hope that the database produced for us by the government ministries will eventually grow, so that we will be able to elaborate on the picture portrayed by the index, and through it to provide a better and clearer reflection of obstacles to equality and opportunities for advancing it.

Indicators and variables

The Equality Index, with its five areas, comprises 16 indicators and 96 variables. We aspire to include in the index indicators and variables on which there is as broad a consensus as possible, and to reflect the situation as accurately as possible. The indicators and variables that were chosen are based on various research units (individuals, families, populations groups, geographical region etc.), and through them we can reflect social, economic and political goals⁹. In addition, they can be used as criteria for necessary policy changes. The index variables can be grouped into various categories to enable an analysis of the present situation in various dimensions and aspects (for example, variables that describe inputs and those that describe outputs).

The Equality Index is a growing and developing index, and therefore our goal is to expand the number of variables and indicators included in it. Nevertheless, we are aware of the fact that changes in the array of indicators and variables undermine the continuity of the index. Therefore, changes with far-reaching implications for the value and continuity of the index will be introduced only every few years. This year we did not change the array of indicators and variables relative to the 2007 index. Therefore the comparison is unambiguous.

Range of index entries

The range of the index entries varies from (-1) and (1). A value of zero indicates absolute equality. When the value of the index moves toward 1, it indicates inequality in favor of the Jewish population, and when it moves toward (-1), it indicates inequality in favor of the Arab population.

Mathematical presentation

Each variable is represented by the average over five years, which is denoted by C_i , with i indicating a given variable out of n different variables. Every C_i vector has C_j components, with j indicating a given population out of m various sub-populations (in our case, $m=2$, Jews and Arabs).

An average value for each variable i can be calculated for the total population (which will be denoted by m_i), in the following manner:

$$mC_i = \sum_{j=1}^m p_j C_{ij}$$

While P_j represents the weighted coefficient for population j , also $\sum_{j=1}^m p_j = 1$

In order to aggregate different variables with different measures units, we standardized the vector C_i into new vector called N_i , thus $N_{ij} = p_j C_{ij} / mC_i$

⁹ See Indicators and Variables Key, pp. 70-73 .

Therefore, for every i we produced a dummy variable, such as $\sum_{j=1}^m N_{ij} = 1$ with

$$\bar{N}_i = \sum_{j=1}^m N_{ij} \text{ and } S_i = (\bar{N}_i * (1 - \bar{N}_i))^{0.5}$$

denote the mean and the standard deviation of the variable respectively.

Define a vector such that $IND_j = \sum_{i=1}^n \frac{(N_i / s_i)}{(P_j / s_i)}$

We calculate the integral index for each sub-population, relating to the area being studied, which will be marked IND_j as a weighted total of the adjusted vector of variables for that sub-population (N_i), which the weight given to the variable in the index is the opposite of the standard deviation s_i . The expression with the formula IND_j is analogous to the ration between observation and expectation.

The index IND_j was calculated for each sub-population separately, and we have created a new relative index that is the ratio between the difference between the index of the two sub-populations divided by the maximum value of the index between the two sub-populations, and marked index.

In our case there are two populations, Jews and Arabs, and therefore $j=1,2$. The index is defined as:

$$index = \frac{IND_1 - IND_2}{Max(IND_1, IND_2)}$$

The $Max(\dots)$ function expresses the completion (the transfer) that must be implemented in expressing the denominator in order to reach equality for the sub-population that received less than the share it deserves according to its relative share in the general population.

It should be mentioned that in order to preserve the uniformity of the effect of the change in the values of the average of the variable being studies, the variables in the analysis were classified according to the way they influence the direction of the values of the index. For some variables, the higher their average value, the more positive an influence they have on the situation of the sub-population. On the other hand, for other variables, the higher their average value the more negative their influence on the situation of the subgroup (inverse ratio). For example, in the area of education, when the average number of children in a class drops, the situation of the sub-population improves. These variables have undergone a transformation and are listed in their opposite value (1 divided by the variable average). The other variables are presented without change.

Characteristics of the index

- The index has statistical traits that are common in indexes of this type.
- The index is characterized by an ability to predict the changes in the state of equality/inequality.
- The value of the parameter of weighting in the formula of the index is of great importance. Therefore there is a need to determine a significant value (there can be a different value for various indicators and variables) that expresses policy and/or genuine distribution, or alternatively as proportions between two population groups. When the weighting parameter is uniform and fixed for all the variables, the change in the degree of equality between the two populations is solely a result of changes in the values of the variables.

When there is a change both in the weighting parameter and in the values of the variables, the intensity of the change and the ratio between them will affect the degree of equality. Various values can be used for the weighting parameter for various variables, while of course maintaining the relevant significance of the suggested weighting.

- ◆ The closer to identical the distribution in the sense of equality between a first moment (average) and a second moment (difference) between the two populations, the more the value of the index approaches zero (i.e. equality).
- ◆ The index takes into account not only the value of the adjusted variable i of one population group, but also the distance between the adjusted variable i in one population and the adjusted variable i in the second population group.
- ◆ The index is a function of the weighting parameter, its share in the space, with the exception of the extremes (in the extremes the value of the index approaches zero, because there is no assumption of the existence of two population groups).
- ◆ Given the form of distribution of the variables in populations m and m' , and assuming that the distribution of variables in populations m and m' is not identical in the sense of a first and second moment, then there is a' value for the weighting parameter a , for which index = 0 (total equality). When $a' \geq a \geq 0$ and a converges to a' then index converges to total equality. On the other hand, when $a' < a \leq 1$ and a converges to 1 the index converges to total inequality. This trait indicates that even if the gap between the two population groups is large, there is a range of the weighting parameter such as $[a', 0)$ in which the index converges to equality in spite of the overrepresentation of the sub-population, and that guarantees a given level of inequality in light of the indicators in the analysis.

The Weighted Index

The Weighted Index sums up the five aggregate indexes and expresses the distance of both population groups from the point of equality. Each of the aggregate indexes is weighted in accordance with the relative weight of each of the five areas in national expenditure. The rationale of weighting the national expenditure stems from the fact that it includes the total public expenditure (government, local government and non-profit associations), in accordance with national policy and order of priorities, and the total private expenditure (households and individuals) in the various spheres in accordance with their ability and preferences. The sum of the combinations of the product of the index values in the five spheres in the percentages of national expenditure represents the final difference between government and household allocations on the one hand and actual resources on the other.

Method of calculation

The index value was calculated with the Excel macro system, in order to carry out simulations of the sensitivity of the value of the aggregate index to a change in values. For example, we examined the sensitivity of the index to changes both in the weighting parameter and in the values of the variables and the various indicators among the two populations in each of the spheres.