# The Gender Index Gender Inequality in Israel 2013

Hagar Tzameret-Kertcher



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**Principal Researcher:** Dr. Hagar Tzameret-Kertcher

Research Team: Oleg Glybchenco, Yulia Basin, Lior Kadish

Steering Committee: Prof. Naomi Chazan, Prof. Hanna Herzog, Hadass Ben Eliyahu, Ronna Brayer-Garb

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© 2013 The Van Leer Jerusalem Institute Graphic Design: Rami & Jacky Studio Ltd. The Center for the Advancement of Women in the Public Sphere (WIPS) was

established at the Van Leer Jerusalem Institute in 2009 with the support of The Dafna Fund. WIPS is committed to gender mainstreaming as an overall strategy for promoting the democratic and civil status of women in diverse social groups. This approach aims to transform the issue of gender inequality into a general social worldview that relates to both men and women and to all social structures. The WIPS center aims to make gender equality an inseparable part of the thought and action of legislators and decision makers in various areas.

WIPS conducts research, promotes strategic thinking, and initiates projects and programs in areas relevant to implementing gender mainstreaming and gender equality in Israel. The founders of WIPS seek to make it a framework that brings together women's organizations, feminist activists, researchers, legislators and decision makers, so that their dialogue and sharing of ideas will serve as a source of knowledge, guidance and experience for anyone interested in promoting gender equality and gender mainstreaming in Israel. The center also promotes strategies to coordinate the efforts and impact of social action designed to promote the status of women and gender equality by connecting grassroots women's organizations, policy makers, legislators and those acting for broad social change.

### **Acknowledgements**

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To our families and friends, we thank each and every one of you for the many ways you supported us. Ultimately, the full responsibility for the Index is ours.

The WIPS team: Hanna Herzog, Naomi Chazan, Ronna Brayer-Garb and Hadass Ben Eliyahu

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# Introduction: From Measurement to Action - The Gender Index as a Strategy for Promoting Gender Equality

The Center for the Advancement of Women in the Public Sphere (WIPS) at the Van Leer Jerusalem Institute, is committed to gender mainstreaming (GM) as an overall strategy for promoting the democratic and civil status of women in diverse social groups. This approach aims to transform the issue of gender inequality into a general social worldview that relates to both men and women and to all social structures.

In pursuit of this strategy, WIPS set out to create an index that would serve as a tool to examine gender inequality in Israel and its development. The Gender Index is a multidimensional measurement tool that monitors changes in the level of gender equality over time. We should emphasize that "gender" is not a synonym for women. The term "gender" refers to social definitions of the roles of men and women, and the social definitions and expectations that channel women and men into different social positions in the economic, political, civilian and cultural spheres. A gender-sensitive perspective indicates the ways by which social arrangements distinguish and separate between women and men and establish gender inequality. It also seeks to expose the mechanisms that generate inequality and power relations between the sexes. <sup>1</sup> The Hebrew word for gender, migdar, comes from the root of the word "fence" or "barrier". Therefore, it not only alludes to the English term but also emphasizes the social definition that builds fences and erects boundaries between women's spheres and men's spheres and between women and men. A gendered social, economic, political and cultural analysis seeks to challenge the prevailing order that excludes women from all walks of life and makes the lives, needs and experience of women from diverse groups and stations of life an inseparable part of the social order.

The strategy of integrating a gender-sensitive perspective also seeks to turn gender equality into an inseparable component of social thought and action in every area. This strategy exposes discriminatory arrangements and encourages the social systems to recognize the mechanisms that obstruct, discriminate against, and harm women, while generating systemic change and shattering formal and informal gender barriers. In other words, this strategy demands that mainstream society and culture expose and recognize its gendered assumptions and change them (gender mainstreaming). This strategy

\* I thank my friends in the WIPS team, Naomi Chazan, Ronna Brayer-Garb and Hadass Ben Eliyahu for their helpful comments.

<sup>&</sup>lt;sup>1</sup> For a discussion of the concept of gender, see for example Scott [1989] 2006, Izraeli, *et al.* 1999, and Herzog 2006.

focuses on a perceptual change of the deep social structures that are presented as universal, but do not provide equal opportunities to men and to women. Furthermore, this strategy seeks to create arrangements that facilitate changes in social systems in order to make them accessible to both women and to men. It means establishing a gender-sensitive organizational culture that asks at every stage of planning and decision-making, how it affects women and men, and tries to develop suitable ways to meet their varying needs, while aiming for gender equality.

Integrating gender mainstreaming as a strategy for promoting gender equality was first introduced at the UN's Third World Conference on Women in Nairobi in 1985 but received public recognition only when it was adopted by the UN member states at the Fourth World Conference on Women in Beijing in 1995. The UN member states adopted diverse plans of action to promote gendered evaluation of legislation and policy and demand that authorities take responsibility for the collection and analysis of statistical data related to sex and age, which reflect differences between men and women in different social contexts.<sup>2</sup> This strategy links gathering data for policy decision-making with critique and action for change.

### How does the Index contribute to Gender Mainstreaming?

The Gender Index places gender on the social agenda. It is a tool used to create a snapshot of the depth and breadth of gender inequality. The Gender Index is the newest in a long list of existing indices and would seem to beg the question regarding the purpose of yet another index. But this question serves only to highlight its importance as the Gender Index seeks to fill a void in the world of indices. Many indices deal with social phenomena in generalizing and general terms. The WIPS Gender Index highlights the gender blindness of many existing indices and raises public awareness to that bias. Such gender blindness is expressed in many indices in the absence of gender segmented data. An unrecognized, unnamed and undocumented phenomenon simply cannot be discussed.

The heart of the Index is marking: pointing to a phenomenon and its directions of development. The Index is a tool whose function is to serve those who deal with measured phenomena: planners, decision-makers, government officials and civil society organizations. Without data, the initial basis for employing a strategy of integrating gender thinking is missing, and therefore the very existence of a separate index

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<sup>&</sup>lt;sup>2</sup> Among both researchers and feminists the theoretical and practical meanings of gender mainstreaming are in a constant process of negotiation (see Verloo 2006, Walby 2005 and a brief overview in Steinberg 2012, pp. 46-49).

becomes a catalyst and accelerator for the demand to expand gender information. Such expansion is possible by requiring data collecting bodies to gather and process data through a gender prism, and requiring that government ministries and the Central Bureau of Statistics (CBS) – the central body responsible for collecting data in Israel – will initiate a systematic collection of data in areas related to understanding the gender situation for which data is not presently collected at all. The demand to receive data from government bodies enables the Index to become a tool in the service of different government bodies, and its byproduct is cultivating a culture of transparency, which is a basic condition for government in a democratic society.

Collecting data and presenting a current status report are not explanations per se but have the potential of generating public discourse. They stimulate the need to study, understand and explain the reasons and conditions for the creation of inequality and the conditions to diminish and confront them. Furthermore, if the current status is grim there is an expectation that the Index will lead to action. A phenomenon cannot be monitored if you do not recognize its existence, but once its dimensions are exposed and it is measured and marked, it may be confronted. The Gender Index is therefore a monitoring tool for the bodies that process data and no less so, for the bodies that are connected in various ways to setting policy and shaping the status of gender inequality. Finally, monitoring is the basis for developing strategies for change, because indicating gender inequality makes it possible to demand an examination of the mechanisms that create inequality or perpetuate long-standing gaps between men and women, and possibly also to reduce them.

### The Uniqueness of the WIPS Gender Index

This Gender Index is both unique and innovative. Unlike most indices that compare countries using a few basic parameters, the Gender Index takes an in-depth look at the status of gender inequality domestically. It does not limit its examination of the degree of inequality to a small number of fields, but seeks to constantly expand the dimensions of life that are included. Each dimension is examined by several indicators that make up the overall index and the goal is to continue expanding them with an emphasis on diversifying both the dimensions and the life experiences of women represented in the Index. The Index does so from a critical stance, assuming that there is no single category that embodies women's diverse life experiences, and that these life experiences should be compared to the data on men's life. A broad range of data from the past and present regarding diverse areas of life, data on different groups of women and regular updating of the data: all these paint a comprehensive and profound picture of the status of

gender inequality. The repeated measurement over time indicates the direction of development – either a worsening and expansion of inequality or an improvement.

As opposed to indices that tend to converge into a single concept of gender - men versus women - the Gender Index broadens our view of the network of social connections and examines how the intersections of such factors as class, ethnicity, nationality, family status affect power relations between men and women in various social sites (Choo and Ferree 2010). Like men, women are not a uniform category and it is vital to examine the level of equality within each category in different contexts. We view the dimensions and indicators as "formative indicators" that shape the gendered structure, and therefore we do not intend to make do with the conventional measurement categories in the index discourse. We would like the Gender Index to serve as a sensitive sensor of changing circumstances and to incorporate new indicators that grow out of women's experiences.

Another unique and innovative contribution of the Gender Index is that it is not limited to a detailed measurement of its components but also offers an aggregate perspective that combines all the indices and all the indicators into an overall grade that represents the extent of inequality. In other words, the Index offers a multifaceted perspective achieved by a systematic examination of the data and its expansion over the years, in order to examine the directions of development in each of the Index's areas and in each of its components; simultaneously it provides an overall picture of the level of inequality<sup>4</sup> so that it can serve as a compass for decision-makers and governmental and public bodies in Israel, as well as for civil society in general and women's organizations in particular. The Index was developed as a general platform that is also sensitive to the unique circumstances of Israeli society. This platform can become a model for other countries that wish to take into account their unique circumstances, as well as enable comparison between countries.

The creation of international indices with local characteristics reflects the spirit of international women's conferences, in which women wish to leverage the domestic struggle in each country to change gender power relations by raising a feminist voice

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<sup>&</sup>lt;sup>3</sup> For the term "formative indicators" see Cenfetelli and Bassellier 2009, and Diamantopoulus and Winklehofer 2001. According to this view the indicators are not causes but effects of covert and overt variables that the indicators measure. In our context we will speak about logics of gendering mechanisms. Formative indicators indicate a structure that is the function of the items that construct it (Diamantopoulus and Winklehofer 2001, p. 274), which leads to the need to constantly expand the range of indicators to measure gender inequality.

<sup>&</sup>lt;sup>4</sup> Indicating that the whole is greater than the sum of its parts. In other words, indicating the depth of gendered structures.

directed inside their society and country, while at the same time cooperating with other countries to integrate gender thinking in international mechanisms and institutions.

### Knowledge, Power and Feminist Action

The political power of statistics stems from the belief that they are objective, scientific, fair and impersonal (Leibler 1998). Some argue that "Israeli society has quantified itself to death" (Hakak et al. 2011). This argument is voiced due to the proliferation of indices and use of statistics to create policy and public discourse. This is not a uniquely Israeli phenomenon. The modern world is constantly documenting and quantifying itself, in a continuous process of scientification of many areas of life - i.e., describing and analyzing through the use of statistical data. The hunger for information or the "will to knowledge", as Foucault put it (2005, 16), is typical of contemporary thinking. The science of statistics manufactures categories that classify the population and quantify it according to characteristics. These social categories are perceived as social facts and influence the definition of social phenomena. Marking, describing, classifying, creating categories – do not only frame the phenomenon and thereby give it meaning, they also turn the individual into an object of analysis (Foucault 1996). Statistical knowledge turns into power in the hands of dominant groups, especially the government and administration, and they use it to make policy and allocate resources and thereby manage populations and control them, for example by using data on birth rates, mortality, fertility and poverty.

Foucault's concept "Power/Knowledge" gave rise to many studies that revealed the power of statistics and the power of knowledge as a tool in the hands of dominant groups. The gender blindness in statistical indices and among decision-makers and policy makers is a prominent example of the enforcement of a male-dominant worldview, which leads to the exclusion of women and women's knowledge. In light of the sharp criticism of turning the science of statistics into an instrument of population control and management, we claim that the problem does not lie in the science itself but in the sources of knowledge that build the science. The question that should be put on the agenda is not whether statistical data is needed but who defines what data is collected, for what purposes, and for whom. Rather than leaving the power in the hands of the dominant group that determines the measurement tools and indicators relevant for study, the Gender Index exposes gender biases, reflecting the view that it is women who should decide how to measure their own lives; also, in order to examine gender inequality, the Index proposes a different way of thinking about what should be quantified and how. Following Sandra Harding, a feminist philosopher of science, we shall argue that the Gender Index is characterized by a "strong objectivity" (Harding

1986, 1993) because it enables us to integrate different life logics into the heart of the scientific discourse and establishment and thus to convey them to decision- and policy makers.

Knowledge is power and therefore the construction of a new index is part of women's collective effort to be partners in manufacturing alternative knowledge. Feminist knowledge expands the perspective of research into daily life and human experience (Smith 1974, 1987). It eradicates the boundaries between knowledge created in academia and knowledge created by people's daily experiences and turns human experience into a source of knowledge. Different knowledge creates not only a different social reality but potentially also a different political reality. The Index is thus a tool offered to decision-makers and resource allocators, a means to integrate gender thinking and an aid to women's and social-change organizations. And no less importantly, the Index was constructed through an ongoing effort to establish feminist thinking and work patterns. These patterns do not preclude the prolific action in the field but encourage thinking about ways to cooperate with women and with the feminist movement in general, and recognize the knowledge created in its diverse sites of action.

The Index was developed by professionals but its development process was distinguished by brainstorming and dialogue between professionals and representatives of women's grassroots organizations. The decision to include grassroots activists in thinking about the indicators that were to comprise the Index resulted from the Index Steering Committee's perception that knowledge stems from the bottom-up and that the Index should reflect states of mind in the community and the ways in which gender inequality is perceived from different social locations. This cooperation is an expression of a broader perception that women's action in real life is a source of knowledge and that the existence of numerous women's organizations does not obviate the existence of even one of them. On the contrary: the more prolific, varied and expansive feminist action becomes, the more feminist knowledge will grow and expand.

The Index's basic structure and the ways it could be expanded were discussed in a workshop of governmental research departments and other data generating bodies, including representatives of the CBS, as well as representatives of women's organizations. The goal of the workshop was to expose the Index to relevant parties but mainly to learn about and convey the deficiencies in gender-sensitive data and explore ways and possibilities to create new data.

### The Gender Index 2013: Significant Trends

The specifics of the Index and its findings are elaborated in detail in the report. This section highlights those findings that raise alarm bells: the years covered by the Index show no consistent trend of reducing gender inequality – neither in the indicators nor in the aggregate perspective. In the aggregate perspective, whatever improvement that did occur was minor and the few evident reductions in gender inequality did not lower the aggregate score to its measurement base point – 2004. Thus the decrease in gender inequality in the years 2008-2009 did make up for some of the growth in inequality in the years 2004-2007, but inequality did not return to the 2004 level that showed the smallest gender gap over the period measured. Inequality started increasing again in 2010, but did not reach the high point of 2007. 2011 saw another drop in inequality, although it did not reach its 2004 low point. In other words, the general picture that emerges is one of stagnation.

An examination of eight dimensions and tracking the changes in each and every one of these measures shows distinct developments over different dimensions: some of the examined areas showed a reduction of inequality gaps whereas others showed an increase, and this is true for indicators in every area. These curves indicate the lack of a uniform and clear policy or any across-the-board effort to close gender gaps in Israel. Furthermore, even in areas that did show some improvement, the difference between men and women was systematically maintained, which is to say "the floor rose but so did the ceiling".

In light of the common claim that inequality is only a temporary issue, because "women entered the public sphere late", the growing participation of women in the labor market and women's high level of education, and the continuous growth in the activity of civil society in general and the feminist activity of women's organizations in particular, we must ask the following questions. What are the forces that hinder gender equality? What steps should be taken to generate a fundamental improvement in the status of women and to achieve social fortitude and equality – necessary conditions for a proper democratic society and gender justice?

### **Hanna Herzog**

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### The Gender Index: What Is It and Who Is It For

The Gender Index is an index for the systematic monitoring of trends of gender inequality in Israel. The Index was developed by the Center for the Advancement of Women In the Public Sphere (WIPS) at the Van Leer Jerusalem Institute, headed by Prof. Naomi Chazan and Prof. Hanna Herzog. The purpose of the Index is to examine the level of gender inequality in Israel over time. It presents the inequality between women and men in different areas and dimensions of life over several years, as well as providing an overall score for the level of gender inequality in Israel today based on an aggregation of all of the dimensions.

The Gender Index is the first of its kind to examine domestic inequality, unlike other gender indices that compare countries. This is its distinguishing feature and makes it a potential policy compass for decision-makers and governmental and public bodies in Israel, as well as a guide for civil society in general, and women's organizations in particular. The unique contribution of the Gender Index compared to other indices in Israel and the world is that it systematically examines data in different areas over several years and assigns an overall score. This allows the Index to examine the developmental directions of each area and each component, while simultaneously presenting a comprehensive picture of the status of gender inequality in Israel, so that the whole is greater than the sum of its parts. The Index also takes into account many aspects of gender inequality, some of which - such as the gender inequality index in the Arab community- are not included in other indices, because it was developed out of a thorough understanding of the Israeli context in reference to that inequality. International gender indices have traditionally been limited in their gender inequality indicators. For instance, the GEM Index (Gender Empowerment Measure) looks only at the number of seats in parliament held by women, the rate of women at the junctions of economic decision-making, and income gaps. The GDI (Gender-related Development Index)<sup>5</sup> is also based on just three areas: health and fertility, empowerment and the labor market. These accepted indices do not take into account aspects of gender inequality in disempowered communities, for example.

We intend to publish the Gender Index annually and to continue expanding the dimensions and criteria to assess the changes so that the Gender Index becomes a tool for ongoing monitoring and a catalyst for the creation of new data series for which gender-disaggregated data is not yet being collected. We hope that the Index exposes gender blindness in many areas and illuminates the extent of gendering and inequality

 $<sup>^{\</sup>rm 5}$  For further information about the GEM and GDI, see Appendix 1 of this report.

which are invisible because of the absence of gender analysis and gender-disaggregation of data. The Index may also serve as a model for other countries and become a new tool for cross-country comparison, because such analysis is presently based on a limited number of indicators.

The Gender Index is in its embryonic stages. We developed a methodical model for its basic infrastructure and will continue to supplement and enrich this infrastructure with additional dimensions and indicators of gender inequality. In relying on the professional literature on indices, the first stage of our work was based on developing a methodology to construct indices for data that will enable us to monitor the development of gender inequality over time. Developing this tool was vital for our analysis because the literature on indices does not contain any accepted model that monitors the change in the level of inequality between women and men over time. The gender indices described in the literature and used by prominent research institutes only compare gender inequality between countries at one point in time, which is why we needed to connect the concept of gender with the realm of indices that monitor changes in ongoing social phenomena.

At this stage we developed an index that monitors gender inequality in eight dimensions, based on a total of 31 indicators that measure change in these dimensions over time. All indicators were statistically filtered so that they could be synthesized into a single index.<sup>7</sup> As part of the process of developing the Index, we developed new series that would shed light on gender inequality in areas that had not yet been tracked to provide a rich and complex picture reflecting the real lives of women of different social categories. The Index will be updated annually in order to monitor changes in the state of gender relations in Israel. This measurement currently presents eight points in time from 2004 to 2011.

We hope that the Index provides impetus to initiate discourse regarding the state of women and gender equality in Israel, as well as promote reforms and policies that would increase equality between women and men. We thank all the organizations and foundations that have supported this important and groundbreaking project, primarily the Van Leer Jerusalem Institute, the Dafna Fund, UN Women, the Hadassah Women's Foundation and the Boston Jewish Community Women's Fund.

<sup>&</sup>lt;sup>6</sup> See Appendix 1 for a list of international gender inequality indices that are used to compare between countries.

<sup>&</sup>lt;sup>7</sup> See Appendix 2 for a detailed description of the methodology used to develop the Gender Index.

### The Gender Index: Monitoring Gender Inequality in Israel

The structure of the Gender Index presented in Figure 1 is based on the calculation of gender inequality in Israel in eight dimensions: the labor market, violence against women, gender gaps in the center vs. the periphery, gaps in the Arab society, poverty levels among women and men, educational attainment, political representation and health. Each dimension is comprised of several indicators, totaling 31.

Figure 1
The Gender Index: Dimensions and Indicators

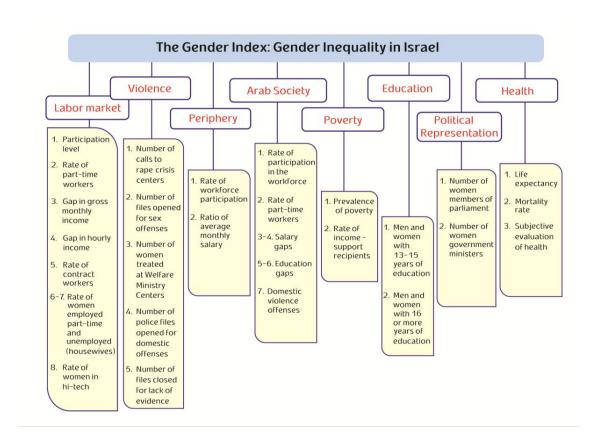


Figure 2 describes the rates of change in gender inequality in Israel from 2004 to 2011. Graphically, rising indicators indicate an increase in inequality, therefore on the aggregate level a rising curve indicates an increase in gender inequality; compared to the previous year, whereas a dropping curve indicates a positive trend of reduction of inequality. It should be noted that for indicators that do not compare the status of women and the status of men, such as the number of complaints of domestic violence, the greater their number in proportion to the population, the higher the inequality.

The data that comprise the dimensions come from different conceptual frameworks and different disciplines and it may seem as if they cannot be synthesized into a single number that reflects the status of gender inequality in any given year. However, the Index's guiding logic makes it a better indicator of the general trend in inequality as well as a more comprehensive indicator than the figures presented in each independent dimension; also, grouping the data into a single number helps us focus on changes in the level of gender inequality over the years and in several dimensions.

### Methodology

In developing the Gender Index, we constructed a basic measurement platform upon which we could add new indicators and dimensions to express more and more quantitative occurrences of gender inequality. The first stage of the process was to examine many areas of gender inequality identified by the Index's steering committee and feminist grassroots organizations. In order to create the list of dozens of social instances of gender inequality, we sought internally valid indicators that could express those instances in a quantitative manner. The indicators are variables measured in a consistent and identical way every year by the same bodies: the Central Bureau of Statistics, the National Insurance Institute and the Knesset Research and Information Center. At this point we had to adjust the instances that define gender inequality to the existing indicators. We found dozens of indicators, checked them for correlation and ran them through a factor analysis to test their degree of relevance to the conceptual framework of gender inequality. The indicator filtering left us with 31 indicators that were not too highly correlated with each other but were sufficiently correlated with the first predicted factor obtained by the factor analysis. The year 2004 was the first year for which data was available for all the indicators that met those criteria, and that is why measurement began in 2004.

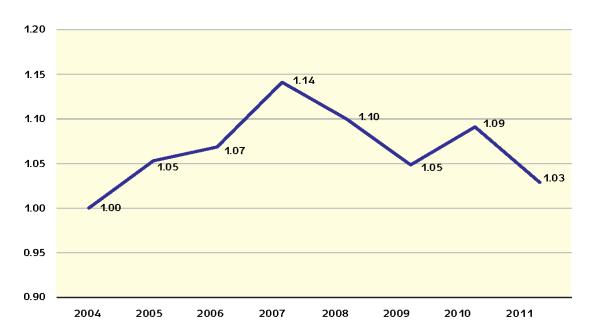
We converted the resulting indicators into the ratio between the rate of men and the rate of women, so that the higher they rise, the greater the gender inequality that is reflected. Indicators that are not ratios were standardized and some are expressed as the rate of the population. All of the indicators in each of the eight dimensions that comprise the Index were measured and averaged separately, creating a baseline for monitoring the gender inequality in each dimension separately. We squared the score for each dimension, added them up and divided by eight to reach the general gender index for any given year. This formula, which includes squaring the average value of each dimension, is based on the formula for the OECD's SIGI (Social Institutions and Gender Index). This way, a rise in the inequality in one dimension is less obscured by a drop in the inequality of another dimension, and this method also assumes that the

deprivation that results from the inequality does not grow linearly, and increases the index's fluctuation compared to the fluctuation of its dimensions. This is how we reach the general score of the Gender Index each year. Its significance is not in the number itself but in its comparison with other years.<sup>8</sup>

### The Gender Index Results 2004-2011

Figure 2 shows that in the years 2004-2007 gender inequality deepened: it grew by 13.6% and stemmed from the expansion of the inequality in five dimensions: the labor market, political representation, violence, periphery and health. In two dimensions there was stagnation: poverty and education. In the years 2008-2009 there was some improvement: inequality dropped by 8.3% from its peak of 2007. In 2010 inequality grew again as a result of the worsening of five dimensions, especially violence against women and a growth of the gender gaps in the labor market, so that inequality in 2009-2010 grew by 4.1%. In 2011 there was a 5.8% drop in inequality thanks to an improvement in the dimensions of the labor force and violence against women.





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<sup>&</sup>lt;sup>8</sup> See detailed description in Appendix 2.

Figure 3
Gender Index 2004-2011: Rates of Change in each Year Compared to the Previous Year

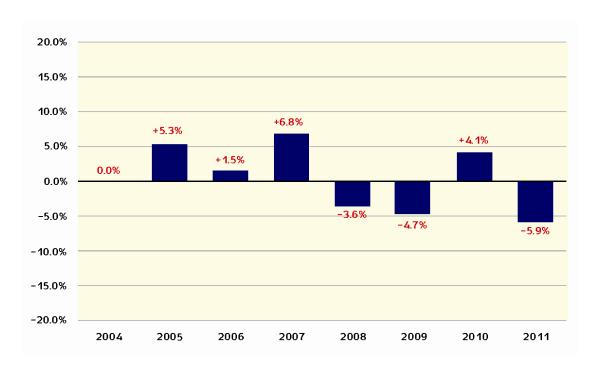


Table 1
Results of the Gender Index 2004-2011: Increases and Decreases in each Dimension by Year

<b>Dimension Year</b>	Labor market	Violence	Periphery	Arab society	Poverty	Educat- ion	Political represen- tation	Health
2004	0	0	0	0	0	0	0	0
2005	0	+	+	+	+	-	+	+
2006	+	+	-	-	+	-	+	-
2007	+	+	+	-	+	0	+	+
2008	-	-	-	+	+	-	-	-
2009	-	-	-	-	-	-	-	+
2010	+	+	+	-	+	-	+	-
2011	-	-	+	-	-	+	-	+

Table 1 shows that according to the Index results for 2005, the status of women worsened in most dimensions: violence, periphery, Arab society, political representation, health and poverty. In the labor market dimension there was no change. The overall result was that in 2005 inequality between men and women grew by 5.3% compared to 2004.

In 2006 inequality rose in the labor market, poverty and political representation dimensions, rising most considerably in the dimension of violence against women, at a rate of 6.3%. Compared to the growth of inequality in those dimensions in the previous year, there was an improvement in the dimensions of education, the Arab society and the periphery. After offsetting the figures, the aggregated index of inequality rose by 1.5%.

2007 saw a spike in inequality due to a considerable rise in the dimension of political representation. There was a 4% rise of inequality in the labor market and a simultaneous worsening of the dimension of violence against women compared to the previous year. Other dimensions in which the status of women deteriorated in 2007 are periphery and health. The improvements in the dimensions of Arab society and education were too small to reverse the direction of the whole index, and that year it reached a low point in terms of gender equality compared to the entire period measured.

2008 saw several improvements: inequality decreased in the dimensions of labor force by 2.6%, violence by 3.7%, political representation by 6.5% and the periphery by 1.4%. The resulting improvement in the aggregated index was enough to offset the 3.1% growth of inequality in Arab society.

2009 saw further improvement and most dimensions indicated a drop in the degree of inequality: a 2.4% drop in inequality in the labor force dimension, a 4.4% drop in the poverty dimension, a 6.9% drop in the political representation dimension and a 1.2% drop in the periphery dimension. But in 2010 the trend reversed: as a result of a deepening of gender inequality in several dimensions — a 2.9% increase of inequality in the labor force dimension, a 7% increase in the violence against women dimension, a 5.1% increase in the political representation dimension and a 1.4% increase in the poverty dimension — gender inequality worsened. That year saw a peak in the

<sup>&</sup>lt;sup>9</sup> It should be noted that the considerable fluctuations in the political representation dimension are due to the fact that this dimension reflects small numbers. However, further analysis revealed that the Index's trajectory was maintained even after we extracted the political representation dimension, and it affected only the rate of change but not its direction.

phenomenon of violence against women. The improvements in the dimensions of Arab society and education could not compensate for the general deterioration in the state of gender equality. In 2011 gender equality improved: the index dropped by 5.9% compared to the previous year. That year was the last year to be measured, and therefore we will describe the changes that occurred in it in greater detail following a review of gender inequality trends in all of the dimensions of the Gender Index.

### Summary of the Gender Index Results

Figure 2 describes the development of the Gender Index in Israel in the measured years. Each point in the figure represents a weighting of all the indicators and dimensions in order to examine the development of gender inequality in every year compared to 2004 - the base year. Within the measured years, we can distinguish between two periods of change in the trend of gender inequality: the first period, 2004-2007, saw an increase in gender inequality; the second period, 2008-2011, saw a decreasing trend of inequality. The years measured therefore do not display an unequivocal trend of either a reduction or an increase in gender inequality.

Dividing the results of the whole Gender Index into its eight dimensions and monitoring their separate development reveal that not all indicators show the same trend. In some indicators the gender gap was reduced whereas in some it was increased, which means that there is no across-the-board effort to close gender gaps in Israel. The dimensions of labor market, poverty and political representation run in the same direction as the aggregate index, which is to say that they rise from 2004 to 2007 and then drop from 2008 to 2011. The violence dimension moves in the same trajectory as well, except for the year 2010, in which the gender inequality index dropped and the violence dimension increased, but dropped again the following year. The rest of the dimensions are fairly stable. The general result shows a standstill, a gradual increase of gender inequality, its subsequent reduction back to its level in the base year of 2004. Therefore, the picture that emerges from the measured period as a whole is of stagnation and not change.

The Gender Index attempts to quantify the gap between women's and men's participation in various public spheres, the labor market, sites of vulnerabilities (in the area of violence against women) and intersections of disempowerment such as in the Arab society or the periphery. It is a great challenge to aggregate all the phenomena that comprise gender inequality into a single value that can be monitored, and its importance is clearly evident from the Index's results. In many respects the public feels that feminism has accomplished most of its goals by now, and for this precise reason, it is important to publish the aggregated data that disprove this belief. The gender gaps

are deeply entrenched in the labor market, the political arena and amongst disempowered communities in the periphery and the Arab sector; violence against women has not lessened and women are poorer than men. The only area that shows a constant trend of improvement is higher education. The leveling of the number of educated men and women (in 2011, 45.6% of women had at least 13 years of schooling while only 43.1% of men had the same level of education) seems to attest to women's yearning to fully participate in the public sphere, because education is essentially "human capital" and an entry ticket into the labor force in relatively desirable jobs. However, the data indicates that the gender gap in the labor market and the political arena is resilient and abiding and shows no clear decreasing trajectory.

One of the foundations of gender inequality is the gendered distribution of responsibility for family work, and the tension between work or career development and care for the family and home. To a certain extent, the feminist revolution did indeed free women from the household sphere so that they too could take part in spheres marked as masculine, such as the labor force and politics, but it failed in its attempt to bring men into spheres marked as feminine (Hochschild 1997). In fact, when women entered the labor force in large numbers, the demands made on them in their professional lives transformed considerably, but at the same time they were not relieved from the burden of the household and childcare. This gave rise to a new expectation from women, which they had never faced before and which men have never faced to this day: women are now expected to find the balancing point between work and family. Hochschild argues that women were freed so that they could enter the labor force, but their freedom from the private sphere of household work was only partial because their revolutionary entry into the labor force was not accompanied by a corresponding entry of men into the home. This unilateral revolution made women increasingly involved in spheres marked as masculine (albeit not necessarily as men's equals) while maintaining a foothold in the home sphere (England 2010). Thus, in addition to their responsibilities in their jobs in the workplace, women held another job that Hochschild calls "the second shift" (Hochschild and Machung 1989). Their lives became increasingly hybridized, which tended not to weaken gender categories and divisions as much as to establish a new standard of femininity. That, she says, is why the "feminist revolution" has remained in a state of stagnation, or a "stalled revolution"

The tension created in the wake of the stalled revolution is also described by the results of Claudia Goldin's study (Goldin 1997). Goldin monitored the balancing patterns between work and family among women in the US in the 20<sup>th</sup> century and found that women had five patterns of managing the tension between family and work. Each pattern defines a period: the first pattern is a choice between career and family (a

common pattern among women born at the end of the nineteenth century). The second pattern is "work and then family". Women who followed this pattern went to work after college and left the labor market to start families – a move that impaired their chances to develop their careers (a common pattern among women born in the first two decades of the twentieth century). The third pattern is creating a family and then going out to work in a job that is not a career, because joining the labor market at a later age limited the range of women's options to develop careers (this pattern was common among women born in the third and fourth decades of the twentieth century). The fourth pattern is "career and then family", and it was a real attempt to select a career track for which women delayed starting their families to their late thirties or early forties (a common pattern among women born in the 1940s and 1950s in the US). The fifth pattern Goldin identified is "both career and family": that is the frustrating pattern of attempting to combine work and family simultaneously (a common pattern among women born in the 1960s and 1970s). Goldin stresses that American women succeeded in pursuing the first three patterns ("career or family", "work and then family" ("family and then work"), but the two chronologically later patterns ("career and then family", "both career and family") are almost unattainable aspirations and make many women very frustrated.

These patterns were identified in a statistical monitoring of a large number of women in the US and express a kind of large-scale social experiment, where different women born in different years seem to have tried all possible combinations of career and family. Goldin ended her research in the late 1990s, saying that women at the end of the millennium were overworked and frustrated, even though they had many options that had not been available to generations of women before them. Both Hochschild and Goldin, each using her own research method, present a similar picture of the difficulties facing women trying to navigate between career and family, and those difficulties impede the closure of the gender gap.

The results of the Gender Index for the years in which it was measured support the finding that the gender gap has not decreased, and one of the main causes for this stagnation is the gaps in the labor market. Despite the moderate and not unequivocal trend of improvement, inequality between women and men abides. The key to the lack of change is the structural gendering of the labor market and women's second shift in "family and housework", for which no consistent annual data is available. All of the indicators in the labor market dimension attest to the depth of the inequality: wage gaps, participation gaps, gaps in rate of contracted workers, gaps in part-time work, gaps in professions, gaps between women's and men's self-perception in relation to their responsibility for household care. In this era, in which 80% of the jobs in the

economy are in the service sector and do not require physical effort that could give men an advantage over women, the question is what accounts for the stability of the gender gaps.

The answer has to do with the "second shift," which is primarily the responsibility of women. In terms of wages, women's housework is not rewarded. But the labor market perceives women's participation therein as secondary work and therefore their wages are lower than men's, as the Index shows for every year measured. More women than men work part-time, are employed as contract workers, and do not receive equal remuneration for their work - neither when compared by gross income per hour of work or per gross monthly salary. The rate of women working part-time because they are also housewives rises for each year of the Gender Index, and indicates the gender perceptions entrenched in society, according to which men are free to go out and make a living in the labor market, whereas women are in charge of caring for the household and children. Women's partial participation in the labor force perpetuates their inferiority in it and the wage gaps between them and men. Because of women's weaker connection to the labor market, their pensions suffer (women's life expectancy is an average of 3.6 years higher than men's), and they do not receive the same benefits as men. The poverty dimension clearly shows that the incidence of poverty among women is higher than among men, and for that reason they need income support benefits at a higher rate than men.

Another noteworthy aspect of the study is a comparison between the dimension of Arab society and other dimensions that apply to the entire population of Israel (which include the Arab society). Inequality in the Arab society dimension develops in different directions than inequality in Israeli society at large. There is nothing new about the fact that the gender gap in Arab society in Israel is wider than the gap in Jewish society. The level of Arab women's participation in the labor market is very low and is only one third of the level of Arab men's participation in the labor market, and in part-time jobs, women's participation is three times that of men. In other words, the gender gaps in the Arab sector are even wider than in Israeli society at large. Although it appears that the participation level of Arab women in the labor force has improved over the years, their primary role is housework and childcare. The new finding of this study is that inequality in the Arab society changes at a different trajectory than the trajectory of inequality in the general society: 2007 and 2010, the years in which the general trajectory of inequality reaches its peak are also the years in which inequality measured in the Arab sector was actually at the lowest level in the entire measurement period. Inequality in the Arab sector moves in smaller fluctuations but its level is higher than that of the general inequality. These findings might reflect the disengagement and insularity of

Arab society in Israel and show that it is an enclave in terms of the gaps measured between men and women.

# Gender Index Results for the Eight Dimensions The labor market dimension

The labor market has a decisive, direct and practical impact on the status of gender inequality, and the workplace is the main determinant of the gendered division of labor between the public and private spheres. The one-and-a-half million Israeli women who work comprise 47% of the workforce (CBS 2011g). About one third of them (470,000) work part-time. The number of men who work part-time is less than half the number of women (202,000). The rate of women's participation in the workforce has risen over the years and reached 52.6% compared to 62.3% of men, but part of the rise results from the increase in women's part-time work, which is why the gap in average monthly salary between men and women is bigger than the gap in hourly wages. However, the gap between the hourly wages of men and women not only persists but has even grown moderately. The dimension of inequality in the labor market in the Gender Index is represented and measured by eight indicators:

- The ratio of women to men in percentage of participation in the civilian workforce.
- The ratio between women and men in percentage of part-time workers.
- The ratio between women and men in gross monthly income.
- The ratio between women and men in gross income per hour of work.
- The ratio between the percentage of contract workers out of the total number of women workers and the percentage of contract workers out of the total number of men workers.
- The rate of women who work part-time because they are housewives (according to their own definition).
- The rate of women who are unemployed because they are housewives (according to their own definition).
- The rate of women employed in the hi-tech industry.

## The ratio between women and men in percentage of participation in the civilian workforce

Ever since the phenomenon was measured in Israel, it was found that the rate of women's participation in the labor market is lower than the rate of men. However, over the years there has been a convergence and the gaps in participation have narrowed. Figure 4 shows that over the period in which the Index was measured – from 2004 to

2011 – the rate of men's participation ranged from 60.6% to 62.3%, whereas women's participation ranged from 49.6% to 52.6%. <sup>10</sup>

Figure 4
Rate of women's and men's participation in the labor market from age 15 and up

Source: CBS 2011g

Women's participation in the labor market rose in almost every year studied, but it should be noted that men's participation in the labor market increased as well. One reason is that changes in the welfare policy decreased the benefits received from the National Insurance Institute, including income support benefits, and thus the unexpected reduction in the income of low-income households forced both men and women who could work to join the workforce. This hypothesis is reinforced by figures showing that until the beginning of the millennium, men's participation in the labor market was on the decline. Another reason is the rise in the last decades of the average level of prices, which was not accompanied by a corresponding rise in the average salary. This change diminished households' buying power and that too, forced more Israelis out to work (Trajtenberg Report 2011).

<sup>&</sup>lt;sup>10</sup> Data for some of the indicators is available for years before 2004, and is presented here for a more comprehensive picture, but in computing the Gender Index the base year for the data is 2004 because that is the first year when data was available for all of the indicators.

Recent years show a slight narrowing of the gap between the rate of participation in the (civilian) workforce from the population of men, and the rate of participation in the (civilian) workforce from the population of women, which is to say that the level of women's participation in the labor market grew faster than men's. This narrowing however, did not close the gap between men and women in the labor market dimension because of the nature of women's integration, as the other indicators show (part-time work, contract workers, etc.). Therefore, the ratio between men and women in terms of their rate of participation in the labor market in Israel was maintained and it has always leaned in favor of men (see Figure 4a). 2011 was even worse compared to the previous year because the rate of women's participation dropped whereas the rate of men's participation rose; which means that the ratio between them rose slightly.

Figure 4a
Ratio between women and men in rate of participation in the labor market



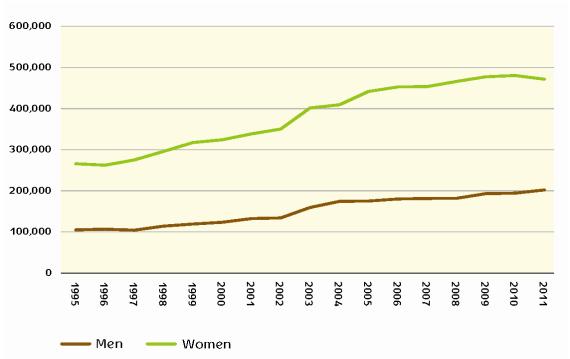
Source: CBS 2011g

It can be stated that in the years 2004-2010 the indicator of participation in the workforce affected the labor market dimension by reducing gender inequality. The direction was reversed in 2011 and the gap between women's participation and men's participation grew.

### The ratio of women to men in part-time work

Figure 5 shows that this indicator greatly emphasizes the gaps between women and men that are inherent in the structure of men and women's employment patterns. Part-time work indicates a reduction of employment conditions and benefits because of its temporality. The number of women working part-time is much higher than the number of men for every year and that figure reflects the gendered division of labor between the private and public spheres, which still places most of the responsibility for childcare and housework on women.

Figure 5
Number of part-time workers



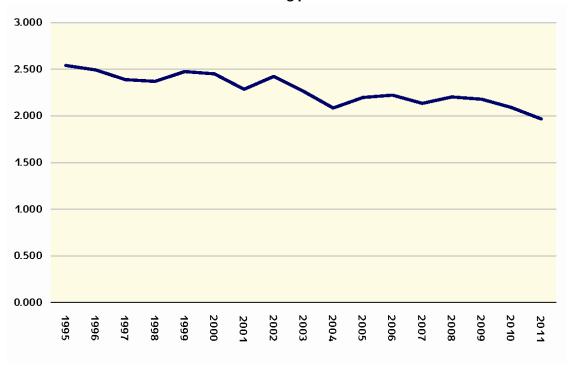
Source: CBS 2012c and comparable tables in 1996-2011 yearbooks.

Between the years 2004 and 2006, the rate of men working part-time out of the civilian workforce dropped (Figure 5 presents the absolute number of part-time workers, not their rate in the population), whereas the rate of women who worked part-time out of the civilian workforce increased (the absolute number of part-time workers from both sexes rose). In other words, inequality in the labor market grew in those years. In 2007 the rate of men working part-time increased and the rate of women did not change from the previous year, which is to say that there was a slight improvement that year and inequality lessened slightly. Between 2008 and 2010 the rate of men in part-time work continued to increase whereas the rate of women dropped somewhat and then

went back up again, so that in those years as well the indicator slightly reduced the inequality in the labor market. In 2011 a change occurred: the number of men employed part-time and their rate in the civilian workforce rose sharply compared to the previous years, whereas the rate of women employed part-time dropped.

Therefore, we can say that 2011 was a turning point in which the ratio between the number of women and men employed part-time dropped, although the large gap between the rates of part-time work of women and men is still high at 17.7%. Therefore, despite the sharp increase in men working in part-time jobs, twice as many women than men are still employed in that way (471,400 women compared to 202,100 men. The ratio can be seen in Figure 5a). The considerable change in this indicator in 2011 made a substantial contribution to reducing inequality between women and men in the dimension of the labor market, a reduction that affected the entire index.

Figure 5a
The ratio between women and men working part-time



Source: CBS 2012c and comparable tables in 1996-2011 yearbooks.

### The ratio between women and men in gross monthly income

The gap between the average monthly incomes of women and men remained fairly steady in the years 2004 to 2011, and women earned between 63% and 66% of men's monthly income. Figure 6 shows that in 2010 women earned a gross monthly average of NIS 6,386, while men earned a gross monthly average of NIS 9,720. The gap between the average monthly incomes of men and women is bigger than the gap in hourly income between the two sexes because it also reflects job scope (as mentioned, more women work in part-time jobs than men).

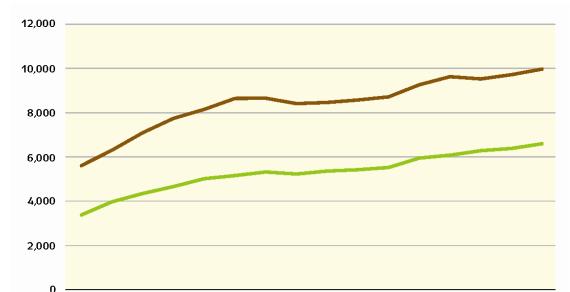


Figure 6
Average monthly income

Source: CBS 2012f and comparable tables in 1996-2011 yearbooks.

Women

Men

According to the data presented in Figure 6a, general average monthly income has risen from year to year, but women consistently earn less than men and the ratio between them is maintained. It is interesting to note that during the economic crisis of 2009, inequality in the labor market actually diminished: women's average monthly income rose and men's average monthly income dropped, which means inequality slightly diminished. Since then, the trend has remained stable.

0.90 0.85 0.80 0.75 0.70 0.65 0.60 0.55 0.50 1996 2000 2002 2003 2004 2005 2006 2008 2009 2007

Figure 6a
The ratio between women's monthly income and men's monthly income

Source: CBS 2012f and comparable tables in 1996-2011 yearbooks.

### The ratio between women and men in gross income per hour

Figure 7 shows that over the years, income per hour of work rose for both women and men but the gap between the sexes persisted: men earned more and women's hourly wages were 84% of men's wages (see Figure 7a). In the years 2005-2007 the gap remained quite steady but in 2008 women's hourly wages decreased and the gap widened: women earned only 82% of men's wages per hour of work. In 2009 women's wages improved slightly and the gap narrowed to 84.5%, but in 2010 the ratio changed again to the detriment of women and was 83%. In 2011 the gap remained intact: men earned a gross average of NIS 53 per hour whereas women earned a gross average of NIS 44 per hour.

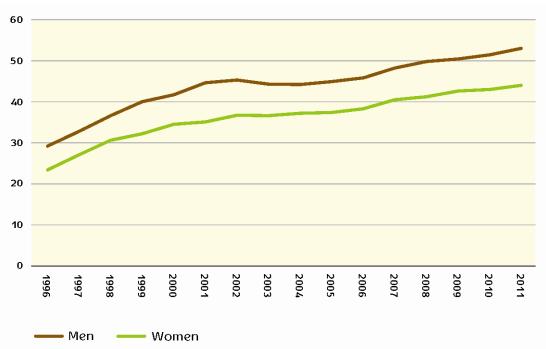


Figure 7

Average income per hour of work

Source: CBS 2012f and comparable tables in 1996-2011 yearbooks.

The ratio between women's and men's income per hour cancels the influence of job scope as well as the earning gap. In other words, the gap in gross monthly income can be partly attributed to the fact that women work part-time jobs more often than men, but the hourly wage gaps between the sexes are not influenced by job scope. Figure 7 shows that in that respect there was a 16-17% gap in all years in which hourly income was recorded and it reflects the difference in wages between women's jobs and men's jobs. One reason is that women work less so they have, on average, less experience, and the other is that women work in less well-paying professions. However, part of the gap stems from gender discrimination in the labor market. In 2010-2011 this indicator increased gender inequality in the labor market.

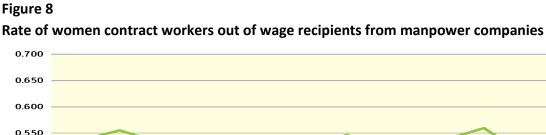
0.90 0.85 0.80 0.75 0.70 0.65

Figure 7a The ratio between women's income per hour and men's income per hour

Source: CBS 2012f and comparable tables in 1996-2011 yearbooks.

### The ratio between the rate of contract workers among women and men

The rate of women among all contract workers in Israel is more than 50%, which means that women are more likely than men to be employed under the offensive and problematic conditions offered in contract jobs. The number of contract workers dropped from 41,400 in 2009 to 29,200 in 2011.

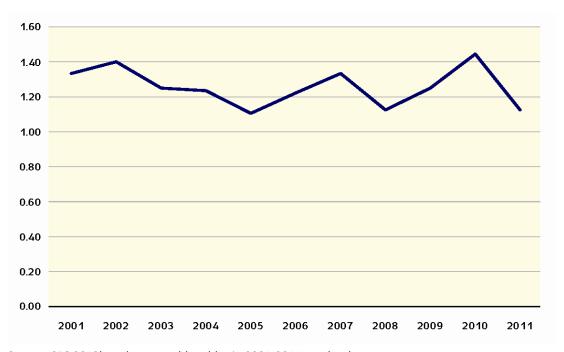


0.550 0.500 0.450 0.400 0.350 0.300 2003 2004 2008 2009 2010 2011

Source: CBS 2012b and comparable tables in 2001-2011 yearbooks.

As Figures 8 and 8a show, in the years 2005-2007 the rate of women workers among contract workers gradually rose compared to the rate of men workers, and that rise increased both inequality and the gaps in the labor market. In 2008 there was an improvement: the rate of women contract workers dropped compared to previous years, but was still higher than the rate of men contract workers. In 2009-2010 the number of women contract workers surged again and in 2011 it exhibited a sharp decline that brought the rate of women contract workers down to its level in 2008, the year of the improvement. That year, the rate of contract workers among women (0.503) almost equaled the rate of contract workers among men (0.497).

Figure 8a
The ratio between women and men contract workers



Source: CBS 2012b and comparable tables in 2001-2011 yearbooks.

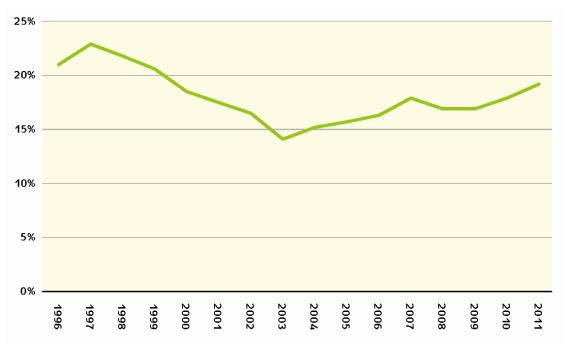
This indicator seems to have contributed to the 2011 drop in gender inequality in the labor market dimension as well as the drop in inequality in that year's entire index. Another source of reduction is the drop in the total number of contract workers (men and women) from 41,000 in 2,009 to 36,100 in 2010 and 29,200 in 2011.

# The rate of women who work part-time because they are housewives according to their own definition

This indicator reflects the gendered division of labor between the public and private spheres and the relations between the family and the labor market. Figure 9 shows that in the years 2003-2007 there was a rise in the percentage of women from those who worked part-time who reported that they were working part-time because of their responsibilities as housewives. In 2008 there was a slight drop in their rate but since then the trend rose again and in 2011, 19% of women (80,000) reported that they worked part-time because of their role and responsibilities as housewives. Conversely, only 0.9% of men (only 1,400) noted that that was the reason for their working part-time.

Figure 9

The rate of women working part-time due to their responsibilities as housewives



Source: CBS 2012c and comparable tables in 2001-2011 yearbooks.

This phenomenon reflects gender perceptions concerning the division of labor in the family, according to which women are responsible for maintaining the household and caring for the children, whereas men go out into the labor market (Stier 2005). That being the case, women become less involved in the world of paid work. Their rate in part-time jobs is higher than the rate of men and their part-time worker status sustains their inferiority in the labor market and the monthly wage gaps between them and men. This indicator reflects the fact that about one fifth of women who work part-time do so

because they are responsible for childcare or housework. Since the rate of women who work part-time due to that reason is growing, this indicator has increased inequality in the labor market in 2011 as well.

# The rate of women who are unemployed because they are housewives according to their own definition

As opposed to the previous indicator, this one reflects women's disengagement from the labor market and presents women who are not employed at all because they devote themselves to housework and family. However, it should be noted that this indicator reflects only women who disengaged from the labor market in the past 12 months and not all of the housewives in the population.

Figure 10

The rate of women unemployed due to their responsibilities as housewives



Source: CBS 2012d and comparable tables in 1996-2011 yearbooks.

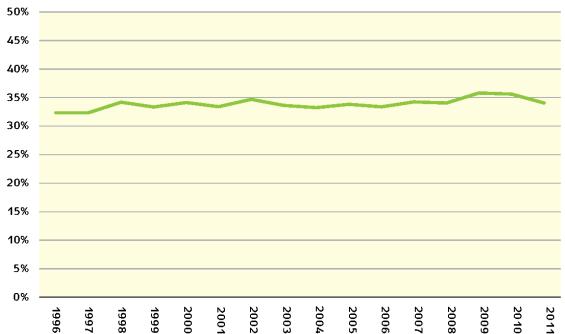
Figure 10 shows that during the years 2004-2007, the rate of women who were not employed because they were housewives rose from 24% to 33% of all unemployed women, and increased gender inequality and the gaps in the dimension of the labor market for those years. Since 2008 their rate has been dropping steadily, down to 25% in 2011, which indicates a certain improvement, but compared to the rate of men who are unemployed because their main occupation is the house and family (2.7%), namely

house husbands, the rate of women is very high, and that gap indicates the unequal distribution of labor between the genders relative to housework and childcare.

### The rate of women employed in the hi-tech industry

This indicator reflects the rate of women employed in an industry that offers the best employment terms in the market and is considered a driving force of the Israeli economy. The hi-tech industry enjoys prestige as well as a much higher average salary than other industries, and is therefore important in the context of gender gaps. The rate of women employed in this industry therefore reflects another aspect of the level of gender equality in the labor market. The rate of workers in the hi-tech industry has risen constantly every year (except 2009, when the industry was slightly reduced), but Figure 11 shows that the percentage of women employees in hi-tech remained steady at 34%-35% from 2002 to 2011. In 2011 the rate of women in hi-tech dropped slightly compared to 2010, to 34.1%.





Source: CBS 2012e and comparable tables in 1996-2011 yearbooks.

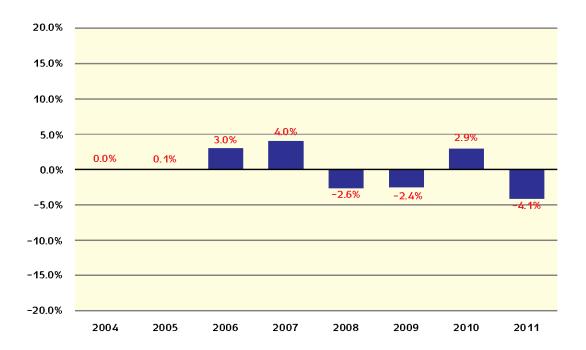
Generally, it appears that this indicator, which reflects employment in one of the best paying industries in the Israeli labor market, shows that women's rate of participation in it is lower than their numbers in the population, and that women constitute only one

third of employees in hi-tech. It would be interesting in the future to add a new indicator to the Gender Index, that of women's status compared to men in the industry.

### Summary: Gender inequality in the labor market dimension

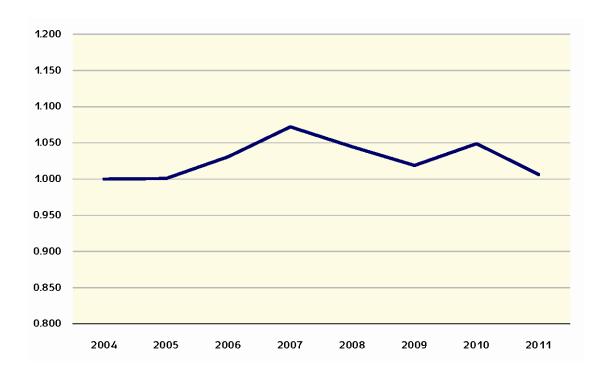
Figure 12 shows that according to the scores of the Gender Index in the labor market dimension, in the years 2004-2007 gender inequality in the labor market rose by 7.1%. During 2008-2009 inequality in this dimension decreased by 5% and in 2010, it rose again by about 3%. The rise mainly reflects the growth of the gap between the number of female and male contract workers (in 2010, 56% of contract workers were women).

Figure 12
Gender inequality in the dimension of the labor market in Israel 2004-2011



One of the reasons for the rise in gender inequality in the labor market is the widening gaps in hourly wage between women and men: in 2011 women earned an average of 83.7% of men per hour of work. In 2011 there appeared to be a small drop in gender inequality and an improvement in this dimension due to a small decrease in the number of part-time women workers, a drop in the rate of contract workers, and a drop in the number of women who are unemployed because they are housewives.

Figure 12a
Scores of the labor market dimension



# The Dimension of Violence against Women

Since the Central Bureau of Statistics does not systematically monitor data on violence against women, most of the data series that comprise this dimension were taken from other sources. Some of the data was taken from reports of the Knesset Research and Information Center, and we were also assisted by the Association of Rape Crisis Centers in Israel. The increase in the number of complaints and victims is significant only in proportion to the population growth, so therefore we took into account the total number of women for each year in which we estimated in the The index. Following are the indicators for this dimension:

- The number of new calls to rape crisis centers.
- The status of files opened following women's complaints of sex offenses: the rate of files transferred to the police prosecution or the State Attorney's office.
- The rate of women treated by the Welfare Ministry's centers for the prevention of domestic violence.
- The number of files opened by the police following women's complaints of domestic violence.
- The rate of domestic violence files that were closed due to lack of evidence.

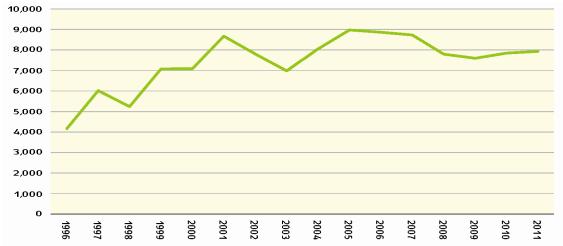
In order to examine the increase in this phenomenon deducting the natural population growth, we studied all of the data in relation to the population growth and not as absolute numbers.

### The number of new calls to rape crisis centers

An examination of the number of new calls to the rape crisis centers compared to the natural population growth shows that the number of calls made to the rape crisis centers, mainly by women, rose at the end of the 1990s, 11 as illustrated in Figure 13. The reason for the rise is apparently the increase in the number of rape crisis centers and in the awareness that they could help women who were victims of sexual violence or who felt threatened with violence. From the early 2000s and on, it looks as if this indicator reflects a certain drop in the extent of new calls to the crisis centers. In 2010, after a drop in the years 2005-2009, the trend reversed: the number of women who turned to the rape crisis centers increased, and this increase in its turn raised gender inequality in the dimension of violence against women. In 2011 the number of callers rose again, but so did the number of women in the population, so that the ratio between the number of new calls to the rape crisis centers and the number of women remained steady.

<sup>&</sup>lt;sup>11</sup> The Association of Rape Crisis Centers in Israel 2010; Almagor-Lotan 2011. The data is not gender-disaggregated but most of the callers are women.

Figure 13:
The number of new calls to rape crisis centers



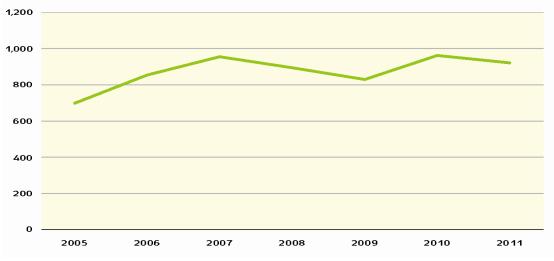
Source: the Association of Rape Crisis Centers in Israel 2010; Almagor-Lotan 2011 (years 2009-2011).

The status of files opened following women's complaints of sexual offenses: the rate of files transferred to the police prosecution or the State Attorney's office

Figure 14 shows that in 2005-2007 there was an increase in the number of files opened following women's complaints of sexual offenses that were transferred to the police prosecution or the State Attorney's office, from 698 files to 955, and that figure increased gender inequality in the violence dimension. In 2010 there was another rise in the indicator and the number of files grew, and in 2011 there was a slight drop to 921 files, which in turn slightly reduced the inequality in the violence dimension.

Figure 14

The number of files following women's complaints of sex offenses that were transferred to the police prosecution or the State Attorney's office

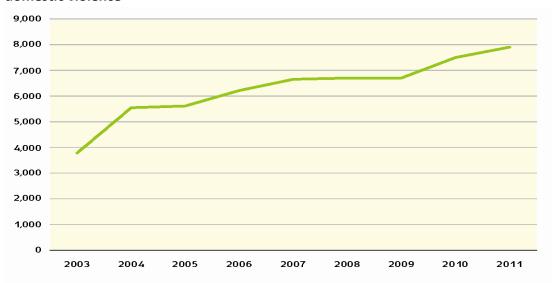


Source: Almagor-Lotan 2011; Mizrahi 2012

# The rate of women treated by the Welfare Ministry's centers for the prevention of domestic violence

Figure 15 shows that during the entire index monitoring period (2004-2011), the number of women treated by the Welfare Ministry's centers for the prevention of domestic violence was on the rise. That figure reflects a rise in the number of centers but even more so it reflects the rise in domestic violence in Israel, of which women are the main victims. In 2011, the indicator rose and showed that the status of women changed for the worse, but it is important to note that part of the rise can be interpreted as a rise in the extent of reporting and not in the number of cases. That kind of interpretation actually reflects an improvement in the situation because it attests to an increase in awareness of domestic violence, which is an important step on the way to treatment.

Figure 15
The number of women treated by Welfare Ministry centers for the prevention of domestic violence



Source: Almagor-Lotan 2011; Mizrahi 2012

The number of files opened by the police following women's complaints of domestic violence

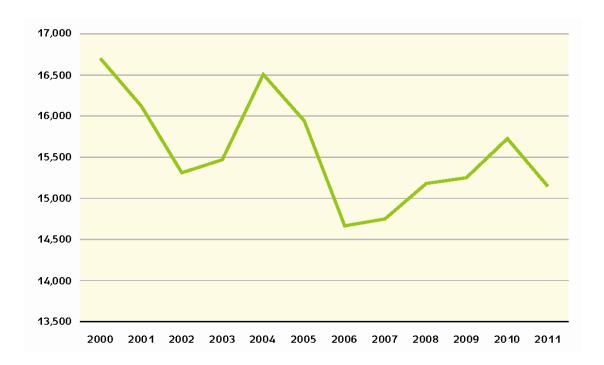
Figure 16 shows that the number of files opened every year due to complaints by women of domestic violence ranged from 14,500 to 16,500, and during the years 2006-2010 the number rose both absolutely and relative to the natural population growth,

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<sup>&</sup>lt;sup>12</sup> The rise in domestic violence can also be detected through the yearly rise in the number of complaints to the police.

increasing gender inequality in the dimension of violence against women. In 2011 the number of files decreased and the natural population growth increased, so there was a drop in this indicator and inequality in the violence dimension dropped slightly that year.

Figure 16
The number of files opened by the police due to women's complaints of domestic violence



Source: Almagor-Lotan 2011; Mizrahi 2012

### The rate of domestic violence files closed due to lack of evidence

Figure 17 shows that in the years 2008-2010 the rate of domestic violence files that were closed due to lack of evidence rose which in turn increased the inequality in the whole Index. Conversely, in 2011 the number of files closed due to lack of evidence declined and gender inequality in the violence dimension lessened.

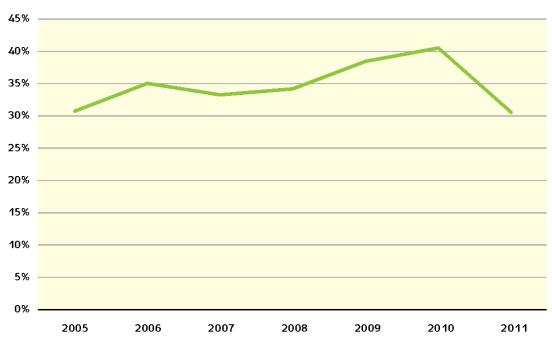


Figure 17
Rate of files closed due to lack of evidence

Source: Almagor-Lotan 2011; Mizrahi 2012

# Summary: Gender Inequality in the Dimension of Violence against Women

The depiction of gender inequality in the violence dimension in Figure 18 and Figure 18a shows that between 2004 and 2006 gender inequality rose in almost all indicators. Violence was somewhat reduced between 2007 and 2009, mainly because of the reduction in the number of new calls to the rape crisis centers. In 2011 there was another drop in the violence dimension of the Gender Index, and it reflects an improvement compared to 2010, which exhibited an increase in inequality reflected by the dimension of violence against women. In 2011 the number of new calls to the rape crisis centers stayed about the same as the year before (7,930 calls), the number of files of violence against women transferred to the police dropped (1,921 files), the number of women treated by the Welfare Ministry centers rose (7,900 clients), the number of files opened by the police following offenses of domestic violence against women dropped (15,144 files), and the rate of files of domestic violence that were closed due to lack of evidence also dropped (30.6%). In other words, of the five indicators that comprise the dimension, three showed an improvement in the statistics of violence against women and two indicated deterioration. On the whole, 2011 showed an improvement in the violence dimension of the Gender Index. The mixed trends of the

indicators suggest that no overall policy exists that affects the whole sphere of violence against women in Israel.

Figure 18
Gender inequality in the dimension of violence against women 2004-2011

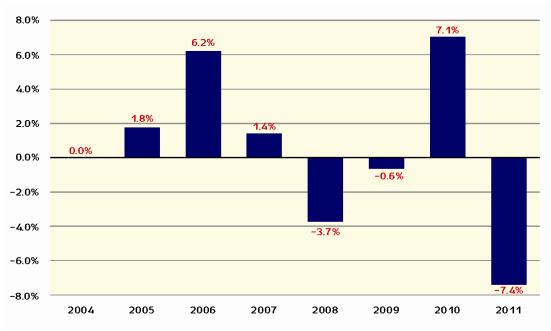
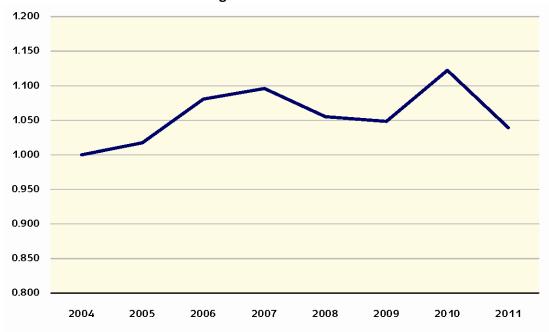


Figure 18a
Scores of dimension of violence against women



# The Dimension of Gaps between the Center and the Periphery

In the next stages of developing the Index we will expand our treatment of variables related to women in the periphery and other disempowered groups. At this stage we were able to examine participation in the workforce and wage gaps between women and men in the center compared to the periphery.<sup>13</sup> The indicators are as follows:

- Rate of participation in the civilian workforce: the ratio between the proportion
  of women who participate in the workforce in the southern and northern
  districts and the proportion of men who participate in the workforce in those
  districts.
- The ratio between average monthly salaries (the total annual salary divided by 12): the average salary of women in the southern and northern districts divided by the average salary of men in those districts.

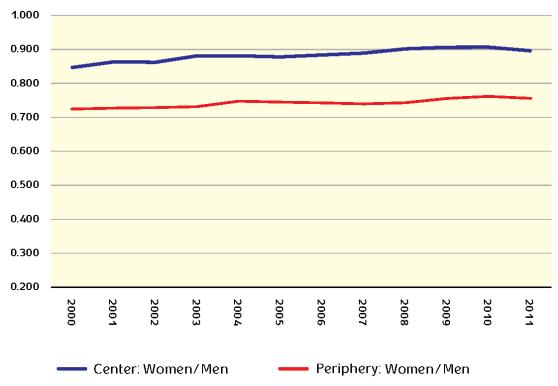
# Rate of participation in the civilian workforce: ratio between women in the periphery and men in the periphery

The distribution of participants in the workforce in general is one woman worker for every four men workers. Figure 19 indicates moderate trends in the indicator during the measurement period. Between 2005 and 2007 inequality in the periphery grew because the ratio between women and men in the labor force who live in the periphery (north and south) dropped from 0.75 to 0.73. Between 2008 and 2011 there was a moderate trend of improvement with more women than men in the periphery increasing their rate of participation in the labor force, and the ratio between their proportion of participation rose to a record 0.77. In central Israel the proportion of participation in the workforce – both of men and of women – is higher than the participation rate in the periphery (north and south), but the gaps between the center and the periphery are greater among women than among men. Therefore, living in the periphery has a greater impact on women than on men with respect to employment (see Almagor-Lotan 2010a).

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<sup>&</sup>lt;sup>13</sup> For our purposes, the periphery is Israel's northern and southern districts.

Figure 19
The ratio of proportion of participation in the civilian labor force between women and men in the periphery and the center



Source: CBS 2010 and comparable tables in 2000-2011 yearbooks.

The ratio of average monthly salary (total annual salary divided by 12): women in the periphery compared with men in the periphery (the northern and southern districts)

In 2004 women in the periphery earned 64% as much as men. Between 2004 and 2008 the ratio improved and climbed to 68%. But between 2009 and 2010 gender inequality in the periphery rose: the ratio between women's and men's salaries reached 65%, which means the wage gap between women and men in the periphery grew. <sup>14</sup> Figure 20 shows that the gap between the average monthly salary of men vs. women in the center is slightly larger than the corresponding gap in the periphery. The reason is that on average, men in the periphery earn less than men in the center.

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 $<sup>^{\</sup>rm 14}$  Average wage data by districts for 2011 has not yet been published.

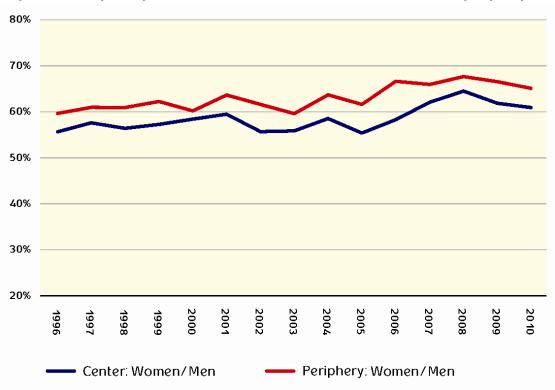


Figure 20
Gaps in monthly salary between women and men in the center and the periphery

Source: National Insurance Institute 2012 and comparable reports of poverty levels by National Insurance Institute 1996-2010.

Therefore, the periphery is not kind to men either: it has more low-status and low-income professions and therefore the salary differences between men and women in the periphery are smaller than those differences in the center. In the period between 2004 and 2010, the ratio between women's average salary and men's average salary in the periphery was 65% for every year, whereas in the center it was 60% (the higher the percentage the smaller the wage gap).

# Summary: Gender Inequality in the Dimension of Gaps between Center and Periphery

The dimension of periphery examines the gaps in the labor market between men and women in the northern and southern districts. Figures 21 and 21a show that in the years studied there were no significant changes in the status of inequality between men and women in the periphery, but in 2010-2011 there was a slight rise in gender inequality.

Figure 21
Gender Inequality in the periphery dimension 2004-2011

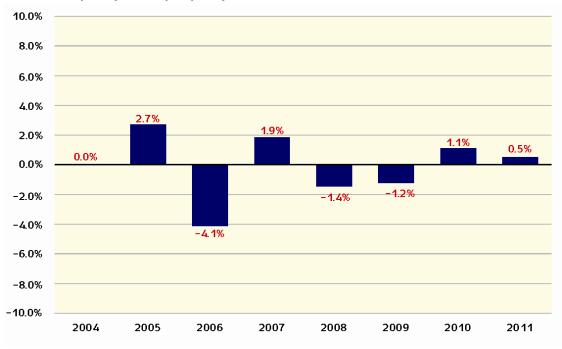
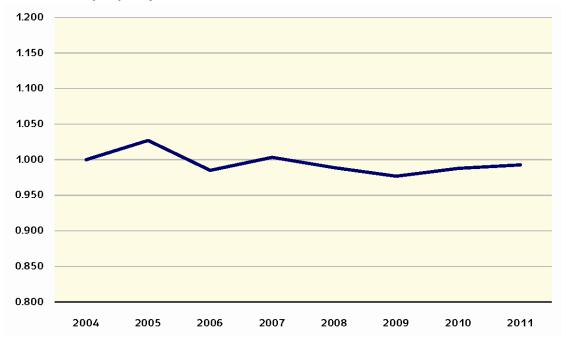


Figure 21a
Scores of the periphery dimension



# The Dimension of Gender Inequality in the Arab Society

Inequality between Jews and Arabs in Israel can be found in every area of life, and gender inequality within Arab society – as reflected by the Index's figures – is greater than in the general population. Arab society has unique socioeconomic characteristics which are particularly evident in the labor market, and they indicate a very large gap between Arab women and Arab men.

The inequality between Jews and Arabs and the differences between Jewish women and Arab women have been researched and documented over the years. Here we wish to study gender inequality within Arab society, which is to say the gaps that exist between Arab men and Arab women. We therefore created a distinct dimension for the Israeli-Arab population within the Gender Index, which compares the status of Arab women with the status of Arab men. We should note that the data for all other dimensions of the Index apply to all men and women in Israel, and in order to examine the inequality between Arab men and women we had to focus on the Arab sector separately. Following are the indicators that represent the inequality between Arab women and Arab men in Israel:

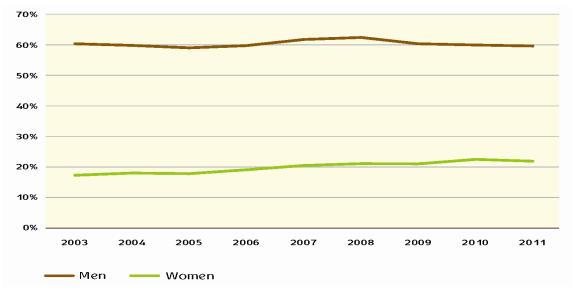
- The ratio between Arab women and Arab men in rate of participation in the civilian workforce.
- The ratio between Arab women and Arab men in rate of part-time workers.
- The ratio between Arab women and Arab men in gross monthly income.
- The ratio between Arab women and Arab men in gross income per hour of work.
- The ratio between the rate of Arab women and Arab men with 13-15 years of education.
- The ratio between the rate of Arab women and Arab men with 16 years or more of education.
- The number of files opened by the police due to women's complaints of domestic violence offenses: the rate of Arab women out of women who file complaints.

#### The ratio between the rate of Arab women's and men's participation in the workforce

The rate of Arab women's participation in the labor market is much lower than that of Arab men, as Figures 22 and 22a demonstrate: Arab women participate in the labor market at an average of 33% of the rate of Arab men. However, in the years 2004-2010 their rate rose and gender inequality in the dimension of Arab society diminished. The rate of Arab men's participation in the labor market remained at 60% throughout the entire monitored period, whereas Arab women's participation rate rose from 17.3% in

2003 to 22.5% in 2010. 2011 was a turning point: the ratio of Arab women participating in the labor market compared to Arab men dropped to 21.9% (the rate of Arab men was 59.6%), and inequality in the Arab sector rose.

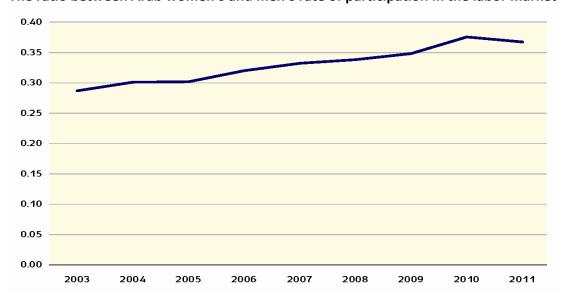
Figure 22
Rate of women's and men's participation in the labor market in the Arab society in Israel



Source: CBS 2012g and comparable tables in 1996-2011 yearbooks.

Figure 22a

The ratio between Arab women's and men's rate of participation in the labor market

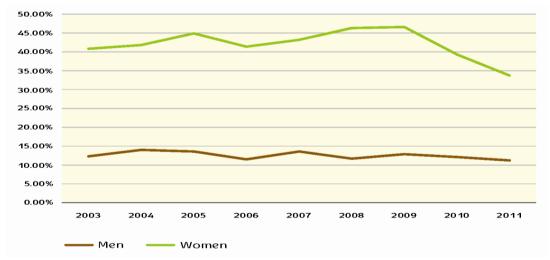


Source: CBS 2011g and comparable tables in 2003-2011 yearbooks.

#### The ratio between Arab women and Arab men in rate of part-time workers

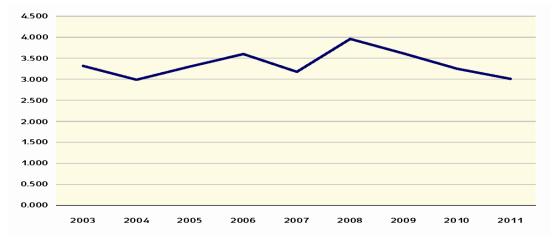
Figures 23 and 23a show that in addition to Arab women's low rate of participation in the labor market, many of those who do participate work part-time. However, the rate of Arab women who work part-time is declining: in 2009 it was almost 47% and in 2011 it dropped to 33.7%. The rate of Arab women who work part-time is three times higher than the rate of Arab men. This indicator reduces gender inequality in the dimension of the Arab society in recent years.

Figure 23
The rate of Arab men and Arab women employed in part-time jobs in the workforce in Israel



Source: CBS 2011g and comparable tables in 2003-2011 yearbooks.

Figure 23a
The ratio between Arab women and Arab men among part-time workers in the workforce in Israel



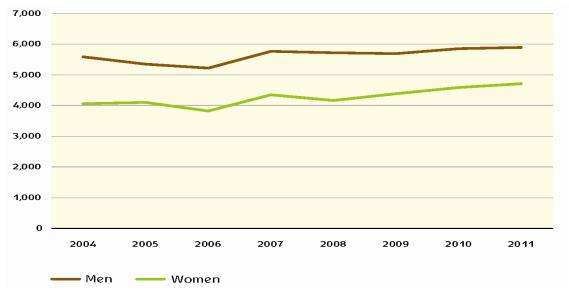
Source: CBS 2011g and comparable tables in 2003-2011 yearbooks.

### The ratio between Arab women and Arab men in gross monthly income

The gap presented in Figure 24 is reflected by the ratio between the monthly salaries of Arab women and the monthly salaries of Arab men, presented in Figure 24a, and it ranges from 72% to 79%. In other words, Arab women earn lower monthly salaries than men, just like in the general Israeli population. A factor that influences this state of affairs is the high rate of Arab women who work part-time, as we have seen above.

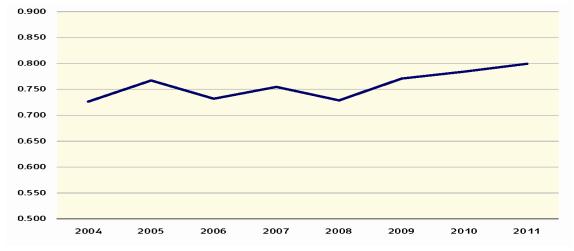
Figure 24

Gap in monthly income in the Arab society in Israel (NIS)



Source: CBS 2011a and comparable tables in CBS income surveys 2004-2011.

Figure 24a
The ratio between Arab women and Arab men in monthly income in Israel

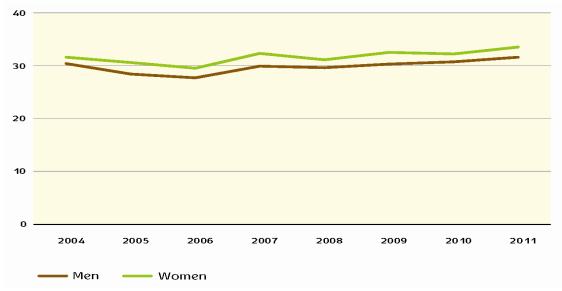


Source: CBS 2011a and comparable tables in CBS income surveys 2004-2011.

### The ratio between Arab women and Arab men in gross income per hour of work

Figures 25 and 25a show that there is a small gap in salary per hour in favor of Arab women, contrary to the situation in the Israeli population at large, where there is a steady gap (20%) in favor of men. In 2010 Arab women's advantage in hourly wages was eroded and gender inequality rose slightly.

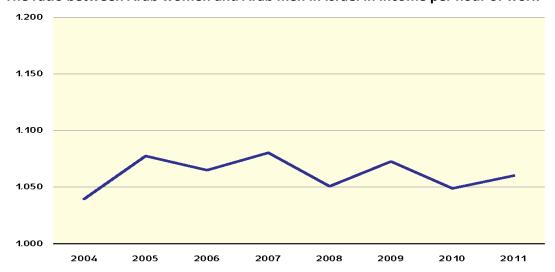
Figure 25
Gap between Arab women and Arab men in wages per hour of work



Source: CBS 2011a and comparable tables in CBS income surveys 2004-2011.

Figure 25a

The ratio between Arab women and Arab men in Israel in income per hour of work



Source: CBS 2011a and comparable tables in CBS income surveys 2004-2011.

#### The ratio between the rate of Arab women and Arab men with 13-15 years of education

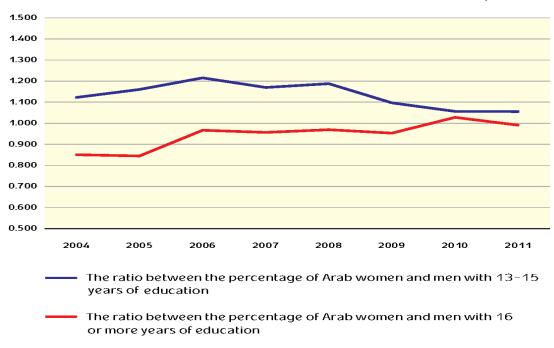
Figure 26 shows that between 2004 and 2006 the number of Arab women with 13-15 years of education rose and exceeded the number of men, thereby diminishing gender inequality. Between 2008 and 2011 the trend reversed due to the fact that the rate of men with 13-15 years of education gradually increased whereas the rate of women remained steady. In the last years this indicator has therefore increased gender inequality in the dimension of the Arab society.

# The ratio between the rate of Arab women and Arab men with 16 years or more of education

Figure 26 shows that the ratio between the number of highly educated Arab men and women is close to 1, and during the measured period it converged to approximately that number. In other words, in this indicator gender inequality does not exist. However, unlike in previous years, in 2011 there was a rise in the number of Arab men with 16 or more years of education, which increases gender inequality in the Arab society.

Just like in the Jewish sector and contrary to conventional wisdom, education among Arabs does not eliminate structural and cultural barriers, and therefore it is not a tool for increasing gender equality in the labor market (see the education dimension below).

Figure 26
The ratio between the rate of educated women and men in the Arab society in Israel



Source: CBS 2012f and comparable tables in 2004-2011 yearbooks.

# The number of files opened by the police following women's complaints of domestic violence: the rate of Arab women among women who filed complaints

Figure 27 shows that the rate of Arab women among women who filed complaints ranges between 11% and 13%, and is low compared to their rate in the population of women (20%). Between 2008 and 2010 their rate rose, and simultaneously inequality in the Arab society dimension grew. In 2011 no figures were received about the number of files opened by the police into women's complaints of domestic violence. It is noteworthy that the low rate of complaints by Arab women might indicate underreporting rather than a low number of incidents of violence.

The rate of Arab women among women who filed complaints of domestic violence 14.00% 13.50% 13.00% 12.50% 12.00% 11.50% 11.00% 10.50% 10.00% 2004 2005 2006 2007 2008 2009 2010

Figure 27
The rate of Arab women among women who filed complaints of domestic violence

Source: Almagor-Lotan 2011; Mizrahi 2012.

### Summary: Gender Inequality in the Arab Society Dimension

Figure 28 presents the scores of the Gender Index in the dimension of the Arab society and shows that the equality of Arab women was at a standstill over the years in which the Index was measured. The range of changes is small, although a slight trend of improvement is evident. The dimension is comprised of seven indicators: the indicator of an inequality gap in labor force participation rose; in the indicator of job scope the gap narrowed; the gap in monthly income between Arab men and women grew but the gap in hourly wages narrowed. In the indicator of 13-15 years of education there was no change but the gender gap grew slightly when comparing Arab men with 16 or more years of education and Arab women with the same level of education; and in the indicator of opening files concerning violence against women the rate of Arab complainants dropped. The overall vacillations in the indicators were moderate and resulted in a minor fluctuation in the direction of reduction of the inequality between

Arab men and Arab women in Israel. These results raise questions because there is no doubt as to the inferiority of the status of Arab women in Israel. An interesting finding is that the trajectory of the dimension of the Arab society is different from the trajectory of the general Gender Index: it reached a low point in the years 2006 and 2007 – the peak years of the general index – and dropped again in 2010 while the general index rose.

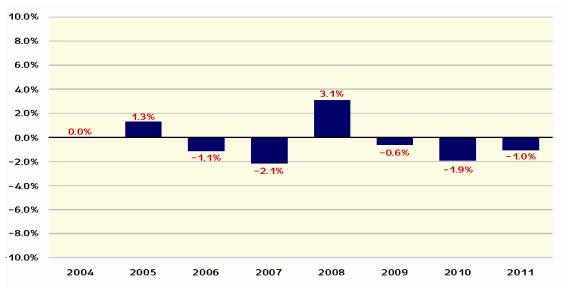
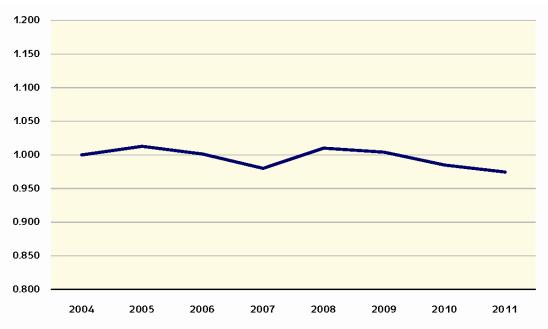


Figure 28: Gender inequality in the Arab society dimension





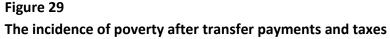
### The Poverty Dimension

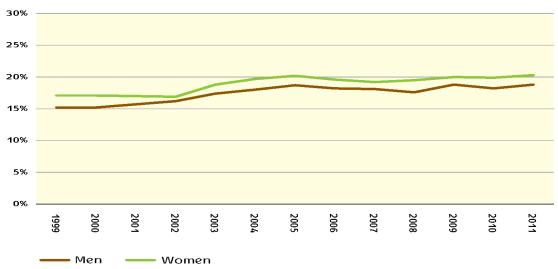
Poverty is a significant dimension in the context of gender inequality because it is the juncture where disempowerments intersect and intensify. Furthermore, the rate of poverty is at least somewhat controlled by the welfare system that regulates its allocations to different social groups (Stier and Levin 2000). Gender inequality in the area of poverty is measured by the incidence of poverty among women compared to the incidence of poverty among men according to National Insurance Institute data. We also considered the number of income support benefit recipients according to the CBS's Statistical Abstract of Israel. Gender inequality in poverty is measured by two indicators:

- The poverty ratio between women and men after transfer payments and taxes;
- The ratio between the number of women and the number of men who receive income support benefits.

### The poverty ratio between women and men after transfer payments and taxes

Figures 29 and 29a show that the incidence of poverty among women is consistently higher than the incidence of poverty among men, albeit by a small margin. It should be noted that this is the incidence of poverty after the intervention of the welfare system, which means that its actions do not close the gender gap in poverty levels. In 2008 that ratio increased, which means that the incidence of women's poverty was greater than men's, and gender inequality in the dimension of poverty rose that year. In 2011 the ratio dropped to some extent, which means that inequality in the dimension of poverty slightly diminished.





Source: National Insurance Institution 2011 and comparable tables in NII poverty reports 1999-2011.



Figure 29a

The ratio between women and men in the incidence of poverty

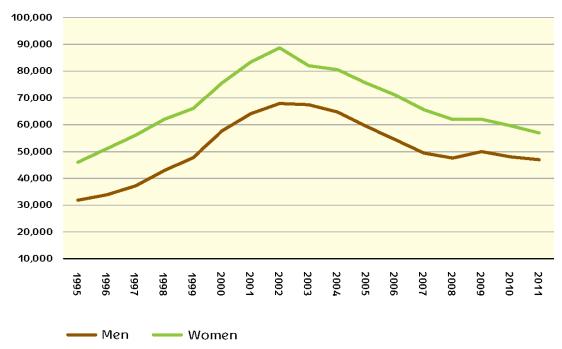
Source: National Insurance Institute 2011 and comparable tables in NII poverty reports 1999-2011.

# The ratio between the number of women and the number of men receiving income support benefits

Figure 30 shows that there is a steady gap between the number of women who receive income support benefits and the number of men. One of the reasons more women than men receive income support benefits is because women are poorer than men. Therefore, the bigger the ratio between the number of women and men who receive income support benefits, the larger the gender inequality in the poverty dimension. Figure 30a shows a trend of decrease that started in the early 2000's – reflecting a deliberate change in social policy - namely, stricter criteria for entitlement to income support in general and the "unemployability test" in particular. Between 2009 and 2011 the ratio decreased slightly because both women and men received reduced income support benefits so that inequality in the poverty dimension somewhat diminished.

<sup>&</sup>lt;sup>15</sup> NII conditions of entitlement, <a href="http://www.btl.gov.il/benefits/income\_support/Pages/default.aspx">http://www.btl.gov.il/benefits/income\_support/Pages/default.aspx</a>

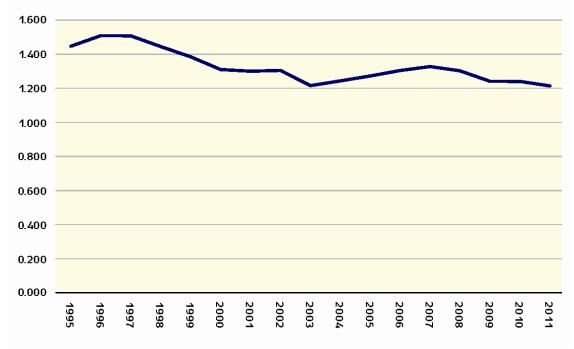
Figure 30
The number of income support benefit recipients



Source: CBS 2012e and comparable tables in 1995-2011 yearbooks.

Figure 30a

The ratio between women and men in rate of income support benefit recipients



Source: CBS 2012e and comparable tables in 1995-2011 yearbooks.

# Summary: Gender Inequality in the Poverty Dimension

Women are poorer than men, which means a gender gap exists in the poverty dimension as is evident in our indicators examining this dimension. Figure 31 shows that no major changes in that gap occurred in the years studied, which means that in the poverty dimension the Gender Index is stable and the gap between the number of poor women and the number of poor men is sustained over the years monitored by the Index. This dimension is directly impacted by the welfare system and its results therefore suggest that the policy to alleviate poverty exhibits gender blindness.



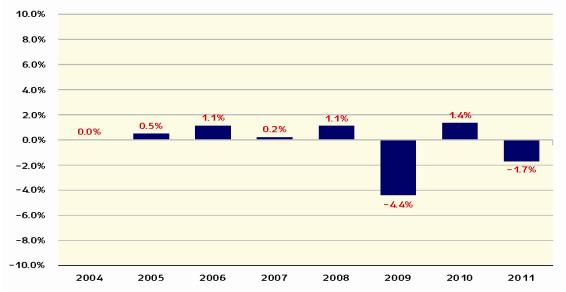
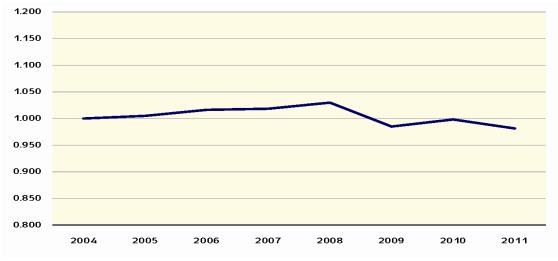


Figure 31a
Scores of the poverty dimension



### The Education Dimension

In recent years the extent of educated people in society rose numerically and proportionally. The rate of educated women rose faster than the rate of educated men and a rise in gender equality was to be expected as well, mainly because education is considered and expected to have a positive impact in promoting equality in employment, but in reality the situation is complex: the rise in education levels of the population at large reduces the relative advantage of acquiring it, and in the context of gender equality, women usually enter prestigious professional fields when those fields' remuneration and prestige start to decline. Therefore, acquiring the education required to enter those fields does not grant women a similar status to the men who worked in them before their status declined.

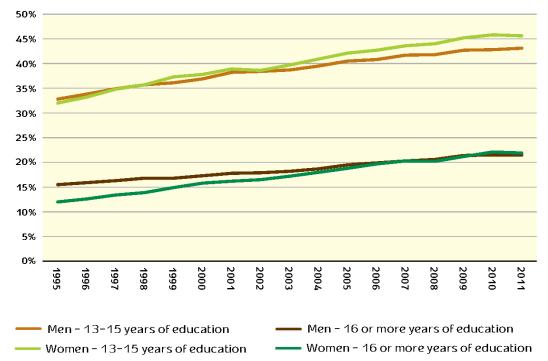
Gender inequality in education attainment is measured in the Gender Index by two indicators:

- The ratio between men and women with 13-15 years of education;
- The ratio between men and women with 16 or more years of education.

#### The ratio between men and women with 13-15 years of education

Figures 32 and 32a show that since 1999 the rate of educated women with 13-15 years of schooling was higher than the rate of educated men: in 2011, 43.1% of men in Israel were educated and 45.6% of women were educated, and 23.7% of women had at least 16 years of education compared to 21.6% of men. It is noteworthy that women steadily improved their relative status as far as their average level of education, but this was not reflected by their average conditions in the labor market.

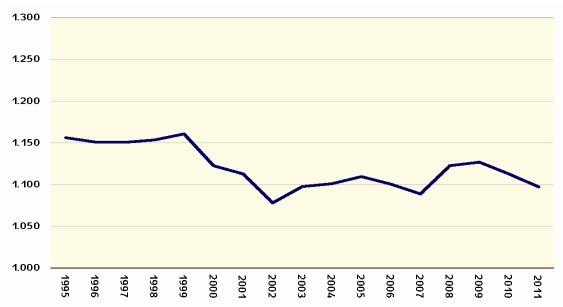
Figure 32
The rate of people with 13-15 years of education and 16 or more years of education



Source: CBS 2011f and comparable tables in 2004-2011 yearbooks.

Figure 32a

The ratio between women and men with 13-15 years of education



Source: CBS 2011f and comparable tables in 2004-2011 yearbooks.

#### The ratio between men and women with 16 or more years of education

Figures 32 and 32b show that in the years 2004-2006, the rate of men with at least 16 years of education was higher than the rate of women, and gender inequality in the education dimension grew. Since 2007 the ratio remained close to 1, which means that the rate of women with 16 or more years of education was similar to the rate of men and their level of education rose. Between 2010 and 2011 women outpaced men in their rate of education, and inequality in the dimension of education slightly diminished.

Figure 32b

The ratio between women and men with 16 or more years of education

Source: CBS 2011f and comparable tables in 2004-2011 yearbooks.

# Summary: Gender Inequality in the Education Dimension

Figure 33 shows an improvement in gender equality in the dimension of education in the years that were examined for the Gender Index, which means that the rate of educated women grew in relation to men. This figure shows that contrary to common expectations, education is not a sufficient tool to reduce gender gaps in the labor market. As we showed in the dimension of the labor market, the gaps are far from narrowing; they are in fact growing.

Figure 33
Gender inequality in the education dimension 2004-2011

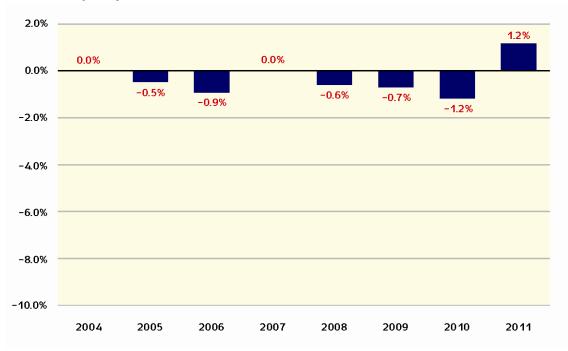
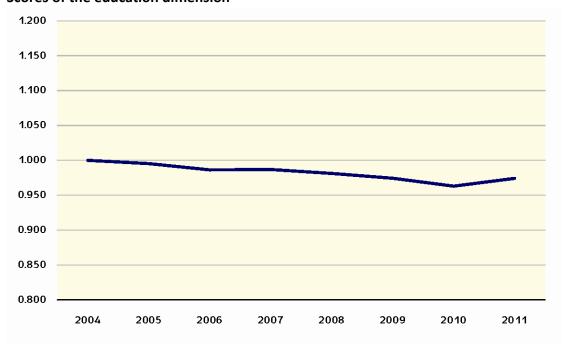


Figure 33a
Scores of the education dimension



# The Political Representation Dimension

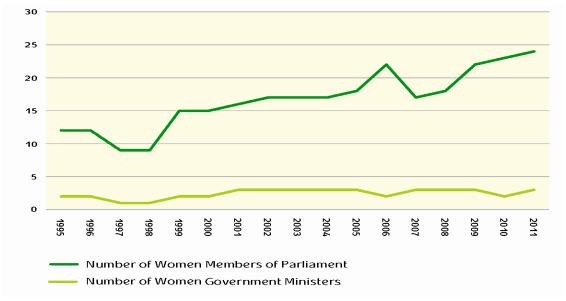
For the purpose of this Index we used the number of women in the Knesset (Israeli parliament) and the government. Such indicators are commonly used in international gender indices around the world; however, we intend to expand this dimension with new indicators in the future:

- The ratio between the number of women and men members of Knesset: the highest number each year.
- The ratio between the number of women and men ministers in the government: the highest number each year.

#### The ratio between the rate of women and men members of Knesset

Figures 34 and 34a show that between 2004 and 2006 the rate of women among members of Knesset rose and gender inequality somewhat lessened, even though in 2006 there were only 22 women who were Knesset members out of 120 (18.33%). In other words, there was only a slight improvement. In 2007 the number of women members of parliament dropped to 17 and inequality in the dimension of political representation rose. Between the years 2008 and 2011 the number of women legislators rose again to 24 (20%). Parity means 60 women legislators, so the gap is still very large. In 2013, after the general elections for the 19th Knesset, the number of women parliamentarians reached an all-time high of 27, but it is still much lower than the rate of women in the population.





Source: www.Knesset.gov.il

Figure 34a: The ratio between the number of women and men members of parliament

Source: www.Knesset.gov.il

### The ratio between the number of women and men government ministers

Figures 34 and 34b show that the general trend in the years in which the indicator was measured is a reduction in the ratio between the highest number of women ministers and the highest number of men ministers. Whereas the highest number of women ministers ranged from 2 to 3 each year, the highest number of men ministers rose from 12 up to 28 in one year, indicating gender inequality in the dimension of political representation for all years monitored by the index. In 2011 there was a slight improvement in the ratio between the number of women and men ministers compared to the previous year, but the number of women government ministers remained very small (about 10%).



Figure 34b: The ratio between the rate of women and men government ministers

Source: www.Knesset.gov.il

# Summary: Gender Inequality in the Political Representation Dimension

Figure 35 indicates a slight improvement in gender inequality thanks to the rise in the number of women in parliament and government, but this number is still very small compared to their percentage in the general Israeli population. Therefore even though their number rose, in 2011 there were only 24 women members of parliament and five women ministers. Between the years 2005 and 2007 gender inequality increased in the political representation dimension and the status of women changed for the worse due to much lower representation than men. In 2008-2009 inequality diminished due to the rise in the number of women members of parliament.



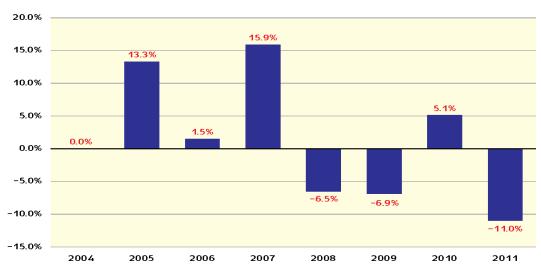
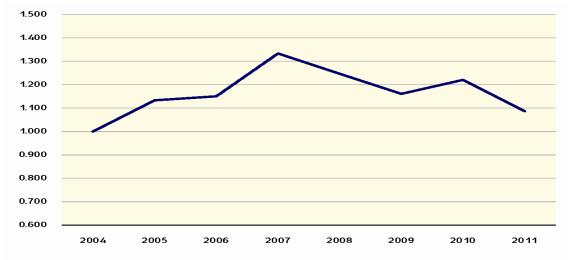


Figure 35a: Scores of the political representation dimension



#### The Health Dimension

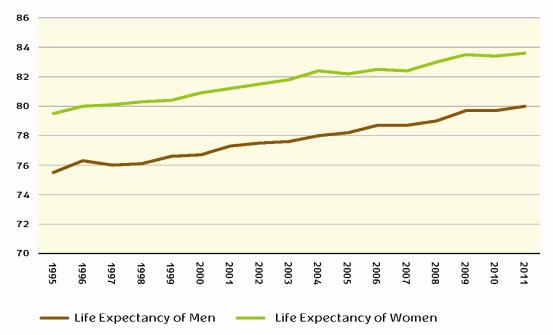
This dimension is in its initial stages of development. At this point in time it has three partial indicators that indicate the status of health; our intention is to expand the dimension into gender gaps in the area of health services — including preventive medicine and health promoting behavior. We used the CBS's social survey that establishes subjective health perceptions, as well as the variable of life expectancy, which serves in all international gender indices. The following are the indicators:

- The ratio between women and men's life expectancy.
- The ratio between women and men's mortality rates.
- The ratio between the number of women 20 years of age or older who assess their health as good or very good and the number of men 20 years of age or older who assess their health as good or very good.

### The ratio between women and men's life expectancy

Figure 36 and Figure 36a show that for all the years of the Index women's life expectancy is 3 to 4 years higher than men's life expectancy and the gap is stable. In 2011 women's average life expectancy was 83.6 and men's was 80. This indicator does not influence gender inequality in the health dimension.





Source: CBS 2011c and comparable tables in 1995-2011 yearbooks.

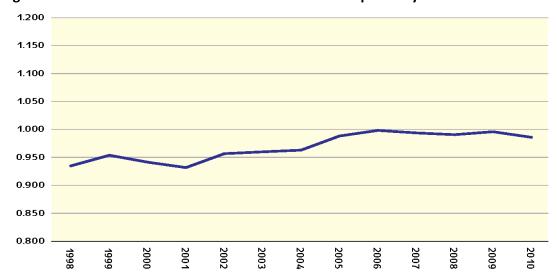


Figure 36a: The ratio between women and men's life expectancy

Source: CBS 2011c and comparable tables in 1995-2011 yearbooks.

# The ratio between women and men's mortality rate (number of deaths per 100,000 women and men)

Figure 37 and 37a show that for each year of the Index the ratio between women's mortality rate and men's mortality rate is similar and hardly changes: the number of women's deaths per 100,000 women is an average of 538 for the years checked and the number of men's deaths per 100,000 men is an average of 544 for the same years. This indicator did not change the level of gender inequality in the dimension of health and was not a significant factor.



Figure 37: Mortality rates of women and men (per 100,000 people)

Source: CBS 2012a and comparable tables in 1998-2011 yearbooks.

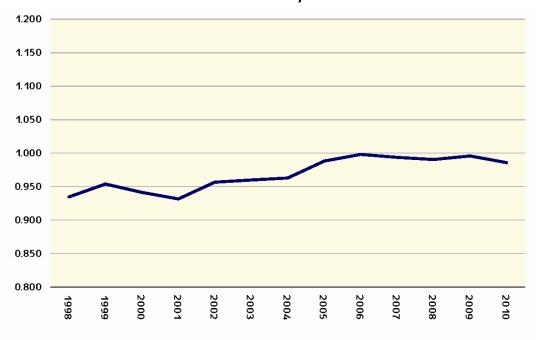


Figure 37a

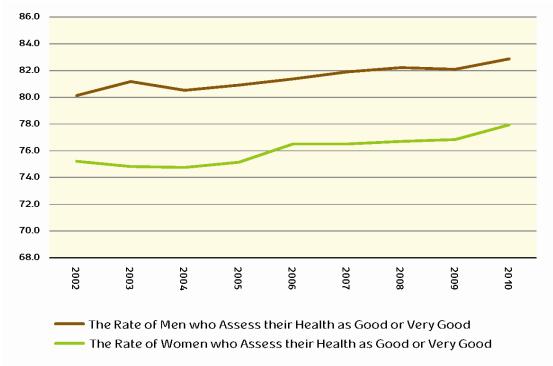
The ratio between women and men's mortality rates

Source: CBS 2012a and comparable tables in 1998-2011 yearbooks.

The ratio between the number of women 20 years of age or older who assess their health as good or very good and the number of men 20 years of age or older who assess their health as good or very good

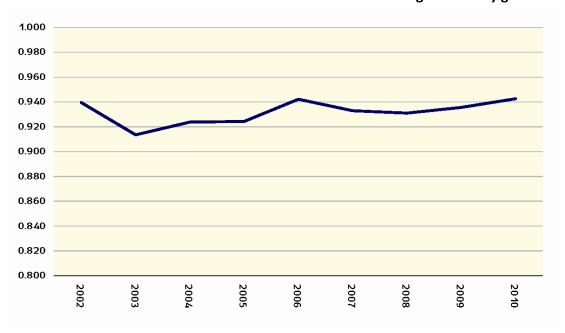
Figures 38 and 38a show that for this indicator, which presents a subjective assessment of men and women's health status by their own evaluation, there is a steady gap between the number of women who assess their health as good or very good and the number of men who assess their health in the same way. Men appear to evaluate their health as good or very good at a higher rate than women, and the gap is particularly evident among those who evaluate their health as very good. In other words, the rate of women who feel their health is very good is lower than the rate of men, and this indicator slightly increases gender inequality in the health dimension.

Figure 38
The rate of women and men who assess their health as good or very good



Source: CBS 2011d and comparable tables in 2002-2010 yearbooks.

Figure 38a
The ratio between women and men who assess their health as good or very good



Source: CBS 2011d and comparable tables in 2002-2010 yearbooks

### Summary: Gender Inequality in the Health Dimension

Figure 39 shows that in the range of the measurement years there was no major change in the gender gap in the health dimension, and the status of the inequality seems to have remained stable. At this stage the health dimension presents outcomes alone, not yet taking into account structural gender differences in health budgets or differences between social groups, and we intend to expand it in the next stages of the development of the Gender Index.



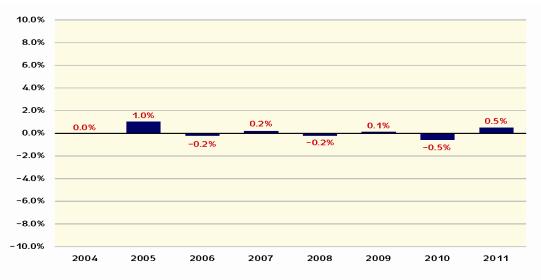
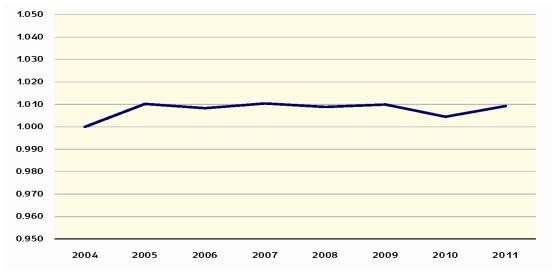


Figure 39a
Scores of the health dimension



### Results of the Gender Index for 2011 in Each Dimension

The labor market dimension: This dimension showed an improvement in the state of gender inequality due to decreasing of the gap between women and men in four of the eight indicators that comprise this dimension. The indicators that exhibited an improvement in the state of inequality are: the ratio between the number of men working part-time (202,100) and the number of women (471,400) dropped by 2.4% due to an increase in the number of men working part-time and a slight decrease in the number of women working part-time; <sup>16</sup> the gap between men's gross monthly income (NIS 9,976) and women's gross monthly income (NIS 6,599) is NIS 3,377 and dropped by 0.4%; the rate of female contract workers (20,200) out of all contract workers (36,100) dropped by 5.6%; the rate of women who are unemployed due to their responsibilities as housewives dropped from 29.1% to 25.2%. The rest of the indicators in this dimension indicated an increase of inequality. The final result of this dimension indicated a 4.1% drop in inequality between men and women in the labor market compared to 2010.

The violence against women dimension: This dimension showed an improvement in inequality due to a decrease in three of the five indicators that comprise the dimension: the number of police files opened due to women's complaints of domestic violence dropped from 15,726 to 15,144; the number of files of sex offenses against women that were transferred to the police prosecution or the state attorney's office dropped from 962 to 921; and the rate of files closed due to lack of evidence dropped to 30.6%. The rest of the indicators in this dimension showed a change for the worse in the status of violence against women: the number of new calls to rape crisis centers rose, as did the number of women treated at the Welfare Ministry's domestic violence prevention centers. The final result of this dimension showed a 7.4% drop in inequality in 2011 compared to 2010.

The periphery dimension: This dimension exhibited a change for the worse in gender inequality in the indicator of labor market participation rates between women and men from the periphery, whereas in the indicator of wage gaps it showed stagnation. Women's average monthly salary in the periphery (the northern and southern districts of Israel) was only NIS 4,800 while men's average monthly salary in the periphery was NIS 7,585. In the time period under review, there seemed to have been no convergence

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<sup>&</sup>lt;sup>16</sup> For the negative impact of part-time employment on the status of women, see Stier and Lewin-Epstein 2000.

toward this gap's closure. The results of these two indicators combined increased gender inequality of this dimension by 0.5% compared to 2010.

The Arab society dimension: This dimension hardly exhibited any change in gender inequality in 2011. 17 Of the seven indicators that represent the Arab society dimension, two showed an increase in inequality, four showed a decline and one remained unchanged: gaps between Arab women and Arab men's participation in the labor market in Israel increased between 2010 and 2011 as a result of a drop in the Arab women's rate of participation in the labor market from 22.5% to 21.9%; the rate of men with at least 16 years of education rose to some extent and that slightly increased gender inequality in the Arab society as well. The rate of Arab women working part-time dropped sharply in the last three years – from 46.6% in 2009 to 39.3% in 2010 and 33.7% in 2011 – and that change, compared to the relative stability of the rate of Arab men employed part-time (between 12.9% and 11.2%), had the effect of reducing inequality in the Arab society dimension because the gap between the women and men narrowed; the gaps in average monthly salary between Arab women and Arab men narrowed slightly as well as the gaps in hourly wages (on the average, Arab women earn NIS 2 more per hour than Arab men). These figures indicate that the income disparity between Arab women and Arab men stems solely from the gap in job scope, because it is lower among women than among men. In the sphere of violence against women the indicator also shows a drop in the rate of Arab women who file complaints of domestic violence. The indicator that remained stable is the rate of people with 13-15 years of education and the final result of this dimension is a 1% drop in gender inequality compared to 2010.

The poverty dimension: The two indicators that comprise this dimension showed an improvement of inequality in the extent of poor women compared to poor men. In 2011 the incidence of poverty among men was 18.8% and among women 20.3%, which is a 1.5% gap compared to 1.7% in 2010. Between 2010 and 2011 the gap between the number of women and men receiving income support benefits dropped as well. In 2011 there were 56,944 women recipients of income support benefits compared to 46,910 men, and the number of female income support recipients dropped by 2,676 between 2010 and 2011. The result in the poverty dimension is a 1.7% improvement of gender inequality between the level of men's poverty and the level of women's poverty.

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 $<sup>^{</sup>m 17}$  All the other dimensions and the whole index measured the entire population of Israel.

The education dimension: This dimension was measured by two indicators: the rate of men and women with 13-15 years of education, and the rate of people with 16 or more years of education, and both exhibited only small changes in the years 2010 and 2011. The rate of people with 13-15 years of education is 21% of men and 23% of women. The rate of women with 16 or more years of education rose slightly to 21.9% of women (the rate of men with at least 16 years of education is 21.5%).

The political representation dimension: In this dimension we examined the number of women members of the Knesset and government ministers. After the 2013 general elections the situation somewhat improved in terms of women in parliament, , but since in all the other indicators the data is from 2011, we are looking at the situation in that year in the political representation dimension as well. The number of women members of parliament in 2011 was 24 (the 2013 elections raised it to 27), which is a deficit of 46 women legislators for equal gender representation. The number of women cabinet ministers in 2011 was three (after Orit Noked replaced Shalom Simchon). That figure reduced gender inequality in the political representation dimension, but because of the size of the government the change was hardly felt.

The health dimension: In this dimension changes were minute. However, it is noteworthy that the gap between women's and men's life expectancy steadily narrowed from 4.4 years in 2004 to 3.6 years in 2011, because men's life expectancy is growing steadily and narrowing the gap between them and women. The gap between women's subjective assessment of their health and men's is also gradually narrowing over the years.

In summary, an aggregate view that combines all the dimensions and indicators finds that in 2011 there was a 5.8% improvement in gender inequality compared to 2010.

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### **Appendix 1: International Gender Indices**

Part of the validity of indices in the public and professional discourse relies on their resemblance to similar indices used by other countries and international organizations. In comparing the status of gender inequality in Israel with that in other countries around the world, it would be useful to study what is happening in the world in this area. However, in our search we could not find a gender index that monitors the level of inequality between men and women over time. Here are the most accepted and commonly used gender indices:

- The Gender-Related Development Index (GDI). Source: United Nations, 1995. This is basically the Human Development Index (HDI) expanded to take into account some gender considerations. Components: life expectancy, literacy, education and income. This index reflects the status of women in three dimensions: reproduction and health, empowerment, and the labor market. The index monitors the effect that gender has on the HDI and to what extent gender inequality in the aforesaid dimensions brings it down. The index seeks to monitor the impact of national achievements in the aspects studied on the development level of each country where the HDI is measured. With full equality between the sexes the index receives the value of 0, and it ranges between that value and complete inequality, reflected by the value of 1. The operationalization of women's health is measured by two variables: maternal mortality and adolescent fertility. The dimension of empowerment is also measured by two variables: parliamentary representation and educational attainment at the secondary level and above. Operationalization of the degree of equality between the sexes in the labor market is expressed by measuring their labor force participation. 18
- The Gender Empowerment Measure (GEM). Source: United Nations, 1995. Components: seats in parliament held by women, women legislators, senior officials and managers, women professional and technical workers, as well as the ratio of estimated women-to-men earned income. The GEM seeks to answer the question of whether men and women are able to fully participate in the economic and political life of their countries and its decision-making processes, and the index's operationalization is based on three indicators: women in parliament, women in economic decision-making centers (in administrative, managerial, professional and technical areas), and income gaps between women and men. The philosophy at the basis of the index focuses on social agency, which is to say that it looks more at what people are able to do and less at how they feel or how they perceive themselves. 19

<sup>&</sup>lt;sup>18</sup> See www.hdr.undp.org/en/statistics/indices/gdi gem.

<sup>&</sup>lt;sup>19</sup> Ibid.

Both indexes were first published in 1995 and brought gender inequality discourse to the forefront. The interest they sparked both among academics and policy makers gave rise to a need for more systematic data collection. Both indexes were criticized for failing to measure gender inequality in its own right, for failing to cover all of the necessary data, failing to contain the means to measure internationally comparable gender gaps, and as Stephen Klasen said in his criticism: "More importantly, the indicators are not easily interpreted and, in fact, are often misinterpreted, which undermined their usefulness" (Klasen, 2007).

- The Gender Inequality Index (GII). Source: United Nations, 2010. Components: reproductive health (adolescent fertility, maternal mortality), empowerment (parliamentary representation and educational attainment), labor force participation.<sup>20</sup>
- The Social Institutions and Gender Index (SIGI). Source: OECD, 2009. A special Index for social structure: family code, physical integrity, civil liberties, son bias and ownership rights. OECD has a database called the Gender, Institutions and Development Database with more than 60 indicators of gender equality. The database was established in 2006 to help researchers and decision makers determine and analyze the obstacles that thwart women's social and economic development. It contains information on about 162 countries. The database was based on a number of key variables that traditionally determine gender equality in the discourse about education (literacy rates, years of schooling and so on), health (for example, reproduction and fertility), and economic and political status (parliamentary representation). The social institutions in the OECD database are perceived as long-term codes of behavior, norms, traditions, and formal and informal laws, which contribute to gender inequality in all areas of life. In addition to these traditional indexes, the index is also based on social institution indicators which are reflected by social practices and legal norms that create inequality between women and men. The five institutional dimensions of the index are family code, physical integrity, civil liberties, son bias and ownership rights. Family code refers to institutions that affect women's decision-making power in the household. The civil liberties index measures the freedom to participate in society. Physical integrity refers to the indicators of violence against women, and the dimension of ownership rights checks women's access to ownership of certain kinds of assets.

Twelve indicators were selected to represent the four dimensions from four

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<sup>&</sup>lt;sup>20</sup> See http://hdr.undp.org/en/statistics/gii/.

categories. In order to rate as many countries as possible, the index's authors followed the principle of availability of information, and indeed the index covers 102 countries. However, it was designed mainly to study problems that characterize Third World countries, and therefore is not measured in OECD member countries (Branisa *et al.* 2009).<sup>21</sup>

- The Global Gender Gap Index. Source: World Economic Forum (Lopez-Claros and Zahidi 2005) in cooperation with Harvard and Berkeley, 2006. Components: economic participation and opportunity (including wage gaps, the ratio of women to men among legislators, senior officials and managers, and the ratio of women to men among technical and professional workers), educational attainment, health and survival, political empowerment (parliamentary representation, tenure and number of women in executive office).<sup>22</sup>
- The Gender Equality Index (GEI). Source: Social Watch, 2005. Components: economic participation, education (literacy), empowerment (senior positions).
- The African Gender Status Index. Source: The Economic Commission for Africa, 2004.<sup>23</sup> Components: social power (education, health), economic power (income, participation, access to resources), political power (senior positions in parliament, in the public sector, in civil society institutions).
- The Women's Social Rights Index. Source: The Cingranelli-Richards (CIRI) Human Rights Data Project. This project examines whether women's rights are included in laws in the world and whether governments enforce them. The index has one indicator from each country and it receives one value out of four.<sup>24</sup>
- The Global Gender Index. Source: The Times Higher Education Magazine, 2013. The index maps the percentage of women in academia in different countries of the world.<sup>25</sup>

<sup>&</sup>lt;sup>21</sup> See http://genderindex.org,

<sup>22</sup> See http://www3.weforum.org/docs/WEF GenderGap Report 2012.pdf.

<sup>&</sup>lt;sup>23</sup> See: Economic Commission for Africa 2004: http://www.uneca.org/sites/default/files/publications/agdi book final.pdf.

See: http://ciri/binghamton.edu.

<sup>&</sup>lt;sup>25</sup> See: http://www.timeshighereducation.co.uk/features/the-global-gender-index/2003517.article.

The following indexes were developed in Israel:

- Women's Economic Resilience Index. Source: The Interdisciplinary Center (IDC) Herzliya, 2013. The index measures the rate of equality of economic resilience between men and women. Components: ten key variables to assess women's economic resilience, including labor variables (rate of participation, ratio of work hours, rate of unemployed), salary variables (gaps between the sexes), education- human-capital variables (percentage of university graduates), power variables (percentage of managers and rate of members of parliament), and business entrepreneurship variables (percentage of self-employed). All of the variables are compared to OECD countries.<sup>26</sup>
- Equal Value. Source: Israel Women's Network, 2011. An index of gender wage gaps. Components: women in the labor market (rate of participation, rate of employment, rate of contract workers, rate of self-employed, rate of managers, rate of part-time or full-time employment), discrimination against women at work (glass ceiling, mud floor and sexual harassment), woman and career (women's entrepreneurship), Arab women in the labor market, The Commissioner of Equal Opportunities at Work.<sup>27</sup>
- The Gender Representation Index. Source: D&B Israel. Analysis of data from 361 leading public companies in the Israeli economy. Components: management positions. Gender representation is examined in the following positions: chairman of the board of directors, member of the board of directors, CEO or co-CEO or president, members of management. The index examined the rate of women in each of the positions defined out of the total number of people holding the position in that company, and the results show that in almost all measured positions, women constitute a small minority. The companies included in the index were selected by variables such as Dun's 100, public companies in the main sectors that employ more than 100 employees, and prominent companies in the fields of industry and finances, such as Bank Hapoalim, Bank Leumi, Fox, Analyst and others.<sup>28</sup>

<sup>&</sup>lt;sup>26</sup> See: http://herzliyaconference.org/ Uploads/.../YafitAlfandari.ppt.

<sup>&</sup>lt;sup>27</sup> See: www.iwn.org.il/?CategoryID=304

<sup>&</sup>lt;sup>28</sup> See: www.ken.org.il/files/images

# Appendix 2: The Methodology for the Construction and Development of the Gender Index

An index is a quantitative measure of a social phenomenon. It is based on the combination of many indicators related to the phenomenon it wishes to express and measure. For example, The Consumer Price Index reflects a combination of price changes in a number of areas, aggregating them into a single index that represents all of the prices in the economy and monitors their development. The index operationalizes the concept by monitoring its measurable manifestations, which are supposed to reflect the essence of the concept. The index is based on the aggregated values of the measured variables in each indicator. An index of nominal variables (for example, variables whose values are items from a list and whose order is not important) is actually a typology. Whereas an index focuses on one dimension, a typology usually looks at the intersection between two dimensions or more. A scale is another way to quantify a social phenomenon. Unlike an index, it normally includes an indicator of only one dimension.

Gender equality can be defined as follows: a situation in which there is no difference between women and men in social, economic and demographic indexes. Current measurements, however, reveal a large gap between the rate of men and the rate of women in every variable that was measured. Examining each indicator separately is necessary indeed, yet it is very important to synthesize all of the variables into a single gender index that describes the general picture of inequality between women and men (such as the Consumer Price Index, for example).

### The Consumer Price Index: A Case Study

The Consumer Price Index (CPI) is designed to express, in one number, price changes that affect a range of commodities. The main conceptual problem of the CPI index is that there is no obvious way of perceiving what these aggregate price changes really are. The simple average of the entire economy expenditures on each of the commodities included in the CPI reflects changes in consumer behavior over time as changes in prices. In contrast, the effects of changes in consumer behavior can be singled out by fixing the quantities of each commodity and by calculating the average prices for these commodities, weighted by their quantities. However, the choice of one set of weights over another is arbitrary in the dimension of time. We must decide which year's consumer behavior the weights should reflect for each commodity. The choice of weights affects the computed average for the commodities included in the CPI in the current and all future years. Virtually all consumer price indexes throughout the world are based on the concept of a "fixed basket", which denotes a set of commodities with

specified and unchanging quantitative properties among its constituent goods and services. This basket usually reflects the actual consumption proportions of all of the goods and services in a given period. A fixed basket index can be defined as the ratio between the cost of a defined basket of commodities in one period and the cost of the same basket in the base period. The base period is most often the period to which the prices are compared and in which the quantities of commodities that comprise the basket were determined.

The methodological logic of the development of the Consumer Price Index can serve as a helpful guide in developing the Gender Index. The index of gender inequality can be defined as the ratio between the inequality expressed by a fixed group of socioeconomic indicators in a certain period and the inequality in the same group of indicators in the base period. According to that definition the index can be expressed by the following equation that expresses an aggregate index of changes in the indicators of gender inequality:

(1) 
$$Et/O^{(c)} = (\Sigma EtO*W) / \Sigma W$$

E is inequality in a certain socioeconomic indicator and t represents the period in which it was measured compared with the base period (0), in which there was a certain basket of indicators, C. W are the weights attached to each indicator included in the index.  $E_0$  is the inequality of the indicator under study during the base period.  $E_t$  is the inequality of the indicator under study during the measurement period:

(2)  $Et/0^{(c)}$ =(Et E<sub>0</sub>) expresses the gender equality represented by a social indicator compared to the equality represented by the same social indicator in the base period.

(3)  $W=(E_0 Qc)^{29}$  expresses the value of the weights given to each indicator that serve to weight the equality, expressed by that indicator relative to the equality expressed by the same indicator in the base year. W is the weight of the indicator in the entire index,

-

The meaning of the abbreviation Qc is based on the methodological sources of the Gender Index, which is based on the CPI. In this index the price is the inequality. The index is determined by an equation that is equal to equation (1) above, according to which the index is calculated as the price of commodities during period t, weighted by their consumed quantity in a basket determined in period C, compared to their prices during the base period 0. Each price ratio is multiplied by the quantity consumed in a fixed basket so that the price rise can be predicted while deducting changes in consumption patterns and quantities of the various commodities. To enable us to change the composition of the basket and sever the connection between it and the base year, the weights of the commodities in the CPI are defined such that they are equal to the actual cost of each commodity during period C multiplied by the relative price of that commodity, which compares its price during base period 0 to its price during period C in the reference period in which the basket was established.

based on the inequality of the indicator during the base period, multiplied by its value Q in the base period C; and  $\Sigma$  expresses the sum of the values of all the social indicators included in the group of indicators of gender equality defined by the index. In the context of the Consumer Price Index, the construct "equality" in this case replaces the construct of "price".

### Methodical Problems in Structuring the Index

The questions that must be addressed in the process of structuring the Gender Index are which indicators should be included in it and what weights should be attributed to each indicator. In the Consumer Price Index these questions are resolved by the data collected through the periodical surveys conducted by the Central Bureau of Statistics concerning the breakdown of consumers' expenses, which are presented by a representative sample. The weights express the level of expenditure for a certain commodity included in a fixed basket that was consumed during the selected base period, in the survey from which it was sampled. The Gender Index, however, does not rely on any analogical database that can be used to decide which indicators should be used and how to choose the weights for each indicator.

Harvey, Blakely and Tepperman describe one of the ways to build an index as follows: selecting and validating a group of indicators of equality from the array of existing equality indexes; and then fixing equal weights for each of the indexes selected (Harvey et al. 1990). They argue that this approach has the advantage of being based on existing data, which makes the resulting index easy to compute and inexpensive. It has the disadvantage of having no theoretical or empirical basis for allocating equal weights to all of the indicators, and therefore the authors propose a method that serves to measure the weights for each source of inequality at a certain point in time, so as to give the weights an empirical basis. The system the authors propose for computing the Gender Index is as follows:

- data selection and preparation
- data validation
- data synthesis
- index calculation

### Data Selection and Preparation

This process is analogous to the process of identifying a fixed basket of commodities for a target population relevant to the CPI. Here we must identify socioeconomic indicators that correlate with the construct of gender inequality. In much the same way as the prices of commodities that are not consumer goods are excluded from the CPI, so will

gender gaps in socioeconomic indicators that do not correlate with the construct of gender equality be excluded from the Gender Index.

The process of data selection and preparation includes three main steps:

- Checking the indicator to make sure it captures what it is intended to capture
   (face validation): this is the process whereby the whole package of potential
   indicators is examined to determine which indicators capture gender equality as
   reflected by the question: does the indicator express a change in our perception
   of gender equality?
- Change of direction: through this process we make sure that all of the indicators
  work in the same direction so that any growth in equality will be expressed as a
  growth in the indicator, in the ratio or in the rate. For example, the ratio
  between women's salaries and men's salaries grows in a state of equality. On the
  other hand, the ratio between the number of women working part-time and the
  number of men working part-time diminishes the closer you get to equality, and
  the direction of the indicator must be reversed so that it too grows.
- Converting into proportions: this is the process of converting all of the indicators
  into units of rates or percentages (if they are not so in the first place), with a
  score of between 0 and 1 (or 100%). Calculating the average of indicators
  expressed in such units is statistically more stable than calculating the average of
  indicators that express different units, like counting cases.

#### **Data Validation**

Validity must be constructed to ensure that the indexes of gender equality we expect to be correlated with each other are indeed correlated, despite their face validation. The validation method is factor analysis. This procedure requires a given and consecutive series, preferably annual (data collected every year since the base year). The purpose of the factor analysis is to express several variables through a limited number of factors and characterize the studied units in a concise and usable manner.

The factors are new variables calculated as linear combinations (weighted averages) of the standardized original variables (therefore, each variable has an average of 0 and a variance of 1). Variables require standardization since different variables are measured in different units: a variable value can be a number, a quotient or a percentage. It can be measured by New Israeli Shekels or years of schooling. Since our index is an inequality index, all variables are presented in the form of a ratio between the rate of men and the rate of women in a certain period, thus overcoming the problem of unit variance. Units in the factor analysis are determined serially, one after another, so that the first factor is

the linear combination that explains the maximum rate of variance, and therefore has the greatest capacity to distinguish between the years, in order to map the differences in the status of women over time. The second factor has the second highest level of explainability of variance out of the variance that cannot be explained by the first factor, and so on.

In constructing the index we will use a large group of variables that are highly correlated by definition, because they all represent the same social phenomenon. Through factor analysis we can construct a new variable composed of a series of existing variables. As described above, these factors define a system of orthogonal axes in the multidimensional expanse of the variables (because each factor is a linear combination of the original variables and the factors are orthogonal). This kind of analysis is called principal component analysis. The factor analysis also produces the Kaiser Index of Sampling Adequacy that helps sift through the data. The index has a dual use: on the one hand it serves to test whether the variables belong to the same conceptual framework and on the other hand it helps test the contribution of a single variable to the group to which it belongs. This index's values range from 0-1 and therefore results of 0.5 and up indicate the indicator indeed belongs to the same conceptual framework.

Another important concept is factor loadings. Factor loadings are coefficients of correspondence between the original variables and the factor. The size of the factor loading measures the relative importance of each variable for each year. A low factor loading of a variable by all factors can be sifted out of the analysis. There are several options in factor analysis including rotating axes (factors) to increase the association of each variable with one single factor if possible, and decrease its association with the other factors. This can lead to each factor significantly expressing a different group of original variables that belong to a certain sphere, such as variables that define education level or standard of living. Therefore we must remember that any interpretation of the meanings of factors is but one of many that could have been obtained by rotating the factors.

A factor analysis will lead to the factorization of the first factor, which in this case can be interpreted as the "gender equality factor". We can expect a very high correlation between the component indexes and the first factor; therefore any factor that loads less than 0.71 on this factor will be rejected and we will no longer use it. The criterion of 0.71 was selected based on the rationale that at least half of the indicator's variance is explained by the first factor – "the gender equality factor" (namely: variance = loading squared = (0.707)  $^2$  = 0.5). All of the indicators that are not rejected in this process will

enter the Gender Index. The factor produced will be measured in terms of rate of explained variance and with the sign of its value.

### **Data Synthesis**

All of the indicators' yearly values must be standardized. In this procedure each value is recalculated in relation to its average and the series' standard deviance. Standardization is a good way to deal with the calculation of indicators that are expressed in different units – such as currency, number of people or number of hours, and which therefore have different distributions and different characteristics. Standardization also equalizes the weights, which are the relative importance of each indicator in the general index. The results of the standardization allow us to compare all indicators by the same units so that it can be said, for instance, that between 2000-2005 relative equality in income improved by a standard deviation of 1, whereas the relative rate of unemployment improved by only half a standard deviation, or only half as much as the income indicator.

An alternative procedure at this point is to use the weight of each indicator for the standard scores to influence the relative importance of the equality indexes in the general index. But some argue that since attaching weights to each indicator is not based on any logical theory or empirical data, all indicators should receive equal weights (Harvey *et al.* 1990, 306).

### **Index Calculation**

This is the last stage in calculating the Gender Index. As we saw in the aforementioned formula, this stage includes calculating the weighted average of gender equality expressed by the social indicators, relative to the status of equality in the base year. We decided to give the average in the base year the value of 100 and base all of the index scores on it. In other words, the standard scores for the base year are transformed so that they equal 100. The standard scores for all of the other years are transformed so that their value is smaller than 100 when the equality in the indicator drops relative to the base year, and greater than 100 when equality rises relative to the base year.

We shall demonstrate this transformation. If the standard score of one indicator in the base year is -1.0 (or 1 standard deviation below the indicator's average) we will decide that that value, z=-1.0, equals 100. If the standard score for the following year is -0.25 (or % of a standard deviation below the average), the changed value will equal the sum of 100 plus the product of the standard deviation and the gap (in terms of standard deviation) between the base year and the following year. Suppose an indicator's

standard deviation equals 20. The gap in terms of standard deviation between the base year and the following year is 0.75 (or the gap between -1.0 and -0.25). Therefore the indicator's value for the next year equals 115 = 100 + 0.75(20).

The last stage is calculating the index by using the aforementioned equation. We can illustrate this calculation with the help of an example. Suppose we have six indicators in the Gender Index. In the base year each one of them equals 100 and their values for the following years are 110, 115, 120, 105, 100 and 110 respectively. Let's also suppose that all six indicators have equal weights that get the value of 1. Following the equation above, the calculation of the index is as follows:

# $\check{z}$ Et/0(c)=(110/100)+(115/100)+(120/100)+(105/100)+(100/100)+(110/100)=1.10 $\check{z}$ 1+1+1+1+1

The accepted practice is to multiply the index by 100 and express it relative to its value in the base year, which in this case is 110. The index moved 10 points towards equality between the two periods – from 100 to 110.

#### The Data

As we learn from the aforesaid, in order to calculate the index we require a data series going back a few years, preferably a long series. Indicators usually present two typical problems: some have the necessary number of values but do not have face validity, which is to say, they do not measure gender equality; and other indicators have face validity but do not have a sufficiently long consecutive measurement and therefore they do not have enough values nor a statistical basis to evaluate the missing values.

### The Algorithm for Calculating the Gender Index

Based on the research method described above, the stages of index calculation are as follows:

1. Selecting a series of indicators with face validity: checking that the indicator captures what it is intended to capture (face validation). In this process we examine the whole package of potential indicators in order to conclude which of them logically captures gender equality. Each assessor is put to the test by the question of whether it actually expresses changes in gender equality according to our understanding. The process has two stages: a descriptive analysis and preliminary screening.

**Descriptive analysis**: This is an analysis of the initial list of variables and includes statistical indexes to separately analyze the distribution of each variable in the following aspects: dissemination parameters, distribution symmetry and

extreme values. Correlation between each pair of variables will also be calculated. This stage is meant to reduce the number of variables included in the index as well as prevent us from including variables with excessive influence or several highly correlated variables. When we find a Pearson correlation of more than 0.8 between a pair of variables, we must consider the possibility of eliminating one of them from the index. The rule is that variables representing other social phenomena should be included in the index despite their high correlation. When evaluating variables that relate to the same social phenomenon, we normally prefer variables that have symmetric distribution, high variance (differences between cases) and a smaller correlation with variables associated with the same phenomenon.

**Preliminary screening -** The preliminary screening of the relevant variables is conducted according to the following considerations:

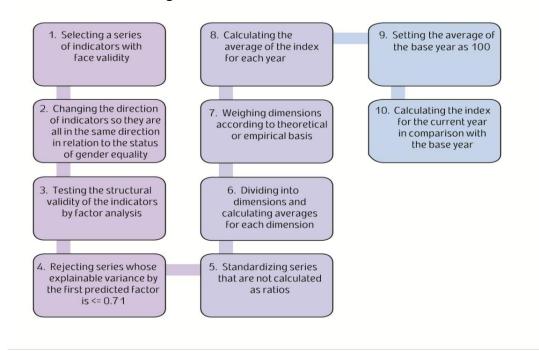
- a. The relevance of the variable to the conceptual framework of gender in Israeli society.
- b. Whether or not reliable data is available for all the time frames we wish to monitor. Comprehensive data for all variables for all time frames is vital in order to maintain the consistency of the index's trend.
- c. Consistency with similar studies: The inclusion of a maximal number of variables that were used for other studies about the status of gender facilitates comparison and contributes to the discourse on the subject. At this stage of the work, it would be wise to consult with professionals from the field of gender studies to reach the widest possible agreement on the Index.
- 2. Changing the direction of indicators so that they all point in the direction of reducing gender equality: this process ensures that all indexes operate in the same direction so that when equality grows, so will the ratio or the rate. The ratio of women's salaries to men's rises when equality is achieved. Conversely, the ratio between the number of women employed part-time and the number of men employed part-time drops the greater the equality, and thus the indicator's direction must be reversed so that it too grows as equality grows.
- 3. Performing a factor analysis to confirm indicators' structural validity: factor analysis allows us to predict the gender equality factor that will be created by the statistical process determining the factor that connects them according to the variables we selected, and to confirm the correlation of each indicator with that connecting factor.
- 4. Rejecting series whose explainable variance by the first predictive factor is <=0.71: a factor analysis will lead to the factorization of a first factor, which in this case can also be interpreted as the "gender equality factor." We can expect a very high correlation between the component indexes and the first factor,

- therefore any factor that loads less than 0.71 on that factor will be rejected and eliminated from the index. The criteria of 0.71 was selected based on the rationale that at least half of the variance of the indicator is explained by the first factor "the gender equality factor" (namely: variance = loading squared =  $(0.71)^2 = 0.5$ ). All the indicators that were not rejected in this process will be included in the Gender Index.
- 5. Standardization of series that are not in terms of ratio: standardizing all of the indicators' annual values. This process recalculates each value in relation to its average and the series' standard deviation. Standardization is also a good way to deal with indicators that are originally computed in different units such as currency, number of people or number of hours, and which therefore have different distributions and different characteristics. Standardization also equalizes the weights, which indicate the relative importance of each indicator in the general index. The results of the standardization allow us to compare by the same units so that you can say, for instance, that between 2000-2005 relative equality in income improved by a standard deviation of 1 whereas the relative rate of unemployment improved by only half a standard deviation, or only half as much as the income indicator.
- 6. Dividing into dimensions and calculation of averages for each dimension: At this stage we divide the series into subjects and use factor analysis to reexamine which series fit together and are not mutually exclusive in the same area. The natural areas to be used for examining gender inequality are the areas that appear in gender indexes in the world: the labor market, health, political representation and so on. Our objective was to challenge the accepted list of areas in the measurement of gender inequality and find additional areas that originate in feminist thought, and that is why we examined women from different social positions, violence against women and the Arab society in Israel.
- 7. Weighting by areas or on a theoretical or empirical basis: At this stage the index formula is consolidated and the proper weights are given to each dimension. The considerations determining the various weights might be theoretical, if they are based on a theory that states which areas influence gender inequality and to what extent; or they might be empirical considerations based, for instance, on a survey of women that enable them to grade which indicators of inequality bother them more than others. At this stage of the research we cannot establish weights and therefore the assumption is that each area has the same impact on the general index. Accordingly, the formula for calculating the index by its dimensions is as follows:

The index = 1/8\* (labor market)  $^2+1/8*$  (poverty)  $^2+1/8*$  (education)  $^2+1/8*$  (health)  $^2+1/8*$  (politics)  $^2+1/8*$  (periphery)  $^2+1/8*$  (Arab community)  $^2+1/8*$  (violence)  $^2$ .

- 8. Calculating the index average for all the years monitored.
- 9. Setting the average for the base year at the number 100.
- 10. Calculating the index for every year compared to the base year, which is determined arbitrarily and whose main significance is its being a point of comparison (the base year can be changed and the index can be recalculated. The relations between the years will be maintained in any case).

Figure 40
The model to assess the gender index in Israel



### Filtering the Variables Included in the Gender Index

The variables that can be included in the index must be a consecutive series going back several years so that one can test their relevance to factors that explain gender inequality. They must also have a potential for future measurements because our intention is to update the Index every year. Stable data series are mostly found in the CBS and less so in the NII databases.

The bodies that gather data in Israel and have created databases for years have not been committed to gender equality, and that is why the large body of data collected and monitored is not gender-disaggregated. Furthermore, the subjects and categories those bodies choose to publish are biased toward the male sphere and the areas of interest it

dictates. Data collecting therefore does not include issues that arise from women's experiences and status such as violence against women, the distribution of resources inside the nuclear family, the state's allocation of resources by gender-disaggregation, combined disaggregation by ethnicity and gender, and more. These technical but critical constraints limit the indicators that can be included in the index. The preliminary screening of the relevant variables was performed according to the following considerations:

- The relevance of the variable to the conceptual framework of gender.
- Whether or not reliable data is available for all time frames.
- Consecutive similar studies, so that the index is comparable to other indexes and contributes to the discourse regarding gender inequality.

It is worth mentioning that the index's methodology is a platform onto which additional dimensions and indicators can and will be added in the future, based on in-depth research and development necessary to create such data series.

# Indicators that were considered but were not added to the index at this stage:

- Median wage and other indicators that indicate wage distribution and not only its average: there is no gender disaggregation in the measured years (CBS 2011).
- Murder of women by their partners ("Honor killings") (Mizrahi 2012): by the accepted analysis, as a rate per 1000 women, its fluctuation is minute.
- Arrest of men for domestic violence offenses (ibid.): data is only available for the years 2008-2010.
- Arrest of men for sex offenses (ibid.): data is only available for the years 2008-2010.
- Prison sentences for men convicted of domestic violence offenses (ibid.): data is only available for the years 2007-2011.
- Rate of repeated jail terms of prisoners convicted of domestic violence offenses (ibid.): data is only available for the years 2007-2010.
- Prison sentences for prisoners convicted of sex offenses (ibid.): data is only available for the years 2007-2010.
- Rate of repeated jail terms of sex offenders (ibid.): data is only available for the years 2007-2010.
- The ratio between the rate of participation of Ashkenazi and Sephardi (Mizrahi)
  men and women ages 15 and up in the civilian labor force in Israel (CBS 2011f):
  does not belong to any existing dimension in the index. In future stages we will
  look at ethnic gaps.
- The ratio between the number of female Arab members of Knesset and male members (Knesset website): the number of female Arab MKs is too low.

- The rate of women and men who report diabetes: data was collected only for 2003, 2004 and 2009. 30
- The rate of women and men who report a disability or a severe disability: data was collected only for 2003, 2004 and 2009.<sup>31</sup>
- The rate of women and men who report physical activity: data was collected only for 2003, 2004 and 2009.<sup>32</sup>
- The rate of women and men with a high BMI (CBS 2004): data was collected only for 2003 and 2004.
- The number of domestic violence investigators in the Israel Police by religion and sex (Almagor-Lotan 2010b): figures were published only for 2010.
- The rate of Jewish and Arab children in pre-school and public and city day care centers (CBS 2012b): the data is not gender-disaggregated.
- Division of responsibilities at home among married people ages 20 and up (CBS 2009d): the data exists only for 2009.

# Indicators under examination today that will be added to the index in the future:

- The ratio between women's monthly income and men's monthly income by education.
- The ratio between women's hourly income and men's hourly income by education.
- The percentage of women compared to the percentage of men in the highest level positions in the public service.
- The number of women winners of the Israel Prize compared to the number of men prize winners.
- The percentage of women who hold a driving license compared to the percentage of men who hold a driving license.
- The average and median age of marriage of men compared to women.
- The fertility rate of girls ages 15-19 in the general population and the Arab society.
- Average age of women's first birth in the general population and the Arab society.

### The Gender Index Filtering Process: Partial Results of Factor Analysis

The statistical procedure of factor analysis allows us to filter indicators by a test that asks which of them are associated with the same imagined statistical factor. However, like many statistical procedures, factor analysis requires numerous observations – between 100-300 (Field 2005). Another variable that must be considered when we

<sup>&</sup>lt;sup>30</sup> For an example of figures for 2009, see CBS 2009a.

<sup>&</sup>lt;sup>31</sup> For an example of figures for 2009, see CBS 2009b.

<sup>&</sup>lt;sup>32</sup> For an example of figures for 2009, see CBS 2009c.

undertake this procedure is the number of indicators: the ratio between the number of variables in each indicator and the number of indicators should be at least 1:2. In other words, in order to test a list of 50 indicators that assess gender inequality, each indicator should include at least 100 observations. Since in this case we are talking about years, that requirement is not practical and therefore we had to conduct the factor analysis in stages and by division into groups (some of the models we ran are presented below). Because of these constraints, most gender indexes contain strong indicators for which credible data is available from consecutive multiannual measurement, but they do not encompass the entire phenomenon of gender. Since our goal was to try to reflect a fuller picture of gender inequality, we had to concede the sample size of each indicator and thereby limit the strength of the statistical results of the factor analysis to filter the indicators.

Before running the factor analysis we checked the correlation between each pair of indicators: if no correlation was found between them, we could conclude that running them through a factor analysis procedure would not provide us with any additional information because they were apparently not associated with the predicted variable that resulted from the factor analysis. On the other hand, if we found high or full correlation between two indicators we could not isolate the contribution of each one to the factor predicted by the factor analysis and the analysis would come out wrong. Therefore the correlation test is another tool to filter indicators. Another preliminary stage we conducted before the factor analysis, and through which we filtered the indicators, is an examination of their distributions: were they normal or at least not strongly contrary to a normal distribution? A sharp rise or sharp drop would impair the factor analysis.

In this process several indicators were filtered out - for example, in the areas of education and poverty. All of the education indicators are correlated with each other. We selected two: people with 13-15 years of education and people with 16 or more years of education, while the indicators of undergraduate degrees and at least 13 years of education were dropped. Poverty after transfer payments and poverty before transfer payments are highly correlated, and in the filtering process we left in poverty after transfer payments, because it brings into account the involvement of the welfare system. Because of the analysis constraints – which result from the limited number of observations for each indicator – we ran a factor analysis of each indicator in the dimension where it is located, and checked the correlations of each indicator with other similar indicators and with all indicators, and we did this beginning with the filtering stage. Table 2 presents the results of the factor analysis for the variables for which there were observations since the 1990s:

Table 2
Factor analysis of several variables

### **Component Matrix**\*

		Component				
		1	2	3	4	5
w_participation	Labor market	.972				
	participation					
w_salary	Monthly salary	.922				
w_wage	Hourly salary	.854				
w_parttime	Part-time work			.882		
pov_before	Incidence of			.743		.508
	poverty before					
	transfer payments					
pov_after	Incidence of		.636	.653		
	poverty after					
	transfer payments					
pov_gap	Poverty gap		759			.437
pov_pay	Income support		702		479	
educ_BA	Rate of persons	885				
	with higher					
	education					
educ_13_15	Rate of persons	.750				
	with 13-15 years					
	of schooling					
educ_16	Rate of persons	.867				
	with at least 16					
	years of schooling					
educ_13	Rate of persons	.938				
	with at least 13					
	years of schooling					
health_expectancy	Life expectancy	678	.603			
health_good	Subjective feeling		854			
	of good health					
health_best	Subjective feeling		.768		421	
	of very good					
	health					
pol_mp	Rate of female	.736			.507	
1	Knesset members					
pol_ministers	Rate of female		.791			
	cabinet ministers					4.5
pol_ruling	Rate of female			.542	.648	456
	Knesset members					
	in cabinet					

<sup>\*</sup>Extraction Method: Principal Component Analysis. 5 components extracted.

We can see that each group of indicators is correlated with several factors. Table 3 presents several examples of factor analysis runs of various dimensions of the Index. Only variables for which there was data from the 1990s appear in the runs.

Table 3
Examples of runs

### **Component Matrix**\*

	Component	
	1	
w_participation	.819	
w_salary	.897	
w_wage	.891	
w_parttime	.624	

Extraction Method: Principal Component Analysis.

### **Component Matrix**\*

	Component	
	1	2
pov_before	.918	
pov_after	.819	539
pov_gap		.975
pov_pay	.715	

Extraction Method: Principal Component Analysis.

### **Component Matrix**\*

	Component
	1
pov_before	.848
pov_gap	.615
pov_pay	.762

Extraction Method: Principal Component Analysis

<sup>\* 1</sup> component extracted.

<sup>\* 2</sup> components extracted.

<sup>\* 1</sup> component extracted.

### **Correlations**

		educ_BA	educ_13_15	educ_16	educ_13
educ_BA	Pearson Correlation	1	621*	.429	.290
	Sig. (2-tailed)		.010	.097	.275
	N	16	16	16	16
educ_13_15	Pearson Correlation	621 <sup>*</sup>	1	738**	544*
	Sig. (2-tailed)	.010		.001	.029
	N	16	16	16	16
educ_16	Pearson Correlation	.429	738**	1	.965**
	Sig. (2-tailed)	.097	.001		.000
	N	16	16	16	16
educ_13	Pearson Correlation	.290	544*	.965**	1
	Sig. (2-tailed)	.275	.029	.000	
	N	16	16	16	16

<sup>\*</sup> Correlation is significant at the 0.05 level (2-tailed).

### **Component Matrix**\*

	Component	
	1	
educ_BA	.653	
educ_13_15	863	
educ_16	.956	
educ_13	.864	

Extraction Method: Principal Component Analysis.

### **Component Matrix**\*

	Component
	1
health_expectancy	.719
health_good	968
health_best	.735

Extraction Method: Principal Component Analysis.

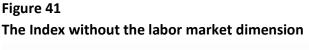
<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

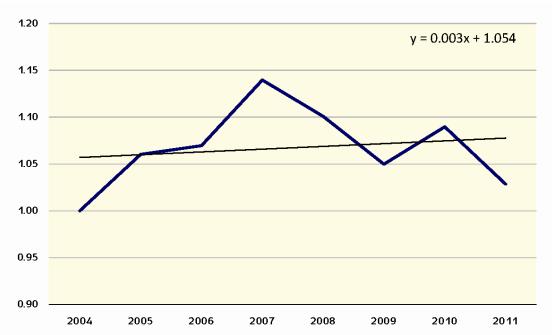
<sup>\* 1</sup> component extracted.

<sup>\* 1</sup> component extracted.

### **Appendix 3: The Gender Index minus Each Dimension**

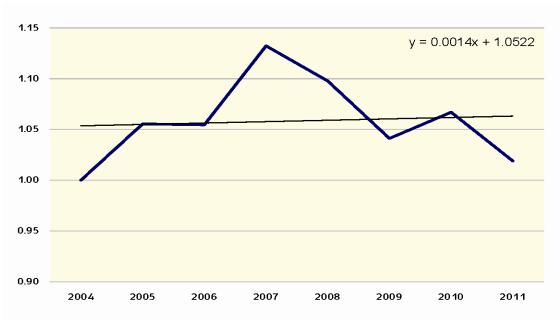
This appendix discusses the dependency of the Gender Index on each of its dimensions. To that end we looked at the index's trajectory after living out each dimension (Figures 41-49). The result was predictable and it shows that the Index's trajectory does not depend on any single dimension. It is worth noting, however, that although we standardized their mode of expression, the units for each indicator and each dimension are different and therefore their level of change is derived from the size of the population in which they were measured. For example, in the political arena on the one hand the rate of change is high because the number of women legislators is small, and therefore the fluctuations in this dimension are sharper, but on the other hand the influence of a single woman in such a high position carries a weight that is much greater than the impact of a single woman on the rate of change in the proportion of labor market participation, for example, so that such a gap is explainable. Therefore we believe that gender changes in political positions should have an enhanced impact on the trajectory of the Gender Index.





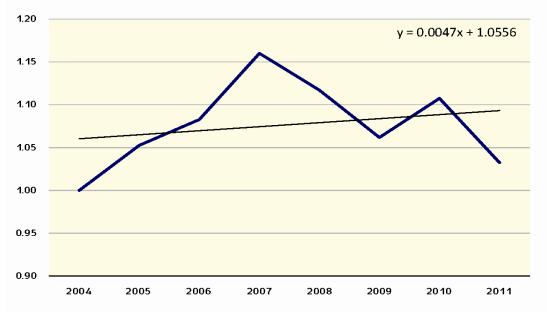
The deduction of the labor market dimension does not affect the index. It maintains the same trajectory.





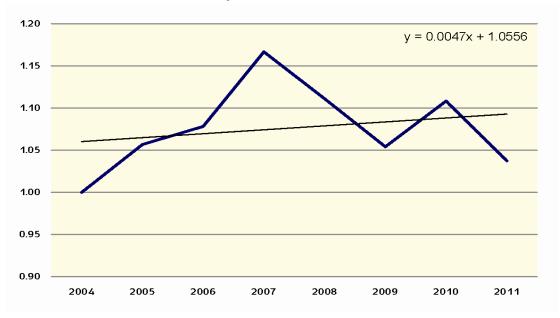
Removing the violence dimension diminished the Index's gradient. Its absence does not change the general trend, yet this dimension influences the whole Index.

Figure 43
The index without the periphery dimension



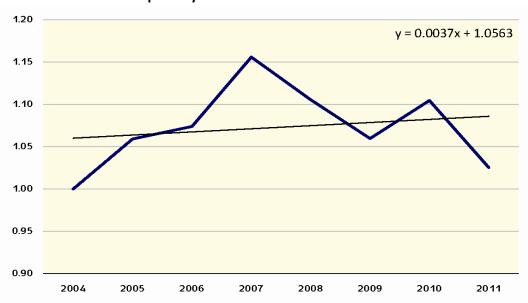
Removing the periphery dimension does not change the Index's trend, although the gradient slightly increases.

Figure 44
The Index without the Arab society dimension



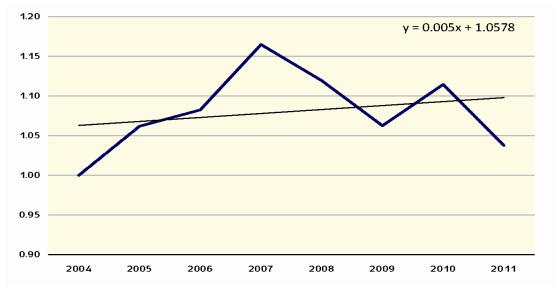
Removing the Arab society dimension does not change the Index's trend, although the gradient slightly increases.

Figure 45
The Index without the poverty dimension



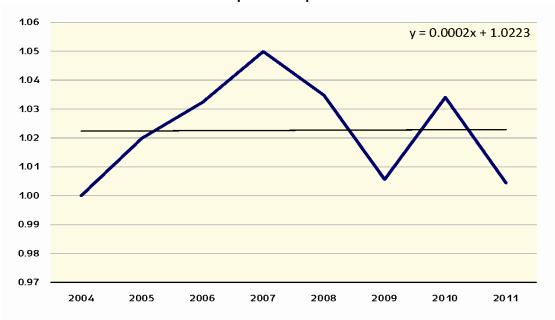
The Index looks exactly the same with or without the poverty dimension, with the trend and the gradient staying the way they were, which is to say that this dimension has minimal influence.

Figure 46
The Index without the education dimension



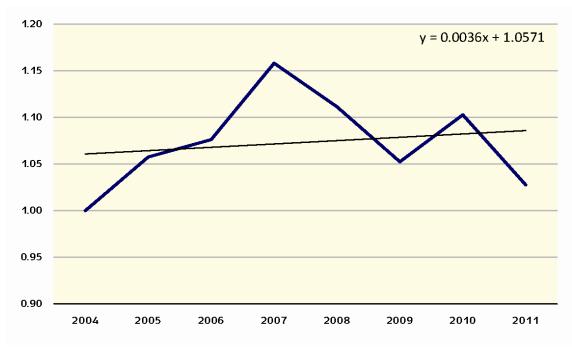
Removing the education dimension makes the Index's gradient a little sharper, which means that education has a modifying impact on the whole index, but its trajectory and trends of change remain, with or without the education dimension.

Figure 47
The Index without the dimension of political representation



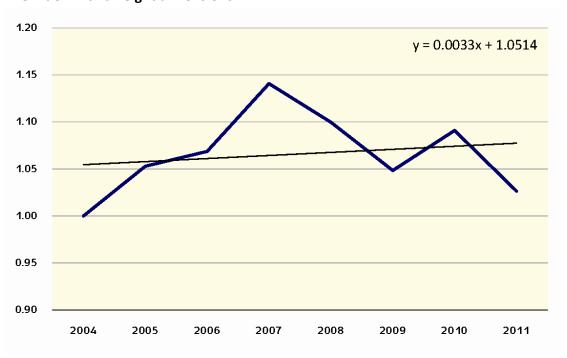
The political representation dimension appears to affect the Index's gradient. Although removing it makes the gradient more moderate, the trajectory of the Index remains the same in its absence and the upward and downward trends remain intact.

Figure 48
The Index without the health dimension



The index looks exactly the same with or without the health dimension: the same trend and gradient.

Figure 49
The Index with all eight dimensions



# Appendix 4: The Gender Index without Squaring the Dimensions in the Formula

As aforesaid, our formula for computing the index is as follows: Index = 1/8\*(labor market)  $^2+1/8*$ (poverty)  $^2+1/8*$ (education)  $^2+1/8*$ (health)  $^2+1/8*$ (politics)  $^2+1/8*$ (periphery)  $^2+1/8*$ (Arab community)  $^2+1/8*$ (violence)  $^2$ 

This formula served the OECD in the SIGI (Social Institutions and Gender Index) to measure gender inequality in social institutions and to compose its various dimensions. The formula expresses equality of weights between the dimensions. In the absence of an empirical or theoretical rationale to set the weights, the accepted solution is equal distribution, because there is no other way to prioritize one dimension over another. The function the OECD chose is not linear, assuming that gender inequality is associated with discrimination against women. When inequality grows, discrimination grows at an even higher rate, and inequality has greater weight for each dimension. The lack of linearity also means that the Gender Index does not allow full compensation between the dimensions but only partial compensation. Partial compensation suggests that a high level of inequality in one dimension can be offset by a lower level of inequality in another dimension only partially.

For these reasons we too adopted that formula to assess the Gender Index. However, we wanted to test the impact of choosing to square each dimension. To do so we tested the results of the Index without squaring each and every dimension in an equation that weights them all together. Figure 50 shows the Gender Index with equal weights without squaring the dimension values:

Figure 50
Results of the Gender Index in Israel 2004-2011 without squaring the dimensions

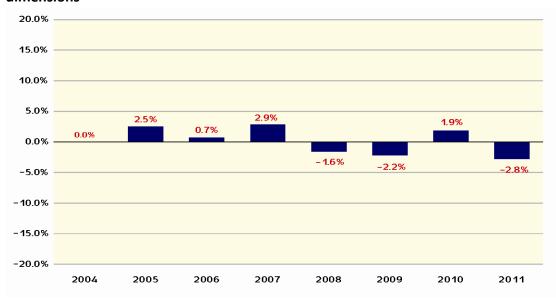
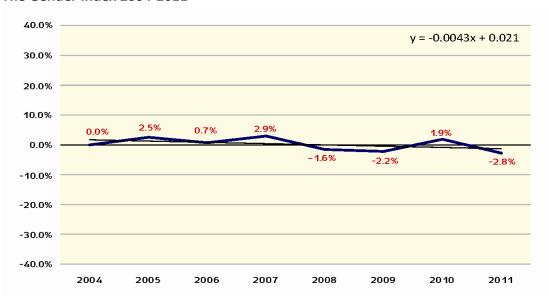


Figure 51
The Gender Index 2004-2011



This way the inequality is more stable but the trend is maintained and the high and low points are minimized. At the same time there is a slight increase of gender inequality in the years 2004-2007. Between 2008 at 2009 inequality dropped but in 2010 women's status changed for the worse. In 2011 there was an improvement.

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