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**Social Policy and
Developmental Trends
in National Insurance**

Universal Basic Income - Chance or Risk?

Introduction

In recent years, and especially in 2016, there has been renewed interest all over the world in universal basic income plans (thereafter also referred to as “UBI”, an abbreviation of “universal basic income”) whereby every woman and man, whoever they may be, are entitled to an unconditional basic income: the benefit is paid without any test whatsoever – neither means-test nor employment test. In addition, adults should not be discriminated based on age, gender or marital status. Benefit rate is usually subject to controversy, although all agree that it should not be higher than the minimum of subsistence (see also Jonathan Anson, 2016).

The idea of a basic income is apparently simple: every citizen or resident shall receive a fixed income amounting to the minimum of subsistence or at least part thereof, without means, employment or marital status tests. Whether to include payment for children in the plan remains an open question. In any event, the sum is intended for basic subsistence, even if there is no clear consensus on this concept¹.

The idea's history lets us understand the main reasons behind an idea that is *prima facie* so surprising. Indeed, since the expulsion of Adam and Eve from the Garden of Eden, it is not taken for granted that society will agree to finance a basic income for

1 However, it should be mentioned that in Israel criteria have recently been set for the agreed calculation of the minimum of subsistence in the framework of a report of the Committee for Examination of the Repayment Plan in the Bankruptcy Proceeding which was established by the Official Receiver, Prof. David Hahn, and headed by Ron Harris, Professor of Law (www.justice.gov.il/Units/ApotroposKlali/PressRoom/Documents/haris.pdf). The report was approved by Minister of Justice, Ayelet Shaked, at the end of 2015. The work was done in cooperation with the Research and Planning Administration of the National Insurance Institute (NII) – sections B1 and B2 of Chapter 2; section 62 to 87 and appendices G1 to G3. Thereafter, an extension concerning the alternative calculation of the minimum amounts of subsistence was made according to the principles established by the Committee (see Gottlieb and Barkali, to be published soon).

all residents without asking them any work in return. The ethos of work is particularly rooted in Western culture and its founding religions.

The idea was apparently first formulated by Thomas More in his book **Utopia** (More, 1516), and enjoyed support and sympathy from thinkers and researchers in different fields and, sometimes, with conflicting worldviews; among them, for example, philosophers Bertrand Russell, a leftist, and Friedrich Hayek, a rightist (see also Shafarman). The idea also enjoyed sweeping support among economists: Milton Friedman from the right-wing and James Tobin from the left-wing².

An impressive list of economists, from Henry George in the 19th century, through Nobel Prize winners James Tobin and Milton Friedman to Kenneth Galbraith, all saw in basic income or a similar model – negative income tax³ – an effective tool for reduction of poverty, an effective way to ensure a minimum of subsistence with maximum reduction of bureaucracy of the social security system.

Conservative economists were of course enchanted by the possibility of improving the efficiency of the social security system, which they regarded as cumbersome and expensive, and thereby reducing work cost to the employer by replacing social insurance with a simple and automatic mechanism of distribution of a monetary income to all. Furthermore, this system is a solution to the issue of poverty trap – a situation where benefit offset rates are much higher than marginal tax rates in the system and, therefore, benefit recipients considerably refrain from either going out to work or increasing their amount of work in order to avoid high offset and loss of additional bonuses as benefit recipients.

At the end of the 1960s and 1970s, an idea similar to universal basic income has been examined – negative income tax (thereafter “NIT”)⁴ – by means of five projects that were carried out using a random trial method, involving a treatment group and a control group⁵ (randomized controlled trial – RCT). Although the NIT model involves a means-test and is, to that extent, very different from the UBI, its findings with respect to the detrimental effect on the incentive to work are also true for UBI, notwithstanding that trials related to UBI did not include in the sample wealthy populations who are primarily influenced

2 Another group consists of supporters with a noticeable bias in favor of UBI – an approach which moves the discussion away from an impartial scientific approach (see for example the articles of Van Parijs). In addition non-profit organizations have been established to promote the idea, such as USBIG and BIEN. Many articles have been published in the journal *Basic Income Studies*.

3 For the difference between the universal basic income model and negative income tax, see for example Tondani, 2009. One of the main differences between the two models is that in the negative income tax model a means-test is still necessary. In Israel there is no compulsory declaration of income, unlike the USA for example, and therefore, without a transition to general income reporting, setting up a means-test for the entire population in Israel is not practicable.

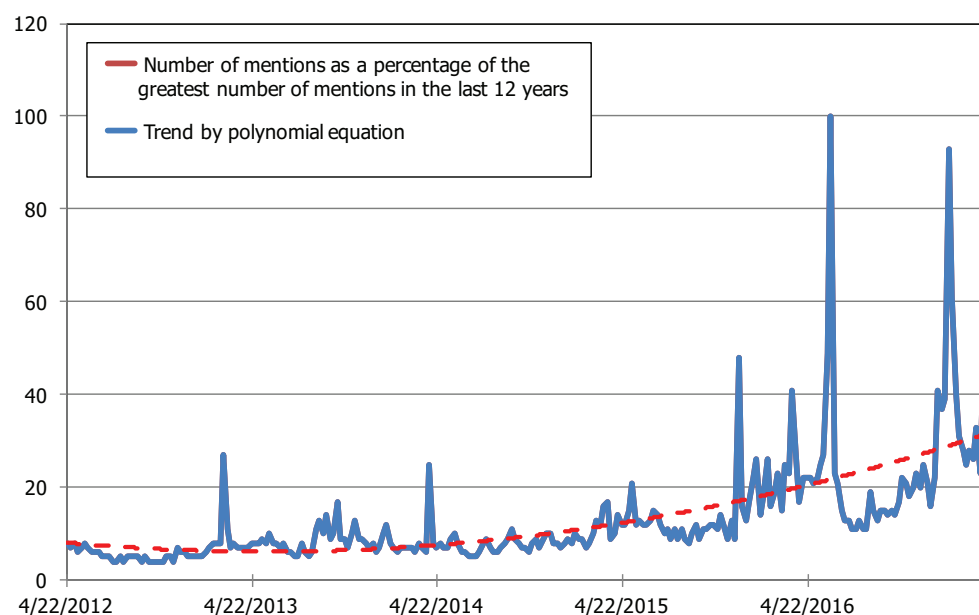
4 The idea of negative income tax (NIT) must not be confused with earned income tax credit (EITC) which was promoted in the USA and other countries, including Israel (work grant). Unlike the NIT, the EITC requires an employment test and marital status test in addition to the means-test.

5 A trial in which two groups are defined – the trial group and the control group, and whose participants are chosen at random. The research compares the results between the two groups before and after the trial.

in the field of the plan's financing (Tondani, 2009). Four of the NIT empirical trials were done in the USA⁶ and one in Canada. Such trials were also done in a number of poor and developing countries in Africa and South America (Haushofer and Shapira, 2013). The main question in these researches was whether and to what extent a benefit given unconditionally is likely to create a negative incentive on work. In the Canadian project, basic income's influence on health and children's education was also examined.

In 2016, the possibility of introducing unconditional universal basic income was examined in Switzerland – an initiative that was eventually rejected in a referendum by a majority of 76.9%⁷. In Finland, the government initiated a trial payment of basic income to the unemployed without means-test or employment test (see Kangas and others, 2016). The trial started at the beginning of January 2017 and will last for two years. In Holland, such trials are being conducted in a number of cities. Similar initiatives are also developing in Africa, India, Norway and elsewhere⁸. Figure 1 shows the growing interest in the subject in recent years by results of the “Google trends” test – search results for the concept “basic income” on Google.

Figure 1
Public Interest in UBI by Number of Mentions on Google



Source: Google Trends test.

The figure data appear in the appendix at the end of this file on the Internet.

6 As is known, in the USA everyone reports his/her income, so that the means-test is done quite automatically by the tax authority, and there is no stigma attached to it like in means-tests for decisions on benefits payment.

7 Support rates were fairly high among the young, both in some of the large cities and local communities. After the defeat about 70% of the public thought that there would be another vote in the future.

8 Details can be found on Basic Income Earth Network (BIEN) website.

In the following sections we will discuss the possible reasons for promoting universal basic income policy, and briefly describe primary methods of payment. We will also present the results of trials conducted in recent decades which examined the plan's influence and discuss their weak points which should be taken into account in future examinations of the advisability of promoting this kind of policy. Furthermore, we will deal with the issue of the cost of and ability to finance the universal basic income plan, as well as the question of whether it is desirable and possible for it to serve as a replacement for social insurance in the Beveridge format (Beveridge, 1942).

Universal Basic Income - Possible Reasons

In the professional literature, a number of essential reasons for payment of universal basic income can be found:

- Prevention and reduction of poverty, inequality and social polarization.
- Joint ownership of the country's natural resources by all its residents.
- Response to possible decrease in demand for workers as a result of technological progress.
- Simplification of social security, increase in utilization of rights and abolition of poverty trap.
- Maintaining economic and social sustainability, and the environment.

Prevention and reduction of poverty, inequality and social polarization

The idea of basic income as a tool to reduce poverty and prevent theft crimes was first attributed to Thomas More in his book **Utopia**, written 500 years ago (More, 1516, pp.43-44). Important thinkers continued to develop the subject from different angles, until US President Lyndon B. Johnson declared in 1964 the **great war on poverty**, the subject made then a great impact and won wide sympathy. The public and professional discussion led to fascinating random trials in the USA and Canada in the 1970s (see below). The model recently aroused great interest in very poor countries, such as Namibia in Africa, and in India the Prime Minister has also expressed his willingness to promote this matter unconditionally⁹.

The great enthusiasm for the UBI plan derives mainly from the existing potential to combine the idea of universality with automatic payment of benefits. This combination

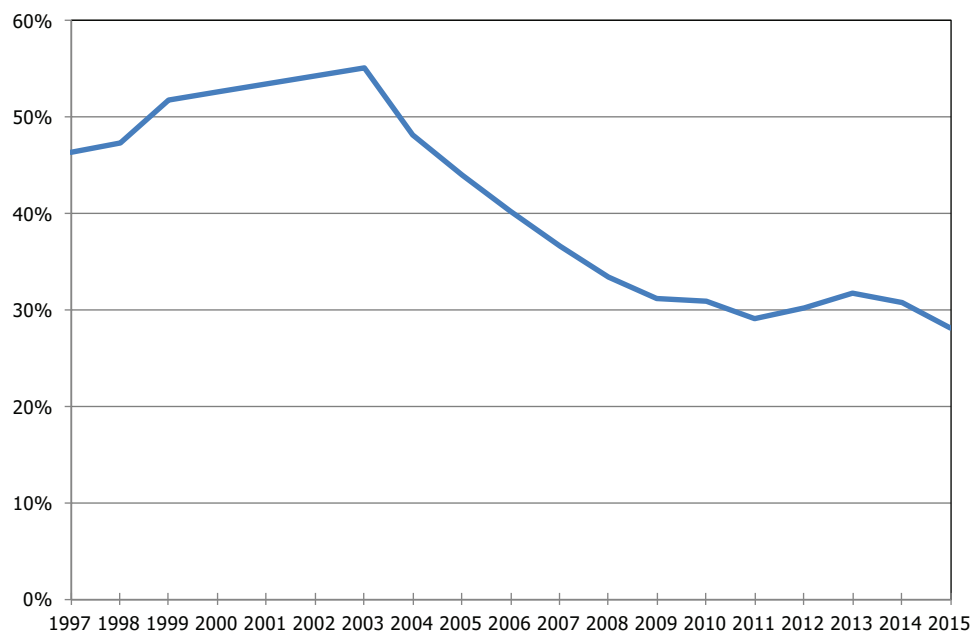
9 In this regard see also a fascinating discussion on YouTube with the Nobel Prize-winning philosopher and economist Amartya Sen.
<http://basicincome.org/news/2017/03/nobel-laureate-economist-amartya-sen-india-not-ready-basic-income/>.

enables maximum utilization of the benefit and is thereby expected to significantly reduce poverty and income inequality. This approach immediately dispels economic uncertainty and replaces it with economic security, which directly contributes to increasing the happiness and quality of life of many, especially at an age in which employment security is in danger. This danger does not only affect families living in poverty – groups belonging to the middle class are often also at risk of deteriorating into poverty. One of these groups is called “the precariat” (Standing, 2011) – young unemployed people or ‘freelancers’ in the global economy, who have difficulty working continuously. The lack of continuous employment tends to create frustration among the young, which may lead to outbursts of violence, particularly in poor populations with little education. The unconditional basic income thus enables prevention of poverty while allowing employment in order to increase income and provide not only economic survival, but interest and meaning, even if it does not provide a high salary or any salary at all, such as volunteer work for example.

UBI is first and foremost intended to reduce poverty and income inequality – a field subject to continuous deterioration in recent decades in many countries, including Israel – and to provide economic security for the population as a whole. Furthermore, the poverty rates among children in Israel are the highest in all the OECD countries, which means a risk of continuing poverty, since a child who grew up in poverty is at risk of remaining poor in adulthood too.

Figure 2

Percentage of Working-Age Families Receiving Income Support Benefit Among Total Working-Age Families Living in Poverty, 1997-2015



Source: National Insurance Institute Report 2014 - Chapter 1
The figure data appear in the appendix at the end of this file on the Internet.

Therefore, UBI is definitely a relevant possibility for Israel¹⁰, all the more so as poverty in Israel has worsened since 2003 and stabilized at a high level. However, the percentage of families living in poverty who are eligible for income support has decreased in recent years because conditions of eligibility became more stringent at the beginning of the 21st century (Figure 2). One of the prominent reasons for making subsistence benefits universal is their deficient utilization, due to either political processes or utilization difficulties of weakened populations. This is painfully evidenced by the fact that, in the Israel of 2015, the percentage of poor working-age population receiving income support or income supplement was only half of the percentage in 2003. This is an ongoing process and today only about a quarter of the poor families are paid a benefit. Thus, large sections of the population living in poverty remain outside the support network.

Joint ownership of the country's natural resources by all its residents

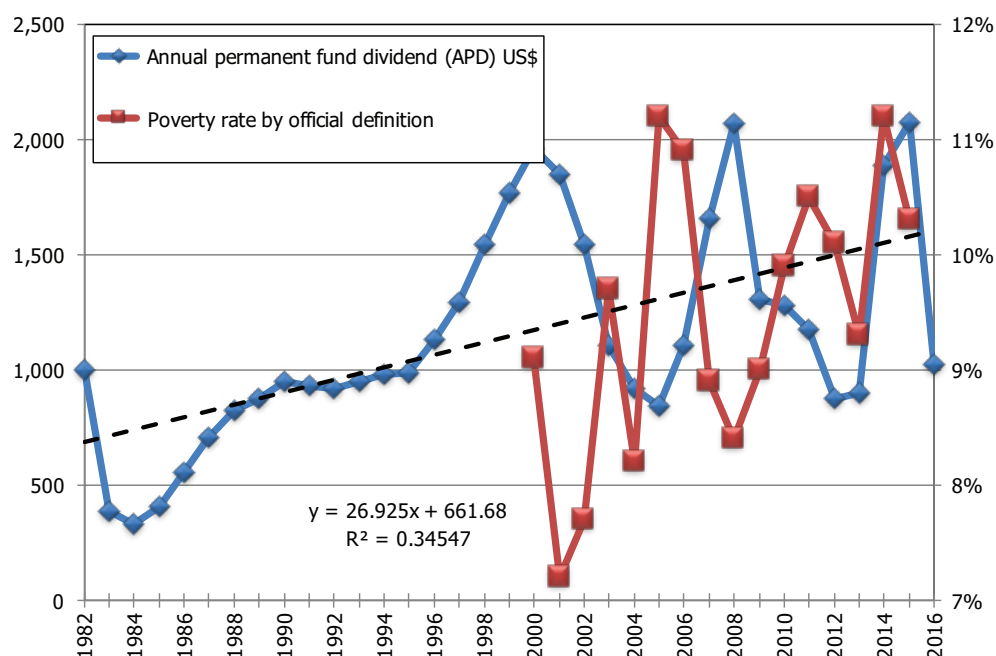
Another important reason for payment of universal basic income derives from the approach whereby the public is regarded as a full partner in ownership of the country's natural assets and, thus, of part of its economic products too. This was one of the prominent ideas in the agricultural reform of Thomas Jefferson in 1776 and of Thomas Paine in 1795. Abraham Lincoln applied a proposal in the same spirit when he was president of the USA in the 19th century. This approach considers the country's land as an asset that belongs to the entire society and must therefore be divided equally among the residents.

In Alaska, universal basic income has already been paid since 1982 (Figure 3). The allowance is a type of distribution of dividend as a certain percentage of the State's oil production, and every resident who lives in the State for a predetermined minimum period of time is entitled to it. The allowance rate is determined by the return on Reserve's investments accumulated from some of the oil income (Goldsmith 2002 and 2010). The "social dividend" which every resident receives every year is based on the outlook that natural resources, such as oil, belong to the entire public. This plan is similar in substance to the "stakeholder society" approach of Ackerman and Alstott (Ackerman & Alstott, 1999).

Payment to residents is fairly modest and subject to fluctuations, according to the share of capital and return. In a comparable manner as taking the level of return into account, Drucker (Drucker, 1949) also supported basic income in an amount adapted to the country's economic ability, so that by his approach the payment must be reduced in times of

10 In recent years, it seems that a slight improvement in poverty and inequality indexes has indeed occurred, but in view of the high levels of poverty and inequality in Israel, it appears that a much more substantial policy is needed to reach a situation comparable to that of average OECD countries.

Figure 3
Annual Social Dividend of Alaska (\$), 1982-2016



Source: Calculations by the NII Research and Planning Administration based on economic reports from Alaska.

The figure data appear in the appendix at the end of this file on the Internet.

recession¹¹. For example, Norway's oil fund serves mainly as a backup for Norway's pension system. Similarly, the discovery of the gas fields in Israel could have been used for payment of a social dividend as universal basic income, like the Alaskan model.

Response to a possible decrease in demand for workers as a result of technological progress

It appears that one of the prominent reasons for the renewed interest in the UBI plan, if not the most important of them, is the chance of demand drop for workers in the age of automation and robotic development. Robots enchant investors with their clear advantages over human beings (they do not unionize for negotiations about salary

11 This is clearly contrary to the national insurance approach, according to which the social security system has an important role as an automatic stabilizer which pays more income support and unemployment benefits in times of recession and less in times of economic prosperity, and indeed, in Figure 3 the relation between the amount of the dividend and the poverty rate is not clear.

conditions, do not strike and are not absent from work due to illness...). From the fingerprint of the owner of a coffee machine, a robot can remember the type of coffee, his taste and so forth. Mass production of robots is likely to reduce wages in a considerable number of occupations and to create mass unemployment. Although these processes are not certain, the possibility of their occurrence in the future must not be denied. Alongside the disappearance of certain occupations due to automation, there is of course also the chance of creation of new ones, but at present it is difficult to assess which of the two processes prevails.

A similar fear arose at the end of the 18th century with the invention of steam engine. In hindsight, this fear was proved false, as many new jobs were created eventually, especially in the service field. Today, as will be described below, occupations in the service field are also threatened of disappearing, thus universal basic income shall be seen as an appropriate answer to mass unemployment in the future. As in the case of steam which involved preventing production of superfluous products from sustainable growth standpoint, here too the reduction in demand for workers may be forced on the economy, so that the decrease in the incentive to work may become a blessing instead of a curse.

Economic security instead of employment security

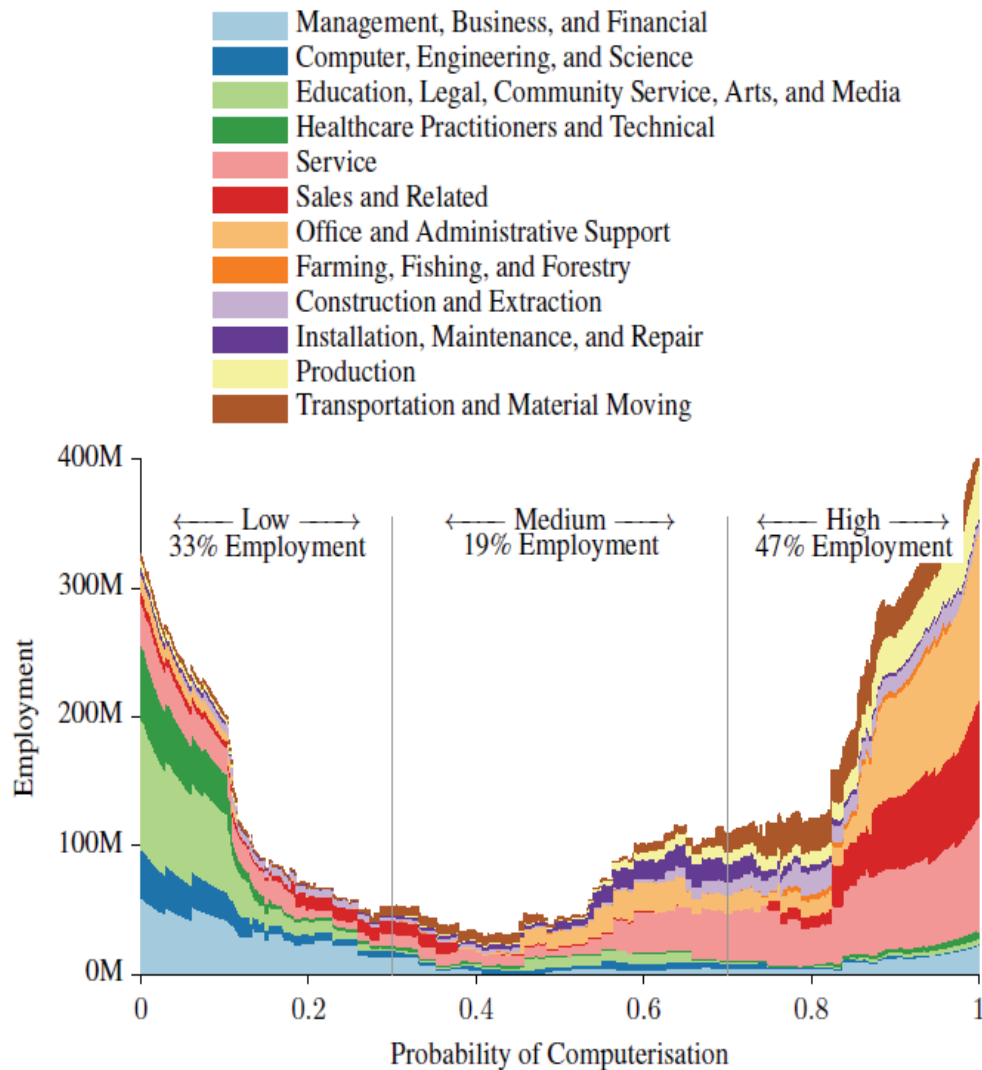
As stated, the popularity of universal basic income arises inter alia from the fear of loss of employment security as a result of growing automation in the supply of many goods and services. So for example, it is already clear today that driver is an occupation at risk due to the development of driver-less vehicles. Although such fears have always accompanied technological progress, various experts think that this time the pace of development of new occupations (which are still unknown to us today) will lag behind the pace of obsolescence of occupations replaced by robotics.

This issue was dealt with in articles by Frey and Osborne (Frey & Osborne, 2013). They ranked all the 702 occupations known in the USA and calculated the probability of computerization and robotics for each of them. We will mention that the automation incentive is high, since employers tend to replace workers with robots the cheaper robots become compared with manpower. The research by Frey and Osborne shows that the chance of computerization is high in most occupations, and therefore they estimate that the disappearance of those occupations will be faster than the invention of new occupations, which increases the risk of mass unemployment in the future. According to their calculations, 47% of those employed are at high risk of computerization and only 33% are at low risk. So for example the risk is particularly high in occupations in the fields of transport, office services and other services, whereas employment demand shall continue in occupations related to education, art and community services (Figure 4). They have also identified a worsening problem in occupations at low salaries and requiring a low level of education (Figure 5).

Figure 4

Probability of Computerization of Occupations in the USA

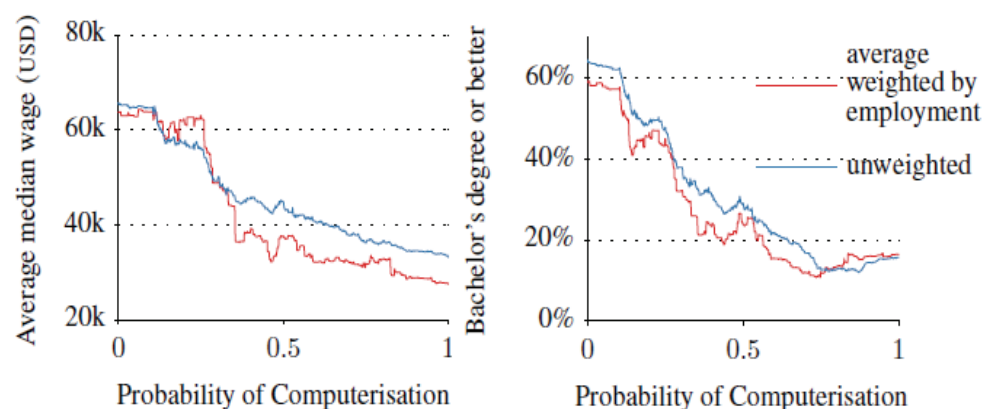
The figure is from Frey & Osborne, 2013



The research of Shavit Madhala-Brick, who did similar research for Israel (Madhala-Brick, 2015) shows a similar situation in Israel (with a slight tilt in favor of the Israeli economy) according to which 59% of those employed in Israel are at moderate to high risk of automation in their field of occupation. High risk exists mainly among unskilled workers, agents, sales and services workers, skilled workers in industry and construction and clerical workers. Madhala-Brick also found a negative statistical correlation between the average hourly wage in these occupations and the level of risk of computerization.

Figure 5

Probability of Automation by Salary Level and Percentage of Educated People



The figure is from Frey & Osborne, 2013

Autor (Autor, 2015) mentions that the phenomenon of polarization in average salary levels of occupations did not spare the European Union countries, too.

Simplification of social security mechanisms, increase in utilization of rights and abolition of the “poverty trap”

In researches conducted in recent years by the Research Administration of the National Insurance Institute (NII), a significant under-utilization by various groups was found, inter alia due to more stringent conditions of entitlement, which were partly implemented for saving purposes in the State budget, even when the insurance nature of the benefit is clear, such as functioning benefits – for instance, attendance allowance (Table 1). A condition was added to that benefit in the daily functioning test (IADL) which prevents the utilization of the benefit: the claimant must have a degree of medical disability of at least 60%, although this characteristic is completely irrelevant concerning the determination of the point level under the IADL test, which is sufficient to determine the need for the benefit. The addition of this barrier was designed for budget savings, especially as NII collection surpluses are deposited directly into the State budget deficit. In such a case, budget saving is a motive for reducing benefit payments even when justified from an insurance perspective. Integrating tests based on budget considerations complicates conditions of entitlement and detrimentally affects utilization of rights. While for the subsistence benefits the means test is justified and natural, it is not justified at all for the insurance benefits – wage replacement benefits or those paid to people

with functioning problems (such as SSA, mobility or long-term care). Basic income paid automatically, especially if it also replaces wage replacement benefits, is expected to lead to full utilization of the benefit. However, the greater the resources required for redistribution, the more the pressure to abolish the plan will increase, as its financing by means of taxes will increase the burden on owners of assets and people with considerable incomes from work. To prevent this outcome, it is important to anchor the rights in a Basic Law, so that the absence of the insurance component will not cause this payment to

Table 1
Rate of Utilization of Various Benefits

	Utilization rate (%)	
	Narrow approach	Broad approach
Unemployment benefits according to salary file	87.2	88.3
Unemployment benefits according to Employment Service	97.5	97.7
Maternity allowance	95.4	
Maintenance	96.7	
Disability	90.0	81.5
Income support	48.0	64.0
Reserve service	89.0	89.0

Source: Research and Planning Administration, NII – Data on utilization of rights (not yet published)

be subject to frequent changes in the political order of priorities when the State budget is formulated every year.

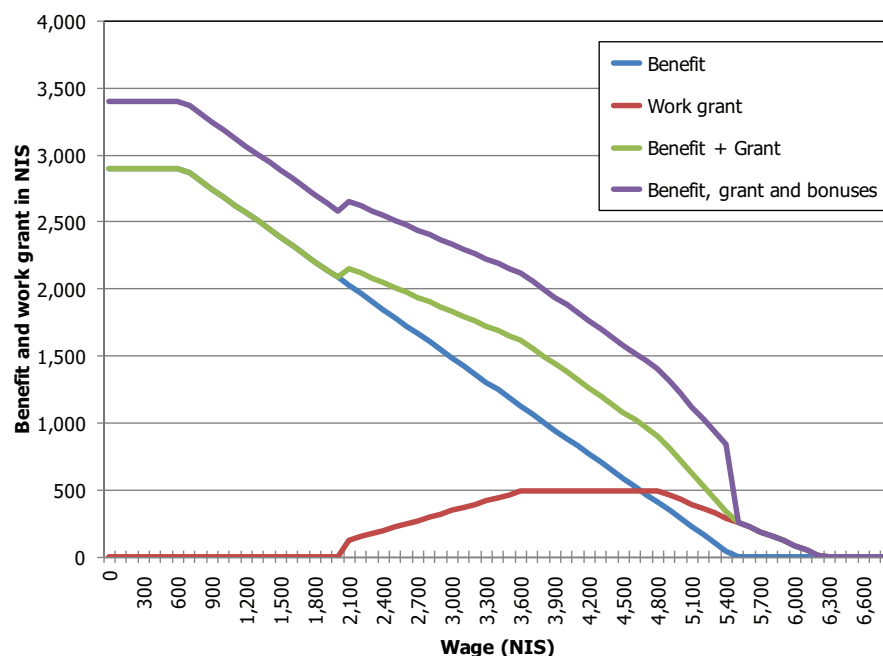
Poverty trap

One of the advantages of basic income is the abolition of the poverty trap – the situation in which the recipient of the benefit has no incentive to stop receiving it. The main reasons for this are the “tax” rate, that is to say the offset against the benefit increases as the benefit recipient’s work and income increase, or simultaneous loss of the bonuses accompanying the benefit if he ceases to receive it (Figure 6).

In contrast to this advantage, economists stress an obvious disadvantage: the principle of reciprocity is contravened, that is to say the individual no longer has to make any effort for his wage. This principle is deeply ingrained in Western culture since the expulsion of Adam and Eve from the Garden of Eden. Therefore, most efforts invested by researchers in trials in the 1960s and 1970s concerned the detrimental effect of cheaper alternative cost of leisure hours compared to work hours on the incentive to work.

Figure 6A

Poverty Trap in Income Support: Independent Mother up to the Age of 54, with a Child - Benefit Level

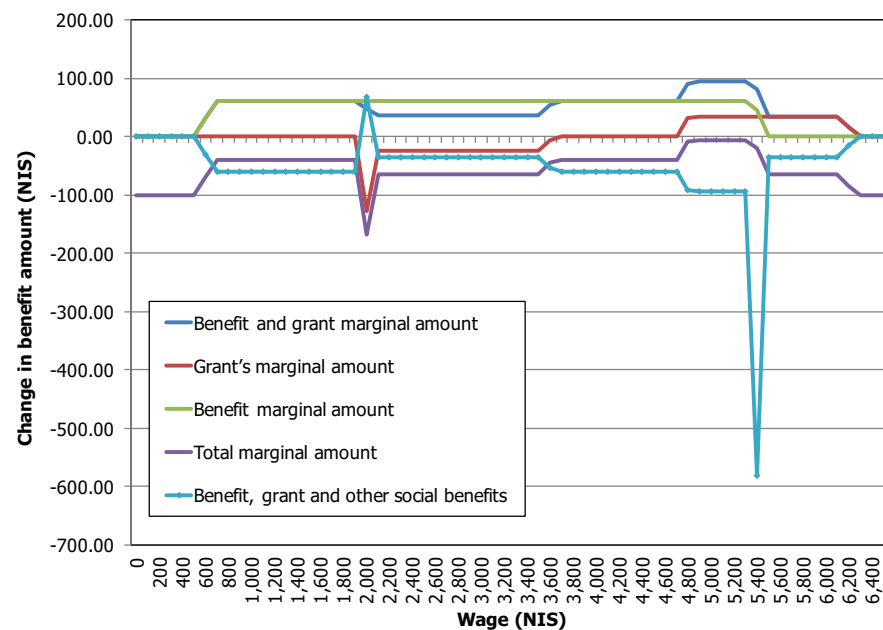


Source: Research and Planning Administration, NII

The figure data appear in the appendix at the end of this file on the Internet.

Figure 6B

Poverty Trap in Income Support: Independent Mother up to the Age of 54, with a Child - "Marginal Tax"



Source: Research and Planning Administration, NII

The figure data appear in the appendix at the end of this file on the Internet.

Maintaining economic and social sustainability and the environment

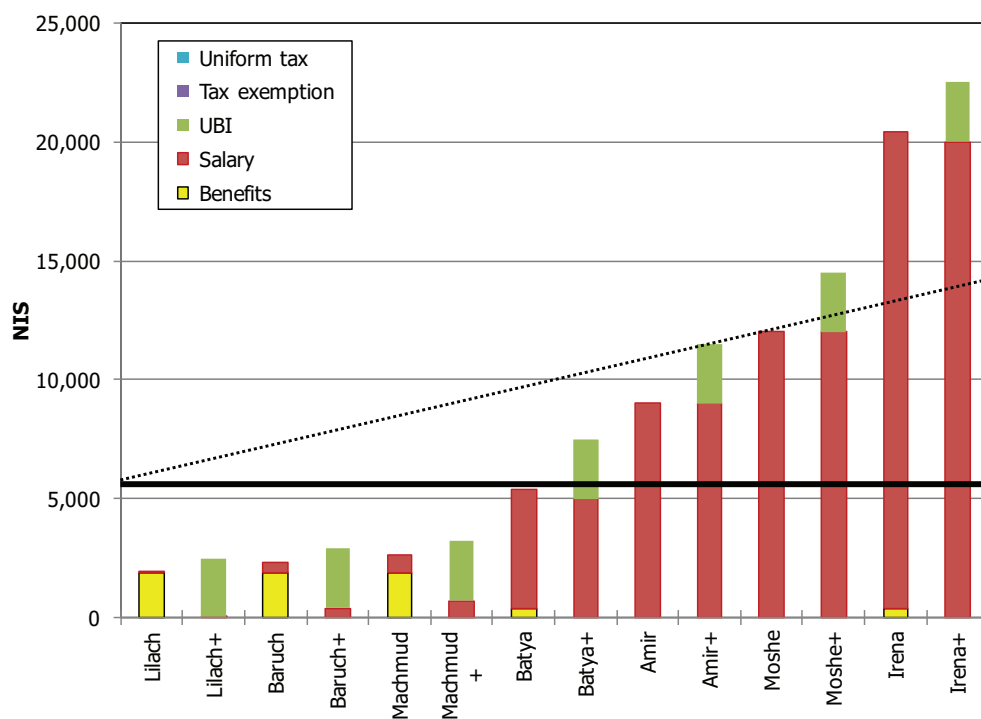
In 1932, the English philosopher Bertrand Russell published his book **In Praise of Idleness** (Russell, 1932) in which he argued that universal basic income enables human society to better preserve Nature and the environment, as assets for humanity. In his opinion, some products do not justify the waste of natural resources involved in their production and economic growth in itself is not necessarily appropriate with respect to its long-term benefit on the sustainability of human society. Therefore, Russell thought that the negative incentive to work involved in basic income was in fact an advantage and not a disadvantage, since today a large part of the work done represents a detriment to sustainable growth. The above means that empirical findings in trials conducted in the USA and Canada (see below) showing a drop in the amount of work, are positive in terms of that perspective.

Universal Basic Income - from Idea to Practice

In the existing regime in Israel certain people receive benefits of various types. For example, Lilach subsists on a benefit only, Baruch earns a small income, as does Mahmud. Batya earns a higher income and also receives a benefit (e.g. a supplement to a subsistence benefit, which has been partly set off due to income from work). Amir and Moshe earn a living from work only and Irina also receives a small benefit in addition to a high salary, such as a wage replacement benefit (Figure 7). Instead of all the benefits it is proposed to pay a uniform UBI to everyone, for example of NIS 3,000 per month. Needless to say that such a payment will reduce the incentive to work and therefore the model usually includes a flat tax, with an income tax exemption up to a certain amount, ensuring that tax is not deducted from the basic income but rather from the rest of the income at the flat tax rate. This includes the additional encouragement of a tax exemption for the first NIS 1,000 of income from work, so that Baruch and Mahmud, who earn less than NIS 1,000, do not pay income tax, while Irina, Moshe and Amir do. In Figure 7, the name with the symbol (+) indicates basic income, while the name without the symbol (+) indicates ordinary benefit or salary only. The thick black line indicates the exemption from income tax while the dotted line indicates the flat tax rate.

According to this system, everyone is entitled to basic income, even “wealthy” people, from which the government however refunds all or at least part of the payment though taxes (Figure 8). This method is called **clawback** (payment and refund) as the government takes back from people with a certain level of income and raises what it paid to them at the first stage. Although this system indeed causes an **excess burden**, it is still simpler than the existing system and thus more efficient as well. It can be argued that in the existing system (that involves means-tests and bureaucracy) there is an excess administrative burden as well – which is avoided by the universal basic income system, and thereby, when asking in which case is excess burden greater, the answer is empirical.

Figure 7
Universal Basic Income- Example



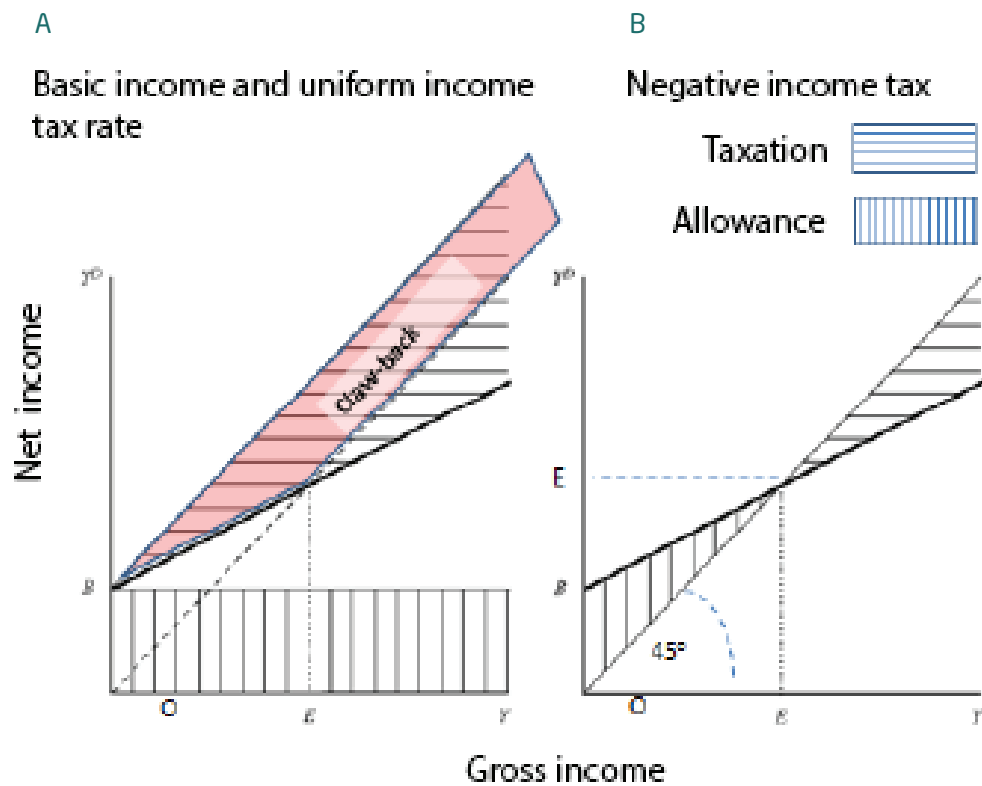
The figure data appear in the appendix at the end of this file on the Internet.

The requirement of a means-test constitutes an important difference between Friedman's negative income tax (NIT) model and the UBI model, since in NIT the full payment of the minimum of subsistence is only granted to those who are not working, whereas those who have a work receive a grant that decreases gradually up to point E in Figure 8A.

While in the UBI model the benefit is paid automatically, almost without administrative procedures, NIT model requires tests, which implies administrative effort and evasion attempts by recipients wishing to receive the maximum grant. The uniform marginal tax slightly reduces poverty trap (see below), but UBI plan is more expensive, as everyone in society receives the payment – even the wealthy. Should one wish to finance the UBI by clawback, UBI must be clawed back gradually from those who are richer. In other words, there is a trade-off between the two plans between the need for means-tests on the one hand (NIT), and clawback on the other hand (UBI). Obviously, basic income can be financed in various ways, such as taxes on capital and property (estate duty or property tax), or from income from natural resources (gas profits, for example) or by means of ecological taxation which is paid in accordance with the ecological damage in the production process (carbon footprint)¹².

12 The issue of financing will be discussed at length below.

Figure 8
Negative Income Tax and Universal Basic Income



The decision as to which model to prefer must be based on field trials with maximum observance of trial's rules as regard to possible deviations, such as self-selection and statistical significance. In this regard the sensitive issue of the comparison with income distribution arises. If the middle class is relatively well-established compared to the poor class and the lower middle class, the need for clawback is indeed high, but the tax base is also large. In other words, the clawback system decisively depends on the manner of income distribution, so that the issue is influenced by endogeneity. The lower the number of poor people and the stronger the middle class is economically, so that the marginal tax rate required will be relatively low. Therefore, if the main reason for having recourse to UBI is the expansion of automation and robotics which significantly harm employment opportunities, the middle class will probably be harmed, and the tax base with it.

Influences on Society

Strengthening economic security thanks to unconditional basic income enables work in conditions of certainty that are by far greater than conditions of risk and economic survival.

This mental serenity represents a secure ground for achievement of professional and human dreams: it encourages creativity and smarter choice of high-quality occupations for man and society, and allows people to choose an occupation which does not entail a high salary or any salary at all, such as volunteer work, but a great value for society or a feeling of happiness for the person receiving and the person performing volunteer work. In such a world it is also possible to keep a better balance between working life and family life,, and thereby to contribute to the quality of life of all members of the family, particularly in the fields of education and health, including higher achievements by the children in the long term. Empirical findings will be presented below, even if they are few in the meantime, of the positive externalities of universal basic income, such as for example improvement in the mental health of recipients and educational achievements among their children. All these are also likely to have a positive influence on work productivity. These are not obvious influences and further in-depth research on their strength is needed. So far, most of the research has dealt with the influence on the willingness to work.

There is a double damage on work incentive incentive: firstly, due to the basic income payment which creates positive income, which increases the demand for leisure, a product regarded as a normal, i.e. a product whose demand has increased when income rose; secondly, the effect is intensified by taxation, making work hours more expensive and leisure cheaper. Most of research works accompanying the controlled trials in the USA and Canada in the 1960s and 1970s dealt with this issue. (See also Gamel, 2006; Alesina and others, 2005).

Trial Results

Table 2 below shows the results of the trials which examined the influence of basic income on the division of time between leisure and work. The first research was done in New Jersey and Pennsylvania, USA in 1968-1972. In 1970-1972, similar research was conducted in the agricultural area of Iowa and North Carolina (RIME) and, in 1970-1976, in the cities of Seattle and Denver, USA (SIME/DIME). These were the longest trials, a fact which probably improved the quality of the results¹³. Additional research was done in Gary, Indiana in 1971-1974 and the last research was done in Dauphine and Winnipeg in the Manitoba area in Canada in the period of the Trudeau (the father) government in 1974-1979 (Mincome).

13 The longer the duration of the research on basic income, the more the participants in the trial become convinced that economic security will continue. By contrast, when the research period is short they know that they will soon have to provide minimum subsistence for themselves again, so that economic security has a lesser influence.

Based on these researches, it appears that the influence of the division of time between leisure and work depends on the amount of the benefit and on other important details which differed between trials, such as family compositions or characteristics of the place of residence (neighborhoods with an African-American majority, agricultural area).

Table 2

Change in Annual Work Hours as a Result of Receipt of Basic Income (Percentages), Various Trials

Research	Data source	Percentage change in annual work hours		
		Male spouses	Female spouses	SFH
Robbins (1985)	US4	-5.0	-21.1	-13.2
Bartels (1986)	US4	-7.0	-17.0	-7.0
Kylie (1981)	US4	-7.9	-	-
Robbins and West (1980 a)	SIME/DIME	-7.0	-25.0	-15.0
Robbins and West (1980 b)	SIME/DIME	-9.0	-20.0	-25.0
Keane and others (1974)	NJ	-	-20.0	-
West and others	NJ	for -1.4 -6.6	-	-
Reece and West (1974)	NJ	-0.5 -1.5*	-0.61	-
Ashenfelter (1978)	RIME	-8.0	-27.0	-
Moffat (1979)	Gary	for -3.0 -6.0	0.0	for -26.0 -30.0
Hum and Simpson (1993)	Mincome	-1.0	-3.0	-17.0
Average		-6.1	-14.9	-17.5
Range		-0.5 to -9.0	0 to -27.0	-7.0 to -30.0

* Work hour per week

NJ = New Jersey trial on encouragement of graded work

SIME/DIME= Seattle/Denver trial on income support

Gary = Gary trial on income support

RIME = Trial on income support

Mincome = Manitoba trial on income support

SFH = Single mothers

Source: Widerquist, 2004

As expected from the theory, the findings show that the work decreases: among the main breadwinners at the rate of up to 10%, among female spouses by approximately 25% and among single mothers at the rate of 7% - 30%.

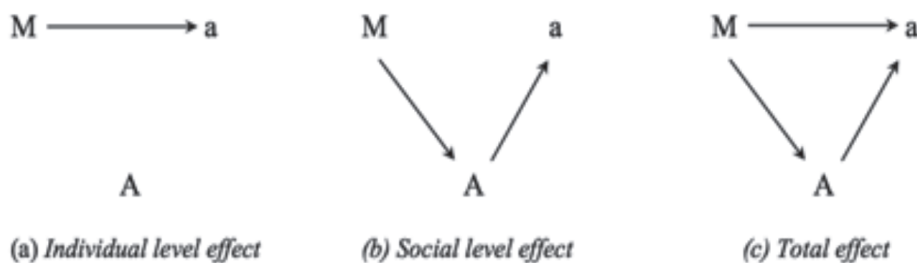
Social effect

An interesting result that is subject to special attention, was discussed by Forget (Forget, 2011) and by Calnitsky and Latner (Calnitsky & Latner, 2016). The research in Dauphine and in the Manitoba region of Canada helped to learn about what the researchers called “social effect”, as two treatment groups were defined in it – the whole town of Dauphine representing one and the other a standard random sample in Winnipeg with

Figure 9

UBI's Individual, Social and Total Effect in Dauphine and Winnipeg, 1979-1974

UBI's Individual, Social and Total Effect in Dauphine and Winnipeg, 1974-1979



an appropriate control group. Similar towns in the region were defined as the Dauphine control group, excluding towns in which people from the Winnipeg control group lived. Figure 9 shows the social effect in general. According to Calnitsky and Latner (Calnitsky & Latner, 2016) society intensifies the influence of individual random trials. In other words, the environment has a kind of “infectious” effect – for good or for bad.

A surprising fact is that the influences of universal basic income on education, health and welfare have been researched much less than its influence on behavior in the labor market! This certainly shows a lack of proportion with regard to questions no less weighty and important than the question of choice between leisure and work: for example the influence of basic income on the health of the children in the family, on the welfare of the family and on children's achievements in studies and their long-term influence¹⁴. The excessive focus by economists on the subject of the labor market has marginalized the influences (Table 2 above) on education, health or knowledge. The results of the few research works which dealt with this subject have not received prominence, although they were interesting: in RIME a significant and clear decrease was observed in the number of pupils, from families which received basic income, dropping out of school in Grades 2 to 8, as well as an increase in teachers' ranking and pupils' grades. In Gary, the percentage of premature births decreased and the grades of pupils in Grades 4 to 6 improved. In SIME/DIME, many parents who reduced their work hours continued with completion of their studies (Levine et al., 2004).

14 Information which was widely published and aroused a response was of incorrect research results according to which the divorce rate of black couples who participated in the program increased by 57%. Later it was found that the result was incorrect and that no such influence had been found.

Other interesting results are reported in the article by Target, 2011 with further processing by Forget, 2011. Calnitsky and Latner, 2016 examined administrative data from Canada and found that the enrollment rate for Grade 12 in Dauphine after completion of Grade 11 increased in comparison with the Winnipeg treatment group and particularly in comparison with the control group. It was also observed that over trial's period there was a drop in rates of hospitalization for mental reasons and, as a result, of accidents and injuries in Dauphine in comparison with the control group.

Cost Estimate and Question of an Alternative to Social Insurance

The first question with regard to the cost estimate is which benefits become superfluous as a result of payment of universal basic income. However, to that end it is important to explain the material difference between the insurance approach and the universal basic income approach.

The starting point of the insurance approach is that payment is made on condition that an “insured event” has occurred, while under basic income approach the payment is made without any conditions. Assuming that basic income will also be paid for children, it has a certain resemblance to the universal child allowance at the NII which is paid to every parent. Figure 10 below shows the expenditure on NII benefits according to their purpose: replacement of income from work, universal, basic functioning benefits and basic subsistence benefits¹⁵. Should UBI be paid in place of all the benefits, its total cost will decrease.

Benefits destined to be replaced are first and foremost subsistence benefits (income support and income supplement for all ages and the general disability pensions¹⁶ and universal pensions), and thereby almost NIS 50 billion of UBI cost is likely to be saved. With regard to wage replacement benefits – some of them become superfluous, but deliberation remains from the insurance perspective. Thus, for example a woman giving birth is entitled to a replacement of 100% of her last salary, but for unemployment a limit has been fixed at a lower level, which affects the insurance aspect of unemployment benefits. Universal basic income means that wage replacement benefits can be divided into two parts – one at UBI's rate and the other as a supplement up to the desired

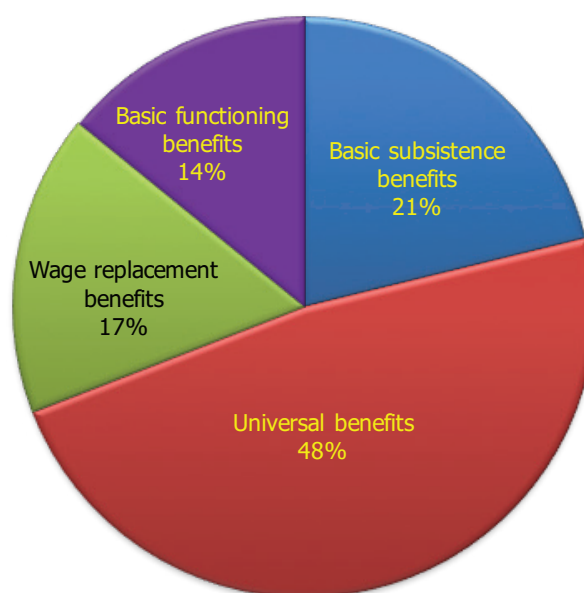
15 For a breakdown of the distribution of benefits into clusters see Gottlieb, 2017

16 This is on the assumption that the UBI will amount to less than existing benefits. With regard to the general disability pension, it can be argued that it is difficult to determine which part thereof serves as cover for the expenses of a decent standard of living and which part is connected, *inter alia*, with the functional difficulties arising from the disability. Therefore, it would be appropriate to examine whether in part the pension is in fact more similar to a refund of expenses under the attendance allowance and mobility payments, as this part is not really available for consumption of ordinary living expenses.

amount as far as the benefit is concerned. Therefore, some of the wage replacement benefits can also be saved, as they only supplement the deficit. For functioning benefits, the consideration is different: they assist the recipient to improve the most basic level of functioning and, as such, do not serve to finance the minimum of subsistence, they must thus be paid in addition to the universal basic income.

Figure 10

Expenditure on Social Security Benefits by Clusters (Percentages, 2015 Data)



**Total expenditure on benefits:
NIS 71.9 billion**

The benefits destined to be replaced by universal basic income (in billions of NIS):	
Subsistence	15.2
Universal	34.5
Total	49.7
Wage replacement	12.1
Total to be replaced	55.8

The answer to the question of whether it is worthwhile to introduce a basic income plan in Israel necessitates examination of each of the plan's motives as set out above. With regard to reduction of poverty and inequality, it is necessary to calculate the influence on poverty and inequality. Such examinations have been done, for example, in the micro-simulation models of Malul, Gal and Greenstein (Malul, Gal & Greenstein, 2009). These calculations are enlightening, although they do not deal with the endogeneity of behavior in the labor market, which as stated is the focal point in UBI issue, as it has been proved

that UBI is expected to have a great influence on the incentive to work. Furthermore, in the case of mass unemployment, for instance as a result of automation and robotics, economic hardship will be caused, making it difficult to finance the plan from income tax, which in itself depends on employment and salary rate. Therefore, it is necessary to carry out micro-simulations with more developed endogenous influences than those of Malul and others. If employment security is significantly harmed, basic income plan may be an efficient and humane solution to this hardship. Research on these questions is complicated, expensive and requires patience.

Table 3 below presents a hypothetical exercise of the cost required to finance a basic income of NIS 3,000 per month for the first six deciles, with the other four deciles financing the plan progressively, by means of a combination of ecological and capital tax. This exercise was done as a preliminary indication only.

Table 3
Operating Cost of a Universal Basic Income Plan in Israel - Preliminary Calculation

Direct cost of UBI (millions of NIS)	193,100
Saving resulting from replacement of some of the national insurance benefits by UBI (millions of NIS)	55,400
Net direct cost of UBI benefits (millions of NIS)	137,700
Increased efficiency and reduction of bureaucracy (saving in excess burden)	-
Excess burden of national insurance benefits which will be saved	-
Direct cost less net excess burden which will be saved (millions of NIS)	137,700
Clawback of basic income of 4 upper deciles (millions of NIS)	77,240
Net UBI payment after clawback (millions of NIS)	60,500
Need for progressive and ecological taxation in terms of percentage of GDP	5.4%
Number of adult individuals in each decile	536,373
2015 GDP (in NIS)	1,122,200,000,00
Monthly UBI payment (in NIS)	3,000
Total social security in 2015	71,900,000,000
Number of adult individuals in Israel 2015	5,363,728

In this exercise we will make a number of assumptions:

- Basic income amount: NIS 3,000 per month, similar to the minimum of subsistence for a single individual.
- Benefits destined to be replaced as a result of accepting such a proposal: subsistence benefits, universal benefits, the subsistence basis of the wage replacement benefits. The wage replacement benefits will only cover replacement of the wage which is above the minimum of subsistence¹⁷. The basic functioning benefits will continue to be paid without a means-test.

17 The assumption is that half the expenditure on wage replacement benefits is for subsistence purposes.

- Who will be entitled to UBI: The assumption is that only adults will be entitled. Nevertheless, should one be willing to add child allowances at their existing level, a further cost of approximately NIS 5.4 billion would be added.

On these assumptions the gross cost can be estimated – NIS 193.1 billion per year (NIS 3,000 per month * 12 * 5,363,728 individuals [not including children]).

With regard to the **excess burden of national insurance**, it is difficult to estimate how much money will be saved. This is a double excess burden – of payment of compulsory insurance contributions (which is similar to the excess burden of taxation) and of dissatisfaction with the system's functioning because of its complexity. We have arbitrarily assumed that the two excess burden sections offset each other. The assumption is that UBI's excess burden in percentages is usually much lower than the gross cost, due to the simplicity of the flat tax and the fact that a product taxation of approximately 5% will be necessary. This calculation reflects the cost of basic income clawback from the four upper deciles. The greater the gap in excess burden, the more the entire society will benefit from the process. Net excess burden may also decrease as a result of efficiency and productivity gains due to abolition of the poverty trap.

The rest of the amount (NIS 60.5 billion) must be financed. Part of the financing may not require the imposition of taxes, because of the social gain created by the reduction of social expenses, such as savings in medical expenses related to better health, improved education, better educational achievements and perhaps even a decrease in crime and other damages.

As stated, the balance can be financed by progressive and permanent taxation. Economists' preference lies with a flat tax, that is a fixed marginal income tax rate with a significant exemption (e.g. minimum subsistence + margins). In Denmark there is "tax" earmarked in advance for social security, and change in the rate requires a large majority of the legislators¹⁸.

In the present exercise we have only left basic functioning benefits and the surplus part of wage replacement benefits – the part beyond the minimum of subsistence. In fact, basic functioning benefits are not benefits but, by nature, refunds of expenses (long-term care, attendance and mobility allowances, and the "medical" part of the general disability pension can also be considered). Today, their payment is subject to a means-test, contrarily to the insurance idea of social insurance according to which functioning benefits are insurance-related by nature. According to earlier assessments, means-test's abrogation requires an increase in the insurance budget of approximately NIS 1.2 billion per year.

Estate duty proposal is intended to ensure appropriate progressiveness to the process. It constitutes an alternative to the clawback proposal.

18 From experience in Israel, earmarked taxes have not been popular with generations of Israeli Ministries of Finance, as they reduce the policymakers' degree of freedom.

The saving in administrative expenditure is a plan's advantage that, although not finding expression in the budget, represents a type of increase in social capital, just as a rise in work productivity constitutes additional growth. Research is needed in order to understand the extent of the saving.

Ecological tax proposal is intended to direct the drop in employment, that is expected in any case, **towards the improvement of the environment in Israel.**

The clawback is one of the most important steps, as it concerns the question of to what extent are we willing to improve income distribution and reduce inequality: should only those living in poverty (the third decile) benefit, or also those living at risk (fourth and fifth deciles)? Do we also wish to improve the position of the middle class – e.g. by distributing UBI up to the sixth decile? Clawback cost depends on the decision as to whom the policymakers (or indirectly, the voter public) wish to benefit. The present exercise benefits the population up to the sixth decile!

In conclusion, it is noted that calculations show a close mutual connection between clawback cost and the benefit in social, health and educational fields. The greater the value attached to the social advantages of the process, the less clawback shall be needed, since it will be expressed in terms of GDP growth, especially if GDP is calculated correctly, i.e. with the inclusion of volunteer work, care-taking others and so forth. Furthermore, the calculation becomes dependent on the income distribution itself. Another important point is that basic income may have recurring influences with significant implications, for example on general equilibrium (see introduction to Solow, 2001)

Scope of Payments

NII cash and in kind benefit payments – both contributory and non-contributory – amounted to NIS 77.0 billion in 2016, compared with 74.2 billion in 2015. These amounts also include other payments that the institution defrays, primarily to Government ministries, for development of community services and national insurance system administrative and operational expenses in all of its fields (approximately NIS 1.7 billion).

The real increase in the Institute's payments in 2016 reached 4.3%, and derives primarily from an increase in the number of recipients of most benefits, varying rates, and changes in legislation, essentially the increase in income supplement benefits for the elderly and the continued increase in child allowances that were cut in 2013 and rose again in May 2015, *inter alia* by means of savings for children (see below). Nonetheless, in terms of GSP a **decrease** of 0.1 percentage points was recorded (Table 4). In terms of GDP, the benefit rate declined consistently in recent years from approximately 7 percent

Table 4

Benefit Payments and Collection from the Public (Without Administrative Costs) (Percentage of GDP), 1980-2016*

Year	Benefit payments		Collection	
	Total	Collectible benefits	Total **	National insurance contributions ***
1980	6.09	4.98	6.77	5.15
1985	7.14	5.51	6.57	4.45
1990	8.36	7.04	7.21	5.28
1995	7.23	5.66	7.54	4.21
2000	7.65	6.09	6.00	4.08
2005	7.02	5.63	6.00	4.05
2006	6.87	5.53	5.80	3.75
2007	6.67	5.42	5.76	3.66
2008	6.30	5.51	5.86	3.64
2009	6.66	5.82	5.64	3.48
2010	6.63	5.93	5.45	3.59
2011	6.56	5.92	5.47	3.61
2012	6.59	5.57	5.30	3.47
2013	6.41	5.44	5.28	3.49
2014	6.34	5.39	5.32	3.53
2015	6.23	5.37	5.35	3.56
2016	6.13	5.29	5.42	3.63

* General note for data as a percentage of GDP in the entire report: There may be differences compared to earlier years due to retroactive changes made by the Central Bureau of Statistics.

** Including collection for the health system.

*** Includes Treasury indemnification for reducing national insurance contributions for employers.

in 2009 to 6.13 in 2016, thereby reaching an all-time low level in the preceding decade after a peak in 2002 – 8.7%.

In January 2016, benefits paid by the NII were not revised because of the decline in the consumer price index between November 2014 and November 2015.

In 2016, total benefit payments according to the National Insurance Law increased by 3.9% in real terms, in comparison with benefit payments other than by Law, which increased by 4.2% (after a decrease in a similar percentage in 2015). These benefits are paid by virtue of State laws or agreements with the Treasury, are fully funded by the latter, and include income support, mobility, alimony, old-age and survivors' pensions for those who are not insured (mainly new immigrants), and reserve service benefits. In 2016, these payments amounted to approximately NIS 10 billion (without administrative expenses), constituting approximately 14% of all benefit payments.

In contrast to benefit payments, the collection rate increase slightly in 2016 and reached 5.42 percent of GDP. The collection rate of national insurance contributions increased slightly, reaching 3.63 percent of GDP.

Payments of old-age and survivors' pensions increased in 2016 by 6.0%, after an increase of 4.1% in 2015 (Table 5). From 2008-2011 payments for those benefits increased mainly due to changes in legislation: in April 2008 basic pensions increased from 16.2% to 16.5% of the **basic amount**¹⁹, and those aged 80 and older received a special supplement at a rate of one point percentage thereof; in August 2009, within the framework of the Economic Improvement Law, they again increased until 2011 to 17.7% of the basic amount – in total an increase of 7.3%.

In December 2015 the old-age and survivors' pensions increased considerably, including income supplement, in order to bring them closer to the poverty line (according to type of family) and to make the situation of individuals and couples comparable. The distinction between the three age groups has been maintained (up to 70, 70-80 and 80 or older). The supplement amounts ranged between NIS 155 and NIS 542 per month, according to family composition. The increase in payments therefore derived from a rise in the number of recipients and the legislative changes in that year. Since the rise occurred at the end of 2015, the change in the old-age pension was mostly expressed in 2016. The increase in old-age pensions being higher than that in total pension payments, the percentage of payments for old-age and survivors' pensions out of all payments reached 39.5% in 2016, an increase in comparison with 2015, 38.9%.

The child allowance payments increased in 2016 by 8.8% in real terms, after an increase of 14.3% in 2015 (compared with 2014). This increase complement the increase that occurred in 2015 and, since it began in May, was not fully expressed. As a result, the percentage of child allowance payments out of all benefit payments increased from 7.6% in 2015 to 7.9% in 2016.

The 2015 and 2016 increase in child allowances derives from a correction to the decision that was formulated in coalition agreements. According to this correction, all allowances reduced in 2013 pursuant to the Economic Improvements Law to a uniform amount of NIS 140 per month per child would be increased again, not to their 2013 level though. At the same time a long-term savings plan for children would be introduced

19 The basic amount: The amount according to which most benefits from January 2006 are calculated. This amount is revised on the 1st of January each year according to the increase in the consumer price index of the previous year. The basic amount has different tariffs for the different benefits. In 2016 the basic amount for most benefits was NIS 8,757. Until 2006 the benefits were revised according to the increase in the average wage.

as part of the change in benefit structure, so that the total cost (including allowance increase and additional savings sum of NIS 50 per child) would reach the amount of the saving achieved following the August 2013 reduction. Allowance tariffs were updated accordingly in December 2015 and applied retroactively, from May 2015. The 2013 reduction led to a cumulative decrease of approximately 37% in the allowance payments in 2013-2014.

Payments for the long-term care benefits increased at a fairly high rate in 2016 – 4.9%. The increase derives both from an increase in the number of those entitled to the benefit in general and those eligible for the highest benefit in particular, as well as from the increase in benefits in kind following the increase in the minimum wage in April 2015, whose influence lasted in 2016 too, and its additional increase in July 2016.

For those serving in reserve service too, the scope of payments increased considerably at approximately 10%. In this Division payments are subject to many fluctuations, as they are influenced by security events. In 2014, due to Operation Protective Edge, payments increased by 22.5% in real terms, then decreased by approximately 24% in 2015, to approximately NIS 1 billion. General disability pensions increased by 2.4%, mainly due to the increase in the number of recipients.

Income support payments for the working age population decreased sharply by 8.6% in 2016, primarily because of a similar decrease in the number of benefit recipients. Over the last two years, the cumulative decrease in benefit payments totaled approximately 12%. In real terms, taking into account population growth, the decline is steeper, reaching 15%-16%. The number of recipients declined among both veteran citizens and immigrants. A development that may be explained, in part, by last two years' increase in minimum wage (together with the erosion of the benefit level in terms of average wage).

Payments for unemployment benefit decreased by approximately 2.3% in 2016 following a decrease twice that rate in 2015. These decreases come after consecutive increases between 2012-2014, deriving primarily from a change in legislative in 2013, when conditions of eligibility regarding the unemployed daily wage worker and wage determination with respect to benefit calculation were aligned with eligibility conditions for the unemployed monthly wage workers. The 2016 decrease was mainly induced by a large drop of 4.3% in the number of unemployment benefit recipients (Table 7), which contrasts with the rise in payments for other wage replacement benefits – maternity and work injury – that are also affected by higher wages and growth in employment rate. Payments for maternity and maintenance benefits increased at the rate of 4.0%, mainly due to an increase in the maternity allowance in the light of continuing growth in the number recipients and an increase in the average payment of the benefit.

As stated above, the share of old-age, survivors' and children's benefits, for which payments increased at higher rates than that of overall benefit payments, rose accordingly, whereas the share of most other benefits out of all payments simultaneously decreased: income support – from 3.6% to 3.1, unemployment benefits – from 4.5% to 4.2%, and work injury and hostile action casualties – from 7.7% to 7.2%. Remaining benefits were subject to minor changes.

Table 5 Data
National Insurance Benefit Payments (Including Administrative Costs), 1995-2016

Year	Total payments*	Old-age and survivors**	General disability	Work injury, border and hostile action	Maternity	Children	Unemployment	Reserve service*	Income support***	Long-term care and other
Millions of NIS (current prices)										
1995	21,188*	7,675	2,254	1,487	1,206	4,287	1,280	1,053*	1,149	798
2000	39,706	13,670	5,128	2,569	2,423	7,000	3,023	1,039	2,957	1,897
2005	43,305	16,457	7,792	3,192	2,857	4,548	2,044	713	2,859	2,842
2010	59,137	22,023	11,130	3,986	5,033	6,279	2,606	1,028	2,659	4,394
2011	62,666	23,531	11,664	4,281	5,357	6,974	2,582	1,068	2,617	4,592
2012	66,850	24,804	12,534	4,601	5,779	7,319	2,914	1,148	2,635	5,116
2013	69,321	25,980	13,137	4,961	6,168	6,465	3,252	1,133	2,728	5,498
2014	71,564	27,519	13,964	5,238	6,586	4,986	3,361	1,390	2,747	5,771
2015	74,215	28,479	14,502	5,702	6,868	5,661	3,319	1,056	2,680	6,125
2016	76,982	30,015	15,072	5,536	7,098	6,111	3,235	1,186	2,421	6,307
Real annual growth (percentages)										
1995	10.1	8.6	16.1	14.6	20.8	4.5	16.2	2.9	13.7	13.5
2000	8.1	8.4	14.8	11.4	10.8	1.5	-0.9	-7.4	18.1	18.2
2005	-0.1	1.3	4.6	0.2	3.4	-8.1	-6.9	-0.6	-6.0	2.5
2010	4.0	6.3	5.3	1.9	6.5	8.2	-17.8	-14.4	-0.9	7.4
2011	2.4	3.3	1.3	3.8	2.9	7.4	-4.2	0.4	-4.9	1.0
2012	4.9	3.6	5.7	5.7	6.1	3.2	11.0	5.7	-1.0	9.5
2013	2.2	3.2	3.3	6.2	5.2	-13.0	9.9	-2.8	2.0	5.9
2014	2.7	5.4	5.8	5.1	6.3	-23.2	2.9	22.1	0.2	4.5
2015	4.4	4.1	4.5	9.6	4.9	14.3	-0.6	-23.5	-1.8	6.8
2016	4.3	6.0	4.5	-2.4	3.9	8.5	-2.0	12.9	-9.2	3.5
Distribution by divisions (percentages)										
1995	100.0	36.2	10.6	7.0	5.7	20.2	6.0	5.0	5.4	3.8
2000	100.0	34.4	12.9	6.5	6.1	17.6	7.6	2.6	7.4	4.8
2005	100.0	38.0	18.0	7.4	6.6	10.5	4.7	1.6	6.6	6.6
2010	100.0	37.2	18.8	6.7	8.5	10.6	4.4	1.7	4.5	7.4
2011	100.0	37.6	18.6	6.8	8.5	11.1	4.1	1.7	4.2	7.3
2012	100.0	37.1	18.7	6.9	8.6	10.9	4.4	1.7	3.9	7.7
2013	100.0	37.5	19.0	7.2	8.9	9.3	4.7	1.6	3.9	7.9
2014	100.0	38.5	19.5	7.3	9.2	7.0	4.7	1.9	3.8	8.1
2015	100.0	38.4	19.5	7.7	9.3	7.6	4.5	1.4	3.6	8.3
2016	100.0	39.0	19.6	7.2	9.2	7.9	4.2	1.5	3.1	8.2

* The data for 1995 do not include the amounts transferred to the Ministry of Defense as repayment of debt for a saving in the number of days of reserve service.
 ** Including payments for income support in old age.
 *** For the working-age population.

Level of Benefits

As stated above, in January 2016 benefits were not revised at all, since the consumer price index, according to which they are revised on January 1st of each year, dropped from November 2014 to November 2015. Therefore, the basic amount²⁰, pursuant to which most benefits have been revised since 2006, did not increase. Recently, higher wage following years of stabilization and even decreases in real terms, reinstates the previously trend known for many years whereby the average wage, reflecting lifestyle and not only price changes, rises over time more than the price. Cumulatively from 2002 until 2016²¹, the average wage increased by about 36% - an rate that is higher by approximately 12 percentage points than the consumer price index rise in this period. Consequently, the cumulative erosion in benefits reached 12% after their revision in accordance with the price index instead of wage changes.

The legislative changes of December 2015 towards an increase in income supplements to old-age pension, were expressed by an increase in old-age pension with income supplement as a percentage of average wage (Table 6). For instance, the guaranteed minimum income for an individual up to the age of 70 receiving an old-age pension rose from 29.9% of the average wage in 2015 to 31.2% in 2016, and for a widow or a widower with two children from 61.2% to 65.9% respectively. However, pensions without income supplement continued their erosion in terms of average wage in 2016 as well: for example, the pension for an individual aged 80 or older decreased from 17.3% to 16.9% of the average wage between the two years. Pensions paid for other family compositions that are not entitled to income supplements also declined at similar rates.

Minimum guaranteed income for the working-age population as a percentage of the average wage also continued to erode due to the real value increase in the average wage as opposed to the revision rate of the basic amount and the benefits that remained unchanged (Table 7). The income support benefit decreased for an individual up to the age 55, at a regular rate, from 18.5% to 18.1% of average wage, and for an individual over 55, at a higher rate, by about half a percentage point, which was also the case for other types of family entitled to the benefit. The erosion of the benefit in terms of average wage has continued since 2010. Thus, income support benefit for a single mother²² up to the

20 See note 19.

21 The transition in revising benefits according to prices and not according to wages in 2006, was preceded by frozen benefits since 2002.

22 Single mother. The feminine form is used because women are the overwhelming majority of heads of such families.

Table 6

Old-Age and Survivors' Pension and Minimum Guaranteed Income for the Elderly and Survivors (Fixed Prices and as a Percentage of the Average Wage*), Monthly Average, 1975-2016

Year	Age	Basic old-age and survivors' pension				Minimum guaranteed income (including child allowances)			
		Individual		Widow/er with two children		Individual		Widow/er with two children	
		2016 prices (NIS)	% of average wage	2016 prices (NIS)	% of average wage	2016 prices (NIS)	% of average wage	2016 prices (NIS)	% of average wage
1975		753	14.9	1,253	24.8	1,290	25.5	2,507	49.6
1980		830	17.1	1,608	33.1	1,457	30.0	2,953	60.9
1985		936	18.2	1,813	35.3	1,866	36.4	3,747	73.0
1990		1,178	16.4	2,281	31.7	1,851	25.7	3,751	52.1
1995		1,193	15.5	2,313	30.1	1,997	26.0	4,412	57.3
2000		1,333	15	2,581	29.0	2,227	25.0	4,900	55.0
2005		1,326	15.2	2,631	30.2	2,411	27.6	5,041	57.8
2010	Up to 70 **	1,468	16.8	2,838	32.4	2,707	30.9	5,568	63.6
	70-79	1,468	16.8	-	0.0	2,778	31.8		
	80+	1,552	17.8	-	0.0	2,905	33.2		
2011	Up to 70	1,481	16.9	2,869	32.7	2,712	30.9	5,623	64.0
	70-79	1,481	16.9	-	0.0	2,792	31.8		
	80+	1,565	16.9	-	0.0	2,918	33.2		
2012	Up to 70	1,493	16.9	2,894	32.7	2,736	30.9	5,685	64.2
	70-79	1,493	16.9	-	0.0	2,817	31.8		
	80+	1,578	17.9	-	0.0	2,944	33.2		
2013	Up to 70	1,491	16.7	2,890	32.3	2,733	30.6	5,624	62.9
	70-79	1,491	16.7	-	0.0	2,813	31.5		
	80+	1,576	17.6	-	0.0	2,940	32.9		
2014	Up to 70	1,513	16.7	2,932	32.4	2,770	30.6	5,634	62.2
	70-79	1,513	16.7	-	0.0	2,853	31.5		
	80+	1,598	17.7	-	0.0	2,981	32.9		
2015	Up to 70	1,523	16.4	2,951	31.7	2,788	29.9	5,728	61.5
	70-79	1,523	16.4	-	0.0	2,871	30.8		
	80+	1,608	17.3	-	0.0	3,000	32.2		
2016	Up to 70	1,531	16.0	2,967	31.0	2,981	31.2	6,300	65.9
	70-79	1,531	16.0	-	0.0	3,042	31.8		
	80+	1,617	16.9	-	0.0	3,151	32.9		

* As measured by the Central Bureau of Statistics.

** Since 2008 the pension has been paid according to age-groups.

Table 7 Data

Guaranteed Minimum Income for the Working-Age Population (Fixed Prices in NIS and Percentage of the Average Wage in the Economy*), Monthly Average, 2000-2016

Year	Single person				Single parent** with two children (including child allowances)		Couple with two children (including child allowances)			
	Regular rate		Increased rate				Regular rate		Increased rate	
	2016 prices (NIS)	% of average wage	2016 prices (NIS)	% of average wage	2016 prices (NIS)	% of average wage	2016 prices (NIS)	% of average wage	2016 prices (NIS)	% of average wage
The eldest in the family is under the age of 55										
2000	1,164	18.7	2,081	23.4	4,594	51.6	3,945	44.3	4,569	51.3
2005	1,615	18.5	1,817	20.8	3,440	39.4	2,996	34.4	3,440	39.4
2010	1,692	19.3	1,903	21.8	3,665	41.9	3,200	36.6	3,665	41.9
2015	1,721	18.5	1,935	20.8	3,691	39.7	3,217	34.6	3,691	39.7
2016	1,730	18.1	1,946	20.3	3,711	38.8	3,235	33.8	3,711	38.8
At least one member of the family is 55 or older										
2000	2,081	23.4	2,081	23.4	4,594	51.6	4,569	51.3	4,569	51.3
2005	2,019	23.1	2,019	23.1	4,332	49.7	4,288	49.2	4,288	49.2
2010	2,115	24.4	2,115	24.2	4,632	53.0	4,554	52.1	4,554	52.1
2015	2,150	23.1	2,150	23.1	4,712	50.6	4,594	49.4	4,594	49.4
2016	2,162	22.6	2,162	22.6	4,738	49.5	4,619	48.3	4,619	48.3

* As measured by the Central Bureau of Statistics

** Also single father.

age of 55 with two children decreased by approximately 3 percentage points from 41.9% to 38.8% of the average wage between 2010 and 2016. Since average wage increases and benefits are not revised according to these changes, the standard of living of the families receiving the benefit is thereby eroded.

The value of a point in the child allowances remained unchanged in 2016 compared with 2015 - at 1.6% of the average wage, despite the continued increase in child allowances that began, as stated, in May 2015 and was fully expressed in 2016, an outcome resulting from an increase in average wage which overtook the continued allowance rise (Table 8).

Increasing rates varied between the various types of families and between “existing” and “new” children (those born after June 2003). The allowance for families with two children, alike those with one child, remained at its level in average wage terms. However, in large families (with 4 and 5 children) the allowance as a percentage of average wage

Table 8

Allowance Points and Child Allowances (Fixed Prices and as a Percentage of the Average Wage), Monthly Average, 1990-2016

Year	Allowance point value		Allowance for two children		Allowance for four children		Allowance for five children	
	2016 prices (NIS)	% of average wage	2016 prices (NIS)	% of average wage	2016 prices (NIS)	% of average wage	2016 prices (NIS)	% of average wage
1990	227	3.2	458	6.3	1,771	24.4	2,512	34.7
1995	220	2.9	443	5.8	1,779	23.0	2,530	32.7
2000	224	2.5	452	5.0	1,817	20.3	2,586	28.8
2005	145	1.7	291	3.3	919	10.5	1,407	16.0
2006	175	2.0	352	4.0	956	10.8	1,348	15.2
2007	174	1.9	351	3.9	951	10.5	1,341	14.8
2008	171	1.9	344	3.8	932	10.4	1,314	14.6
2009	173	2.0	349	4.0	1,029	11.8	1,416	16.2
2010 Existing	175	2.0	368	4.2	1,130	12.8	1,521	17.3
2010 New	175	2.0	368	4.2	844	10.1	1,020	12.1
2011 Existing	173	2.0	420	4.8	1,173	13.3	1,561	17.7
2011 New	173	2.0	420	4.8	931	10.6	1,105	12.6
2012 Existing	174	2.0	437	4.9	1,188	13.3	1,578	17.6
2012 New	174	2.0	436	4.9	956	10.7	1,131	12.7
2013 Existing	159	1.8	372	4.2	1,040	11.4	1,414	15.6
2013 New	159	1.8	372	4.2	796	9.0	956	10.8
2014 Existing	138	1.5	279	3.1	783	8.6	1,136	12.5
2014 New	138	1.5	279	3.1	557	6.1	696	7.6
2015 Existing	146	1.6	319	3.4	837	9.0	1,191	12.7
2015 New	146	1.6	319	3.4	663	7.1	809	8.7
2016 Existing	150	1.6	338	3.4	862	9.0	1,216	7.5
2016 New	150	1.6	338	3.4	714	12.7	864	9.0

increased for “new” children but remained unchanged for “existing” children (who were born before June 2003). It should be mentioned that the level of the allowance as a percentage of the average wage in 2016 was much lower than at the beginning of the decade. In the case of families with five “new” children, it reaches approximately one-half of this level.

Recipients of Benefits

The number of recipients of **old-age and survivors'** pensions increased by 3.6% in 2016, as in 2015, reaching approximately 933 thousand on average per month (Table 9). This rate reflects an increase of 4.2% in the number of old-age pension recipients, which was offset by a decrease of 0.9% in the number of survivors' pension recipients. In the **children's** branch, as in recent years, the number of families receiving child allowances increased by 1.8% as a result of natural population growth. In 2016, child allowances were paid to approximately 2.8 million children living in about 1.15 million families in total.

In the general disability branch, the number of recipients of a **general disability pension** increased at a rate similar to the natural population growth – 1.8% – after generally higher increases in the years prior to 2016 and a one-time stabilization in 2014. In other benefits in the branch, increases continued on a scale similar to previous years: the number of recipients of an **attendance allowance** and a **disabled child benefit** increased by approximately 8% and 11% respectively (compared with 10% each in 2015), and as regards **mobility benefit** their number increased by 3.9%. The rise in the number of disabled child benefit recipients derives primarily from expanding the list of grounds entitling to the benefit, while an increase in the number of attendance allowance recipients is attributed to the IADL test being added following the Ben Yehuda Committee (see below Chapter 3, General Disability). In the work injury branch, the number of recipients of a permanent disability pension also increased considerably, 5.9% between 2015 and 2016, while the number of injury allowance recipients decreased by 2.9% between the two years.

The number of recipients of a **long-term care benefit** increased at a rate of 2.2%, and the number of women receiving a **birth grant** and **maternity allowance** increased by 1.1% and 2.0% respectively, as a result of natural growth and growth in the number of those employed. By contrast, the number of working-age recipients of **income support** decreased sharply at a rate of 7.5% and the number of **unemployment benefits** recipients decreased as well, by 4.3%. These declines are partly explained by developments in the labor market – an increase in employment rate and higher minimum and average wage. The drop in the number of income support recipients continues a long-standing trend that began with the 2003 deep cuts and continued intermittently until 2016. In 2015–2016, recipients number decreased cumulatively by about 12%. The moderate rise in 2013 apparently derives from changes in legislation (ownership of a vehicle, see below in Chapter 3, Income Support), slightly expanding those eligible for the benefit.

Many fluctuations preceded the drop in the number of recipients of **unemployment benefits** in 2016. In the three years between 2012 and 2014 there were increases, some extensive, despite a decrease in the unemployment rate due to leniencies in eligibility conditions for day-workers, however in 2003–2008 the number of recipients decreased consistently due to the economic situation and changes in eligibility conditions.

Table 9 Data
Recipients of Benefits in the Main Insurance Branches (Monthly Average), 1990-2016

Year	Old-age and survivors*	General disability				Work injury		Maternity		Children	Unemployment benefits	Income support (for working-age population)****	Long-term care
		General disability pension	Special services allowance	Disabled child benefit	Mobility allowance	Injury allowance**	Permanent disability pension***	Birth grant**	Maternity allowance**				
Number of recipients (thousands)													
1990	442.6	73.5	6.5	5.8	11.4	59.1	11.8	107.7	43.7	532.5	50.6	30.8	25.0
1995	553.9	94.0	10.2	10.3	13.2	84.9	14.6	113.4	55.2	814.7	61.5	74.8	59.0
2001	677.0	142.4	18.9	16.4	19.3	59.5	20.8	127.2	71.2	928.2	104.7	141.8	105.4
2005	719.9	170.9	24.0	21.0	24.9	56.0	25.2	148.4	77.0	956.3	58.8	139.9	115.0
2008	735.8	195.0	29.4	25.3	28.9	58.1	29.2	152.0	93.6	994.8	48.0	111.8	131.1
2009	746.9	200.1	31.2	26.5	30.4	57.5	30.9	156.4	97.7	1,012.0	73.0	111.8	136.6
2010	758.5	207.2	33.1	27.9	31.6	59.3	32.3	166.7	103.3	1,030.1	57.7	109.4	141.4
2011	780.1	213.0	35.2	29.5	33.0	59.4	33.9	163.4	105.7	1,048.7	57.4	105.3	145.6
2012	802.5	217.6	37.8	32.1	34.1	61.4	35.7	169.2	112.0	1,068.1	62.4	103.8	152.8
2013	833.9	222.6	40.9	36.0	35.3	64.2	37.4	169.7	114.4	1088.3	69.6	104.4	156.5
2014	868.3	222.6	46.2	40.5	36.6	66.5	39.3	173.2	120.4	1,107.5	72.0	103.0	159.5
2015	900.8	229.7	50.8	44.6	37.9	66.3	41.2	177.1	123.8	1,128.3	69.4	98.3	160.5
2016	933.4	233.8	55.0	49.6	39.4	64.3	43.6	179.1	126.3	1,148.5	66.4	90.9	164.0
Annual Growth (percentages)													
1986-1990	2.6	3.4	7.2	7.7	1.5	-0.1	3.6	0.5	0.5	-0.5	20.9	8.6	17.4
1991-1995	4.6	5.0	9.4	12.2	3.0	8.4	4.4	1.8	4.8	8.9	4.0	19.4	18.7
1996-2000	3.5	7.6	10.2	8.2	4.9	-2.1	6.3	3.1	5.0	2.3	8.5	11.4	10.2
2001	3.0	5.2	13.9	7.2	14.9	-9.3	5.1	-3.6	0.8	1.7	13.1	10.6	10.1
2005	-0.3	5.2	5.9	7.2	5.9	-2.9	5.0	-	-0.6	1.1	0.7	-3.3	1.4
2008	0.9	4.0	7.3	6.3	5.9	3.8	5.0	3.3	8.8	1.4	-3.6	-6.8	4.7
2009	1.5	2.6	6.1	4.7	5.2	-1.0	5.8	3.7	4.4	1.7	52.1	0.0	4.2
2010	1.5	3.5	6.1	5.3	3.9	3.1	4.5	6.6	5.7	1.8	-21.0	-2.1	3.5
2011	2.8	2.8	6.4	5.7	4.3	0.2	5.0	-1.8	2.3	1.8	-0.5	-3.7	3.0
2012	2.9	2.2	7.4	8.8	3.3	3.4	5.3	3.5	6.0	1.8	7.7	-1.4	4.9
2013	3.9	2.3	8.1	12.2	3.6	4.6	4.9	0.3	2.1	1.9	11.6	0.6	2.4
2014	4.1	0.0	13.0	12.5	3.7	3.6	5.1	2.1	5.2	1.8	3.4	-1.3	1.9
2015	3.7	3.2	10.0	10.1	3.6	-0.3	4.8	2.3	2.8	1.9	-5.3	-4.6	0.6
2016	3.6	1.8	8.2	11.2	3.9	-2.9	5.9	1.1	2.0	1.8	-4.3	-7.5	2.2

* Since 2010 the number of old-age and survivors' pension recipients who received split old-age and survivors' pensions are counted as one unit.

** The number of different recipients during the year.

*** The data for 1985 and 1990 include the families whose first and second child allowances were refunded to them through the employers. In 1993 the allowances became universal again.

**** In the calculation of the data for 2004 onwards, a benefit split between a number of recipients was attributed to only one recipient. The number of recipients for 2004, in the calculation of which all the recipients of the split benefit were included, was 145.6 thousand on average per month.

Following the financial crisis and rise in unemployment that began at the end of 2008, at the beginning of 2009 a temporary order was enacted designed to assist the unemployed who were not eligible for benefits according to National Insurance Law, and to pay them special benefits. As a result, many temporarily joined the recipients of the benefit and the rate increased by more than 50%. A partial offsetting of this sharp increase occurred in 2010, when the aforesaid temporary order expired and the number of recipients decreased by 21%. An additional moderate decline occurred in 2011, and in 2015-2016 the decline reached approximately 10%.

Collecting Insurance Contributions from the Public and Sources of Benefit Funding

NII benefit payments are funded from four sources: (a) Collection of national insurance contributions (directly from the public with indemnification by the Treasury due to employers' and self-employed insured's contributions having been reduced). (b) Government participation in funding contributory benefits. (c) Government participation in funding non-contributory benefits. (d) Receivables from interest on investment of the fund balances, mainly in government bonds. In addition to collecting national insurance contributions, the NII collects health insurance contributions and transfers them to the health maintenance organizations.

In the last four years from 2013-2016, changes began in insurance contributions for employers. In 2013, insurance contributions gradually increased by a regular rate of 0.6 percentage points and applied to insurance branches in which the Treasury does not make contributions; for this reason the latter's contributions returned to 210% for collections for the children's branch. In 2014, the regular rate for an employer should have increased by 0.5 percentage points, however it rose by only 0.25 points and therefore the increase to 7.5% continued through 2016 and not 2015 as first determined.

In 2015, the regular rate continued to rise and reached 7.25%. The insurance contribution rate for income higher than 60% of the average wage and up to the cap (5 times the basic amount), also including the workers portion, was 14.25%. In 2016, the regular rate continued to rise and reached 7.5%. Regular rates have since then reached 14.5% and include both workers and employers portions.

Collection of Insurance Contributions from the Public

The NII's receipts from national and health insurance contributions increased in real terms by 7.1% in 2016, at a rate similar to 2015 – 6.8%. The receipts from NII branches increased by 7.7% – a higher rate than the increase in the health system, which was 6.0% (Table 10). The increase springs mainly from developments in the labor market – a rise in the number of employed and real increases in wages, as well as from an increase in

Table 10

Collection for National Insurance and Health System, 2011-2016

	2011	2012	2013	2014	2015	2016
Current prices (millions of NIS)						
Total receipts from insurance contribution	51,150	52,701	55,891	58,720	62,272	66,332
Total collection from the public	48,719	50,276	53,420	56,146	59,564	63,452
For national insurance branches	31,305	32,144	34,498	36,536	38,783	41,535
For health system	17,414	18,132	18,922	19,790	20,781	21,917
Treasury indemnification	2,431	2,425	2,471	2,574	2,708	2,880
Indicators for development in collection from the public						
Real change percentage						
Total collection from the public	3.7	1.5	4.7	4.6	6.8	7.1
For national insurance branches	4.0	1.0	5.7	4.9	7.4	7.7
For health system	3.3	2.4	2.8	4.1	5.7	6.0
As a percentage of GDP						
Total collection from the public	5.2	5.0	5.1	5.1	5.2	5.2
For national insurance branches	3.3	3.2	3.3	3.3	3.4	3.4
For health system	1.9	1.8	1.8	1.8	1.8	1.8
As a percentage of direct taxes for individuals						
Total collection from the public	48.4	48.2	48.1	47.3	45.6	45.8
For national insurance branches	31.1	30.8	31.1	30.6	29.7	30.0
For health system	17.3	17.4	17.0	16.7	15.9	15.8
As a percentage of direct taxes						
Total collection from the public	35.4	34.0	33.4	33.7	33.9	34.1
For national insurance branches	22.7	22.5	21.6	21.8	22.1	22.3
For health system	12.7	12.5	11.8	11.9	11.8	11.8

employer's insurance contributions following legislative changes. The relative decline in the growth rate of health insurance contributions collection derives mainly from a rise in the rate of employer's insurance contribution, resulting in a lower weight of health insurance contributions out of total insurance contributions from the public.

In 2016, receipts from collection amounted to NIS 66.3 billion, constituting 41.5 billion for NII branches and 21.9 billion for the health system. Approximately NIS 2.9 billion was added to collection from the public that the State Treasury transferred as compensation for reduced national insurance contributions from employers and the self-employed (in accordance with Section 32 C1 of the Law).

In terms of percentage of the GDP, total collection remained at the level of 5.2%: 3.4% of which was collected for NII branches and 1.8% for the health system. In all the years presented in Table 10, the collection was approximately 5% of GDP, lower than the rate at the beginning of the decade – 6.3% in 2003. Collection from the public in direct taxes for individuals increased slightly – from 45.6% to 45.8% between 2015 and 2016.

Collection from salaried and non-salaried insured

The increased collection rate for salaried workers is likely to be different from the increase from those who are not salaried. In 2016, collection rates increased at a similar rate in both groups – 7.6% and 7.5% respectively. Direct collection from salaried workers was influenced both by above mentioned legislative changes regarding employers and changes in the labor market. As in the previous year, average wage for a salaried job increased in 2016 by 2.2% in nominal terms (and even more in real terms due to a drop in the index – by 2.8%), while jobs number increased by 3.5%, a rate even higher than in 2015. However, direct collection from non-salaried insureds, too, increased in real terms between the two years, at the high rate of 7.5%, and mainly represents (approximately 91%) collection from the self-employed, who are also influenced by market performance. Collection from the self-employed, based on 2015 assessments that were updated solely by the increase in prices, increased by 5.7% in real terms.

By contrast, collection from non-salaried workers paying insurance contributions on the basis of minimum income, constituting approximately 9% of all collection from the non-salaried, increased by 16.1% in real terms, as a result of the **network expansion** operation that began in mid-2015 (see Chapter 4).

Sources for Benefit Funding

In NII's total receipts to fund its branches increased in 2016 by 10.1% in real terms and amounted to NIS 86.7 billion in current prices (Table 11). The increase derives

from a rise in collection from the public²³ – 7.6%, and a large increase in government participation under Section 32(a) of the National Insurance Law – 22%.

An explanation for this sharp increase lies in the amendment of Section 32 of the Law made by the Treasury in 2016; following the amendment the rate of Treasury's funds allocation to various NII's branches is changed and fixed as a percentage of receipts. In 2016, the Treasury's contributions were estimated at 45.1% of total national insurance collection (including State Treasury indemnification), plus a special allocation for hospitalization payments of NIS 3,030 million and a "demographic coefficient" (a coefficient which takes into account the expected population growth rate) supposed to increase contributions for old-age (by approximately NIS 501 million) and long-term care (by NIS 27 million).

These sharp increases were hardly offset by a drop in interest payments (forming about one-tenth of all NII receipts) by about half a percent.

Table 11
Funding Sources for NII Branches, 1995-2016

Year	Total receipts*	National insurance contributions**	Government participation***	Government funding of benefits	Receipts from interest
Current prices (millions of NIS)					
1995	23,581	12,171	4,222	4,650	2,504
2000	41,207	20,751	8,336	8,148	3,907
2005	49,705	24,299	11,700	8,616	4,850
2010	63,821	31,289	15,014	10,032	7,000
2015	79,309	41,491	19,453	9,994	7,681
2016	86,875	44,415	23,586	10,525	7,609
Real annual increase (percentages)					
2000	7.6	9.8	1.6	10.8	3.6
2005	3.2	4.2	5.0	-0.5	3.7
2010	2.2	8.3	-6.4	-1.7	2.3
2015	6.1	7.2	15.0	-7.6	-1.1
2016	10.1	7.6	21.9	5.9	-0.4
Distribution (percentages)					
1995	100.0	51.6	17.9	19.7	10.6
2000	100.0	50.4	20.2	19.8	9.5
2005	100.0	48.9	23.5	17.3	9.8
2010	100.0	49.0	23.5	15.7	11.0
2015	100.0	52.7	24.7	12.8	9.8
2016	100.0	52.0	27.1	12.1	8.8

* Including third party compensation.

** Including Treasury indemnification.

*** Pursuant to Section 32(a) of the Law.

23 This rate is slightly different from the rate mentioned in the previous section, as in this table collection of national insurance contributions includes Treasury indemnification.

In 2015-2016, receipts increased by approximately 16% in real terms. The sharpest rise was in government participation (under Section 32[a] of the Law), by approximately 37% in those two years, yet the main contribution to the overall increase came from national insurance contributions – the primary component in total collection – which cumulatively increased by approximately 15%. Government funding of benefits cumulatively decreased by about 1.5%, and so did receipts from interest.

In 2016, In view of the surge in government participation, the main component's share, national insurance contributions, dropped from 52.7% of all receipts to 52.0%, simultaneously with an increase in government participation share from 24.7% to 27.1%. Until 2016, the trend was different and collection share from insurance contributions increased gradually from 49% in 2010 to 52.7% in 2015, at the expense of a certain decline in the share of government participation and income from interest.

Surpluses, Deficits and Monetary Reserves

Disregarding the interest on the NII's investments, there was a surplus of NIS 2.6 billion in 2016, as opposed to NII's budgetary deficits of NIS 2.2 billion in 2015, and approximately 4 billion in 2014 (Table 12). 2016 is the first year since 2008 in which there was a budgetary surplus. The decline in deficit derives from decreases in deficit or increases in surplus in all benefit branches except the children's branch, where surplus decreased threefold, and the long-term care branch, which slightly increased its deficit. The return to a surplus in the 2016 budget, as well as considerable changes in the surplus in the old-age and survivors' branch and in children's branch deficit, are the result of a supplement for hospitalization fees and the new distribution of the allocation in accordance with column E of Table J of the Law. Taking the interest receipts into account, NII's financial activity in 2016 amounted to a greater surplus, of approximately NIS 10 billion.

Table 12

Surpluses and Deficits in NII Branches (Millions of NIS, Current Prices),
2011, 2014-2016

Insurance Branch	Without interest				With interest			
	2011	2014	2015	2016	2011	2014	2015	2016
Total	-994.2	-4,175	-2,214	2,630	6,310.0	3,637	5,467	10,239
Old-age and survivors	-2,004.8	-4,233	-4,520	239	692.0	-1,583	-2,031	2,623
General disability	-3,606.4	-5,043	-5,295	-3,380	-3,407.0	-4,958	-5,188	-3,313
Work injury	-1,252.2	-640	-22	1,499	-1,140.0	-640	-22	1,515
Maternity	-2,226.0	-2,771	-2,736	2,432	-2,226.3	-2,724	-2,684	2,472
Children	12,641.0	14,480	15,528	5,266	16,752.0	19,204	20,245	9,965
Unemployment	-1,881.7	-2,498	-1,491	-462	-1,881.7	-2,498	-1,491	-405
Long-term care	-2,786.2	-3,596	-3,823	-4,273	-2,786.2	-3,530	-3,749	-4,184
Other	123.0	126	145	1,309	307.0	365	387	1,566

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Appendix: Data for Figures and Tables

Figure 1 Data:
Public Interest in UBI by Number of Mentions on Google

Date	Number of mentions as a percentage of the greatest number of mentions in the last 12 years	Date	Number of mentions as a percentage of the greatest number of mentions in the last 12 years
22/04/2012	8	27/01/2013	7
29/04/2012	7	03/02/2013	8
06/05/2012	8	10/02/2013	8
13/05/2012	6	17/02/2013	8
20/05/2012	7	24/02/2013	27
27/05/2012	8	03/03/2013	11
03/06/2012	7	10/03/2013	7
10/06/2012	6	17/03/2013	8
17/06/2012	6	24/03/2013	7
24/06/2012	6	31/03/2013	7
01/07/2012	5	07/04/2013	7
08/07/2012	5	14/04/2013	7
15/07/2012	5	21/04/2013	8
22/07/2012	4	28/04/2013	8
29/07/2012	4	05/05/2013	8
05/08/2012	5	12/05/2013	9
12/08/2012	4	19/05/2013	8
19/08/2012	5	26/05/2013	10
26/08/2012	5	02/06/2013	8
02/09/2012	5	09/06/2013	8
09/09/2012	5	16/06/2013	7
16/09/2012	4	23/06/2013	8
23/09/2012	5	30/06/2013	6
30/09/2012	4	07/07/2013	6
07/10/2012	4	14/07/2013	5
14/10/2012	4	21/07/2013	5
21/10/2012	4	28/07/2013	8
28/10/2012	4	04/08/2013	6
04/11/2012	5	11/08/2013	5
11/11/2012	5	18/08/2013	6
18/11/2012	4	25/08/2013	11
25/11/2012	7	01/09/2013	13
02/12/2012	6	08/09/2013	10
09/12/2012	6	15/09/2013	14
16/12/2012	5	22/09/2013	9
23/12/2012	5	29/09/2013	10
30/12/2012	5	06/10/2013	17
06/01/2013	5	13/10/2013	9
13/01/2013	5	20/10/2013	9
20/01/2013	6	27/10/2013	7

Figure 1 Data (*continued*):

Public Interest in UBI by Number of Mentions on Google

Date	Number of mentions as a percentage of the greatest number of mentions in the last 12 years
03/11/2013	10
10/11/2013	13
17/11/2013	9
24/11/2013	9
01/12/2013	8
08/12/2013	7
15/12/2013	8
22/12/2013	6
29/12/2013	7
05/01/2014	10
12/01/2014	12
19/01/2014	8
26/01/2014	7
02/02/2014	6
09/02/2014	7
16/02/2014	7
23/02/2014	7
02/03/2014	7
09/03/2014	6
16/03/2014	8
23/03/2014	7
30/03/2014	6
06/04/2014	25
13/04/2014	8
20/04/2014	7
27/04/2014	8
04/05/2014	7
11/05/2014	7
18/05/2014	9
25/05/2014	10
01/06/2014	8
08/06/2014	6
15/06/2014	6
22/06/2014	5
29/06/2014	5
06/07/2014	5
13/07/2014	6
20/07/2014	8
27/07/2014	9
03/08/2014	7

Date	Number of mentions as a percentage of the greatest number of mentions in the last 12 years
10/08/2014	6
17/08/2014	6
24/08/2014	7
31/08/2014	8
07/09/2014	9
14/09/2014	11
21/09/2014	9
28/09/2014	8
05/10/2014	7
12/10/2014	7
19/10/2014	6
26/10/2014	8
02/11/2014	9
09/11/2014	7
16/11/2014	9
23/11/2014	10
30/11/2014	10
07/12/2014	8
14/12/2014	8
21/12/2014	7
28/12/2014	8
04/01/2015	9
11/01/2015	8
18/01/2015	10
25/01/2015	9
01/02/2015	9
08/02/2015	7
15/02/2015	8
22/02/2015	10
01/03/2015	13
08/03/2015	12
15/03/2015	16
22/03/2015	17
29/03/2015	9
05/04/2015	10
12/04/2015	14
19/04/2015	12
26/04/2015	12
03/05/2015	15
10/05/2015	21

Figure 1 Data (*continued*):

Public Interest in UBI by Number of Mentions on Google

Date	Number of mentions as a percentage of the greatest number of mentions in the last 12 years
17/05/2015	12
24/05/2015	13
31/05/2015	12
07/06/2015	12
14/06/2015	13
21/06/2015	15
28/06/2015	14
05/07/2015	12
12/07/2015	10
19/07/2015	11
26/07/2015	9
02/08/2015	11
09/08/2015	9
16/08/2015	11
23/08/2015	9
30/08/2015	8
06/09/2015	10
13/09/2015	12
20/09/2015	9
27/09/2015	11
04/10/2015	11
11/10/2015	12
18/10/2015	12
25/10/2015	11
01/11/2015	14
08/11/2015	11
15/11/2015	9
22/11/2015	13
29/11/2015	9
06/12/2015	48
13/12/2015	16
20/12/2015	13
27/12/2015	17
03/01/2016	22
10/01/2016	26
17/01/2016	14
24/01/2016	18
31/01/2016	26
07/02/2016	16
14/02/2016	19

Date	Number of mentions as a percentage of the greatest number of mentions in the last 12 years
21/02/2016	23
28/02/2016	15
06/03/2016	25
13/03/2016	23
20/03/2016	41
27/03/2016	26
03/04/2016	17
10/04/2016	22
17/04/2016	22
24/04/2016	22
01/05/2016	21
08/05/2016	22
15/05/2016	25
22/05/2016	27
29/05/2016	49
05/06/2016	100
12/06/2016	23
19/06/2016	21
26/06/2016	15
03/07/2016	13
10/07/2016	13
17/07/2016	11
24/07/2016	11
31/07/2016	13
07/08/2016	11
14/08/2016	11
21/08/2016	19
28/08/2016	15
04/09/2016	13
11/09/2016	15
18/09/2016	15
25/09/2016	14
02/10/2016	15
09/10/2016	14
16/10/2016	17
23/10/2016	22
30/10/2016	21
06/11/2016	18
13/11/2016	20
20/11/2016	23

Figure 1 Data (*continued*):
Public Interest in UBI by Number of
Mentions on Google

Date	Number of mentions as a percentage of the greatest number of mentions in the last 12 years
27/11/2016	20
04/12/2016	25
11/12/2016	21
18/12/2016	16
25/12/2016	22
01/01/2017	41
08/01/2017	37
15/01/2017	39
22/01/2017	93
29/01/2017	61
05/02/2017	40
12/02/2017	31
19/02/2017	28
26/02/2017	25
05/03/2017	28
12/03/2017	26
19/03/2017	33
26/03/2017	23
02/04/2017	49
09/04/2017	23
16/04/2017	26

Figure 2 Data
Percentage of Working-Age Families
Receiving Income Support Benefit
Among Total Working-Age Families
Living in Poverty

Year	Working-age families receiving income support as a percentage of working-age families living in poverty
1997	0.463231
1998	0.472348
1999	0.516798
2000	0.525649
2003	0.550628
2004	0.480857
2005	0.439968
2006	0.401162
2007	0.366242
2008	0.333397
2009	0.31184
2010	0.308697
2011	0.291183
2012	0.302115
2013	0.317335
2014	0.307544
2015	0.280431

Figure 3 Data

Annual Social Dividend of Alaska (\$), 1982-2016

Year	Annual permanent fund dividend (APD) US \$	Poverty rate by official definition
1982	1,000	
1983	386	
1984	331	
1985	404	
1986	556	
1987	708	
1988	827	
1989	873	
1990	953	
1991	931	
1992	916	
1993	949	
1994	984	
1995	990	
1996	1,131	
1997	1,297	
1998	1,541	
1999	1,770	
2000	1,964	9.10%
2001	1,850	7.20%
2002	1,541	7.70%
2003	1,108	9.70%
2004	920	8.20%
2005	846	11.20%
2006	1,107	10.90%
2007	1,654	8.90%
2008	2,069	8.40%
2009	1,305	9.00%
2010	1,281	9.90%
2011	1,174	10.50%
2012	878	10.10%
2013	900	9.30%
2014	1,884	11.20%
2015	2,072	10.30%
2016	1,022	

Figure 6A Data

Poverty Trap in Income Support: Independent Mother up to the Age of 54, with a Child - Benefit Level

Wage	Benefit	Work grant	Benefit + grant	Benefit, grant and bonuses
0	2,897.00	0.00	2,897.00	3,397.00
100	2,897.00	0.00	2,897.00	3,397.00
200	2,897.00	0.00	2,897.00	3,397.00
300	2,897.00	0.00	2,897.00	3,397.00
400	2,897.00	0.00	2,897.00	3,397.00
500	2,897.00	0.00	2,897.00	3,397.00
600	2,897.00	0.00	2,897.00	3,397.00
700	2,866.00	0.00	2,866.00	3,366.00
800	2,806.00	0.00	2,806.00	3,306.00
900	2,746.00	0.00	2,746.00	3,246.00
1,000	2,686.00	0.00	2,686.00	3,186.00
1,100	2,626.00	0.00	2,626.00	3,126.00
1,200	2,566.00	0.00	2,566.00	3,066.00
1,300	2,506.00	0.00	2,506.00	3,006.00
1,400	2,446.00	0.00	2,446.00	2,946.00
1,500	2,386.00	0.00	2,386.00	2,886.00
1,600	2,326.00	0.00	2,326.00	2,826.00
1,700	2,266.00	0.00	2,266.00	2,766.00
1,800	2,206.00	0.00	2,206.00	2,706.00
1,900	2,146.00	0.00	2,146.00	2,646.00
2,000	2,086.00	0.00	2,086.00	2,586.00
2,100	2,026.00	127.25	2,153.25	2,653.25
2,200	1,966.00	151.40	2,117.40	2,617.40
2,300	1,906.00	175.55	2,081.55	2,581.55
2,400	1,846.00	199.70	2,045.70	2,545.70
2,500	1,786.00	223.85	2,009.85	2,509.85
2,600	1,726.00	248.00	1,974.00	2,474.00
2,700	1,666.00	272.15	1,938.15	2,438.15
2,800	1,606.00	296.30	1,902.30	2,402.30
2,900	1,546.00	320.45	1,866.45	2,366.45
3,000	1,486.00	344.60	1,830.60	2,330.60
3,100	1,426.00	368.75	1,794.75	2,294.75
3,200	1,366.00	392.90	1,758.90	2,258.90
3,300	1,306.00	417.05	1,723.05	2,223.05
3,400	1,246.00	441.20	1,687.20	2,187.20
3,500	1,186.00	465.35	1,651.35	2,151.35
3,600	1,126.00	489.50	1,615.50	2,115.50
3,700	1,066.00	495.00	1,561.00	2,061.00
3,800	1,006.00	495.00	1,501.00	2,001.00
3,900	946.00	495.00	1,441.00	1,941.00
4,000	886.00	495.00	1,381.00	1,881.00

Figure 6B Data

Poverty Trap in Income Support: Single Mother up to the Age of 54, with a Child - "Marginal Tax"

Wage	Marginal benefit and grant amount	Marginal grant amount	Marginal benefit amount	Total marginal amount	Benefit, grant and bonuses
0.00					
100.00	0.00	0.00	0.00	-100.00	0.00
200.00	0.00	0.00	0.00	-100.00	0.00
300.00	0.00	0.00	0.00	-100.00	0.00
400.00	0.00	0.00	0.00	-100.00	0.00
500.00	0.00	0.00	0.00	-100.00	0.00
600.00	0.00	0.00	0.00	-100.00	0.00
700.00	31.00	0.00	31.00	-69.00	-31.00
800.00	60.00	0.00	60.00	-40.00	-60.00
900.00	60.00	0.00	60.00	-40.00	-60.00
1,000.00	60.00	0.00	60.00	-40.00	-60.00
1,100.00	60.00	0.00	60.00	-40.00	-60.00
1,200.00	60.00	0.00	60.00	-40.00	-60.00
1,300.00	60.00	0.00	60.00	-40.00	-60.00
1,400.00	60.00	0.00	60.00	-40.00	-60.00
1,500.00	60.00	0.00	60.00	-40.00	-60.00
1,600.00	60.00	0.00	60.00	-40.00	-60.00
1,700.00	60.00	0.00	60.00	-40.00	-60.00
1,800.00	60.00	0.00	60.00	-40.00	-60.00
1,900.00	60.00	0.00	60.00	-40.00	-60.00
2,000.00	60.00	0.00	60.00	-40.00	-60.00
2,100.00	47.93	-127.25	60.00	-167.25	67.24
2,200.00	35.85	-24.15	60.00	-64.15	-35.85
2,300.00	35.85	-24.15	60.00	-64.15	-35.85
2,400.00	35.85	-24.15	60.00	-64.15	-35.85
2,500.00	35.85	-24.15	60.00	-64.15	-35.85
2,600.00	35.85	-24.15	60.00	-64.15	-35.85
2,700.00	35.85	-24.15	60.00	-64.15	-35.85
2,800.00	35.85	-24.15	60.00	-64.15	-35.85
2,900.00	35.85	-24.15	60.00	-64.15	-35.85
3,000.00	35.85	-24.15	60.00	-64.15	-35.85
3,100.00	35.85	-24.15	60.00	-64.15	-35.85
3,200.00	35.85	-24.15	60.00	-64.15	-35.85
3,300.00	35.85	-24.15	60.00	-64.15	-35.85
3,400.00	35.85	-24.15	60.00	-64.15	-35.85
3,500.00	35.85	-24.15	60.00	-64.15	-35.85
3,600.00	35.85	-24.15	60.00	-64.15	-35.85
3,700.00	54.50	-5.50	60.00	-45.51	-54.49
3,800.00	60.00	0.00	60.00	-40.00	-60.00
3,900.00	60.00	0.00	60.00	-40.00	-60.00

Figure 6B Data (*continued*)**Poverty Trap in Income Support: Single Mother up to the Age of 54, with a Child - "Marginal Tax"**

Wage	Marginal benefit and grant amount	Marginal grant amount	Marginal benefit amount	Total marginal amount	Benefit, grant and bonuses
4,000.00	60.00	0.00	60.00	-40.00	-60.00
4,100.00	60.00	0.00	60.00	-40.00	-60.00
4,200.00	60.00	0.00	60.00	-40.00	-60.00
4,300.00	60.00	0.00	60.00	-40.00	-60.00
4,400.00	60.00	0.00	60.00	-40.00	-60.00
4,500.00	60.00	0.00	60.00	-40.00	-60.00
4,600.00	60.00	0.00	60.00	-40.00	-60.00
4,700.00	60.00	0.00	60.00	-40.00	-60.00
4,800.00	60.00	0.00	60.00	-40.00	-60.00
4,900.00	91.05	31.05	60.00	-8.95	-91.05
5,000.00	94.50	34.50	60.00	-5.50	-94.50
5,100.00	94.50	34.50	60.00	-5.50	-94.50
5,200.00	94.50	34.50	60.00	-5.50	-94.50
5,300.00	94.50	34.50	60.00	-5.50	-94.50
5,400.00	94.50	34.50	60.00	-5.50	-94.50
5,500.00	80.50	34.50	46.00	-19.50	-580.50
5,600.00	34.50	34.50	0.00	-65.50	-34.50
5,700.00	34.50	34.50	0.00	-65.50	-34.50
5,800.00	34.50	34.50	0.00	-65.50	-34.50
5,900.00	34.50	34.50	0.00	-65.50	-34.50
6,000.00	34.50	34.50	0.00	-65.50	-34.50
6,100.00	34.50	34.50	0.00	-65.50	-34.50
6,200.00	34.50	34.50	0.00	-65.50	-34.50
6,300.00	15.45	15.45	0.00	-84.55	-15.45
6,400.00	0.00	0.00	0.00	-100.00	0.00
6,500.00	0.00	0.00	0.00	-100.00	0.00
6,600.00	0.00	0.00	0.00	-100.00	0.00

Figure 7 Data

Universal Basic Income - Example

	Benefits	Salary	UBI
Lilach	1,900	1	0
Lilach+	0	1	2,500
Baruch	1,900	400	0
Baruch+	0	400	2,500
Mahmud	1,900	700	0
Mahmud+	0	700	2,500
Batya	400	5,000	0
Batya+	0	5,000	2,500
Amir	0	9,000	0
Amir+	0	9,000	2,500
Moshe	0	12,000	0
Moshe+	0	12,000	2,500
Irina	400	20,000	0
Irina+	0	20,000	2,500

Figure 10 Data

Expenditure on Social Security Benefits by Clusters

Type of benefit	Value
Basic subsistence	21%
Universal	48%
Wage replacement	17%
Basic functioning	14%

