

# Complete Fiscal Accounts: Households' Net Transfers in Israel

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## Executive Summary

What taxes do Israeli households pay, and how much? What is the net value of the transfers and services subsidized by the taxpayers (such as allowances, public education, subsidized healthcare and more) granted by the State of Israel? Which households receive more than they pay for and vice versa?

In this paper, we estimate the distribution of the general government's income and expenditure to Israeli households by combining data from household expenditure surveys conducted by the Israel Central Bureau of Statistics, with administrative data from many other sources. Based on the literature regarding the distribution of the tax burden, we attribute to each household the value of taxes borne and the value of all services and transfers received from the general government.

The research presented in this paper is far more comprehensive than previous studies in the scope of the taxes, services, and transfers studied – 405 billion shekels in taxes and 268 billion shekels (435 billion in secondary analyses) in general government expenditure (as of 2018) per annum.

Estimates include in-depth and cross-sectional analyses that were not previously possible – from the disaggregation of each specific tax payment and expenditure to the separate details of all net transfers (total transfers and services minus taxes) by income decile, population sector, family type, household structure and more. The research also includes many other results, as well as sensitivity tests under different assumptions, and changes in the tax and expenditure variables.

The primary analysis by population sectors shows that the average non-Haredi Jewish household pays (per month) approximately 6,000 shekels more in taxes than the value it receives from transfers and services, with 70% of such households paying more than what they receive (net negative transfers). The average Haredi and Arab households receive (per month), approximately 4,000 and 1,000 shekels

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<sup>1</sup> The bulk of this paper's research was conducted while the four authors were working at Kohelet Economic Forum. Ariel Karlinsky is currently with the Hebrew University, Tom Sadeh at the Aaron Institute for Economic Policy, Eran Yogev and Michael Sarel remain at Kohelet Economic Forum. We would like to thank the participants of the annual conference of the Israeli Economic Association and the annual conference of The Hebrew University's Department of Economics for useful comments and suggestions. Thanks to Yoni Ben-Bashat, Lior David-Pour, Lev Drucker, Yaakov Chen-Zion, Ori Katz, David Lagziel, Michel Strawczynski, Tatiana Slobodnitsky, Assaf Zimring, Matan Kolerman, and Eugene Kandel for reviewing the draft of the article and providing useful comments and suggestions. Thanks to Matan Goldman, Rachel Zini, and Shaked Maaneh for their help in conducting the literature review and to Asher Meir for his comments and participation in discussions. We would also like to thank Nisan Avraham for his work on a previous version of this paper and for his useful comments.

respectively, more than what they pay, with 80% and 60% respectively of these households receiving net positive transfers.

## A. Introduction

Residents of Israel work and produce goods and services, which they provide for other Israelis and the rest of the world through the mechanism of the market - this is the State of Israel's output. The state takes a portion of the output for itself through various taxes imposed on a wide range of incomes, assets, and expenditures. Through these taxes, the State of Israel provides its citizens with allowances, subsidies, and many services: internal and external security, justice, health, education, welfare, and more. In this paper, we estimate the distribution of all these taxes, services, and transfers at the household level in Israel.

Firstly, in regards to taxes - although the law defines who should pay each tax, the entity that actually bears the tax burden is not necessarily the one defined by law. For example, the typical consumer has never visited the Value Added Tax (VAT) offices - the business from which they purchased products or services is the one that transferred the VAT payment. However, consumers bear the burden of this tax in the form of the higher prices that they pay. Alongside consumers, it is possible that producers absorb part of the VAT burden, and perhaps the workers employed by the producers also bear the tax burden in the form of lower wages or harm to employment. Similarly, corporate taxes are also distributed among consumers, workers, and company owners. National Insurance and health insurance taxes imposed on employers cause workers to absorb part of the tax in the form of lower wages, and the burden of other taxes – purchase taxes, municipal taxes, and additional taxes – is also distributed throughout the entirety of Israeli society.

This paper analyzes a wide scope of both taxes and public expenditures of the general government (meaning all public-sector institutions, including the government, local authorities, *Kupot Cholim* (health maintenance organizations) and *Bituach Leumi* (National Insurance)) and how they are distributed across households, a scope wider than that currently available in official state publications or research literature in Israel and abroad. We address most taxes collected by the general government from citizens: individual income tax (income from work and capital income), National Insurance contributions (the employee's portion and the employer's portion for salaried workers, as well as self-employed payments), health tax, corporate tax, VAT, financial VAT and non-profit VAT, purchase tax, residential property tax (*Armona*) and other property tax (mainly commercial), tobacco tax, alcohol tax, fuel purchase tax, additional purchase taxes, customs, duties, and fees. In order to attribute to each household the appropriate tax burden, we conducted a comprehensive review of both theoretical and empirical research literature on the subject of the distribution of the economic burden of different taxes. The main conclusions emerging from this review appear in the paper, and a more extensive discussion can be found in the technical appendix.

Secondly, in regards to general government spending, direct transfers (monetary allowances) do not cover the totality of state support of households; in fact, it does

not even make up the largest portion. Most government expenditures come in the form of various government services: health, education, public housing, and the like (Manski and Mayshar, 2000). These services are subsidized in full or in part by the state. We estimate the expenditures of the general government in the form of the primary payments and services that households receive: National Insurance allowances, transfers from other government institutions, receipt of additional welfare services, public education services, subsidization of academic education, publicly funded health services, subsidization of public transportation, and public housing. These services are provided to citizens in varying amounts for each household, according to its characteristics. For example, the consumers of public education are students, therefore a household with five children will receive from the State of Israel both direct cash transfers related to children (such as child allowances), and government services with monetary value (such as education and health). It is important to emphasize that from the state's perspective, there is no fundamental difference (at least in terms of public cost) between a monthly payment of 2,500 shekels to the Cohen family and a payment of the identical sum to fund teachers' salaries in the public schools attended by the Cohen family's children. Therefore, even though a simple cash flow statement of the Cohen family income does not include those 2,500 shekels provided as public education, this expenditure should be attributed to them. This is similar to measuring government expenditure as part of the national product, as well as in studies that distribute total national income among households (Auten and Splinter, 2023; Piketty et al., 2018).<sup>2</sup>

In addition to expenditures for services with a known recipient, attribution of other general government expenditures to households is complex, and depends on various assumptions about them, due to their being (in the economic sense) public goods: security, law and order, etc. In fact, it can be argued that these are pure or nearly pure public goods, which are not consumed by specific individuals but rather by all residents of the state (this is detailed extensively in the technical appendix).

The existing literature on this subject (in Israel and abroad) has up to now mostly failed to address all transfers and services that households receive from general government on the one hand (Verbist and Förster, 2019; Bank of Israel, 2023), and all the taxes paid on the other hand (Bigot et al., 2014; Chief Economist's Division,

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<sup>2</sup> We choose to attribute expenditure (in shekels) to households, despite it being unclear if it equals the monetary value of the same expenditure for the household. In the case of a direct transfer, the household would decide how to spend the money, so that the benefit is equal to the expenditure. However, in the case of services or designated expenses, the value for a household may be lower or higher than the cost of the expense. For instance, a household receiving 100 NIS of education services may value the expense as less, since the service has been forced upon them and they would have preferred to use the money differently. On the other hand, the household may value the expense as more than 100 NIS in light of the scale benefits or positive externalities extant in public provision of education. Additionally, some transfers represent compensation for harm or damage. For example, the subsidy of a wheel chair (either in money transfer or the product itself). Such a transfer does not necessarily improve the household's situation more than a household not receiving such a transfer. However, its conditions are better compared to what they would have been without it, and such subsidy is a state expense no different in that regard to a regular transfer. Therefore, such transfers are attributed according to their cost and not according to their value or benefit to the household.

2022; Bank of Israel, 2023; Knesset Research and Information Center, 2011; Falk, 2018).

What we primarily sought to measure in this research is "who pays and who receives" within the framework of transfers between the public and the state. We calculate, among others, the (net) amount paid and received by population sectors, income deciles and family types. The data is examined in a positive rather than normative manner – that is, we describe the existing state of affairs as objectively as possible without offering any opinion on whether or not state intervention via taxes and transfers is being conducted in a proper proportion: whether too low or too exaggerated or whether the amount of benefits and payments for different sectors is justified – none of these questions are addressed in this paper.

Equally, we do not focus on measuring the progressivity of the tax system. It is customary in part of the relevant literature, and sometimes also in analyses by various international institutions, to focus on this issue, usually by presenting the tax incidence as a percentage of households' gross income. In our view, this approach is highly problematic and should therefore be avoided. First, it is incorrect to examine the progressivity of a particular tax (or of all taxes), since what matters is how the tax income is used and how the state's transfers are distributed. Second, expenditure and income surveys are cross-sectional, and present households' income and expenditures at a particular point in time, without tracking the same households over time. Third, presenting tax incidence as a percentage of households' gross income as a measure of tax system progressivity implicitly assumes that gross income is exogenous, meaning it does not depend on government policy. However, this assumption is not reasonable. People respond to incentives. Fourth, the gross income of different households, as well as of entire population sectors in the country, reflects a variety of dimensions, including cultural preferences for education, employment, leisure, family size, and more. This point is particularly relevant in Israel, given the preferences of many households in the Haredi (ultra-Orthodox) sector. In this context, the question from a public perspective and also in terms of its policy implications is "what is the scope of net transfers between different population sectors," and not the question of "what is the scope of transfers between those with high gross incomes and those with low gross incomes." An extensive discussion of these issues can be found in the technical appendix.

This paper will continue as follows: **Chapter B** presents the main results of the analysis, as well as the data used. **Chapter C** presents general government's income while **Chapter D** examines its expenditure. **Chapter E** analyzes the combination of both in the form of net transfers (expenditures minus income) to households according to various breakdowns. In this context, we emphasize that the results describe the actual situation, and do not address a desirable state of affairs. **Chapter F** presents inequality indices according to net transfers and additional tests we conducted (including sensitivity tests). **Chapter G** presents a discussion and summary of the article, while emphasizing the many novelties of this research. Lastly, the paper is accompanied by a technical appendix that describes the methodology (empirical and theoretical) in detail as well as the assumptions we used in the various analyses.

## B. Main Findings and Data

Our primary source of data is the Household Expenditure Survey (henceforth "the Survey") conducted by the Israel Central Bureau of Statistics' (henceforth the CBS), an annual survey covering thousands of households that constitute a representative sample of Israeli households, and detailing the composition of income, expenditures, and social-economic characteristics. The Survey provides a static (cross-section) picture of household expenditures and income in Israel: for a short period during the month in which they are surveyed, households fill out an expenditure diary and the CBS calculates the households' monthly expenditure in each category through various statistical methods. Additionally, the CBS uses further methods to calculate and attribute less frequent household expenditures (such as the purchase of a vehicle). Due to the survey's structure, the analysis is limited in this paper to current income and expenditures, without taking into account changes in income or expenditures of individuals or households over time. In order to improve accuracy by expanding the sample and to minimize possible biases arising from different sampling characteristics in different years, we pooled the three surveys of 2016–2018 into a unified database, taking into account the surveys' structure and adjusting the monetary values to 2018. In total, our data includes 89,519 individuals residing in 26,664 households, representing a total of 8,586,448 individuals and 2,603,240 households. The technical appendix details additional aspects of how the survey data was used, including the adjustment of monetary values between the different years.

Regarding taxation, the Survey contains direct data only for the income tax on individuals alongside National Insurance contributions and health tax applied to employees. We therefore expanded our database by using additional sources: CBS National Accounts from 1995–2020, Government Finance Statistics (GFS) data for 2018, the National Insurance Institute's Monthly Bulletin of Statistics, local authority files for 2019, Transport Statistics Quarterly No. 4, 2020, the Ministry of Education's *Shkifut B'Chinuch* (Transparency in Education) data site, the Finance Ministry's "fiscal digital" system website for 2018, and state revenue reports for 2019–2020, 2018 and 2016.

In addition to the general government's expenditure, the Survey includes monetary transfers (allowances) from the National Insurance Institute or other state institutions granting assistance, such as direct support for rent from the Ministry of Construction and Housing. We expanded the database using administrative data from several sources: National Insurance Institute's Monthly Bulletin of Statistics, CBS National Accounts publications – National Expenditure on Education 1962–2020, National Expenditure on Health 1962–2020, and Gross Fixed Capital Formation and the Net Capital Stock by Industry, 1995–2020. Also, the Finance Ministry's "fiscal digital" system website, the Ministry of Education's *Shkifut B'Chinuch* (Transparency in Education) data site, a 2018 report on *Kupot Cholim* (health maintenance organizations), and Israel Railways periodic report for 2018. We aligned the survey estimates with the relevant fiscal data appearing in these sources. The technical appendix details the methods by which we compared the Survey data with the administrative data for each of the taxes and expenditures.

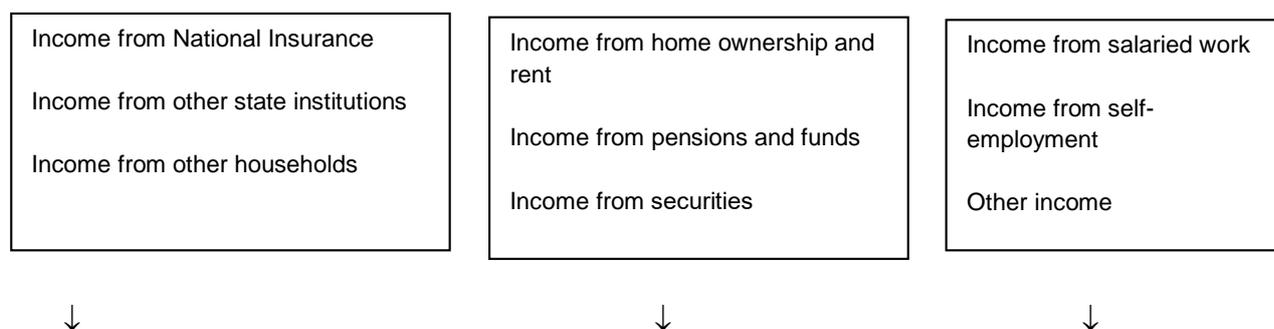
Note that the results of this paper's analysis are largely valid for later years as well, and using more recent data would not necessarily lead to more accurate results. First, the response rate in the years 2016–2018 was significantly higher than in subsequent years: 74.9%–75.5%, compared to 64% in 2019 and 44.4% in 2020–2021. Second, a methodological change in the Survey was implemented in 2019, which, according to the CBS, marks a break in the series, so that the previous years cannot be added to 2019. Third, the COVID pandemic dramatically affected the structure of household income and expenditures in the years 2020–2021, so that these years do not faithfully represent the "normal" situation of households in the State of Israel. We therefore believe that the years 2016–2018 constitute an optimal sample for analysis at this time in history.

### Household Income Structure

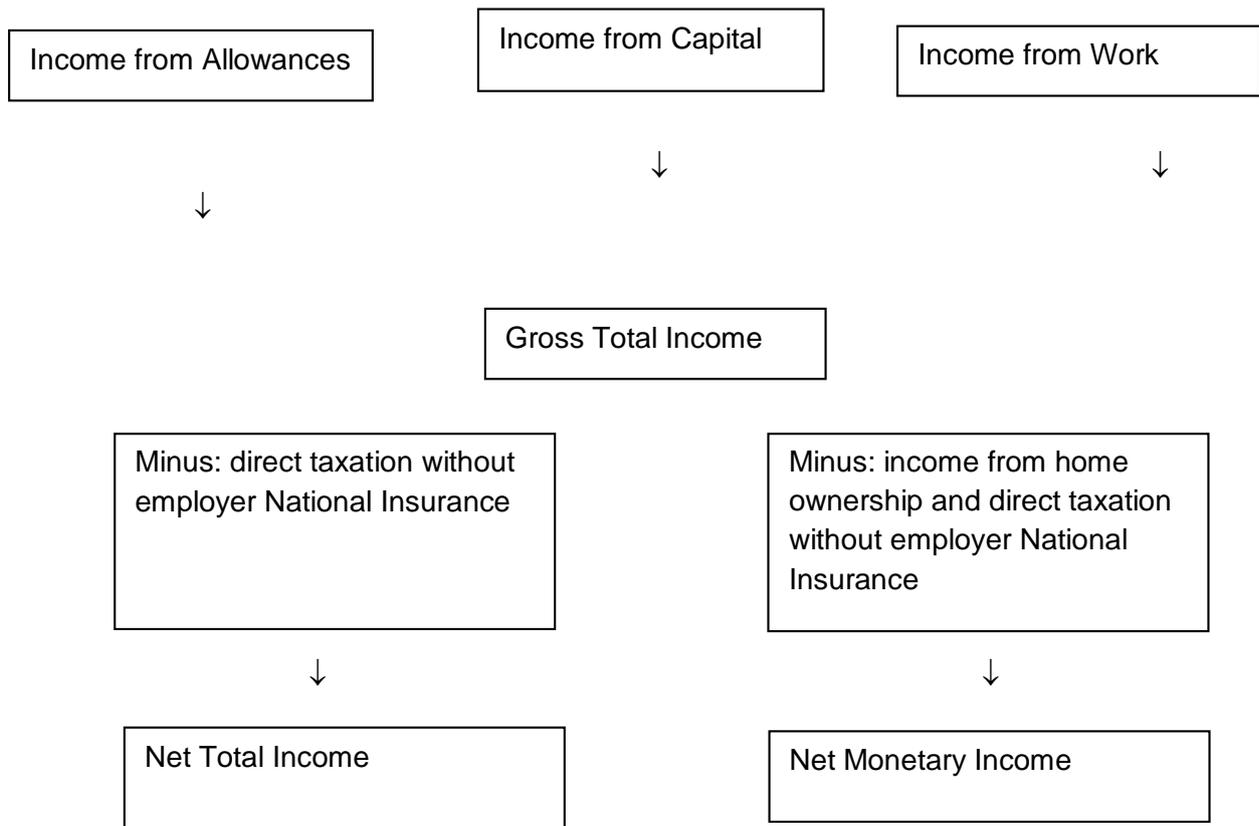
Household income is usually divided into three primary sources: income from work (salaried and self-employed), income from capital (pension, securities, rental income from owned property, income attributed from owner-occupied housing<sup>3</sup> and the like), and income from allowances (from the National Insurance Institute and other state institutions).

Household income from work, capital, and allowances is named **gross total income**. In order to obtain the **net total income**, the CBS deducts income taxes on work and capital, as well as National Insurance and health taxes imposed exclusively on employees from the gross total income. The terms "gross monetary income" and "net monetary income", which are sometimes used in various publications, are similar to gross total income and net total income, but they do not include the attributed income from owner-occupied housing. Figure 1 is a schematic diagram describing how the various incomes are calculated.

**Figure 1: Income included in the CBS Household Expenditure Survey**



<sup>3</sup> This attribution is performed by the CBS because households that own a home consume housing services at the monetary rate of zero cost; however, they would have been obliged to rent if they didn't own the house. Since they do, the CBS attributes the income and expenditure in a similar fashion to the theoretical condition in which the household rented its house out to itself.



The distribution to different types of income is not merely technical, and plays a central role in public discourse regarding government policy and inequality. To elaborate, public discourse tends to focus on households' gross total income, gross net income and net monetary income. This can be seen in examples such as the National Insurance Institute's calculation of inequality and relative poverty estimates. However, these figures fail to take all taxes paid by households into consideration, and include only direct transfers (allowances) that households receive from the state.

In actuality, these household income definitions are akin to assuming that the services provided by the general government to citizens contribute nothing to the recipient households' welfare. Such an assumption is, naturally, untrue. For example, if the Israeli government would collect billions more in taxpayer money from the top decile and transfer the money to pay for the education of children from the bottom decile, the transfer would appear in the tax calculation but not in the calculation of the service's recipients, and the decline in conventional inequality estimates would be significantly biased downward compared to the actual reduction in inequality. Moreover, if this additional tax was collected by raising the VAT rate, conventional inequality estimates would show no change in inequality whatsoever, contrary to reality.

Therefore, taking into account the different types of income, including additional taxes that households pay and the value of services they receive from the general government, can give us valuable information regarding the economic standard of

living in different households, and highlight the general government's policy and its impact on the distribution of resources and income in Israel. Such estimates will enable us to estimate the distribution of the general government's income from taxes and the distribution of its transfers among households. By combining the two, it will be possible to calculate the net transfers to each household and to each group of households (such as by income decile or population sector); that is, whether and to what extent each household or group of households pays the general government more than the value of the services and transfers they receive. The database enables analyses by many additional cross-sections, for example residential area, number of children, age of the heads of household, and so on.

Households are customarily divided into income deciles according to monetary income per capita, while adjusting for the number of people. We use a similar division into income deciles in this study – we define the number of standardized persons in the household as the square root of the actual number of people (as is customary in the OECD) and divide households into deciles according to net total income per standardized person.<sup>4</sup> Net total income is, in our opinion, a better and more accurate measure of a household's income than net monetary income (which does not include the attribution of in-kind income of a household that owns the house). It should be noted that net total income measure is only used for calculating the deciles. We will also present the distribution pattern by cross-sections into deciles within the different sectors in Israel (Arab, non-Haredi Jewish, and Haredi) and by cross-sections of household structure and the number of resident children.

## **Main Findings**

The net transfers by deciles is presented in Figure 2. This figure shows that households from the top decile pay the state a monthly average of 28,600 NIS in 2018 terms (hereinafter: shekels) more than what they receive, and households in the bottom decile receive approximately 6,700 shekels on average per month more than what they pay. It also shows that the total net transfers to all households is negative, because our estimate (at least in the central analysis presented in this figure) contains more taxes than expenditures (a gap of approximately 138 billion shekels), partly as a result of the fact that the government expenditures presented in this analysis do not include government expenditures on public goods (such as security) and on infrastructure investment. Later we will also present analyses in which these components are included in the expenditure. Furthermore, the technical appendix includes an additional analysis in which we equalized the total expenditures with the total taxes. Even after we equalized the expenditure with the income, it appears that the distribution pattern by deciles is similar to that presented here.

### **Figure 2: Value of Average Net Transfers (Transfers Minus Taxes) by Income Decile, 2018 Data**

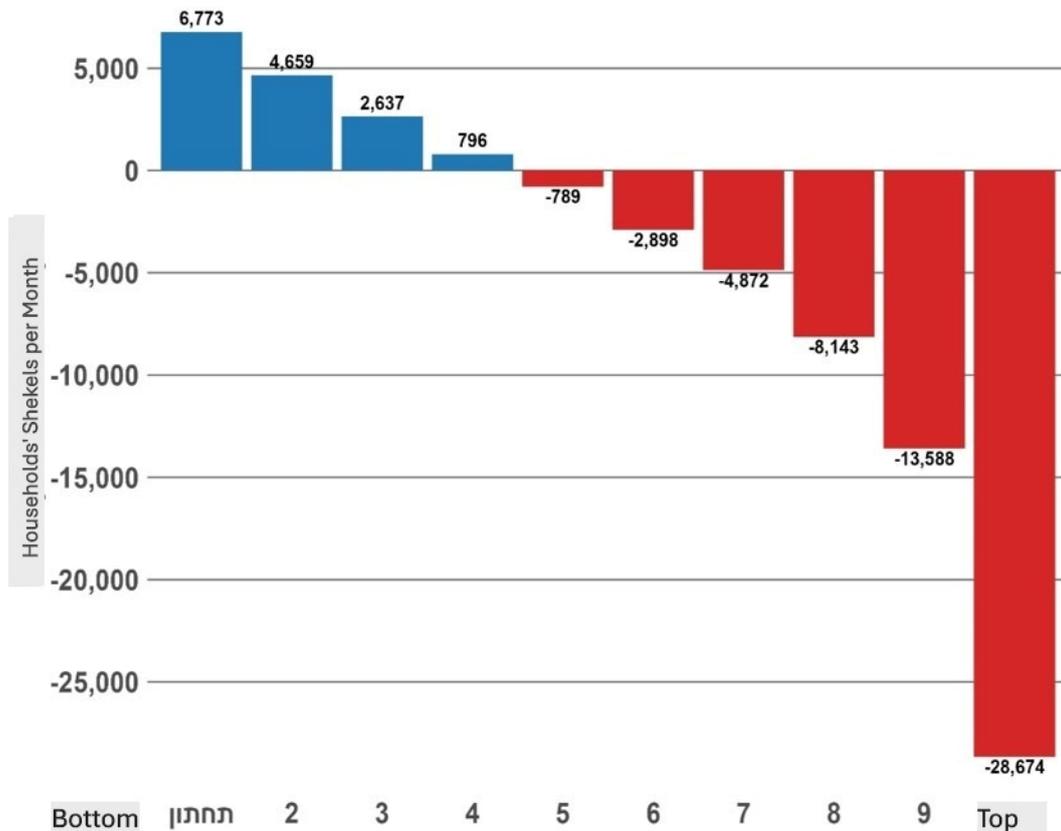
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<sup>4</sup> Using the CBS equivalence scale leads to very similar results, and is available in the technical appendix.

General Government income from taxes - individual income taxes, VAT, National Insurance contributions and health tax, fuel tax, various consumption taxes (alcohol, tobacco, vehicle purchases), corporate tax, real estate taxes, financial VAT and non-profit VAT, property tax (residential and other, mainly business), customs duties and fees.  
Total: 405.47 billion shekels.

General Government transfers – health, education, monetary transfers, welfare services, public transportation, religious services, sports and recreation and public housing. Total: 267.74 billion shekels.

\*Without public goods and infrastructure



Source: Karlinsky, Sadeh, Yogev and Sarel (2025) see link to essay on pg 2 of this chapter

Figure 3 presents the average net transfers to households by population sector, as well as the total net transfers to each sector. As shown, while the average net transfers of the non-Haredi Jewish sector are negative (approximately –6,100 shekels per month on average), transfers to Jewish Haredi and Arab sectors are positive. In other words, Haredi and Arab households receive an average of transfers and services at a higher value than the taxes they pay (even without attributing public goods and infrastructure), while non-Haredi Jewish households pay more taxes than the value of the services and transfers they benefit from. Similarly, examining the net transfers for all households in each sector shows that the non-Haredi Jewish sector

pays taxes of a higher value than the services it enjoys, while the Arab and Haredi sectors receive services and transfers at a value higher than the taxes they paid.<sup>5</sup>

**Figure 3: Average Net Transfers (transfers minus taxes) to Households – by Population Sector**

General Government income from taxes - individual income taxes, VAT, National Insurance contributions and health tax, fuel tax, various consumption taxes (alcohol, tobacco, vehicle purchases), corporate tax, real estate taxes, financial VAT and non-profit VAT, property tax (residential and other, mainly business), customs duties and fees. Total: 405.47 billion shekels.

General Government transfers – health, education, monetary transfers, welfare services, public transportation, religious services, sports and recreation and public housing. Total: 267.74 billion shekels.

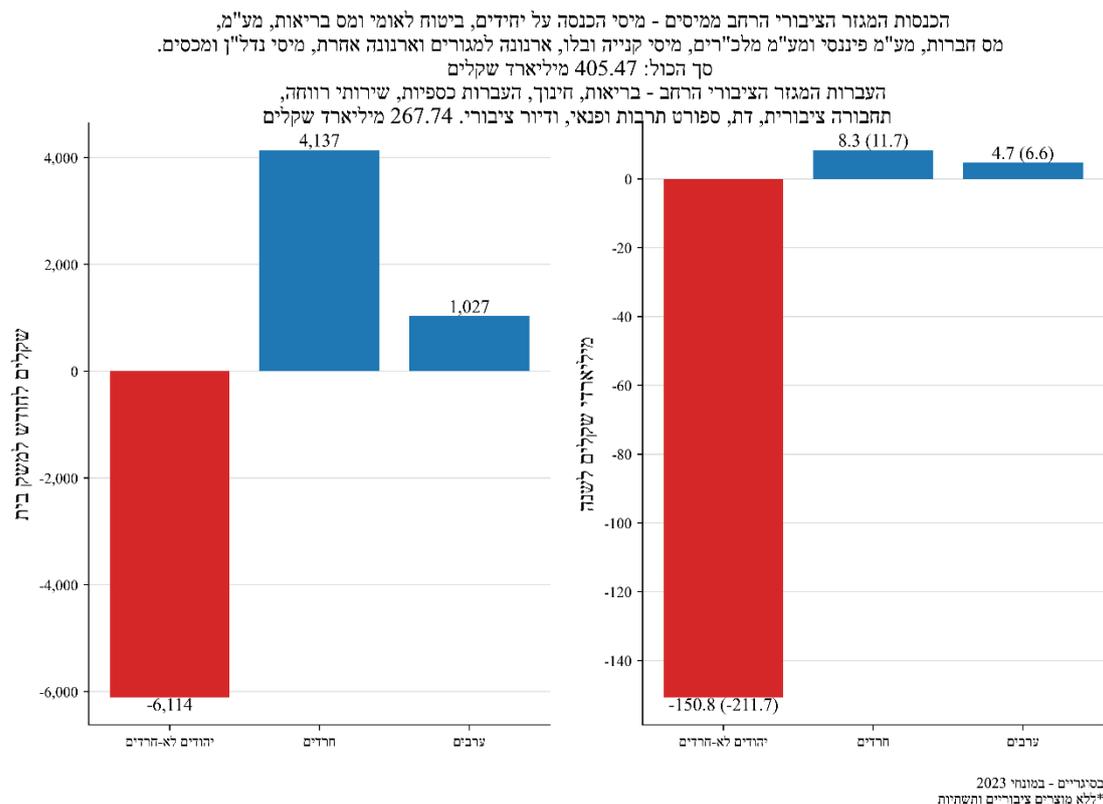


Figure 4 shows the net transfers by deciles within each sector. It can be seen that among non-Haredi Jewish households, net transfers are negative (meaning, the amount of taxes paid by these households is greater than the amount received by transfers) starting from the fourth decile, while the Arab sector shows negative net transfers at the seventh decile, and the Haredi sector only the top two. In other words, households that receive more in transfers and services than what they pay in taxes constitute approximately 80% of Haredi households, approximately 60% of Arab households, and approximately 30% of non-Haredi Jewish households.

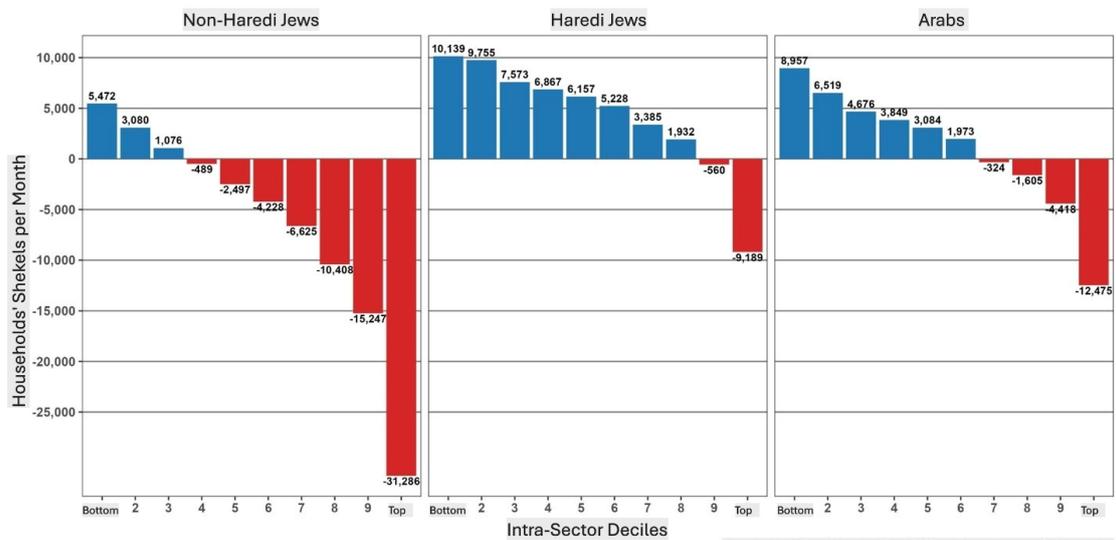
<sup>5</sup> The right-hand panel presents in parentheses the sums according to 2023 data by adjusting the rise of 38.5% in nominal GDP between 2018-2023.

### Figure 4: Average Value of Net Transfers (Services Minus Taxes) by Sector and by Average Income Deciles Within Each Sector, 2018 Data

General Government income from taxes - individual income taxes, VAT, National Insurance contributions and health tax, fuel tax, various consumption taxes (alcohol, tobacco, vehicle purchases), corporate tax, real estate taxes, financial VAT and non-profit VAT, property tax (residential and other, mainly business), customs duties and fees.

Total: 405.47 billion shekels.

General Government transfers – health, education, monetary transfers, welfare services, public transportation, religious services, sports and recreation and public housing. Total: 267.74 billion shekels.



Source: Karlinsky, Sadeh, Yegor and Sarel (2025) see link to essay on pg 2 of this chapter

Figure 5 also shows the value of net transfers, this time including the attribution of public goods and infrastructure provided by the general government, with attribution to each household based on households' total consumption (monetary and in-kind). The technical appendix includes a detailed explanation of this alternative calculation.

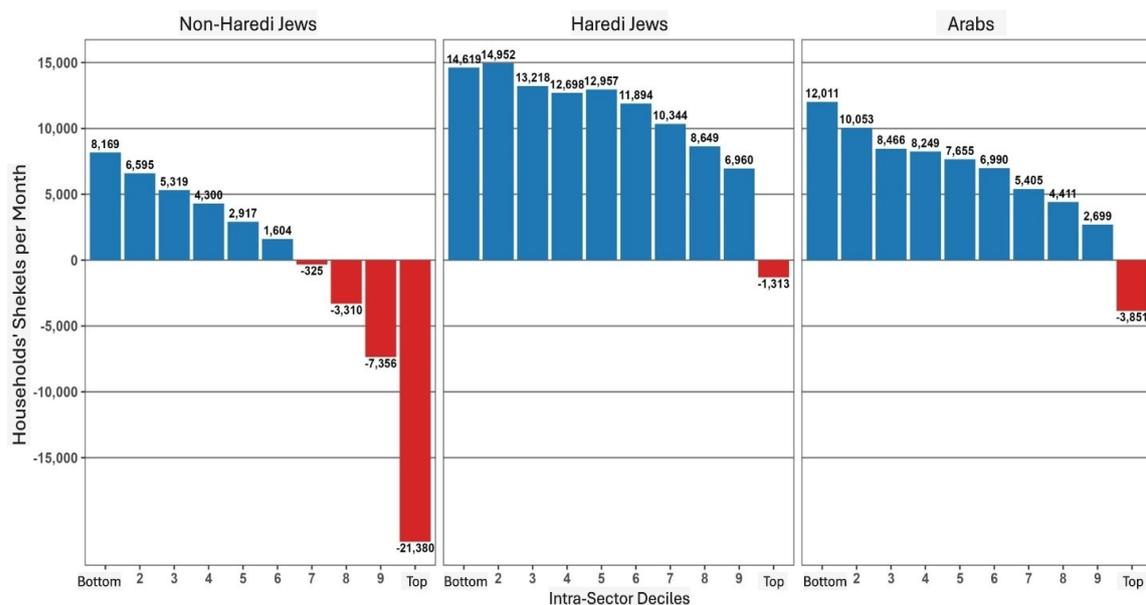
While in Figure 4 we attribute more taxes than expenditures (by approximately 138 billion shekels), in Figure 5 we attribute more expenditures than taxes (by approximately 20 billion shekels). This result is caused by the fact that part of the state budget is financed by debt and various transfers, which we did not attribute to households, as detailed later in the paper and in the technical appendix, and not all of the state's income is from taxes. As can be seen, after taking into account expenditure on public goods and infrastructure investment, net transfers to the Haredi sector are positive for all income deciles, except for the top decile. In the Arab sector and in the non-Haredi Jewish sector, the top decile and the top four deciles, respectively, are characterized by negative net transfer. Haredi households are characterized by average net transfers of approximately 10,100 shekels per month, while Arab households are characterized by average net transfers of approximately 5,900 shekels per month. A non-Haredi Jewish household is characterized, on average, by approximately -700 shekels per month in net transfers. It is important to note that the attribution method presented here (attribution by consumption) is one of three alternatives for attributing public goods (attribution by number of persons, attribution by income, and attribution by consumption). In the context of the reduction

of inequality through net transfers, it lies between attribution by persons (the greatest reduction of inequality) and attribution by income (the smallest reduction of inequality). These methods are detailed extensively in the technical appendix.

**Figure 5: Average Value Of Net Transfers (Services Minus Taxes) by Sector and by Income Deciles Within Each Sector, Including Public Goods and Investment in Infrastructure, According to Consumption, 2018 Data**

General Government income from taxes - individual income taxes, VAT, National Insurance contributions and health tax, fuel tax, various consumption taxes (alcohol, tobacco, vehicle purchases), corporate tax, real estate taxes, financial VAT and non-profit VAT, property tax (residential and other, mainly business), customs duties and fees. Total: 405.47 billion shekels.

General Government transfers – health, education, monetary transfers, welfare services, public transportation, religious services, sports and recreation and public housing. Total: 267.74 billion shekels.



Source: Kartlinsky, Sadeh, Yogeve and Sarel (2025) see link to essay on pg 2 of this chapter

An analysis on other decile divisions, such as according to the CBS calculation, or division by expenditure deciles yields similar results for the distribution of net transfers. Some of these divisions are presented in the technical appendix.

There are two main reasons for choosing the household as the analysis unit: First, for both income and expenditure, an individual's primary economic activity exists on the household level. To put it simply, the economic activity in most households is based on the income of all breadwinners. Similarly, households consume many consumption goods as one unit, such as family vacations, a container of cottage cheese or a drive in the car. In general, society operates at the level of households rather than individuals. Children (in developed countries) do not work or pay taxes, and most couples function as a single economic unit. Secondly, the Survey data includes a cross-section of the population in Israel each year, making it impossible to examine the expenditures and income of individuals over time; furthermore, the Survey contains, in practice, a mixture of income and expenditure (and consequently

of net transfers) at different life stages. As a result, it is not possible to reliably examine how much tax each individual pays the state and what the value of the services and transfers that the state provides to each individual is; consequently, we preferred to use the household as the basic unit of measurement for this analysis.

### **C. Tax Distribution Among Israeli Households**

In this section we present the various taxes existent in Israel and their distribution among households. First we present the distribution of the total tax payments among households, then the breakdown of specific taxes, alongside a discussion of the way each tax burden is divided. We refer to households' net tax payment, without particular reference to the tax benefits they enjoy, since the data appearing in the Survey already incorporate the relevant tax benefits. Additional details can be found in the appendix.

#### **Total Tax Payments by Households**

In total, we attribute 96% of the general government's income from taxes (405.47 billion shekels). Figure 6 presents the total tax burden in shekels that each household bears on average per month, by income decile. The figure shows that while households in the top decile paid an average of 36,400 shekels a month, households in the bottom decile paid approximately 3,800.

#### **Figure 6: Average Payment Distribution of Total Tax Payments by Income Decile, 2018 Data**

The ratio between the top three deciles and the bottom three: 4.9

General Government income from taxes - individual income taxes, VAT, National Insurance contributions and health tax, fuel tax, various consumption taxes (alcohol, tobacco, vehicle purchases), corporate tax, real estate taxes, financial VAT and non-profit VAT, property tax (residential and other, mainly business), customs duties and fees.

Total: 405.47 billion shekels

יהם שלושת העשירונים העליונים לשלושת התחתונים: 4.9  
הכנסות המגזר הציבורי הרחב ממיסים - מיסי הכנסה על יחידים, ביטוח לאומי ומס בריאות, מע"מ,  
מס הברות, מע"מ פיננסי ומע"מ מלכ"רים, מיסי קנייה ובלו, ארנונה למגורים וארנונה אחרת, מיסי נדל"ן ומכסים. סך הכול: 405.47 מיליארדי שקלים

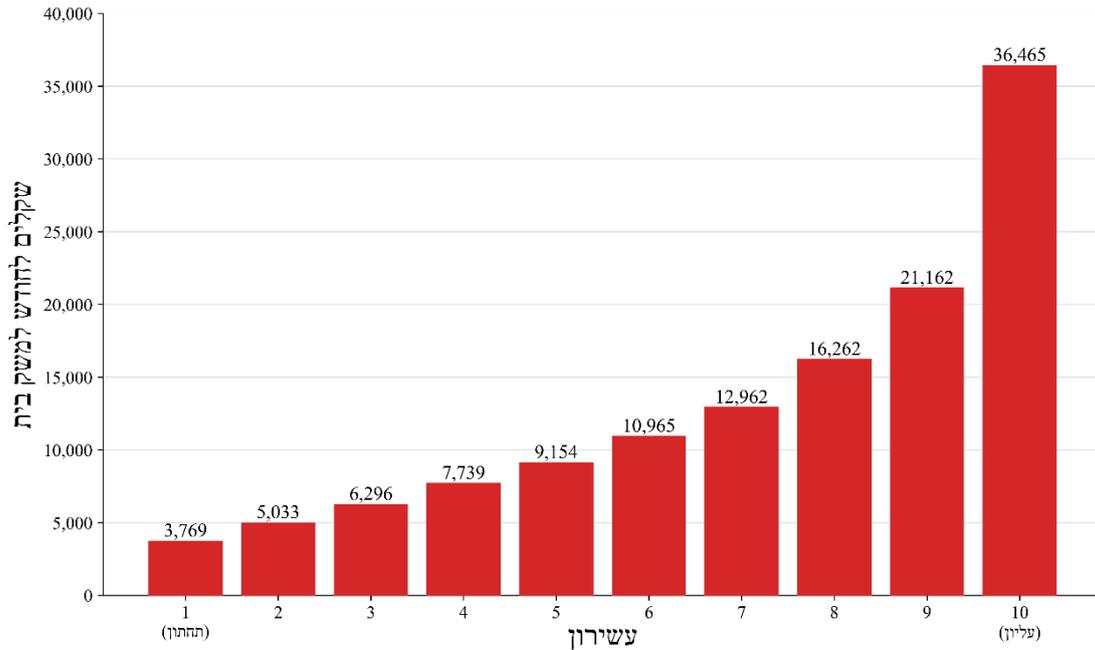
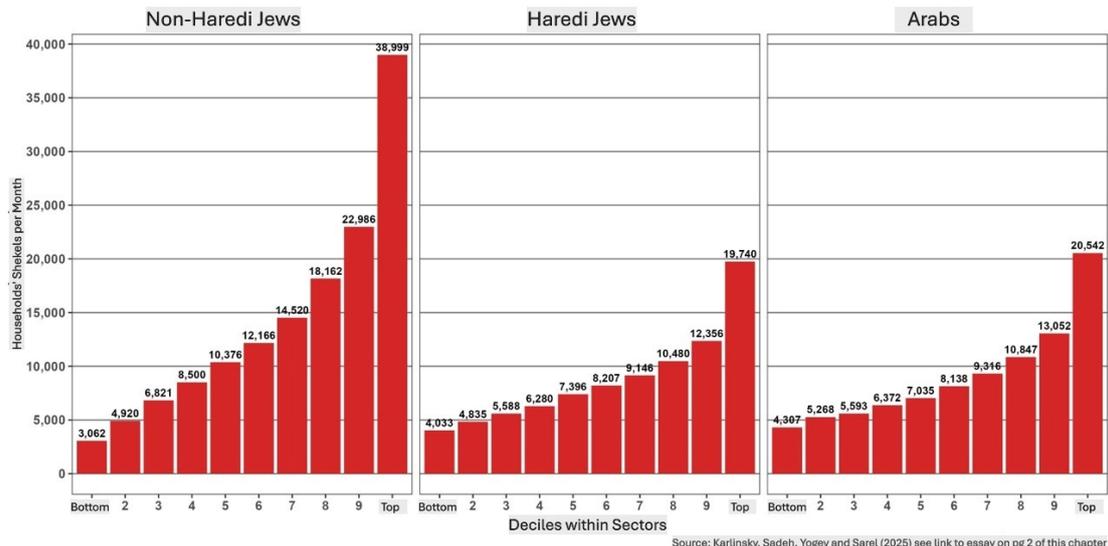


Figure 7 presents the average tax burden by sector and intra-sector deciles. Non-Haredi Jewish households pay more taxes (approximately 14,000 shekels a month on average) than Arab households (approximately 9,000 shekels) and Haredi households (approximately 8,800 shekels), and this is particularly conspicuous in the top decile of each sector.

### Figure 7: Average Payment Distribution of Total Tax Payments by Sector and In-Sector Income Deciles, 2018 Data

General Government income from taxes - individual income taxes, VAT, National Insurance contributions and health tax, fuel tax, various consumption taxes (alcohol, tobacco, vehicle purchases), corporate tax, real estate taxes, financial VAT and non-profit VAT, property tax (residential and other, mainly business), customs duties and fees.

Total: 405.47 billion shekels



Now we shall detail the distribution of the various taxes.

### Individual Income Tax

In 2018, income taxes imposed on individual income constituted close to 21% of the total tax collection in Israel, or approximately 96 billion shekels. These taxes include income tax on work (91.4 billion shekels in 2018) and dividend and capital gains tax (4.11 billion shekels in 2018).<sup>6</sup> Income tax on work is composed of tax brackets, so that the tax rate increases the higher the individual's income (Israel Tax Authority, 2018).

The research literature on distribution of the tax burden on income from work is scarce, and most studies assume that the income tax burden is imposed entirely on employees (Bigot et al., 2014; Congressional Budget Office, 2021; Falk, 2018). However, some empirical examinations show that at different income levels (with emphasis on higher incomes) there is some transfer of the tax burden from the employees to employers, so that the tax burden is not imposed entirely on employees (Bingley and Lanot, 2002; Hassett and Mathur, 2006).<sup>7</sup> The research literature is extremely limited for dividend and capital gains tax as well, and the few studies that examined the subject found that the tax burden is imposed almost entirely on the taxpayer. In light of this, we assumed, in the central analysis, that the

<sup>6</sup> Since they are presented together under the variable "Income Tax" in the Survey, it is not possible to separate between tax payments on income from work and tax payments on capital gains. Additionally, the data appearing in the Survey is households' actual payment of income tax, after various tax benefits (such as credit points, for example) were taken into account.

<sup>7</sup> To illustrate, imagine an employee with a high salary (and therefore a high tax bracket) whom a competing company is trying to recruit. Because of income tax, a relatively large change in gross salary (before income tax) may result in only a small change in net salary (after income tax). It is reasonable to assume that the company interested in her services is aware of this, and will therefore increase the gross salary it offers her, so that in practice, the income tax burden is thus divided between the employee and the company who hired her.

income tax burden is imposed entirely on employees, but also performed sensitivity tests for the distribution of income tax payment under different assumptions about the distribution of the burden. We saw no significant difference in the results - full details can be found in the technical appendix.

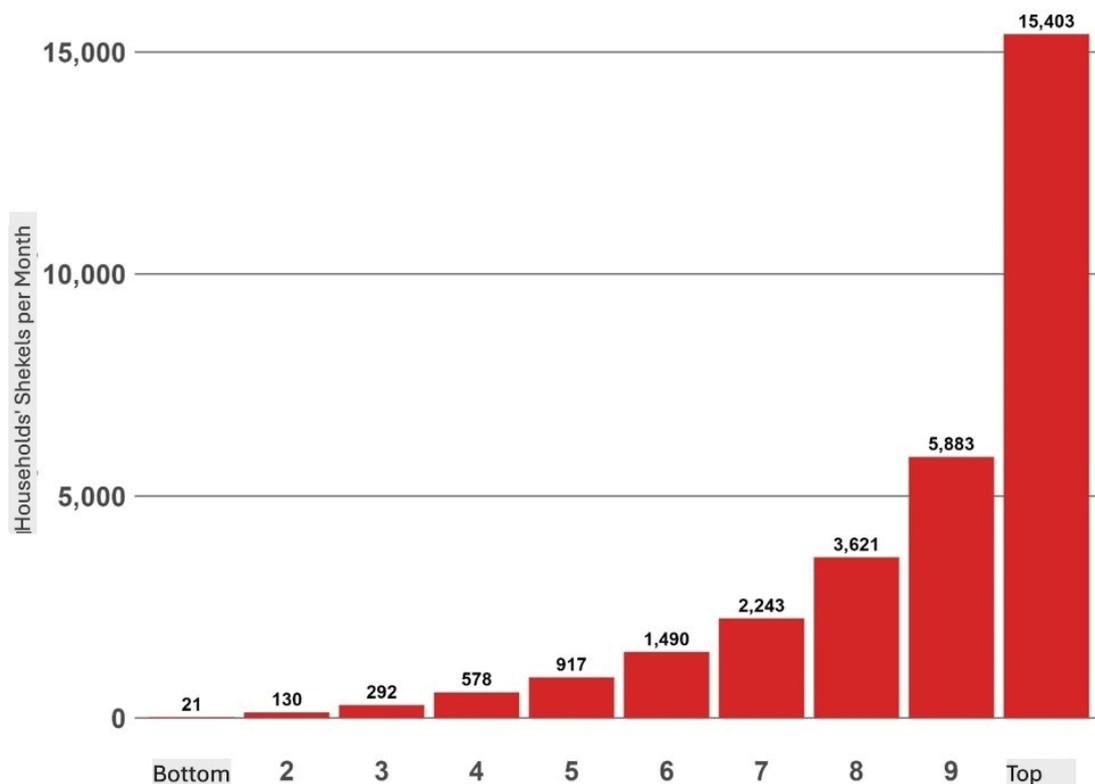
According to the Survey data, the total collection of income tax and capital gains tax was 73.33 billion shekels. In order to adjust this estimate to the published administrative data in the Finance Ministry's "fiscal digital" system website (95.51 billion shekels), we multiplied the tax payment for each household by the ratio between the fiscal data and the estimate from the survey.

Figure 8 shows the average payment of these taxes per household by income deciles. It shows that households in the top income decile paid an average of approximately 15,400 shekels per month - almost three times that of households in the ninth decile. In contrast, these taxes were hardly paid in the lower deciles, and households in the bottom decile paid an average of only 21 shekels per month.

**Figure 8: Total Taxes paid on Average by Income Deciles, 2018 Data**

Ratio between the top three deciles to the bottom three deciles: 56.2

Total: 95.51 billion shekels



Source: Karlinsky, Sadeh, Yogev and Sarel (2025) see link to essay on pg 2 of this chapter

## Value Added Tax

In 2018, the Value Added Tax (VAT) constituted close to 23% of all tax collection (approximately 99 billion shekels). VAT is imposed on all products and services, except for special exemptions (such as fruits and vegetables and purchases in Eilat), and its rate has been 17% since 2015. As its name implies, VAT is imposed on the added value that each stage in the production and supply chain adds to the product or service. The different stages in the chain offset the VAT they pay, with the end of the chain being the actual consumer of the product, who pays the VAT without the possibility of offsetting it. According to the research literature (Benedek et al., 2020; Benzarti et al., 2020; Buettner and Madzharova, 2021) it appears that the VAT burden falls entirely on the consumer. In order to attribute VAT payment to households, we identified the expenditures on which VAT is imposed from each household's consumption data, and based on that calculated the total VAT paid.> In the case of VAT (and other purchase taxes), we performed sensitivity tests according to which no significant differences in the results appeared, even in the case of substantial changes in assumptions. Additional details can be found in the technical appendix.

According to the Survey, the estimated total VAT collection amounted to 73.97 billion shekels.<sup>8</sup> In order to adjust this estimate to the published administrative data (99.44 billion shekels), we inflated the expenditure on VAT for each household by the ratio between them. As depicted in Figure 9, households in the top income decile paid on average approximately 5,500 shekels per month on VAT, while households in the bottom decile paid approximately 1,700 shekels, and payments increase continuously as one moves up the income deciles.

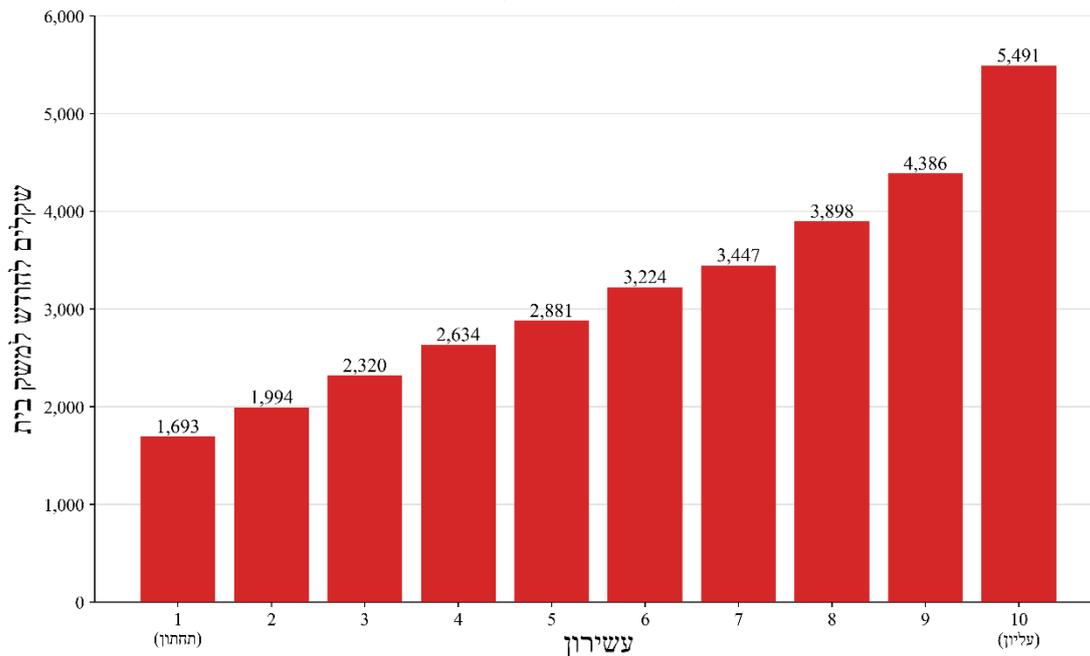
### Figure 9: Average VAT Payments by Income Deciles, 2018 Data

Ratio of the three top deciles to the three bottom deciles: 2.3  
Total: 99.87 billion shekels

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<sup>8</sup> The underestimate stems from the underreporting of consumption expenditures in the Survey, a phenomenon that exists in other surveys around the world as well. See for example, a note by the Institute for Fiscal Studies in a study on VAT distribution in Britain: "There is underreporting of VAT-bearing expenditures in the expenditure survey. Therefore, we multiplied these expenditures by 1.4 in order to align them with national accounts" (Crossley et al., 2011).

2.3 יחס שלושת העשירונים העליונים לשלושת התחתונים: סך הכול: 99.87 מיליארדי שקלים



### National Insurance and Public Health Insurance Contributions

In 2018, National Insurance and public health insurance payments constituted close to 17% of the general government's total income from taxes (approximately 70 billion shekels). Payment of National Insurance contributions and health insurance contributions (hereinafter: National Insurance and health contributions) is a legal obligation for every citizen in Israel from age 18 until retirement (aside from a small number of exceptions). National Insurance and health contributions are calculated according to income and employment status (salaried, self-employed, or unemployed). Most employed people in Israel are salaried employees, in which category the law stipulates different contribution rates (according to income level) "by employees" and "by employers". In practice, the literature shows that this division is only virtual, since similar to the self-employed (who are both employee and employer), salaried employees actually pay the employer's contribution as well (Congressional Budget Office, 2021; Fullerton and Metcalf, 2002). This is detailed extensively in the technical appendix. For the unemployed, we assume that the tax is imposed entirely on the taxpayer, since no employer affects their salary.

In addition to the research data, one can find supporting evidence for the fact that National Insurance contributions are imposed on employees in the welfare and tax systems of developed countries, including Denmark, Australia and New Zealand. Denmark's expansive welfare state, for example, is financed exclusively by income tax on individuals (which tax burden, as explained above, is imposed on employees), with no separate tax for social insurance and no division between employee and employer. The tax rate out of labor cost for a single employee without children with an average salary in Denmark and Norway is identical, but the internal division in

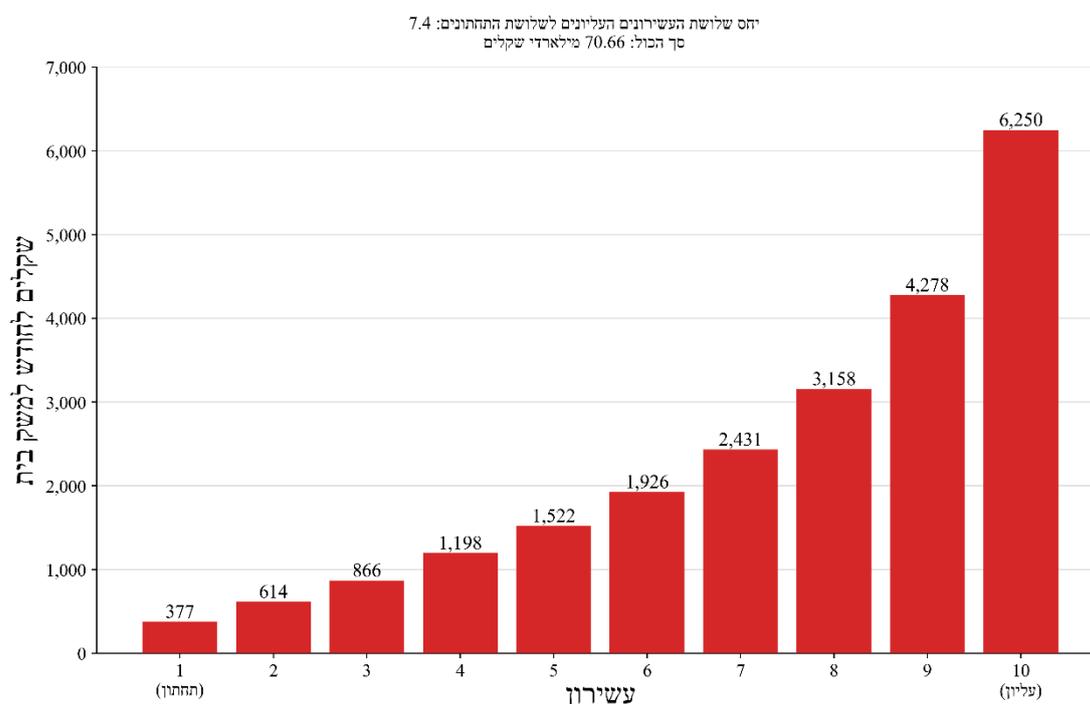
Denmark consists of income tax only, while in Norway the same tax rate is divided between income tax, employees' National Insurance contributions, and employers' National Insurance contributions.

According to the Survey, Israeli households paid 65.86 billion shekels towards National Insurance and health contributions in 2018 (including the calculation we performed of employer payments for salaried employees). According to the National Insurance data, the total payment was 70.66 billion shekels (National Insurance Institute, 2018). In order to align the Survey findings with the fiscal data, we inflated the expenditure of each household on National Insurance and health contributions by the ratio between them.

Figure 10 shows that while households in the top income decile paid approximately 6,300 shekels per month on average, households in the bottom decile paid approximately 400 shekels.

**Figure 10: Average National Insurance and Health Contributions by Income Decile, 2018 Data**

Ratio of the three top deciles to the three bottom deciles: 7.4  
Total: 70.66 billion shekels



### Corporate Tax, Real Estate Taxes, Financial VAT and Non-Profit VAT

Corporate tax is a direct tax collected from company profits, and its rate in Israel stands at 23% of company profits, starting in 2018 (Chief Economist's Division,

2020), although there are also reduced rates, for example within the framework of The Encouragement of Capital Investments Law, 5719-1959. In 2018, corporate tax constituted close to 10% of the general government's total tax income (approximately 43 billion shekels). The question of the economic distribution of corporate tax across the different players in the economy has occupied economists for a long time (Auerbach, 2006; The Economist, 2021), with more recent studies finding that the tax burden is divided among employees, capital owners, and consumers (Suárez Serrato and Zidar, 2016). As detailed in the technical appendix, our conclusion from our review of the literature (Congressional Budget Office, 2021; Fuest, 2015), is that corporate tax is divided equally among consumers, employees, and capital owners. To put it simply, we conclude from the literature that corporate tax leads to a rise in prices of the company's products, a decrease in the salaries of its employees, and a decrease in the profits of its shareholders. Since each party bears one-third of the corporate tax burden, each third of the tax burden is calculated according to each household's proportional share in consumption, income from work, and income from capital.<sup>9</sup>

Israel imposes several real estate taxes, the main ones being capital gains tax and purchase tax. In 2018, the receipts from these taxes amounted to approximately 11 billion shekels, or nearly 3% of the total tax collection. In the Survey, we identified approximately 1.8 billion shekels, and completed the remainder through attribution in proportion to income from capital, including imputed income from residential housing. In other words, the gap between the total taxes in the administrative data and the taxes we identified in the Survey is divided among households according to their proportional share in income from capital. Additional details can be found in the technical appendix.

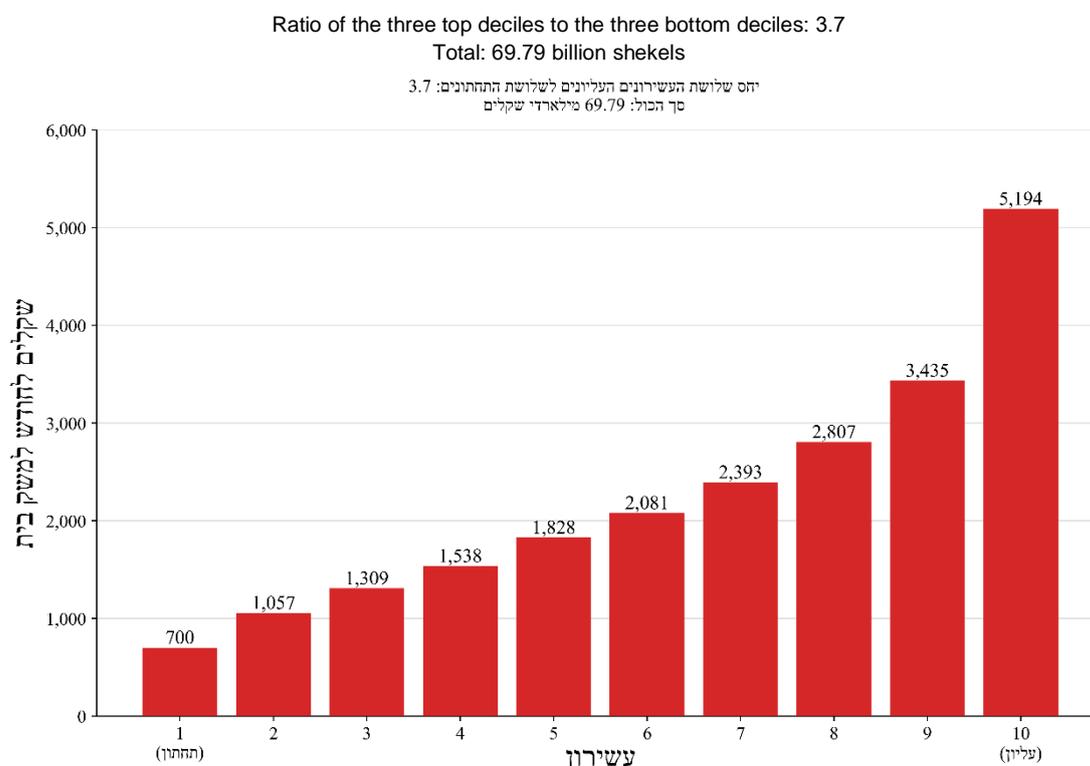
In addition to corporate tax, Israel has a financial VAT and non-profit VAT. This is a payroll tax imposed at a rate of 17% of financial companies' (banks and insurance companies) employees' gross salary, at a rate of 8.5% on non-profits. Collecting VAT on the supply of financial services is a rather complicated procedure, and is not done in Israel. In order not to discriminate in the taxation of non-financial companies, financial VAT is collected from financial companies, and its receipts in 2018 were slightly more than 3 billion shekels. Additionally, a tax of approximately 12 billion shekels was collected from non-profits. Like corporate tax, we assumed that the burden of financial and non-profit VAT is divided uniformly among consumers, employees, and capital owners, as detailed in the technical appendix.

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<sup>9</sup> The effective corporate tax rate in Israel is not uniform, so that exporting companies pay lower corporate tax compared to non-exporting companies (such as banks and insurance companies). The above calculation is an approximation that does not take into account the distribution of corporate tax by industry, and the possible effects this distribution has on bearing the tax burden (Mazirov et al., 2021). Additionally, part of the corporate tax in Israel is paid by foreign residents who own capital in Israel, just as a portion of corporate taxes around the world are paid by Israeli residents who own capital in other countries. We assume, in this paper's analysis, that these effects roughly balance each other out.

In total, we attributed approximately 69.79 billion shekels of corporate tax, real estate taxes, and financial and non-profit VAT. These tax payments, depicted in Figure 11, increase with income deciles, with households in the top income decile paying approximately 5,200 shekels per month on average, and those in the bottom decile approximately 700 shekels.

**Figure 11: Average Corporate Tax, Real Estate Taxes, Financial VAT and Non-Profit VAT payments by Income Deciles, 2018 Data**



### Sales and Fuel (Blue) Taxes

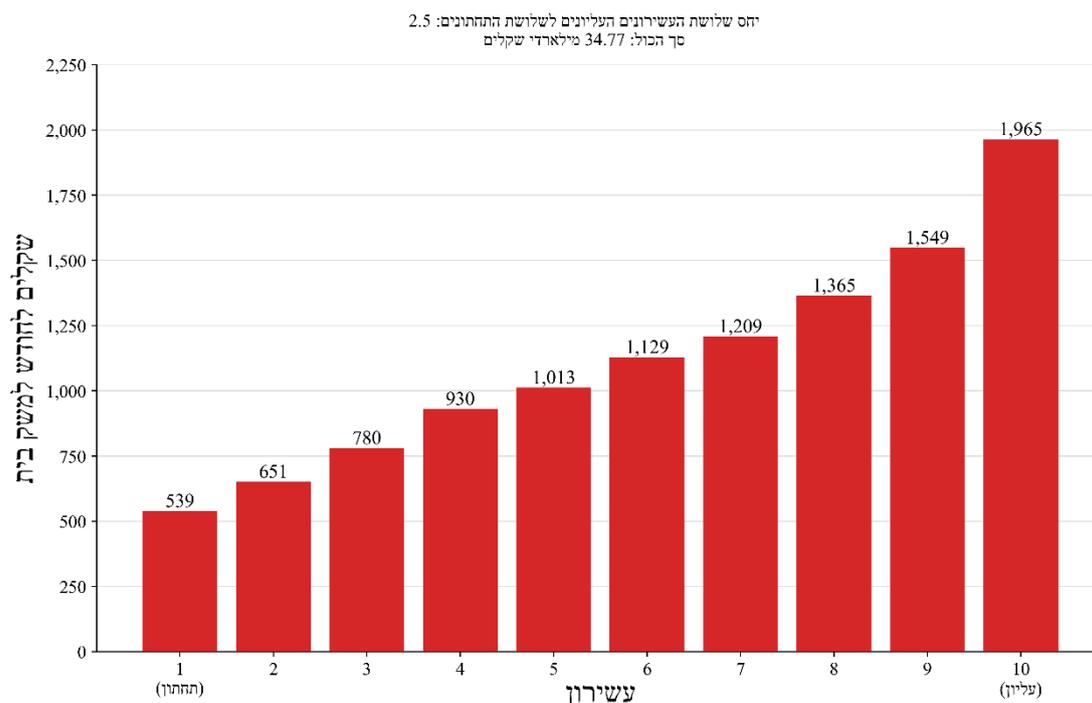
In addition to the VAT, Israel imposes consumption taxes on specific products: fuel (known as "Blue"), vehicles, tobacco and alcohol. In 2018, the collection of these taxes constituted close to 8% of total tax collection (approximately 35 billion shekels). Beyond the income for the general government, part of the sales taxes is intended to reduce undesirable activity in society and to reduce negative externalities. For example, in order to reduce smoking and its negative health effects, the state imposes a tax on tobacco products, which causes a price increase and therefore a reduction in consumption (an expanded discussion on the subject can be found in the technical appendix). The research literature shows that sales taxes are imposed entirely on the consumer (Gehrsitz et al., 2020; Gruber and Koszegi, 2004; Kenkel, 2005; Marion and Muehlegger, 2011; Schweitzer and Taylor, 2008). In total, we attributed approximately 34.8 billion shekels in such taxes, according to the following

breakdown: 17.18 billion shekels for the blue tax, 10.5 billion shekels for vehicle purchase tax, 6.13 billion shekels for tobacco and cigarette tax, and 0.96 billion shekels for alcohol tax.<sup>10</sup> There is some underreporting of the blue tax in the Survey; therefore we estimated the expenditure on fuel using weighted linear regression, as detailed extensively in the technical appendix.

As shown in Figure 12, households in the top income decile paid approximately 2,000 shekels per month on average on blue and sales taxes, and households in the bottom decile paid approximately 500 shekels.

**Figure 12: Average Sales and Fuel (Blue) Taxes payments by Income Deciles, 2018 Data**

Ratio of the three top deciles to the three bottom deciles: 2.5  
Total: 34.77 billion shekels



### Municipal Residential and Other Taxes

In 2018, the total collection in local authorities (municipalities, local councils, and regional councils) of municipal property tax (called Arnona) constituted close to 6% of total tax collection (approximately 27 billion shekels). The Arnona tax is divided into residential Arnona, totaling approximately 12 billion shekels, and other Arnona (mainly commercial), totaling approximately 15 billion shekels. Two approaches exist in the literature regarding local authorities' taxes (Arnona): the first is that they constitute a kind of "usage fee" for local authority services, under which authorities

<sup>10</sup> Blue tax on fuel is also collected for the Palestinian Authority, and this item amounted to almost 3 billion shekels in 2018. We did not attribute to Israeli households this part of the blue tax, which is ultimately transferred to the Palestinian Authority and does not contribute to an increase in government transfers to households in Israel.

collect the tax to finance their activities, while the second sees it as a tax on capital (mainly real estate). In most developed countries there is no division into residential and other municipal tax, and the tax amount is determined mainly according to property value.

Since the tax is collected according to the property area and there is a differentiation between residential Arnona and other Arnona (which is collected mainly from businesses), the situation in Israel is unique. Residential Arnona is imposed at relatively low rates, which are not sufficient to cover all the expenses of the local authority for services to residents living in the authority (Fitussi, Yakir, and Sarel, 2015). In contrast, other Arnona is much higher than the cost of services that local authorities provide to businesses. In fact, income from other Arnona subsidizes services to residents.

In line with previous studies, our conclusion is that when it comes to residential Arnona, the burden falls entirely on the household that pays it. We assume that since it is imposed mainly on businesses, the burden of the other Arnona affects business returns, employee wages in businesses, and the prices of products and services – similar to corporate tax (Oates and Fischel, 2016; Zodrow, 2007). Additional details are included in the technical appendix.

Figure 13 shows the distribution of residential Arnona payments. While households in the top decile paid an average of 640 shekels per month, the bottom decile paid 150 shekels.

**Figure 13: Average Residential Arnona Payments by Income Deciles, 2018**  
**Data**

Ratio of the three top deciles to the three bottom deciles: 2.9  
Total: 11.39 billion shekels

יחס שלושת העשירונים העליונים לשלושת התחתונים: 2.9  
 סך הכול: 11.39 מיליארדי שקלים

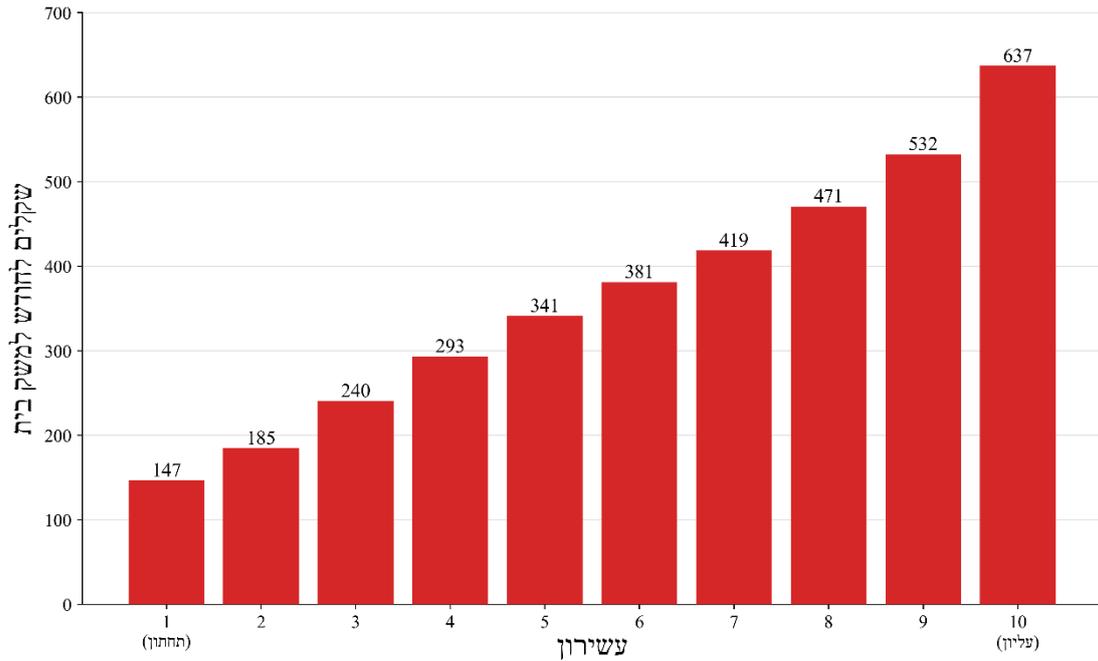
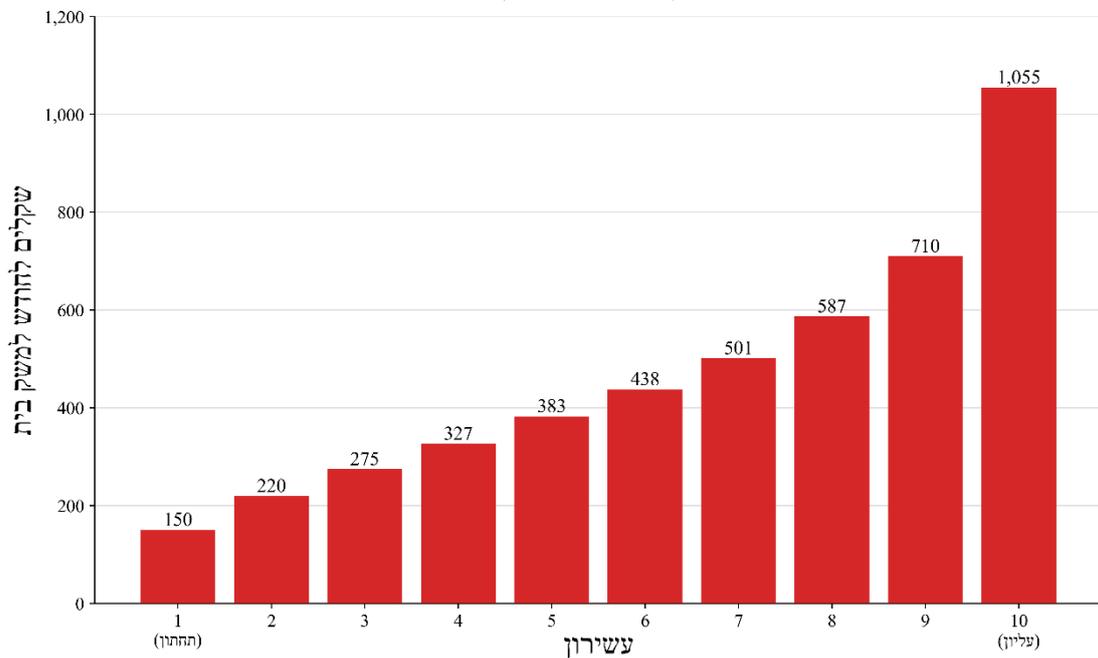


Figure 14 shows the distribution of the other Arnona taxes (mainly business Arnona). While households in the top decile paid an average of 1,060 shekels per month, the bottom decile paid 150 shekels.

**Figure 14: Average Business Arnona Payments by Income Deciles, 2018 Data**

Ratio of the three top deciles to the three bottom deciles: 3.6  
 Total: 14.51 billion shekels

יחס שלושת העשירונים העליונים לשלושת התחתונים: 3.6  
 סך הכול: 14.51 מיליארדי שקלים



## Customs Duties and Fees

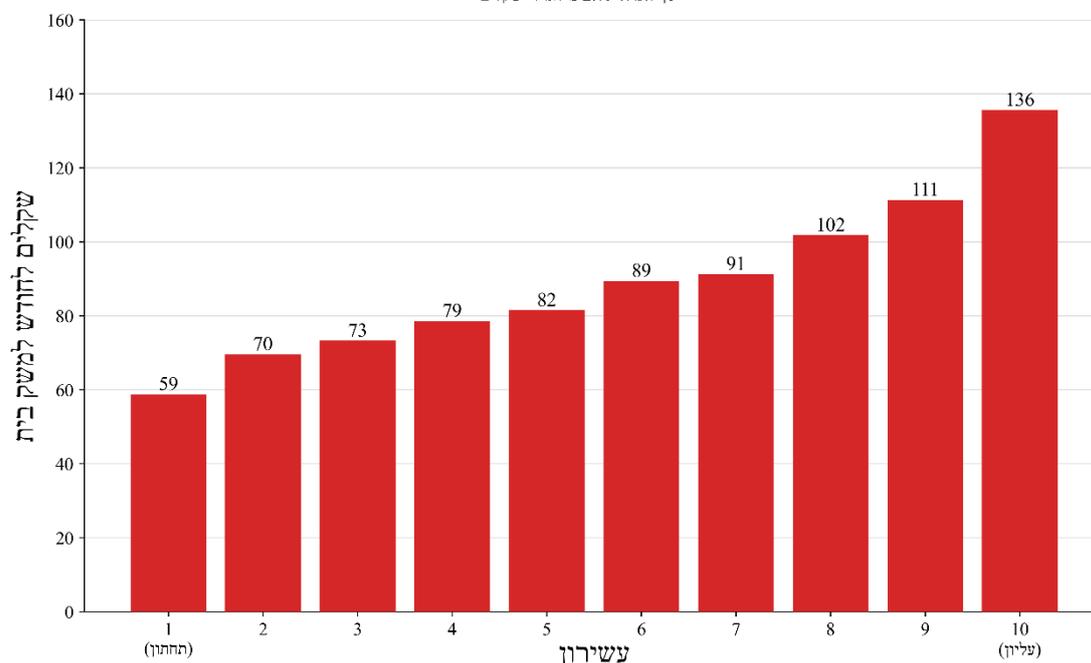
The State of Israel imposes customs duties on some products imported from other countries. In 2018, the total receipts from customs duties stood at almost 3 billion shekels, but the main economic burden of customs duties is in preventing or reducing imports and making domestic products more expensive. Estimating this burden is beyond the scope of the current study, and we attributed only the arithmetic cost of customs duties (meaning, the cost of the customs duty without taking into account its effect on product prices). To perform this attribution, we calculated for each household the total consumption of products on which customs duties are imposed, and divided the total income from customs duties according to the household's consumption share of the total income from customs duties. As can be seen in Figure 15, the payment of the arithmetic cost of customs duties is divided fairly uniformly among the income deciles.

**Figure 15: Average Customs Payments by Income Deciles, 2018 Data**

Ratio of the three top deciles to the three bottom deciles: 1.7

Total: 2.79 billion shekels

יחס שלושת העשירונים העליונים לשלושת התחתונים: 1.7  
סך הכול: 2.79 מיליארדי שקלים



In 2018, the payments of fees reached a total of approximately 6.2 billion shekels. A fee means a payment that the state imposes in return for the consumption of a government service, usually with the aim of pricing its costs. According to this logic, there is no need to attribute fees to households as a tax, since they constitute payment for a product or service chosen by the households. Nevertheless, the connection between the cost of the fee and the cost of the service appears to be weak (for example: vehicle license fees, which constitute a significant portion of

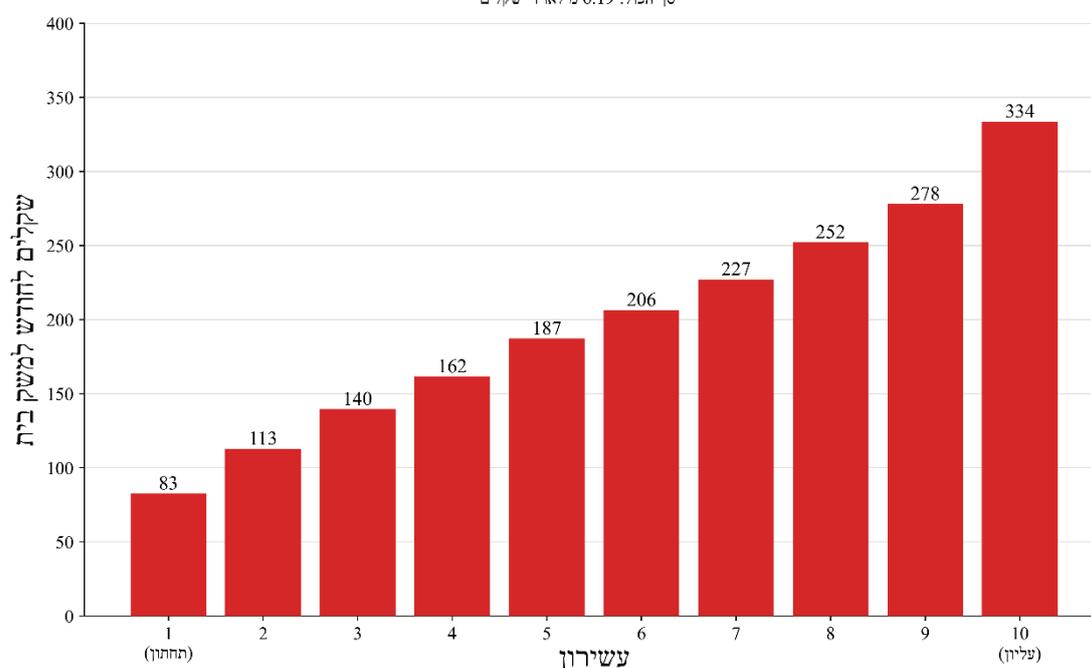
income from fees, are much higher than the cost of the service provided when renewing a vehicle license); therefore, it is reasonable to assume that a fee is mostly a tax imposed on the consumers of various government services. A substantial portion of fees is paid by businesses, and thus the burden of fees is divided between businesses and their consumers according to the characteristics of supply and demand in the market in which the businesses operate. Therefore, we attributed the portion of fees that we identify in the Survey in full to the household according to their payment, and the remaining portion paid by businesses we attributed similarly to corporate tax (one-third consumers, one-third capital, one-third labor). As shown in Figure 16, the average payment for a fee increases the higher the income decile. Additional details are presented in the technical appendix.

**Figure 16: Average Fee Payments by Income Deciles, 2018 Data**

Ratio of the three top deciles to the three bottom deciles: 2.6

Total: 6.19 billion shekels

יחס שלושת העשירונים העליונים לשלושת התחתונים: 2.6  
סך הכול: 6.19 מיליארדי שקלים



## Other Income

The State of Israel derives income from other, non-tax sources, such as the sale of services to households (such as tuition payments), loans to cover the state budget's current deficit, seigniorage from money creation, grants from foreign governments, income from government-owned capital (income from land leasing, for example), and more. Of all these, only seigniorage effectively constitutes taxation, but the scope of income from it is negligible. Therefore, we did not attribute it to households. A more detailed discussion of these items appears in the technical appendix. In 2018, the total of such income stood at approximately 62 billion shekels.

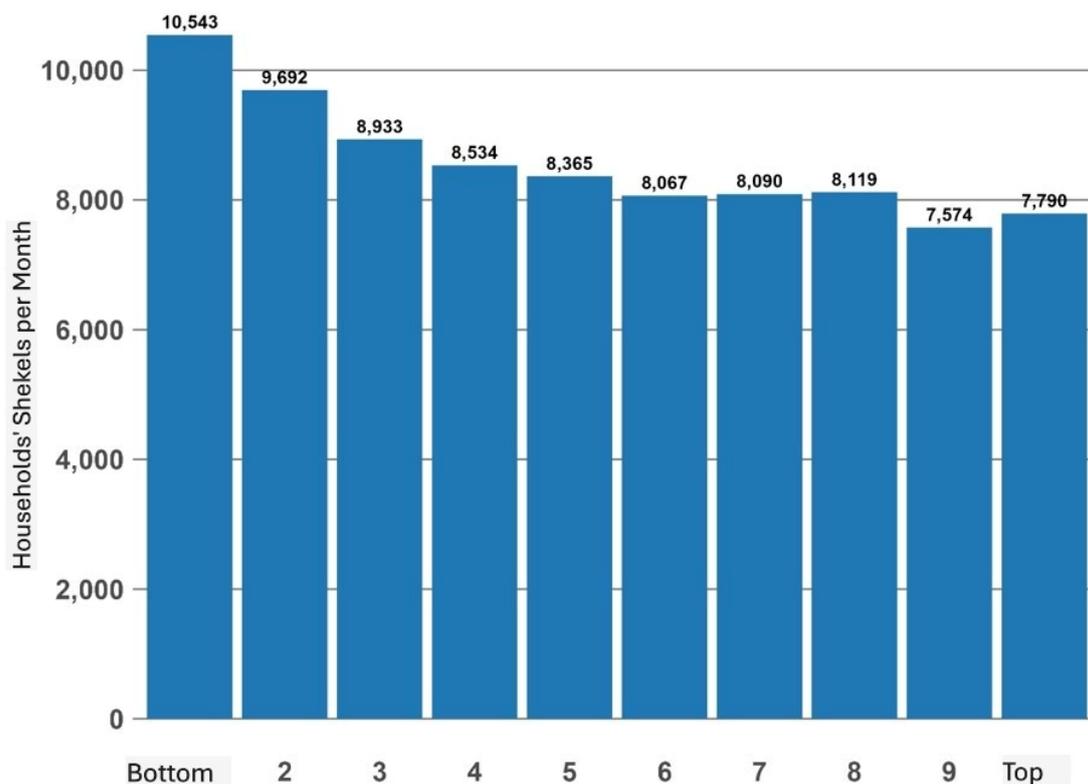
## D. General Government Expenditure and its Distribution Among Israeli Households

We shall now turn to examine how the general government's expenditures (transfers, services, subsidies, and more) are distributed among households. Figure 17 shows the distribution of total general government expenditures that we attributed in the central analysis of this paper – public education, subsidization of academic education, public health, welfare, public transportation, public housing, culture, sports, leisure, and religious services – by income deciles. In the analysis presented in this chapter we attribute in total 50.6% of all general government expenditures (267.7 billion shekels), although in sensitivity analyses and in the technical appendix we attributed additional expenditures. The figure shows that general government expenditures are distributed relatively evenly among the deciles. The two lowest income deciles receive more than the upper deciles, but the gap is not particularly large, and as will be seen later, is related, among others, to the relative size of households in the different deciles.

**Figure 17: Average Value of Net Services and Transfers by Income Deciles, 2018 Data**

Ratio of the three top deciles to the three bottom deciles: 0.8

General Government Transfers - health care, education services, social allowances and other direct transfers, welfare services, public transportation subsidies, cultural and religious services and public housing. Total: 267.74 billion shekels

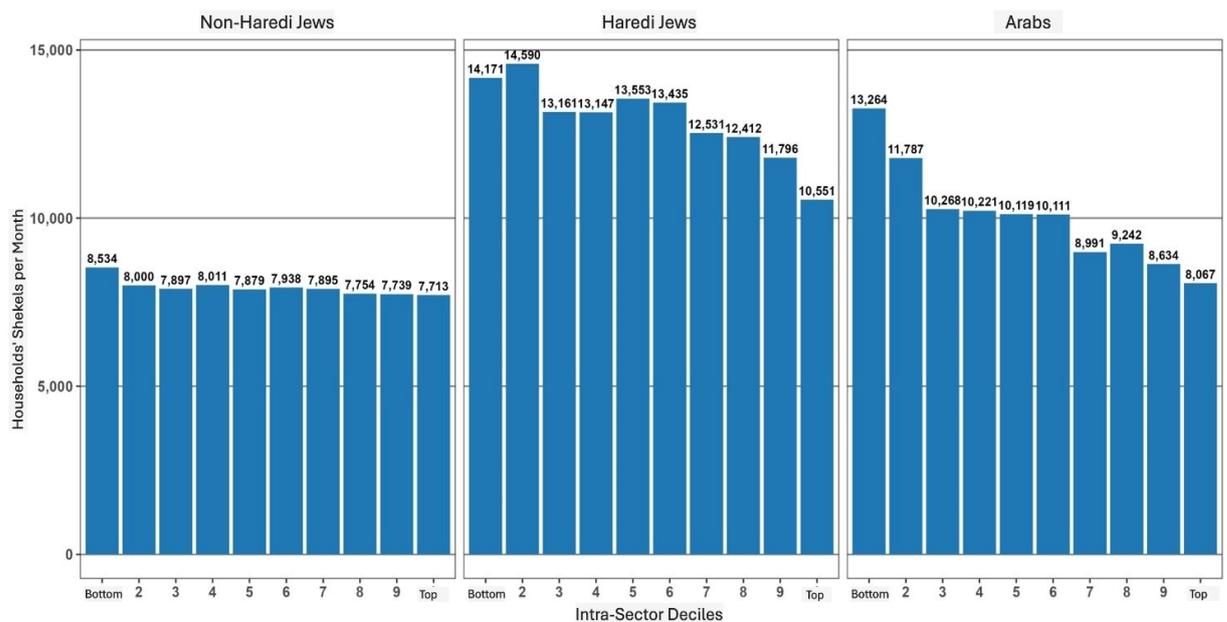


Source: Karlinsky, Sadeh, Yogev and Sarel (2025) see link to essay on pg 2 of this chapter

Figure 18 shows the distribution of general government's expenditures by sector and intra-sector deciles. This figure shows that Haredi households receive larger transfers, approximately 12,900 shekels on average per month, Arab households receive on average 10,100 shekels and non-Haredi Jewish households 7,900 shekels on average per month.

**Figure 18: Average Value of all Services and Transfers by Sector and Intra-Sector Income Deciles, 2018 Data**

General Government Transfers - health care, education services, social allowances and other direct transfers, welfare services, public transportation subsidies, cultural and religious services and public housing. Total: 267.74 billion shekels



Source: Karlinsky, Sadeh, Yogev and Sarel (2025) see link to essay on pg 2 of this chapter

[Averages included in the graph: non-Haredi Jews 7,936, Haredi Jews 12,936, Arabs 10,071]

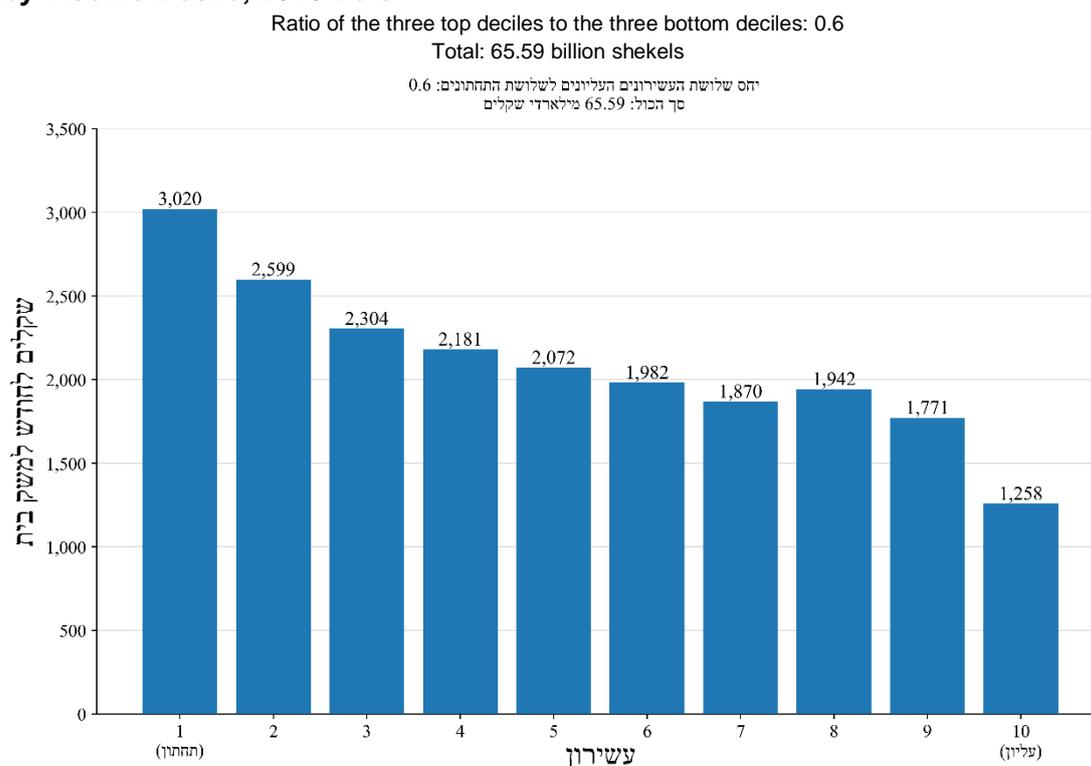
## Education

In 2018, the national public expenditure on education from preschool to high school reached 64.48 billion shekels (Central Bureau of Statistics, 2021a), constituting approximately 12% of the general government's total expenditure. In order to attribute education expenditure among households, we estimated the expenditure per student according to educational stage (pre-school, primary, middle school, and high school) and sector (non-Haredi Jews, Haredi Jews, and Arabs), taking into account the ages of the children resident in each household. This attribution allows us to account for both the different distribution of expenditure per student by educational stage (expenditure for a high school student is higher than expenditure for an elementary school student, for example) and the distribution among the

different sectors.<sup>11</sup> It is important to emphasize that we refer to the total net expenditure of the general government, including the expenditures of local authorities. Additional details can be found in the technical appendix.

As Figure 19 shows, households in the lowest income decile receive public education services worth an average of approximately 3,000 shekels per month, while households in the highest decile receive these services worth an average of approximately 1,250 shekels per month.

**Figure 19: Average Value of Education Services from Preschool to High School by Income Decile, 2018 Data**



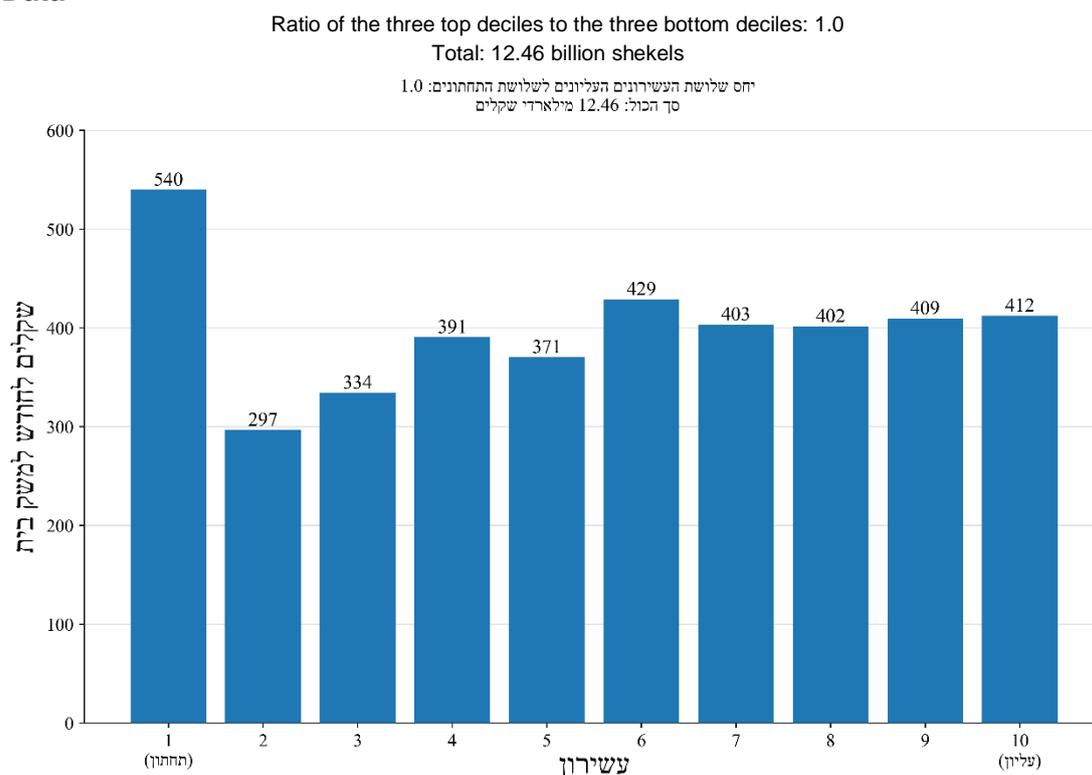
In addition to the public subsidy of education from preschool to high-school, academic studies in Israel are partially subsidized by the state as well, so that tuition paid by students to public colleges and universities do not cover the actual costs of their education. The general government's expenditure on higher education is 12.4 billion shekels, aside from another 105 billion shekels for non-academic post-secondary education. We attributed this expenditure according to the details shared by the households reporting on students enrolled in higher learning institutions, taking into account the rate of students studying in private institutions that are not

<sup>11</sup> The expenditure for a Haredi student in 2018 was lower than the expenditure for a non-Haredi Jewish student. However, since then proposals have been submitted for changes in policy and budgeting on this issue. For further details, see Ministry of Finance - Budget Department (2023).

funded by the general government. Additional details appear in the technical appendix.

Figure 20 shows there is no clear trend in the relationship between the extent of higher education services and income deciles. The relatively high value of transfers in the lowest decile stems partly from the fact that there are young students who do not live with their parents in the same household, and their current income (as measured in the household expenditure Survey) is low, even though their parents may be in higher deciles (for more on the income of students' families, see Zussman, Lipiner, and Rosenfeld, 2019).

**Figure 20: Average Value of Higher Education Services by Income Decile, 2018 Data**



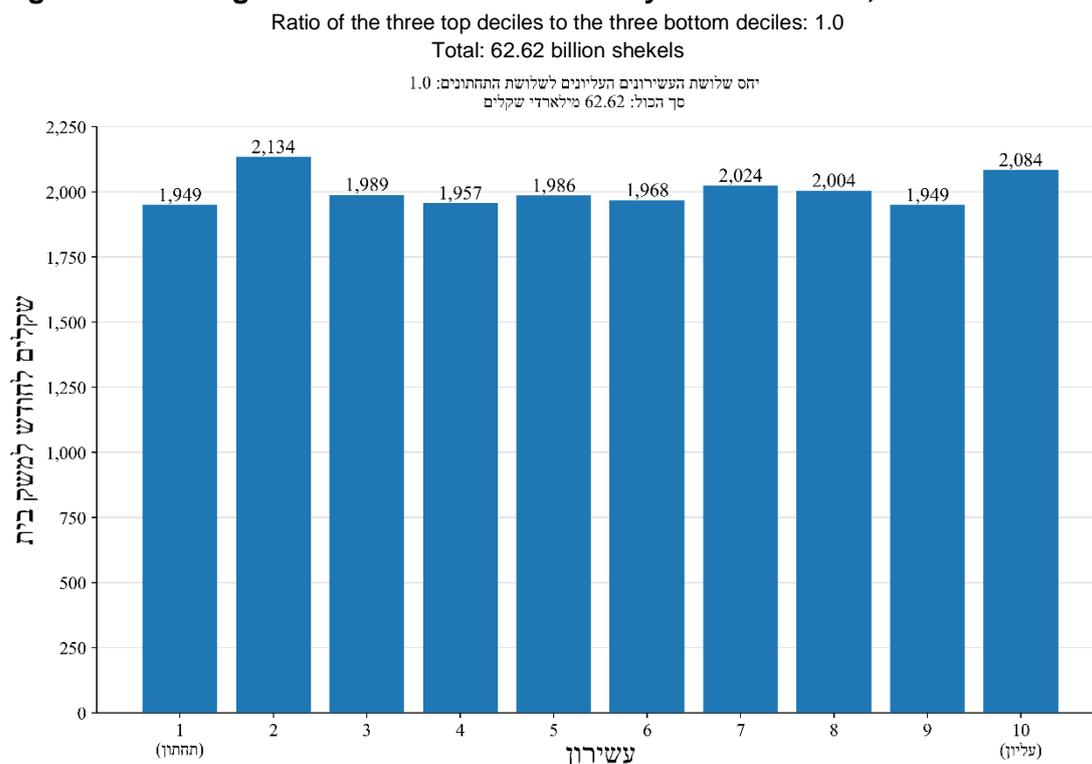
## Health

In 2018, public expenditure on health stood at close to 64 billion shekels (Central Bureau of Statistics, 2021b), constituting approximately 12% of general government expenditures. The majority of general government expenditure on health is through the *Kupot Cholim* - health maintenance organizations (HMOs), with the amount of funding determined through the capitation formula. The HMOs receive a different amount for each insured person according to their age, gender, and place of residence (periphery or center). We attributed this expenditure to households using these variables for each resident individual. Note that even if a household consumed

no public health services, it should be attributed this expenditure, since the individual residents were entitled to public health - under an insurance approach representing money households saved on the purchase of medical services or medical insurance, had they not received public health services (Verbist and Förster, 2019). In total, we attributed approximately 62 billion shekels to households; conducting a separate discussion on health infrastructure (approximately 2 billion shekels) in the relevant part of the paper. Additional details appear in the technical appendix.

Figure 21 shows the distribution of public health expenditures to households by income deciles. The distribution is relatively uniform among the deciles, and these transfers range around approximately 2,000 shekels per month per household.

**Figure 21: Average Value of Health Services by Income Decile, 2018 Data**



### Allowances and Other Direct Transfers

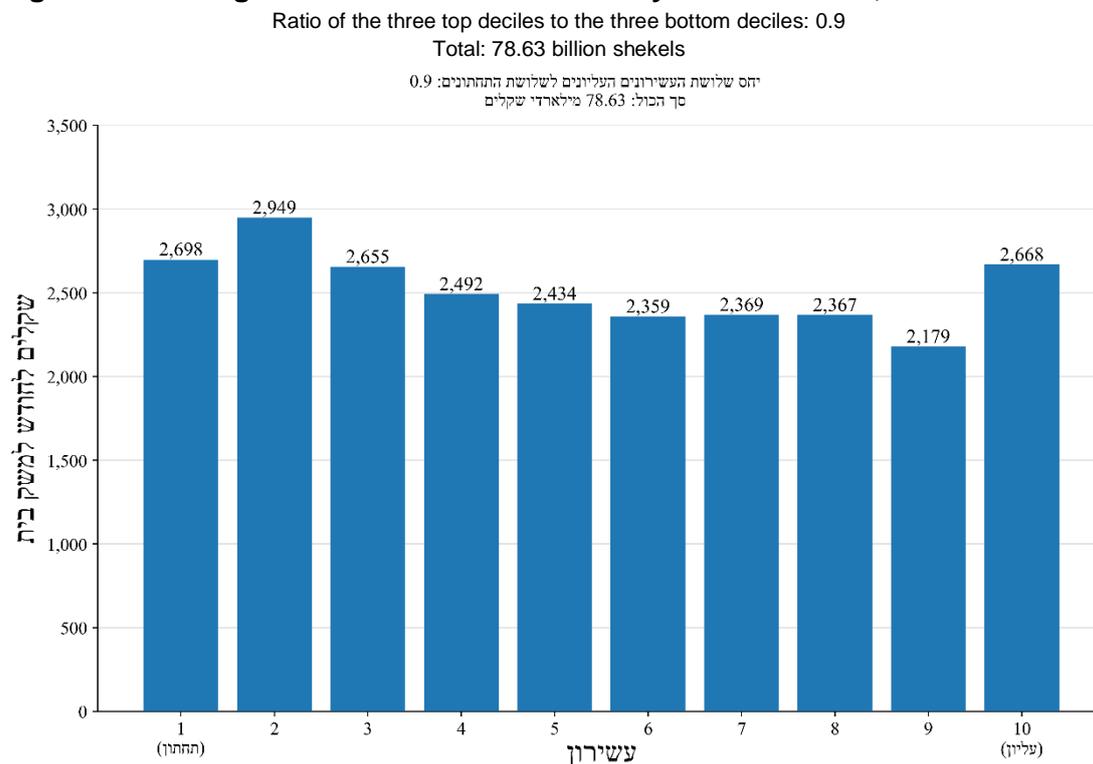
In 2018, allowances and direct transfers constituted approximately 15% of general government expenditures (close to 79 billion shekels).<sup>12</sup> National Insurance allowances received by households appear directly in the Survey data and total approximately 54 billion shekels, while transfers from other state institutions total approximately 7 billion shekels. The disparities between the Survey and the administrative data (approximately 18 billion shekels) stem, for example, from long-term care allowances which are estimated in the Survey at approximately 0.8 billion shekels, while the administrative figure stands at approximately 7 billion shekels. In

<sup>12</sup> The Survey includes a category for negative income tax (il42075). This category is included in the value of services and transfers received by the household, but there is a discrepancy between it and the administrative data. For further details, see Karlinsky (2021b).

this allowance, and in others as well, a significant portion of the gaps results from the provision of in-kind services (approximately 12 billion shekels) by the National Insurance Institute. We deducted the benefits provided in the form of services from the administrative data of the allowances, and then adjusted the receipt of allowances in households to the remaining amount. This entire process is detailed in the technical appendix. In addition, the allowance named "Savings Plan for Each Child" of 50 shekels a month does not appear in the Survey, and was therefore calculated for each household according to the number of its children under the age of 18.

Figure 22, which presents direct transfers from National Insurance and other state institutions, shows that general government expenditures for direct transfers are divided relatively evenly among income deciles, with a slight decrease from the second decile, and a slight increase in the highest decile. The main explanation is apparently related to the different age composition among the deciles and its effect on the receipt of old-age pensions, as presented later in detail.

**Figure 22: Average Value of Direct Transfers by Income Decile, 2018 Data**



## Welfare Services

In 2018, the value of in-kind welfare services (which include, for example, services provided by social workers) totaled close to 23 billion shekels, constituting approximately 4% of general government expenditures. Figure 23, which presents the distribution of welfare services, shows that households in the lowest income decile receive a relatively large portion of these transfers, approximately 1,300

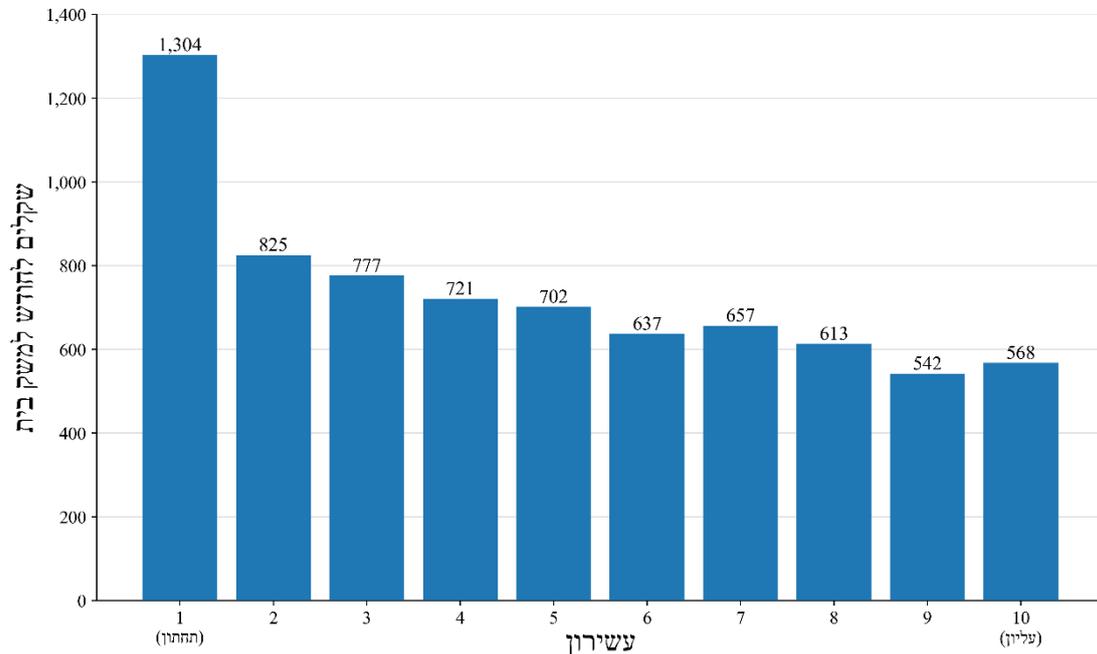
shekels per month on average, with the amount decreasing as one moves up the income deciles, at least until the sixth decile.

**Figure 23: Average Value of Welfare Services by Income Decile, 2018 Data**

Ratio of the three top deciles to the three bottom deciles: 0.6

Total: 22.95 billion shekels

יחס שלושת העשירונים העליונים לשלושת התחתונים: 0.6  
סך הכול: 22.95 מיליארדי שקלים

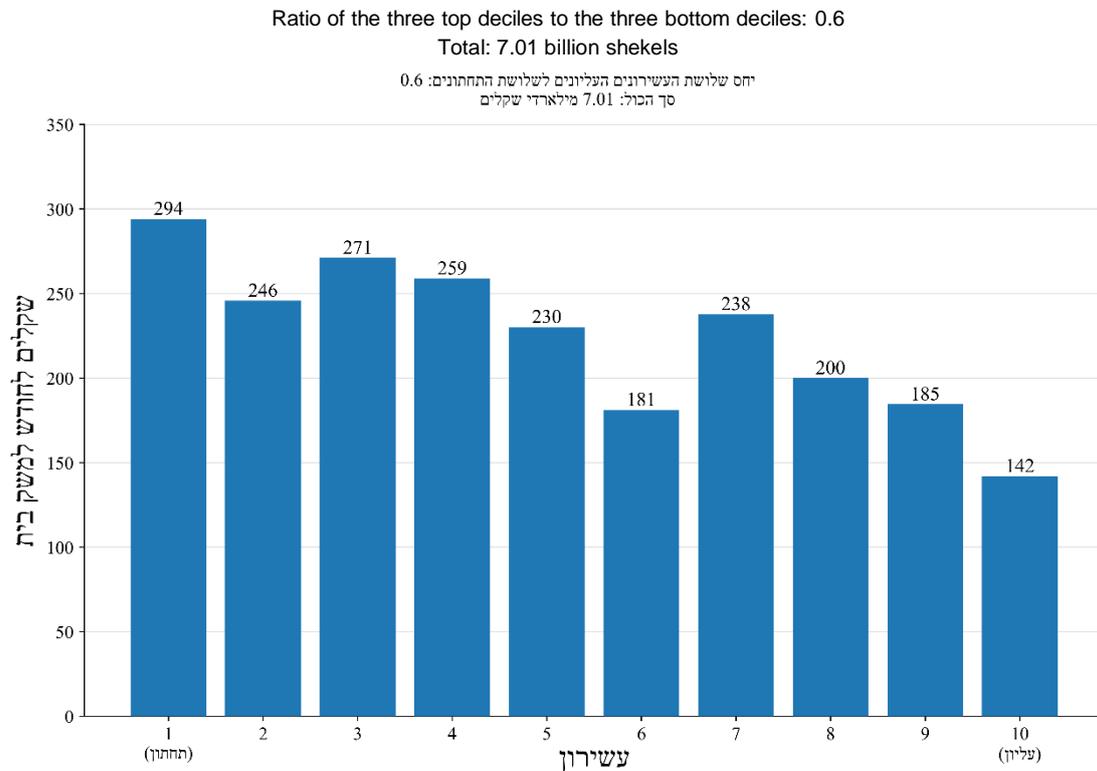


## Public Transportation

In 2018, the general government spent close to 7.01 billion shekels on public transportation (Ministry of Finance, 2023), constituting approximately 1% of the total general government expenditure. Most of this expenditure is the subsidization of bus operators, Israel Railways, and the like. The amount of subsidy per household can be attributed by using the Survey's report on public transportation (bus or train), expenditures, calculating the amount of the subsidy, and allocating it to households according to the amount of their expenditure. Details of the calculation are presented in the technical appendix.

We found 4.79 billion shekels in public transportation subsidies to households directly in the Survey. In order to adjust this amount to the above fiscal figure, we attributed the gap to households according to the ratio between the administrative data (7.01 billion shekels) and the identification in the Survey. As can be seen in Figure 24, generally lower deciles use public transportation more and therefore receive more subsidy compared to higher deciles, although there is some volatility in the relationship between the value of public transportation service and income deciles.

**Figure 24: Average Value of Public Transportation Services by Income Decile, 2018 Data**



## Public Housing

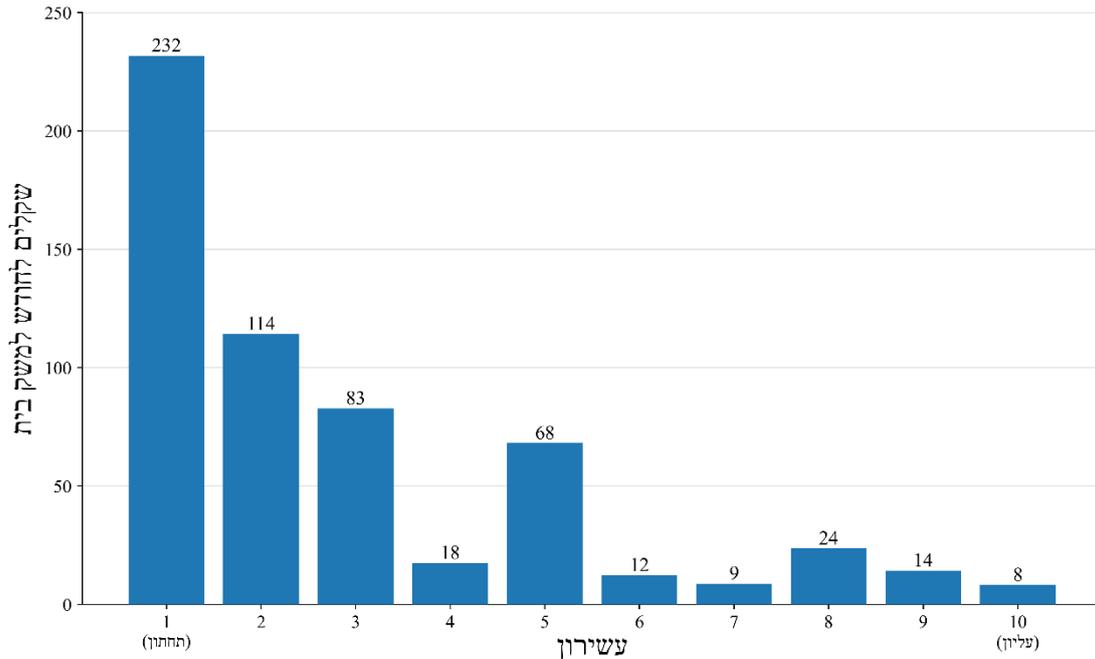
In 2018, the value of services and transfers for public housing in Israel stood at slightly less than half a percent of the general government's expenditures (approximately 2 billion shekels). The main transfer in this category is a rental benefit, granted to households renting an apartment from a public housing company, but there is also a purchase benefit received by households that lived in a public housing apartment and subsequently purchased it. Both types of benefits were attributed to households. We calculated the rental subsidy as the gap between the monthly rent that the household pays to public housing companies compared to the monthly rent for a similar apartment in the free market. We calculated the purchase subsidy based on data on apartment sales by public housing, while identifying those households participating in the Survey that purchased their apartment from a public housing company. Details of the calculation are presented in the technical appendix.

Figure 25 presents the distribution of the value of services in the public housing sector by income deciles. As shown, the lowest decile enjoys the highest average value, with a non-uniform downward trend in service value the higher the income decile.

**Figure 25: Average Value of Public Housing by Income Decile, 2018 Data**

Ratio of the three top deciles to the three bottom deciles: 0.1  
 Total: 1.82 billion shekels

יחס שלושת העשירונים העליונים לשלושת התחתונים: 0.1  
 סך הכול: 1.82 מיליארדי שקלים



## Sports, Culture and Leisure

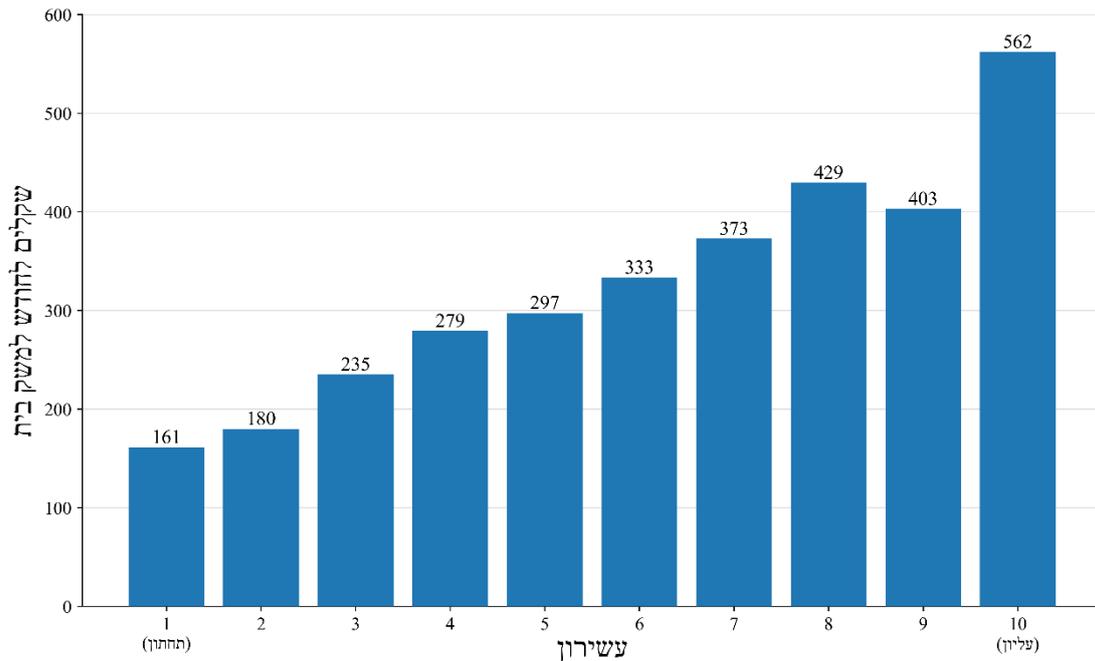
In 2018, the general government's total expenditure on sports, culture, and leisure stood at 10.16 billion shekels (Central Bureau of Statistics, 2019), constituting approximately 2% of general government expenditures. These expenditures include both the subsidy of paid events (meaning that in the absence of the subsidy, the price of tickets to a sports or cultural performance would be higher) and free or nominally priced events. In order to attribute these expenditures to households, we identified the beneficiaries by their reported expenditure in the Survey on "cultural, sports, and entertainment performances", as well as by estimating the frequency of consumption of sports, culture, and leisure events (even without payment or with partial payment) using the CBS's social survey for 2014 in which individuals responded on this topic. Details of the calculation are presented in the technical appendix.

Figure 26 shows the average value of culture, sports, and leisure services by income deciles. It shows that while households in the lowest income decile receive services (and subsidies) with an average value of approximately 160 shekels per month, the highest decile households receive an average value of approximately 560 shekels per month.

### Figure 26: Average Value of Sports, Culture and Leisure Services by Income Decile, 2018 Data

Ratio of the three top deciles to the three bottom deciles: 2.4  
 Total: 10.16 billion shekels

יחס שלושת העשירונים העליונים לשלושת התחתונים: 2.4  
סך הכול: 10.16 מילארדי שקלים



## Religious Services

According to the GFS, the total expenditure by the general government on religion in 2018 stood at 5.94 billion shekels (approximately 1% of total general government expenditure). This amount includes the net expenditures of religious institutions in Israel such as the Ministry of Religious Services, religious expenditures of other ministries, religious expenditures of local authorities and religious councils, as well as expenditure on yeshivas not included in the education expenditure. In order to attribute these expenditures to households, we identified the beneficiaries by those who reported in the Survey expenditures on income from a "state institution: yeshiva" as well as by estimating the frequency of visits to a synagogue, church, mosque, or *khalwa* [Druze prayer house], using the CBS's social survey for 2009 in which individuals responded on this topic. Details of the calculation are presented in the technical appendix.

Figure 27 shows the average value of religious services by income deciles. It can be seen that households in the lowest income decile receive religious services with an average value of approximately 330 shekels per month, while households in the highest decile receive these services with an average value of approximately 80 shekels per month.

### Figure 27: Average Value of Religious Services by Income Decile, 2018 Data

Ratio of the three top deciles to the three bottom deciles: 0.3

Total: 5.94 billion shekels



## **Defense and Internal Security**

In 2018, expenditures on defense and internal security constituted approximately 18% of general government expenditures (close to 96 billion shekels). This expenditure was not attributed to households in this paper's central analysis, since it is a quintessential public good. A public good is one that is non-rivalrous and non-excludable: its consumption by one person does not detract from the ability of others to consume it, there is, furthermore, no possibility of preventing another person from consuming the good. Attribution of a public good encounters great difficulty, since all residents of Israel consume all the expenditure on public goods. An attempt to divide these expenditures among Israel's residents raises complex questions regarding the method of attribution: Should the expenditure be attributed per capita? Per household? Should it be attributed according to income, since those who earn more benefit more from the protection provided by defense and internal security? A review of the literature did not discover a persuasive answer regarding the consumption of public goods and their attribution, so that the result of any attribution would, in fact, stem directly from the chosen assumptions.

However, in the technical appendix we present sensitivity tests in which we attribute the value of defense and internal security transfers to each of the households, using three different approaches: attribution according to household income, attribution according to household consumption expenditure, and attribution according to the number of persons in the household.

## **The Economic Burden of Military Service**

In regards to security, there exists, aside from the expenditure of households, also a (possibly indispensable) tax in the form of mandatory military service. The differences in the net transfers we estimated between the different sectors (non-Haredi Jews, Haredi Jews and Arabs) do not take into account the burden of military service, which is a legal obligation in Israel for a portion of the population, consisting almost entirely of non-Haredi Jews. Young men and women obligated to perform mandatory service are severely restricted in their ability to devote their time and energy to other pursuits, such as academic or professional studies, employment, travel, or preferred activities. The only option available to them aside from military service is to break the law and risk severe sanctions.

Obviously, the true economic burden of military service is far higher than that recorded in the budget books, since loss of income is in fact a "hidden tax" imposed on those serving in the military, because in most cases, payments to those serving are much lower than the economic benefit of their mandatory service. As a result, the effective tax rate on their theoretical income is extremely high, despite no record of it in the budget books. The fact that this tax is unrecorded does not mean that it is lower than the scope of tax and expenditure that are.

Geibel and Sarel (2020) adopt (with some modifications) the spirit of Zeira's (2021) calculation, and estimate the long-term economic cost of mandatory military service at approximately 3.7 percent of GDP (approximately 49 billion shekels in 2018). Generally, military service affects all of an individual's working years, as a result of the delay in the acquisition trajectory of their human capital (work experience and education) by several years. Those serving mandatory military service bear most of this economic burden themselves. If their military service contributes significantly positively to their human capital, the cost may be smaller.

In addition, there is a burden placed primarily on people who served mandatory military service in the past and still serve in the reserves, especially if they work part-time or are self-employed. It is possible in these cases that the payment they receive for reserve duty days is significantly lower than the economic damage they sustain as a result of the reserve service.

As mentioned, the excess economic burden resulting from mandatory military service and reserve service placed on the service members is highly significant. It cannot be calculated precisely or distributed by household due to the lack of detailed data (for example, there is no direct information in the Survey regarding the present or past mandatory service of the resident individuals), but it can be determined that this burden is placed mainly on the non-Haredi Jewish sector; therefore, the total negative net transfers that this sector bears is greater than the central estimate in this paper.

## **Infrastructure**

General government expenditures on infrastructure totaled close to 8.7% of total expenditures in 2018 – approximately 45 billion shekels (CBS, 2022, Table 8b). This expenditure includes expenditure on energy, water and sewage infrastructure, sea

and air ports, railways and public transportation, and communications infrastructure. In addition, we included expenditures on the establishment of education and health infrastructure and the like, which were not attributed in the central analysis (as detailed above).

Since infrastructure has certain characteristics of public goods (although it is not a pure public good), there are significant methodological and substantive difficulties in attributing it to households or potential consumers (Proag, 2021). In addition, infrastructure benefits not only the current generations of households but future generations as well. Since the research deals with a cross-sectional snapshot of the distribution of general government income and expenditure, we do not consider it correct to attribute this expenditure. Therefore, similar to expenditures on defense and internal security, we did not attribute these expenditures in the central analysis.

However, we included in the technical appendix calculations of the value of infrastructure expenditure transfers to households using three approaches: attribution according to household income, attribution according to household consumption expenditure, and attribution according to the number of persons in the household – similar to the analysis we performed for public goods.

### **Other Expenditures**

The general government has other expenditures – budgetary pensions, interest on the national debt, and the like. Moreover, some of these are recorded as accrued expenditures only, without actually being carried out (see further detail in the appendix). These expenditures reached 15% of the general government's expenditure for 2018 (approximately 82 billion shekels). These expenditures were not attributed to households in the central analysis presented in this paper due to their unique characteristics, as detailed below.

### **Interest on the National Debt**

In 2018, the interest payments on the public debt stood at 32.36 billion shekels. The debt was created in the past, and it is not clear how to correctly attribute the interest payments paid on it in the present. To elaborate, whether we attribute it as an expenditure or as income, it is not clear how the present debt payment is distributed on either side of the calculation. For these and other reasons, we chose not to attribute the interest on debt. The technical appendix includes a detailed discussion of this issue.

### **Public Budgetary Pensions**

Public budgetary pensions are pension benefit payments that the state pays to some of its retired employees. Part of this expenditure is classified, partly because of security forces retirees. Also, it is impossible to derive from the Survey data which households receive budgetary pensions. For example, the Survey data does not include information on the employment sectors in which individuals worked before

their retirement; accordingly, indirect attempts to attribute the budgetary pension are not possible with the current data.

In addition to these methodological problems, budgetary pensions can also, to a large extent, be considered a debt created in the past (similar to the national debt), and it is not clear whether it is correct to attribute its repayment now, nor how to do so. For example, the government committed in the past to civil service employees (for example teachers and bureaucrats) that at the end of some decades they would receive a budgetary pension after retirement. In practice, these employees provided services to Israeli citizens, partly due to that commitment to pay a budgetary pension. Since this commitment was created in the past, while the government transferred all its new employees to an accumulative pension in the interim, it is unclear whether and how it would be correct to attribute the present payment of this debt.

### Summary of Taxes and Expenditures

Table 1 summarizes all taxes and expenditures referred to in this paper and presented above, presenting the different amounts found in administrative data (such as the GFS or the relevant CBS national expenditure), the amounts per the Survey and the attribution that aligned the Survey data with the relevant administrative data.

**Table 1 – General Government's Income and Expenditure, 2018 Data**

| <b>Income/Expenditure*<br/>(billions of shekels)</b> | <b>Administrative<br/>Data</b> | <b>Identification<br/>in Surveys</b> | <b>Actual<br/>Attribution</b> | <b>Attribution as<br/>% of<br/>Administrative<br/>Data</b> |
|--|--------------------------------|--------------------------------------|-------------------------------|--|
| Total income of<br>General Government                | 480.91                         | -                                    | -                             |  |
| Other income   | 61.8                           | -                                    | -                             |  |
| Broad General<br>Government Tax<br>Income            | 419.11                         | 324.03                               | 405.47                        | 96.74%   |
| Income tax on<br>individuals                         | 95.51                          | 69.71                                | 95.51                         |  |
| Social security<br>contributions and<br>health tax   | 70.66                          | 65.86                                | 70.66                         |  |
| VAT  | 99.87                          | 73.97                                | 99.87                         |  |
| Financial VAT and<br>NPO VAT                         | 15.32                          | 15.32                                | 15.32                         |  |
| Corporate tax  | 42.93                          | 42.93                                | 42.93                         |  |
| Real estate taxes                                    | 11.54                          | 1.89                                 | 11.54                         |  |

| <b>Income/Expenditure*<br/>(billions of shekels)</b>                              | <b>Administrative<br/>Data</b> | <b>Identification<br/>in Surveys</b> | <b>Actual<br/>Attribution</b> | <b>Attribution as<br/>% of<br/>Administrative<br/>Data</b> |
|---|--------------------------------|--------------------------------------|-------------------------------|--|
| Fuel tax ("blue")   | 17.18                          | 11.12                                | 17.18                         |  |
| Vehicle purchase tax  | 10.5                           | 7.61                                 | 10.5                          |  |
| Tobacco tax   | 6.13                           | 2.82                                 | 6.13                          |  |
| Alcohol tax   | 0.96                           | 0.28                                 | 0.96                          |  |
| Customs and fees  | 8.98                           | 6.62                                 | 8.97                          |  |
| Residential property<br>tax (Arnona)  | 11.39                          | 12.17                                | 11.39                         |  |
| Other property tax<br>(Arnona)  | 14.51                          | 14.51                                | 14.51                         |  |
| Additional taxes not<br>included in study   | 13.63                          | -                                    | -                             |  |
| General government<br>expenditure   | 528.32                         | 241.72                               | 267.76                        | 50.68%   |
| Expenditure attributed<br>in central analysis                                     | 267.76                         | 241.72                               | 267.76                        |  |
| Education   | 78.55                          | 78.62                                | 78.62                         |  |
| Health  | 62.62                          | 62.62                                | 62.62                         |  |
| Monetary Allowances   | 78.63                          | 60.46                                | 78.63                         |  |
| In-kind welfare services  | 22.95                          | 22.95                                | 22.95                         |  |
| Public transportation   | 7.01                           | 4.79                                 | 7.01                          |  |
| Public housing  | 1.82                           | 1.82                                 | 1.82                          |  |
| Sports, culture and<br>leisure  | 10.16                          | 10.16                                | 10.16                         |  |
| Religious Services  | 5.94                           | 5.94                                 | 5.94                          |  |
| Additional expenditure<br>attributed in sensitivity<br>analysis                   | 178.74                         | -                                    | -                             |  |
| Defense and internal<br>security  | 96.45                          | -                                    | -                             |  |
| Infrastructure  | 45.89                          |                                      |                               |  |
| Environmental<br>protection   | 7.26                           | -                                    | -                             |  |
| Fiscal services,<br>Ministry of Foreign<br>Affairs and government<br>institutions | 10.13                          | -                                    | -                             |  |
| Economic affairs  | 19.01                          | -                                    | -                             |  |

| <b>Income/Expenditure*<br/>(billions of shekels)</b> | <b>Administrative<br/>Data</b> | <b>Identification<br/>in Surveys</b> | <b>Actual<br/>Attribution</b> | <b>Attribution as<br/>% of<br/>Administrative<br/>Data</b> |
|--|--------------------------------|--------------------------------------|-------------------------------|--|
| Additional expenditure<br>not attributed in study    | 81.82                          | -                                    | -                             |  |

## **E. Additional Analyses**

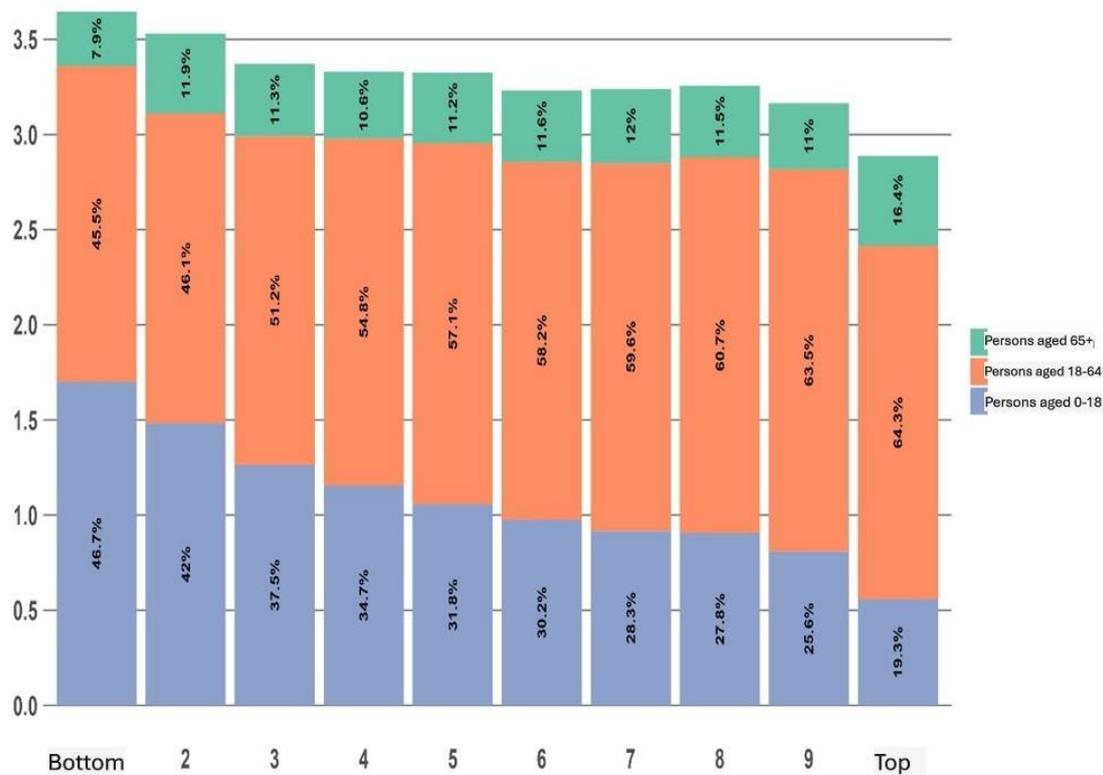
In this chapter, we perform further analyses based on our data: First, we examine the demographic composition of households by deciles, to explain some of the findings previously discussed. Second, we analyze some of the State's income and expenditure by household, according to its structure and number of resident children. Thirdly, we estimate the net transfers by expenditure deciles. Finally, we measure the Gini coefficient for inequality in different types of income according to our estimates.

### **Demography**

The number of persons in a household in the various income deciles is not distributed uniformly, and there is much variability in the age distribution as well. Figure 28 shows how households in the lowest income decile have 3.65 persons on average while the top decile has 2.89 on average. The average number of children drops sharply the higher the decile, while the number of adults steadily rises.

### **Figure 28 – Average Number of Persons by Age Group and Income Decile, 2018 Data**

Ratio of the three top deciles to the three bottom deciles - children: 1.96  
Ratio of the three top deciles to the three bottom deciles - persons: 1.13



Source: Karlinsky, Sadeh, Yogev and Sarel (2025) see link to essay on pg 2 of this chapter

[Y axis: Persons, X axis: Decile]

The age distribution explains some of the results seen in previous chapters, particularly regarding households' receipt of services and transfers. For example, Figures 21 and 22 showed that the top income decile received transfers and services of welfare and health services at a value no less (and even rising) of the value of services and transfers granted to the lowest deciles. One possible explanation for this distribution is the relatively large number of older people in the top decile, leading to the receipt of more old-age allowances (proportionate to the decile's population) and more health services (since the capitation formula is largely based on age). Similarly, the age distribution also explains the distribution of education services' value across deciles (Figure 19), since children are the ones who receive those services in practice, and given that the number of children in the lower deciles is higher by far than that in the upper deciles, households in the lower deciles are granted more education services than the other deciles.

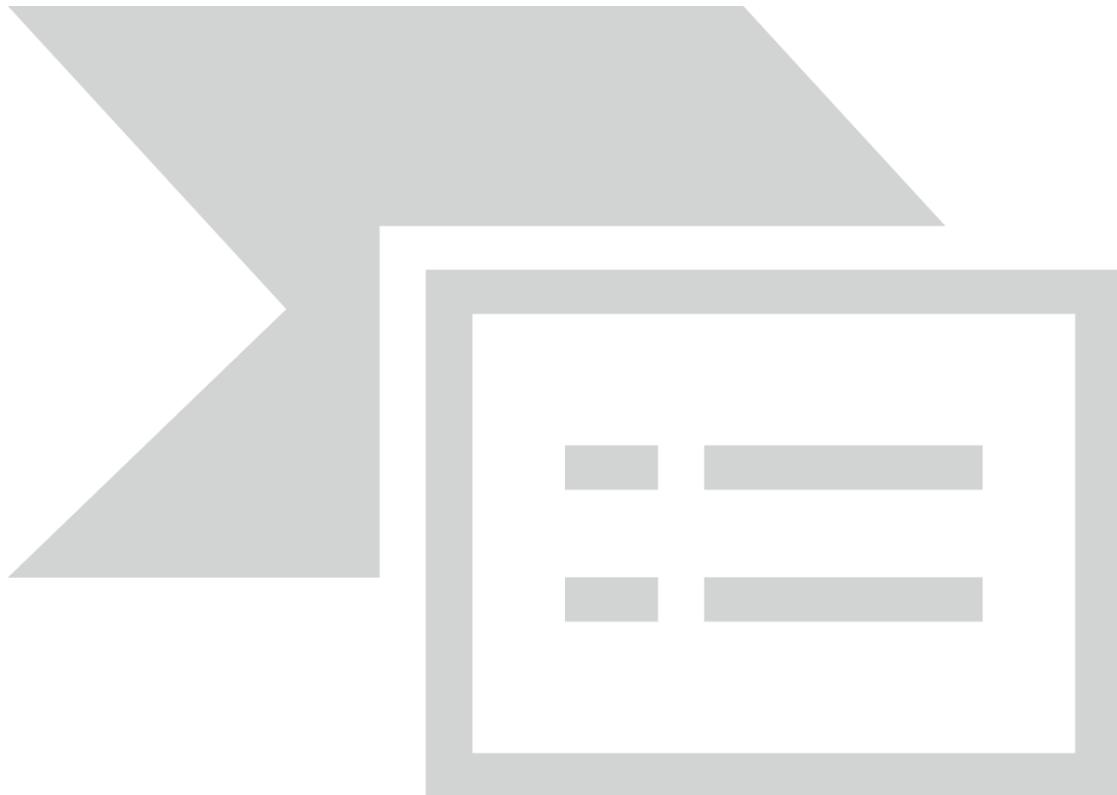
Figure 29 shows the average net income per standardized person of households in different income deciles. This also explains part of the results we saw in previous analyses, since they are affected by both taxation on the one hand and transfers on the other: Taxation is affected by the direct taxes paid on household income, as well as indirectly by the products and services that households purchase with this income. Transfers are affected, because households with fewer means tend to receive more transfers from the state, for example through benefits and welfare services.

## Figure 29 – Average Net Income Per Standardized Person by Deciles and Their Borders, 2018 Data

Arrow: open end of the top decile

Lines: decile borders

Dot: average



[Y axis: Decile, X axis: Standardized Person Net Income]

### Breakdown by Household Size

We break down the net transfers, total taxes, and total transfers by household structure (single parent or couple) and by the number of resident children. Due to limited observations of single-person households with multiple children, the analysis groups differ – among single-person households, the groups of 3 children and above were combined into one group, while among couples households, the upper group is 6 children and above.

### Net Transfers

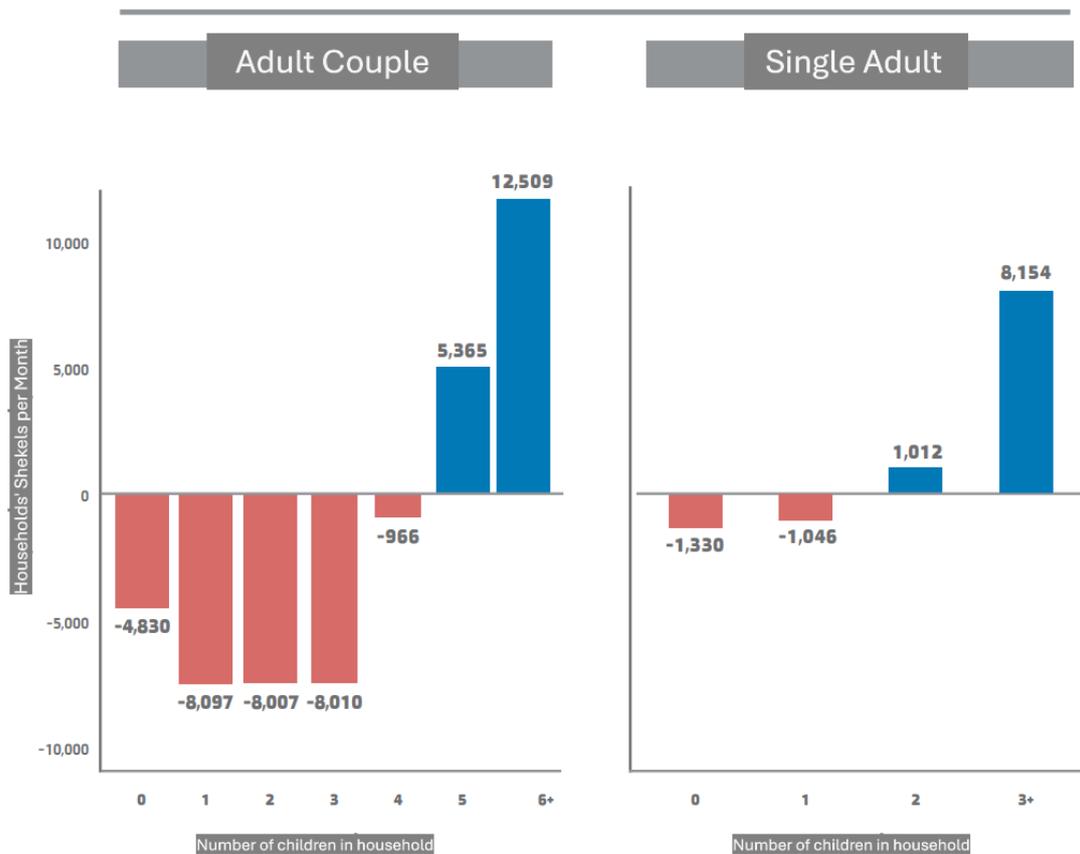
Figure 30 shows the net transfers to households by household structure and number of children, with households divided into two- and single-parent households. Generally, it shows that for the most part (though not always) a higher number of children translates into a higher net transfer, for both couples and singles.

Additionally, for every given number of children, net transfers for single parents are larger than net transfers for couples with the same amount of children.<sup>13</sup>

### Figure 30 - Net Transfers (Services Minus Taxes) By Household Structure and Number of Children, 2018 Data

General Government Transfers - health care, education services, social allowances and other direct transfers, welfare services, public transportation subsidies, cultural and religious services and public housing. Total: 171.22 billion shekels

General Government income from taxes - individual income taxes, VAT, National Insurance contributions and health tax, fuel tax, various consumption taxes (alcohol, tobacco, vehicle purchases), corporate tax, real estate taxes, financial VAT and non-profit VAT, property tax (residential and other, mainly business), customs duties and fees. Total: 257.42 billion shekels.



Source: Karlinsky, Sadeh, Yogeve and Sarel (2025) see link to essay on pg 2 of this chapter

### Tax Payments

Figure 31 shows households' average payment of taxes by household structure and number of resident children. For the same number of children, couples pay more

<sup>13</sup> This analysis includes only households with one or two parents (excluding, for example, households with roommates). The number of children includes the biological children of the single parent or parent couple, as well as grandchildren and foster children under the age of 18.

taxes compared to singles and single parents. Among couples, expenditure on tax payments decrease from the fourth child.

### Figure 31: Average Payment of Total Taxes by Household Structure and Number of Children, 2018 Data

General Government income from taxes - individual income taxes, VAT, National Insurance contributions and health tax, fuel tax, various consumption taxes (alcohol, tobacco, vehicle purchases), corporate tax, real estate taxes, financial VAT and non-profit VAT, property tax (residential and other, mainly business), customs duties and fees. Total: 257.42 billion shekels.



[Y axis: Households' Shekels per Month, X axis: Number of Children. Left Column: Couples, Right Column: Singles]

### General Government Transfers

Figure 32 shows the distribution of the general government's net transfers by household structure and number of resident children. Generally, households with a higher number of children are characterized by receipt of services at a higher value than the broad public sector. Likewise, single parent households receive services at a value higher than other families, for every given number of children. It must be noted that many households with no children are characterized by older persons, who are granted more health services and old-age allowances.

### Figure 32: Average Value of Total Transfers by Household Structure and Number of Children, 2018 Data

General Government Transfers - health care, education services, social allowances and other direct transfers, welfare services, public transportation subsidies, cultural and religious services and public housing. Total: 171.22 billion shekels



[Y axis: Households' Shekels per Month, X axis: Number of Children. Left Column: Couples, Right Column: Singles]

### Analysis by Household Expenditure Deciles

The Household Expenditure Survey is cross-section, and as such, it presents households' income and expenditure at a specific point in time, without tracking them over time. According to accepted economic theories, primarily Friedman's Permanent Income Hypothesis (Friedman, 1957), income varies more sharply over the life cycle than expenditure. In simple terms, while expenditure (consumption) is relatively stable throughout life, income varies between different periods. For this purpose, "young" households will typically be characterized by a current income that is lower than their expenditure, as will older households who mostly rely on their savings. In contrast, households where the breadwinners have significant employment tenure and are maximizing their earning capacity will typically be characterized by an income that is higher than their expenditure. Therefore, current expenditure can sometimes reflect the standard of living more reliably than current income (Chief Economist Division, 2019), especially when dealing with cross-sectional data as that presented in the Survey.

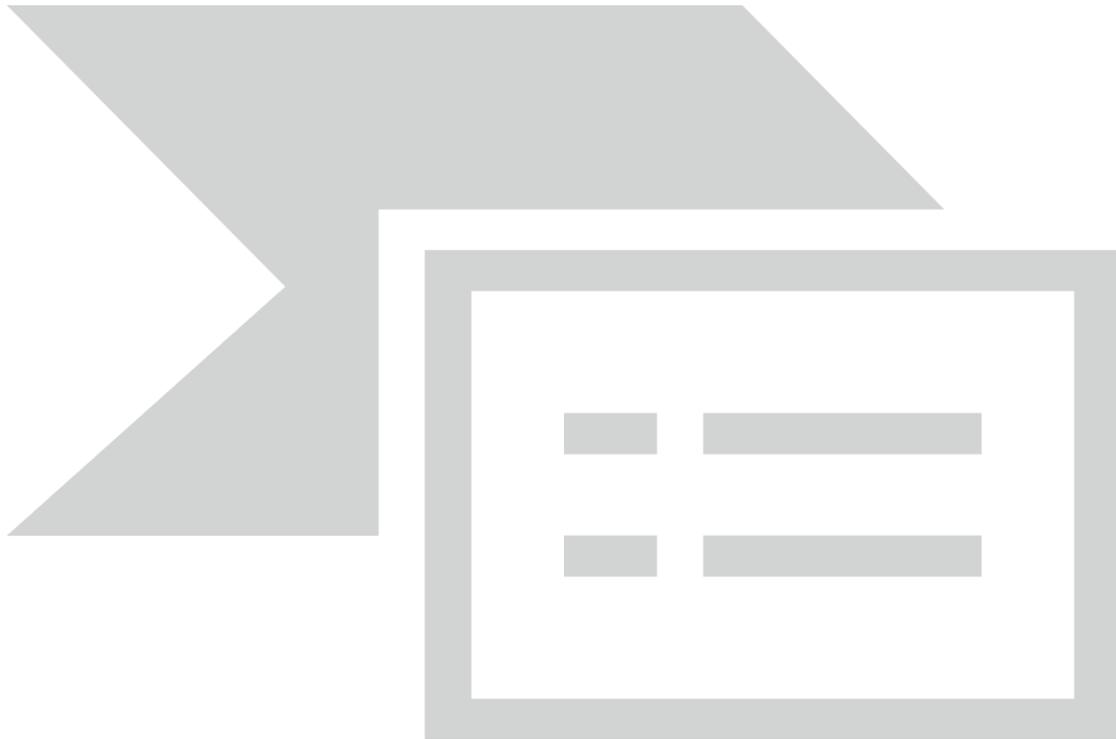
Accordingly, we conducted an additional analysis of net transfers by expenditure deciles. Figure 33 shows the results of this analysis. The figure shows that households in the top expenditure decile paid on average net transfers worth approximately 22,100 shekels per month, and that households in the bottom decile received on average net transfers worth approximately 6,500 shekels per month.

### Figure 33: Average Value of Net Transfers (Services Minus Taxes) By Expenditure Deciles, 2018 Data

General Government income from taxes - individual income taxes, VAT, National Insurance contributions and health tax, fuel tax, various consumption taxes (alcohol, tobacco, vehicle purchases), corporate tax, real estate taxes, financial VAT and non-profit VAT, property tax (residential and other, mainly business), customs duties and fees.

Total: 405.47 billion shekels.

General Government Transfers - health care, education services, social allowances and other direct transfers, welfare services, public transportation subsidies, cultural and religious services and public housing. Total: 267.74 billion shekels



The figure shows that the distribution of net transfers to households by expenditure deciles is very similar to the distribution of net transfers to households by income deciles, as shown in Figure 2.

### **Inequality**

The Gini coefficient is an accepted measure of inequality. Its values range between 0 to 1, where 0 describes a state of complete equality and 1 describes a state where all income is concentrated in a single household. Figure 34 depicts the Gini coefficient for income per standardized person, for different definitions of household income.

The leftmost column in the figure presents the Gini coefficient for inequality in net monetary income, similar to the Poverty and Social Gaps Report (National Insurance Institute, 2023b). In the second column, the index is calculated on total net income, which also takes into account the value of homeownership (as described in the household income structure chapter).

The third column in the figure, calculates the index on total net income, plus the net transfers that we used in the central analysis of this paper – that is, all taxes and all transfers to households. The inequality index decreases significantly between the first two columns and the third column, because the imposition of additional taxes (such as VAT and corporate tax) by the state and the use of the resources they

generate for it to fund services for households (such as education and health) reduces inequality between households.

In the three columns on the right, the index is calculated on total income, alongside transfers to households, also attributing public goods (such as security and government) and infrastructure investment (such as road construction), according to three different attribution methods, as detailed in the technical appendix.

The result of comparing the left column in the figure to the other columns is that ignoring some of the taxes that the state collects and some of the services provided to households by the state causes an upward bias in calculating the degree of inequality in household income. In practice, the degree of inequality is more moderate than that presented in most publications.

**Figure 34: Gini Coefficient Value According to Various Estimates of Net Income per Standardized Person, 2018**



**[[Y axis:] Gini Coefficient, [X axis]: Income Definition. [Columns from left to right:] Net Monetary Income, Net Total Income, Central Analysis, Central Analysis+ Attribution by Persons\*, Central Analysis+ Attribution by Expenditure\*, Central Analysis+ Attribution by Income\*, \*Attribution of public goods and infrastructure]**

## **Other Analyses**

Aside from the central analysis presented thus far, we conducted many additional analyses, all laid out in the technical appendix. These include, among others, various sensitivity tests, particularly the attribution of public goods by different methods and using different assumptions of the tax burden distribution (for instance, a different distribution of the VAT and other taxes' burden), as well as specific expenditures that were not included in the central analysis. The picture painted by all sensitivity tests is similar to the results presented above.

## **F. Discussion and Conclusion**

In this study, we estimated the distribution of Israel's general government income and expenditure among households in Israel based on an extensive review of the literature on the subject of tax burdens and their distribution (see the list of sources in the paper as well as in the technical appendix), which includes theoretical and empirical sources, as well as relevant analyses conducted in the past, combined with administrative data and data from the Household Expenditure Survey. Although there are many studies that have dealt with this subject, this paper makes a significant contribution both to the existing research literature in the field and to the formulation of socio-economic policy. This study is unique in the scope of taxes, services, and transfers it examines and in the methodology used.

Two contributions of this paper are of note. First, this paper enables a data driven discussion of the scope and manner of the general government's redistribution of income among various groups (for instance, income deciles or population sectors such as non-Haredi Jews, Arabs and Haredi Jews), based on the taxation system and expenditure of the State as a whole, without ignoring the fact that the services the State provides its citizens impacts their welfare. Similarly, this paper enables a discussion of all taxes, transfers and services, not only the easily measurable ones, which often results in a biased and partial overall picture. This partial picture often serves as a basis for economic-social arguments, as though it were fully factual and data-based, despite being different from reality. Furthermore, this research allows for a clearer picture of how general government's policy reduces income inequality among households.

Secondly, this paper can serve in the future as a basis for international comparisons of taxation systems and general government's provision of services and transfers. For instance, this research enables a future comparison (given available data in other countries) between the tax burden's distribution in Israel with that in other countries, unbiased by the different composition of the taxation system in each country.

All in all, our central analysis attributed approximately 96% of general government's tax income and approximately 50% of its expenditure. This represents a much broader scope than that analyzed in previous publications on the subject, which included approximately 27% of tax income and approximately 14% of expenditures.

In the sensitivity tests included in the technical appendix, we included even higher proportions of general government expenditures, while attributing these expenditures in several different ways.

The analysis by income deciles shows that households in the lower income deciles receive positive and quite large net transfers (transfers minus taxes) from general government, such that the value of the services and transfers they receive is higher than the total tax they pay. In general, the lower income deciles receive average transfers and services of higher value than those received by the higher income deciles (except for old-age pensions, which are more common among the higher income deciles).

The analysis by sectors shows that the Haredi sector and the Arab sector receive significantly more services and transfers from the general government than the taxes they pay. The analysis by household size and composition demonstrates that a significant portion of state transfers is affected by household structure and the number of resident children.

Beyond the contribution to research, the database we created makes it very easy to conduct simulations of various policy decisions, with a higher level of accuracy than before. For example, under certain assumptions, it will be possible to examine how a change in the scope of general government services in the health sector will affect the net income of households in different income deciles. It will also be possible to calculate the distribution of the costs of policy measures, according to the different financing methods by which general government finances its expenditures (through raising VAT, raising income tax, and so on). However, it is important to emphasize that such simulations generally assume no behavioral change as a result of policy changes, which means the simulation results should be interpreted with great caution, or alternatively, the level of complexity of the simulations should be increased to include behavioral changes.

Furthermore, it will be possible to conduct a more informed and evidence-based discussion regarding policy proposals aimed at assisting one population group or another at the expense of other groups among the public, while more accurately examining the net transfers already being given today to that group.