DECOMPOSITION ANALYSIS OF INCOME INEQUALITY IN MEXICO, 2016-2024

Sara María Ochoa León
School of Economics of Universidad Nacional Autónoma de México (UNAM, Mexico)
E-mail: saramol@economia.unam.mx

Manuscript received 7 March 2025; accepted 10 June 2025.

ABSTRACT

Income inequality should be a key subject in economic analysis; it ought to be at the centre stage of economic theory. In particular, the study of households' income sources is fundamental to come to grips with the mechanisms shaping inequality. In this article income surveys are used to scrutinize income inequality in Mexico during the period 2016-2024. A decomposition analysis of the Gini index (Shorrocks, 1982; Lerman and Yitzhaki, 1985) for every year with information available and a decomposition of the change of the Gini index during the period (Cortés, 2000) are here conducted. We found that labour income is the income source which contributed the most to inequality, given its high share in total income. Government benefits, in turn, contributed to reduce inequality only during the first two years, then they augmented it. On the other hand, with respect to changes in the Gini index, labour income contributed to diminishing it, whilst government benefits increased it. This result speaks to the need of redesigning social programs with a view to strengthening the State's redistributive action within a social rights framework.

Keywords: Inequality, decomposition, Gini index, minimum wage, welfare programs.

JEL Classification: C1, D31, H53, I38, J08.

http://dx.doi.org/10.22201/fe.01851667p.2025.333.93154

RESUMEN

La desigualdad del ingreso debe ser un tema central en el análisis económico; en particular, el estudio de las fuentes de ingreso que obtienen los hogares es fundamental para conocer los mecanismos que dan forma a la desigualdad. Mediante el uso de las encuestas de ingreso, en este artículo analizamos la desigualdad del ingreso en México en el periodo 2016-2024, elaboramos un análisis de descomposición del índice de Gini (Shorrocks, 1982; Lerman y Yitzhaki, 1985) para cada año disponible y una descomposición del cambio del índice en el periodo (Cortés, 2000). Encontramos que la fuente que más contribuye a la desigualdad es el ingreso por trabajo, debido a su alta participación en el ingreso total; los beneficios gubernamentales contribuyeron a disminuir la desigualdad los primeros dos años y, posteriormente, la aumentaron. Al considerar el cambio del índice de Gini en el periodo, observamos que el ingreso laboral contribuyó a disminuirlo y los beneficios gubernamentales a aumentarlo. Estos resultados apuntan a la necesidad de revisar el diseño de los programas sociales para reforzar la acción redistributiva del Estado en un marco de derechos sociales.

Palabras clave: desigualdad, descomposición, índice de Gini, salario mínimo, programas de bienestar.

Clasificación JEL: C1, D31, H53, I38, J08.

1. INTRODUCTION

No less an authority than David Ricardo (1817 [2004], p. 5) unfailingly sustained that "[t]o determine the laws which regulate [the] distribution [of income], is the principal problem in Political Economy". Income distribution continued to being considered a fundamental subject in economic theory with authors of the Marginalist revolution (Wicksteed, 1894) and followers of Keynes and Sraffa (Kaldor, 1955; Garegnani, 2024 and Pasinetti, 1966). Thinking on income distribution was rare during the Neoclassical Synthe-

sis's halcyon days and sent to oblivion by the Rational Expectations revolution[1].

Fortunately, reflection on issues related to income distribution, like poverty and inequality, are back in recent economic analysis, perhaps in part under the stimulus of the failure of both mainstream theoretical paradigms and economic policies inspired by the latter. Atkinson (1997), Piketty (2014) and many others have been calling for bringing income distribution back to theoretical and policy conversation.

The present paper deals with personal distribution of income in Mexico over the period 2016-2024. Using household surveys, inequality shows a falling tendency. It develops a decomposition analysis of the Gini index and a decomposition of its change during the aforementioned period to disentangle the influence of the different income sources. The main contribution of the paper lies in its empirical findings: *i*) labour income was the main source of inequality, while Government benefits contributed to diminishing it in the first two years, but changed sign from negative to positive in the last three years; *ii*) with regard to changes in the Gini index, labour income tended to diminishing it and government benefits to increasing it. The finding of the study suggests the necessity of an in-depth analysis of the policies and programs associated to these results, namely the increase of the minimum wage and the expansion of the budget and coverage of the non-contributory pension for the elderly. Furthermore, they speak to the necessity of revising the design of social policy programs to invigorate the State's redistributive power.

The article is structured as follows: The next section discusses income sources and inequality, the third section looks at evolution of households' per capita current income, the fourth section presents the methodology of inequality decomposition by households' income sources and the fifth one the decomposition of the Gini index by income sources. The last section is the conclusion.

---

[1] Lucas (2004, p. 20) claimed that "Of the tendencies that are harmful to sound economics, the most seductive, and in my opinion the most poisonous, is to focus on questions of distribution (…) The potential for improving the lives of poor people by finding different ways of distributing current production is nothing compared to the apparently limitless potential of increasing production."

2. INCOME SOURCES AND INEQUALITY

First and foremost, among a group of leading economists from different political and theoretical persuasions (Milanovic, 2011; Stiglitz, 2012; Deaton, 2013; Piketty, 2014; Atkinson, 2015), there seems to be a consensus on the need to bring the question of income distribution and inequality back to the centre stage of economic analysis. Atkinson and Piketty agree on the theoretical and empirical relevance of such issue; they have produced massive research on inequality.

Atkinson (1997) made a call to "Bring Income Distribution in From the Cold", since income distribution had been marginalised (and sometimes neglected) from economic analysis during much of the twentieth century. He makes the case for studying that subject not only in terms of functional distribution of income, but also in terms of personal distribution of income[2]. Piketty (2014) also appeals "putting distribution back at the centre of economics". He maintains that "for far too long, economists have neglected the distribution of wealth, partly because of Kuznets's optimistic conclusions and partly because of the profession's undue enthusiasm for simplistic mathematical models based on so-called representative agents." (Piketty, 2014, p. 16).

For Atkinson (1997, p. 46) the information furnished by surveys of households' available income is key to the analysis of personal income distribution. In fact, nowadays such surveys are the main source of information used to scrutinise poverty and inequality (Deaton, 2005). The examination of income sources can be used to study total income as

---

[2] "Understanding the distribution of income is necessary to understanding the working of the economy. As we have learned from the recent economic crisis, it is not enough to look simply at macroeconomic aggregates. Economic differences among people are of first-order importance." (Atkinson, 2015, p. 16). Atkinson (1997, p. 297) cites Dalton's testimony (1920, p. vii, Preface to Dalton's book *Some Aspects of The Inequality of Incomes in Modern Communities*) while studying economics at Cambridge about the neglect of examining personal income distribution: "I gradually noticed, however, that most 'theories of distribution' were almost wholly concerned with distribution as between 'factors of production'. Distribution as between persons, a problem of more direct and obvious interest, was either left out of the textbooks altogether, or treated so briefly, as to suggest that it raised no question, which could not be answered either by generalisations about the factors of production, or by plodding statistical investigations, which professors of economic theory were content to leave to lesser men."

it allows the identification of the main mechanisms to generate income from wage jobs, property of capital or by means of redistribution and, for that matter, the fundamental trends of the economy can be grasped. Likewise, that analytical exercise is helpful to disentangle the effectiveness of economic, labour and social policies bearing influence on the various sources of income.

Household surveys show that labour income is responsible for the bulk of total income, while income from property rent or revenues tend to be understated, among other reasons, due to the known phenomena of truncation and income sub declaration (Cortés and Vargas, 2017). Since wages from work are the greater portion of labour income, their behaviour exerts a strong influence on changes in inequality. The variables associated with income labour are manifold, for example, the number of employed people, the average income earned, and the employment and sectorial structure.

This part of the paper is chiefly focussed on Atkinson's and Piketty's arguments on the main sources of income and inequality, namely labour income and capital and transfers (Atkinson dubs capital and transfers "incomes without work"). The inspection of wage dispersion is an important aspect in the analysis of labour income, while transfers along with the impact of taxes account for the government distributional impact.

As regards labour income, Atkinson (1997) sustains that the traditional account of wage dispersion is based on models of supply and demand of workers with high and low qualifications associated with the process of technological change. He makes the case for the need to improve the analysis considering institutional dimensions like workers collective bargaining capabilities and the rate of trade union membership. Government policies bearing direct impacts on collective bargaining and wage determination can influence greatly the trends of both wage dispersion and inequality. In particular, Atkinson (2015, p. 73) underscores the relevance of policies aimed at improving the conditions of least-paid workers, such as the minimum wage laws[3].

---

[3] Atkinson (2015) maintains that the building-up of a social State contributed to the diminution of poverty and inequality in post-war Europe by means of the expansion of social benefits, partially financed with a policy of progressive income taxation. Atkinson (2015, p. 66) confronts this successful European experience in terms of diminishing income in-

Piketty (2014, p. 255), in turn, shows that inequality within and across the various income labour categories are way smaller than the inequality between income labour and income earned from capital property. Yet, given the importance of labour income for both national income and households' income, it should be studied. Besides the relevance of productivity and investment in education in the long run, Piketty (2014, pp. 307-308) underlines the key role of institutions and rules, like the minimum wage, for the proper functioning of the labour market and, above all, to explain wage inequality and the reduction of income inequality as experienced in several countries and periods, including France and the United States.

Nonetheless, Piketty argues that the redistributive impact of minimum wage policies is limited, because they concentrate on the low strata of the distribution spectrum. Hence his policy recommendation to focus attention on the high strata of incomes, where other mechanisms are at work. Needless to say, this is not to deny that the minimum wage is an effective labour policy tool to set a lower bound on incomes derived from labour, being the reason why minimum wage changes exert a direct influence on workers making low incomes in those sectors where the minimum wage legislation is binding. For instance, Gramlich (1976) and Grossman (1983) have discussed the effect the minimum wage can have on the rest of the wage structure. Other studies (Autor, Manning, and Smith, 2016; Arribas, Cárdenas, and Rial, 2024) have found that a rise in the minimum wage goes hand in hand with inequality diminution.

Piketty's book (2014) discusses several opposing theories, some of them maintain that inequality always keep rising, whilst others contend that inequalities are naturally decreasing. Income and wealth inequality is not characterised by an intrinsic deterministic trend; Piketty posits that there exist convergence forces tending to diminish inequality and divergence forces tending to augment it. Among the former ones, are the diffusion of knowledge and investment in training and abilities, which are key to continuously increasing productivity. Despite such convergence

---

equality during the post-war decades with the upward turn in inequality observed since about 1980 and concludes that there exists a "race" between increasing market-induced income inequality (as observed in the majority of countries and periods) and the redistributive effect of the State through monetary transferences.

forces, Piketty (2014, p. 22) claims that there is no evidence confirming a substantial rising labour share in national income across time[4]. Furthermore, the convergence process does not occur spontaneously, if at all, it requires public policies and institutions promoting it.

Atkinson (2015, p. 155) vaguely discusses "incomes without work" as something associated with the role of capital: "it is necessary to keep distinct the beneficial ownership of wealth and the control conveyed by capital over economic decisions." Beneficial proprietorship and capital control are the key element determining income and wealth without work. He clarifies his point stating that a possessor of a defined-contribution pension fund shares in "the dividends paid on shares in the Corporation owned by that fund but has no say in the decisions made by Corporation."

Piketty (2014, pp. 24, 29), in turn, elaborates on the divergence forces which separate out high income groups from the rest of the society, as happened with the case of big corporation CEOs' high incomes. A second diverging mechanism has to do with the average annual rate of return on capital (including profits, dividends, interest, rents, other income from capital, expressed as a percentage of its total value) and the rate of growth of the economy: "If, moreover, the rate of return on capital remains significantly above the growth rate for an extended period of time (which is more likely when the growth rate is slow, though not automatic), then the risk of divergence in the distribution of wealth is very high" (*op. cit.*, p. 25). These two diverging mechanisms have substantially increased inequality in the United States. Public policies and institutions can contribute to counter them, for example, through a progressive global tax on capital.

As for transfers income, household surveys do not report information on either non-monetary or quasi-monetary government benefits, despite in-kind transferences in education and health had large redistributive effects (Lustig, Pessino, and Scott, 2013). Monetary transfers are widely used in social policy, chiefly as a part of anti-poverty programs (Cecchini and Atuesta, 2017). A direct impact on poverty reduction is

[4] Piketty (2014, p. 8) refers to the "Engels' pause", a long period of wage stagnation in Britain and France during the first six decades of the nineteenth century, despite the acceleration of economic growth.

expected when government transfers target low-income persons and/or households; nonetheless, their effect on inequality will hinge upon the progressivity of its distribution.

Atkinson (1997, p. 315), discussing the analysis of the importance of public transfers on personal income distribution, contends that "(…) we need to go beyond purely economic explanations and to look for an explanation in the theory of public choice, or 'political economy'. We have to study the behavior of the government, or its agencies, in determining the level and coverage of state benefits. The government's actions cannot be treated as purely exogenous."

As mentioned above, building on his analysis of Europe's experience with income inequality (falling during the post-war period, and an upward turn since 1980), Atkinson (2015, p. 66) sees a "race" between market-made income inequality (which has tended to increase in most countries and periods) and the Government's redistributive effect through monetary transfers, in-kind benefits and taxation (which has tamed the increment in available income inequality). Atkinson contends that such race is apparently lost, among other things, because the State's redistributive capability has been decimated as a result of policy decisions aimed at cutting benefits and coverage (OECD, 2011).

Piketty seems to agree with Atkinson; he calls for the building of a social State for the twenty first century tasked with battling and tumbling inequality. According to Piketty, the three building blocks of modern redistribution are education, health and public pensions, including replacement income and transfer payments: "Modern redistribution is built around a logic of rights and a principle of equal access to a certain number of goods deemed to be fundamental." (2014, p. 479). Atkinson (2015, pp. 237-239), along similar lines, put forth a number of "proposals for measures that would (…) substantially reduce the extent of inequality." Some initiatives of his programme for action include a more employment-oriented and humane technological change, a supply of "guaranteed public employment at the minimum wage", provision of "a capital endowment (minimum inheritance) paid to all at adulthood", a more progressive tax reform "with marginal rates of tax increasing by ranges of taxable income, up to a top rate of 65 per cent, accompanied by a broadening of the tax base" and taxation of incomes from inheritance, a higher (1 per cent of rich countries' Gross National Income) "target

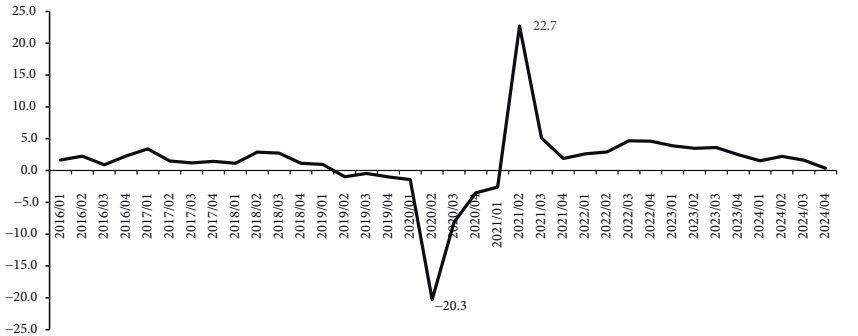
for Official Development Assistance". However feasible and operative the outlined proposals can be, potential general side effects of social policies must be considered beforehand.

3. EVOLUTION OF HOUSEHOLDS' PER CAPITA CURRENT INCOME

The behaviour of the income variables to be used later in the decomposition analysis is dealt with in this section. The period under scrutiny spans 2016-2024, so as to keep it comparable with the National Survey of Households Income and Expenditure (ENIGH, *Encuesta Nacional de Ingresos y Gastos de los Hogares*)[5]. The increment in the minimum wage and the monetary transfers, two parts and parcel of the government's social policy which have directly boosted households' income, are here discussed as well.

The period under study encompasses the economic crisis brought about by the Covid-19 pandemic, which is a relevant fact since there seems to be a direct relation between a Gross Domestic Product (GDP) contraction and a reduction in income inequality (Cortés, 2000; Hernández, 2021). Therefore, two subperiods will be distinguished, namely: 1) 2018-2020, a stage of crisis with a 3.4% cumulative GDP fall, and 2) 2020-2024, a cyclical recovery phase with a 2.9% cumulative GDP growth (see Graph 1).

Graph 1. Annual change of quarterly GDP, 2016-2024



Note: 2018 = 100.

Source: Author's elaboration using data from INEGI.

[5] A new series of ENIGH was introduced starting in 2016.

According to ENIGH, households' total income is composed of total current income (TCI) and earnings from financial assets. The former corresponds to income revenues earned regularly, which can be subdivided into monetary and non-monetary income. In this paper, the per capita households' monthly TCI is used with the aim of controlling for the size of a household. Quantities and variations are shown in real terms for all cases.

Real income fell 4.6% due to a lower labour income and lesser property rent during the crisis subperiod (2018-2020), while transferences increased 8.7%; in particular, transferences from government benefits rose 74.8% (see Table 1). On the other hand, income increased 15.8% as government benefits continued rising and as both labour income and property rent recovered during 2020-2022. Thus, households' income rose cumulatively 23.2% over the whole period 2016-2024, chiefly as a result of government benefits increasing 172%. Income from independent work (a distant second source in respect to government benefits) augmented 28%.

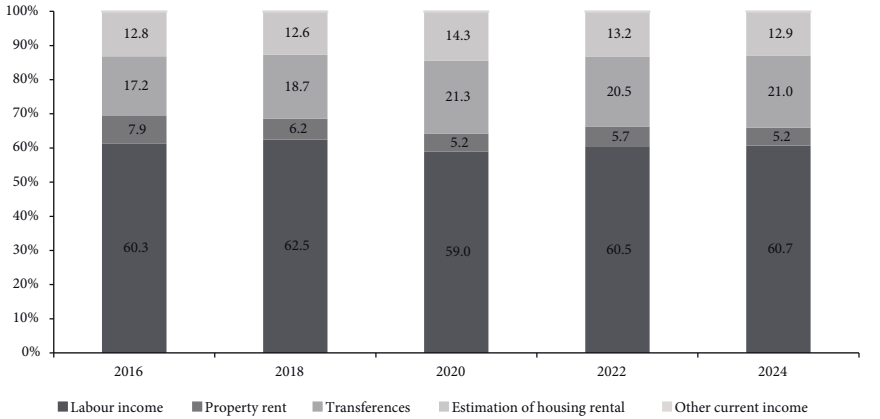
Table 1. Households' monthly per capita Total Current Income, 2016-2024

	Values					Percentage change			
	2016	2018	2020	2022	2024	2018-2020	2020-2022	2022-2024	2016-2024
Total current income per capita	7,828	7,700	7,346	8,508	9,641	–4.6	15.8	13.3	23.2
Labour income	4,722	4,809	4,336	5,149	5,852	–9.9	18.8	13.6	23.9
Subordinated work	4,002	4,072	3,672	4,340	5,011	–9.8	18.2	15.5	25.2
Independent work	540	572	509	668	691	–11.1	31.4	3.5	28.0
Other labour income	180	165	155	141	149	–6.5	–8.6	5.5	–17.1
Property rent	615	475	385	483	506	–18.9	25.4	4.6	–17.8
Transferences	1,348	1,440	1,566	1,743	2,028	8.7	11.3	16.4	50.4
Government benefits	129	104	181	262	351	74.8	44.6	34.0	172.0
Estimation of housing rental	1,003	968	1,053	1,124	1,248	8.7	6.8	11.0	24.4
Other current income	7	7	7	8	8	–5.7	24.5	1.6	18.9

Note: Mexican real pesos of August 2024.

Source: Author's elaboration using data from ENIGH.

Graph 2. Composition of Households' monthly per capita TCI by income source, 2016-2024



Source: Author's elaboration using data from ENIGH.

As for the relative composition of households' income, labour income represented the lion's share, 60%, over the whole period under examination (see Graph 2), whilst the government benefits share rose from 17.2% in 2016 to 21% in 2022. It is worth noting that pensions are the most important component of income from transfers, about 50%; notwithstanding government benefits only accounted for 9.6% in 2016, their share in transfers nearly doubled during the period of analysis (17.3% in 2024).

As for the behaviour of income by deciles during the subperiod of the 2018-2020 crisis, it declined in general terms, except for decile I. Table 2 shows higher deciles experienced a greater drop (1.5 for decile II vs. 9.4% for decile X). The Gini coefficient fell from 0.4827 to 0.4663 during this subperiod, a reiteration of the pattern of behaviour Cortés and Rubalcava (1991) dubbed *equity through impoverishment*.

In the 2020-2022 subperiod the economy recovered and recorded a generalized increase in income, greater for the first deciles, 23.7% for decile I vs. 14.8% for decile X. The Gini coefficient fell to 0.4580 from 0.4663, but this time improvement in equity involved increased incomes. Given that GDP grew 2.19%, this fall in income inequality differs from rising inequality seen in previous recovery periods (Cortés, 2000;

Table 2. Behaviour of the monthly per capita TCI by income source, 2016-2024

	Values					Percentage change			
	2016	2018	2020	2022	2024	2018-2020	2020-2022	2022-2024	2016-2024
I	1,251.2	1,307.0	1,308.3	1,617.9	1,850.3	0.1	23.7	14.4	47.9
II	2,157.9	2,263.4	2,229.7	2,694.9	3,116.5	–1.5	20.9	15.6	44.4
III	2,846.1	2,977.8	2,923.3	3,500.3	4,069.9	–1.8	19.7	16.3	43.0
IV	3,542.7	3,678.4	3,631.4	4,307.2	5,002.9	–1.3	18.6	16.2	41.2
V	4,317.2	4,478.2	4,416.9	5,213.6	6,054.0	–1.4	18.0	16.1	40.2
VI	5,284.4	5,440.3	5,386.1	6,318.1	7,330.4	–1.0	17.3	16.0	38.7
VII	6,560.0	6,704.2	6,649.4	7,702.6	8,939.9	–0.8	15.8	16.1	36.3
VIII	8,528.5	8,660.2	8,461.8	9,743.4	11,192.7	–2.3	15.1	14.9	31.2
IX	12,110.7	12,053.2	11,776.8	13,351.2	15,267.0	–2.3	13.4	14.3	26.1
X	31,681.4	29,444.1	26,686.1	30,630.7	33,590.3	–9.4	14.8	9.7	6.0
Total	7,827.7	7,700.4	7,346.8	8,507.7	9,640.9	–4.6	15.8	13.3	23.2
Decile X/ Decile I	25.3	22.5	20.4	18.9	18.2				
Decile X/ Deciles I-IV	3.2	2.9	2.6	2.5	2.4				
Gini index	0.5047	0.4827	0.46636	0.4580	0.4477	–3.4	–1.8	–2.2	–11.3

Note: Mexican real pesos of 2024.

Source: Author's elaboration using data from ENIGH.

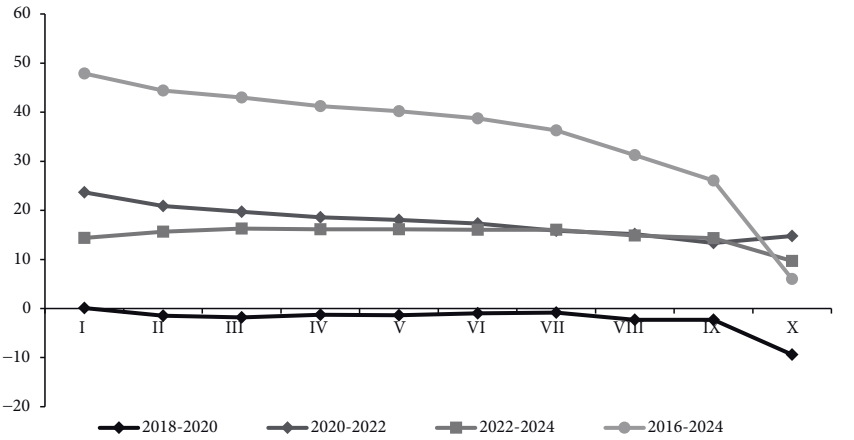
Hernández, 2021). The Gini coefficient plunged to 0.4477 in 2024, thus bringing about a cumulative 11.3% decrease over the whole period under scrutiny.

Incidence curves readily show income changes by deciles (Ravallion and Chen, 2003). Graph 3 displays TCI variations for different subperiods. Clearly, the largest changes befell at the lower end of the income distribution spectrum. Consequentially, the ratio between decile X and decile I shrank from 25.3 to 18.2 times over the entire period.

Graph 4 shows changes in total transferences and government benefits by deciles. The incidence curve for the latter exhibits unexpected results. The change over the entire period greatly augments as one move along income deciles, despite the average amount of benefits received by households increased substantially, as discussed above. Actually, deciles

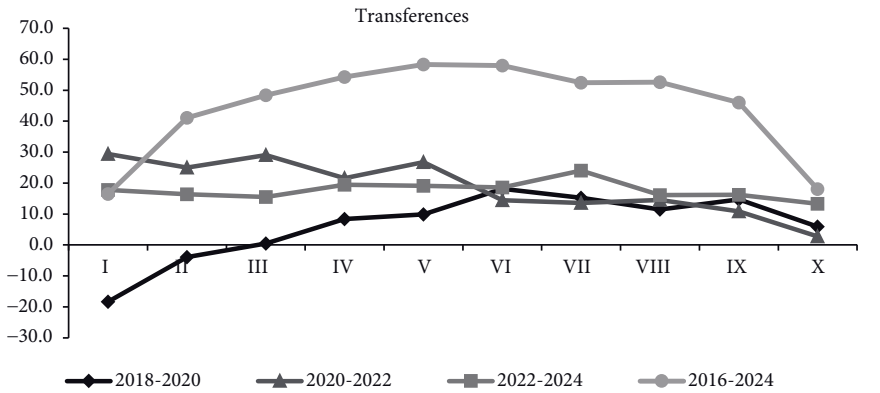
I and II experienced a reduction in income during the crisis subperiod, 2018-2020, signalling that public benefits were not an effective protection mechanism against the negative shock. Quite the contrary, decile X enjoyed a handsome increment of 336%. This behaviour is similar to the one seen during the entire period under analysis.

Graph 3. Changes in households' monthly per capita TCI by income deciles, 2016-2024

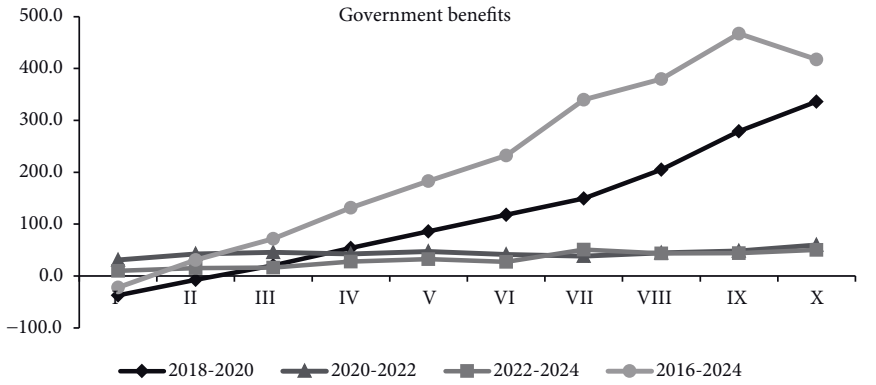


Source: Author's elaboration using data from ENIGH.

Graph 4. Changes in total transferences and government benefits by income deciles, 2016-2024



Graph 4. Changes in total transferences and government benefits by income deciles, 2016-2024 (concluded)



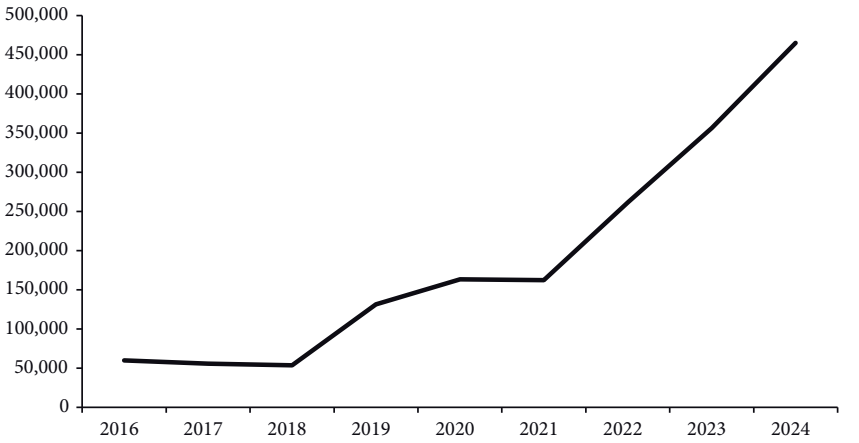
Source: Author's elaboration using data from ENIGH.

To elaborate on the above results, Table 3 presents both the coverage of government benefits and its relative share in households' income by deciles. The average coverage of households enhanced from 30.9% to 31.7% during the whole period; the same is true of its relative contribution to households' income (from 1.6% to 3.6%). This very same performance took place during the crisis subperiod. Nonetheless, the low deciles did not profit equally, as those two indicators diminished for deciles I and II over the entire period and during the crisis subperiod.

Since 2019 the government's social policy approach revolves around the guarantee of rights, its guiding axis. Even if the social policy is universalist in character, the approach gives priority to poor people as a criterium (DOF, 2019, p. 43). The non-conditional monetary transfers programs have been widely used; in particular, the Welfare Pension Program for Elderly (*Programa de Pensión del Bienestar para Adultos Mayores*) greatly expanded its coverage and budget in the period analysed. Its budget increased 29.2% on annual average between 2016 and 2024 (see Graph 5).

As regards subordinated labour income, Graph 6 shows that its increment has been concentrated mainly in the first deciles. The same is true of independent labour income, except for the subperiod 2020-2022, when the increment went chiefly to the highest deciles. Ostensibly, the behaviour of labour income suggests a diminution of inequality.

Graph 5. Budget of the Welfare Pension Program for Elderly (Millions of 2024 pesos)



Source: Secretaría de Hacienda y Crédito Público (Ministry of Finance).

Table 3. Government benefits by deciles

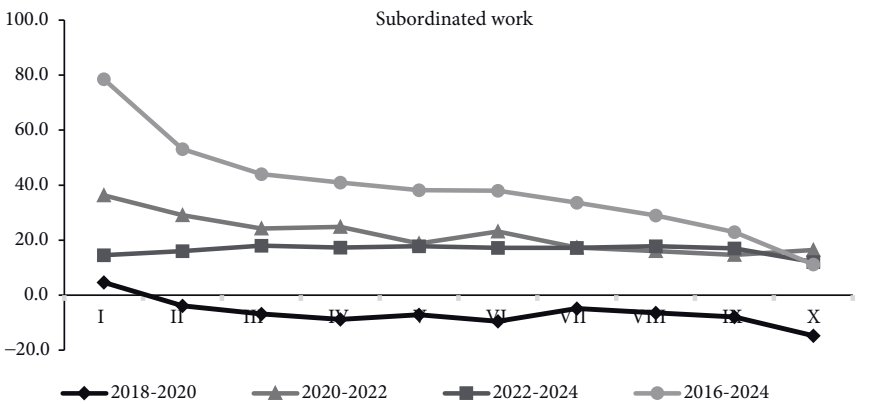
	Coverage of government benefits (percentage of households)				
	2016	2018	2020	2022	2024
I	63.7	60.6	39.7	45.9	34.0
II	50.1	47.3	36.2	41.4	33.3
III	42.0	39.7	34.0	38.2	31.6
IV	36.7	33.2	32.4	37.0	34.4
V	31.0	28.2	31.4	36.0	34.0
VI	26.5	23.2	30.4	35.2	32.6
VII	21.6	18.8	28.8	31.6	34.7
VIII	16.8	14.6	25.5	28.6	30.7
IX	12.9	9.7	21.9	26.5	28.2
X	7.3	6.0	16.9	21.1	23.1
Average	30.9	28.1	29.7	34.2	31.7
Decile I/Decile X	8.7	10.1	2.3	2.2	1.5
Number of households	10,324,499	9,778,522	10,622,356	12,829,391	12,297,112

Table 3. Government benefits by deciles (concluded)

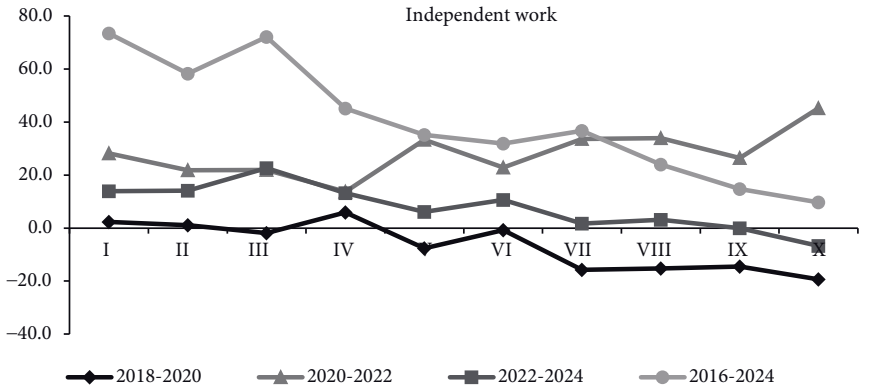
	Government benefits/TCI pc				
	2016	2018	2020	2022	2024
I	16.7	13.8	8.6	9.2	8.8
II	8.5	6.9	6.5	7.7	7.7
III	5.6	4.6	5.6	6.8	6.8
IV	3.9	3.1	4.8	5.8	6.4
V	3.0	2.3	4.3	5.3	6.1
VI	2.2	1.8	3.9	4.7	5.2
VII	1.5	1.3	3.2	3.8	5.0
VIII	1.1	0.8	2.5	3.2	4.0
IX	0.7	0.5	1.8	2.3	2.9
X	0.3	0.1	0.7	0.9	1.3
Average	1.6	1.3	2.5	3.1	3.6
Decile I/Decile X	64.8	100.7	13.1	10.0	7.0

Source: Author's elaboration using data from ENIGH.

Graph 6. Changes in subordinated labour income and independent labour income, 2016-2024



Graph 6. Changes in subordinated labour income and independent labour income, 2016-2024 (concluded)



Source: Author's elaboration using data from ENIGH.

Whatever happened over the entire period here considered, this behaviour of incomes is apparently associated with the policy to improve the real minimum wage, which grew 136% cumulatively and 11.32% on annual average between 2016 and 2024. Such an increment has brought the minimum wage closer to the average wage prevalent in the formal sector of the economy as represented by the Salario Base de Cotización al Instituto Mexicano del Seguro Social (IMSS, the Benchmark Wage Quoted at the Mexican Social Security Institute). This increment has triggered changes in the wage structure, augmenting the percentage of workers earning up to two minimum wages. According to the National Survey of Occupation and Employment (ENOE, *Encuesta Nacional de Ocupación y Empleo*) this ratio rose from 15% in 2016 (third quarter) to 37.4% in 2024 (third quarter).

Likewise, the percentage of workers members of a household earning at least one minimum wage rose from 11.7% to 19.5% between 2016 and 2024: Low deciles enjoyed a grater increment. Also, the share of workers earning between one and two minimum wages grew, except for the first decile (see Table 4).

Table 4. Percentage of household workers earning one or two minimum wages

	1 MW or less					From 1 to 2 MW				
	2016	2018	2020	2022	2024	2016	2018	2020	2022	2024
I	53.1	51.1	66.3	61.0	67.1	34.6	37.6	30.0	34.9	30.6
II	20.0	19.9	33.3	27.8	34.7	32.7	33.9	46.1	51.6	52.6
III	13.2	12.9	23.4	20.6	25.4	22.1	23.1	38.0	41.0	46.9
IV	9.8	10.2	16.4	15.9	19.0	17.2	17.2	29.4	33.3	38.2
V	8.0	7.2	13.0	14.0	14.4	13.1	14.1	25.0	26.8	33.9
VI	6.9	6.5	10.9	11.3	14.0	10.7	11.6	19.5	22.8	28.5
VII	5.3	5.7	9.1	9.1	10.8	9.2	11.8	16.6	20.7	25.8
VIII	3.4	5.2	6.3	7.6	8.1	7.3	9.6	16.3	20.5	24.5
IX	3.0	2.3	4.3	4.7	5.2	4.7	5.9	12.7	17.4	25.0
X	1.6	2.0	2.5	2.8	3.1	2.0	2.4	4.6	6.5	7.6
Total	11.7	11.5	18.2	17.0	19.5	15.0	16.3	24.0	27.6	31.5

Note: data corresponds to the percentage of household worker members getting each range of minimum wage.

Source: Author's elaboration using data from ENIGH.

4. INEQUALITY DECOMPOSITION BY HOUSEHOLDS' INCOME SOURCES

Beginning in the 1970s, the methodologies for the measurement of inequality and the analysis of their properties gained momentum (Atkinson, 1970; Sen, 1973; Kakwani, 1977; Bourguignon, 1979; Shorrocks, 1980; Cowell, 1980; Kanbur, 1982). One of the desired properties of those measures is their being additively decomposable, as this characteristic can be of great help both when assessing the behaviour of inequality and to gauge the relative contribution of inequality components in total inequality (Ravallion, 2016, p. 244)[6].

[6] Like in the case of inequality, several decomposition methodologies have been developed to inspect either phenomena such as wage discrimination (Blinder, 1973; Oaxaca, 1973) or the changes in poverty levels (Foster, Greer and Thorbecke, 1984; Ravallion and Huppi, 1991).

The decomposition by income sources is one of the most commonly used criteria to distinguish between income components. Following contributions by Fei, Ranis and Kuo (1978), Fields (1979) and Pyatt, Chen, and Fei (1980), Shorrocks (1982) conducted an axiomatic analysis of the principles of decomposition which has furnished the reference framework for the literature on the subject over the last decades. He put forth six required principles relevant for any decomposition rule: 1) it should be continuous and symmetrical; 2) the level of disaggregation should be independent (*i.e.*, the weight granted to each factor is independent from the way the various types of incomes are disaggregated); 3) the decomposition should be consistent (the summation of the different contributions must be equal to total income inequality); 4) population symmetry; 5) normalization for equal factor distribution, and 6) two factor symmetry. Shorrocks (1982, p. 209) shows that, following the essential principles of decomposition, "for each component of income, the assessment of its relative contribution to total income inequality will be *independent of the inequality measure chosen*". The above principles of decomposition can be used with any of the known inequality indicators, including the Gini index[7].

Following Kakwani (1977) and Shorrocks (1982), Lerman and Yitzhaki (1985), in turn, put forth a more intuitive way to understand the sources contributing to inequality; they show that the Gini index (G) can be decomposed considering the sources of total income as in the equation below[8]:

$$G = \sum_{k=1}^{K} R_k \, G_k \, S_k \qquad [1]$$

where k denotes income sources, R_k stands for the rank correlation between the income source k and total income, G_k is the relative Gini coefficient of the k source and S_k is the share of the k source in total income. The product $R_k \, G_k \, S_k$ represents the contribution of the k source to the total income's Gini index. The greater this product, the greater its

[7] Shorrocks (1983) also provides decomposition methods according to the characteristics of population subgroups and spatial characteristics (Shorrocks and Wan, 2005).

[8] Silber (1993) presents another alternative along the lines of this theory.

contribution. The sum of the k products should yield the value of the Gini index corresponding to total income. The components S_k and G_k are positive by definition, while component R_k can take values within [–1, 1].

The effect of a change in one particular source of income on total inequality can be analysed deriving the change in the Gini index with respect to a percentage change e in the k source:

$$\frac{\delta G}{\delta e_k} = S_k(R_k G_k - G) \qquad [2]$$

Dividing by G, obtains the marginal effect relative to the total Gini:

$$\frac{\delta G \big/ \delta e_k}{G} = \frac{Sk\,Gk\,Rk}{G} - Sk \qquad [3]$$

On the basis of the previous equation, Lerman and Yitzhaki (1994) develop a methodology to examine the impact of small tax changes on source income inequality. They also show that the Gini coefficient of a particular source (G_k) is given by the inequality between those who get that income source (G_A) and the percentage of households that get a positive income from that source (P_K) or, else, the percentage of households that cannot get access to that source ($1 - P_K$):

$$G_k = P_K\, G_A + (1 - P_K) \qquad [4]$$

Cortés (2000, p. 282), using equation [1], put forth a methodology to decompose the change in the Gini index from one year to the next as shown as follows:

$$\Delta G = G_t - G_0 =$$
$$\sum_{k=1}^{K} R_{0,k} G_{0,k} S_{0,k} [r_k + g_k + s_k + (r_k g_k) + (r_k s_k) + (g_k s_k) + (r_k g_k s_k)] \qquad [5]$$
$$(k = 1,2, \ldots, K)$$
$$(t = 0, 1, \ldots, T)$$

where $R_{0,k}$ $G_{0,k}$ $S_{0,k}$ denote the contribution of each source of income during the base year. r_k, g_k and s_k stand for the simple linear growth rates

of the correlation, the inequality within the source and the latter's share in income, respectively.

Using the household surveys, Shorrocks (1983) examines the functioning of the various decomposition rules to assess whether the cause of the change in inequality that took place in the United States during the period 1967-1976 is explained by the performance of the labour market or by any other process associated with the other sources. He partitioned the households' total net income into wages, capital income, transferences and taxes and considered whether the household head was male or female, sorting out by age groups in the former case.

Lerman and Yitzhaki (1985), in turn, apply their new methodology to examine income distribution in the United States in the year 1980, including income changes from household heads' wages, wages of the household head partner, wages of other household members, capital income and income transfers. Similarly, using this methodology, Leibbrandt, Woolard and Woolard (2010) and Leibbrandt, Finn and Woolard (2012) have thoroughly examined inequality in South Africa.

Cortés (2000), using the ENIGH, have also applied this decomposition method to study the behaviour of per capita monetary income inequality in Mexico in the years 1977, 1984, 1989, 1992 y 1994. Labour income accounted for the bulk of inequality in those years; hence this is the main income source of households. Other less important sources are entrepreneurial income and transferences. Esquivel and Cruces (2011) conduct a decomposition of the Gini coefficient for the years 1994, 2000 and 2006. Also, Banegas (2019) used this methodology to inspect inequality during various subperiods between 1984 and 2014.

Gottschalk and Smeeding (1997, pp. 668-670) have spotted some shortcomings associated with this method. For instance, the lack of identification of the causal links leading up to changes in inequality, the combination of effects resulting from exogenous changes in income sources and that combination of the effects resulting from endogenous changes associated with behaviour reactions, and the difficulty to interpret changes in some of its components, such as the correlation between sources or the change in the relative size of each source.

Shorrocks (2013) and Fourrey (2023) discuss the alternative methods available to estimate decompositions. Fourrey (2023) talks about methods based on regressions (Yitzhaki and Schechtman, 2013; Firpo,

Fortin, and Lemieux, 2009, 2018; Morduch and Sicular, 2002) and those using the Shapley value employed in game theory to decompose inequality and compute the marginal contributions to inequality (Chantreuil and Trannoy, 2013; Chantreuil *et. al.*, 2019). Chantreuil and Trannoy (2013, p. 26) show that the Shapley decomposition satisfies four of the six axioms put forth by Shorrocks (1982), albeit it fails to comply with the normalization for equal factor distribution and with independence of the level of disaggregation. Hence these authors sustain that "(…) as part of income source decomposition, the discussion of the merits of the Shapley decomposition with respect to the properties introduced by Shorrocks (1982) exposes the trade-off between a decomposition rule which is independent from the inequality index, and another rule which is sensitive to the choice of the inequality index."

5. DECOMPOSITION OF THE GINI INDEX BY INCOME SOURCES

In this section, the decomposition of the Gini index by income sources for selected years (2016, 2018, 2020, 2022 and 2024) is presented according to equation [1][9]. Since this methodology allows for various different disaggregation levels of the relevant variable, a first specification by major income categories (labour income, property rent, transferences, estimation of housing rental and other current income streams) and a second specification disaggregating labour income, transferences and, when possible, government benefits, are operated.

The data shown in Table 5 reveals that labour income is the topmost contribution to inequality in the years considered, which is accounted for by the fact that labour income represents the bulk of households' total income[10]. Transferences represent the second source of income; their relative share increased during the period under examination.

Given the relevance of the non-contributory pension elderly programs implemented during the period of analysis, the decomposition here presented distinguishes between households with members aged 65 years

[9] The sgini command in Stata is applied; the descogini command (López Feldman, 2006) is also applied for the sake of comparison.

[10] The yearly estimates of the present decomposition can be found in the Appendix.

or more. The relative weight of the different sources in total inequality varies substantially in each case; for instance, the relative contribution of transferences to inequality is greater when households include elderly members (see Table 5).

Table 5. Income inequality decomposition by sources, 2016-2024 (Percentage contribution to the Gini index)

	Total households				
	2016	**2018**	**2020**	**2022**	**2024**
Labour income	56.3%	59.3%	55.2%	56.6%	56.7%
Property rent	13.4%	10.4%	8.9%	9.9%	9.2%
Transferences	18.3%	18.9%	22.6%	20.6%	21.3%
Estimation of housing rental	12.0%	11.4%	13.3%	12.8%	12.8%
Other current income	0.1%	0.1%	0.1%	0.1%	0.1%
Total	100%	100%	100%	100%	100%
	Households without elderly members				
	2016	**2018**	**2020**	**2022**	**2024**
Labour income	66.3%	67.2%	67.0%	68.9%	69.3%
Property rent	11.8%	10.6%	9.2%	10.0%	9.6%
Transferences	11.8%	12.3%	12.6%	10.5%	10.3%
Estimation of housing rental	10.0%	9.9%	11.1%	10.5%	10.8%
Other current income	0.1%	0.1%	0.0%	0.1%	0.1%
Total	100%	100%	100%	100%	100%
	Households with elderly members				
	2016	**2018**	**2020**	**2022**	**2024**
Labour income	26.3%	30.5%	27.6%	26.1%	24.0%
Property rent	18.2%	9.6%	8.0%	9.6%	8.2%
Transferences	37.6%	42.9%	46.0%	45.6%	49.7%
Estimation of housing rental	17.9%	17.0%	18.3%	18.7%	18.1%
Other current income	0.0%	0.0%	0.1%	0.0%	0.0%
Total	100%	100%	100%	100%	100%

Source: Author's elaboration using data from ENIGH.

Income source disaggregation allows an in-depth analysis of the relative contribution to inequality of each category. Labour income is the most important contributor to inequality; the bulk of it originates in paid or remunerated work income (see Table 6). Concerning the category transferences, pensions contribute a good deal to inequality. It is noteworthy to underscore that the majority of the social programs belonging to the category government benefits contribute to diminish income inequality. Thus, the Prospera program ranked as the most relevant to reduce inequality, albeit with a low contribution in 2016 and 2018[11]. Starting in 2020 and considering the new existing social programs, the Welfare Pension Program for Elderly stands out as a source that has contributed to increasing the Gini index.

Table 6. Decomposition of income inequality by sources, 2016-2024 (Percentage contribution to the total Gini index)

	2016	2018	2020	2022	2024
Labour income	56.3%	59.3%	55.2%	56.6%	56.7%
Subordinated work	49.9%	52.7%	49.7%	50.0%	51.2%
Independent work	4.9%	5.3%	4.4%	5.6%	4.5%
Other labour income	1.5%	1.3%	1.2%	1.1%	1.0%
Property rent	13.4%	10.4%	8.9%	9.9%	9.2%
Transferences	18.3%	18.9%	22.6%	20.6%	21.3%
Pensions	11.6%	12.4%	15.5%	14.5%	14.1%
Scholarships	0.3%	0.3%	0.2%	0.1%	0.1%
Donations	2.2%	2.1%	1.7%	1.4%	1.2%
Remittances	0.4%	0.5%	0.6%	0.6%	0.2%
Household transferences	3.3%	3.0%	3.1%	2.5%	2.7%
Institutional transferences	1.1%	1.2%	1.2%	0.8%	1.6%

[11] Prospera/Oportunidades/Progresa, the main conditional monetary transfers program operated between 1997 and 2018 to overcome poverty (Yaschine, 2019). The full list of social programs considered in the yearly surveys can be looked at in the Appendix.

Table 6. Decomposition of income inequality by sources, 2016-2024 (Percentage contribution to the total Gini index) [concluded]

	2016	2018	2020	2022	2024
Government benefits	–0.6%	–0.6%	0.4%	0.6%	1.2%
Prospera (Oportunidades, Progresa)	–0.6%	–0.6%			
Procampo	0.0%	0.0%			
Procampo/ProAgro Productivo/ Producción para el Bienestar			0.0%	0.0%	0.0%
Programa 65 y más	–0.1%	–0.1%			
Programa Pensión para el Bienestar de las Personas Adultas Mayores (formerly Programa 65 y más)			0.6%	0.9%	1.3%
Other programs for the elderly	0.1%	0.0%	0.0%	0.0%	0.1%
Tarjeta SinHambre (PAL)	0.0%	0.0%			
Programa de Empleo Temporal (PET)	0.0%	0.0%			
Other social programs	0.0%	0.0%	0.0%	0.0%	0.0%
Beca de Educación Básica para el Bienestar Benito Juárez (formerly Prospera)			–0.1%	–0.1%	–0.1%
Beca Universal de Educación Media Superior Benito Juárez (formerly Prospera)			–0.1%	0.0%	0.0%
Jóvenes Escribiendo el Futuro (Educación superior)			0.0%	0.0%	0.0%
Programa de Pensión para el Bienestar de las Personas con Discapacidad Permanente			0.0%	0.0%	0.0%
Programa de Apoyo para el Bienestar de las Niñas y Niños, Hijos de Madres Trabajadoras (formerly Estancias Infantiles)			0.0%	0.0%	0.0%
Seguro de Vida para Jefas de Familia			0.0%	0.0%	0.0%
Jóvenes Construyendo el Futuro			0.0%	0.0%	0.0%
Estimation of housing rental	12.0%	11.4%	13.3%	12.8%	12.8%
Other current income	0.1%	0.1%	0.1%	0.1%	0.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Author's elaboration using data from ENIGH.

Among the elements of the decomposition, the following aspects deserve to be highlighted: The contributory pensions experienced an increment in their relative share (*s*), a diminution of the Gini index (*g*), and an augmentation of the rank correlation (*r*) (from –0.0509 in 2016 to 0.2132 in 2024) (see the Appendix). Since this correlation varies between –1 and 1, its behaviour transpires that the benefits began shifting direction toward the higher parts of the distribution spectrum, which in turn heightened the concentration coefficient (*r*g*). Evidently, this result of the non-contributory pension programs should be complemented with an analysis of other relevant dimensions, such as poverty or the quality of life of elderly population.

The contribution of labour income fell substantially in the case of households with elder members (it represented 20.2% of the Gini index in 2024, compared to 51.2% for all households), whilst the relative contribution of pensions increased (see Table 7). Like in the case of the population as a whole, the non-contributory pensions program added positively to the Gini index (it represented 3.4% of the Gini index in 2024, compared to only 1.3% for all households).

Table 7. Decomposition of income inequality by sources, 2016-2024 (Percentage contribution to the total Gini index. Households with members over 65 years of age)

	2016	2018	2020	2022	2024
Labour income	26.3%	30.5%	27.6%	26.1%	24.0%
Subordinated work	22.4%	25.7%	23.8%	22.1%	20.2%
Independent work	3.1%	4.1%	3.3%	3.5%	3.4%
Other labour income	0.9%	0.7%	0.5%	0.6%	0.5%
Property rent	18.2%	9.6%	8.0%	9.6%	8.2%
Transferences	38%	43%	46%	46%	50%
Pensions	28.7%	33.4%	35.3%	35.4%	38.1%
Scholarships	0.0%	0.1%	0.0%	0.0%	0.0%
Donations	3.2%	2.6%	2.4%	2.2%	1.5%
Remittances	0.2%	0.6%	0.5%	0.4%	0.1%
Household transferences	4.4%	4.6%	4.4%	4.0%	4.2%
Institutional transferences	1.7%	2.6%	2.4%	1.7%	2.3%

Table 7. Decomposition of income inequality by sources, 2016-2024 (Percentage contribution to the total Gini index. Households with members over 65 years of age)

	2016	2018	2020	2022	2024
Government benefits	–0.7%	–0.9%	–0.9%	1.8%	3.4%
Prospera (Oportunidades, Progresa)	–0.6%	–0.6%			
Procampo	–0.1%	–0.1%			
Procampo/ProAgro Productivo/ Producción para el Bienestar			–0.1%	0.0%	0.0%
Programa 65 y más	–0.4%	–0.4%			
Programa Pensión para el Bienestar de las Personas Adultas Mayores (formerly Programa 65 y más)			1.2%	2.0%	3.4%
Other programs for the elderly	0.3%	0.2%	0.1%	0.1%	0.2%
Tarjeta SinHambre (PAL)	0.0%	0.0%			
Programa de Empleo Temporal (PET)	0.0%	0.0%			
Other social programs			0.0%	0.0%	0.0%
Beca de Educación Básica para el Bienestar Benito Juárez (formerly Prospera)			–0.1%	–0.1%	0.0%
Beca Universal de Educación Media Superior Benito Juárez (formerly Prospera)			–0.1%	0.0%	0.0%
Jóvenes Escribiendo el Futuro (Educación superior)			0.0%	0.0%	0.0%
Programa de Pensión para el Bienestar de las Personas con Discapacidad Permanente			–0.1%	–0.1%	–0.1%
Programa de Apoyo para el Bienestar de las Niñas y Niños, Hijos de Madres Trabajadoras (formerly Estancias Infantiles)			0.0%	0.0%	0.0%
Seguro de Vida para Jefas de Familia			0.0%	0.0%	0.0%
Jóvenes Construyendo el Futuro			0.0%	0.0%	0.0%
Estimation of housing rental	17.9%	17.0%	18.3%	18.7%	18.1%
Other current income	0.0%	0.0%	0.1%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Author's elaboration using data from ENIGH.

The elasticity of the total Gini index with respect to a 1% change in the income source is estimated in accordance with equation [3]. Table 8 shows that almost all the sources exhibit a negative elasticity, signalling that an increment in any source will lead to a diminution in inequality, except for the cases of income from rents and income from pensions. However, the coefficients are close to zero in all cases, signalling a low sensibility of the Gini index *vis-à-vis* changes in income sources. For instance, a 1% increase in pension income was associated with a 0.0436% rise in the Gini index in 2024.

Table 8. Decomposition of income inequality by sources, 2016-2022 (Elasticities)

	2016	2018	2020	2022	2024
Labour income					
Subordinated work	–0.0125	–0.002	–0.003	–0.0102	–0.008
Independent work	–0.0202	–0.0218	–0.0256	–0.0228	–0.0266
Other labour income	–0.0076	–0.008	–0.0094	–0.0057	–0.0056
Property rent	0.055	0.0422	0.0363	0.0423	0.0397
Transferences					
Pensions	0.0315	0.0365	0.0495	0.046	0.0436
Scholarships	0.0004	0.0006	–0.0004	–0.0003	–0.0002
Donations	–0.0052	–0.0068	–0.0099	–0.0112	–0.0113
Remittances	–0.0043	–0.0036	–0.0031	–0.0048	–0.0056
Household transferences	–0.0042	–0.0049	–0.0045	–0.005	–0.0034
Institutional transferences	–0.0017	–0.0002	0.0022	0.0003	0.0038
Government benefits					
Prospera (Oportunidades, Progresa)	–0.0133	–0.0115			
Procampo	–0.0014	–0.0011			
Procampo/ProAgro Productivo/ Producción para el Bienestar			–0.001	–0.0009	–0.0007
Programa 65 y más	–0.0063	–0.0059			
Programa Pensión para el Bienestar de las Personas Adultas Mayores (formerly Programa 65 y más)			–0.0109	–0.016	–0.0186
Other programs for the elderly	–0.0006	–0.0007	–0.0005	–0.0005	–0.0003

Table 8. Decomposition of income inequality by sources, 2016-2022 (Elasticities) [concluded)

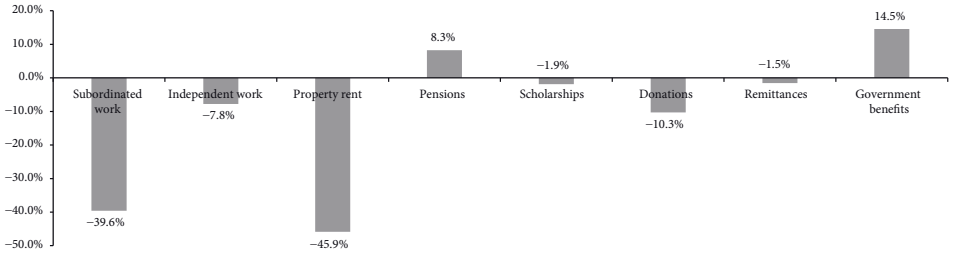
	2016	2018	2020	2022	2024
Tarjeta SinHambre (PAL)	–0.0005	–0.0002			
Programa de Empleo Temporal (PET)	0.0000	0.0000			
Other social programs	–0.0003	–0.0005	–0.0006	–0.0007	–0.0006
Beca de Educación Básica para el Bienestar Benito Juárez (formerly Prospera)			–0.0029	–0.0026	–0.0014
Beca Universal de Educación Media Superior Benito Juárez (formerly Prospera)			–0.0023	–0.0016	–0.0009
Jóvenes Escribiendo el Futuro (Educación superior)			–0.0004	–0.0003	–0.0001
Programa de Pensión para el Bienestar de las Personas con Discapacidad Permanente			–0.0011	–0.0014	–0.0015
Programa de Apoyo para el Bienestar de las Niñas y Niños, Hijos de Madres Trabajadoras (formerly Estancias Infantiles)			–0.0001	–0.0001	–0.0001
Seguro de Vida para Jefas de Familia			0.0000	0.0000	0.0000
Jóvenes Construyendo el Futuro			–0.0009	–0.0005	–0.0004
Estimation of housing rental	–0.0085	–0.0117	–0.0108	–0.0040	–0.0016
Other current income	–0.0004	–0.0004	–0.0004	–0.0001	–0.0002

Note: the data is referred to a percentage change in the total Gini index given a 1% change in any income source, remaining all else constant.

Source: Author's elaboration using data from ENIGH.

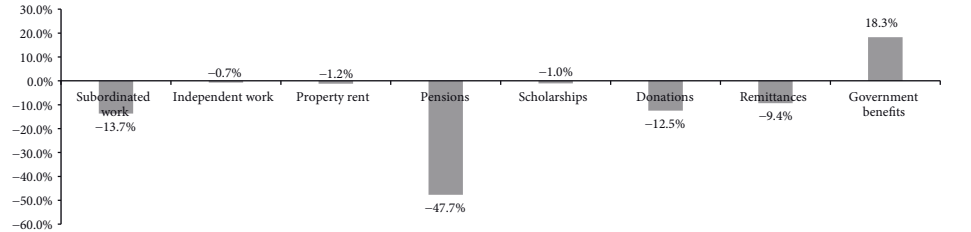
Next, the decomposition of a change in the Gini index between two selected years, 2016 and 2024, is estimated using equation [5]. The Gini index changed from 0.5047 to 0.4477 between those two years, a reduction of 0.057. As can be gathered from Graph 7, labour income, one of the main income sources, was instrumental to diminish inequality. On the contrary, pensions and government benefits contributed to boost it. These benefits were associated with rising inequality over the subperiod 2020-2024 (see Graph 8).

Graph 7. Decomposition of Gini index changes, *per capita* Total Current Income, 2016-2024



Source: Author's elaboration using data from ENIGH.

Graph 8. Decomposition of Gini index changes, *per capita* Total Current Income, 2020-2024



Source: Author's elaboration using data from ENIGH.

A perusal of the decomposition of the Gini index reveals different mechanisms operating for each income sources. Thus, in the case of labour income, the share of source (*s*) remained constant, but the Gini index (*g*) and the rank correlation (*r*) declined, whereas for the case of government benefits the Gini index remained constant, whilst the source (*s*) and, above all, the rank correlation increased their relative share. The latter changed from –0.2199 in 2016 to 0.1766 in 2024, signalling a bias of the benefits favouring the highest categories of the income distribution spectrum.

6. CONCLUSION

The analysis of distribution by income sources is key to comprehend economic inequality between persons. It mirrors the confluence of se-

veral drifts or flows, such as *i*) labour market dynamics and the ensuing wage dispersion, *ii*) the government actions through the social security system and monetary transfers and *iii*) the dynamics of financial markets through returns and dividends from investment.

The present article inspected the recent performance of some of the above tendencies in the Mexican economy during 2016-2024, a period characterized by declining inequality and significant changes of labour market regulations, above all the recovery policy of the real minimum wage, which had remained stagnant through many decades. The government also strengthened other social policy tools, like unconditional money transfers, chiefly through a program of non-contributory pensions, endowed with a larger budget and coverage, for elderly citizens.

We applied a methodology suitable to decompose inequality and to determine the specific contribution of the various income sources to changes in inequality over the period 2016-2024. A synthetic indicator, the Gini index, was also used, given the methodological developments available for that index, albeit other indexes can be operated as well to complement our scrutiny and test the robustness of the results obtained (Piketty, 2014, p. 267). However, this decomposition analysis does not allow either identification of causal relationships across the different sources of inequality or to precisely determine the mechanisms operating behind the relations among the variables scrutinized. Nonetheless, the decomposition technique applied provides a detailed panorama about the influence of the different income sources and a reference point to further and dig deeper into their analysis.

The analysis of personal income distribution critically depends on detailed information about the composition of households' income. This is one of the reasons behind the mushrooming of household surveys. This source of information about income involves advantages and disadvantages, like the system of national accounts or the fiscal data. Surely, household surveys do not capture adequately the incomes of neither extreme (highest and lowest) of the distribution spectrum; they do not portray faithfully incomes derived from capital returns; besides, they refer to net incomes which fail to show directly the State´s redistributive influence through fiscal policy; instead, they mainly capture monetary public benefits, though the State social action encompasses supplies of public services such as health and education. Therefore, a fuller vision of

the dynamics of personal income inequality requires a thorough analysis of information about financial income in the present time of financial capitalism or globalized patrimonial capitalism, as Piketty (2014) calls it.

Atkinson contends there is a sort of duel between increasing income inequality generated by market forces -including income from labour and capital- and the compensating effect of that inequality imparted by incomes associated with the State's social and fiscal action. The results from the decomposition analysis of the Gini index show that labour income is the main source for households, hence this income flow greatly contributed to inequality in Mexico during the period 2016-2024. Yet, the inequality generated by the labour market has tended to diminish over this period, specially that associated with income obtained from subordinated work. This outcome is consistent with the finding that the minimum wage has been an efficient tool to lessen inequality in the low segment of the distribution range. Now, as Piketty (2014) sustains, to really attain a substantial diminution in wage inequality, policies aimed at reducing inequality between the high sections of the distribution should complement the minimum wage measure.

The decomposition scrutiny also shows that transferences are the second source of income, and it happens to be even more relevant for households with particular demographic structures, such as those with elderly members considered in the present study. On the other hand, the pension system makes a positive contribution to inequality, signalling a social security system endowed with a greater redistributive capability, encompassing a larger number of workers, is needed, particularly in the eve of a demographic turn where the population proportion under retirement age will increase. Additionally, the present analysis reveals that government benefits contributed to reduce inequality in the first two years considered and to increase it in the last three years, which questions the redistributive ability of some of the programs included in the social policy. Moreover, when changes in inequality are scrutinized, it can be seen that government benefits have tended to increase it.

As a number of authors have sustained, the ascent of the social State has been fundamental for the reduction of inequality during the decades of the second postwar period (Atkinson, 2015; Piketty, 2014; Lindert, 2004). Therefore, along with Piketty, it is compulsory to ask for the kind of social State we need to build up for the twenty first century; a form

of State able to contribute to the diminution of the inequalities brought about by the intrinsic forces of the economic process. Furthermore, it is essentially important that the set of fundamental social rights, like health, education, social security and protection have a design and an execution guaranteeing, in practice, the capability to induce greater equality. ◄

REFERENCES

Arribas, J., Cárdenas, L., and Rial, A. (2024). The effects of the minimum wage on inequality. *Work Organisation, Labour & Globalisation*, 18(2), 196-218. https://doi.org/ 10.13169/workorgalaboglob.18.2.196

Atkinson, A.B. (1970). On the Measurement of Inequality. *Journal of Economic Theory*, 2(3), 244-263. https://doi.org/10.1016/0022-0531(70)90039-6

Atkinson, A.B. (1997). Bringing Income Distribution in From the Cold. *The Economic Journal*, 107 (441), 297-321. https://doi.org/10.1111/j.0013-0133.1997.159.x

Atkinson, A.B. (2015). *Inequality. What can be done?* Cambridge, MA: Harvard University Press. https://doi.org/10.4159/9780674287013

Autor, D.H., Manning, A., and Smith, C.L. (2016). The Contribution of the Minimum Wage to US Wage Inequality over Three Decades: A Reassessment. *American Economic Journal: Applied Economics*, 8(1), 58-99. https://doi.org/ 10.1257/app.20140073

Banegas, I. (2019). Factores subyacentes de la desigualdad de ingresos en México (1977-2014). In: F. Cortés and A. Salvia (coords.), *Argentina y México: ¿Igualmente desiguales?*, Mexico: Siglo XXI Editores.

Blinder, A.S. (1973). Wage Discrimination: Reduced Form and Structural Estimates. *The Journal of Human Resources*, 8(4), 436-455. https://doi.org/10.2307/144855

Bourguignon, F. (1979). Decomposable Income Inequality Measures. *Econometrica*, 47(4), 901-920. https://doi.org/10.2307/1914138

Cecchini, S., and Atuesta, B. (2017). Programas de transferencias condicionadas en América Latina y el Caribe: tendencias de cobertura e inversión. *Políticas Sociales* 41811, Comisión Económica para América Latina y el Caribe (CEPAL).

Chantreuil, F., and Trannoy, A. (2011). Inequality Decomposition Values. *Annals of Economics and Statistics*, 101/102, 13-36. https://doi.org/10.2307/41615472

Chantreuil, F., Courtin, S., Fourrey, K., and Lebon, I. (2019). A Note on the Decomposability of Inequality Measures. *Social Choice and Welfare*, 53(2), 283-298. https://doi.org/10.1007/s00355-019-01183-9

Cortés, F. (2000). *La distribución del ingreso en México en épocas de estabilización y reforma económica*. México: Miguel Ángel Porrúa.

Cortés, F., and Rubalcava, R.M. (1991). *Autoexplotación forzada y equidad por empobrecimiento: la distribución del ingreso familiar en México (1977-1984).* Ciudad de México: El Colegio de México.

Cortés, F., and Vargas, D. (2017). La evolución de la desigualdad en México: viejos y nuevos resultados. *Revista de Economía Mexicana. Anuario UNAM*, 2, 39-96.

Cowell, F.A. (1980). On the Structure of Additive Inequality Measures. *Review of Economic Studies*, 47(3), 521-31. https://doi.org/10.2307/2297303

Deaton, A. (2005). Measuring Poverty in a Growing World (Or Measuring Growth in a Poor World. *The Review of Economics and Statistics*, 87(1), 1-19. https://doi.org/10.1162/0034653053327612

Deaton, A. (2013). *The Great Escape: Health, Wealth, and the Origins of Inequality*. Princeton University Press.

Esquivel, G., and Cruces, G. (2011). The Dynamics of Income Inequality in Mexico since NAFTA. *Economía*, 12(1), 155-188. https://doi.org/10.1353/eco.2011.0009

Fei, J.C.H., Ranis, G., and Kuo, S.W.Y. (1978). Growth and the Family Distribution of Income by Factor Components. *Quarterly Journal of Economics*, 92(1), 17-53. https://doi.org/10.2307/1885997.

Fields, G.S. (1979). Income Inequality in Urban Colombia: A decomposition Analysis. *Review of Income and Wealth*, 25(1979), 327-341. https://doi.org/10.1111/j.1475-4991.1979.tb00102.x

Firpo, S., Fortin, M., and Lemieux, T. (2009). Unconditional Quantile Regressions. *Econometrica*, 77(3), 953-973. https://www.jstor.org/stable/40263848

Firpo, S., Fortin, M., and Lemieux, T. (2018). Decomposing Wage Distributions Using Recentered Influence Function Regressions. *Econometrics*, 6(2), 1-40. https://doi.org/10.3390/econometrics6020028

Foster, J., Greer J., and Thorbecke, E. (1984). A Class of Decomposable Poverty Measures. *Econometrica*, 52(3), 761-766. https://doi.org/10.2307/1913475

Fourrey, K. (2023). A Regression-Based Shapley Decomposition for Inequality Measures. *Annals of Economics and Statistics*, 149, 39-62. https://doi.org/10.2307/48718079

Garegnani, P. (2024). *Capital Theory, the Surplus Approach, and Effective Demand. An Alternative Framework for the Analysis of Value, Distribution and Output Levels*. Springer Studies in the History of Economic Thought. Edited by Roberto Ciccone. Cham: Springer. https://doi.org/10.1007/978-3-031-23643-3

Gottschalk, P., and Smeeding, T. (1997). Cross-National Comparisons of Earnings and Income Inequality. *Journal of Economic Literature*, 35(2), 633- 687.

Gramlich, E. (1976). Impact of Minimum Wage and Other Wages, Employment, and Family Income. *Brookings Papers on Economic Activity,* 2, 409-462.

Grossman, J.B. (1983). The Impact of the Minimum Wage on Other Wages. *The Journal of Human Resources,* 18(3), 359-378. https://doi.org/10.2307/145206

DOF, Diario Oficial de la Federación (2019). *Plan Nacional de Desarrollo, 2019-2024*. https://www.dof.gob.mx/nota_detalle.php?codigo=5565599&fecha=12/07/2019#gsc.tab=0

Hernández, E. (2021). *Determinantes de la disminución de la desigualdad del ingreso en México posterior a una crisis económica, 1994-2010*. Tesis de Licenciatura. Facultad de Economía, UNAM, Mexico.

Kaldor, N. (1955). Alternative Theories of Distribution. *Review of Economic Studies,* 23, 63-100. https://doi.org/10.2307/2296292

Kakwani, N.C. (1977). Applications of Lorenz Curves in Economic Analysis. *Econometrica*, 45, 719-727. https://doi.org/10.2307/1911684

Kanbur, R. (1982). Entrepreneurial Risk Taking, Inequality, and Public Policy: An Application of Inequality Decomposition Analysis to the General Equilibrium Effects of Progressive Taxation. *Journal of Political Economy*, 90(1), 1-21.

Leibbrandt, M., Finn, A., and Woolard, I. (2012). Describing and decomposing post-apartheid income inequality in South Africa. *Development Southern Africa*, 29(1), 19-34, https://doi.org/ 10.1080/0376835X.2012.645639.

Leibbrandt, M., Woolard, C., and Woolard, I. (2009). Poverty and inequality dynamics in South Africa: Post-apartheid developments in the light of the long-run legacy. In: J. Aron, B. Kahn, and G. Kingdon (eds.), *South African Economic Policy under Democracy*. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199551460.001.0001

Lerman R.I., and Yitzhaki, S. (1985). Income Inequality Effects by Income Source: A New Approach and Applications to the United States. *The Review of Economics and Statistics*, 67(1), 151-156. https://doi.org/10.2307/1928447

Lerman, R.I., and Yitzhaki, S. (1994). Effect of marginal changes in income sources on US income inequality. *Public Finance Review*, 22(4), 403-417. https://doi.org/ 10.1177/109114219402200401

Lindert, P.H. (2004). *Growing Public. Social Spending and Economic Growth since the Eighteenth Century*. Cambridge University Press. https://doi.org/10.1017/CBO9780511510717

López Feldman, A. (2006). Decomposing inequality and obtaining marginal effects. *The Stata Journal,* 6 (1), 106-111. https://doi.org/10.1177/1536867X0600600107

Lucas, R.E. (2004). The Industrial Revolution: Past and Future. *The Region*, Annual Report, Federal Reserve Bank of Minneapolis, vol. 18(May), 5-20.

Lustig, N., Pessino, C., and Scott, J. (2013). The Impact of Taxes and Social Spending on Inequality and Poverty in Argentina, Bolivia, Brazil, Mexico, Peru, and Uruguay: Introduction to the Special Issue. *Public Finance Review*, 42(3), 287-303. https://doi.org/10.1177/1091142113506931

Milanovic, B. (2011). *The Haves and the Have-Nots. A Brief and Idiosyncratic History of Global Inequality.* New York: Basic Books.

Morduch, J., and Sicular, T. (2002). Rethinking Inequality Decomposition, with Evidence from Rural China. *Economic Journal*, 112(476), 93-106. https://doi.org/10.1111/1468-0297.0j674

Oaxaca, R. (1973). Male-Female Wage Differentials in Urban Labor Markets. *International Economic Review*, 14(3), 693-709. https://doi.org/10.2307/2525981

OECD, Organisation for Economic Co-operation and Development (2011). *Divided We Stand: Why Inequality Keeps Rising*. Paris: OECD Publishing. https://doi.org/10.1787/9789264119536-en.

Pasinetti, L.L. (1966). Changes in the Rate of Profit and Switches of Techniques. *The Quarterly Journal of Economics,* 80(4), 503-517. https://doi.org/10.2307/1882911

Piketty, T. (2014). *Capital in the Twenty-First Century*. Cambridge, MA: Harvard University Press.

Pyatt, G., Chen, C., and Fei, J. (1980). The Distribution of Income by Factor Components. *Quarterly Journal of Economics*, 95(3), 451-474. https://doi.org/10.2307/1885088

Ravallion, M. (2016). *The Economics of Poverty. History, Measurement and Policy*. New York: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780190212766.001.0001

Ravallion, M., and Chen, S. (2003). Measuring Pro-Poor Growth. *Economic Letters*, 78(1), 93-99 https://doi.org/10.1016/S0165-1765(02)00205-7

Ravallion. M., and Huppi, M. (1991). Measuring Changes in Poverty: A Methodological Case Study of Indonesia during an Adjustment Period. *The World Bank Economic Review*, 5(1), 57-82. https://doi.org/10.1093/wber/5.1.57

Ricardo, D. (1817[2004]). *The Works and Correspondence of David Ricardo. Volume I. On the Principles of Political Economy and Taxation.* Edited by Piero Sraffa with the collaboration of M.H. Dobb. Indiana, USA. Liberty Fund.

Sen, A. (1973). Poverty, Inequality and Unemployment: Some Conceptual Issues in Measurement. *Economic and Political Weekly*, 8(31/33), Special Number, 1457-1464.

Shorrocks, A.F. (1980). The Class of Additively Decomposable Inequality Measures. *Econometrica*, 48(3), 613-625. https://doi.org/10.2307/1913126

Shorrocks, A.F. (1982). Inequality Decomposition by Factor Components. *Econometrica,* 50(1), 193-211. https://doi.org/10.2307/1912537

Shorrocks, A.F. (1983). The Impact of Income Components on the Distribution of Family Incomes. *The Quarterly Journal of Economics*, 98(2), 311-326. https: //doi.org/10.2307/1885627

Shorrocks, A.F. (2013). Decomposition Procedures for Distributional Analysis: A Unified Framework Based on the Shapley Value. *The Journal of Economic Inequality*, 11(1), 99-126. https://doi.org/10.1007/s10888-011-9214-z

Shorrocks, A., and Wan, G. (2005). Spatial decomposition of inequality. *Journal of Economic Geography*, 5(1), 59-81. http://www.jstor.org/stable/26160606

Silber, J. (1993). Inequality Decomposition by Income Source. *The Review of Economics and Statistics,* 75(3), 545-547. https://www.jstor.org/stable/i336977

Stiglitz, J. (2012). *The Price of Inequality: How Today's Divided Society Endangers Our Future*. W.W. Norton & Company, Inc.

Wicksteed, P.H. (1894). *An Essay on the Co-ordination of the Laws of Distribution*. London: Macmillan.

Yaschine, I. (2019). Progresa-Oportunidades-Prospera, veinte años de historia. In: G. Hernández Licona, T. De la Garza, J. Zamudio, and I. Yaschine (coords.), *El Progresa-Oportunidades-Prospera, a 20 años de su creación*. Ciudad de México: CONEVAL.

Yitzhaki, S., and Schechtman, E. (2013). *The Gini Methodology: A primer on a Statistical Methodology.* New York: Springer. https:// doi.org/10.1007/978-1-4614-4720-7

APPENDIX. SOCIAL PROGRAMS INCLUDED IN GOVERNMENT BENEFITS

2016	
P042	Prospera (Oportunidades, Progresa)
P043	Procampo
P044	Programa 65 y más
P045	Other programs for the elderly
P046	Tarjeta SinHambre (PAL)
P047	Programa de Empleo Temporal
P048	Other social programs
2018	
P042	Prospera (Oportunidades, Progresa)
P043	Procampo
P044	Programa 65 y más
P045	Other programs for the elderly
P046	Tarjeta SinHambre (PAL)
P047	Programa de Empleo Temporal
P048	Other social programs
2020	
P043	Procampo/ProAgro Productivo/Producción para el Bienestar
P048	Other social programs
P045	Other programs for the elderly
P101	Beca de Educación Básica para el Bienestar Benito Juárez (antes Prospera)
P102	Beca Universal de Educación Media Superior Benito Juárez (antes Prospera)
P103	Jóvenes Escribiendo el Futuro (Educación Superior)
P104	Programa Pensión para el Bienestar de las Personas Adultas Mayores (antes Programa 65 y más)
P105	Programa de Pensión para el Bienestar de las Personas con Discapacidad Permanente
P106	Programa de Apoyo para el Bienestar de las Niñas y Niños, Hijos de Madres Trabajadoras (antes Estancias Infantiles)
P107	Seguro de Vida para Jefas de Familia
P108	Jóvenes Construyendo el Futuro

2022	
P043	Procampo/ProAgro Productivo/Producción para el Bienestar
P048	Otros programas sociales
P045	Other social programs
P101	Beca de Educación Básica para el Bienestar Benito Juárez (antes Prospera)
P102	Beca Universal de Educación Media Superior Benito Juárez (antes Prospera)
P103	Jóvenes Escribiendo el Futuro (Educación Superior)
P104	Programa Pensión para el Bienestar de las Personas Adultas Mayores (antes Programa 65 y más)
P105	Programa de Pensión para el Bienestar de las Personas con Discapacidad Permanente
P106	Programa de Apoyo para el Bienestar de las Niñas y Niños, Hijos de Madres Trabajadoras (antes Estancias Infantiles)
P107	Seguro de Vida para Jefas de Familia
P108	Jóvenes Construyendo el Futuro
2024	
P043	Procampo/ProAgro Productivo/Producción para el Bienestar
P048	Other social programs
P045	Other programs for the elderly
P101	Beca de Educación Básica para el Bienestar Benito Juárez (antes Prospera)
P102	Beca Universal de Educación Media Superior Benito Juárez (antes Prospera)
P103	Jóvenes Escribiendo el Futuro (Educación Superior)
P104	Programa Pensión para el Bienestar de las Personas Adultas Mayores (antes Programa 65 y más)
P105	Programa de Pensión para el Bienestar de las Personas con Discapacidad Permanente
P106	Programa de Apoyo para el Bienestar de las Niñas y Niños, Hijos de Madres Trabajadoras (antes Estancias Infantiles)
P107	Seguro de Vida para Jefas de Familia
P108	Jóvenes Construyendo el Futuro

Source: ENIGH, several years.

Decomposition analysis

2016							
Variable	**Share**	**Gini coefficient**	**Correlation**	**Concentration coefficient**	**Contribution**	**% Contribution**	**Elasticity**
	s	*g*	*r*	*c = g*r*	*s*g*r*	*s*g*r/G*	*s*g*r/G–s*
Labour income							
Subordinated work	0.5113	0.6359	0.7742	0.4924	0.2517	0.4988	–0.0125
Independent work	0.069	0.9035	0.3948	0.3567	0.0246	0.0488	–0.0202
Other labour income	0.023	0.9355	0.3617	0.3383	0.0078	0.0154	–0.0076
Property rent	0.0786	0.9855	0.8702	0.8576	0.0674	0.1336	0.055
Transferences							
Pensions	0.0847	0.9394	0.7369	0.6922	0.0586	0.1161	0.0315
Scholarships	0.0369	0.8877	0.504	0.4474	0.0165	0.0327	–0.0042
Donations	0.0126	0.9424	0.4648	0.438	0.0055	0.0109	–0.0017
Remittances	0.0029	0.9902	0.5822	0.5765	0.0017	0.0033	0.0004
Household transferences	0.0277	0.9404	0.4356	0.4096	0.0113	0.0224	–0.0052
Institutional transferences	0.0079	0.9826	0.2345	0.2304	0.0018	0.0036	–0.0043
Government benefits	0.0165	0.826	–0.2199	–0.1816	–0.003	–0.0059	–0.0224
Prospera (Oportunidades, Progresa)	0.0069	0.8795	–0.5392	–0.4742	–0.0033	–0.0064	–0.0133
Procampo	0.0014	0.9881	0.0213	0.0211	0.0000	0.0001	–0.0014
Programa 65 y más	0.0057	0.9352	–0.0509	–0.0476	–0.0003	–0.0005	–0.0063
Other programs for the elderly	0.0013	0.9897	0.2919	0.2889	0.0004	0.0007	–0.0006
Tarjeta SinHambre (PAL)	0.0003	0.992	–0.2725	–0.2703	–0.0001	–0.0002	–0.0005
Programa de Empleo Temporal (PET)	0	0.9992	–0.2209	–0.2207	0.0000	0.0000	0.0000
Other social programs	0.0008	0.992	0.2854	0.2831	0.0002	0.0004	–0.0003
Estimation of housing rental	0.1282	0.6412	0.7349	0.4712	0.0604	0.1197	–0.0085
Other current income	0.0009	0.9972	0.3089	0.308	0.0003	0.0006	–0.0004
Total	1	0.5047	1	0.5047	0.5047	1	0

2018							
Variable	**Share**	**Gini coefficient**	**Correlation**	**Concentration coefficient**	**Contribution**	**% Contribution**	**Elasticity**
	s	*g*	*r*	*c = g*r*	*s*g*r*	*s*g*r/G*	*s*g*r/G–s*
Labour income							
Subordinated work	0.5287	0.6285	0.7651	0.4809	0.2543	0.5268	–0.002
Independent work	0.0743	0.8988	0.3795	0.3411	0.0254	0.0525	–0.0218
Other labour income	0.0215	0.9348	0.323	0.3019	0.0065	0.0134	–0.008
Property rent	0.0617	0.9807	0.8285	0.8125	0.0501	0.1039	0.0422
Transferences							
Pensions	0.0877	0.9388	0.7281	0.6835	0.0599	0.1242	0.0365
Household transferences	0.0348	0.8907	0.4658	0.4149	0.0144	0.0299	–0.0049
Institutional transferences	0.0118	0.9517	0.4985	0.4744	0.0056	0.0116	–0.0002
Scholarships	0.0025	0.9925	0.6015	0.5969	0.0015	0.0031	0.0006
Donations	0.028	0.9366	0.3903	0.3656	0.0102	0.0212	–0.0068
Remittances	0.0088	0.9832	0.2928	0.2878	0.0025	0.0053	–0.0036
Government benefits	0.0135	0.8341	–0.2764	–0.2305	–0.0031	–0.0064	–0.0199
Prospera (Oportunidades, Progresa)	0.0059	0.8854	–0.5296	–0.4689	–0.0027	–0.0057	–0.0115
Procampo	0.0009	0.9891	–0.1346	–0.1332	–0.0001	–0.0002	–0.0011
Programa 65 y más	0.0051	0.9371	–0.0769	–0.0721	–0.0004	–0.0008	–0.0059
Other programs for the elderly	0.001	0.9903	0.1731	0.1714	0.0002	0.0004	–0.0007
Tarjeta SinHambre (PAL)	0.0001	0.997	–0.1585	–0.158	0.0000	0.0000	–0.0002
Programa de Empleo Temporal (PET)	0.0000	0.9994	–0.1096	–0.1095	0.0000	0.0000	0.0000
Other social programs	0.0004	0.9947	–0.0518	–0.0515	0.0000	0.0000	–0.0005
Estimation of housing rental	0.1258	0.6249	0.7002	0.4376	0.055	0.114	–0.0117
Other current income	0.0009	0.9968	0.2809	0.28	0.0003	0.0005	–0.0004
Total	1	0.4827	1	0.4827	0.4827	1	0

2020							
Variable	Share	Gini coefficient	Correlation	Concentration coefficient	Contribution	% Contribution	Elasticity
	s	*g*	*r*	*c = g*r*	*s*g*r*	*s*g*r/G*	*s*g*r/G–s*
Labour income							
Subordinated work	0.4998	0.6331	0.732	0.4634	0.2316	0.4967	–0.003
Independent work	0.0692	0.8971	0.3274	0.2937	0.0203	0.0436	–0.0256
Other labour income	0.0211	0.9368	0.2755	0.2581	0.0054	0.0117	–0.0094
Property rent	0.0524	0.9813	0.8042	0.7892	0.0414	0.0888	0.0363
Transferences							
Pensions	0.1054	0.9267	0.7393	0.6851	0.0722	0.1548	0.0495
Household transferences	0.0356	0.8912	0.4568	0.4071	0.0145	0.0311	–0.0045
Institutional transferences	0.0098	0.9732	0.5854	0.5697	0.0056	0.012	0.0022
Scholarships	0.0021	0.9872	0.3817	0.3768	0.0008	0.0017	–0.0004
Donations	0.0266	0.9276	0.3153	0.2925	0.0078	0.0167	–0.0099
Remittances	0.0089	0.9837	0.307	0.302	0.0027	0.0058	–0.0031
Government benefits	0.0246	0.8493	0.0916	0.0778	0.0019	0.0041	–0.0205
Procampo/ProAgro Productivo/ Producción para el Bienestar	0.0008	0.9904	–0.1549	–0.1534	–0.0001	–0.0003	–0.001
Programa Pensión para el Bienestar de las Personas Adultas Mayores (formerly Programa 65 y más)	0.017	0.9116	0.1831	0.1669	0.0028	0.0061	–0.0109
Other programs for the elderly	0.0008	0.9952	0.1657	0.1649	0.0001	0.0003	–0.0005
Beca de Educación Básica para el Bienestar Benito Juárez (formerly Prospera)	0.0015	0.9578	–0.4527	–0.4336	–0.0006	–0.0014	–0.0029

2020							
Variable	**Share**	**Gini coefficient**	**Correlation**	**Concentration coefficient**	**Contribution**	**% Contribution**	**Elasticity**
	s	***g***	***r***	***c = g*r***	***s*g*r***	***s*g*r/G***	***s*g*r/G–s***
Beca Universal de Educación Media Superior Benito Juárez (formerly Prospera)	0.0018	0.9606	–0.146	–0.1402	–0.0002	–0.0005	–0.0023
Jóvenes Escribiendo el Futuro	0.0004	0.9956	0.0553	0.0551	0	0.0001	–0.0004
Programa de Pensión para el Bienestar de las Personas con Discapacidad Permanente	0.0008	0.9921	–0.1579	–0.1566	–0.0001	–0.0003	–0.0011
Programa de Apoyo para el Bienestar de las Niñas y Niños, Hijos de Madres Trabajadoras (formerly Estancias Infantiles)	0	0.9989	–0.1981	–0.1979	0	0	–0.0001
Seguro de Vida para Jefas de Familia	0	0.9996	–0.2266	–0.2265	0	0	0
Jóvenes Construyendo el Futuro (Educación superior)	0.0008	0.9954	–0.0186	–0.0185	0	0	–0.0009
Other social programs	0.0008	0.9941	0.1197	0.1189	0.0001	0.0002	–0.0006
Estimation of housing rental	0.1433	0.6169	0.6988	0.4311	0.0618	0.1325	–0.0108
Other current income	0.0009	0.9958	0.2604	0.2593	0.0002	0.0005	–0.0004
Total	1	0.4662	1	0.4662	0.4662	1	0

2022							
Variable	**Share**	**Gini coefficient**	**Correlation**	**Concentration coefficient**	**Contribution**	**% Contribution**	**Elasticity**
	s	***g***	***r***	***c=g*r***	***s*g*r***	***s*g*r/G***	***s*g*r/G–s***
Labour income							
Subordinated work	0.5100	0.6185	0.7256	0.4488	0.2289	0.4998	–0.0102
Independent work	0.0785	0.8952	0.3629	0.3249	0.0255	0.0557	–0.0228
Other labour income	0.0166	0.9526	0.3154	0.3004	0.005	0.0109	–0.0057
Property rent	0.0568	0.9799	0.8149	0.7986	0.0454	0.0991	0.0423
Transferences							
Pensions	0.099	0.9257	0.7244	0.6706	0.0664	0.1451	0.046
Household transferences	0.0302	0.8962	0.4266	0.3823	0.0116	0.0252	–0.005
Institutional transferences	0.0078	0.9698	0.493	0.4781	0.0037	0.0082	0.0003
Scholarships	0.0016	0.9887	0.3815	0.3772	0.0006	0.0014	–0.0003
Donations	0.0248	0.9329	0.2689	0.2509	0.0062	0.0136	–0.0112
Remittances	0.0104	0.9819	0.2532	0.2486	0.0026	0.0057	–0.0048
Government benefits	0.0308	0.8247	0.1152	0.095	0.0029	0.0064	–0.0244
Procampo/ProAgro Productivo/ Producción para el Bienestar	0.0006	0.9927	–0.1911	–0.1897	–0.0001	–0.0003	–0.0009
Programa Pensión para el Bienestar de las Personas Adultas Mayores (formerly Programa 65 y más)	0.0245	0.8733	0.183	0.1599	0.0039	0.0086	–0.016
Other programs for the elderly	0.0007	0.9958	0.1543	0.1536	0.0001	0.0002	–0.0005
Beca de Educación Básica para el Bienestar Benito Juárez (formerly Prospera)	0.0013	0.9505	–0.4484	–0.4262	–0.0006	–0.0012	–0.0026

2022							
Variable	**Share**	**Gini coefficient**	**Correlation**	**Concentration coefficient**	**Contribution**	**% Contribution**	**Elasticity**
	s	***g***	***r***	***c=g*r***	***s*g*r***	***s*g*r/G***	***s*g*r/G–s***
Beca Universal de Educación Media Superior Benito Juárez (formerly Prospera)	0.0012	0.9667	–0.1766	–0.1707	–0.0002	–0.0004	–0.0016
Jóvenes Escribiendo el Futuro	0.0004	0.9966	0.0956	0.0952	0.0000	0.0001	–0.0003
Programa de Pensión para el Bienestar de las Personas con Discapacidad Permanente	0.001	0.9874	–0.1688	–0.1667	–0.0002	–0.0004	–0.0014
Programa de Apoyo para el Bienestar de las Niñas y Niños, Hijos de Madres Trabajadoras (formerly Estancias Infantiles)	0.0001	0.9981	–0.2987	–0.2981	0.0000	0.0000	–0.0001
Seguro de Vida para Jefas de Familia	0.0000	0.9998	–0.1075	–0.1074	0.0000	0.0000	0.0000
Jóvenes Construyendo el Futuro (Educación superior)	0.0005	0.9976	–0.0039	–0.0039	0.0000	0.0000	–0.0005
Other social programs	0.0006	0.9955	–0.0607	–0.0604	0.0000	–0.0001	–0.0007
Estimation of housing rental	0.1321	0.6225	0.7131	0.4439	0.0587	0.1281	–0.004
Other current income	0.001	0.9974	0.4037	0.4027	0.0004	0.0009	–0.0001
Total	1	0.4579	1	0.4579	0.4579	1	0

2024							
Variable	**Share**	**Gini coefficient**	**Correlation**	**Concentration coefficient**	**Contribution**	**% Contribution**	**Elasticity**
	s	*g*	*r*	*c = g*r*	*s*g*r*	*s*g*r/G*	*s*g*r/G–s*
Labour income							
Subordinated work	0.5197	0.6069	0.7263	0.4408	0.2291	0.5117	–0.008
Independent work	0.0717	0.8963	0.3141	0.2816	0.0202	0.0451	–0.0266
Other labour income	0.0155	0.9516	0.3000	0.2854	0.0044	0.0099	–0.0056
Property rent	0.0524	0.9801	0.8025	0.7865	0.0412	0.0921	0.0397
Transferences							
Pensions	0.0979	0.92	0.7033	0.647	0.0633	0.1414	0.0436
Scholarships	0.0015	0.9905	0.402	0.3982	0.0006	0.0014	–0.0002
Donations	0.0235	0.9345	0.2487	0.2324	0.0055	0.0122	–0.0113
Remittances	0.0077	0.984	0.1252	0.1232	0.0009	0.0021	–0.0056
Household transferences	0.0308	0.8932	0.4458	0.3982	0.0123	0.0274	–0.0034
Institutional transferences	0.0126	0.9682	0.6031	0.5839	0.0073	0.0164	0.0038
Government benefits	0.0364	0.826	0.1766	0.1459	0.0053	0.0119	–0.0245
Procampo/ProAgro Productivo/ Producción para el Bienestar	0.0004	0.9951	–0.2723	–0.271	–0.0001	–0.0003	–0.0007
Programa Pensión para el Bienestar de las Personas Adultas Mayores (formerly Programa 65 y más)	0.0314	0.8575	0.2132	0.1829	0.0057	0.0128	–0.0186
Other programs for the elderly	0.0007	0.9962	0.2835	0.2825	0.0002	0.0005	–0.0003
Beca de Educación Básica para el Bienestar Benito Juárez (formerly Prospera)	0.0008	0.9777	–0.4089	–0.3998	–0.0003	–0.0007	–0.0014

2024							
Variable	**Share**	**Gini coefficient**	**Correlation**	**Concentration coefficient**	**Contribution**	**% Contribution**	**Elasticity**
	s	*g*	*r*	*c = g*r*	*s*g*r*	*s*g*r/G*	*s*g*r/G–s*
Beca Universal de Educación Media Superior Benito Juárez (formerly Prospera)	0.0007	0.9839	–0.1513	–0.1489	–0.0001	–0.0002	–0.0009
Jóvenes Escribiendo el Futuro	0.0002	0.9983	0.1143	0.1141	0.0000	0.0000	–0.0001
Programa de Pensión para el Bienestar de las Personas con Discapacidad Permanente	0.0012	0.9845	–0.1069	–0.1053	–0.0001	–0.0003	–0.0015
Programa de Apoyo para el Bienestar de las Niñas y Niños, Hijos de Madres Trabajadoras (formerly Estancias Infantiles)	0.0000	0.9989	–0.3473	–0.3469	0.0000	0.0000	–0.0001
Seguro de Vida para Jefas de Familia	0.0000	0.9999	0.4199	0.4198	0.0000	0.0000	0.0000
Jóvenes Construyendo el Futuro (Educación superior)	0.0004	0.9984	–0.0418	–0.0418	0.0000	0.0000	–0.0004
Other social programs	0.0006	0.9935	0.0019	0.0019	0.0000	0.0000	–0.0006
Estimation of housing rental	0.1294	0.6209	0.7119	0.4421	0.0572	0.1278	–0.0016
Other current income	0.0009	0.9969	0.3236	0.3226	0.0003	0.0006	–0.0002
Total	1	0.4477	1	0.4477	0.4477	1	0