# How families manage their household budget 

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Larger families achieve a higher income than smaller families. Therefore, children motivate one to be industrious.
$>$ With the increase in the number of children, the disposable income per person decreases, which forces parents to manage finances more prudently.
$>$ As the number of dependent children grows, the share of entrepreneurs in a given group increases. Moreover, disposable income seems to be growing geometrically. Having more offspring promotes entrepreneurship and motivates one to achieve higher financial results from business.

In the case where at least one parent holds a managerial position, the disposable income per family increases to a greater extent in families with more children. Therefore, a large family provides motivation for the pursuit of a professional career.

Larger families manage resources more effectively and have a potentially lesser detrimental impact on the environment.
> In larger families, there is less alcohol and tobacco abuse than in smaller ones.
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## FOREWORD

It is hard to ask a more economics-related question than the one concerning the management of household budget by families. After all, it arises in a situation of growing needs and limited resources. It takes place in a state of uncertainty. At the same time, a lot depends on how effective it is, because what is at stake here is the family, the living conditions of its members and, as a result, the degree to which its potential can be realised. Lastly, it is a matter of its capability of conducting a dignified life. Household income depends on multiple factors needless to say, but it is less obvious to what extent the income situation of a household depends on its type. For example, is it large families or single parents raising their offspring that find themselves in a more difficult financial situation in Poland? Another important thing is how these individual types of households subjectively evaluate their financial situation. Finally, when we discuss the issue of household budget management, the composition of the expenses borne by them is also important. Another highly relevant aspect is how strongly individual types of households utilise resources, including natural and environmental ones. All these issues are mentioned in the following report of Instytut Pokolenia (Generation Institute).

The advantage of the report is often an innovative way of presenting publicly available data to which it makes reference. For me, however, the most valuable fragments are those in which attempts are made to estimate the extent to which the size of the family affects the consumption (per capita) of specific environmental resources, e.g., water. The authors of the document also estimated the consumption of fuels for various types of private transport per household member. It turns out, for example, although it must be remembered that these are preliminary estimates and must be subject to further verification, that large families are more ecologically beneficial than smaller ones in the sense that their consumption of environmental resources (per capita) is definitely lower than in larger households. I encourage the Generation Institute to continue its research on a number of issues raised in this report and I am convinced that many of them should become the subject of a broad public debate.

Prof. Łukasz Hardt

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## I. Introductory issues

2022 was the year of verifying the results of statistical surveys for official statistical records. The results of the 2021 National Census have been published, and it has thus been possible to see how the actual numbers of the various functional groups identified in the surveys, including families, are shaping up. The Household Budget Survey ${ }^{1}$ was also subject to this verification. In the 2021 survey - the most recent data currently available - the number of total households was 13.57 million. According to the 2021 National Census, the actual number of households is 12.54 million. That means over one million fewer households. The structure within the entire group of households was also shaped differently. For example, the number of married couples or informal relationships (included in the study jointly) without children was 3.33 million according to the National Census 2021, compared to 2.79 million in the Household Budget Survey (HBS) 2021. The number of married couples (or informal relationships) with children also displayed differences. According to the 2021 National Census, this figure is 4.53 million. The survey of Statistics Poland (SP) showed the number of married couples with children at the level of 4.86 million.

The observation weights from the 2021 survey adjusted for the results of the 2021 National Census will be available soon, and from 2022 only the adjusted weights will function in surveys. Meanwhile, the quality of the calculated aggregate values (e.g., the sum of the society's expenditures for a specific purpose) may be questionable, but the average values should not deviate from the actual ones, as indicated by the precision coefficients of the calculations and the fact that the results of the survey are published by Statistics Poland.

The following biological types of households were analysed in the presented material:

[^0]- married couples without children,
- married couples with 1 dependent child,
- married couples with 2 dependent children,
- married couples with 3 dependent children and
- married couples with 4 or more dependent children.

The values for the following groups are also given as a benchmark:

- single parents,
- single-person households and
- total households.

In order to purify the results of the analysis of the factors causing interpretative disorders, households with children and other persons were omitted. The family was understood as parents/single parent and children.

The counts of individual types of households in the population of all households according to the study were as follows:

Number of households in individual identified groups


Source: the author's own compilation based on unit data from the Household Budget Survey by Statistics Poland for 2021.

In the course of the analysis, it was examined how disposable income and expenditure on individual goods and services behave in separate groups. In addition, the analysis covered checking how the respondents themselves assess their financial situation, how they manage their funds and what their approach to saving is, as well as to what extent they are indebted.

## II. Disposable income and money management

The disposable income in individual identified groups of households was as follows:

## Average monthly disposable income in individual biological types of households



Source: the author's own compilation based on the unit data from the Household Budget Survey of Statistics Poland for 2021.

The chart above demonstrates that the disposable income per family rises as the number of children increases. In the case of families with children, children are defined as all persons up to 15 years of age and those up to 25 years of age who do not have their own source of income. Thus, the only breadwinners in such families are parents who, in the case of larger families, achieve a higher income than in the case of families numbering fewer members. Therefore, children motivate one to be industrious.

With the increase in the number of children, the disposable income per person decreases, which forces parents to manage finances more prudently. This is confirmed by the results of the part of the household budget survey focusing on the analysis of individual feelings of the respondents. The characteristics of funds management are presented in the following chart:

Characteristics of money management


- We can afford a certain luxury
$\square$ we can afford a lot without special saving
- We have enough for everyday items, but we have to save for major purchases
- We need to be very frugal in our daily expenses

■ We can't even afford the basic necessities

Source: the author's own compilation based on the unit data from the Household Budget Survey of Statistics Poland for 2021.

In the case of families with children, the share of households in which they have to manage resources very frugally on a daily basis increases. Nevertheless, with the increase in the number of children, the percentage of households where they do not even have enough for basic necessities decreases. For families with 4 or more children, the SP survey did not identify any such families.

## III. Functional structure of households

When analysing the tendency towards diligence of individual types of families, it is worth looking at their functional structure (socio-economic groups identified in the study).

The charts below present two functional types of households: the households of employees ${ }^{2}$ and the households of entrepreneurs ${ }^{3}$, and more specifically their share in the selected biological types of households. The disposable income of these households was also analysed.

Disposable income in employees households [PLN]


Percentage of all households from a given group ■ Disposable income per family

Source: the author's own compilation based on the unit data from the Household Budget Survey of Statistics Poland for 2021.

[^1]While the share of employees' households in the individual types of families with children decreases with the increase in the number of children, the disposable income of these households increases. The exception is married couples with 3 dependent children, but here the drop is insignificant in relation to families with two children. Married couples of employees with 4 or more dependent children have the largest disposable income per family.

Disposable income in the households of self-employed persons


Percentage of all households from a given group ■ Disposable income per family

Source: the author's own compilation based on the unit data from the Household Budget Survey of Statistics Poland for 2021.

The conclusions of the analysis for entrepreneurs' households are interesting. With increasing numbers of dependent children, the proportion of entrepreneurs in a given group increases. Moreover, disposable income appears to be growing geometrically. Having more offspring promotes entrepreneurship and motivates one to achieve higher financial results from business.

Let us look at the structure of farms in terms of the professions performed by their members. Management positions were analysed, i.e.:

- representatives of public authorities, senior officials and general directors,
- management and commerce executives,
- production and service managers, and
- executives in the hospitality, retail and other service industries.

Households with at least one member in a managerial position


Source: the author's own compilation based on unit data from the Household Budget Survey by Statistics Poland for 2021.

While the share of households with at least one person in a managerial position does not correspond with the number of children possessed, the available income per family increases more in families with a larger number of children. Therefore, a large family motivates one to pursue a professional career.

## IV. Expenditures of households

The structure and average expenditure of the identified groups of households were analysed:

Structure of expenditure per capita in the household broken down by biological type of household


Source: the author's own compilation based on unit data from the Household Budget Survey by Statistics Poland for 2021.

There is a wide variation in the level of average expenditure per capita across the biological types of households analysed, but the expenditure structure itself appears to be similar. Food and non-alcoholic beverages accounted for the largest share of expenditure (from $24.5 \%$ to $27.7 \%$ in full families with children). A large proportion of the families' budget was spent on transport services (from $10.4 \%$ to $11.3 \%$ in full families with children). Expenditure on leisure and culture varied the most and corresponded strongly with the number of children in the family (between $7.1 \%$ and $8.1 \%$ in full families with children). Relative expenditure on furnishings, household equipment and maintenance remained at a similar level of approx. 6\%.

The amount of expenditure on individual groups of consumer goods and commodities provides more information, which can be presented as follows:

## Structure of expenditure per capita in the household broken down by biological type of the household [PLN]



Source: the author's own compilation based on unit data from the Household Budget Survey by Statistics Poland for 2021.

It can be noted that married couples without children have almost no expenditure on education. This is not surprising. Such expenditure is primarily related to children. In addition, pensioners account for more than half of this group.

Inalmostall expendituregroups, a decreasingtrendin percapitaexpenditurecan be seen asthenumber of persons inthe household increases. Largerfamiliestherefore manage resources more efficiently and potentially have lesser detrimental impact on the environment. The following section of the study analyses the expenditure in more detail by decomposing the aggregates listed above.

## 1. Expenditures on water and energy carriers

The chart below depicts the amount-based distribution of expenditure related to the use of a house or flat:

Expenditure on water and energy carriers (per person) [PLN]


Source: the author's own compilation based on unit data from the Household Budget Survey by Statistics Poland for 2021.

Based on the chart, it is evident that as household size increases, per capita water usage drops. One-person households spend the most on cold and hot water: PLN 55 per month. For married couples without children, the monthly expenditure on cold and hot water is approx. PLN 37 per capita, while for families with parents and $4+$ children these expenses are approx. PLN 14 per capita per month. There is a similar trend for electricity supply costs. While one-person households spend around PLN 108 per month on electricity, the figure for married couples without children decreases to PLN 75 . With the arrival of more children, this figure decreases further, down to PLN 39 per capita for families 4+. As for natural gas and coal gas, the expenditure per capita also shows a decline: from PLN 46 for one-person households to approx. PLN 15 for multi-child families. This trend also occurs in the case of central heating. One-person households pay an average of PLN 70 per month for central heating. Families with 4 or more children bear a central heating cost per capita that is more than tenfold lower (PLN 6).

Does this mean that large families are the most efficient and least environmentally detrimental units of society? Let us now examine the structure of fuel expenditure.

## 2. Fuel expenditure

The chart below illustrates expenditure on fuel, defined as diesel, petrol, and other fuels for private means of transport, both per capita and per entire household:

Fuel costs


Source: the author's own compilation based on unit data from the Household Budget Survey by Statistics Poland for 2021.

Fuel expenditure in families with children fluctuates around PLN 300 per month, regardless of the number of children. Expenditure per capita decreases from approx. PLN 100 for married couples with one child to approx. PLN 50 for married couples with 4 or more children. This supports the hypothesis that having more children promotes efficient use of financial resources and has a more positive impact on the environment than functioning in other units of society. Undoubtedly, solutions such as the Large Family Card (discounts of up to PLN 0.1 per litre of fuel) play a certain role here. However, these solutions are not significant enough to disrupt the inference process.

## 3. Expenditure on eating out

The chart below illustrates the structure of expenditure on eating out:
Expenditure on eating out (per person) [PLN]


Source: the author's own compilation based on unit data from the Household Budget Survey by Statistics Poland for 2021.

Those who manage a household alone dine out most frequently. More than half of eating-out expenditure is allocated to canteens. Food purchases from fast-food restaurants or take-away establishments account for one-third. On average, one-person households, as well as married couples with at most 2 children, spend around PLN 15 per month on food in restaurants. These expenses decrease especially in the case of married couples with 3 or more children. This may be attributed to facilities such as the Large Family Card. This thesis seems to be confirmed by the pattern of expenditure on food from take-away establishments and fast-food restaurants. Expenditure in the group of families with 3 or more children decreases significantly compared to other biological types of households.

## 4. Expenditure on alcoholic beverages and tobacco products

The chart shows household expenditure on alcoholic beverages and tobacco products:

Expenditure on alcohol and tobacco products


Source: the author's own compilation based on unit data from the Household Budget Survey by Statistics Poland for 2021.
Upon examination of the chart, it can be observed that in families with more (3+) children, expenditure on these stimulants is approx. $10 \%$ lower than in married couples with one or two children. Based on this data, it seems that larger families engage in less drinking and smoking compared to smaller units of society.

## 5. Air travel expenditures

The chart below shows what is the percentage of households spending on domestic and international air travel ${ }^{4}$.

Households using domestic and international flights


Source: the author's own compilation based on unit data from the Household Budget Survey by Statistics Poland for 2021.

Noteworthy is the large gap between families with 3 dependent children and families with $4+$ children. This can be justified by the specificity of the promotion for flight and luggage. Special offers are most often dedicated to parents with two children. Therefore, they are most often used by a couple of parents with 4children.Itshould berecalledthat,onaverage,thereare4.42childrenin4+families, so families with four children predominate here.

[^2]
## 6. Expenses related to the servicing of mortgage

The chart below compares the amount of the instalment of the mortgage secured by the first real property ${ }^{5}$, across different biological types of households:

Average installment of a mortgage secured
by the primary property


Source: the author's own compilation based on unit data from the Household Budget Survey by Statistics Poland for 2021.

The chart suggests that there is no clear relationship between the number of children possessed and the instalment of the mortgage.

[^3]
## V. Subjective assessment of the financial situation

In the survey, the respondents - households - were asked to assess their own financial situation in 2021. The results are presented in the chart:

Assessment of the financial situation


Source: the author's own compilation based on unit data from the Household Budget Survey by Statistics Poland for 2021.

Married couples with two dependent children assess their financial situation best (good situation $-37 \%$, rather good situation - 32.4\%). Married couples with one dependent child assess their financial situation slightly worse ( $34.6 \%$ - good situation and $31.5 \%$ - rather good situation). Let us recall that, when assessing the way funds are managed, these two groups had the highest percentage of responses: "we can afford a certain luxury" and "we can afford a lot without special saving". The income structure among large families is not the same as the income structure in smaller families. There is a greater income disparity in the case of large families, so the average values may be high, but the subjective assessment of the financial situation may be lower. Therefore, when analysing the wealth of families, it is also important to bear in mind the aspect of income disparity within the group. Nevertheless, the study did not identify a 4+ family that would rate their situation as bad.

## VI. Propensity to save

When analysing household wealth, the propensity to save cannot be ignored. The starting point was to look at the ratio of expenditure to disposable income, i.e., whether households have something to save from. For individual types of biological households, this relationship is shown in the chart below:

Share of expenditure in disposable income


Source: the author's own compilation based on unit data from the Household Budget Survey by Statistics Poland for 2021.

For married couples, the ratio of average expenditures to disposable income is stable and oscillates around $65 \%$. Therefore, it seems that they have something to save from.

Let us examine how households assess their own propensity to save. The chart below illustrates the responses of the respondents asked about their approach to saving:

Propensity of households to save


We set aside part of our income regularly

- We set aside part of our income irregularly
- We could save some of our income, but we don't
- We don't save, and we can't set aside anything from our income

Source: the author's own compilation based on unit data from the Household Budget Survey by Statistics Poland for 2021.

With the increase in the number of children in married couples, the share of responses "we set aside part of our income" regularly decreases. In married couples with 1 and 2 children, this share is similar, then, with each subsequent child, it decreases. On the other hand, the share of responses "we do not save [...]" increases (from 6.8\% in the case of married couples with 1 child to $18.9 \%$ in the case of married couples with 4 children). It can be concluded that large families are not conducive to saving. And this dependence is not surprising.

## VII. Propensity to get into debt

The survey respondents were asked about their attitude to saving. The chart below shows how the answers were distributed:

Propensity of households to get into debt


- We have no debt
- The debt is not a burden for us, we settle its repayment on time
- The debt is a burden for us, we settle its repayment on time
$\square$ The debt is a significant burden for us, and we are not always able to settle its repayment on time
$\square$ We are unable to settle our debt liabilities on an ongoing basis

Source: the author's own compilation based on unit data from the Household Budget Survey by Statistics Poland for 2021.

It is interesting that larger families have less debt than married couples with 1 or 2 children. This relationship corresponds to the previously analysed way of managing financial resources, which is more prudent in large families. In 4+ families, there is also an increased proportion of responses "debt is a great burden for us $\left[\ldots . .{ }^{\prime \prime}(2,2 \%)\right.$. The structure of responses in $4+$ families is very similar to the structure in the case of single parents - less affluent households.


[^0]:    1 A representative survey conducted annually, the most expensive survey of the Central Statistical Office. In each month of a given year, about 6,500 respondents and 2,500 households are surveyed. The study covers the revenues of individual persons and household expenses from an extensive catalogue numbering approx. 100 items for income, while for expenditure - approx. 300 items. In addition, the detailed socio-economic structure of the households is examined, including demographic characteristics.

[^1]:    2 emploees' households - the sole or main source of income for the households is the income from paid work, and an additional source may be self-employment (including income from letting property) with the exception of work on their farm (agricultural plot), non-work-related sources, as well as income from property. Source: Central Statistical Office.
    3 households of self-employed people - the sole or main source of livelihood is the income from self-employed work (including income from letting property) apart from running an individually owned farm, while an additional source may be income from paid work, farm work, non-work-related sources or income from property.

[^2]:    4 These trips do not include business flights.

[^3]:    5 Loans, in which subsequent real properties were secured were omitted due to the low representativeness of the sample.

