

FINANCIAL STANDING OF POLISH HOUSEHOLDS IN 2006 IN TERMS OF SATISFYING MAIN CATEGORIES OF NEEDS

Joanna Stanisławska, Anna Majchrzak

Poznan University of Life Sciences

Abstract. The paper presents a selection of indexes describing financial standing of households. Based on their values the analyzed aggregate units (socio-economic groups of different size) were classified into classes of a similar financial position.

Key words: household, financial standing, cluster analysis

INTRODUCTION

A household is a microunit, which produces goods, accumulates financial and material means, manages them and organizes the process of consumption. The aim of economic activity of a household is to satisfy the needs of household members by striving to guarantee them the best possible living conditions, i.e. the standard and quality of their lives. This aim is one of unique characteristics of a household, distinguishing it from among other management units. To achieve this goal a household uses information and means constituting resources of this household, including, among other things, also financial resources [Żelazna et al. 2002].

The aim of the paper was to assess financial standing of households of different size and belonging to different socio-economic groups using cluster analysis according to Ward. The study on the financial position or standing of households concerns the analysis of income, expenses and savings [Roeske-Słomka 2004]. In terms of the subject matter it is connected with studies on the standard of living of the population and constitutes a valuable source of information for governmental bodies and institutions, non-governmental organizations as well as insurance companies.

MATERIALS AND METHODS

The primary source of information on financial standing consisted of results of household budget surveys, systematically carried out by the Central Statistical Office. The analysis covered data relating to year 2006 [Budżety... 2007]. These data were base to create the following aggregate units: one, two, three, four, five and six-member households (and bigger) of members employed on positions other than blue-collar workers, self-employed individuals, blue-collar workers, farmers, disabled pensioners, and old-age pensioners. Only in the groups of self-employed individuals and farmers, the one-person households were not taken into account¹. Using this method, 34 groups of household were analysed.

The classification of the above mentioned aggregate units was performed in the following stages [Wysocki and Lira 2005]:

1. Selection of variables describing the financial standing of households – based on factual premises the following set of variables was proposed:
 - the level of disposable income in PLN/person/month (income),
 - the level of total expenses on consumer goods and services in PLN/person/month (expenses),
 - savings ratio in % (savings),
 - the level of income from welfare benefits in PLN/person/month (welfare benefits),
 - the share of food expenses in disposable income in % (food),
 - the share of expenses spent to buy fish in food expenses in % (fish),
 - the share of expenses spent to buy bread in food expenses in % (bread),
 - the share of expenses spent to buy fruit and vegetables in food expenses in % (fruit and vegetables),
 - the share of expenses for household furnishings and running the household in disposable income (housing) (%),
 - the share of expenses connected with healthcare in disposable income in % (healthcare),
 - the share of expenses connected with education in disposable income in % (education),
 - the share of expenses connected with transport in disposable income in % (transport),
 - the share of expenses connected with recreation and culture in disposable income in % (recreation and culture).

In order to eliminate excessively correlated variables an inverse matrix was used for correlation coefficients between individual variables. Based on values of diagonal elements of this matrix² five variables were eliminated: the level of expenses on consumer goods and services (PLN/person/month), savings ratio (%), the share of expenses spent to buy bread in food expenses (%), the share

¹ The Central Statistical Office does not give information on one-member households of single self-employed persons or farmers.

² If a characteristic is excessively correlated with the other characteristics, then diagonal elements of the inverse matrix to the correlation matrix **R** considerably exceed the value of 10 [Wysocki and Lira 2005].

of expenses spent to buy fruit and vegetables in food expenses (%) and the share of expenses for household furnishings and running the household in disposable income (%). Finally the analysis included 8 partial indexes, of which only two, i.e. the share of food expenses in disposable income and the level of income from welfare benefits, were considered to be destimulants of the financial standing of households.

2. Normalization of values of diagnostic variables – it consisted in the transformation of destimulants into stimulants and values of all variables being brought to comparability using the unitarization procedure. Normalization was conducted using the following formulas:

$$\text{for stimulants: } z_{ik} = \frac{x_{ik} - \min_i \{x_{ik}\}}{\max_i \{x_{ik}\} - \min_i \{x_{ik}\}}, \quad (i = 1, 2, \dots, n; k = 1, 2, \dots, m)$$

$$\text{for destimulants: } z_{ik} = \frac{\max_i \{x_{ik}\} - x_{ij}}{\max_i \{x_{ik}\} - \min_i \{x_{ik}\}}, \quad (i = 1, 2, \dots, n; k = 1, 2, \dots, m)$$

where:

$\max_i \{x_{ik}\}$ – maximum value of k-th characteristic,

$\min_i \{x_{ik}\}$ – minimum value of k-th characteristic.

3. Cluster analysis according to Ward consisting in the linking of units located closest to one another until one cluster was formed. The analysis of variance is used to estimate distances between units in order to minimize sum squares of deviations within clusters [Stanisz 2007]³.

ASSESSMENT OF FINANCIAL STANDING OF HOUSEHOLDS IN POLAND

A major element of financial standing of households is their income. In market economy the level of disposable income is of special importance, since consumers strive to attain a modern, more attractive lifestyle, looking for convenient products of high quality as a means to boost their self-esteem, increasing in this way demand for money [Malinowska and Kucharska 2006]. In 2006 there were significant differences in the level of monthly income per one member of the household. The diversity in the amount of disposable income indicates the emergence of two groups of households differing in terms of wealth. The first group includes those households, in which monthly income per one member was higher than the average disposable income for the total population in Poland in 2006, i.e. it was over PLN 835, while the other group comprised households characterized by income below the average level. Thus in the first group there were one- or two-member households of blue-collar workers, one- to four-member households of those employed on positions other than those of blue-collar workers, two-member households of farmers, two- to four-member households of self-employed individuals, one-, two- and three-member households of old-age pensioners and one-

³ Statistica ver. 7.1 was used in the computation process.

member households of disabled pensioners. The other group comprised all the other households. The highest income per person in 2006 was recorded in one-member households of those employed on positions other than those of blue-collar workers, amounting to PLN 2150.73 per month, while the lowest level of income was found in six- and more member households of disabled pensioners, amounting to PLN 345.45 per month. In all socio-economic groups the level of income per person decreased with an increase in the size of the household. Exceptions to this rule may only be observed in households of farmers, where the level of income in a three-member household (PLN 719.05 per month) was lower than the income per person in a four-member household (PLN 764.23 per month). The biggest range of differences in income may be found in the group of households of individuals employed on positions other than those of blue-collar workers, as income in that group ranged from PLN 2150.73 per month in case of one-member households to PLN 654.45 per month in households of six and more members. The most uniform level of income was recorded for households of farmers, the highest level of income in that group was found for two-member households (PLN 1107.87 per month), while the lowest for households of six and more members (PLN 562.44 per month) (Table 1).

Table 1. Values of simple characteristics describing financial standing of households^{a)} in Poland in 2006

Tabela 1. Wartości cech prostych opisujących sytuację finansową gospodarstw domowych^{a)} w Polsce w 2006 roku

Aggregate unit Jednostka agregatowa	Characteristic – Cecha							
	income dochód	welfare pomoc społ.	food żywność	fish ryby	health care zdrowie	education edukacja	transport transport	culture and recreation rekreacja i kultura
	(PLN/person/month) (zł/os./mc)		(%)					
1	2	3	4	5	6	7	8	9
Pracr-1	1 190.06	17.57	22.14	3.83	2.05	0.45	6.37	4.94
Pracnr-1	2 150.73	6.03	13.53	3.60	3.22	1.31	9.16	9.66
E-1	1 191.75	15.19	23.96	3.53	9.46	0.01	2.77	5.70
Ren-1	1 044.58	25.38	26.20	3.24	9.51	0.00	2.01	4.96
Pracr-2	968.41	31.91	22.69	3.16	3.30	0.46	7.37	5.02
Pracnr-2	1 618.79	24.25	15.05	3.77	3.93	1.35	10.74	7.56
Rol-2	1 107.87	12.19	26.57	2.78	3.05	0.06	5.91	2.26
Pracwr-2	1 676.60	18.37	16.72	4.51	3.55	0.38	8.94	8.16
E-2	1 076.21	23.34	23.75	3.87	8.01	0.12	5.63	4.93
Ren-2	766.53	37.89	28.59	3.31	7.37	0.42	4.48	4.49
Pracr-3	741.21	33.05	23.84	3.02	2.87	1.35	7.86	5.42
Pracnr-3	1 176.24	24.29	17.01	3.43	3.63	2.29	10.49	8.05

Table 1 – cont./ Tabela 1 – cd.

1	2	3	4	5	6	7	8	9
Rol-3	719.05	16.87	33.50	2.55	4.82	1.01	10.56	3.88
Pracwr-3	1 299.63	19.37	15.92	3.54	2.84	1.92	9.69	8.14
E-3	846.03	35.00	24.42	3.48	5.60	1.19	5.70	5.27
Ren-3	592.84	53.46	28.74	3.04	5.23	1.00	5.50	5.73
Pracr-4	592.43	36.79	25.25	2.79	2.85	1.39	8.58	5.99
Pracnr-4	949.92	23.03	18.06	3.18	3.17	2.51	9.95	8.39
Rol-4	76 423	18.71	26.09	2.26	2.60	0.95	7.92	4.00
Pracwr-4	949.17	16.94	18.63	3.33	2.97	2.28	10.27	8.83
E-4	696.79	39.06	25.18	3.41	4.60	1.11	5.72	5.39
Ren-4	474.34	65.00	31.10	2.73	4.12	1.16	6.42	5.07
Pracr-5	525.49	47.59	26.37	2.63	2.83	0.97	7.46	5.51
Pracnr-5	738.59	32.67	20.56	2.94	3.54	2.16	10.98	7.06
Rol-5	697.77	30.93	25.64	2.40	2.44	1.24	9.52	3.78
Pracwr-5	743.37	31.32	21.71	3.11	2.97	1.65	8.01	8.40
E-5	577.79	43.62	26.36	2.78	4.26	1.03	8.48	4.99
Ren-5	394.44	57.77	33.83	2.59	3.87	1.47	5.89	4.66
Pracr-6	452.31	58.40	28.06	2.30	2.79	0.91	6.75	4.38
Pracnr-6	654.45	41.96	22.85	2.97	3.17	2.97	7.41	6.54
Rol-6	562.44	36.82	28.11	2.16	2.98	0.91	11.05	3.97
Pracwr-6	682.39	34.06	22.09	2.79	2.77	1.38	8.94	5.71
E-6	457.15	36.91	29.75	2.60	4.74	0.76	5.78	4.39
Ren-6	345.45	78.15	34.97	2.43	3.79	0.67	6.38	6.45

^{a)}Designation of groups of households: Pracnr – households of members employed on positions other than blue-collar workers, Pracwr – self-employed individuals, Pracr – blue-collar workers, Rol – farmers, Ren – disabled pensioners, E – old-age pensioners. The numbers: 1, 2, 3, 4, 5, 6 mean amount of members in household – respectively: one, two, three, four, five, six and more numerous.

Source: the authors' study based on: Budżety... [2007].

^{a)}Oznaczenie grup gospodarstw domowych: Pracnr – gospodarstwo domowe pracujących na stanowiskach nierobotniczych, Pracwr – gospodarstwo domowe pracujących na stanowiskach robotniczych, Rol – gospodarstwo domowe rolników, Pracwr – gospodarstwo domowe pracujących na własny rachunek, Ren – gospodarstwo domowe rencistów, E – gospodarstwo domowe emerytów. Natomiast liczby 1, 2, 3, 4, 5, 6 oznaczają liczbę osób w gospodarstwie domowym odpowiednio 1, 2, 3, 4, 5, 6 i więcej.

Źródło: opracowanie własne na podstawie: Budżety... [2007].

A component of disposable income is income from welfare benefits, including benefits financed from the state or commune budgets, from special funds, as well as goods and services received from non-profit institutions. These are e.g. family benefits, attendance benefits and allowance, housing allowance, welfare allowance, unemployment

benefits [Budżety... 2007]. The highest level of income obtained from welfare in 2006 was found for three-, four-, five-, six-member households (and bigger) of disabled pensioners (respectively PLN 53.46/person/month, PLN 65.00/person/month, PLN 57.77/person/month, PLN 78.15/person/month) and five-, six-member households (and bigger) of blue-collar workers (PLN 47.59/person/month, PLN 58.4/person/month). The minimum value of this index was observed in case of one-member households of individuals employed on positions other than those of blue-collar workers (PLN 6.03/person/month) and it was many times lower than the level observed in the other aggregate units (Tables 1 and 2).

Table 2. Basic statistics characterizing simple characteristics describing financial standing of households in Poland in 2006

Tabela 2. Podstawowe statystyki charakteryzujące cechy proste opisujące sytuację finansową gospodarstw domowych w Polsce w 2006 roku

Characteristic Cechy	Min	Median Mediana	Max	Coefficient of variation Współczynnik zmienności	Coefficient of skewness Współczynnik skośności
Income (PLN/person/month) Dochód (zł/os./mc)	345.45	742.29	2 150.73	45.47	1.39
Welfare (PLN/person/month) Pomoc społeczna (zł/os./mc)	6.03	32.29	78.15	48.57	0.86
Food (%) Żywność (%)	13.53	24.80	34.97	21.99	-0.09
Fish (%) Ryby (%)	2.16	3.03	4.51	17.43	0.47
Health care (%) Zdrowie (%)	2.05	3.42	9.51	46.03	1.84
Education (%) Edukacja (%)	0.00	1.07	2.97	63.75	0.53
Transport (%) Transport (%)	2.01	7.66	11.05	30.11	-0.42
Culture and recreation (%) Kultura i rekreacja (%)	2.26	5.41	9.66	29.61	0.49

Source: the authors' study based on: Budżety... [2007].

Źródło: opracowanie własne na podstawie: Budżety... [2007].

Another element, apart from income, in the assessment of financial standing of households is the level of their expenses, reflecting the volume and quality of satisfaction of their needs. The dominant item in the budget of households is the proportion of food expenses. The first Engel law says that the percentage of food expenses in total expenses decreases with an increase in income, assuming that the other factors remain unchanged. Engel also observed that the poorer the individual, the bigger part of income they have to spent on food [Żelazna et al. 2002]. In comparison to the other aggregate units the largest share of food expenses in disposable income characterized in 2006

groups of four-, five-, six- and more member households of disabled pensioners (31.10%, 33.83% and 34.97%), as well as three-member households of farmers (33.50%), while the least was spent on food by households of one, two, three and four individuals employed on positions other than those of blue-collar workers (13.53%, 15.05%, 17.01%, 18.06%) as well as two-, three- and four-member households of self-employed individuals (16.72%, 15.92%, 18.63%). The smallest diversification in the value of this characteristic was found for households of old-age pensioners, the highest share of food expenses in disposable income in this group was recorded in households of six and more members (29.88%), while the lowest was found in one-member household (23.96%). The biggest variation in the value of this characteristic may be observed in case of households of workers employed on positions other than blue-collar workers. The share of food expenses in disposable income in this group ranged from 13.53% in case of one-member households to 22.85% in households of six and more members. In all socio-economic groups of households it was observed that the share of food expenses in disposable income increased with an increase in the household size. Exceptions in this respect were three-member households of self-employed individuals (where the share of food expenses was lower than in two-member households), as well as four- and five-member households of farmers, in which the share of food expenses in disposable income was lower than in three-member households (Table 1).

The share of expenses allocated to buy fish in food expenses is to a considerable degree dependent on the income level, market supply and offered assortment. Fish are excellent meat substitutes, as they are foodstuffs with considerable contents of valuable protein, minerals, vitamins and beneficial polyunsaturated fatty acids [Gulbicka 2000, Kwasek 2000]. The biggest share of fish expenses in food expenses was observed for two-member households of old-age pensioners and those of self-employed individuals (4.51%, 3.87%), as well as one-member households of blue-collar workers and those employed on positions other than blue-collar (3.83%, 3.60%), while the lowest in four-, five- and six-member households (and bigger), which main source of income was income from their farm (2.26%, 2.20%, 2.16%), as well as in six- and more member households of blue-collar workers and disabled pensioners (2.30%, 2.43%). In households of farmers the proportion of expenses for fish in disposable income was to a considerable degree determined by price; moreover, a barrier here was also limited assortment available on the market. The share of fish expenses varies equally depending on the socio-economic group and the size of the household.

Health is a pre-condition for the appropriate and efficient functioning of the human organism and as such it occupies a high position in the hierarchy of values and needs [Gasińska 2002]. The share of health care expenses in disposable income in 2006 varied markedly in households depending on their socio-economic groups and the number of people in the family (the coefficient of variation was 46.03%). It was observed that groups evidently distinguished consisted of old-age pensioners and disabled pensioners, who spent much more than the other socio-economic groups of households. The biggest share of health care expenses in disposable income was recorded in one-member households of disabled pensioners (9.51%) and old-age pensioners (9.46%). It is an obvious phenomenon, since these socio-economic groups incur relatively high expenses connected with health (e.g. on pharmaceuticals, medical equipment and hospital services) in comparison to the other groups. The lowest amounts were spent on that purpose by one-member households of blue-collar workers (2.05%) and five-member families of far-

mers (2.44%). Farmers due to the underprivileged access to health care, connected with the low number of available health care facilities, as well as low health awareness, care for their health much less than inhabitants of towns and cities [Michota-Katulska 2004] (Tables 1 and 2).

Numerous economic and social studies indicate a significant effect of the level of education on the standard of living of the population. The higher the education level, usually the higher the income, and this is manifested in better financial standing [Kwaszek 2000]. Higher expenses connected with education indicate that needs in this respect are satisfied more effectively. The proportion of expenses on education in disposable income varies markedly in terms of socio-economic groups and the number of people in the household (the coefficient of variation was 63.75%). The highest share of expenses on that purpose in disposable income was reported for three-, four-, five-, six-member (and bigger) households of individuals employed on positions other than those of blue-collar workers (2.29%, 2.51%, 2.16%, 2.97%) as well as three-, four-, five-member households of self-employed individuals (1.65%, 1.92%, 2.28%), while the lowest in one-member households of disabled pensioners (0.00%), old-age pensioners (0.01%), blue-collar workers (0.45%) and in two-member households of farmers (0.06%), old-age pensioners (0.12%) and disabled pensioners (0.42%). Although the low proportion of expenses on education in disposable income in case of households of old-age pensioners and disabled pensioners was understandable, in case of blue-collar workers and farmers it was disadvantageous and reduced the chances for these groups of households to improve their education level (Tables 1 and 2).

In the opinion of Kramer [1997], transport services indicate the civilization level of a given society. A lack of mobility is related with helplessness and inability to deal with unemployment, using no forms of tourism, weakening of family ties or loosening of contacts with other people. The highest share in disposable income for expenses connected with transport was found for one-, two-, three-, four-, and five-member households of individuals employed on positions other than blue-collar (9.16%, 10.74%, 10.49%, 9.95%, 10.98%) and three-, five- and six-member (and bigger) families of farmers (10.56%, 9.52%, 11.05%), as well as three- and four-member households of self-employed individuals (9.69%, 10.27%). The smallest share of expenses for that purpose was found for one-, two-, three-member (4.48%, 5.5%) households of disabled pensioners (2.01%) and households of old-age pensioners (2.77%). A high level of this index for households of farmers is connected with the specific nature of their residence and thus the necessity to cover considerable distances (Table 1).

Culture affects almost all spheres of human life, it influences our diet, clothing, furnishings, our attitude to others, adopted values, etc. Recreation is a form of leisure activity performed in one's free time devoted to rest, a pleasure which is to regenerate mental and physical strength, as well as prevent further fatigue [Rudnicki 2000]. It needs to be stressed that the biggest proportion of expenses on recreation and culture in disposable income was observed for one-, two-, three-, four-, five- and six-member (and bigger) households of individuals employed on positions other than blue-collar (9.66%, 7.56%, 8.05%, 8.39%, 7.06%, 6.54%) as well as two-, three-, four- and five-member households, for which the main source of means of living is income from self-employment (8.16%, 8.14%, 8.4%, 7.06%). The least was spent on that purpose by two-, three-, four-, five- and six-member (and bigger) families of farmers (2.26%, 3.88%, 4%, 3.78%, 3.97%). The share of expenses on culture and recreation is thus mainly determined by

the affiliation to the socio-economic group in the population. The size of a household affects this characteristic to a lesser degree (Table 1).

CLASSIFICATION

Normalized data concerning aggregate units were classified according to Ward. The analysis of linkage distances on the dendrogram showed the existence of three clusters. However, due to the lower homogeneity of the third class in comparison to the other two classes it was decided to assume the division at the lower stage of classification. This decision resulted from the appropriate interpretation of the adopted division. A classification was searched for at the lowest level and at the same time one with a relatively long distance between successive linkage stages. As a consequence, the division of the analysed population into seven clusters was assumed (Fig. 1).

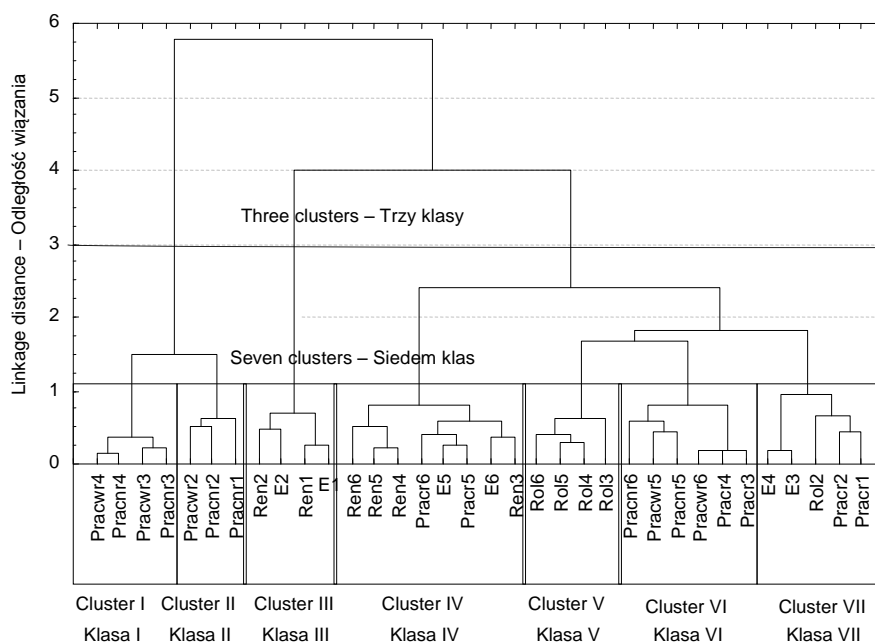


Fig. 1. Classification of households according to Ward in terms of selected financial standing indexes (Euclidean distances)

Source: the authors' study.

Rys. 1. Klasyfikacja gospodarstw domowych metodą Warda według wybranych wskaźników sytuacji finansowej (odległość euklidesowa)

Źródło: opracowanie własne.

Cluster I was formed by three- and four-member households of self-employed individuals and of those working on positions other than blue-collar (Fig. 1). The main source of maintenance of these units, their number and more than average volume of

disposable income implied the largest share in all the analyzed classes in case of expenses on education (2.28%), exceeding by over two times the level of this index in the other classes (except for classes II and VI) (Table 3). At the same time in this class the highest share of expenses on transport (10.11%) as well as culture and recreation (8.26%) was recorded. It results from another hierarchy of needs in case of these households, as well as adequate financial means to satisfy needs of a higher order. In this respect it is a little similar to aggregate units belonging to class II, in which high levels of these indexes were also recorded. A certain consistency is also observed in case of the share of food expenses in disposable income. These households spend only a little less than aggregate units belonging to class II, in which the lowest level of this index was observed (15.05%). **Cluster II** comprised one- and two-member households of individuals working on positions other than blue-collar and two-member households, for which the main source of income was self-employment (Fig. 1). The highest disposable income per person, amounting to PLN 1676.60, was recorded in this class, being three times higher than in households belonging to the fourth cluster, in which the minimum level of this index was found (Table 3). This situation resulted in the lowest amount of financial means obtained from social benefits (PLN 18.37/person/month). Although the index of expenses incurred to buy fish in the total food expenses did not vary much in individual classes, the highest level was recorded here. It may be assumed that these households choose fish as a healthier substitute of meat. This index was determined not only by the volume of income, but also by the socio-economic group of households, which – as it was already mentioned – to a considerable degree determined another index of financial standing, i.e. the share of health expenses. The level of this index in this class was closest to the average level. The highest percentage of health expenses was found for one- and two-member households of disabled pensioners and old-age pensioners, which comprised **cluster III**. The level of this index, two times higher than in the other classes (8.74%), was possible thanks to the relatively high disposable income, which volume was similar to that reached by aggregate units comprising the first cluster. It is also obvious that the above mentioned households spend relatively least on education. The share of these expenses in disposable income was almost zero. For this class a characteristic feature was also a minimum percentage of financial means financing needs connected with transport. This results first of all from a different hierarchy of needs in these households. It also needs to be added that despite a similar amount of disposable income, similar to that in group I, a relatively high share of food expenses was recorded here (25.08%). However, the highest level of this index was found for three-member and bigger households of disabled pensioners, five-, six-member and bigger households of old-age pensioners, as well as those of blue-collar workers. These units formed the most numerous **cluster IV** (Fig. 1). A very high share of food expenses results from the low level of disposable income (PLN 465.75/person/month), which is equivalent to only 1/3 means at the disposal of households in class II and 1/2 the amount, earned by aggregate units belonging to classes I and III (Table 3). Not only the affiliation to a specific socio-economic group determines the financial standing of these households, but it is also affected by the size of households, which is confirmed by the index of education expenses being closest to the average (0.99%), as well as the proportion of expenses on recreation and culture (5.03%). In turn, when analyzing health expenses we may observe their dominant share in view of the other classes (except for the third cluster, in which – as it was already mentioned – the maxi-

num level was found). This fact seems obvious due to the predominance of disabled pensioners and old-age pensioners, which as a consequence of their too low income cannot afford to incur analysed expenses at a level equivalent to that in class III. However, a factor differentiating the aggregate units classified to class IV is an almost two times higher level of income received from welfare benefits than in the other classes. This is a consequence of the lowest amount of disposable income in these households [Gutowska 2001].

Cluster V seems to be most homogeneous, as it comprises one socio-economic group of households, i.e. farmers (Fig. 1). In this case only their size varies – it ranges from three to six and more members. These households are characterized by the lowest level of fish consumption, since the proportion of expenses allocated to purchase of fish was 2.33% (Table 3). This situation is not only connected with the below average disposable income (PLN 708.41/person/month), but first of all with a certain model of consumption, in which a considerable role is played by self-supply, especially in case of meat, for which fish constitutes a substitute with a similar nutritive value [Kwasek 2000]. Consumption level is also one of causes determining the high share of food expenses (higher than the mean for all the analyzed households), which would indicate very poor financial standing of these units. An important item in the structure of their expenses is the relatively high share of means used to finance needs connected with transport. It is primarily connected with the necessity to cover frequently long distances to reach towns and cities. It is also connected with the limited access to cultural and recreation centres, i.e. cinemas, theatres, museums, swimming pools, tennis courts, gyms, etc. Thus large households of farmers spend the lowest, in comparison to the other classes, part of their disposable income to satisfy needs connected with culture and recreation (3.93%). Members of these households also spent relatively least on health care, as the percentage of means spent on medical supplies and services was 2.79%. A relatively low level of this index was recorded for aggregate units found in **cluster VI**, formed by three- and four-member households of blue-collar workers, five-, six-member and bigger households, for which the main source of income was self-employment, as well as households of a similar size, in which earners were white-collar workers (Fig. 1, Table 3). Although income of these aggregate units was below average, many indexes determining their financial standing took values above the average, resulting from the relatively high number of members in these households. This pertains especially to the share of expenses allocated to education, transport as well as culture and recreation. A positive phenomenon is also the fact that the share of financial means spent on food was lower than the mean by approx. 2 percentage points. In case of this index the average situation was found for one and two-member households, for which the primary source of income was manual work, two-member households of farmers, as well as three- and four-member households of old-age pensioners. They comprised the last class – **cluster VII**. These households also reported results close to the average in terms of the proportion of expenses allocated to the purchase of fish, the share of means spent on health care, the share of expenses to finance cultural and recreation needs, as well as the level of income obtained from welfare benefits. They were also characterized by a 50% lower than the average percentage of means spent on education, which is connected both with the socio-economic group (old-age pensioners) and the size of these households (one- or two-member households of farmers and blue-collar workers).

Table 3. Values of characteristics within classes – selected indexes of financial standing of households (median values)

Tabela 3. Wewnątrzklasowe wartości wybranych wskaźników sytuacji finansowej gospodarstw domowych (wartość mediany)

Characteristic Cecha	Class – Klasa							Total Ogółem
	I	II	III	IV	V	VI	VII	
Income (PLN/ person/month) Dochód (zł/os./mc)	1 063.08	1 676.60	1 060.40	465.75	708.41	710.49	968.41	742.29
Welfare (PLN/ person/month) Pomoc społeczna (zł/os./mc)	21.20	18.37	24.36	55.62	24.82	33.56	31.91	32.29
Food (%) Żywność (%)	17.53	15.05	25.08	29.24	27.10	22.47	24.42	24.80
Fish (%) Ryby (%)	3.38	3.77	3.42	2.62	2.33	2.95	3.41	3.03
Health care (%) Zdrowie (%)	3.07	3.55	8.74	3.99	2.79	2.92	3.30	3.42
Education (%) Edukacja (%)	2.28	1.31	0.06	0.99	0.98	1.52	0.46	1.07
Transport (%) Transport (%)	10.11	9.16	3.62	6.40	10.04	8.30	5.91	7.66
Culture and recreation (%) Kultura i re- kreacja (%)	8.26	8.16	4.95	5.03	3.93	6.27	5.02	5.41

Source: the authors' study.

Źródło: opracowanie własne.

The analysis showed that the relatively best financial standing was found in one-, two-, three- and four-member households of individuals working on positions other than blue-collar and two-, three- and four-member households supported by self-employment (classes I and II). This was manifested in the highest disposable income per person, the lowest share of food expenses and high indexes defining the percentage of means allocated to education, transport, culture and recreation (Table 3).

The worst financial standing was recorded for aggregate units from classes IV and V: three-, four-, five-, six-member and bigger households of disabled pensioners and farmers, as well as five-, six-member and bigger households of old-age pensioners and six-member and bigger households of blue-collar workers, as it is reflected first of all in the lowest disposable income per person and the highest share of food expenses. Moreover, it is also indicated by the maximum level of income from welfare benefits (class IV), as well as the minimum share of expenses allocated to health care as well as culture and recreation (class V) (Table 3).

CONCLUSIONS

1. The average disposable income per person in a household was advantageous for one-member households and decreased significantly with an increase in the number of family members. The biggest range of values between income of one-member households and income in six-member and bigger households was found for the group of households of individuals working on positions other than blue-collar.

2. The highest share of food expenses was observed in all socio-economic groups of households among bigger families (except for farmers), which is a confirmation of the trend saying that the higher proportion of food expenses is characteristic for households with a lower income level.

3. Financial standing varied in the investigated socio-economic types of households. The best financial situation was observed in households grouped in classes I and II (one-, two-, three- and four-member households of individuals working on positions other than blue-collar, as well as two-, three- and four-member households of self-employed individuals), while the worst – in classes IV and V (three-, four-, five-, six-member and bigger households of disabled pensioners and farmers, as well as five-, six-member and bigger households of old-age pensioners, and six-member and bigger households of blue-collar workers).

4. The presented variation in financial standing indicates a large range of the level at which needs are satisfied in terms of individual goods and service types in the analysed households. This resulted from the differences in the volume of obtained income, its source as well as differing numbers of people in the household.

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**SYTUACJA FINANSOWA POLSKICH GOSPODARSTW DOMOWYCH
W 2006 ROKU Z UWZGLĘDNIENIEM ZASPOKAJANIA GŁÓWNYCH
KATEGORII POTRZEB**

Streszczenie. W pracy przedstawiono dobór zmiennych opisujących sytuację finansową gospodarstw domowych. Na podstawie wartości tych wskaźników dokonano klasyfikacji badanych jednostek agregatowych (grupy społeczno-ekonomiczne o różnej liczebności) w klasy o podobnej sytuacji finansowej. Podstawą do analizy i określenia sytuacji finansowej polskich gospodarstw domowych w 2006 roku była ocena kształtowania się realnych dochodów rozporządzalnych oraz analiza struktury wydatków, przypadających miesięcznie na jednego członka gospodarstwa domowego.

Słowa kluczowe: gospodarstwo domowe, sytuacja finansowa, analiza skupień

Accepted for print – Zaakceptowano do druku: 17.06.2008

For citation – Do cytowania: Stanisławska J., Majchrzak A., 2008. Financial standing of Polish households in 2006 in terms of satisfying main categories of needs. J. Agribus. Rural Dev. 3(9), 147-160.