

## CONSUMPTION IN ONE-PERSON HOUSEHOLDS OF DIVORCED PEOPLE<sup>1</sup>

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The level and structure of spending on consumption depends on many factors, among them are: the size of the household and the marital status of the person representing the household. Demographic statistics show an increase in the share of one-person households and an increase in the number of persons after divorces. An interesting issue is the analysis of consumer spending in one-person households conducted by divorced people. The aim of this paper is to present the consumption in one-person household of divorced women and men. The research methods were analysis of variance and cluster analysis. The research material was representative and unpublished data obtained from the household budget survey conducted by the Central Statistical Office of Poland in 2015. The subject of interest was consumption expenditures of 12 categories of consumer goods and services. In one-person households of divorced people, there were statistically significant differences in expenditures for many categories of consumer goods and services compared to one-person households conducted by singles, as well as by widowed people. Six groups of households of persons divorced due to consumption expenditures were distinguished.

**Key words:** consumption patterns, single-person households, groups, divorced person

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### **Introduction**

The study was focused on one-person households of divorced people in Poland<sup>1</sup>. The divorce rate in Poland has increased rapidly during the past twenty years, the average divorce rate increased from 16.5 divorces per 1000 people in the 1980 to 21.9 divorces per 1000 people in 2015 (Rocznik Demograficzny, 2017). The rise in one-person households are high levels of divorce and cohabitation dissolution. The literature review indicates that marital status is significantly related to the consumption patterns of households (Kroshus, 2008). The scientific objective of the study is to identify consumption patterns in one-person households of divorced women and men, living independently.

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<sup>1</sup> This paper is one of the series of papers entitled "Determinants of consumption in one-person households"

The research material was represented by the statistical data from individual, unpublished CSO (GUS) data for household budget investigations in 2015. The CSO data base covered over 37 000 households. There were 1151 one-person households of divorced people. Ward's grouping method make possible to establish the number of households' clusters. The applied criterion was *the first significant leap in agglomeration distance* (Turan, Senturk, 2016). The selected number of groups means the group preceding *the first significant leap in agglomeration distance*. The final stage of household grouping procedure, regarding consumption expenditures was accomplished with *k-means* clustering method (Sarstedt, Mooi, 2014). Although all the variables (12 categories in expenditures on consumption goods and services) were expressed in PLN, standardization was carried out, since this operation helped avoiding dominating classification by the highest average expenditures.

## 1 The consumption patterns

Financial status of one-person households of divorced people improved. For example in 2004, the share of expenditures on consumption goods and services in available income was not less than 94.1%, and, in 2015, the same share was 77.5%. Larger available income means greater consumer opportunities.

As a result of clustering households with *k-means* method were obtained 6 clusters of different size. According to Sagan (2010), the optimum number of clusters is from 3 to 6. The number of analyzed households in the respective clusters is given in the Table 1. One of these groups was distinctively greater (48.0%) than the others, which indicates one dominant consumption pattern. Consumption represented by individual groups of one-person households were the result of socio-demographic features of their members.

The largest cluster (the 1<sup>st</sup> one) covered the oldest people (the average age 61 years old), i.e. with basic vocational or middle education level. Most commonly, the main source of income for them was retirees. The households were localized at various settlement units. Slightly more frequently they were female households (63%). The specific features in this group were the lowest levels both of available income and expenditures on main categories of consumption goods and services; with the exception of health services and expenses connected with catering services and accommodation. The value of social benefits, i.e. the main income source for this cluster, is generally lower than value of salaries or self-employment income, so the expenditures on some consumption goods and services are relatively low, and, consequently - in consumption pattern only basic needs are covered. In

the structure of available income, the largest percentage of expenditures on food and non-alcoholic beverages (21,2%) and on dwelling maintenance (23,9%) was noticed. The lowest percentage of available income, in comparison to other clusters, was for transportation (3,0%) as well as culture and leisure (3,5%). The share of expenditures on consumption goods and services in available income was 74%, so it was equal to the households in 6<sup>th</sup> cluster, although the 6<sup>th</sup> cluster is characterized by significantly higher level of available income.

Another (the 2<sup>nd</sup>) cluster has been formed by the people in average age 59 years old, with 77% female households, and with retirees as the main income source for over 42% households or with white-collar jobs – for 32% households. The majority of people in this group of households had middle or higher education. The households were localized at various settlement units, from largest city (26%) to rural area (13%). The specific features in this group were the largest expenditures on health service and relatively high expenditures on food, non-alcoholic beverages, furnishing and other consumption goods and services. In relation to other groups, high share of expenditures on furnishing (4,4%), health service (7,7%) and telecommunication (6,1%); meanwhile smaller percentage of expenditures on catering services and accommodation (2,3%) was observed. The share of expenditures on consumption goods and services in available income was about 82%.

The 3<sup>rd</sup> cluster contained, above all, people of the average age 58 years old. There were usually male households (about 58%), with head having basic vocational (35%) or secondary and post-secondary (43%) education level. The main income sources for 46% of households were post-employment benefits, pensioners or retirees and for 41% of households were manual jobs or white-collar jobs. The 3<sup>rd</sup> cluster households were localized at rural areas (26%) or in smaller towns – up to 99 000 dwellers (32%). The distinctive feature for this group was relatively high level of expenditures on alcoholic beverages and tobacco products and the lowest level of health service spending. The share of expenditures on consumption goods and services in available income was over 78%.

The further, 4<sup>th</sup> cluster was represented by households of people of the average age 54 years old, especially located in big city and city from 100 thousand to 199 thousand inhabitants (over a half household). The main source of income for 35% of households were white-collar jobs and for 29% - retirees. As for available income, relatively low, as compared to other clusters, was the share of expenditures on food and non-alcoholic beverages (8,1%) and dwelling maintenance (11,9%). On the other hand, relatively high, as compared to other groups, was the share of expenditures on transport and on gastronomy and accommodation.

The share of expenditures on consumption goods and services in available income was 63%, what makes it the lowest of all clusters.

**Tab. 1: Characteristics of groups of one-person households of divorced people in 2015 in Poland**

| <b>Specification</b>   | 1 <sup>st</sup>  | 2 <sup>nd</sup>   | 3 <sup>rd</sup>   | 4 <sup>th</sup>                     | 5 <sup>th</sup>        | 6 <sup>th</sup>        |
|--|--|---|---|-------------------------------------|------------------------|------------------------|
| Number of households in the group (percentage of the starting base)  | 552<br>(48,0%)   | 280<br>(24,3%)  | 141<br>(23,3%)  | 72<br>(6,3%)                        | 60 (5,2%)              | 46 (4,0%)              |
| The socio-economic group of households:<br>1 – households of manual workers<br>2 – households white-collar workers<br>3 – households farmers<br>4 – households of self-employment<br>5 – households of retirees<br>6 – households of pensioners<br>7 – osób utrzymujących się ze świadczeń społecznych<br>8 – osób utrzymujących się z pozostałych niezarobkowych źródeł | 1 – 15,6%<br>2 – 8,3%<br>3 – 47,3%<br>4 – 10,0%<br>5 – 12,7%<br>6 – 3,8%   | 1 – 8,6%<br>2 – 32,1%<br>4 – 7,1%<br>5 – 42,1%<br>6 – 4,6%                | 1 – 23,4%<br>2 – 17,7%<br>5 – 38,3%<br>6 – 7,8%               | 2 – 34,7%<br>5 – 29,2%              | 2 – 55,0%<br>5 – 25,0% | 5 – 45,7%              |
| <b>Available income per capita in PLN</b>  | 1503   | 2531  | 1929  | 3777                                | 3919                   | 3323                   |
| <b>The level of education of the head of the household</b><br>1 – lower secondary, primary or less<br>2 – basic vocational education<br>3 – secondary and post-secondary education<br>4 – higher education   | 1 – 15,8%<br>2 – 35,9%<br>3 – 37,7%<br>4 – 10,7%                           | 2 – 15,0%<br>3 – 43,6%<br>4 – 37,9%                                       | 1 – 9,2%<br>2 – 34,8%<br>3 – 43,3%<br>4 – 12,8%               | 2 – 19,4%<br>3 – 47,2%<br>4 – 31,9% | 3 – 33,3%<br>4 – 61,7% | 3 – 39,1%<br>4 – 39,1% |
| The average age of the head of the household (year old)  | 61   | 59  | 58  | 54                                  | 56                     | 57                     |
| <b>Female households</b>   | 62,5%  | 76,8%   | 41,8%   | 56,9%                               | 78,3%                  | 41,3%                  |
| <b>Hoesehold location</b><br>1 – city with 500 000 and more inhabitants<br>2 – city from 200 000 to 499 000 inhabitants<br>3 – city from 100 000 to 199 000 inhabitants<br>4 – city from 20 000 to 99 000 inhabitants<br>5 – city than less 20 000 inhabitants<br>6 – rural area   | 1 – 14,5%<br>2 – 12,1%<br>3 – 10,3%<br>4 – 25,0%<br>5 – 14,5%<br>6 – 23,6% | 1 – 26,4%<br>2 – 15,5%<br>3 – 10,7%<br>4 – 23,2%<br>5 – 9,6%<br>6 – 12,5% | 1 – 19,2%<br>2 – 16,3%<br>4 – 19,9%<br>5 – 12,1%<br>6 – 25,5% | 1 – 36,1%<br>3 – 20,8%              | 1 – 33,3%<br>4 – 18,3% | 1 – 34,8%<br>2 – 28,3% |

Source: own work

The 5<sup>th</sup> cluster was formed by of people of the average age 56 years old, working for a living in white-collar jobs (55%) or retirees (25%). More than 78% of these households were

female. 62% of the people representing the 5<sup>th</sup> cluster had higher education. In this group, the highest level of available income was noted. As for expenditures level, in the 5<sup>th</sup> group, in comparison to others, the largest sum was allocated for food and non-alcoholic beverages, clothing and footwear, dwelling maintenance, furnishing, culture and recreation and other goods and services. In the structure of available income, the largest of all other clusters, were expenses of clothing and footwear (11,0%), culture and recreation (7,4%) and other goods and services. The share of expenditures on consumption goods and services in available income was 83%, what makes it the highest of all clusters. High expenditures on clothing and footwear as well as culture and recreation may indicate a status consumption in these households. Similar observations were made by researchers from the USA (Kim, Jang, 2014).

The last (the 6<sup>th</sup>) cluster was formed by of people of the average age 57 years old, retirees. There were usually male households (about 59%), with head having secondary and post-secondary (39%) or higher (39%) education level. The main income sources for 46% of households were retirees. The 6<sup>th</sup> cluster households were localized in larger towns – more than 99 000 dwellers (63%). Comparably, in the structure of available income, the share of expenditures on alcoholic beverages and tobacco products (13,5%) was the highest of all the clusters, while the share of expenses on clothing and footwear (2,7%) was the lowest of all. The behaviors of these household members seem to be rather risky. The share of expenditures on consumption goods and services in available income was 74%. In this group and 3<sup>rd</sup> group, a significant part of households was created by men. There was also high spending on alcoholic beverages and tobacco products. Correlations between gender and alcohol and tobacco consumption as confirmed by other studies (Jackson, Hu, Kawachi, Williams, Mukamal, Rimm, 2015; Meng, Holmes, Hill-Mcmanus, Brennan, Meier, 2014).

**Tab. 2: The level and structure of expenditures on consumer goods and services in groups of one-person households of divorced people in 2015 in Poland**

| Groups   | Available income per capita | Food and non-alcoholic beverages | Alcoholic beverages and tobacco products | Clothing and footwear | Housing, water, electricity, gas and other fuels | Apartment equipment | Health     | Transport  | Communication | Culture and recreation | Education | Gastronomy and accommodation | Other goods and services |
|--|-----------------------------|----------------------------------|--|-----------------------|--|---------------------|------------|------------|---------------|------------------------|-----------|------------------------------|--------------------------|
| The level of available income and expenditures on consumer goods and services per capita per month |                             |                                  |  |                       |  |                     |            |            |               |                        |           |                              |                          |
| 1  | 1503                        | 319                              | 25                                       | 31                    | 360  | 39                  | 68         | 46         | 54            | 53                     | 0         | 66                           | 57                       |
| 2  | 2531                        | 533                              | 37                                       | 77                    | 517  | 112                 | 194        | 124        | 154           | 148                    | 1         | 57                           | 130                      |
| 3  | 1929                        | 368                              | 213                                      | 55                    | 388  | 39                  | 58         | 84         | 72            | 88                     | 2         | 69                           | 68                       |
| 4  | 3777                        | 306                              | 54                                       | 83                    | 448  | 59                  | 59         | 285        | 127           | 200                    | 1         | 637                          | 112                      |
| 5  | 3919                        | 577                              | 59                                       | 430                   | 589  | 128                 | 138        | 228        | 151           | 291                    | 4         | 131                          | 511                      |
| 6  | 3323                        | 505                              | 447                                      | 48                    | 486  | 69                  | 88         | 252        | 124           | 187                    | 5         | 128                          | 101                      |
| The structure of expenditures on consumer goods and services in available income                   |                             |                                  |  |                       |  |                     |            |            |               |                        |           |                              |                          |
| 1  | 100,0                       | <b>21,2</b>                      | 1,7                                      | 2,1                   | <b>23,9</b>                                      | 2,6                 | 4,5        | 3,0        | 3,6           | 3,5                    | 0,0       | 4,4                          | 3,8                      |
| 2  | 100,0                       | <b>21,1</b>                      | 1,4                                      | 3,0                   | 20,4   | <b>4,4</b>          | <b>7,7</b> | 4,9        | <b>6,1</b>    | 5,9                    | 0,0       | 2,3                          | 5,1                      |
| 3  | 100,0                       | 19,1                             | <b>11,0</b>                              | 2,9                   | 20,1   | 2,0                 | 3,0        | 4,3        | 3,7           | 4,5                    | 0,1       | 3,6                          | 3,5                      |
| 4  | 100,0                       | 8,1                              | 1,4                                      | 2,2                   | 11,9   | 1,6                 | 1,6        | <b>7,5</b> | 3,4           | 5,3                    | 0,0       | <b>16,9</b>                  | 3,0                      |
| 5  | 100,0                       | 14,7                             | 1,5                                      | <b>11,0</b>           | 15,0   | 3,3                 | 3,5        | 5,8        | 3,8           | <b>7,4</b>             | 0,1       | 3,4                          | <b>13,0</b>              |
| 6  | 100,0                       | 15,2                             | <b>13,5</b>                              | 1,4                   | 14,6   | 2,1                 | 2,6        | <b>7,6</b> | 3,7           | 5,6                    | 0,2       | 3,8                          | 3,1                      |

Source: own work

## Conclusion

In the study it was shown that one-person households of divorced women and men have various consumption patterns, influenced by socio-demographic and economic features and connected with household localization. Depending on economic and socio-demographic variables, disparate consumption patterns for these types of households can be observed.

Most one-person households of divorced women and men are characterized by low available income and consumption patterns characterized by relatively high share of expenditures for food and home maintenance. In women's households with high available incomes, status consumption was observed. A risky lifestyle (high share of expenditure on alcoholic beverages and tobacco products) was recorded in the group of men. Raising awareness about health in the mentioned group of households is required.

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