# MIDDLE CLASS PROFILE IN MONGOLIA

Enkhtsetseg Byambaa[1]
Amartuvshin Tserennadmind[2]
Gansukh Durvedkhaan[3]

## Abstract

Over the last decade, the government of Mongolia has implemented a series of policy reforms designed to enhance economic growth and reduce poverty with a more pro-poor orientation. The Mongolian economy has grown considerably since 2003 however, social development and specifically living standards of the population, have not experienced the same progress, contributing to poverty and inequality. The main objective of this research is to provide a preliminary analysis of the patterns of the middle class in Mongolia since no study has yet addressed this issue in the Mongolian context. This research was carried out using both qualitative and quantitative methods with specific purposes. Analysis using the absolute approach based on the average monthly consumption distribution shows that the middle class constitute 49.2% of the population in Mongolia. Middle class households tend to have no children or fewer children and tend to have completed secondary education or higher and work more in the public or private sector. Regarding the welfare profile, salary constitutes the largest income for the middle class. Public transfers such as pension and other allowances is the second highest source of income for all regions. Not surprisingly, livestock business income is the core income source in the countryside. Focus group participants reported that, in general, livelihood has improved as compared to 5 years ago.

**Keywords**: Relative and absolute approach, Household Socio-Economic Survey, Focus group discussion, Consumption quintile, Welfare profile, Income share

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[1] Email: enkh@rocketmail.com

[2] Email: amartuvshin_t@num.edu.mn

[3] Email: gansukhmongol@num.edu.mn

## 1. Introduction

The individuals who belong to the middle class may hold the key to a country's prosperity, strengthening prospects for economic growth and poverty reduction. The basic income, skills, and values that characterize the middle class may enable them to improve not only their own standards of living, but also that of others (ADB, 2010). In effect, the focus of the middle class, as opposed to the poor (with the poor defined as those having only enough to survive), is a valuable base that contributes significantly to the economic, social and political life of a country.

Over the last decade, the government of Mongolia has implemented a series of policy reforms designed to enhance economic growth and reduce poverty with a more pro-poor orientation.[4] The Mongolian economy has grown considerably since 2003 however, social development and specifically living standards of the population, have not experienced the same progress, contributing to poverty and inequality. In Mongolia, the percentage of the population living in poverty has remained around 30 percent over the last decade. A recent Household Socio-Economic Survey (HSES) concluded that 29.8 percent of the total population of Mongolia was living in poverty in 2011. Inequality, as measured by the Gini Index, showed that the gap between the rich and poor has widened, with a coefficient of 0.33 in 2011. The richest 20% of the population consumes 5 times the amount consumed by the poorest 20% of the population.

Increasing inequality perpetuates the categorization and distinction of households as "wealthy," "better-off," "average," "middle income," "poor" and "very poor," etc… In-depth research is required to explore who they are, how they differ, how group classifications have changed over time, and what role each group plays in economic, social and political life. Furthermore, analysis of the middle class and its role in society has become an important area of study in order to better understand and implement policies to reduce poverty and inequality.

The role of the middle class and population income distribution in Mongolia has drawn little attention in the literature. The existing studies that look at Mongolian income distribution are mainly concerned with cross-country analysis and therefore lack depth in terms of exploring national income trends. Moreover, they do not adequately control for the significant, underlying differences between individuals in urban and rural areas of Mongolia.

## 2. Objective of the study

The main objective of this research is to provide a preliminary analysis of the patterns of the middle class in Mongolia since no study has yet addressed this issue in the Mongolian context.

The study has the following objectives:

- ✓ To describe the profile of the middle class in Mongolia;
- ✓ To estimate the percentage of middle class in the Mongolian population;
- ✓ To assess the role of the middle class in the society;
- ✓ To make policy recommendations based on the results of the research.

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[4] Action Plan of the Government of Mongolia for 2008-2012, and The Economic Growth and Poverty Reduction Strategy (EGPRS).

## 3. Methodology

There is no universally accepted definition of the middle class. However, numerous household surveys have been done around the world and from each of these surveys information can be extracted on groups of households based on consumption or income level.

This research was conducted from 2012 to the end of 2013, covering a period of approximately one year. This time frame allowed the research team to first define the middle class using a relative approach at the beginning of the research period, and then to more definitively define the profile of the middle class using an absolute approach by the end of the research period.

There are two reasons why the absolute definition was not immediately applied at the research's onset. First, measuring the middle class using an absolute definition is generally more appropriate for comparisons across countries or regions. Second, it is difficult to define the appropriate absolute income or fixed cutoff points for the thresholds which classify households as "middle class" without prior research on income distribution.

The datasets used for this study were obtained from comprehensive surveys of households in Mongolia, specifically the Household Socio-Economic Surveys (HSES) conducted in 2007/08, 2011 and 2012. The latter dataset, HSES 2012, was used for the more detailed analysis of the middle class.

HSES is a nationally representative survey; the main objectives are to evaluate and monitor the income and expenditure of households and to profile poverty in the country. The survey has the following components: basic socio-economic information about household members, education, health, migration, employment, payment of jobs and other income, savings and loans, housing and energy, durable goods, non-food expenditures and food consumption.

The sampling frame of the HSES 2012 was developed by the National Statistical Office of Mongolia (NSO) based on the 2010 population census, while HSES 2007/08 and HSES 2011 were developed based on population figures for the current year from local civil registration offices. The design of the survey recognizes three explicit strata: 1) Ulaanbaatar-capital, 2) aimag-prefecture centers, and 3) rural areas and small towns/villages. The selection strategy was different in each stratum with a two-stage process in urban areas and a three-stage process in rural areas. The total sample size was 11,232 households for 2007/08 and 2011 and 12,811 households for 2012.

Our research was carried out using both qualitative and quantitative methods with specific purposes:

- ✓ The dataset of HSES 2011 was used to define the characteristics of the middle class in Mongolia. The study defines the middle class as those households that belong to the 3rd and 4th income/consumption quintile groups. Average monthly per capita consumption for these quintiles is in the range of MNT 132.578 and MNT 178.260. This definition is also consistent with the international definition of the middle class as those individuals or households that fall between the 20th and 80th percentile of the consumption distribution.[5]
- ✓ The findings of this analysis defined the sampling frame for the qualitative study. Around 300 screening interviews were conducted in order to select representatives of

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[5] Birdsall et al, 2000.

the "middle class" for focus group discussions. The screening interview questionnaire focused mainly on income, family size, education and employment status, housing conditions of the households, and number of livestock (in rural areas).  Out of 300 interviews, 120 representatives were selected for focus group discussions. In total, 12 groups, of which 6 were in urban and 6 in rural areas, were conducted (Uvurkhangai aimag were selected based on average per capita consumption level). Participants included both women and men, with around 10 people per focus group.

✓ The income level determined through the qualitative study was also used to define the middle class. When we asked focus group participants to estimate how much money/consumption it takes for an average family (four members) to live a middle class lifestyle in their community, the median of all responses was MNT 12.000.000 – maximum MNT 16.800.00 and minimum MNT 7.200.00 for a 4 member family, which translates into a monthly consumption distribution of between MNT 150.000 and MNT 350.000 per person.  This was determined by presenting respondents with a list of high-end consumer goods and services (housing, education, family trips, social insurance, other cost and tax), asking whether they have them and whether they believe most other people have them. This estimate was later used to estimate the middle class profile using HSES 2012.

## 4.  Profile of middle class

This chapter gives a detailed profile of the middle class by reviewing the income and consumption patterns of the population and displaying the association between being middle class with characteristics of the head of household. As mentioned above, this more detailed analysis was carried out using results from the 2012 HSES.

### *Distribution of middle class group and basic demographic indicators*

According to the parameters defined for this analysis, the middle class in Mongolia constituted 49.2 % of the population in 2012. The middle class is largest in soum centers at 54.5% of the population and lowest in the countryside at 42.0%. However, soum centers are home to only 12.1% of households of which  11.2% are above middle class and 34.3% are below middle class. Moreover, the countryside has 22.2% of total households, of which only 7% are above middle class and more than half of which are below middle class.  Ulaanbaatar, the capital, has 44 % of households and almost half of those households belong to the middle class, with the remainder evenly split above and below middle class.

**TABLE 1: DISTRIBUTION OF HOUSEHOLDS, BY ANALYTICAL REGION**

| Welfare group | Ulaanbaatar | Aimag center | Soum center | Countryside | Total |
|---|---|---|---|---|---|
| Below middle class (%) | 25.2 | 39.2 | 34.3 | 51.0 | 35.0 |
| **Middle class** (%) | **51.7** | **48.6** | **54.5** | **42.0** | **49.2** |
| Above middle class (%) | 23.2 | 12.2 | 11.2 | 7.0 | 15.8 |
| | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of households | 325 553 | 159 601 | 89 748 | 164 156 | 739 058 |
| Household share (%) | 44.0 | 21.6 | 12.1 | 22.2 | 100.0 |

*Source: Survey team calculations from HSES 2012.*

Table 2 shows how the middle class is distributed across the country by analytical region. The largest percentage of middle class households (46.3%) lives in Ulaanbaatar, followed by aimag

centers (21.3%) and the countryside (19%). Only 13.5% of middle class households are located in soum centers.

**TABLE 2: DISTRIBUTION OF MIDDLE CLASS HOUSEHOLDS, BY ANALYTICAL REGION**

| Welfare group | Ulaanbaatar | Aimag center | Soum center | Countryside | Total |
|---|---|---|---|---|---|
| Below middle class | 31.6 | 24.1 | 11.9 | 32.3 | 100.0 |
| **Middle class** | **46.3** | **21.3** | **13.5** | **19.0** | **100.0** |
| Above middle class | 64.7 | 16.7 | 8.6 | 9.9 | 100.0 |

*Source: Survey team calculations from HSES 2012.*

Several variables, including household size and number of children, were chosen as demographic indicators due to data availability.

Figure 1 shows the percentage of middle class by household size from 1 up to 6+. The likelihood of being middle class if one lives in households with 4 members is highest in the countryside. The percentage of middle class households with 4 members is approximately 27.9 percent in national level,[6] 31.1% in Ulaanbaatar, 28.1 % in aimag centers, 24.1% in soum centers and 22.7% in the countryside.

**FIGURE 1: PERCENTAGE OF MIDDLE CLASS HOUSEHOLDS BY HOUSEHOLD SIZE**
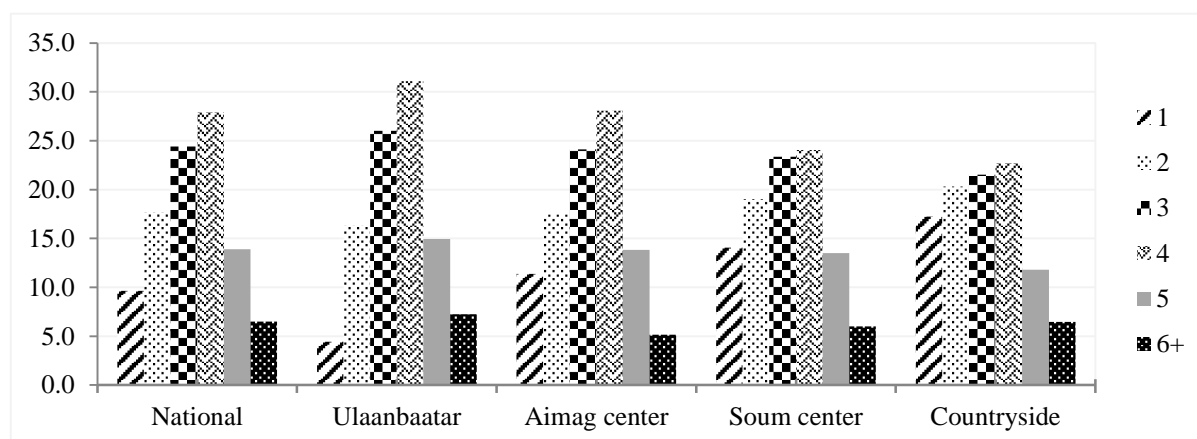


Another way to analyze the demographic composition of households is through the dependency burden or number of children in the household. Figure 2 demonstrates that most middle class households tend to have no children or fewer children. [7]

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[6] Detailed statistics of share among the different household size are in Table A1 in Appendix
[7] Detailed statistics of household share are in Table A2 in Appendix

**FIGURE 2: PERCENTAGE OF MIDDLE CLASS HOUSEHOLDS BY NUMBER OF CHILDREN**
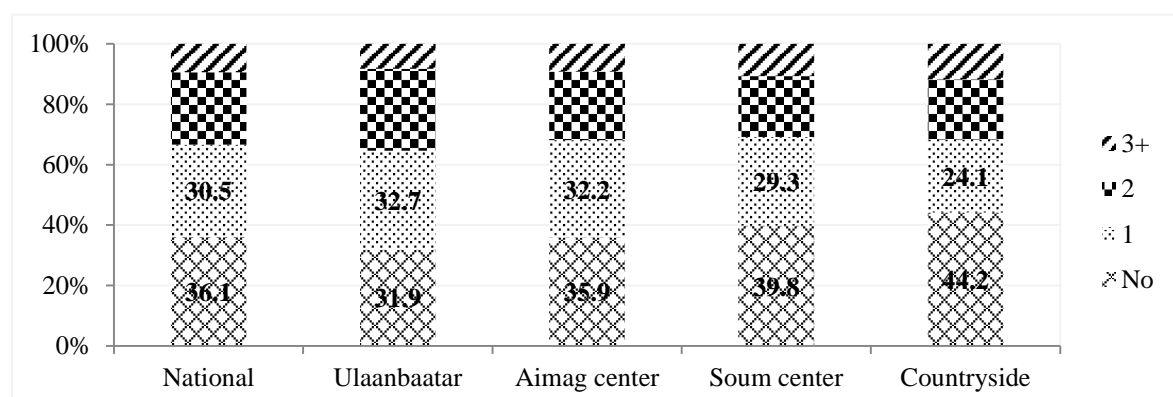


Nationally, almost two in five middle class households have no children. In urban areas, two in five middle class households have only 1 child, as compared to one in five households in rural areas. However, as expected, the likelihood of having more children is higher in rural than in urban areas.

### *Characteristics of head of household*

A common practice when doing welfare analyses is to classify households according to the characteristics of the head of household. Often living standards are linked to certain characteristics of the head of household, who is likely to be the main source of economic support within the household. This section examines the relationship between middle class households and the age and education of the head of household.

Table 3 presents the percentage of households according to 10 age cohorts of the middle class heads of households by analytical regions.[8] The data shows that the largest percentage of middle class households are headed by individuals aged 30-49 years. In Ulaanbaatar and the countryside, approximately one in four middle class households are headed by individuals aged 30-39 years, while in aimag and soum centers almost one in three households are headed by individuals aged 40-49 years. Additional findings show that more lower-middle class households have a younger head, while more upper-middle class households have an older head. The findings further show that the percentage of middle class households with younger heads (<30) is lower than those headed by more aged individuals (60+).

**TABLE 3: PERCENTAGE OF HOUSEHOLDS, BY AGE OF HOUSEHOLD HEAD**

| Domain | <30 | 30-39 | 40-49 | 50-59 | 60+ | Total |
|---|---|---|---|---|---|---|
| National | 14.0 | 23.7 | 25.3 | 19.4 | 17.6 | 100.0 |
| Ulaanbaatar | 15.5 | 24.7 | 23.6 | 18.8 | 17.3 | 100.0 |
| Aimag center | 11.4 | 22.0 | 29.7 | 18.9 | 18.1 | 100.0 |
| Soum center | 13.3 | 19.8 | 26.0 | 25.3 | 15.7 | 100.0 |
| Countryside | 13.6 | 25.7 | 24.0 | 17.3 | 19.3 | 100.0 |
| Total | 14.3 | 25.5 | 25.3 | 18.9 | 16.0 | 100.0 |

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[8] Detailed statistics by all strata are in Table A7 in Appendix

The positive relationship between education and social class is widely accepted, with education acting as a main determinant in increase in social class at the population level.

**FIGURE 3: PERCENTAGE OF MIDDLE CLASS HOUSEHOLDS BY EDUCATION LEVEL OF HEAD OF HOUSEHOLD**
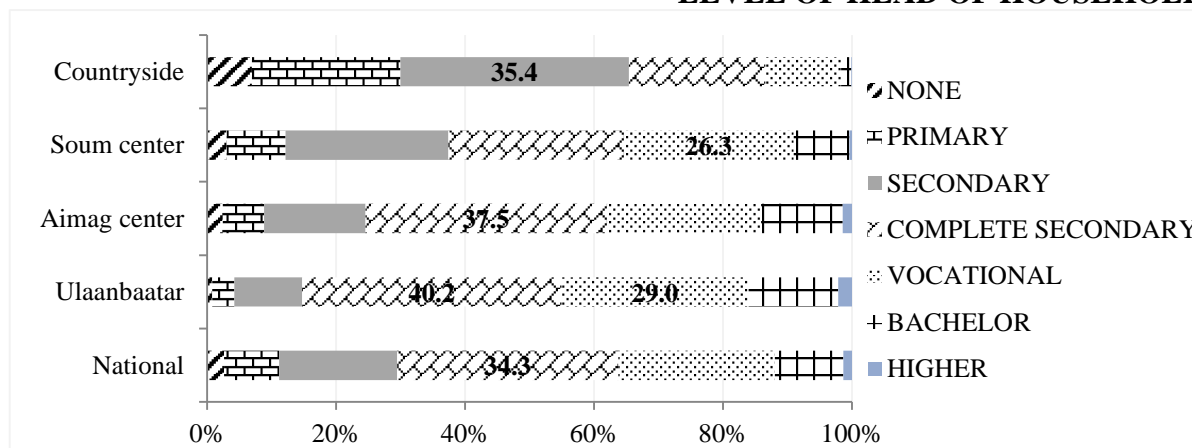


Figure 3 displays percentage of middle class households according to the highest level of education obtained by the head of household.[9] As expected, the higher the level of instruction completed by the head of household, the more well off the household. For middle class households in urban areas, the returns on education seem to increase considerably if the head has completed secondary education or higher. However, in rural areas, the effect of education level attained is less pronounced.

Populations living in households where the head of household is currently working have higher living standards. Table 4 shows the employment status of heads of household. At the national level, the employment rate is 70.3 % and the unemployment rate is 7.3%. As expected, the unemployment rate is higher in households below middle class across regions. The findings also show that the unemployment rate of middle class households is lower in rural areas. This table also separates employed household heads by those working in the private sector, in the public sector, and as herders.

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[9] Detailed statistics by all strata are in Table A8 in Appendix

**TABLE 4: PERCENTAGE OF HOUSEHOLDS, BY EMPLOYMENT STATUS OF HOUSEHOLD HEAD**

| | Employed | | | | | Unemployed | Out of the labor force | Total |
|---|---|---|---|---|---|---|---|---|
| **National** | Total | Herders | Private | Public | Unpaid | | | |
| Below middle class | 69.8 | 36.3 | 48.2 | 14.1 | 1.3 | 12.1 | 18.0 | 100.0 |
| **Middle class** | 70.3 | 19.3 | 58.0 | 22.0 | 0.7 | 7.3 | 22.4 | 100.0 |
| Above middle class | 73.3 | 9.2 | 65.4 | 24.5 | 0.9 | 3.7 | 23.0 | 100.0 |
| Total | 70.6 | 23.5 | 55.8 | 19.7 | 1.0 | 8.4 | 21.0 | 100.0 |
| **Ulaanbaatar** | | | | | | | | |
| Below middle class | 63.4 | 2.1 | 82.5 | 13.3 | 2.1 | 14.4 | 22.1 | 100.0 |
| **Middle class** | 67.3 | 1.2 | 79.7 | 18.9 | 0.2 | 8.2 | 24.5 | 100.0 |
| Above middle class | 71.5 | 0.7 | 77.6 | 21.4 | 0.3 | 4.0 | 24.5 | 100.0 |
| Total | 67.3 | 1.3 | 79.9 | 18.2 | 0.7 | 8.8 | 23.9 | 100.0 |
| Aimag center | | | | | | | | |
| Below middle class | 62.1 | 9.2 | 65.8 | 23.9 | 1.1 | 14.9 | 23.0 | 100.0 |
| **Middle class** | 69.1 | 5.1 | 64.3 | 29.1 | 1.5 | 6.7 | 24.2 | 100.0 |
| Above middle class | 74.5 | 5.1 | 62.8 | 30.3 | 1.8 | 3.5 | 22.0 | 100.0 |
| Total | 67.0 | 6.6 | 64.6 | 27.4 | 1.4 | 9.5 | 23.5 | 100.0 |
| Soum center | | | | | | | | |
| Below middle class | 64.0 | 20.7 | 47.3 | 30.1 | 1.8 | 17.0 | 19.0 | 100.0 |
| **Middle class** | 70.4 | 14.5 | 40.6 | 43.3 | 1.6 | 8.9 | 20.8 | 100.0 |
| Above middle class | 76.3 | 7.6 | 42.4 | 46.4 | 3.7 | 3.5 | 20.2 | 100.0 |
| Total | 68.8 | 15.6 | 42.9 | 39.5 | 1.9 | 11.1 | 20.1 | 100.0 |
| Countryside | | | | | | | | |
| Below middle class | 84.0 | 80.9 | 13.5 | 4.8 | 0.8 | 5.9 | 10.0 | 100.0 |
| **Middle class** | 79.1 | 73.8 | 17.8 | 7.8 | 0.6 | 4.6 | 16.3 | 100.0 |
| Above middle class | 80.1 | 66.9 | 17.5 | 15.1 | 0.5 | 2.8 | 17.2 | 100.0 |
| Total | 81.7 | 77.0 | 15.5 | 6.7 | 0.7 | 5.2 | 13.1 | 100.0 |

*Source: Survey team calculations from HSES 2012.*

### *Welfare profile: consumption and income*

To construct a household welfare profile, income and consumption were selected as comparable monetary indicators. In other words, these two variables are used as proxy estimates of household welfare for the purposes of this study.

### Income pattern

Household income consists of all receipts, whether monetary or in-kind, that are received by the household or by individual members of the household on an annual basis. This section will present household monetary income which is defined[10] to include: (i) income from employment

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[10] Handbook on Household Income statistics, UN, 2011

(both paid and self-employment); (ii) transfers (pension, allowance and private transfer) and (iii) property income. Because of data availability, income from the production of household services for personal consumption is not included.

Monthly household monetary income of the middle class is estimated at MNT 753,555 at the national level.[11] Across regions, the same group in Ulaanbaatar is at MNT 886,577, in aimag centers at MNT 759,811, in soum centers at MNT 631,592 and in the countryside at MNT 508,370.

The distribution of all income sources[12] is displayed in Figure 4. Wage is the main category of income for the middle class, accounting for more than 50 % of total income in all regions except the countryside. Public transfers such as pensions and other allowances are the second highest income source for all regions, accounting for 26.7 % of income in the countryside and approximately 20 % in the remaining regions. Not surprisingly, livestock business income is the core income source in the countryside.

**FIGURE 4: HOUSEHOLD MONTHLY INCOME COMPOSITION, BY MAIN INCOME SOURCE**
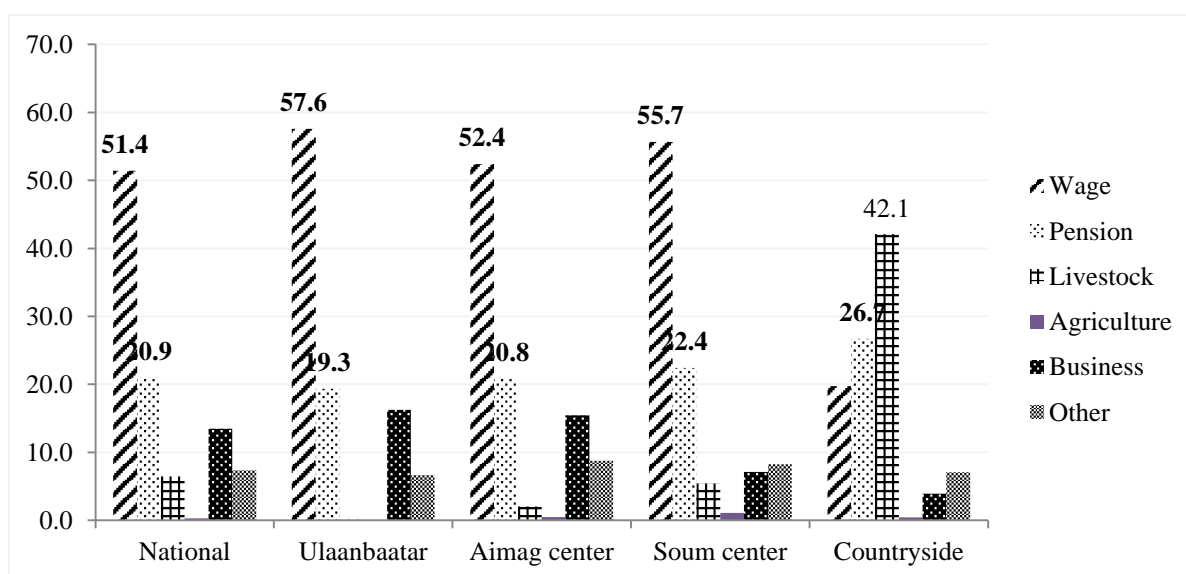


**Consumption patterns**

The creation of consumption aggregates is guided by theoretical and practical considerations. First, consumption aggregates must be as comprehensive as possible given available information. Omitting components assumes that they do not contribute to people's welfare or that they do not affect the rankings of individuals. Second, market and non-market transactions are to be included, which means that purchases are not the sole component of the indicator. Third, expenditure is not consumption. For perishable goods, mostly food, it is usual to assume that all purchases are consumed. However, for other goods and services, such as housing or durable goods, adjustments must be made. Lastly, the consumption aggregate is comprised of five main components: food, non-food, housing, durable goods and energy.

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[11] See Table A14 in Appendix. This table displays the average income by main sources
[12] Detailed statistics by all strata are in Table A15 in Appendix

According to the HSES 2012, monthly per capita consumption in Mongolia during 2012 was MNT 207,235, while monthly per capita consumption for the middle class was MNT 223,332. Middle class groups display consumption levels that are significantly higher than poorer groups by a factor of almost 2. Table 5 shows the average consumption of the middle class by main expenditure groups and across analytical regions. Ulaanbaatar displays the highest consumption levels, followed by soum centers, aimag centers and the countryside. However, it is noted that the difference in total consumption levels between regions is relatively small.

The distribution of consumption groups is presented in the bottom section of table 5. Food is the largest category and accounts for 35.6 % of total consumption, with significant difference across regions. In aimag centers, food accounts for 30.4% of total consumption, the lowest percentage across regions. By comparison, food has the highest share of total consumption in the countryside with 44.0%.

With regard to consumption, food is expected to constitute a lower percentage in a rich household as compared to a poorer household.[13] In the below middle class group, food accounts for 45.6% of total consumption, while it accounts for only 24.0 % in the richest group.

Among non-food categories, clothing is the next most important category and accounts for 16.1% of total consumption at the national level, though percentages vary by region, with the highest percentage found in soum centers. Transportation and communication accounts for 12.8% of total consumption nationally and is highest in Ulaanbaatar. Rent is the third highest category of consumption and accounts for 6.9 % of total consumption and is also highest in Ulaanbaatar. Education accounts for 5.4% of consumption nationally and is highest in aimag centers, followed by soum centers and the countryside.

**TABLE 5: CONSUMPTION OF MIDDLE CLASS, PER CAPITA PER MONTH BY MAIN CONSUMPTION CATEGORIES**

| | National | Ulaanbaatar | Aimag center | Soum center | Countryside |
|---|---|---|---|---|---|
| Consumption, Tugrug | | | | | |
| Food | 79 500 | 78 581 | 67 426 | 82 798 | 94 161 |
| Alcoholic beverages and tobacco | 3 179 | 2 125 | 3 051 | 4 669 | 5 211 |
| Education | 12 079 | 10 455 | 16 618 | 15 009 | 9 063 |
| Health | 8 590 | 7 650 | 10 425 | 8 782 | 8 900 |
| Durable goods | 5 817 | 5 832 | 6 853 | 5 732 | 4 595 |
| Rent | 15 376 | 22 583 | 13 960 | 5 936 | 3 667 |
| Heating | 10 423 | 12 550 | 9 952 | 9 286 | 5 817 |
| Utilities | 6 031 | 7 822 | 6 531 | 4 384 | 1 585 |
| Clothing | 36 048 | 29 174 | 42 875 | 45 016 | 40 672 |
| Transportation and communication | 28 525 | 33 559 | 25 549 | 22 031 | 22 656 |
| Others | 17 754 | 17 614 | 18 737 | 19 364 | 15 788 |
| **Total consumption** | **223 322** | **227 944** | **221 978** | **223 008** | **212 115** |

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[13] Engel's law is an observation in economics stating that as income rises, the proportion of income spent on food falls, even if actual expenditure on food rises.

| Share, % | | | | | |
|---|---|---|---|---|---|
| Food | 35.6 | 34.5 | 30.4 | 37.1 | 44.4 |
| Alcoholic beverages and tobacco | 1.4 | 0.9 | 1.4 | 2.1 | 2.5 |
| Education | 5.4 | 4.6 | 7.5 | 6.7 | 4.3 |
| Health | 3.8 | 3.4 | 4.7 | 3.9 | 4.2 |
| Durable goods | 2.6 | 2.6 | 3.1 | 2.6 | 2.2 |
| Rent | 6.9 | 9.9 | 6.3 | 2.7 | 1.7 |
| Heating | 4.7 | 5.5 | 4.5 | 4.2 | 2.7 |
| Utilities | 2.7 | 3.4 | 2.9 | 2.0 | 0.7 |
| Clothing | 16.1 | 12.8 | 19.3 | 20.2 | 19.2 |
| Transportation and communication | 12.8 | 14.7 | 11.5 | 9.9 | 10.7 |
| Others | 8.0 | 7.7 | 8.4 | 8.7 | 7.4 |
| **Total consumption** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

*Welfare comparison*

Indeed, to simply say that the middle class grew from 40% to 49.2% from 2007 to 2012 would sound irrational because of the different methodologies used to define the middle class. As a result, we turn our attention to exploring the dynamics of the middle class observed across studies. In order to evaluate how the welfare of the middle class has changed in the last few years, the following section focuses on comparing household monetary income and per capita consumption between 2007 and 2012.[14]

This comparison defines those households belonging to the $3^{rd}$ and $4^{th}$ income quintiles as middle class for 2011 and 2007/08 datasets.

*Income comparisons*

In 2007/08, total monthly household monetary income of the middle class was MNT 384,071, in 2011 it was MNT 616,521 (current price) and MNT 753,555 in 2012. The shares of all monthly monetary income sources of middle class households are displayed in Table 6.

In 2007/08, wage income ranked first in urban areas, followed by business income. In the countryside, livestock income is highest, followed by pension income. Notably, in 2011 and 2012, in urban areas wage income ranked first, followed by pension income. No such difference was observed in the countryside.

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[14] The years are picked because of data availability.

**TABLE 6: HOUSEHOLD MONTHLY INCOME COMPOSITION, BY MAIN SOURCE, 2007-2012**

| | Wage | Pension | Livestock | Agriculture | Business | Other income | Total |
|---|---|---|---|---|---|---|---|
| **2007/08** | | | | | | | |
| National | 49.3 | 16.4 | 9.7 | 1.4 | 15.1 | 8.1 | 100.0 |
| Ulaanbaatar | 58.6 | 16.9 | 0.1 | 0.1 | 15.3 | 9.0 | 100.0 |
| Aimag center | 51.4 | 13.9 | 2.7 | 0.9 | 21.8 | 9.2 | 100.0 |
| Soum center | 47.1 | 17.0 | 8.7 | 6.4 | 14.7 | 6.1 | 100.0 |
| Countryside | 12.9 | 18.4 | 59.6 | 2.3 | 1.8 | 5.0 | 100.0 |
| **2011** | | | | | | | |
| National | 50.2 | 20.6 | 10.3 | 0.7 | 10.4 | 7.9 | 100.0 |
| Ulaanbaatar | 65.3 | 17.9 | 0.0 | 0.0 | 10.2 | 6.6 | 100.0 |
| Aimag center | 48.7 | 18.5 | 3.2 | 0.7 | 15.5 | 13.4 | 100.0 |
| Soum center | 49.0 | 22.8 | 7.4 | 2.0 | 11.1 | 7.7 | 100.0 |
| Countryside | 13.9 | 28.1 | 50.0 | 1.1 | 2.9 | 4.0 | 100.0 |
| **2012** | | | | | | | |
| National | 51.4 | 20.9 | 6.5 | 0.3 | 13.5 | 7.4 | 100.0 |
| Ulaanbaatar | 57.6 | 19.3 | 0.1 | 0.0 | 16.2 | 6.7 | 100.0 |
| Aimag center | 52.4 | 20.8 | 2.0 | 0.5 | 15.4 | 8.8 | 100.0 |
| Soum center | 55.7 | 22.4 | 5.4 | 1.1 | 7.1 | 8.3 | 100.0 |
| Countryside | 19.7 | 26.7 | 42.1 | 0.5 | 3.9 | 7.1 | 100.0 |

*Source: Survey team calculations from HSES 2007/08, HSES 2011 and HSES2012*

To describe changes in the welfare of the middle class, it is helpful to examine changes in percentages of categories of income source during the period of analysis.

**FIGURE 5: COMPARISON OF INCOME SHARE OF MIDDLE CLASS, 2007-2012**
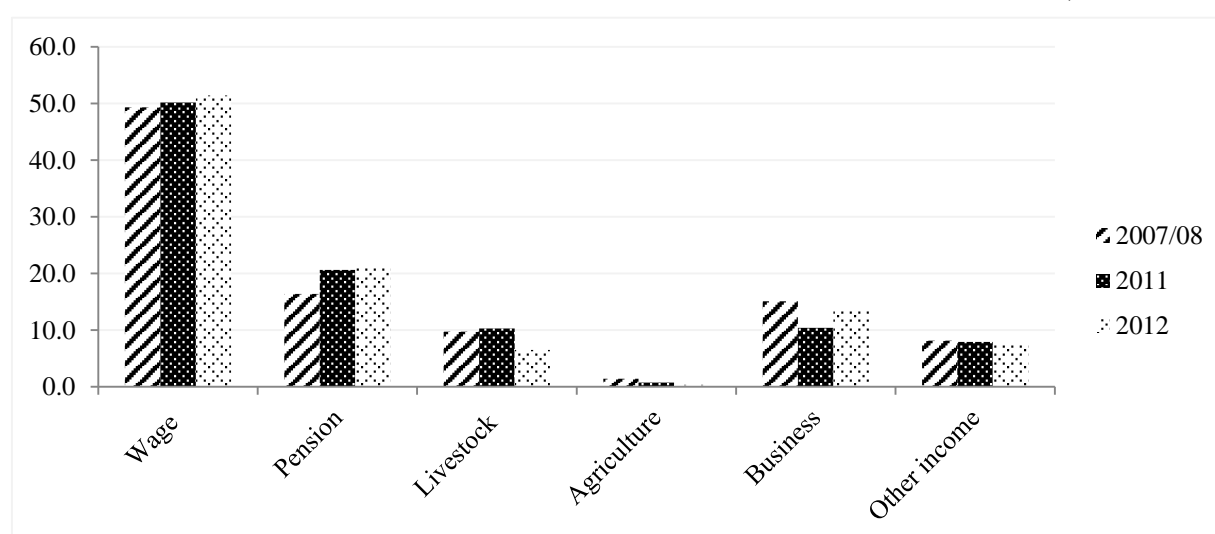


A comparison of the shares of main income sources of middle class households are displayed in Figure 5. Across the years, the share of wage and pension income in total monetary income increased by 12-15 percentage points. However, shares of all types of business income decreased by 0.5-15 percentage points. The shares of wage and pension experienced an overall

increase in these years, however, wage increased by only around 1 percentage point while pension increased by 4 percentage points from 2007 to 2011 and 2012.  For the remainder of income sources, such as all types of household business, percentage changes were unstable, however the general trend for those income sources was downward.

With the relative income principle in place, it is possible to present data in a form that is even more stripped down.  Both population and incomes can be expressed as shares of the total. The major advantage of this approach is that it enables us to compare income distribution for two periods that have different average income levels.

In Figure 6 we have divided the population into 3 groups; the same welfare groups that have been applied across this entire study, with a note for 2007-2011.  As a result of the limitation of the utilized methodologies, the population was divided into different equalized groups ordered from poorest to richest. Therefore, those households belonging to the 3rd and 4th quintiles are considered middle class. For each group/quintile, we recorded the income share earned by that section of the population. As households have been ordered from poorest to richest, the share of income increases from the first through to the third group.

Figure 6 presents a comparison of income shares during the period from 2007- 2012.  In 2012, the percentage of income earned by the middle class declined by 12 percentage points as compared to 2011. Moreover, there were also notable decreases in the below middle class group (10 percentage points). In contrast, income share increased significantly (by 22 percentage points) in the above middle class group.

**FIGURE 6: INCOME DISTRIBUTION BY POPULATION AND INCOME SHARES, AT NATIONAL LEVEL**
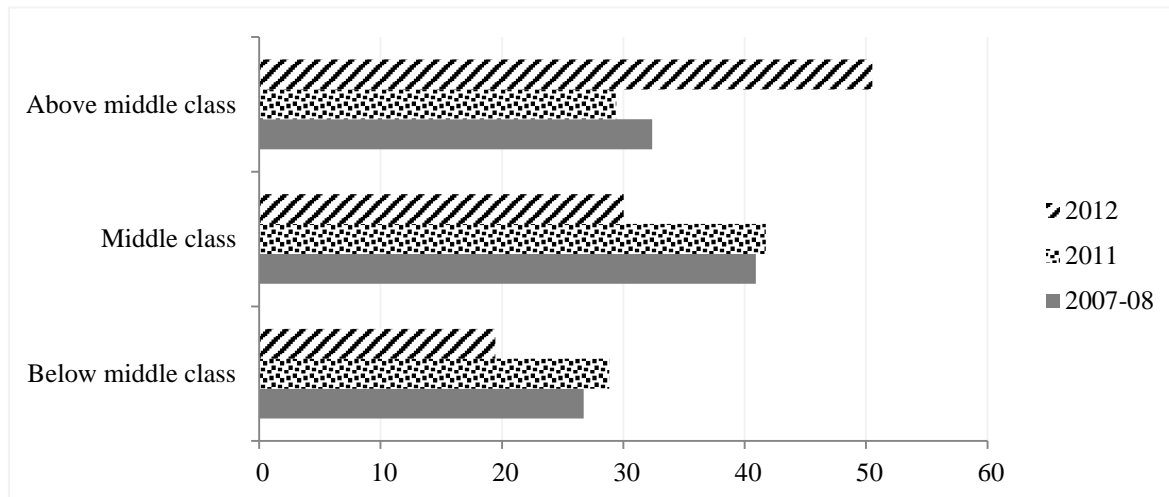


Figure 6 also shows that the above middle class income group earned 2.6 times more than the below middle class in 2012. This accounts around 1.0-1.2 times more in 2007/08 and 2011, respectively.

## *Consumption comparisons*

The comparisons of the shares of main consumption categories of middle class households are displayed in Figure 7.

In 2012, the share of food, alcohol and tobacco as a percentage of total consumption decreased, accounting for about 4.3 and 0.3 percentage points, respectively, as compared to 2007/08. Among non-food categories, the share of health consumption and clothing was fairly stable. In the same time frame, the share of education as a percentage of total consumption increased by 2.0 percentage points, whereas housing decreased by 3.0 percentage points.

**FIGURE 7: COMPARISON OF CONSUMPTION SHARE OF MIDDLE CLASS, 2007-2012**
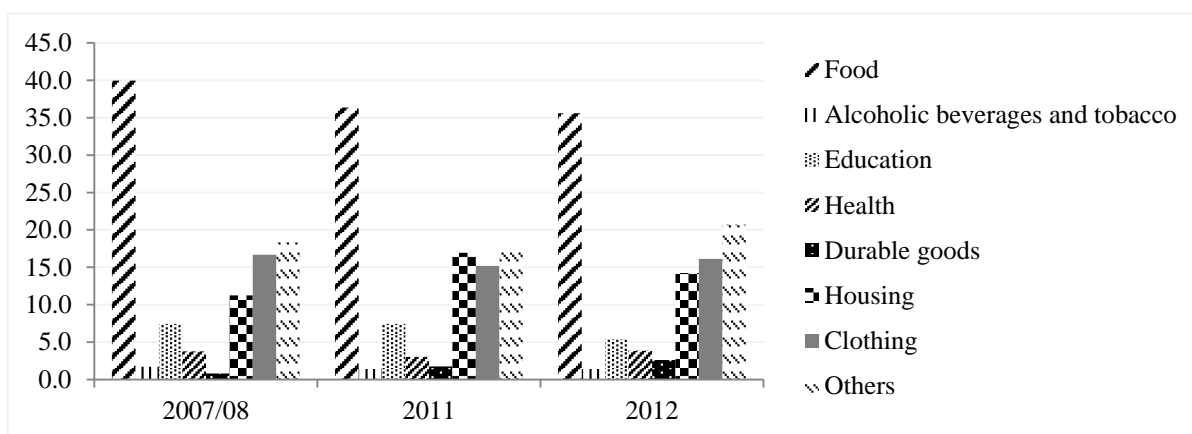


Another comparison of welfare is explained through stochastic dominance analysis. By plotting two or more cumulative density functions of per capita consumption in the same graph, it is possible to infer first-order stochastic dominance. Take the hypothetical example of Distribution A and Distribution B. Distribution A has first-order stochastic dominance over distribution B if for any given level of per capita consumption, the share of the population with a lesser or equal level of consumption is lower in distribution B. In other words, if curve A always lies above curve B, distribution B will have a higher level of welfare and hence lower poverty. However, if the curves intersect each other, the criteria do not apply and it is not possible to infer which distribution has a higher level of welfare.

Figure 8 shows that the 2012 distribution seems to be no worse-off than the 2011 distribution.[15] That means that the level of welfare of middle class in 2012 was greater than in 2011.

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[15] Consumption amount of both years is in 2012 real price.

**FIGURE 8: FIRST-ORDER STOCHASTIC DOMINANCE: CUMULATIVE DISTRIBUTION OF PER CAPITA CONSUMPTION**



Source: Survey team' calculation from HSES2012
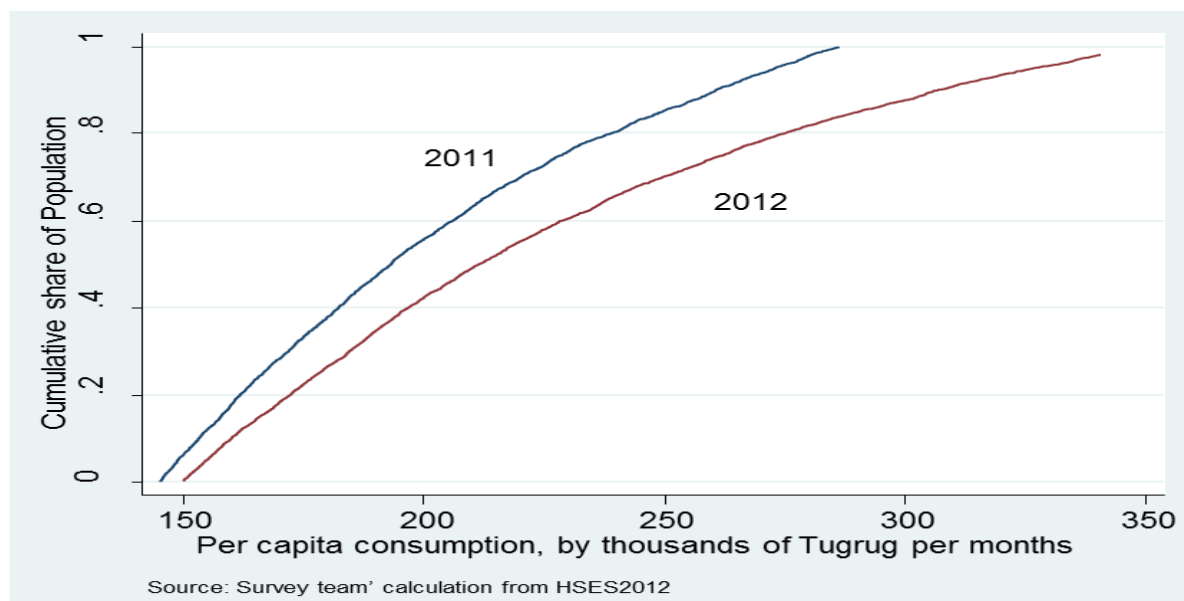
**Determinants of middle class**

The intention of this exercise is to empirically check a set of determinants or variables that together can fit into a model to predict the indicator associated with being in the middle class. The parameters of the model are determined by fitting a logit regression with the middle class dummy identifier as the dependent variable and the determinant variables in the right-hand-side. The middle class dummy variable is determined by welfare group which was estimated using per capita consumption level. The model is convenient to use and easy to interpret but could be criticized because some explanatory variables are endogenous to consumption. This concern, however, does not undermine the results because the primary objective of the model is to predict the likelihood of being middle class rather than to explain it. In other words, the model implies conditional correlations but no causal relationships.

To measure the correlation, a standard model is drawn from the traditional consumption model. Although consumer theory is developed from the decision perspective of an individual consumer or consuming household, it is usually applied empirically in per capita or per household terms to aggregate market data (Timmer and Alderman, 2002). Determining a specific functional form from the general standard function is a matter of judgment and empirical fit. The equation below shows the form used throughout this analysis.

$$MC_{i,v} = \alpha_0 + \alpha_1 Z_{i,v} + \alpha_2 FE_v + \varepsilon_{i,v} \qquad (1)$$

Where:

$MC$ is the dummy for either households that are middle class or below middle class.

$Z$ is a vector of explanatory variables such as:
- household demographic indicators: household size, number of children and dummy for the highest level of education among all members 18 years or older

- household head characteristics: age and dummy of education level

- dummy for employment which is estimated on number of members working in four categories: members engaged in wage jobs, self-employed in agricultural sector, self-employed in non-agricultural sector, and working as unpaid workers.

- Household asset: dummy for having car and number of livestock

- Dwelling condition: dummy for living ger and apartment, having internet access

*FE* is a binary variable summarizing stratum-specific fixed effects.

$\varepsilon$ is an error term.

HSES utilized a multi-stage random sampling approach by selecting respondents for household observation as clustered by administrative unit of city or villages, and therefore, the estimate could be biased. In other words, there could be potential intra-cluster correlation of the error term. To eliminate this problem, a cluster correction approach was employed and the standard errors of estimated coefficients are corrected to be robust to heteroskedasticity and clustering.

The results of the Logit estimation of (1) are presented in Table 7.[16]

A few comments are worth mentioning. One clear pattern from this regression result is that some indicators, including having more household members and children, or being headed by those who are less educated, reduces the probability of households not being middle class/below middle class. As expected having a car, living in an apartment, having internet access at home and having more livestock have positive and significant coefficients. Moreover, having more educated household members tends to increase the probability of the household being middle class and having few working members increases the probability of the household being below middle class.

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[16] Summary statistics of variables in Table A12 in Appendix

## TABLE 7: MIDDLE CLASS REGRESSION

| Variables | betta | t -statistics |
|---|---|---|
| Household size | -0.5823*** | -19.13 |
| Members <=18 years of age | -0.1746*** | -4.72 |
| Highest level of education among members 18+ | 0.2152*** | 9.65 |
| Age of household head | 0.0103*** | 5.25 |
| Education of household head==None | -0.4293** | -2.79 |
| Education of household head==Primary | -0.5694*** | -4.6 |
| Education of household head==Secondary | -0.2793** | -2.99 |
| Education of household head==Vocational | -0.1036 | -0.99 |
| No wage employees 18+ in the last week | -1.1063*** | -6.44 |
| One wage employee 18+ in the last week | -0.8828*** | -5.36 |
| Two wage employees 18+ in the last week | -0.4400** | -2.63 |
| No self-employed in agri/livestock 18+ in the last week | 0.5524** | 3.16 |
| One self-employed in agri/livestock 18+ in the last week | 0.5163** | 2.93 |
| Two self-employed in agri/livestock 18+ in the last week | 0.0827 | 0.51 |
| No self-employed in other sectors 18+ in the last week | -1.3552*** | -8.78 |
| One self-employed in other sectors 18+ in the last week | -0.7962*** | -4.83 |
| Has car | 0.9664*** | 15.57 |
| Number of bods (horses equivalent) owned | 0.0149*** | 15.15 |
| Dwelling is a ger | -0.5919*** | -11.04 |
| Dwelling is an apartment | 0.5329*** | 5.86 |
| Use internet at home | 1.1586*** | 9.17 |
| Aimag center | -0.4207*** | -6.37 |
| Soum center | -0.0875 | -1.27 |
| Countryside | -0.0256 | -0.28 |
| Constant | 3.1961*** | 8.52 |
| N | 11000.00 | |
| df_m | 24 | |

### *Role of the middle class in the society, economy and policymaking*

The individuals who belong to the middle class may hold the key to a country's prosperity and can strengthen the prospects for economic growth that result in poverty reduction. The basic income, skills, and values that are considered to characterize the middle class may enable them to improve not only their own standards of living, but also that of others (ADB, 2010). In effect, the focus of the middle class, as opposed to the poor (the poor defined as those with only enough to survive), allows the middle class to act as a valuable base that can contribute positively to economic, social and political life of a country.

One of the objectives of this study was to assess the role of the middle class in society, the economy and policymaking. These findings were drawn particularly from qualitative research.

The below summarizes the findings of focus group discussions that asked participants to share their views on the role and contributions of the middle class role to society, the economy and

policymaking. Focus group discussion findings found that in Mongolia, the middle class is considered to be:

**For society:**

✓ A major driving force, able to promote social sustainability
✓ An exemplar of family, including family stability
✓ Able to afford children's education
✓ Actively involved in charitable activities
✓ Driving society in all aspects; if society were imagined as a car, they would be the engine

**For economics:**

✓ As forming the work space and labor force
✓ Largely contributing to tax income
✓ Largely involved in bank loans to support banking
✓ Able to make investments and to create work spaces
✓ Make earnings or profit through purchases in any sector
✓ Private business people paying significant amounts of tax, largely involved in loan acquisitions

**For politics:**

✓ Actively involved in elections and political activities with their own agenda
✓ Capable of electing candidates who cater to their interests
✓ Constituting the majority of the mass of voters
✓ Capable of having their voice heard; citizens are easily fed up with parties and politicians in election campaigns, etc… However, the middle class is actively involved in elections and in the realization of their duties and responsibilities
✓ Involved in bagh-level and public meetings, however, this is less true for employed people with hectic schedules

Table 3.7 illustrates middle class participation in some development sectors. In most cases, the heads of the construction, service trade and banking sectors are international investrors and richer people however the major constumers of these sectos are middle class.

**TABLE 3.7: MIDDLE CLASS PARTICIPATION IN DEVELOPMENT SECTORS, ULAANBAATAR**

| Sectors | Owners | Major | Consumption/circumstance |
|---|---|---|---|
| Construction /apartment/ housing | International investors, rich people | Middle | The buyers of the majority of newly built apartments/housing projects are middle class. Fail to afford to purchase with liquid assets, but obtain loans or rent for a while to repay their loan |
| Service /restaurant/ | Foreigners Rich Middle | Middle | Largely served, often by chain restaurants and middle class restaurants |
| Trade /Larger super market | Rich | Middle | Majority of customers are middle class |
| Trade /Mobile | Rich Middle | Middle | Majority of pre-paid service are consumed by middle class |
| Banking /Loan | International investors, rich | Middle | Majority are indebted, often repay with salary or private earnings |

*"Mobile phone is a basic consumption; however, consumers are different. For example, most of the rich people use 9911…; middle class have pre-paid mobile service while poorer charge their mobile by credit of 1000MNT or 2500MNT."[17]*

*"Construction sector is very rapidly developing in Mongolia. Main buyers are middle class; poor can't even think about it. Most cases, middle class fail to afford buying with cash but with loan."[18]*

*"Poor people usually buy the food and non-food items from market by wholesale price while middle class largely served by increasingly growing restaurants and larger supermarkets. In other words, middle class contribute a lot for their development".[19]*

### Challenges faced by middle class and measures to be taken

Previous examples show that the middle class is the driving force of social, economic and political life. The issues and problems encountered by the middle class were discussed among focus group participants.

When the problems encountered by the middle class were ranked, the issues related to employment were viewed as most important. Having a stable job, job security, and higher salary was ranked as important for those who work in state and public sectors while higher rental cost, safety of work, and higher rates of loans were as important for those who work in the private sector.

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[17] Focus group participant, Businessman, works at mobile phone selling Tedy center
[18] Focus group participant, Bayanzurkh district
[19] Focus group participant, Chingeltei district

*"Certain obstacles are encountered to run private business including fewer discounts on loan and tax, work safety, those indebted to banks has higher risk if business goes bankrupt"*

Many survey participants pointed out the current political situation; when a new government was elected many middle class employees lost their job. Job security is therefore very important for the middle class as many of the middle class work or worked in this sector.

*"Middle class is mostly employed in civil service; however, due to election circumstance many have been unemployed upon the election"*[20]

*"Employment is significantly dependent upon the political membership which shall be ceased."*

With regard to employment, survey participants highlighted certain issues such as i) age discrimination and recruitment systems that are not merit-based (i.e., knowledge, experience and qualifications); ii) desire for specific policies for those returning from overseas and iii) consideration and support of workplace safety and protection of private business.

The next issues that focus group participants viewed as important were health-related. Middle class people mostly have health insurance however they fail to benefit from health services. This is because they have no time available to seek health services due to long lines. Regardless of the health condition, the tendency is to treat themselves at home and be careful to avoid getting sick or risk their household's livelihood. In emergencies, they seek service from private hospitals because the service is prompt and generally staffed by well-respected physicians. The general view was that the poor and the elderly are those who usually seek services at public hospitals.

"I have been paid health insurance for 15 years but never get the benefit. When I get sick just buy medicine or I go to private hospital. I do not have time to queue in state hospital; service is also not so good"

The previous section revealed that housing is a key determinant of welfare. Focus group participants mentioned that the middle class are the largest consumers of the real-estate market. However, participants noted that the bank rate for loans is high, collateral is required and there is much bureaucracy. For instance, the conditions and requirements of the 100 thousand housing program do not apply to middle class people. Those who live below the livelihood standard than the middle class or young couples find it difficult. It is considered wishful thinking for those who have no regular employment or earn less to want to have apartments.

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[20] Focus group participants, Ulaanbaatar, Chingeltei district

## 5. Conclusion

✓ There are no global datasets for the middle class or a fixed definition. However, numerous household surveys have been done around the world and information on groups of households based on consumption or income level can be extracted.

✓ This paper aimed to provide information regarding the first estimates of the patterns of the middle class in Mongolia since no study has yet addressed this issue. This research was conducted from the end of 2012 to the end of 2013 and covered a period of nearly one year. This time frame allowed us to define the middle class using a relative approach in the beginning of the research period and to deter mine and develop an in-depth profile of the middle class using an absolute approach by the end of the research period.

✓ The research was carried out using both qualitative and quantitative methods. Quantitative methods included analyzing datasets of comprehensive surveys of households in Mongolia, specifically the Household Socio-Economic Survey (HSES) for the years 2007/08, 2011 and 2012. The dataset of HSES 2011 was used to identify the middle class in Mongolia, to provide basic information and to define the sampling frame for the qualitative study. The later dataset, HSES 2012 was used for the more detailed analysis of the middle class group.

✓ When we asked survey participants to estimate how much money it takes for an average family (four members) to live a middle class lifestyle in their community, the median of all responses was MNT 12.000.000 –an average monthly consumption distribution of between MNT 150.000 and MNT 350.000 per person.

✓ Analysis using the absolute approach based on the above average monthly consumption distribution shows that the middle class constitute 49.2% of the population in Mongolia. The majority (46.3%) of middle class households live in the capital, followed by aimag centers (21.3%) and the countryside (19%). Only 13.5% of middle class households are located in soum centers.

✓ The absolute approach analysis shows that middle class households tend to have no children or fewer children and tend to have heads of households who are aged 30-49 years old, have completed secondary education or higher and work more in the public or private sector.

✓ Regarding the welfare profile, salary constitutes the largest income for the middle class. Public transfers such as pension and other allowances is the second highest source of income for all regions. Not surprisingly, livestock business income is the core income source in the countryside.

✓ Due to the difference in the methodology used to define the middle class, the study focuses on discussing the dynamics of the middle class. Indeed, to say that the percentage of the population that is middle class rose from 40% to 49.2% in the defined time period would be irrational because of the different methods used to define the middle class across studies.

✓ A comparison of the distribution of the main income sources of the middle class show that the percentage of wage and pension income in total monetary income increased by 12-15 percentage point across 2007/08 and 2012. However, the share of all types of business income decreased by 0.5-15 percentage points in the same period. The shares of wage and pension experienced increases through these years.

✓ Stochastic dominance analysis indicates that the level of welfare of the middle class was greater in 2012 than in 2011.

✓ Focus group participants reported that, in general, livelihood has improved as compared to 5 years ago. According to participants, the percentage of better off households has increased, whereas the percentage of poor households has declined. However, it was thought that the percentage of middle class households has not changed. Moreover, increasing inequality is on the one hand related to the widening gap between the rich and the poor, but on the other hand can also be attributable to the fact that the number of people who experience upward or downward mobility from the middle class is relatively small.

✓ The focus group discussion results confirm that middle class individuals are much more likely to have salaried jobs and to have smaller family sizes. In terms of asset ownership, the middle class is typically associated with widespread ownership of major household durable goods (e.g., personal vehicles). With regard to residence, middle class households tend to reside in bigger and more modern housing, including apartments. The middle class in urban areas is likely to have the majority of their income originate from wage and public remittance, whereas in rural areas the middle class is likely to derive its income from livestock business and public remittances. The middle class could also be defined as having peaceful, contented lives free from worry about meeting basic needs. Having a family and children, being wise, striving to live well, having specific goals, and being hard-working are also seen as primary characteristics of the middle class.

Specific policy recommendations are as follows:

✓ *Income and employment:* Nothing seems more middle class than having a steady and well-paying job. Middle class individuals run businesses and work for all sectors, particularly state and public organizations. It is interesting to speculate whether this has something to do with the kind of jobs they have. This leads us to the idea of a "good job". A good job is a steady, well-paying job – a job that allows for the mental space needed to do all those things the middle class does well.[21] A stable job, job security and a well-paid system is a priority issue for the middle class. In addition, there is a need to provide new graduates with jobs as the middle class pays more attention to and spends more on children's education and professional development, however, there are limited job openings for young people.

✓ Salary, pension and other allowances constituted the majority of earnings for the middle class and the increase in earnings in recent years has had certain positive impacts, while enabling other income sources or business revenue to become available (IV quintile).

✓ *Inflation:* Recently, the prices of consumer goods have increased and have put substantial financial pressure on the population. Although salary, pension and other allowances, which constitute the majority of earnings for the middle class, have increased over time, inflation has also increased concurrently.

✓ There are many priority issues regarding *access to loans, and loan conditions.* High loan interests, short terms of repayment, and limits on amounts of collateral for loan repayments lead many middle class individuals, particularly those in private business, into a debt trap. As mentioned, the middle class are the primary users of the banking system through acquisition of different types of loans such as pension loans, salary loans,

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[21] Abhijit V. Banerjee and Esther Duflo, Journal of Economic Perspectives, Vol 22, 2008

long-term housing loans, etc…. Although the middle class tend to have regular income, they are also the ones who live from one paycheck to the next.

✓ There are many private **business** people who belong to middle class. According to them, it would be preferable if the tax system were more flexible to allow at least some initial exemptions.

✓ Middle class people have many opinions regarding ***governance and implementation of the law***. This is particularly true with regard to promises made during election campaigns, such as the distribution of funds from utilization of natural resources into a Human Development Fund. According to them, the money should not be distributed in cash but should be spent more efficiently, such as through investments.

✓ Participants also mentioned concerns about government bureaucracy, corruption, bribes, and discrimination among government employees (e.g., hiring acquaintances or party belongingness to work, or enrolling them in a "good job").

✓ Suggestions were also made regarding improving access to ***public and basic services.*** For example, despite the fact that schools and kindergartens are seen as poor quality, rates are very high and much cost is incurred by the middle class. It was further noted that home ownership (with consideration for mortgage and other loan requirements) should enable the class to receive services through their insurance.

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## 7. Appendix

**TABLE A1: PERCENTAGE OF PEOPLE WHO WORK, BY SECTOR**

|  | Herders | Private | Public | State | EmpUnknown | Total |
|---|---|---|---|---|---|---|
| National |  |  |  |  |  |  |
| Poorest | 43.4 | 44.1 | 10.8 | 0.8 | 1.0 | 100.0 |
| Poorest | 43.4 | 44.1 | 10.8 | 0.8 | 1.0 | 100.0 |
| Q2 | 41.7 | 40.5 | 15.7 | 1.2 | 0.9 | 100.0 |
| **Q3** | **34.9** | **43.2** | **18.6** | **1.9** | **1.4** | **100.0** |
| **Q4** | **29.2** | **45.7** | **22.0** | **1.9** | **1.2** | **100.0** |
| Richest | 18.2 | 53.0 | 25.2 | 2.3 | 1.3 | 100.0 |
| Total | 32.1 | 45.8 | 19.2 | 1.7 | 1.2 | 100.0 |
| Ulaanbaatar |  |  |  |  |  |  |
| Poorest | 0.7 | 85.4 | 11.2 | 1.5 | 1.1 | 100.0 |
| Q2 | 1.8 | 79.5 | 14.9 | 2.2 | 1.5 | 100.0 |
| **Q3** | **1.2** | **76.9** | **18.7** | **2.9** | **0.4** | **100.0** |
| **Q4** | **0.3** | **77.7** | **19.1** | **2.4** | **0.4** | **100.0** |
| Richest | 0.3 | 74.2 | 22.2 | 2.7 | 0.6 | 100.0 |
| Total | 0.7 | 77.4 | 18.7 | 2.5 | 0.7 | 100.0 |
| Aimag center |  |  |  |  |  |  |
| Poorest | 2.5 | 76.0 | 19.0 | 1.9 | 0.6 | 100.0 |
| Q2 | 5.0 | 65.5 | 25.6 | 2.6 | 1.3 | 100.0 |
| **Q3** | **4.1** | **63.9** | **25.8** | **3.6** | **2.5** | **100.0** |
| **Q4** | **4.0** | **57.6** | **33.7** | **2.4** | **2.4** | **100.0** |
| Richest | 3.7 | 53.5 | 37.3 | 3.1 | 2.4 | 100.0 |
| Total | 3.9 | 62.0 | 29.4 | 2.8 | 2.0 | 100.0 |
| Soum center |  |  |  |  |  |  |
| Poorest | 22.2 | 50.6 | 24.9 | 0.6 | 1.7 | 100.0 |
| Q2 | 20.5 | 43.0 | 34.5 | 0.8 | 1.2 | 100.0 |
| **Q3** | **20.7** | **38.8** | **36.3** | **1.9** | **2.3** | **100.0** |
| **Q4** | **16.1** | **38.1** | **40.5** | **3.2** | **2.1** | **100.0** |
| Richest | 10.0 | 45.8 | 39.1 | 2.7 | 2.4 | 100.0 |
| Total | 17.3 | 42.7 | 36.0 | 2.0 | 2.0 | 100.0 |
| Countryside |  |  |  |  |  |  |
| Poorest | 87.8 | 9.8 | 1.7 | 0.0 | 0.7 | 100.0 |
| Q2 | 89.7 | 6.6 | 3.3 | 0.1 | 0.4 | 100.0 |
| **Q3** | **85.5** | **8.9** | **4.3** | **0.2** | **1.1** | **100.0** |
| **Q4** | **85.7** | **8.4** | **4.9** | **0.2** | **0.7** | **100.0** |
| Richest | 80.6 | 11.8 | 6.5 | 0.3 | 0.8 | 100.0 |
| Total | 86.3 | 8.9 | 4.0 | 0.2 | 0.7 | 100.0 |

**TABLE A2: PERCENTAGE OF HOUSEHOLDS, BY TYPE OF DWELLING**

| | Ger | Apartment | House | Other | Total |
|---|---|---|---|---|---|
| National | | | | | |
| Poorest | 68.5 | 3.5 | 26.5 | 1.4 | 100.0 |
| Q2 | 57.7 | 6.4 | 34.9 | 1.0 | 100.0 |
| **Q3** | 49.6 | 12.8 | 36.3 | 1.4 | 100.0 |
| **Q4** | 39.1 | 21.0 | 38.0 | 1.9 | 100.0 |
| Richest | 26.6 | 38.3 | 33.0 | 2.1 | 100.0 |
| Total | 48.3 | 16.4 | 33.7 | 1.6 | 100.0 |
| Ulaanbaatar | | | | | |
| Poorest | 56.2 | 4.1 | 37.0 | 2.7 | 100.0 |
| Q2 | 43.0 | 10.9 | 45.0 | 1.1 | 100.0 |
| **Q3** | 27.2 | 25.2 | 47.0 | 0.6 | 100.0 |
| **Q4** | 16.9 | 39.9 | 41.7 | 1.6 | 100.0 |
| Richest | 6.7 | 63.1 | 28.6 | 1.6 | 100.0 |
| Total | 26.1 | 33.6 | 38.8 | 1.5 | 100.0 |
| Aimag center | | | | | |
| Poorest | 53.0 | 8.3 | 37.5 | 1.3 | 100.0 |
| Q2 | 41.7 | 12.0 | 45.3 | 1.0 | 100.0 |
| **Q3** | 39.7 | 20.0 | 38.5 | 1.8 | 100.0 |
| **Q4** | 26.9 | 27.1 | 42.6 | 3.4 | 100.0 |
| Richest | 20.0 | 39.2 | 37.8 | 3.0 | 100.0 |
| Total | 37.0 | 20.6 | 40.3 | 2.0 | 100.0 |
| Soum center | | | | | |
| Poorest | 65.9 | 1.9 | 31.0 | 1.1 | 100.0 |
| Q2 | 53.2 | 3.6 | 41.8 | 1.4 | 100.0 |
| **Q3** | 45.9 | 5.2 | 45.5 | 3.4 | 100.0 |
| **Q4** | 43.3 | 4.6 | 49.4 | 2.7 | 100.0 |
| Richest | 38.5 | 9.0 | 48.5 | 3.9 | 100.0 |
| Total | 49.7 | 4.7 | 43.1 | 2.5 | 100.0 |
| Countryside | | | | | |
| Poorest | 91.3 | 0.7 | 7.3 | 0.7 | 100.0 |
| Q2 | 85.7 | 0.5 | 13.2 | 0.6 | 100.0 |
| **Q3** | 83.9 | 0.3 | 15.5 | 0.3 | 100.0 |
| **Q4** | 81.2 | 2.4 | 16.2 | 0.2 | 100.0 |
| Richest | 76.0 | 1.5 | 21.9 | 0.6 | 100.0 |
| Total | 84.6 | 1.0 | 13.9 | 0.5 | 100.0 |

**TABLE A3:  PERCENTAGE OF HOUSEHOLDS, BY NUMBER OF LIVESTOCK**

|  | -50 | 51-100 | 101-200 | 201-400 | 401+ | Total |
|---|---|---|---|---|---|---|
| **National** | | | | | | |
| Poorest | 83.3 | 12.4 | 3.9 | 0.4 | 0.0 | 100.0 |
| Q2 | 76.1 | 16.5 | 6.2 | 1.3 | 0.0 | 100.0 |
| **Q3** | **71.1** | **18.5** | **7.3** | **3.1** | **0.0** | **100.0** |
| **Q4** | **70.2** | **17.9** | **8.4** | **2.9** | **0.6** | **100.0** |
| Richest | 71.8 | 15.1 | 9.9 | 2.5 | 0.7 | 100.0 |
| Total | 74.8 | 16.1 | 6.9 | 2.0 | 0.2 | 100.0 |
| **Ulaanbaatar** | | | | | | |
| Poorest | 94.7 | 5.3 | 0.0 | 0.0 | 0.0 | 100.0 |
| Q2 | 77.4 | 22.6 | 0.0 | 0.0 | 0.0 | 100.0 |
| **Q3** | **100.0** | **0.0** | **0.0** | **0.0** | **0.0** | **100.0** |
| **Q4** | **80.6** | **19.4** | **0.0** | **0.0** | **0.0** | **100.0** |
| Richest | 70.3 | 22.8 | 6.8 | 0.0 | 0.0 | 100.0 |
| Total | 82.7 | 15.6 | 1.6 | 0.0 | 0.0 | 100.0 |
| **Aimag center** | | | | | | |
| Poorest | 93.5 | 6.5 | 0.0 | 0.0 | 0.0 | 100.0 |
| Q2 | 93.0 | 6.1 | 0.0 | 0.8 | 0.0 | 100.0 |
| **Q3** | **84.8** | **7.1** | **5.5** | **2.5** | **0.0** | **100.0** |
| **Q4** | **84.8** | **10.6** | **2.3** | **0.0** | **2.4** | **100.0** |
| Richest | 84.6 | 14.8 | 0.6 | 0.0 | 0.0 | 100.0 |
| Total | 87.9 | 9.2 | 1.7 | 0.6 | 0.5 | 100.0 |
| **Soum center** | | | | | | |
| Poorest | 95.3 | 4.1 | 0.6 | 0.0 | 0.0 | 100.0 |
| Q2 | 91.9 | 6.9 | 0.7 | 0.4 | 0.0 | 100.0 |
| **Q3** | **93.6** | **5.1** | **0.5** | **0.9** | **0.0** | **100.0** |
| **Q4** | **88.3** | **8.4** | **2.4** | **0.5** | **0.4** | **100.0** |
| Richest | 86.1 | 9.3 | 3.5 | 1.1 | 0.0 | 100.0 |
| Total | 91.0 | 6.8 | 1.5 | 0.6 | 0.1 | 100.0 |
| **Countryside** | | | | | | |
| Poorest | 77.7 | 16.1 | 5.6 | 0.6 | 0.0 | 100.0 |
| Q2 | 66.8 | 21.9 | 9.6 | 1.7 | 0.0 | 100.0 |
| **Q3** | **58.5** | **26.4** | **10.8** | **4.3** | **0.0** | **100.0** |
| **Q4** | **56.7** | **24.7** | **13.3** | **4.9** | **0.4** | **100.0** |
| Richest | 58.8 | 18.8 | 16.6 | 4.3 | 1.4 | 100.0 |
| Total | 64.8 | 21.6 | 10.5 | 2.9 | 0.3 | 100.0 |

**TABLE A4: PERCENTAGE OF HOUSEHOLDS, BY HOUSEHOLD SIZE**

| Welfare group | 1 | 2 | 3 | 4 | 5 | 6+ | Total |
|---|---|---|---|---|---|---|---|
| | National | | | | | | |
| Below middle class | 2.8 | 7.4 | 18.0 | 29.4 | 21.8 | 20.6 | 100.0 |
| **Middle class** | 9.6 | 17.7 | 24.4 | 27.9 | 13.9 | 6.5 | 100.0 |
| Above middle class | 21.5 | 27.4 | 24.0 | 18.6 | 6.2 | 2.4 | 100.0 |
| Total | 9.1 | 15.6 | 22.1 | 26.9 | 15.5 | 10.8 | 100.0 |
| | Ulaanbaatar | | | | | | |
| Below middle class | 2.2 | 4.7 | 15.0 | 28.4 | 25.0 | 24.7 | 100.0 |
| **Middle class** | 4.4 | 16.3 | 26.0 | 31.1 | 14.9 | 7.2 | 100.0 |
| Above middle class | 19.5 | 27.6 | 24.4 | 19.7 | 6.5 | 2.3 | 100.0 |
| Total | 7.4 | 16.0 | 22.9 | 27.8 | 15.5 | 10.5 | 100.0 |
| | Aimag center | | | | | | |
| Below middle class | 2.0 | 8.3 | 20.7 | 29.0 | 19.3 | 20.6 | 100.0 |
| **Middle class** | 11.4 | 17.5 | 24.1 | 28.1 | 13.8 | 5.2 | 100.0 |
| Above middle class | 22.9 | 26.5 | 23.2 | 20.5 | 5.0 | 1.9 | 100.0 |
| Total | 9.1 | 15.0 | 22.6 | 27.5 | 14.9 | 10.8 | 100.0 |
| | Soum center | | | | | | |
| Below middle class | 3.6 | 7.6 | 19.5 | 30.7 | 20.1 | 18.5 | 100.0 |
| **Middle class** | 14.1 | 19.0 | 23.3 | 24.1 | 13.5 | 6.0 | 100.0 |
| Above middle class | 23.7 | 27.6 | 25.0 | 16.3 | 4.2 | 3.1 | 100.0 |
| Total | 11.6 | 16.1 | 22.2 | 25.5 | 14.7 | 10.0 | 100.0 |
| | Countryside | | | | | | |
| Below middle class | 3.7 | 9.2 | 18.4 | 30.0 | 21.3 | 17.4 | 100.0 |
| **Middle class** | 17.2 | 20.3 | 21.5 | 22.7 | 11.8 | 6.5 | 100.0 |
| Above middle class | 29.5 | 27.1 | 21.7 | 10.3 | 8.1 | 3.2 | 100.0 |
| Total | 11.2 | 15.1 | 20.0 | 25.5 | 16.4 | 11.8 | 100.0 |

**TABLE A5: PERCENTAGE OF HOUSEHOLDS, BY NUMBER OF CHILDREN**

| Welfare group | No | 1 | 2 | 3+ | Total |
|---|---|---|---|---|---|
| National | | | | | |
| Below middle class | 15.9 | 23.8 | 31.2 | 29.1 | 100.0 |
| **Middle class** | 36.1 | 30.5 | 23.9 | 9.4 | 100.0 |
| Above middle class | 56.4 | 25.9 | 13.9 | 3.9 | 100.0 |
| Total | 32.2 | 27.4 | 24.9 | 15.4 | 100.0 |
| Ulaanbaatar | | | | | |
| Below middle class | 14.3 | 23.6 | 32.9 | 29.2 | 100.0 |
| **Middle class** | 31.9 | 32.7 | 27.2 | 8.2 | 100.0 |
| Above middle class | 55.1 | 26.7 | 14.2 | 4.0 | 100.0 |
| Total | 32.9 | 29.0 | 25.6 | 12.5 | 100.0 |
| Aimag center | | | | | |
| Below middle class | 15.7 | 26.8 | 30.9 | 26.6 | 100.0 |
| **Middle class** | 35.9 | 32.2 | 22.7 | 9.2 | 100.0 |
| Above middle class | 55.2 | 26.4 | 15.8 | 2.6 | 100.0 |
| Total | 30.3 | 29.4 | 25.0 | 15.2 | 100.0 |
| Soum center | | | | | |
| Below middle class | 15.9 | 24.8 | 31.1 | 28.2 | 100.0 |
| **Middle class** | 39.8 | 29.3 | 20.2 | 10.7 | 100.0 |
| Above middle class | 58.3 | 25.1 | 14.1 | 2.4 | 100.0 |
| Total | 33.7 | 27.3 | 23.3 | 15.8 | 100.0 |
| Countryside | | | | | |
| Below middle class | 17.6 | 21.5 | 29.9 | 31.1 | 100.0 |
| **Middle class** | 44.2 | 24.1 | 20.0 | 11.7 | 100.0 |
| Above middle class | 64.6 | 20.4 | 8.4 | 6.5 | 100.0 |
| Total | 32.1 | 22.5 | 24.2 | 21.2 | 100.0 |

**TABLE A6: PERCENTAGE OF HOUSEHOLDS, BY AGE OF HOUSEHOLD HEAD**

| Welfare group | <30 | 30-39 | 40-49 | 50-59 | 60+ | Total |
|---|---|---|---|---|---|---|
| National | | | | | | |
| Below middle class | 14.3 | 30.1 | 26.1 | 17.4 | 12.1 | 100.0 |
| **Middle class** | 14.0 | 23.7 | 25.3 | 19.4 | 17.6 | 100.0 |
| Above middle class | 15.0 | 21.1 | 23.6 | 20.7 | 19.6 | 100.0 |
| Total | 14.3 | 25.5 | 25.3 | 18.9 | 16.0 | 100.0 |
| Ulaanbaatar | | | | | | |
| Below middle class | 14.1 | 27.6 | 24.7 | 20.8 | 12.9 | 100.0 |
| **Middle class** | 15.5 | 24.7 | 23.6 | 18.8 | 17.3 | 100.0 |
| Above middle class | 17.1 | 23.3 | 22.2 | 18.7 | 18.7 | 100.0 |
| Total | 15.5 | 25.1 | 23.6 | 19.3 | 16.5 | 100.0 |
| Aimag center | | | | | | |
| Below middle class | 10.4 | 28.8 | 27.8 | 18.3 | 14.7 | 100.0 |
| **Middle class** | 11.4 | 22.0 | 29.7 | 18.9 | 18.1 | 100.0 |
| Above middle class | 11.1 | 18.1 | 27.4 | 22.9 | 20.5 | 100.0 |
| Total | 11.0 | 24.2 | 28.7 | 19.1 | 17.0 | 100.0 |
| Soum center | | | | | | |
| Below middle class | 12.3 | 28.3 | 29.1 | 18.9 | 11.4 | 100.0 |
| **Middle class** | 13.3 | 19.8 | 26.0 | 25.3 | 15.7 | 100.0 |
| Above middle class | 9.3 | 15.6 | 30.3 | 27.6 | 17.3 | 100.0 |
| Total | 12.5 | 22.2 | 27.5 | 23.4 | 14.4 | 100.0 |
| Countryside | | | | | | |
| Below middle class | 18.2 | 34.1 | 25.0 | 12.9 | 9.8 | 100.0 |
| **Middle class** | 13.6 | 25.7 | 24.0 | 17.3 | 19.3 | 100.0 |
| Above middle class | 13.1 | 16.4 | 20.5 | 24.1 | 25.8 | 100.0 |
| Total | 15.9 | 29.3 | 24.3 | 15.6 | 14.9 | 100.0 |

**TABLE A7: PERCENTAGE OF HOUSEHOLDS, BY EDUCATION OF HOUSEHOLD HEAD**

| Welfare group | NO | PRIMA | SECOND | COMPLE | VOCATIO | BACHEL | HIGH | TOT |
|---|---|---|---|---|---|---|---|---|
| National | | | | | | | | |
| Below middle class | 6.1 | 14.9 | 29.4 | 33.6 | 13.0 | 2.8 | 0.2 | 100.0 |
| **Middle class** | 2.6 | 8.5 | 18.4 | 34.3 | 24.3 | 10.6 | 1.3 | 100.0 |
| Above middle class | 1.2 | 4.8 | 8.1 | 24.4 | 33.0 | 22.7 | 5.8 | 100.0 |
| Total | 3.6 | 10.2 | 20.6 | 32.5 | 21.7 | 9.8 | 1.6 | 100.0 |
| Ulaanbaatar | | | | | | | | |
| Below middle class | 2.1 | 4.8 | 19.6 | 50.4 | 18.9 | 4.1 | 0.1 | 100.0 |
| **Middle class** | 0.8 | 3.4 | 10.5 | 40.2 | 29.0 | 13.9 | 2.1 | 100.0 |
| Above middle class | 0.7 | 1.3 | 3.9 | 23.8 | 34.4 | 28.5 | 7.5 | 100.0 |
| Total | 1.1 | 3.3 | 11.3 | 39.0 | 27.7 | 14.8 | 2.9 | 100.0 |
| Aimag center | | | | | | | | |
| Below middle class | 5.0 | 12.0 | 26.8 | 35.9 | 15.5 | 4.3 | 0.5 | 100.0 |
| **Middle class** | 2.5 | 6.4 | 15.7 | 37.5 | 23.9 | 12.7 | 1.4 | 100.0 |
| Above middle class | 1.3 | 6.7 | 9.2 | 28.2 | 31.8 | 17.3 | 5.5 | 100.0 |
| Total | 3.3 | 8.6 | 19.3 | 35.7 | 21.6 | 10.0 | 1.5 | 100.0 |
| Soum center | | | | | | | | |
| Below middle class | 5.8 | 13.1 | 35.8 | 30.2 | 12.8 | 2.2 | 0.2 | 100.0 |
| **Middle class** | 3.0 | 9.2 | 25.2 | 27.2 | 26.3 | 8.6 | 0.4 | 100.0 |
| Above middle class | 1.1 | 6.4 | 14.7 | 25.6 | 40.3 | 11.6 | 0.3 | 100.0 |
| Total | 3.8 | 10.2 | 27.7 | 28.1 | 23.2 | 6.7 | 0.3 | 100.0 |
| Countryside | | | | | | | | |
| Below middle class | 10.8 | 27.7 | 38.6 | 16.8 | 5.5 | 0.5 | 0.0 | 100.0 |
| **Middle class** | 6.9 | 23.0 | 35.4 | 21.2 | 11.7 | 1.6 | 0.1 | 100.0 |
| Above middle class | 4.7 | 22.8 | 28.3 | 21.0 | 19.3 | 3.7 | 0.2 | 100.0 |
| Total | 8.8 | 25.4 | 36.6 | 18.9 | 9.1 | 1.2 | 0.0 | 100.0 |

**TABLE A8: HOUSEHOLD MONTHLY INCOME, BY WELFARE GROUP**

| Welfare | Wage | Pension | Livestock | Agriculture | Business | Other | Tugrug Total |
|---|---|---|---|---|---|---|---|
| National | | | | | | | |
| Below middle class | 242 885 | 152 534 | 43 279 | 1 530 | 30 431 | 17 988 | 488 647 |
| Middle class | 387 468 | 157 836 | 48 910 | 2 357 | 101 492 | 55 492 | 753 555 |
| Above middle class | 611 286 | 155 979 | 44 511 | 9 862 | 226 084 | 220 534 | 1268 257 |
| Total | 372 114 | 155 686 | 46 244 | 3 251 | 96 245 | 68 377 | 741 917 |
| Ulaanbaatar | | | | | | | |
| Below middle class | 412 107 | 178 294 | 1 365 | 135 | 49 375 | 15 595 | 656 870 |
| Middle class | 510 532 | 171 497 | 946 | 443 | 143 962 | 59 196 | 886 577 |
| Above middle class | 721 756 | 157 558 | 745 | 4 085 | 265 236 | 255 372 | 1404 751 |
| Total | 534 713 | 169 977 | 1 005 | 1 209 | 148 268 | 93 682 | 948 855 |
| Aimag center | | | | | | | |
| Below middle class | 264 351 | 166 196 | 14 985 | 1 074 | 42 175 | 19 365 | 508 145 |
| Middle class | 398 305 | 158 054 | 15 559 | 3 733 | 117 349 | 66 812 | 759 811 |
| Above middle class | 538 492 | 153 205 | 26 055 | 8 082 | 213 635 | 244 519 | 1183 988 |
| Total | 362 956 | 160 651 | 16 616 | 3 222 | 99 662 | 69 929 | 713 036 |
| Soum center | | | | | | | |
| Below middle class | 231 048 | 138 751 | 20 187 | 4 570 | 20 472 | 30 919 | 445 948 |
| Middle class | 351 585 | 141 697 | 34 266 | 6 833 | 45 072 | 52 139 | 631 592 |
| Above middle class | 457 366 | 162 255 | 48 336 | 64 195 | 158 673 | 97 326 | 988 151 |
| Total | 322 060 | 142 986 | 31 009 | 12 473 | 49 338 | 49 913 | 607 777 |
| Countryside | | | | | | | |
| Below middle class | 65 584 | 122 188 | 113 941 | 2 117 | 6 782 | 14 541 | 325 152 |
| Middle class | 100 338 | 135 699 | 213 934 | 2 303 | 20 010 | 36 086 | 508 370 |
| Above middle class | 147 068 | 144 912 | 357 740 | 3 380 | 50 228 | 59 842 | 763 171 |
| Total | 85 916 | 129 461 | 173 099 | 2 284 | 15 397 | 26 778 | 432 936 |

**TABLE A9: HOUSEHOLD MONTHLY INCOME COMPOSITION, BY WELFARE GROUP**

| Welfare | Wage | Pension | Livestock | Agriculture | Business | Other | Total |
|---|---|---|---|---|---|---|---|
| National | | | | | | | |
| Below middle class | 49.7 | 31.2 | 8.9 | 0.3 | 6.2 | 3.7 | 100.0 |
| Middle class | 51.4 | 20.9 | 6.5 | 0.3 | 13.5 | 7.4 | 100.0 |
| Above middle class | 48.2 | 12.3 | 3.5 | 0.8 | 17.8 | 17.4 | 100.0 |
| Total | 50.2 | 21.0 | 6.2 | 0.4 | 13.0 | 9.2 | 100.0 |
| Ulaanbaatar | | | | | | | |
| Below middle class | 62.7 | 27.1 | 0.2 | 0.0 | 7.5 | 2.4 | 100.0 |
| Middle class | 57.6 | 19.3 | 0.1 | 0.0 | 16.2 | 6.7 | 100.0 |
| Above middle class | 51.4 | 11.2 | 0.1 | 0.3 | 18.9 | 18.2 | 100.0 |
| Total | 56.4 | 17.9 | 0.1 | 0.1 | 15.6 | 9.9 | 100.0 |
| Aimag center | | | | | | | |
| Below middle class | 52.0 | 32.7 | 2.9 | 0.2 | 8.3 | 3.8 | 100.0 |
| Middle class | 52.4 | 20.8 | 2.0 | 0.5 | 15.4 | 8.8 | 100.0 |
| Above middle class | 45.5 | 12.9 | 2.2 | 0.7 | 18.0 | 20.7 | 100.0 |
| Total | 50.9 | 22.5 | 2.3 | 0.5 | 14.0 | 9.8 | 100.0 |
| Soum center | | | | | | | |
| Below middle class | 51.8 | 31.1 | 4.5 | 1.0 | 4.6 | 6.9 | 100.0 |
| Middle class | 55.7 | 22.4 | 5.4 | 1.1 | 7.1 | 8.3 | 100.0 |
| Above middle class | 46.3 | 16.4 | 4.9 | 6.5 | 16.1 | 9.8 | 100.0 |
| Total | 53.0 | 23.5 | 5.1 | 2.1 | 8.1 | 8.2 | 100.0 |
| Countryside | | | | | | | |
| Below middle class | 20.2 | 37.6 | 35.0 | 0.7 | 2.1 | 4.5 | 100.0 |
| Middle class | 19.7 | 26.7 | 42.1 | 0.5 | 3.9 | 7.1 | 100.0 |
| Above middle class | 19.3 | 19.0 | 46.9 | 0.4 | 6.6 | 7.8 | 100.0 |
| Total | 19.8 | 29.9 | 40.0 | 0.5 | 3.6 | 6.2 | 100.0 |

**TABLE A10: CONSUMPTION PER CAPITA PER MONTH, BY MAIN CONSUMPTION CATEGORIES**

Tugrug

| Welfare group | Food | Alcoholic beverages and tobacco | Education | Health | Durable goods | Rent | Heating | Utilities | Clothing | Transportation and | Others | Total consumption |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| National | | | | | | | | | | | | |
| Below middle class | 47 363 | 1 675 | 4 457 | 2 448 | 1 934 | 3 946 | 6 551 | 2 814 | 16 125 | 9 064 | 7 533 | 103 911 |
| Middle class | 79 500 | 3 179 | 12 079 | 8 590 | 5 817 | 15 376 | 10 423 | 6 031 | 36 048 | 28 525 | 17 754 | 223 322 |
| Above middle class | 123 85 | 4 798 | 24 831 | 47 255 | 18 758 | 42 434 | 12 141 | 13 361 | 93 819 | 86 084 | 49 105 | 516 271 |
| Total | 71 118 | 2 734 | 10 357 | 10 522 | 5 694 | 13 721 | 8 992 | 5 532 | 34 404 | 27 051 | 17 111 | 207 235 |
| Ulaanbaatar | | | | | | | | | | | | |
| Below middle class | 44 031 | 1 053 | 4 535 | 2 607 | 1 628 | 5 529 | 9 649 | 4 324 | 12 431 | 11 654 | 7 817 | 105 259 |
| Middle class | 78 581 | 2 125 | 10 455 | 7 650 | 5 832 | 22 583 | 12 550 | 7 822 | 29 174 | 33 559 | 17 614 | 227 944 |
| Above middle class | 123 | 3 775 | 24 475 | 33 642 | 21 205 | 55 127 | 12 297 | 15 328 | 90 590 | 94 403 | 51 908 | 526 110 |
| Total | 75 243 | 2 066 | 10 981 | 10 528 | 7 143 | 22 741 | 11 576 | 7 998 | 34 425 | 37 056 | 20 402 | 240 160 |
| Aimag center | | | | | | | | | | | | |
| Below middle class | 41 453 | 1 444 | 5 485 | 3 055 | 2 057 | 4 799 | 6 719 | 3 423 | 17 155 | 8 070 | 8 385 | 102 045 |
| Middle class | 67 426 | 3 051 | 16 618 | 10 425 | 6 853 | 13 960 | 9 952 | 6 531 | 42 875 | 25 549 | 18 737 | 221 978 |
| Above middle class | 100 261 | 4 941 | 28 140 | 86 435 | 16 730 | 28 409 | 13 109 | 14 375 | 101 126 | 67 699 | 42 752 | 504 077 |
| Total | 58 298 | 2 473 | 12 475 | 13 761 | 5 505 | 10 992 | 8 732 | 5 786 | 36 115 | 21 183 | 16 066 | 191 386 |
| Soum center | | | | | | | | | | | | |
| Below middle class | 47 728 | 2 282 | 4 181 | 2 148 | 2 055 | 3 020 | 5 113 | 2 512 | 19 416 | 7 141 | 7 515 | 103 111 |
| Middle class | 82 798 | 4 669 | 15 009 | 8 782 | 5 732 | 5 936 | 9 286 | 4 384 | 45 016 | 22 031 | 19 364 | 223 008 |
| Above middle class | 134 | 9 020 | 25 938 | 49 693 | 13 898 | 10 887 | 13 876 | 7 217 | 103 996 | 65 816 | 42 865 | 477 607 |
| Total | 72 565 | 4 042 | 11 434 | 9 434 | 4 888 | 5 140 | 7 940 | 3 845 | 39 317 | 19 504 | 16 411 | 194 518 |
| Countryside | | | | | | | | | | | | |
| Below middle class | 55 454 | 2 314 | 3 682 | 1 918 | 2 133 | 1 888 | 3 539 | 789 | 18 182 | 7 688 | 6 571 | 104 157 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Middle class | 94 161 | 5 211 | 9 063 | 8 900 | 4 595 | 3 667 | 5 817 | 1 585 | 40 672 | 22 656 | 15 788 | 212 115 |
| Above middle class | 157 ~~733~~ | 8 066 | 20 497 | 73 182 | 9 188 | 4 739 | 7 723 | 2 990 | 94 819 | 77 355 | 45 914 | 502 266 |
| Total | 74 497 | 3 646 | 6 455 | 7 928 | 3 371 | 2 673 | 4 570 | 1 186 | 30 084 | 16 519 | 11 835 | 162 764 |

*Source: Survey team calculations from HSES 2012*

### TABLE A11: CONSUMPTION COMPOSITION PER CAPITA PER MONTH, BY MAIN CONSUMPTION CATEGORIES

Percent

| Welfare group | Food | Alcoholic beverages and tobacco | Education | Health | Durable goods | Rent | Heating | Utilities | Clothing | Transportation and | Others | Total consumption |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **National** | | | | | | | | | | | | |
| Below middle class | 45.6 | 1.6 | 4.3 | 2.4 | 1.9 | 3.8 | 6.3 | 2.7 | 15.5 | 8.7 | 7.2 | 100.0 |
| Middle class | 35.6 | 1.4 | 5.4 | 3.8 | 2.6 | 6.9 | 4.7 | 2.7 | 16.1 | 12.8 | 8.0 | 100.0 |
| Above middle class | 24.0 | 0.9 | 4.8 | 9.2 | 3.6 | 8.2 | 2.4 | 2.6 | 18.2 | 16.7 | 9.5 | 100.0 |
| Total | 34.3 | 1.3 | 5.0 | 5.1 | 2.7 | 6.6 | 4.3 | 2.7 | 16.6 | 13.1 | 8.3 | 100.0 |
| **Ulaanbaatar** | | | | | | | | | | | | |
| Below middle class | 41.8 | 1.0 | 4.3 | 2.5 | 1.5 | 5.3 | 9.2 | 4.1 | 11.8 | 11.1 | 7.4 | 100.0 |
| Middle class | 34.5 | 0.9 | 4.6 | 3.4 | 2.6 | 9.9 | 5.5 | 3.4 | 12.8 | 14.7 | 7.7 | 100.0 |
| Above middle class | 23.4 | 0.7 | 4.7 | 6.4 | 4.0 | 10.5 | 2.3 | 2.9 | 17.2 | 17.9 | 9.9 | 100.0 |
| Total | 31.3 | 0.9 | 4.6 | 4.4 | 3.0 | 9.5 | 4.8 | 3.3 | 14.3 | 15.4 | 8.5 | 100.0 |
| **Aimag center** | | | | | | | | | | | | |
| Below middle class | 40.6 | 1.4 | 5.4 | 3.0 | 2.0 | 4.7 | 6.6 | 3.4 | 16.8 | 7.9 | 8.2 | 100.0 |
| Middle class | 30.4 | 1.4 | 7.5 | 4.7 | 3.1 | 6.3 | 4.5 | 2.9 | 19.3 | 11.5 | 8.4 | 100.0 |
| Above middle class | 19.9 | 1.0 | 5.6 | 17.1 | 3.3 | 5.6 | 2.6 | 2.9 | 20.1 | 13.4 | 8.5 | 100.0 |
| Total | 30.5 | 1.3 | 6.5 | 7.2 | 2.9 | 5.7 | 4.6 | 3.0 | 18.9 | 11.1 | 8.4 | 100.0 |
| **Soum center** | | | | | | | | | | | | |
| Below middle class | 46.3 | 2.2 | 4.1 | 2.1 | 2.0 | 2.9 | 5.0 | 2.4 | 18.8 | 6.9 | 7.3 | 100.0 |
| Middle class | 37.1 | 2.1 | 6.7 | 3.9 | 2.6 | 2.7 | 4.2 | 2.0 | 20.2 | 9.9 | 8.7 | 100.0 |
| Above middle class | 28.1 | 1.9 | 5.4 | 10.4 | 2.9 | 2.3 | 2.9 | 1.5 | 21.8 | 13.8 | 9.0 | 100.0 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | 37.3 | 2.1 | 5.9 | 4.9 | 2.5 | 2.6 | 4.1 | 2.0 | 20.2 | 10.0 | 8.4 | 100.0 |
| Countryside | | | | | | | | | | | |
| Below middle class | 53.2 | 2.2 | 3.5 | 1.8 | 2.0 | 1.8 | 3.4 | 0.8 | 17.5 | 7.4 | 6.3 | 100.0 |
| Middle class | 44.4 | 2.5 | 4.3 | 4.2 | 2.2 | 1.7 | 2.7 | 0.7 | 19.2 | 10.7 | 7.4 | 100.0 |
| Above middle class | 31.4 | 1.6 | 4.1 | 14.6 | 1.8 | 0.9 | 1.5 | 0.6 | 18.9 | 15.4 | 9.1 | 100.0 |
| Total | 45.8 | 2.2 | 4.0 | 4.9 | 2.1 | 1.6 | 2.8 | 0.7 | 18.5 | 10.1 | 7.3 | 100.0 |

*Source: Survey team calculations from HSES 2012*

**TABLE A 12: EXPLANATORY VARIABLES CONSIDERED IN THE REGRESSION
ANALYSIS**

| Variable \| | Obs | Mean | Std. Dev. | Min | Max | variable label |
|---|---|---|---|---|---|---|
| middle \| | 10987 | 0.57577 | 0.494248 | 0 | 1 | Middle class |
| hhsize \| | 10987 | 3.80177 | 1.599206 | 1 | 15 | Household size |
| kidstotal \| | 10987 | 1.43588 | 1.242768 | 0 | 9 | Members <=18 years of age |
| maxedu \| | 10985 | 4.59973 | 1.61371 | 1 | 9 | Highest level of education among members 18+ |
| ageh \| | 10987 | 44.9472 | 14.08126 | 14 | 99 | Age of household head |
| deducah31 \| | 10972 | 0.0463 | 0.210143 | 0 | 1 | Education of household head==None |
| deducah32 \| | 10972 | 0.12468 | 0.330372 | 0 | 1 | Education of household head==Primary |
| deducah33 \| | 10972 | 0.56535 | 0.495734 | 0 | 1 | Education of household head==Secondary |
| deducah34 \| | 10972 | 0.11967 | 0.324588 | 0 | 1 | Education of household head==Vocational |
| deducah35 \| | 10972 | 0.144 | 0.351109 | 0 | 1 | Education of household head==University |
| dnempwa0 \| | 10987 | 0.4883 | 0.499886 | 0 | 1 | No wage employees 18+ in the last week |
| dnempwa1 \| | 10987 | 0.32129 | 0.466993 | 0 | 1 | One wage employee 18+ in the last week |
| dnempwa2 \| | 10987 | 0.16392 | 0.370221 | 0 | 1 | Two wage employees 18+ in the last week |
| dnempwa3m \| | 10987 | 0.02649 | 0.160582 | 0 | 1 | Three or more wage employees 18+ in the last week |
| dnempag0 \| | 10987 | 0.77291 | 0.418968 | 0 | 1 | No selfemployed in agri/livestock 18+ in the last week |
| dnempag1 \| | 10987 | 0.06917 | 0.253759 | 0 | 1 | One selfemployed in agri/livestock 18+ in the last week |
| dnempag2 \| | 10987 | 0.13161 | 0.338082 | 0 | 1 | Two selfemployed in agri/livestock 18+ in the last week |
| dnempag3m \| | 10987 | 0.0263 | 0.160045 | 0 | 1 | Three or more selfemployed in agri/livestock 18+ in the last week |
| dnempse0 \| | 10987 | 0.87385 | 0.332032 | 0 | 1 | No selfemployed in other sectors 18+ in the last week |
| dnempse1 \| | 10987 | 0.09493 | 0.293132 | 0 | 1 | One selfemployed in other sectors 18+ in the last week |
| dnempse2m \| | 10987 | 0.03122 | 0.173916 | 0 | 1 | Two or more selfemployed in other sectors 18+ in the last week |
| car \| | 10987 | 0.23419 | 0.423508 | 0 | 1 | Has car |
| bods \| | 10987 | 15.6514 | 38.66654 | 0.8 | 17.5833 | Number of bods (horses equivalent) owned |
| ger \| | 10987 | 0.50159 | 0.50002 | 0 | 1 | Dwelling is a ger |
| apartment \| | 10987 | 0.13416 | 0.340838 | 0 | 1 | Dwelling is an apartment |
| internetat~e \| | 10987 | 0.07764 | 0.267612 | 0 | 1 | Use internet at home |