The Effect of Ethnicity, Demographic and Socioeconomic on Households' Welfare in Indonesia

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ABSTRACT

Economic welfare starts from the household's welfare; then, the households will meet their essential and secondary needs from their daily income. Many factors can determine the level of households' welfare, such as demographic factors: age, level of education, and gender, and also socio-economic factors. Indonesia is a diverse country that has various tribes and cultures. This diversity can affect the way that Indonesian people live. Realizing that there are several ethnic groups in Indonesia, this study aims to analyze the determinant factor of households' welfare from different ethnic groups, demographic and socio-economic variables in Indonesia. This study uses data from the Indonesian Family Life Survey (IFLS 5), which will be analyzed using a multinomial logistic regression model. The results showed that variables of household size, age of head household, education, urban, region and ethnicity affect households' welfare; while gender, marital status and head of household employment do not affect welfare.

Keywords: Economic Welfare, Household, Ethnicity, Indonesia Family Life Survey, IFLS, Multinomial Logistic Regression.

1. INTRODUCTION

Welfare is a subjective matter. Everyone has different views, goals, and ways of life [1]. According to the People's Welfare Index, we can measure household welfare by monetary indicators using income or expenditure indicators [2] [3]. Poor households cannot meet their standard of living and live with income or expenses below the Poverty Line [4].

The calculation of household expenditure is calculated based on the total consumption expenditure for food and non-food. Data on food and non-food consumption expenditures can be used to determine population welfare (poverty level) by comparing it to its total expenditure. The lower the percentage of expenditure on food to total expenditure, the better the household welfare due to the allocation to meet basic needs (food) shifts to other expenditures (non-food).

Poor people will first allocate more of their income to meet their primary needs [5]. Aspects that must be met so that someone does not fall into the poor category are their ability to fulfill clothing, housing, access to education, and health. Based on Badan Pusat Statistik (Central Bureau of Statistics) data, lowincome families in Indonesia spend 45-52% of their total income to meet food needs [2].

Household consumption behavior is very different from one household to another. This inequality is caused by many factors: lifestyle, education, number of household members, and age of the head of the household, including ethnicity. Indonesia has 34 provinces with 1,340 ethnic groups. The results of the 2010 Population Census show that the most numerous ethnic groups in Indonesia, respectively, are the Javanese with a percentage of 40.22%, the Sundanese (15.5%), and the Bataks at 3.58% of the total population of Indonesia, amounting to 236,728,379 people [6].

Various results are obtained from household characteristics and culture (ethnicity) aspect on household welfare. The research conducted by Nguyen and Grote [7] explains that migration for the Vietnamese population is a strategy used by households in dealing with the impact of shocks on the agricultural sector and economy. Research shows that Vietnamese people feel better conditions where they migrate. They can move out of poverty and improve economic conditions for families left in their villages.



Ethnic differences can sometimes be the cause of conflict in society. Using household survey data in 2005, Esenaliev & Steiner [8] examined the economic disparity between the Kyrgyz and Uzbeks in the southern region of Kyrgyzstan. These two ethnicities had previously been involved in the conflict; the results of this study indicate that the expenditure level of ethnic Kyrgyz is slightly higher than that of ethnic Uzbeks in urban areas, but both are almost the same in rural areas. The higher spending on ethnic Kyrgyz is explained by the smaller number of households and the higher level of education. Meanwhile, the Uzbeks seem to have the advantage of having a bigger house that more people can live in or made a place to run a business.

Indonesia has various ethnic groups (tribes) that are interesting research objects related to household characteristics and welfare. This study aimed to: (1) analyze the influence of household and ethnic characteristics on the level of household expenditure in Indonesia and (2) find out the proportion of inequality in household spending in Indonesia in terms of ethnicity and region.

2. LITERATURE REVIEW

2.1. Consumption Theory: Engel's Laws

Ernst Engel, a statistician from Belgium, identified the demand for two specific goods related to household income changes. Engel analogized the demand for these two goods as inferior and superior goods, which have different behavior when income increases. With an increase in income, consumption of inferior goods will be reduced and transferred to superior goods.

With this illustration, Engel's Law can be understood that when there is an increase in income, the rise in purchasing power will be allocated to consumption such as recreation, entertainment, travel, and others (superior goods). Then Engel's Law can be used further in analyzing the community's poverty level by looking at the composition pattern of food and non-food consumption. Poor people will first allocate more income to meet their primary needs (food) [5].

Consumer behavior contained in Engel's Law states that the proportion of total expenditure devoted to food will decrease as income increases. It can indicate that food is a basic need that will increase more slowly than income. When a household has more expenditure on food, it is usually seen as having a lower income. On the other hand, if the household has expenditure on food that tends to decrease, it usually has a high income. It means that the proportion of income spent on food is a valuable indicator of poverty.

2.2. Previous Research

Households play an essential role in household expenditure decision-making situations where the family unit makes decisions. Various studies on household consumption behavior have proven the influence of husband, wife, children, and individuals during the consumption decision-making. The researchers agree that household consumption decision-making behavior is complex and the influence exerted by each member.

The findings of Xia, Ahmed, Ghingold, Hwa, Li, Ying [9] reveal the same influence between husband and wife during the consumer decision-making process, but influence varies by product category is revealed in furniture and house purchases. However, when we take husband and wife ethnic into account, the decision-making behavior of Singaporean families is known to be dominated by the husband. In contrast, American families are more egalitarian.

Preferences in food, music, movies, and products are standard measures of culture-specific consumption behavior [10]. Furthermore, the results of this study suggest that ethnic identity and consumption behavior reveal that young adults of Asian heritage are very likely to consume ethnic foods.

In addition, the study of Duval & Wolff [11] saw differences in the influence of remittances and ethnicities sent from abroad to Kosovo. The 2011 data on 8000 households and 650 family members living abroad shows that Albanians are much more likely to receive money than Serbs due to differences in the migration model between the two ethnic groups. This result creates differences in migration patterns between the two ethnic groups in Kosovo.

C. V. Nguyen et al. [12], explaining that ethnic minorities in achieving prosperity in the mountains of northern Vietnam have lower expenditures than other regions. Meanwhile, according to Fjelde & Østby [13], there is inequality in access to welfare among ethnic groups, so there is a tendency for other groups to take advantage of it to secure access to economic benefits. Meanwhile, Dartanto et al. [14] researched poverty using longitudinal data of IFLS for five waves in Indonesia. The study found that there was a change in



household status from the poor category to the middleclass category.

3. RESEARCH METHODS

3.1. Types of Research

We employ quantitative methods to test specific theories by examining the relationship between variables [15]. This study uses data from the Indonesia Family Life Survey (IFLS) to be a valuable source for researchers and policymakers interested in the process of economic development in Indonesia [16].

The sample of this study is the households in the IFLS5 data aged 15 years and over. The sampling procedure used in this study refers to the sampling procedure used in IFLS, representing approximately 83% of the Indonesian population living in 13 provinces in Indonesia IFLS5.

3.2. Identification and Definition of Operational Variables

From the several definitions of these variables, the next step is to determine the size and scale of each dependent and independent variable and their categories. The dependent and independent variables used in this study showed at Table 1.

Determination of the poverty level used in this study is to compare the average per capita expenditure (personal consumption expenditure, PCE) of IFLS data with the size of the Poverty Line. In 2014, the Central Statistics Agency issued the amount of the Poverty Line in the Urban and Rural area of Rp. 307,532; while the urban's poverty line is Rp. 322,684, the rural is Rp. 286.097. Categorization of poor households can be done with the following reference [17]:

- Poor, if the average value of household expenditure per capita is less than the BPS Poverty Line;
- 2) Near-poor, if the average value of household expenditure per capita is in the range of 1.0 times to 2.0 times the BPS Poverty Line; and
- Not Poor if the average value of household expenditure per capita is 2.0 times the BPS Poverty Line.

3.3. Model and Data Analysis

Multinomial logistic regression is a logistic regression in which the response variable has a multinomial nature (polychotomous), a nominal scale of more than two categories. In general, the multinomial logistic regression model can be written in the following equation:

$$\pi(x) = \frac{e^{g(x)}}{1 + e^{g(x)}}$$
(1)

In calculating the multinomial regression model, the method used is the Maximum Likelihood method (maximum likelihood estimator), which is the method used to estimate the parameter-parameter logistic regression model to provide estimated values β to maximize function Likelihood [18].

The multinomial logit analysis model used in the analysis of this study with three categories using the total household expenditure indicator used to analyze the 2014 IFLS data with the following details:

 $P(Y_i) = \beta_0 + \beta_1 hhgender + \beta_2 hsize + \beta_3 hhage + \beta_4 hhmarried + \beta_5 hheducation + \beta_6 hhemploy + \beta_7 urban + \beta_8 region + \beta_9 ethnicity + \varepsilon_i$ (2)

Where: P(Y): Welfare indicator expenditure P(Y=2): Poor Household P(Y=1): Near-poor Household P(Y=0): Non-Poor Household B₀ : Constant parameter β_i (i=1, 2, ... 9): Estimation parameters ϵ_i (i=1,...,9): Error/residual

4. RESULTS AND DISCUSSION

4.1. Results

This study uses the Indonesia Family Life Survey (IFLS) microdata survey conducted since 1993 in several regions in Indonesia. Right now, the last data IFLS5 that collected at 2014.

4.1.1. Descriptive Analysis

From the data, the average member of households is four people. Meanwhile, the duration of education taken by the head of the households on average is at the high school level. The average income of the head of the household is IDR 1,271,554, with a standard deviation of IDR 1,237,082. The standard deviation size shows that the household head's income varies. Table 2 shows that the Javanese are the most dominant tribe in this research; it reaches 42.84% of the total, followed by the Sundanese with 1,568 households (12.32%), the Sasak and Minang tribes each contribute by 4.86% to total. The table also presented the category of households that divided into three groups: Poor (3.35%), Near Poor (21.61%) and Not Poor (75.04%).

The overall sample shows the ratio of female and male household heads is 18.38%: 81.62%, it means that there are more than four times male head of household than female. When we compare, the percentage of Poor category to gender we found that

both male and female of head of households have almost equal proportion each other 3.33% and 3.36%, respectively. This case also happened to Near-poor and Non-poor categories. The head of households mainly has a secondary education. It accounted for 46.17%.

4.1.2. Inferential Analysis

By using a multinomial logistic regression model, this study uses two models, namely the Main Model and the Category Model. The Main Model is a regression model that uses the main variable

 Table 1. Operational Definition of Research Variables

| Variable | Data Type | Explanation | |
|---------------------------------------|-----------|---|--|
| Dependent Variable | | | |
| Poverty Category | Category | 1. Poor, 2. Near-poor, and 3. Not Poor | |
| Independent Variable | | | |
| Head of household's gender (hhgender) | Category | 1. Male and 0. Female | |
| Head of household's marital Status | Category | 1. Married and 0. Others | |
| (hhmarried) | | | |
| Head of household's working status | Category | 1. Work and 0. Others | |
| (hhemploy) | | | |
| Head of household's age (hhage) | Ratio | year of old | |
| Size of households (hsize) | Ratio | Person(s) | |
| Duration of education (hheducation) | Ratio | year | |
| Urban status (urban) | Category | 1. Urban and 0. Rural | |
| Tribe (ethnicity) | Category | 1. Java and 0. Others | |
| Region (region) | Category | 1. Java-Bali and 0. Others | |
| Tribe/Ethnic category (cat_ethnic) | Category | 1. Javanese, 2. Sundanese, 3. Balinese, 4. Batak, 5. Bugis, 6 | |
| | | Sasak, 7. Minang, 8. Banjar, 9. Betawi, 10. Others | |
| Education category (cat_educ) | Category | 1. No school, 2. Elementary education, 3. Secondary | |
| | | education and 4. Higher education | |
| Age category (<i>cat_age</i>) | Category | 1. 15-30 years, 2. 31-45 years, 3. 46-60 years and 4. 60+ | |
| | | years old | |

Furthermore, the Category Model includes all existing variables and adds category variables: tribe/ethnicity, age, and education category.

In the Main Model, the dependent variable in the Not Poor category is used as a reference. It means that the probabilities of the Poor and Near Poor categories are compared to the Not Poor categories. In general, the goodness of fit can be shown by the Psedu- R^2 value of 0.125. In addition, the simultaneous test results shown by Prob > chi2, whose value is smaller than the 5% alpha value, means that the tests carried out simultaneously are significant.

The prediction results show the model's accuracy for each category in the Main Model. It can be seen that the Poor category has an average value of 0.0335 which, when compared to the proportion of the Poor category in the actual data, is 3.35%.

 Table 2. Ethnic/Ethnic and Household Poor

 Categories

| legomes | | | |
|---------------|---|--|--|
| Poor Category | | | Total |
| 1:Poo | 2:Near- | 3:Not | |
| r | poor | Poor | |
| 197 | 1,318 | 3,938 | 5,453 |
| 51 | 291 | 1,226 | 1,568 |
| | | | |
| 17 | 180 | 421 | 618 |
| 11 | 105 | 502 | 618 |
| 11 | 54 | 491 | 556 |
| 17 | 105 | 407 | 529 |
| 6 | 56 | 450 | 512 |
| 9 | 99 | 368 | 476 |
| 11 | 71 | 307 | 389 |
| | 1:Poo r 197 51 17 11 11 11 17 6 9 | Poor Category 1:Poo 2:Near- r poor 197 1,318 51 291 17 180 11 105 11 54 17 105 6 56 9 99 | Poor Category 1:Poo 2:Near- 3:Not r poor Poor 197 1,318 3,938 51 291 1,226 17 180 421 111 105 502 11 54 491 17 105 407 6 56 450 9 99 368 |

| Others | 97 | 471 | 1,441 | 2,009 |
|--------|-----|-------|-------|-------|
| Total | 427 | 2,750 | 9,551 | 12,72 |
| | | | | 8 |

The value is exactly the same if the average value is used as a percentage. The other categories (Nearpoor and Not Poor) also experienced the same thing.

To test effect of each variables to explained variable we used Wald test statistic, the null hypothesis is rejected if p-value < 0.05 or Wald Stat > χ^2 . The Main Model calculations results in Table 3 showed that the predictor variables that have a significant effect on the dependent variable consistently for each category are hsize, hheducation, urban, ethnicity. The hhage variable only has a significant effect on the Near Poor category, while the region variable is only significant in the poor category. Meanwhile, the variables that have no significant effect come from the hhgender, hhmarried, and hhemploy variables.

Furthermore, the Category Model was developed to ensure consistency with the existing findings in the Main Model. Looking at Table 4, the variables that significantly affect the explanatory variable for all categories are household size, age of head household, education, urban, region, and ethnicity. Meanwhile, the variables that have no effect come from gender of head householed, marital status, and employment variables.

The Category Model was exention model to show in more detail the effect of the independent variable on the level of welfare, especially for several independent variables that have several categories showing a consistent effect for the Poor and Near Poor categories or one of the two categories. Meanwhile, the independent variables with no effect are consistently confirmed with those in the Main Model

 Table 3. Main Model of Multinomial Logistics

 Regression Results

| Regi | coston results | |
|-------------|------------------|------------------|
| | Multinomial Logi | istic Regression |
| | Reference: | Not Poor |
| Explanatory | Not Poor against | Not Poor to |
| Variable | Poor | Near-poor |
| | | |
| hhgender | -0.114 | -0.084 |
| | (0.199) | (0.084) |
| hsize | 0.530*** | 0.370*** |
| | (0.027) | (0.015) |
| hhage | 0.002 | -0.011*** |
| | (0.004) | (0.002) |
| hhmarried | -0.086 | 0.100 |

| | (0.202) | (0.085) | |
|-------------------------|---------------------|---------------|--|
| hheducation | -0.202*** | -0.142*** | |
| | (0.014) | (0.006) | |
| hhemploy | 0.006 | -0.033 | |
| | (0.137) | (0.064) | |
| urban | -0.686*** | -0.495*** | |
| | (0.110) | (0.049) | |
| region | 0.226* | -0.078 | |
| | (0.117) | (0.052) | |
| ethnicity | 0.373*** | 0.463*** | |
| | (0.113) | (0.051) | |
| Constant | -3.641*** | -0.916*** | |
| | (0.320) | (0.137) | |
| Observations | 12, | 728 | |
| Prob > chi ² | 0.0000 | | |
| Pseudo R ² | 0.12556 | | |
| SE in parentheses | ; *** p<0.01, ** p< | 0.05, * p<0.1 | |
| Source: IESL5 pro | cessed (2021) | | |

Source: IFSL5, processed (2021)

4.2. Discussion

The coefficient value of the multinomial logistic regression model calculation cannot be directly interpreted, we need to calculate the marginal effect. The calculation results of the marginal effect showed that all variables consistently have a significant impact on all categories (hsize, hheducation, urban, ethnicity). If we compare the Poor and Near Poor categories, the Near-poor category has a more significant impact, indicated by the marginal effect.

The marginal effect of the independent variable on dependent variable can be seen Table 5 and Table 6. The discussion of the analysis only covered to significant variables.

4.2.1. Marginal Effect of household size on Welfare

The size of household members has a significant and positive effect on the Poor and Near Poor Categories, while the Non-Poor Category has a negative value. In the Poor and Near Poor categories, the marginal effect values are 0.009 and 0.055, which means that the more household members, the greater the chance of being poor 0.9% and the near-poor probability of 5.5% more significant than others. Unlike the two previous categories, the Not Poor category has a negative marginal effect of 0.065; this means that the probability of this household being 6.5% less likely to be non-poor due to a change in the number of family members.

| | | ion Results Multinomial Logistic Regression | | |
|-------------|------------------|--|--|--|
| | Reference: | | | |
| Explanatory | Not Poor against | Not Poor to | | |
| Variable | Poor | Near-poor | | |
| nhgender | -0.101 | -0.062 | | |
| | (0.197) | (0.084) | | |
| nsize | 0.572*** | 0.394*** | | |
| | (0.029) | (0.016) | | |
| nhage | | | | |
| 15-30 | -0.329 | 0.150 | | |
| | (0.217) | (0.092) | | |
| 31-45 | -0.290* | 0.043 | | |
| | (0.150) | (0.078) | | |
| 46-60 | -0.811*** | -0.318*** | | |
| | (0.151) | (0.078) | | |
| 61+ | - | - | | |
| Married | -0.230 | 0.001 | | |
| | (0.201) | (0.086) | | |
| Education | | | | |
| No school | 3.734*** | 2.568*** | | |
| | (0.482) | (0.153) | | |
| Elementary | 3.279*** | 2.216*** | | |
| | (0.458) | (0.127) | | |
| Highschool | 1.913*** | 1.527*** | | |
| | (0.463) | (0.126) | | |
| University | - | - | | |
| Employ | 0.044 | -0.009 | | |
| | (0.139) | (0.065) | | |
| Urban | -0.653*** | -0.544*** | | |
| | (0.111) | (0.050) | | |
| Region | 0.421*** | 0.154** | | |
| | (0.150) | (0.068) | | |
| Ethnicity | | | | |
| Jawa | -0.146 | 0.186** | | |
| | (0.155) | (0.075) | | |
| Sunda | -0.461** | -0.200** | | |
| | (0.207) | (0.100) | | |
| Bali | -1.445*** | -1.187*** | | |
| | (0.350) | (0.168) | | |
| Batak | 0.005 | 0.003 | | |
| | (0.286) | (0.133) | | |
| Bugis | -0.930*** | -0.526*** | | |
| - | (0.339) | (0.153) | | |
| Sasak | -0.163 | 0.483*** | | |
| | (0.285) | (0.115) | | |
| Minang | -0.871** | -0.282** | | |
| - | (0.338) | (0.131) | | |
| Banjar | -0.796** | -0.136 | | |
| | (0.365) | (0.134) | | |
| Betawi | -1.979*** | -1.001*** | | |
| | (0.457) | (0.169) | | |
| Lainnya | - | - | | |
| Constant | -6.988*** | -4.158*** | | |
| | (0.516) | (0.172) | | |

| Table 4. Category Model Multinomial Logistic |
|--|
| December 14 |

| Observations | 12,728 |
|----------------------------|---------------------------|
| Prob > chi ² | 0.0000 |
| Pseudo R ² | 0.1383 |
| SE in parentheses; *** p< | <0.01, ** p<0.05, * p<0.1 |
| Source: IFSL5, processed (| (2021) |

 Table 5. Main Model Marginal Effect of Households

| Explanatory | Marginal Effect (dy/dx) | | | |
|----------------|--------------------------|-----------|-----------|--|
| Variable | Poor | Near-poor | Not Poor | |
| hhgender | -0.002 | -0.012 | 0.014 | |
| hsize | 0.009*** | 0.055*** | -0.064*** | |
| hhage | 0.000 | -0.002 | 0.002*** | |
| hhmarried | -0.002 | 0.016 | -0.014 | |
| hheducation | - | -0.021*** | 0.024** | |
| | 0.003*** | | | |
| hhemploy | 0.000 | -0.005 | 0.005 | |
| urban | - | -0.073*** | 0.085*** | |
| | 0.012*** | | | |
| region | 0.005** | -0.013*** | 0.008 | |
| ethnicity | 0.006** | 0.069*** | -0.075*** | |
| *** p<0.01, ** | *** p<0.01, ** p<0.05, * | | | |

*** p<0.01, p<0.1

Source: IFSL5, processed (2021)

Table 6. Category Model Marginal Effect of Households

| 1104 | 50110145 | | |
|-------------|-------------------------|------------|-----------|
| Variable | Marginal Effect (dy/dx) | | |
| Explanatory | Poor | Near-poor | Not Poor |
| hhgender | -0.0015 | -0.0088 | 0.010 |
| hhsize | 0.0086*** | 0.0562*** | -0.065*** |
| age | | | |
| 15-30 | -0.0061* | 0.0232* | -0.017 |
| 31-45 | -0.0051** | 0.0073 | -0.002 |
| 46-60 | - | -0.0443*** | 0.057*** |
| | 0.0129*** | | |
| 60+ | - | - | 0.000 |
| married | -0.0039 | 0.0008 | 0.003 |
| education | | | |
| No School | 0.0559*** | 0.3665*** | -0.422*** |
| Elementary | 0.0492*** | 0.3161*** | -0.365*** |
| Highschool | 0.0280*** | 0.2189*** | -0.247*** |
| University | - | - | - |
| Employ | 0.0008 | -0.0015 | 0.001 |
| Urban | - | -0.0781*** | 0.088*** |
| | 0.0095*** | | |
| Region | 0.0067*** | 0.0213** | -0.028*** |
| Ethnicity | | | |
| Jawa | -0.0031 | 0.0279** | -0.025** |
| Sunda | -0.0073** | -0.0279* | 0.035** |
| Bali | - | -0.1702*** | 0.191*** |
| | 0.0210*** | | |
| Batak | 0.0001 | 0.0004 | -0.001 |
| Bugis | -0.0143** | -0.0746*** | 0.089*** |
| Sasak | -0.0043 | 0.0716*** | -0.067*** |
| Minang | -0.0140** | -0.0388** | 0.053*** |
| Banjar | -0.0132** | -0.0176 | 0.031 |
| | | | |

| Betawi | - | -0.1412*** | 0.172*** |
|--------------------|------------|------------|----------|
| 0.0 |)307*** | | |
| Lainnya | - | - | - |
| *** p<0.01, ** p< | <0.05, * | | |
| p<0.1 | | | |
| Source: IFSL5, pro | cessed (20 | 021) | |

The impact on the three categories of households shows that the response of each household with different confirmed welfare status is also different due to the addition of the number of household members. For poor households, on average, the increase in the number of household members impacts a more significant burden for the head of the household in financing the needs of each family member. It results in households belonging to the Poor Category being more vulnerable to poverty if new family members are added.

4.2.2. Marginal Effect of Education on Welfare

Education is a long-term investment for a better life for people in the future. The 12-year compulsory school program is one of the efforts made by the government to achieve this. Theoretically, the longer a person receives education, the better the individual's ability level will be in completing tasks and problems. It makes activities more effective and efficient. The results showed that the marginal value of the three categories got better with the more extended and better education level of the household head.

For the Poor Category, the chance of the household head to be poor will decrease by 0.3% with increasing education level. In contrast, in the Near Poor category, the opportunity decreases by 2.1% with the increase in the level of education. Meanwhile, in the Non-Poor Category, it shows that the opportunity for non-poor increases by 2.4% due to the increasing education level of the household head.

4.2.3. Marginal Effect of Urban and Region status on Welfare

The variable of household residence has a significant and negative effect on households in the Poor and Near Poor categories. The coefficient values for the marginal effects are -0.012 and -0.073, respectively. It means that households living in urban areas have a 1.2% less chance of being poor and a 7.3% less chance of being near poverty than households living in rural areas. In addition,

households in Java-Bali are 0.5% more likely to be poor than those in other areas.

However, the Non-Poor category has a positive and significant effect. The value of the marginal effects is 0.085. It means that households living in urban areas have an 8.5% chance of not being poor compared to households living in rural areas; Non-Poor Category households in the Java-Bali or other areas have the same opportunities.

4.2.4. Marginal Effect of Tribe/Ethnicity on Welfare

Tribes/ethnicities in Indonesia are a gift and a source of customary and cultural wealth. With the majority of the population in Indonesia being dominated by the Javanese, the patterns and behavior of the Javanese people can impact other ethnic groups. From the results of testing the marginal effect on the Main Model and Category Model, it is found that the ethnicity variable (ethnic/ethnic) significantly affects the dependent variable. Ten ethnic groups from all research samples are the data sources. The three largest ethnic groups/ethnicities can be presented with the value of the marginal effect results.

The Javanese significantly affect the Near-poor (negative) and Not Poor (positive) categories. The near-poor category has a marginal effect of 0.0279, which means that the Javanese have a 2.8% greater chance of being in the near-poor category than other ethnic groups. Meanwhile, in the Not Poor Category, the probability of Javanese households are being reduced by 2.5% to be non-poor compared to other ethnic groups.

5. CONCLUSION

From the discussion results above, there are two multinomial logistic regression models in this study: Main Model and Category Model. The difference between the two models lies in including several categories in the independent variables.

- 1) The explanatory variables of size of household, age of head household, education, urban, region and ethnicity affect to level of household welfare;
- While the variables of gender of head household, marital status of head household, and their employment do not have an effect on the household's welfare both in Main Model and Categorical Model;

 The ethnicity variable (tribe/ethnic) has consistently been shown to have a role in determining the level of household welfare.

As we can see that level of education can differentiate members of household from Poor to Nonpoor. The head of household has critical decision to ensure that family members can achieve their highest education. For having higher education will be benefial for people to get better job opportunity and higher salary. During pandemic due to COVID-19 the future condition is uncertain, we better have a good side job that usually can be initiated from family business.

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