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# Ethnic Horizontal Inequity in Indonesia

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**Abstract:** For the first time in Indonesia, we jointly analyse several economic statistics and ethnic diversity indicators at national and local levels. Nationally, we find very high levels of economic inequality, measured from household asset values or consumption expenditure. In contrast, the levels of ethnic diversity, while non-negligible, are much lower, whether they reflect fractionalization, polarization, or horizontal inequity based on individual living standards. All horizontal inequity indicators surged after the Asian economic crisis. Horizontal inequity based on education is much lower and decreasing. Finally, we provide tentative explanations of local horizontal inequity in regressions that show a mixed pattern of socioeconomic influences.

**Keywords:** community activities, ethnic diversity, inequality, Indonesia.

**JEL classification:** D71, H42, I32.

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the actual number of years of education in this survey. Instead, we impute this variable in using the number of years of the completed education level for each individual.







while a non-negligible number work in the informal sector as unpaid family workers (11 per cent). Slightly more than half of the individuals live in rural areas, and they are spread across all surveyed provinces.

The descriptive statistics at the village level and village means, for the sample of 311 villages, are consistent with the individual descriptive statistics. The mean Gini coefficient of village inequality of assets is very high (0.52 to 0.56, depending on years) and little concentrated among villages. Conversely, the mean of village-level Gini coefficient of horizontal inequity, based in per-adult-equivalent consumption, is much lower (0.096 to 0.161) and much more dispersed, with a coefficient of variation above 1 in every survey year. The means of village-level polarization (0.396 to 0.399) and village-level fractionalization (0.247 to 0.248) are substantial and agree with the aggregate national estimates. However, substantial differences between villages occur in that respect also, as shown by a coefficient of variation of about 1.

In general, most of the variables used are characterized by relative stability across years and substantial dispersion across villages, which augurs well for their use in econometric estimation. We now turn to such estimations.

### 4.3 Correlates of horizontal inequity

Few authors have attempted to explain ethnic diversity as such. However, Michalopoulos (2012) explains the determinants of ethnic linguistic diversity within and across countries, with an emphasis on its geographical origin, measured by land quality and elevation.

Table 4 shows the results of panel regressions of the ethnic Gini coefficient of inequality over a broad set of village-level regressors. There are two specifications: fixed-effect and random-effect estimators. The result of the Hausman test for the common set of coefficients, with a  $p$ -value of 0.70, implies that the random-effect specification for panel regressions is preferred to the fixed-effect estimator. As a consequence, we mostly comment on the more efficient random-effect results.

Table 4: Panel fixed-effect and random-effect regressions of horizontal inequity at community level

Variables	FE	RE
Proportion female	-0.0802 (0.081)	-0.104* (0.058)
Proportion farm households	-0.0431 (0.036)	-0.0744*** (0.016)
Proportion business households	-0.00333 (0.028)	-0.0127 (0.020)
Proportion female heads	-0.127** (0.056)	-0.150*** (0.043)
Mean household size	0.0244*** (0.0057)	0.0242*** (0.0037)
Proportion shocked	-0.0337* (0.018)	-0.0309* (0.016)
Proportion migrants	0.0263 (0.016)	0.0348** (0.015)
Mean per-adult-equivalent consumption	0.000323*** (0.000028)	0.000334*** (0.000026)
Mean asset value	-7.12e-11 (6.81e-11)	-1.12e-10*** (4.15e-11)
Total population	-0.00156	0.0010756

	(0.0036)	(0.002703)
Constant	0.0124 (0.052)	0.0400 (0.039)
Number of communities	311	311

Standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Source: author's calculations, based on data from the IFLS.

Explaining horizontal inequity is hard. Many attempted covariates, which are village-level variables, have non-significant coefficients in both specifications. This is the case for the percentage of business households, proportion of migrant households, rural dummy variable, or total population of the village, for example. We now comment on the significant coefficients only.

The proportion of females in the surveyed persons within the village is negatively related to horizontal inequity, as is the proportion of female household heads. Although mechanisms are elusive at this stage of data analysis, it seems that female presence, including in power positions, may be more conducive to equity among ethnicities. Another demographic characteristic seems to be important: household size. The bigger the households in the village, the higher the horizontal inequity.

There seems to be some connections between horizontal inequity and the prosperity of the village, although it is unclear which precise mechanisms they may correspond to. An agricultural orientation of the village, measured by the proportion of farming households, appears to be negatively associated with horizontal inequity. The mean per-adult-equivalent consumption and the mean level of assets are significantly correlated with horizontal inequity, respectively positively and negatively. At the 10 per cent level, the percentage of households having suffered a severe shock seems to have a positively effect on horizontal inequity.

## 5 Conclusion

In this paper we examine ethnic diversity in Indonesia. At the national level, we find high levels of economic inequality, measured from household asset values or consumption expenditure. In contrast, the levels of ethnic diversity, while non-negligible, are much lower, whether they reflect fractionalization, polarization, or horizontal inequity based on individual living standards. We observe a surge of all horizontal inequity indicators after 2007, following the economic crisis. Horizontal inequity indicators based on education levels are much lower and decreasing, suggesting that education laws in Indonesia act as levellers across ethnicities as well as across other groups.

At the village level, ethnic diversity variables are rather strongly correlated, as are the economic variables of mean wealth or economic inequality. Weaker, but still salient, links remain between those economic and ethnic variables.

Finally, we provide tentative explanations of local horizontal inequity in regressions that show a mixed pattern of socioeconomic influences. Among intriguing correlates related to lower horizontal inequity are the local presence of female individuals and female heads, or the proportion of farm households. Conversely, areas with higher mean living standards are generally associated with higher levels of horizontal inequity.

Better understanding of horizontal inequity is important for policy. As a consequence of the 1997 financial crisis and the global slowdown in economic activity, the living standards of the poor and vulnerable households in Indonesia slumped in the studied period. In an attempt to alleviate these shocks, the Indonesian government implemented reforms, including stabilization plans, which severely impacted poverty, inequality, and other social dimensions. Equity of policies across ethnic groups is a crucial issue in this context.

Dhalber et al. (2012) have shown that generating these policies may be a challenge even for purely income-distributive policies. This is because preferences for redistribution may follow ethnic divisions, as also noted by DasGupta and Kanbur (2007). As a matter of fact, extreme ethnic divisions may even generate violent conflict, as analysed by Esteban and Ray (2011). Clearly, more research is needed to disentangle these complex interactions and to free the analyses of simplifying prejudiced policy conclusions.

For example, diverse policies should be investigated for transfer systems, eliciting the gains in reducing tensions across ethnic groups. Added to a growing sensitivity in Indonesia to corruption issues, this situation increases the political demands of populations for fairer and more efficient policy dealing with community and ethnic issues.

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