The Impact of Social Program Targeting Strategies on Reported and Actual Asset Ownership in Indonesia

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Sector(s): Finance, Social Protection

Location: 34 provinces in Indonesia

Sample: 297,276 households in 34 provinces

Target group: Families and households

Outcome of interest: Earnings and income

Intervention type: Targeting

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Partner organization(s): Indonesian National Team for the Acceleration of Poverty Reduction (TNP2K), Indonesia, Central Bureau of Statistics (BPS), Indonesian Ministry of Communications and Information (KeMenKomInfo), Australian Department of Foreign Affairs and Trade (DFAT)

Many lower-income country governments determine who is eligible for social protection programs by taking stock of key household possessions to estimate families' wealth. Researchers partnered with the Government of Indonesia to conduct a randomized evaluation that tested whether adding questions on flat-screen televisions and cellphone SIM cards to a targeting census would change people's reporting and actual purchases of those items. Six months following the targeting census, households questioned about television ownership reported owning fewer televisions, though the effect faded away over time. However, households tended to purchase as many televisions as before the study and own the same number of SIM cards, suggesting that while targeting may cause people to misreport what they own in the short term for some goods, it is unlikely to change people's decisions about whether to actually purchase those items.

Policy issue

In higher-income countries, governments often identify who should receive social protection programs ("target") through means-testing: only those with incomes below a certain threshold are eligible. However, many lower-income country governments cannot conduct conventional means-testing as many people work in agriculture or in the informal sector and lack verifiable records of their income. Instead, to identify who should receive social protection programs, these governments use data on demographics and key household possessions to estimate families' wealth.

An important policy concern with this approach is that people may lie about what they own or actually change what they purchase if receiving benefits depends on household possessions. Prior research has shown that households may strategically misreport on censuses of household possessions ("targeting censuses"). If using such censuses to determine who is eligible for social protection programs changes people's actual decisions about what to purchase, there could be real economic effects if the possessions could generate income (e.g., livestock, cell phones) or if they have potential health effects (e.g., better toilets for sanitation).

In this study, researchers seek to understand whether determining who is eligible for social protection programs using censuses of household possessions changes whether people report owning those items and changes whether people actually purchase those items in Indonesia.

Context of the evaluation

The Indonesian government conducts nationwide targeting censuses of low-income people approximately every three years to determine who is eligible for targeted transfer programs including cash transfers and health insurance. To conduct these censuses, government surveyors visit millions of households and collect information about their possessions.

In June through August 2015, the government canvassed 25 million households (around 92 million people) in the national targeting census studied by researchers (called the Pemutakhiran Basis Data Terpadu, or PBDT). The three-page targeting census consisted of three sections: one on basic housing characteristics (e.g., type of roof material, type of floor material, etc.), one on demographics, and one on the assets owned by the household (e.g., refrigerators, A/C, motorbikes, land, and livestock). While the specific questions on the census are public information, the government of Indonesia has never publicly released the formula that specifies how they use the data to determine who is eligible for social programs.

In the year prior to the intervention, 84 percent of households in the study area owned a cellphone, with just under two SIM cards on average per household. Just over eight percent of households had cable television. Forty-three percent of households were located in urban areas.



A family outside their home in Indonesia

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Details of the intervention

Researchers partnered with the Government of Indonesia to conduct a randomized evaluation to test whether adding additional questions to the 2015 PBDT census would cause households to buy certain items less to maintain their eligibility for government programs in the future. Researchers randomized two additional new questions onto the 2015 PBDT census, which reached 92 million people.

Everyone canvassed received the same number of questions, but they were randomly assigned to different asset questions depending on the province where they lived. Two options for each additional new question created four versions of the census. The matrix below illustrates the four potential questions that were randomly assigned to households:

	Number of active cellphone SIM card numbers owned by household members	Number of modern toilets installed in the house

Number of flat screen televisions owned by household members	8 provinces	8 provinces
Number of rooms in the house	10 provinces	8 provinces

Randomization was conducted at the province-level across Indonesia's 34 provinces.

Although the new census questions were treated no differently from any other question by the Central Bureau of Statistics administrators of the PBDT census, the additional questions were not used to determine who was eligible for government programs. The government ran socialization meetings in each village and urban neighborhood prior to conducting the targeting census, so it was common knowledge that the census was used to determine program eligibility. The briefing materials did not contain any details on which questions would be used for targeting or the precise formula.

To measure the effect of the extra census questions on reported asset ownership, researchers obtained household-level data from the Indonesian National Socioeconomic Survey, a semi-annual national survey conducted by the Government of Indonesia, from six months and eighteen months after the extra questions were asked to households in the PBDT census. To measure the effect of the extra census questions on actual asset ownership, researchers obtained data on monthly sales of flat-screen televisions from 2013 to 2016 from an Indonesian market research firm and data on yearly active SIM cards by province from 2015 to 2017 from the Indonesian Government Ministry of Information and Communications.

Results and policy lessons

Six months following the targeting census, households questioned about television ownership reported owning fewer televisions, though the effect faded away over time. However, households tended to purchase as many televisions as before the study and own the same number of SIM cards, suggesting that while targeting may cause people to misreport what they own in the short term for some goods, it does not seem to change people's decisions about whether to actually purchase certain items.

Self-Reported Asset Acquisition: Being asked about owning a flat-screen television in the targeting census led to a 1.7 percentage point reduction in reported flat-screen television ownership from a baseline of 11 percent (a 15 percent decrease) six months later (March 2016). However, being asked about other possessions (toilets, rooms, or SIM cards) had no effect on reported ownership of these items six months later. Eighteen months after the targeting census (March 2017), there were no longer any differences in flat-screen television ownership across the different groups, and there were still no differences in ownership of the other household items.

Based on additional modeling, researchers hypothesize that people were more likely to lie about owning a television because people sensed that flat-screen televisions were the most likely variables to matter in the government's eligibility decisions.

Actual Asset Ownership: There was no evidence of lower television sales, or fewer SIM cards owned, in the provinces in which these questions were asked on the targeting census. These results suggest that observed differences in the survey data based on the different groups were largely due to effects on reporting, rather than real changes in what items people purchased.

Taken together, these findings suggest that although targeting may lead people to misreport what they own in the short run for some goods, it does not seem to change people's actual decisions about whether to purchase certain items.