

## Measuring Microenterprise Profits: What Is the Best Method?

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**Simply asking small firm owners how much profit they earn is more accurate than collecting detailed data on revenues and expenses**

Self-employment and household enterprises are major sources of employment in developing countries, especially among the poor. Accurate measurement of microenterprise profits is therefore critical for studying poverty and inequality, measuring the returns to education, evaluating the success of microfinance interventions, and investigating many other important questions.

But a myriad of potential problems plague the measurement of profits. Most microenterprises in developing countries do not keep financial records, making data collection generally reliant on recall. Money and goods flow between the business and the household. Inputs may be purchased in one period and sold in another, and production can be highly seasonal. And as with other income, individuals may be sensitive about revealing how much they earn and concerned about possible use of the information for tax purposes.

In the light of these problems there is understandable skepticism about the quality of profit data that can be obtained from microenterprises, particularly in one-time surveys. In a recent paper de Mel, McKenzie, and Woodruff report on a survey and experiments they conducted in Sri Lanka to measure the importance of such barriers to accurate profit information and to assess how best to collect these data.

The authors note that in their data, as in several other microenterprise surveys, the correlation between what firm owners directly report as profits and the amount of their reported revenues less expenses is only 0.2–0.3. The main cause of this low correlation

is a mismatch between when revenues are received and when expenses are incurred to produce these revenues. Simple questions on markups of sales over input costs allow the authors to adjust for this mismatch and bring the two reports of profits much closer to each other, with correlations of 0.61–0.73. This mismatch is more important for manufacturing firms, because of slower turnover, than for retail firms.

The authors next turn to the issue of recall error. Asking firms for sales data with different amounts of recall, they found that firms understate revenues by about 10–15 percent with four-month recall compared with one-month recall. But there was little recall error in reporting annual sales compared with reporting monthly sales at quarterly intervals.

To correct for recall error, the authors randomly allocated ledger books to some firms, to keep diary records of revenues and expenses. Firms' compliance was good over a one-month period but fell over longer periods. The use of diaries led to significantly higher reported amounts for expenses and revenues, suggesting that recall leads firms to underreport both. But the use of books had no sizable or significant effect on reported profits, suggesting that profits are less affected by recall errors. The use of books did not improve the correlation between reported revenues minus expenses and reported profits.

Finally, the authors examine whether firms deliberately underreport revenues. As in the corruption literature, they asked firms about similar firms, with the expectation that firms would answer in large part on the basis of their own behavior. Most firms believed revenues to be underreported,

with one sample putting the median level of underreporting at 20 percent and the other sample at 30 percent. To estimate actual revenues, the authors had research assistants observe firms in the second sample 15–16 times during a month and record transactions. The reported revenues of firms are 31 percent lower than those estimated from this monitoring exercise, confirming the level of underreporting suggested in the self-reports.

Putting the results of these exercises together, the authors conclude that direct reports of profits, adjusted for household use of enterprise resources, are likely to be less noisy and at least as reliable as asking firms for all the details of revenues and expenses. The reports are likely to understate true profits, but observed transactions

suggest that these reports give reasonable rankings of firms.

While a detailed household enterprise module in multipurpose surveys has many possible uses, directly eliciting profits does appear to provide useful information. Thus attempts to measure

the effectiveness of policies designed to help the owners of microenterprises need not be hamstrung by the lack of financial records for these firms.

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Suresh de Mel, David J. McKenzie, and Christopher Woodruff. Forthcoming. "Measuring Microenterprise Profits: Must We Ask How the Sausage Is Made?" *Journal of Development Economics*.