

Nowcasting Global Poverty

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Abstract

Timely and comparable poverty estimates are vital to assess countries' development progress and track the first Sustainable Development Goal, to end extreme poverty by 2030. Yet timely and comparable estimates of poverty are lacking. For these reasons, initiatives that reliably and cost-effectively predict what the poverty rate is today (i.e., nowcasting) are crucial for informed high-level decision-making. In this paper, we discuss how to leverage large-scale datasets, such as the World Development Indicators, and statistical learning techniques to improve the accuracy of the World Bank's current poverty nowcasts. We apply these techniques and dataset to predict growth in mean welfare, and back out poverty rates by applying the predicted growth rates equally to all households in the last observed distribution. This is in line with how the World Bank's current nowcasts work. We find only minor gains in prediction accuracy but that progress in reducing global poverty is slower than current estimates indicate. Predicting headcount rates directly, rather than through growth in mean welfare, considerably reduces prediction accuracy. Prediction accuracy would be greatly improved if it were possible to accurately predict both growth in mean welfare and growth in the Gini coefficient.

Keywords: Poverty, Nowcasting, Machine Learning, Measurement.

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