

SDC 2018 Annual Meeting Abstracts

Israel, Debra; Indiana State University

debra.israel@indstate.edu

Authors: Debra Israel, Indiana State University

Title: Household Fuel Use in Rural Bolivia



This paper examines household decision-making and fuel use patterns in rural Bolivia, which fits within the conference theme of Energy Provision and Access.

The study of household fuel use in developing countries often is motivated by concern about household time spent in wood gathering or deforestation, which has taken on increasing importance in the climate change debate. Another more recent motivation is greater awareness about the health effects of air pollution exposure, particularly in enclosed environments.

Utilizing an unusually rich set of data from the 1991 Bolivian Rural Energy Consumption Survey, updated with current information on household fuel use from recent census information, this study examines factors that influence choice of fuel and amount of fuel used in rural Bolivia. The empirical evidence suggests that households are very much aware of the soot problems associated with firewood use, although the extent that that extends to awareness of increased respiratory problems is unknown. In examining the differences between households that use liquefied petroleum gas (LPG) and those that do not use LPG, the presence of female-earned income in a household is associated with a greater likelihood of using LPG for cooking. When looking only at households in populated centers, as the proportion of females in a household increased, the household was less likely to use LPG, perhaps reflecting lower opportunity costs for cooking time when more females are present. Education also is found to be consistently associated with choosing to use LPG for cooking. I also find evidence of households using multiple fuels, as is the case in other studies, contradicting the simplified view of an energy ladder where households transition from the traditional fuels (like firewood and other biomass fuels) to commercial fuels. Understanding household fuel choices in developing countries is important from a health, time use, gender equity, and environmental perspective. In addition to contributing to the conference theme on Energy Provision and Access, this paper touches on issues important to the Biodiversity and Conservation and the Development and Climate Change themes, given the importance of fuel choice to both of these areas.