Group Research Project 1

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January 21, 2020

Long-run energy demand in Mexico

In this project, you should perform an economic analysis of the adoption decision for one category of energy-using durable goods by Mexican households (or firms). This analysis can use either econometric or simulation methodology.

Examples of energy-using durable goods for which you may wish to study the adoption decision include:

- cooking fuels (natural gas / LPG / electricity / traditional fuels)
- water heating (natural gas / LPG / electricity)
- space heating (do Mexican households using heating when it is cold?)
- air conditioning (which households using air conditioning when it is hot?)
- building insulation
- lightbulbs (incandescent vs CFLs vs LEDs)
- other energy efficient appliances (fridges, washing machines, televisions, etc)

For this project, focus on a durable good inside the dwelling, such as the ones listed above, NOT the choice of transportation method. We may return to the vehicle adoption decision later in the course.

As we discussed in the first week, the adoption decision for these fuels will depend on household income, household size, energy prices, energy infrastructure, climate, and so on. There may also have been policies to encourage adoption of specific types of durables (such as energy-efficient lighting).

Your project should include the following:

1. Description of the setting: what is the economic decision? What institutional background is relevant?
2. Description of the data (ideally you should include at least one table, figure, and map to show the relevant variation in your data)
3. Empirical or simulation analysis and results
4. A brief discussion of the policy implications

For your project, you will submit:

1. A short report (about 10 pages); and
2. A short presentation (about 5-10 minutes)

The exact due dates will be agreed later, but you should plan to complete your work in about a month or so. Plan the scale and ambition of your project accordingly.