

Understanding Ecological Inference Applications in Economic Voting:

The Emergency Family Income (IFE) Program in the
2021 Argentine Congress Election (with focus in the
state of Buenos Aires).

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How do economic subsidies influence voters' choice of coalition government party? And how Ecological Inference can assist us in measuring this?

To mitigate the economic damage caused by the pandemic, the government establishes programmes like IFE, with the hope that will help to increase the number of votes cast in the 2021 election (Donato, 2021).

However, this might not result as the officialism expected, because it lost the election. To measure this, we will use **Ecological Inference Analysis**.

What is Ecological Inference (EI)?

Imagine that we have **aggregated data** (% obtain by a party in a polling station) and **individual data** (people of a certain race, gender, color).

How can we know which percentage of females vote from certain candidate? That is the kind of questions that EI answer.

$$B^{ife} = \frac{\sum_{i=1}^p N_i X_i B_i^{ife}}{\sum_{i=1}^p N_i X_i}$$

Where X is the percentage of people that receive IFE, B^{ife} is the percentage of people that vote for the ruling party, N is the number of people that vote. And i refers to every pooling station.

Table no.1: Cross table for EI

	Vote for Ruling Party	Vote for Opposition	Amount
Beneficiaries IFE	?	?	3,220,358
No-Beneficiaries IFE	?	?	5,706,242
Amount	3,444,446	5,482,154	

Limitations of the study

- It may be difficult to determine whether people vote for the parties' governments because of the programme. However, the question is **whether the programme increases your chances of voting for the party in power**.
- To conduct this problem a survey must be conducted.

Data Available

- Data with Income Family Emergency beneficiaries (table no.2.)
- Results of polling station elections with IFE beneficiaries (table no.3.)

Table no.2: Beneficiaries of IFE

Security.Number	Gender	Polling.Station
12345	F	10204
12346	M	10204
12348	M	10205

Table no.3: Results of the election

Polling Station	Votes Ruling Party	Votes Party 2	Votes Party 3	Blank Vote	% Ruling Party	Tournout
10204	135	93	80	4	18.3	312/350
10205	158	95	60	3	19.3	316/350

- Might be necessary: A survey that ask about their vote preferences and the impact of the subsidy on their vote

Hypothesis

1. The inference ecology can help us to measure the impact of the subsidy in vote in a **larger scale** than previous studies with surveys, in a more **cost-efficiently way**, and **provides greater granularity** to the analysis due to the spatial nature of the data.
2. **Most people who received the IFE** (Emergency Family Income) subsidy in Argentina **did not vote for the ruling government party** in the 2021 presidential elections. Non-support for the ruling party may be due to several factors, but why the subsidy seems not enough?

Main Argument

The citizen that didn't vote for the official party of government might developed

1. a **sense of justice** (*"the state is settling a debt with me because I am a forgotten and relegated sector"*);
2. as well as **acquired rights** (*"I earned this as a result of my effort, and it is good that the state recognises it"*)
(Esping-Andersen, 1990; Brinks, Levitsky & Murillo, 2020).

References

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Questions?