## Partial Attribute Simulation

## Full Attribute Simulation





### Background

### Dataset Description:

The Residential Energy Consumption Survey (RECS) to a ...

#### Basic Information:

year-2020, sample size- 18500 households...

### Task Setting:

You are a data scientist and socioeconomic analyst...

### Respondent Profile



Age: 65 Gender: Female

Race: White

## Condition Attributes

Electricity: yes

Natural Gas: yes

Propane: no Fuel oil: no

Solar Thermal: no

#### Task Demands

#### Numerical Question:

...predict the Heating degree days

#### Format:

The prediction is a numerical output...

#### Multiple-Choice Question:

...predict Electricity is used for cooking or not ...

#### Format:

...your response should just be a character A or B...

### Context-Enhanced Paradigm

Zero-Context Paradigm



### Background

#### Dataset Description:

The Residential Energy Consumption Survey (RECS) to a ...

#### Basic Information:

year-2020, sample size- 18500 households...

#### Task Setting:

You are a data scientist and socioeconomic analyst...

# Task Demands

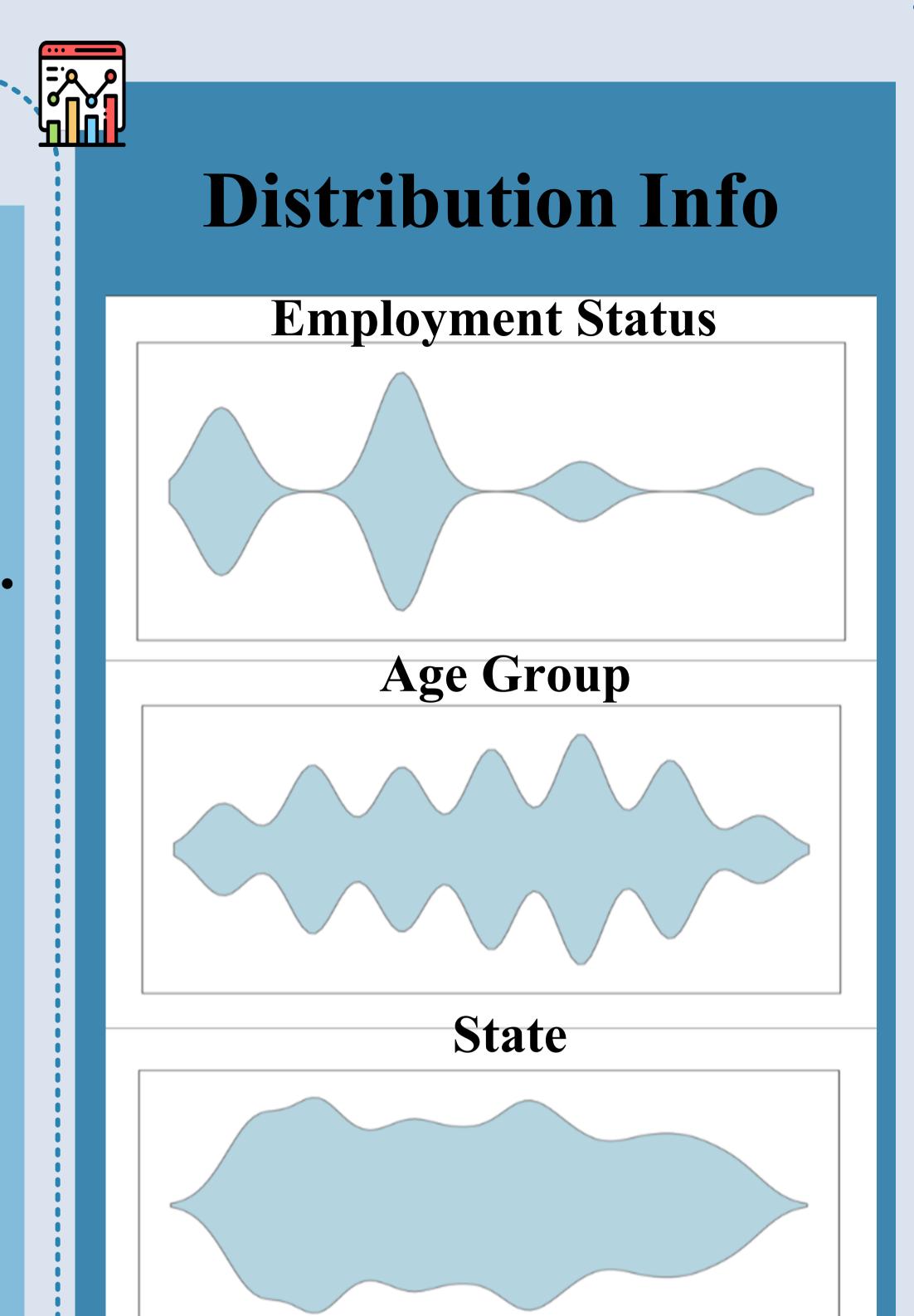
### Prediction Questions:

What is the total electricity use...

Sample Size: 20 Batch Size: 100

#### Format:

...The format must be a JSON string...

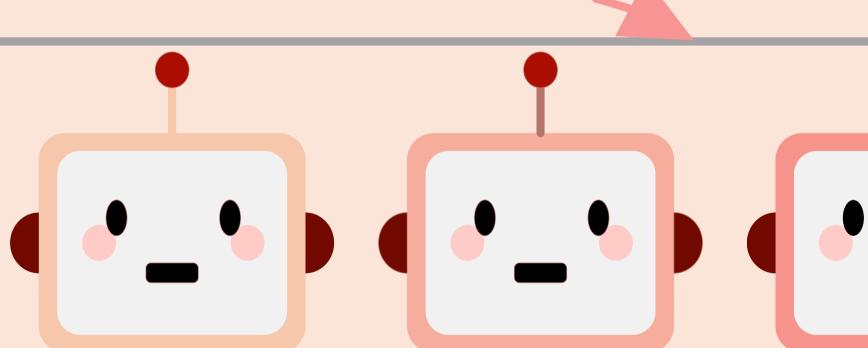


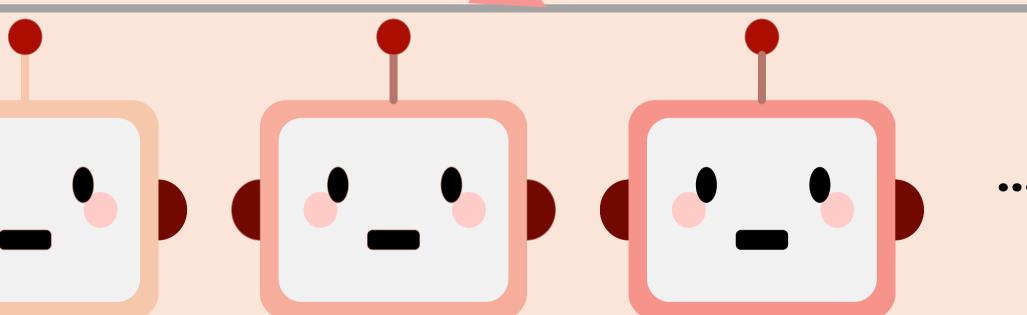
## Few-Shot Evaluation

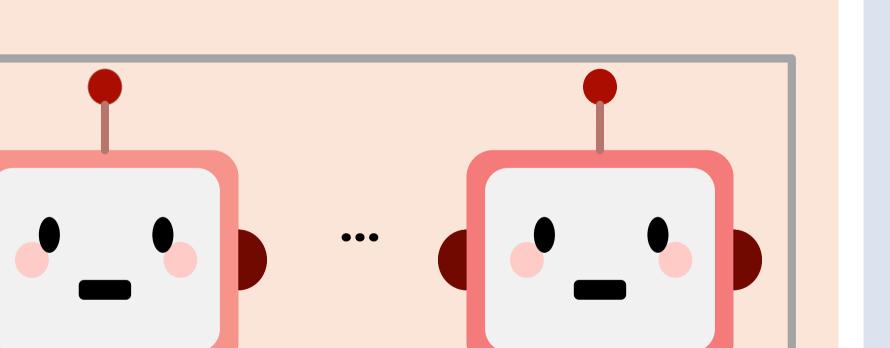
Background

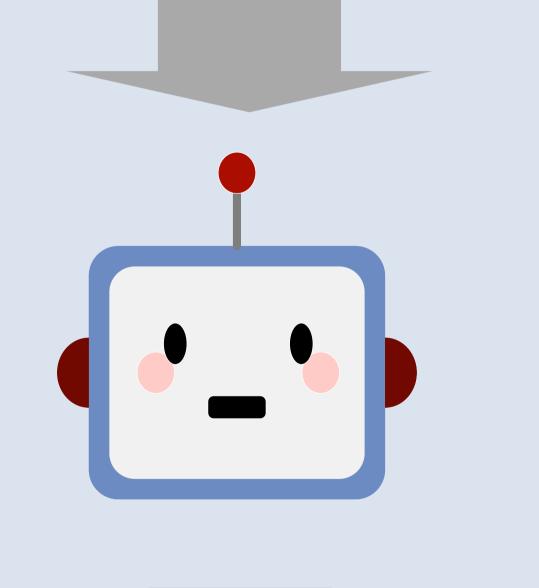
Condition Respondent Attributes

**Task** Demands Ground Truth









## Real Survey

KWH:5243.05

DOLLAREL:713.27

TOTALODL:975

### Statistical Estimation

Random Sampling

#### Ground Truth

**Profile** 

Numerical:

[14551.84]



#### Reponses

Numerical [14865.28]

Multiple-Choice [A, B]

#### Ground Truth

Multiple-Choice:

[B, B]



## Reponses

[12521, 1955.06, 2656.89]



KWH:5774.08

DOLLAREL:622.02

TOTALODL: 1322.89

KL Divergence

Accuracy

KL Divergence