Exploring the influence of low-cost food programs on crime density (Group 14) - Advanced Track

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Introduction

- Provide motivation for the paper
- Clearly and explicitly state the research question for the paper
- Provide key background: what do we know about the answer already
- Give an overview of your results and what your paper will find: what did you learn?

TODOS:

- review current literature
- is there anything, what does it say

Data Description

- What is the source of the data?
- How is the data structured? Are there any important features we need to understand?
- What are the important variables? Why are they important?
- How are the variables structured? Are there any necessary transformations needed?
- What is your analysis sample? Why or how was it constructed

Summary Statistics

- create a clear, well-organized table of the key variables you will use in your analysis

```
combo_statistics_census
```

variable	mean	sd	max	min
v_CA21_1	226.62111	377.064103	8739.0	0.0
v_CA21_6	10590.88918	10733.159054	76474.4	0.0
v_CA21_449	636.31779	385.630529	8610.0	0.0
v_CA21_1040	13.28664	6.852265	61.0	2.4
v_CA21_1085	10.15816	4.968801	39.0	1.8
v_CA21_905	302.07648	238.095380	5060.0	75.0

Model

Explain and justify your regression model. Make sure you describe it completely and carefully. Write down an equation for the model. A good rule of thumb is that you should have roughly 1 main specification and 3-4 variations of the main model, handling specification choices.

- What variables did you use, and why? What about the errors?
- How did you specify the model (e.g. interactions)? Why?
- Which specifications did you use? Why are they different
- What coefficients or outputs from the model will answer your question? How?
- Is there anything else we need to know about your model?

```
##
##
##  All Variables
##
##
## Table: Summary of All Variables model
##
## |                         |    Estimate| Std. Error|    t value| Pr(>&#124;t&#124;)|
## |:------------------------|-----------:|----------:|----------:|------------------:|
## |(Intercept)              | 15068.33089| 150.977069|  99.805427|          0.0000000|
## |food_density             |   -53.22761|  14.998250|  -3.548922|          0.0003869|
## |v_CA21_1                 |   102.49217|   1.034450|  99.078939|          0.0000000|
## |v_CA21_449               |   -92.26464|   1.044954| -88.295390|          0.0000000|
## |low_income               | 47931.25502| 182.102351| 263.210522|          0.0000000|
## |food_density:low_income |    19.49194|  15.287022|   1.275065|          0.2022877|
##
##
##  Without Interaction
##
##
## Table: Summary of Without Interaction model
##
## |             |    Estimate| Std. Error|   t value| Pr(>&#124;t&#124;)|
## |:------------|-----------:|----------:|---------:|------------------:|
## |(Intercept)  | 15048.86733| 150.203605| 100.18979|                  0|
## |food_density |   -34.46078|   2.884120| -11.94846|                  0|
## |v_CA21_1     |   102.57250|   1.032531|  99.34085|                  0|
## |v_CA21_449   |   -92.34287|   1.043153| -88.52283|                  0|
## |low_income   | 47947.50367| 181.656162| 263.94648|                  0|
##
##
##  Food Density, Crime, Low Income
##
##
## Table: Summary of Food Density, Crime, Low Income model
##
## |             |    Estimate| Std. Error|    t value| Pr(>&#124;t&#124;)|
## |:------------|-----------:|----------:|----------:|------------------:|
## |(Intercept)  | 24644.18996| 127.623880| 193.100147|                  0|
## |food_density |    21.73844|   2.899771|   7.496605|                  0|
## |low_income   | 53878.97809| 181.630247| 296.641000|                  0|
```

Table of Results

Clear a clear and complete table (or tables) of results, showing the estimated model and your specification results

Discussion

Discuss your results. Focus on how they answer your question, and what they tell you - try to go beyond simply reading or reporting the table, and try to interpret
them. Provide additional tests to validate your model and the answers it provides, as appropriate.

- provide at least (1) specification check for a key assumption necessary,
- at least one (1) alternative analysis or extensions (e.g. robustness) using a regression model or related to help support or interpret your findings.

Conclusion

Briefly re-iterate the key finding from the discussions of your results, connecting back to the motivation and background identified earlier.

References

references for images , data, figures we didnt create, papers read etc

Attributions