Multinomial Logit Model

* Sources:
  + <https://www.bauer.uh.edu/rsusmel/phd/ec1-20.pdf>
* Notes
  + Useful when measuring discrete responses to situations with more than two options
  + Explanatory variables x\_n and z\_n, what?
  + Used with utility maximization
  + Slide 3 and on: ????

Auxiliary Variable

* In statistical research, an Auxiliary variable is any Variable about which information is available prior to data collection and this information is known for all units of the population.

Mixed Integer Program (MIP)

* Optimization problem where some or all values are integers
* Branch & Bound for evaluation

All zip codes in a 14 mile radius of 50312, from freemaptools.com (I think this includes non-geographical zips, like business specific zips)

50312,50311,50324,50321,50398,50314,50309,50265,50308,50395,50307,50310,50315,50391,50380,50369,50392,50367,50381,50940,50981,50980,50950,50947,50936,50319,50329,50396,50364,50363,50362,50361,50360,50359,50339,50335,50334,50332,50331,50330,50328,50982,50316,50322,50313,50266,50325,50320,50317,50323,50061,50327,50211,50263,50131,50111,50023,50021,50009,50038,50047,50033

All zip codes in a 15 mile radius of 50312, from unitedstateszipcodes.org (I think this is geographical zips only)

50009

50021

50023

50032

50035

50038

50047

50061

50109

50111

50131

50211

50226

50229

50261

50263

50265

50266

50309

50310

50311

50312

50313

50314

50315

50316

50317

50319

50320

50321

50322

50323

50324

50325

50327

<https://data.census.gov/cedsci/table?g=860XX00US50009,50021,50023,50032,50035,50038,50047,50061,50109,50111,50211,50226,50229,50261,50263,50265,50266,50309,50310,50311,50312,50313,50314,50315,50316,50317,50319,50320,50321,50322,50323,50324,50325,50327&y=2019&mode=results>

Got some json from <https://services.arcgis.com/vPD5PVLI6sfkZ5E4/arcgis/rest/services/In_Person_Testing_Locationsxl/FeatureServer/0/query>, which is called from <https://coronavirus.iowa.gov/pages/testing-locations>. Changed format to json and saved