



# PROGYM / PHOENIX, AZ NEW FACILITY

AN EXPLORATION BY BUSIHAX

# AGENDA

- Project Introduction
- Business Challenge Overview
- Data Sets
- Maps
- Recommendations
- Closing Remarks

# PROJECT INTRODUCTION

- ProGym
  - ProGym is a fictional physical fitness and training company
  - Expanding to Phoenix, AZ
  - Needs insight on best facility location(s)
- BusiHAX
  - Tucson, AZ Based Business Intelligence Firm
  - Hired to explore locations in Phoenix, AZ
  - Recommend best location for the new ProGym facility

# BUSINESS CHALLENGE OVERVIEW

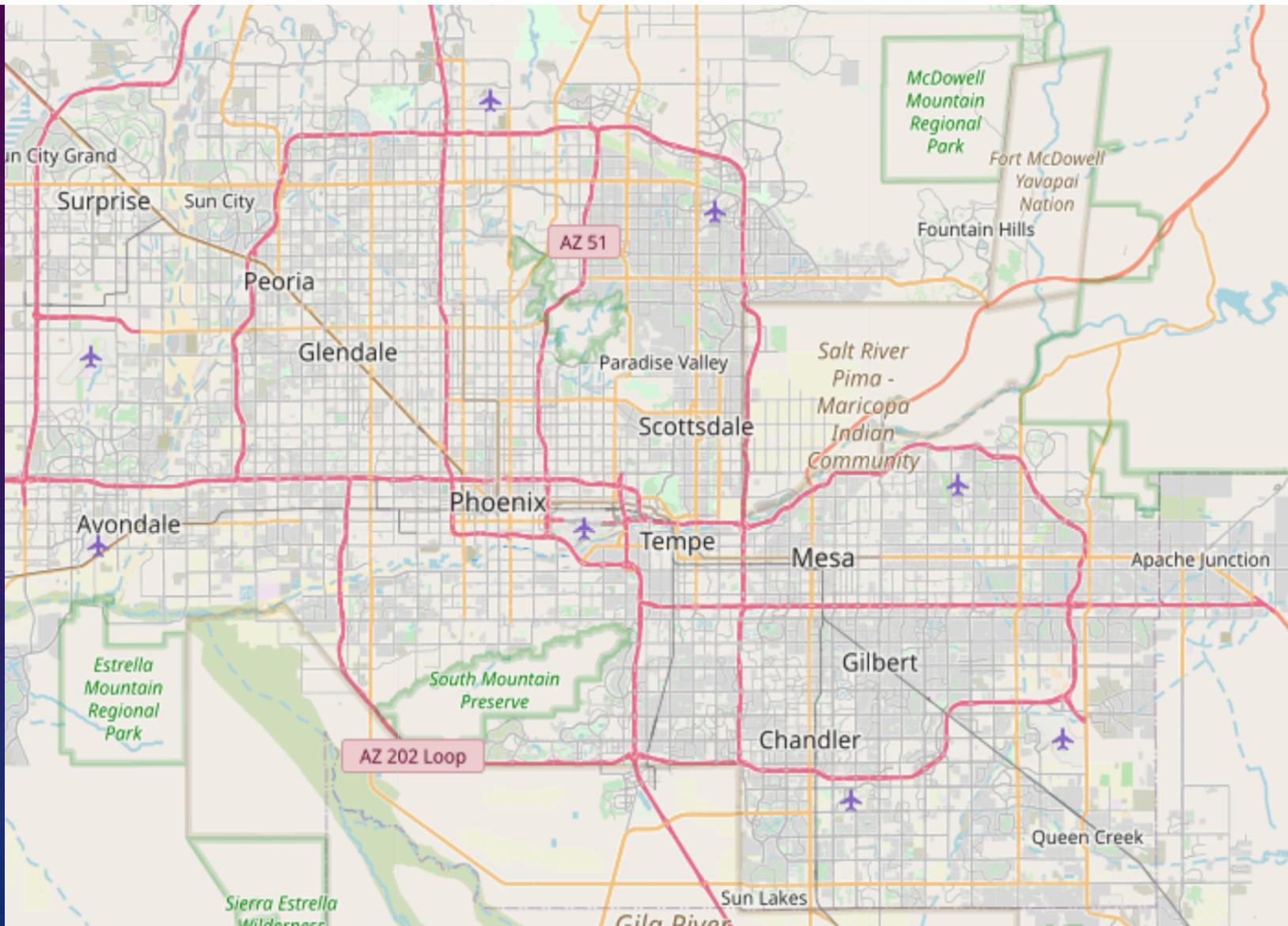
- ProGym Marketing Team has developed
  - ‘Client Profile’ - defining the target ProGym client
  - ‘Facility Profile’ – outlining the attributes of the most successful facilities
- BusiHAX will provide an analysis both profiles for Phoenix, AZ
  - Combine demographic and geographic data
  - Apply Machine Learning Algorithms
  - Find the best location for the new facility

# DATA SETS

- Venue Data
  - Major medical facilities
  - Fine dining
- Demographic Data
  - Localized mean income
  - Localized target age
  - Localized target education levels
- Geographic Data
  - US ZIP Codes + Latitude and Longitude

# MAPS

- Metro Phoenix



# MAPS

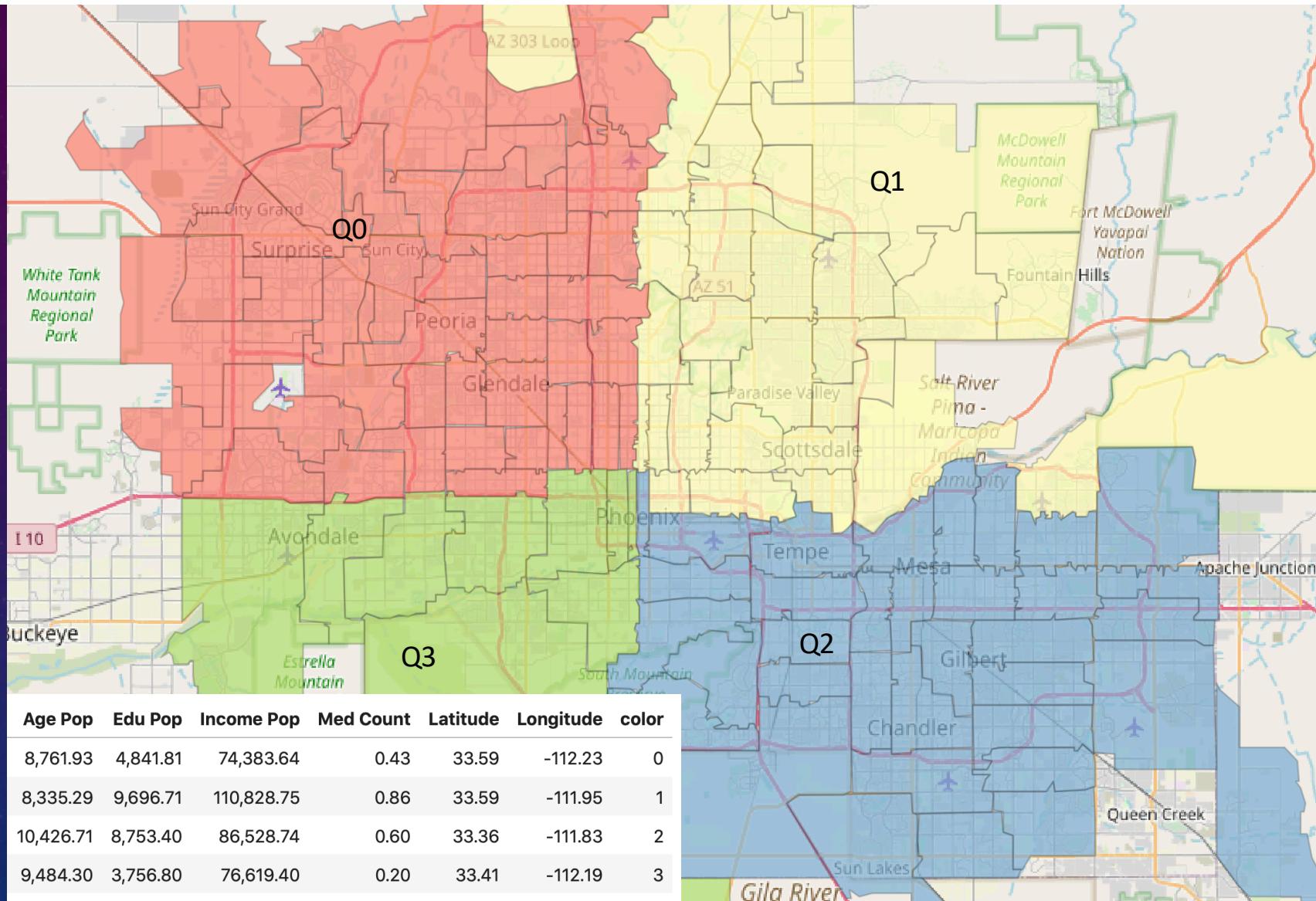
- Facilities Profile

# MAPS

- Facilities Profile

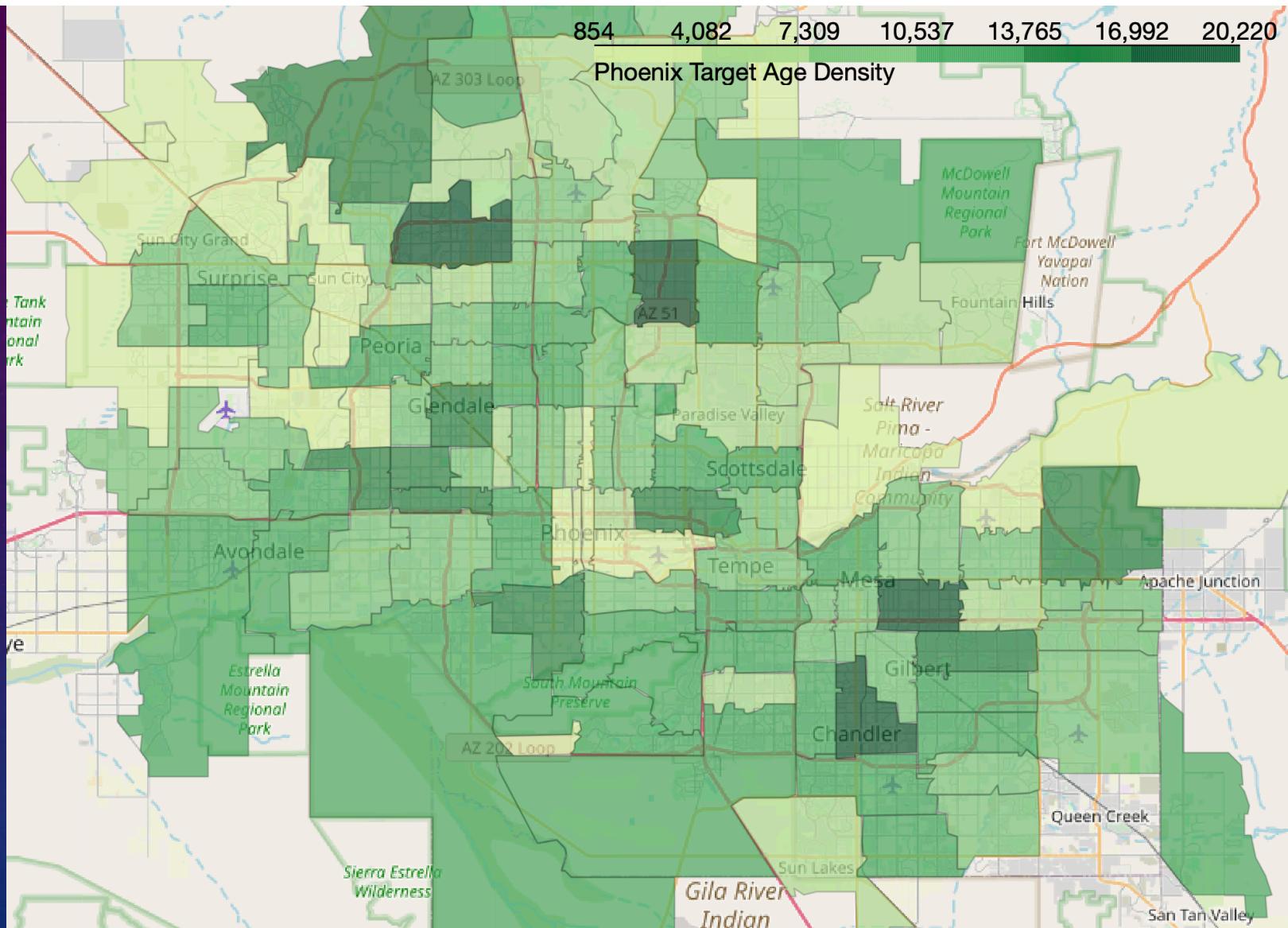
# MAPS

- Quadrants



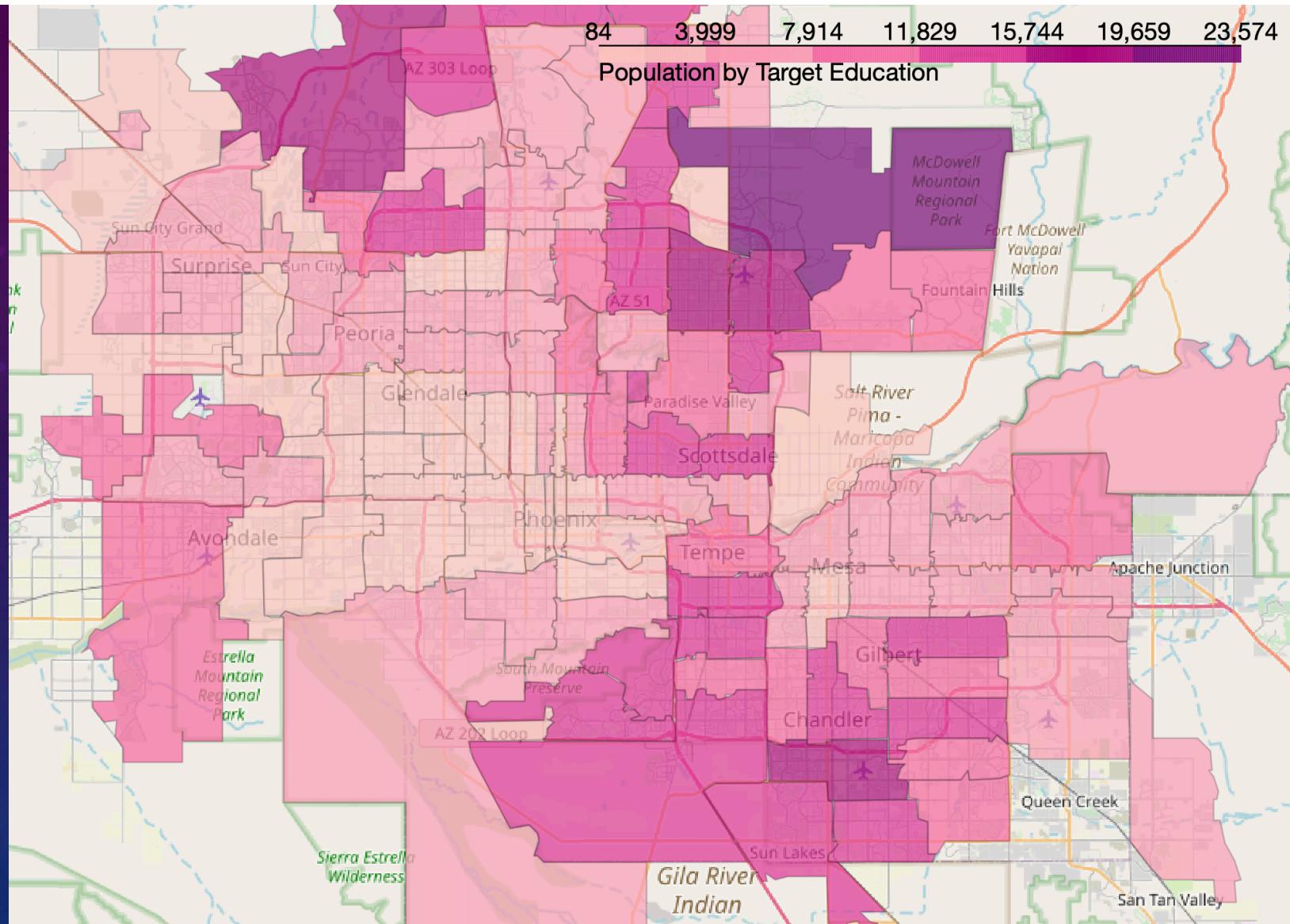
# MAPS

- Quadrants
- Target Age



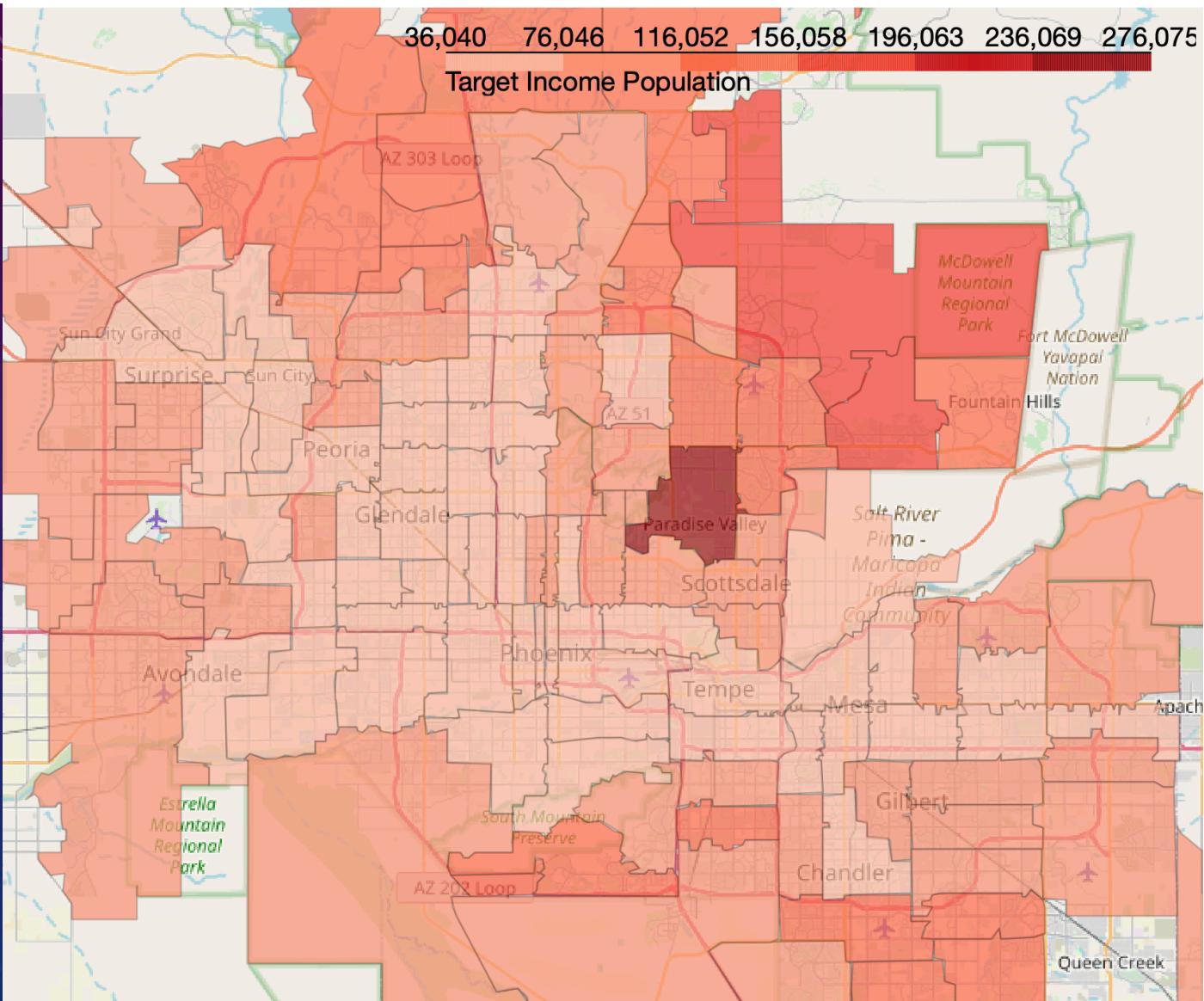
# MAPS

- Education Density



# MAPS

- Mean Income Range



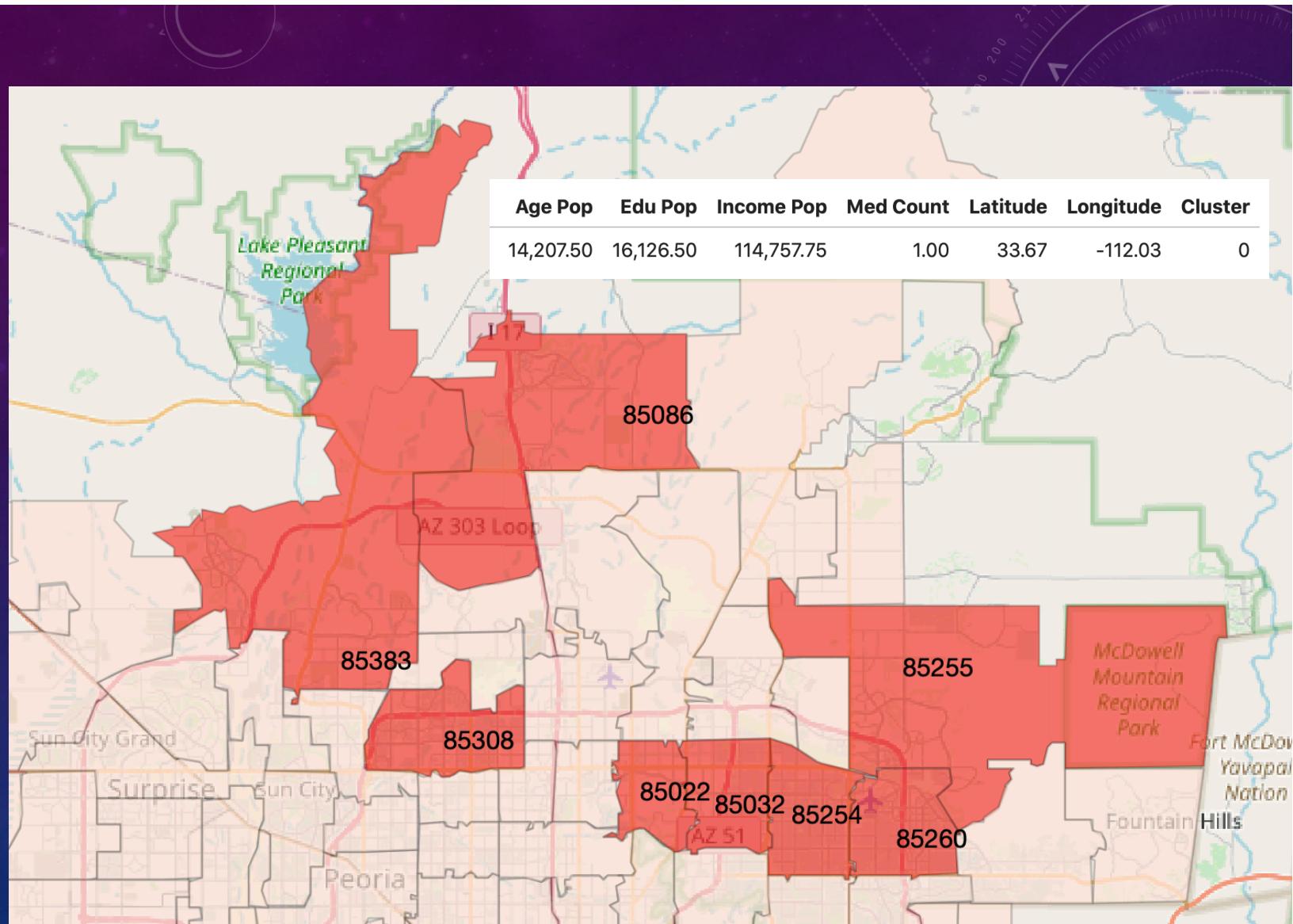
# K-MEANS CLUSTERS

- Data By Cluster

	Age Pop	Edu Pop	Income Pop	Med Count	Latitude	Longitude	Cluster
	14,207.50	16,126.50	114,757.75	1.00	33.67	-112.03	0
	3,300.80	2,649.00	70,631.45	0.55	33.56	-112.17	1
	10,702.11	6,675.78	73,116.33	3.00	33.49	-112.05	2
	10,959.17	4,711.46	66,199.29	0.09	33.51	-112.17	3
	5,794.87	8,127.33	135,393.00	0.13	33.62	-111.96	4
	11,238.50	10,354.14	95,907.50	0.50	33.35	-111.80	5

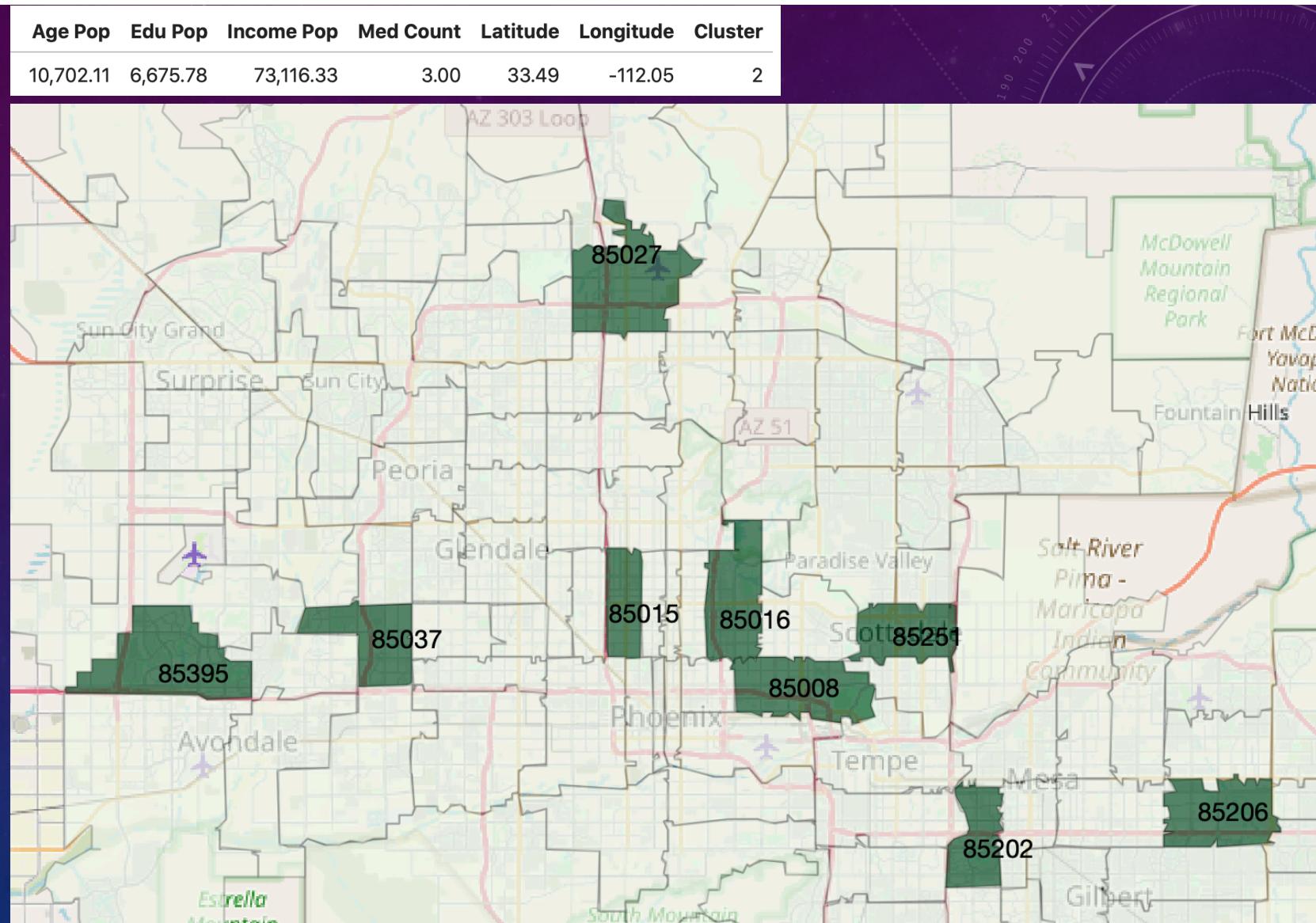
# MAPS

- K-Means Clusters
  - Cluster 0



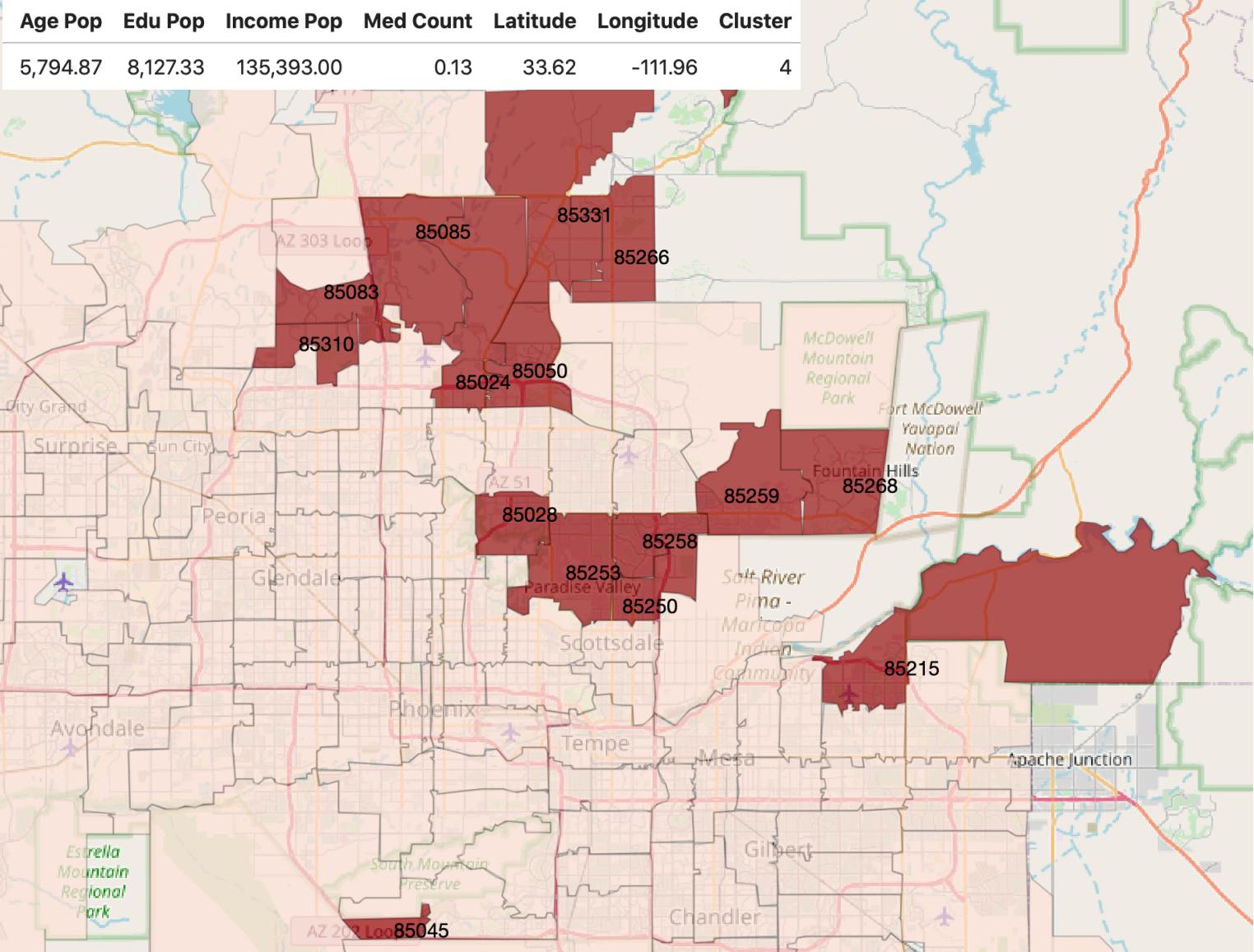
# MAPS

- K-Means Clusters
  - Cluster 2



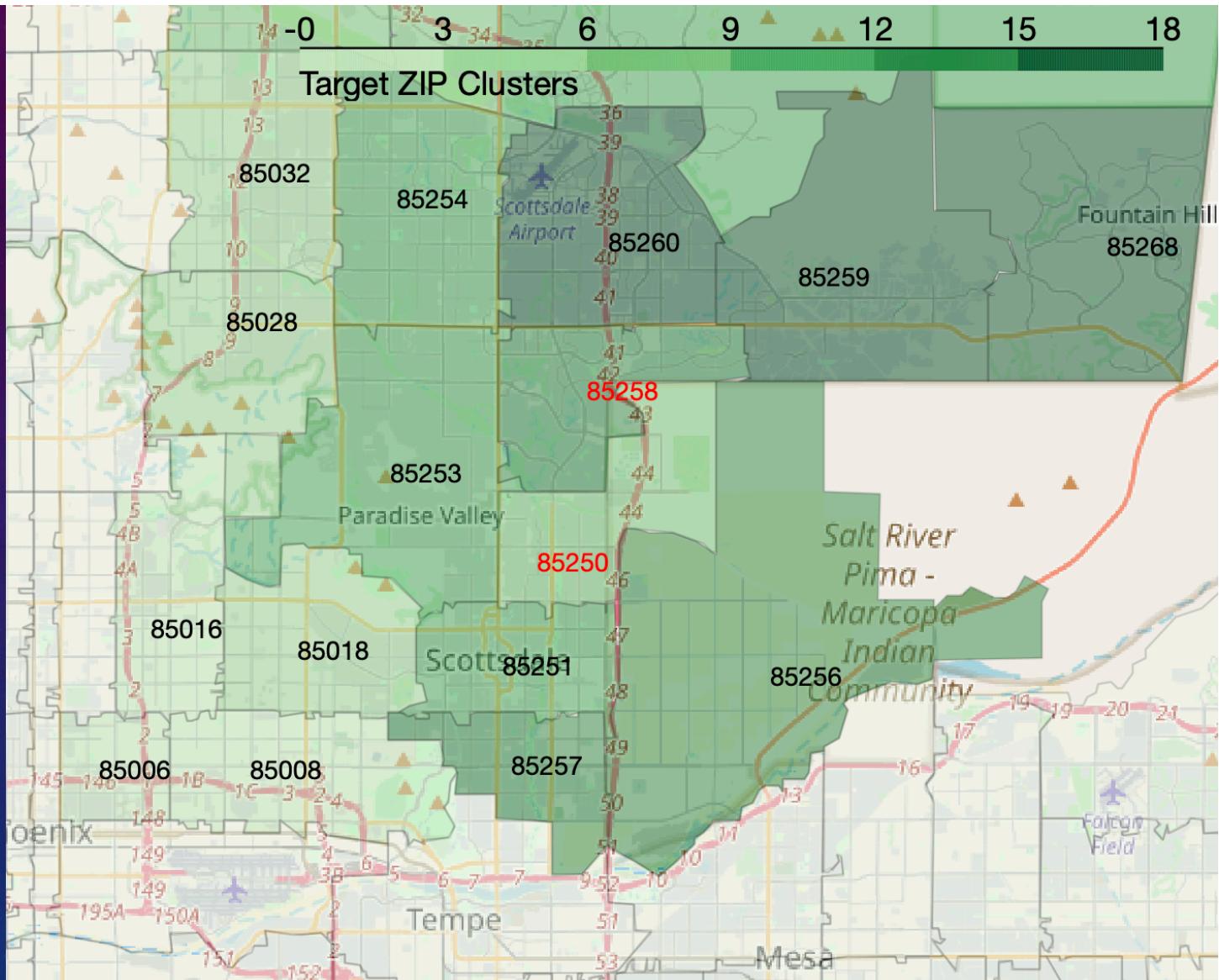
# MAPS

- K-Means Clusters
  - Cluster 4



## TARGET ZIPS

- 85250 or 85258



## TARGET ZIPS 85250 OR 85258

- Both ZIPs were grouped in Cluster 2
- 15-minute driving distance from two Cluster 1 ZIPs – 85251 and 85215
- Interstate 101 passes directly through both ZIPs
- 15 driving minutes from:
  - Mayo Clinic
  - Phoenix Children's hospital
  - HonorHealth Medical Center
  - Lincoln Medical
  - 4 of the top fine dining restaurants in the valley
- Proximity to 120,000 individuals who match the ProGym client profile.

THANK YOU!