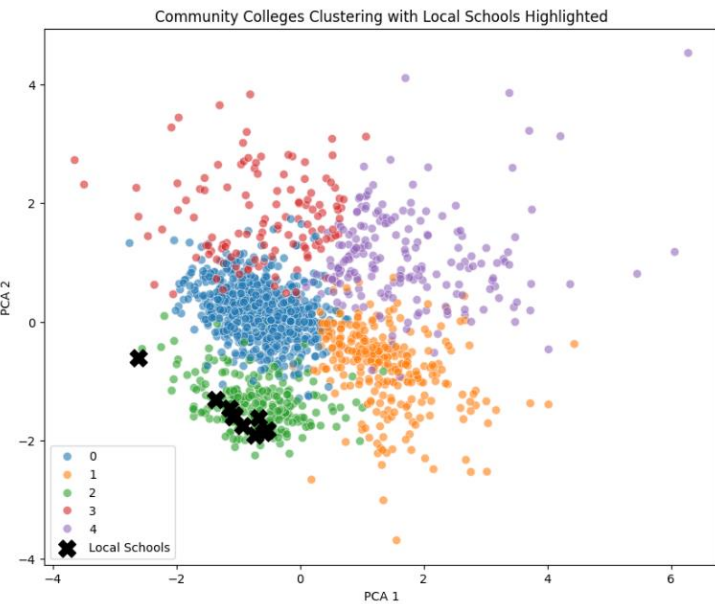


College Scorecard Assessment Summary



This summary will be utilized to understand the comparison between the Maricopa County Community Colleges and other institutions granting associate degrees across the country. In addition, a group of six institutions have been analyzed to be categorized as peer institutions by several fields such as cost, completion rate, and retention rates based on data received. The following fields were selected for having integer-based values, reliability, and commonly asked questions based on the internet.

Of those six institutions, the following are categorized as peer institutions. **Camden County College, Stone Child College, Cankdeska Cikana Community College, Northeast Texas Community College, Trinity Valley Community College, and Allan Hancock College.**

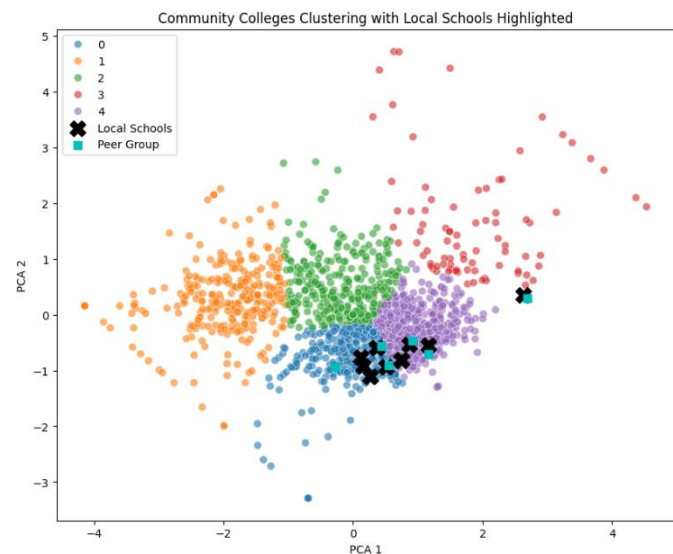
These schools were determined by using a machine learning grouping algorithm, K-means clustering, to group all the schools

based on the criteria mentioned earlier. Each dot represents a school and schools that have the shortest Euclidean distance (K-nearest neighbor) from each other are assumed to be the most similar.

MCCC	KNN	Distance
Glendale Community College	Camden County College	0.14
GateWay Community College	Stone Child College	0.16
Rio Salado College	Cankdeska Cikana Community College	0.28
Scottsdale Community College	Northeast Texas Community College	0.08
South Mountain Community College	Trinity Valley Community College	0.12
Paradise Valley Community College	Allan Hancock College	0.18

When only using completion and retention as a comparison metric, a K-means algorithm was used again and all MCCCs and peer group schools were clustered together. A cluster is created by an initial point being stated as a centroid and each point after that is measured by distance. The closer the point is to the centroid; a higher value will be presented thus grouping it to the respective cluster. In this case, the MCCCs and peer group are split between 3 clusters. 2 of those clusters, 0 and 4, are very close. This can be analyzed further by finding the optimal number of cluster groups using the elbow method.

The outlier that is seen in cluster 3 can be further analyzed by looking through the data. Based on its position, it was determined that the local school, Rio Salado College, had the lowest completion rate (C150_L4) compared to the other MCCCs and peer groups.



INSTNM	LOCALE	COSTT4_A	PFTFAC	C150_L4	RET_FTL4	clusters	PCA1	PCA2
Rio Salado College	12	10678	1	0.0465	0.3333	3	2.630176	0.354428

School	Completion Mean	Retention Mean
MCCC & Peer Group	16.97%	61.05%
Others	37.78%	61.89%

Code is available through my GitHub if interested.

<https://github.com/josefeth00/MCCC-Assessment>