**Observations:**

* Amazon Rekognition has shown the greatest ability to detect faces

**Challenges:**

* Restricted to Kairos API for ethnicity and demographic information, thus ensemble methodology is limited to face detection itself. Microsoft Azure, Amazon Rekognition, Face++, and Google Cloud have all deprecated race detection functionality.

**Ensemble Analysis between Kairos full image vs. BoundingBox detection:**

* Ensemble methods for face detection is inherent with the use of Rekognition face-positive data filtering down the image set from 9,820 to 3,195 images. Using the full image approach, 3101 total faces were detected within the image, showing that Kairos API fails to detect, in particular, exceptionally low resolution or blurry images. This is due to any prospective face being restricted to at smallest a 1:64 proportion to the image. Thus, the cropped boundingbox approach was tested from the detected faces in Rekognition with multiple\_face search set to false, and the face detection results were surprisingly lower than the full image detection.

**Age Histogram Ensemble between Rekognition, Kairos, and Face++:**

* The generated age predictions from Amazon recognition show a