

CERES DYS Project

Machine Learning Team

Our Works:

- **Data Cleaning / Merge Data**

→ Check Duplicates; Group Participants; Merge Spreadsheets; etc.

- **Data Visualization on Quant Data**

→ Visualization on Multiple Quant Data

- **Topic Modeling on Qual Data**

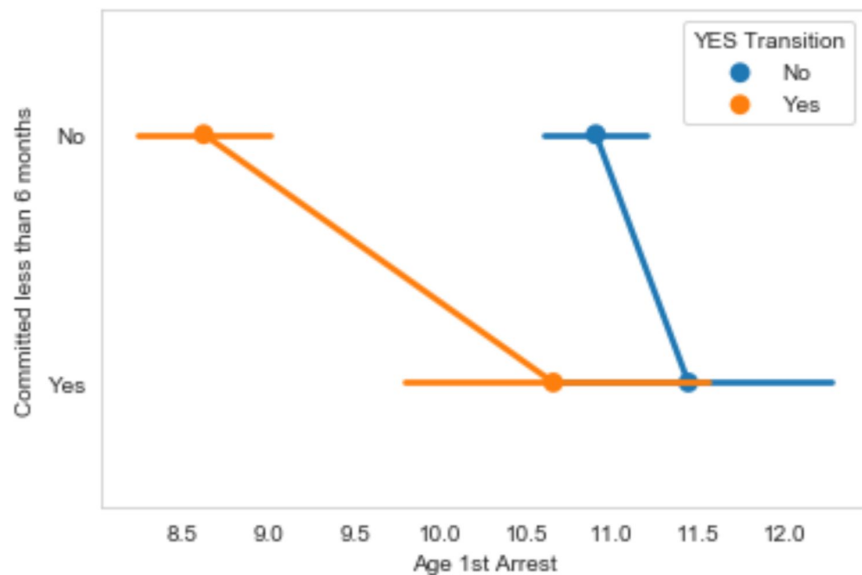
→ Using Caseworkers' Notes to do Topic Modeling

***Notes: All of our codes/procedures can be accessed through GitHub website:

<https://github.com/BU-Spark/CERES-DYS-Youth-Recidivism-NLP-Study.git>

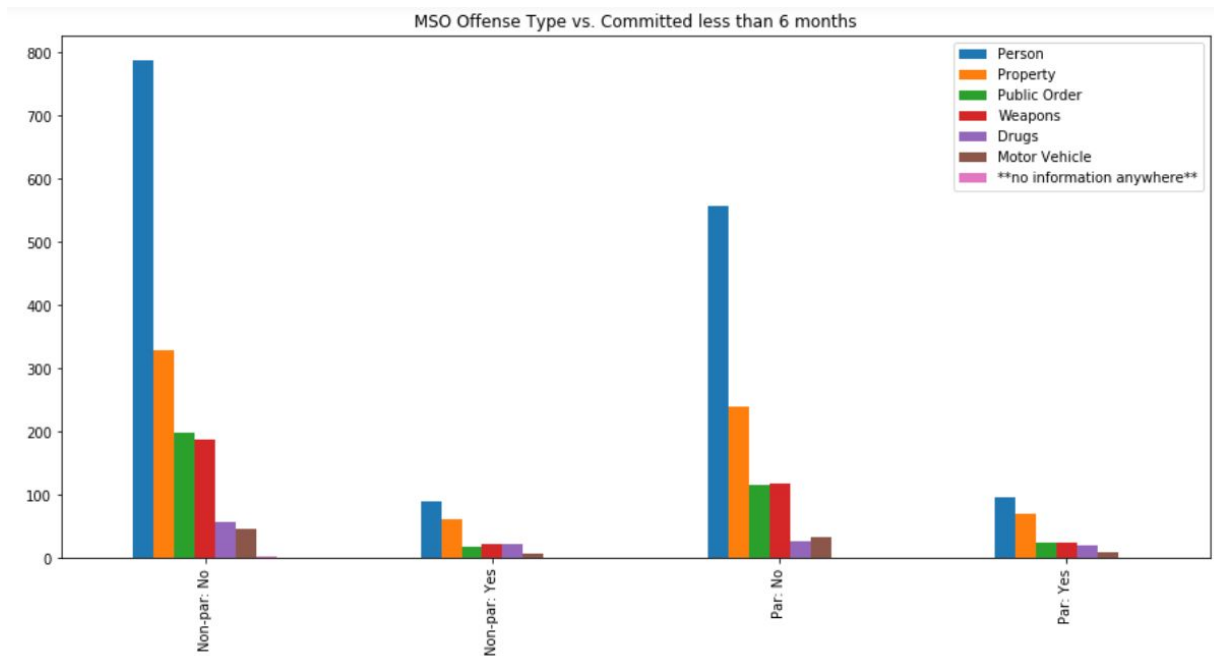
Quant Data Visualization

- Age 1st Arrest:



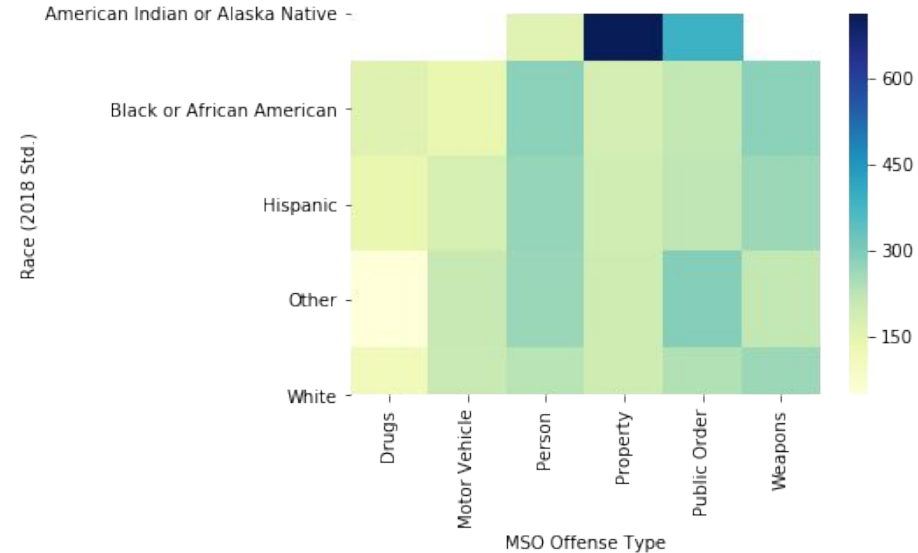
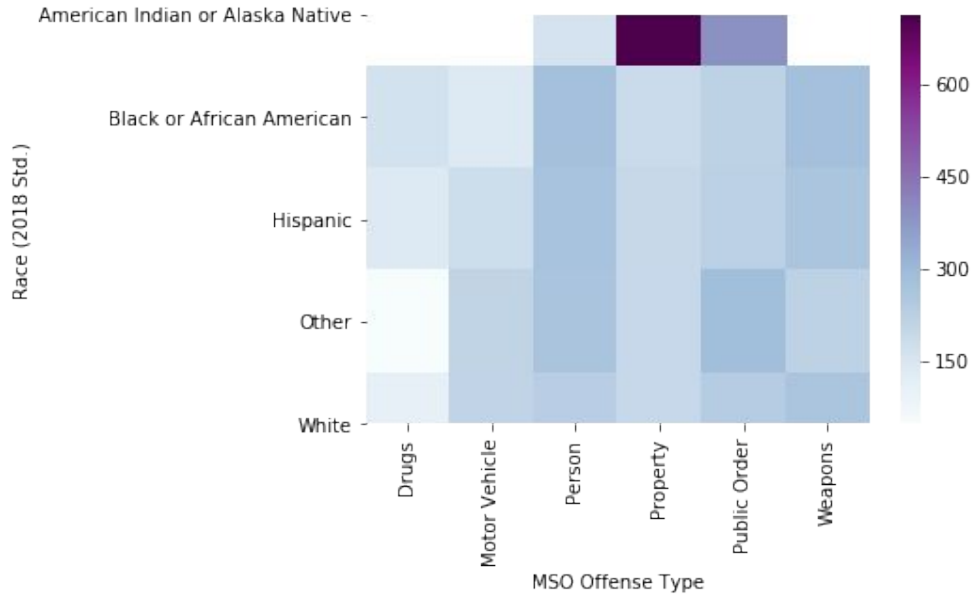
Quant Data Visualization

- MSO Offense Type

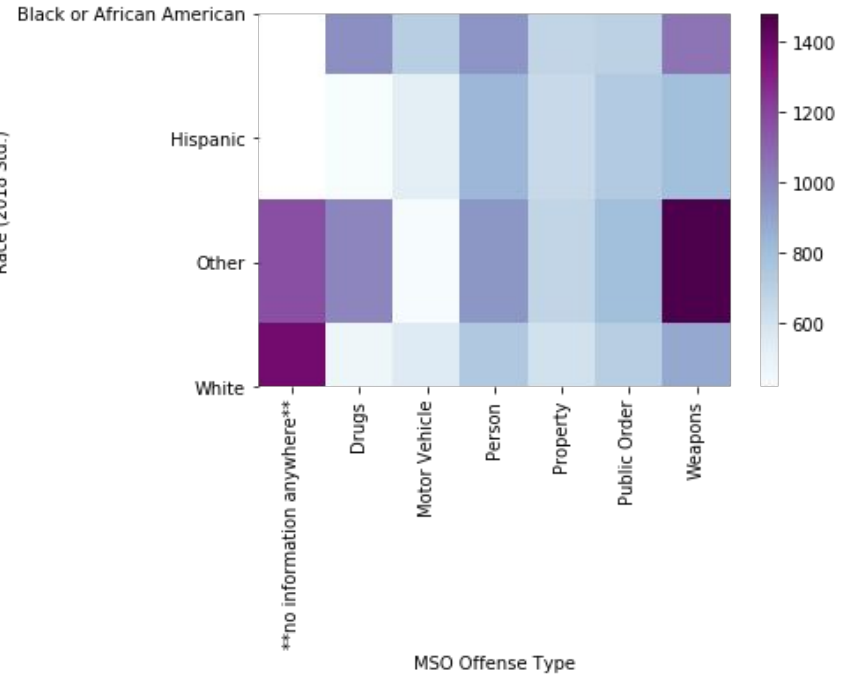
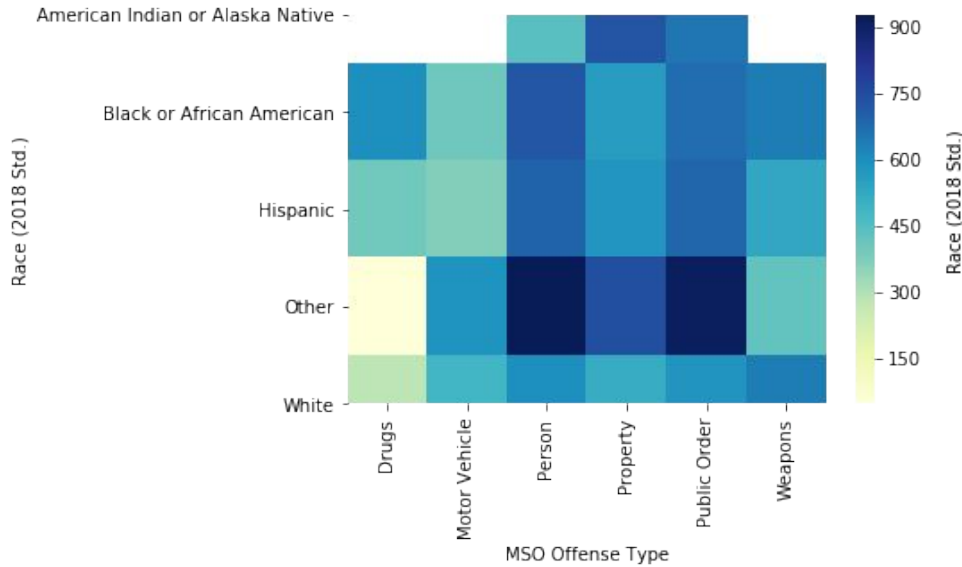


Quant Data Visualization

• Heatmap

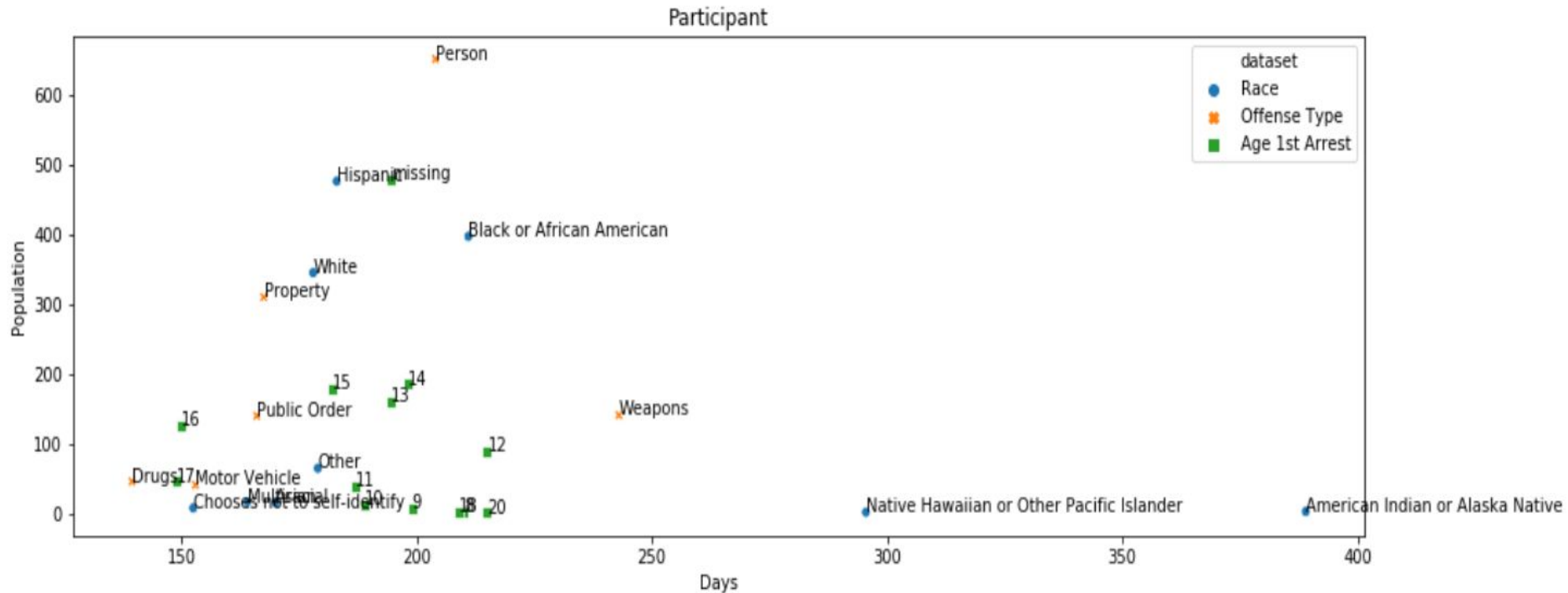


Quant Data Visualization



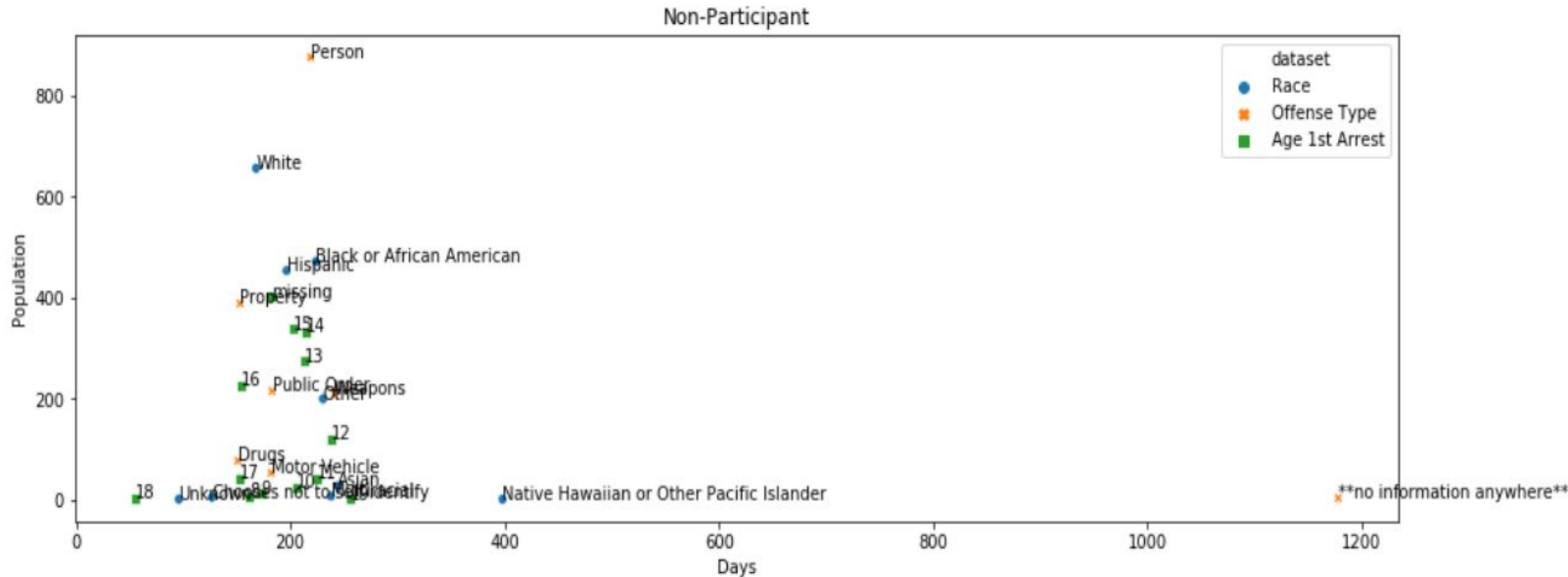
Quant Data Visualization

- Participant:



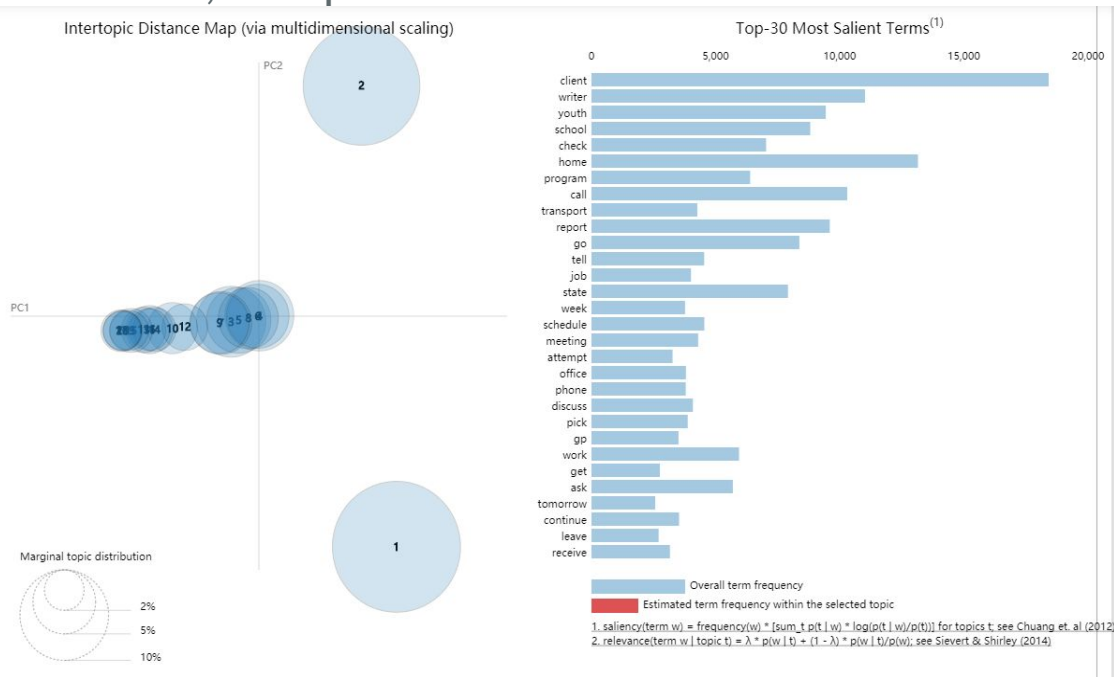
Quant Data Visualization

- Non-participant



Topic Modeling: Qual Data

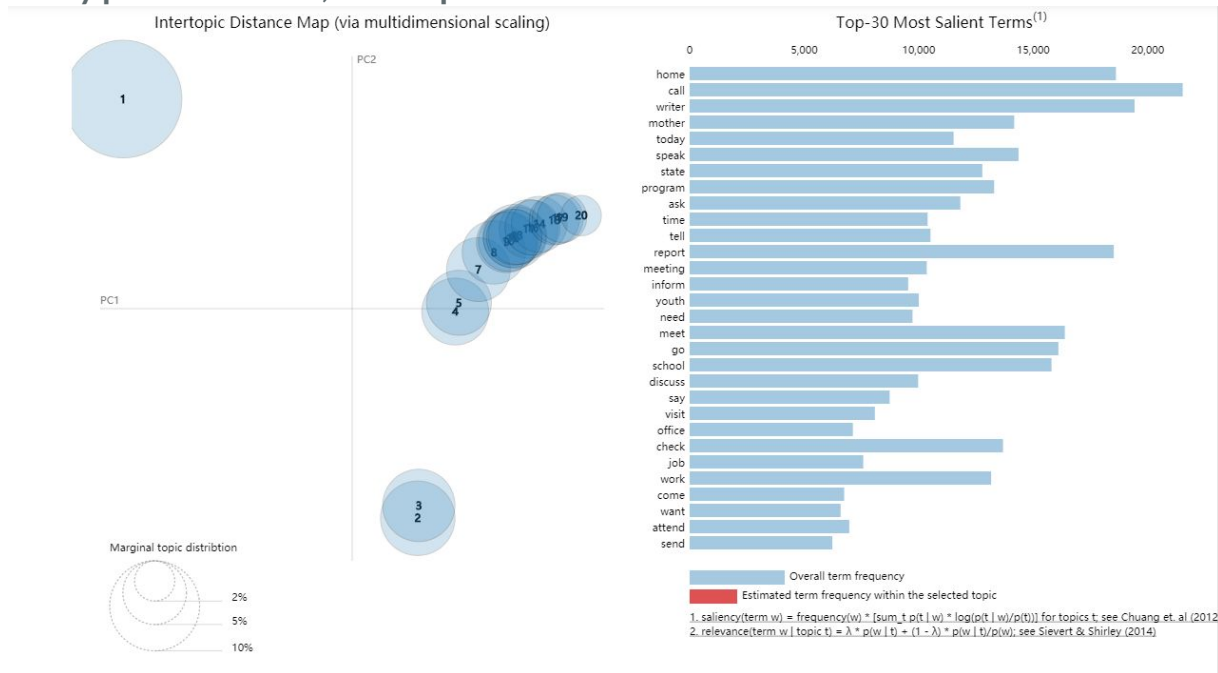
- Race: Black, Hispanic, White
- Offense type: Person, Weapon



Non-participant: Black

Topic Modeling: Qual Data

- Race: Black, Hispanic, White
- Offense type: Person, Weapon



Participant: Black