**An In-Depth Analysis with Visual Representation of the Criminal Justice Systems throughout the United States**

Capstone Weekly Status Report

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<https://github.com/nat642/CS475.git>

**REPORT WEEK 13(MAY 17-MAY 20)**

A) Weekly Accomplishments

* Natalie assisted the team in creating the final presentation.
* Alex completed the dashboard and graphs along with recording the demo for the final presentation.
* Juan Pablo assisted creating and presenting the final presentation

B) Problems/Issues

C) Next Week’s Planned Work

N/A

D) Time Log

* Hani: 3 hours
* Blank: 5 hours
* Chacon 1.5 hours

Total Weekly Team Hours:

**REPORT WEEK 12(MAY 9-MAY 17)**

1. **Weekly Accomplisments**

* Natalie assisted in completing the literature review. Also, began working on the final presentation and coordinating with the team to assign tasks for the final presentation.
* Thompson helped complete the literature review and began working on the presentation while also discussing with the team about how to divide the final presentation work.
* Jonathan is assisting in the creation of the interactive graph displays for the website and final project along with working on the demo with Alex.
* Juan Pablo is working on the final presentation and trying to finish some additional dashbaord features.
* Alex is working with John on finishing up the dashboard and demo.

1. **Next Week’s Planned Work**

* Create the final presentation, demo, and finalizing finishes on the project.
* Prepare for final presentation and demo.
* Complete the final and troubleshoot any issues.

1. **Problems/Issues**
2. **Time Log**

* Hani: 2 hours
* Thompson: 2 hours
* Jonathan: 2 hours
* Chacon: 2 hours
* Alex: 2 hours

Total Weekly Team Hours: 10

**REPORT WEEK 11(MAY 2-MAY 9)**

1. **Weekly Accomplishments**

* Natalie proofread the literature review to make sure grammar and spelling errors were fixed as well as adding any additional sources.
* Juan Pablo is working on some additional dashboard features to enhance user experience.
* Jonathan, with assistance from Alex the previous week, has developed graphs using html in order to put on the website for the final project.
* Alex also worked on the html (website) layout that will contain all the interactive graphs and plots
* Lauren read over the literature review and assisted in forming a graph

1. **Problems/Issues**
2. **Next Weeks Planned Work**

* Finish formatting the html websites and graphs for the dashboard
* Formatting the literature review to make sure sources are cited properly.
* Continue to format the website in order to place the graphs and plots.

1. **Remaining Work**

* Development of the interactive dashboard (about 80% complete)
  + Finish and polish all the graphs made in d3.js
  + Rearrange the html layout to hold multiple graphs
* Rough draft and revised final draft of research paper

1. **Time Log**

* Hani: 2 hours
* Chacon 2 hours
* Jonathan: 3
* Blank: 2 hours
* Thompson: 1 hour

Total Weekly Team Hours: 10 hours

**Total Weekly Hours:**

**REPORT WEEK 10 (APRIL 27- MAY 2)**

1. **Weekly Accomplishments**

* Natalie proofread the literature review to make sure grammar and spelling errors were fixed as well as adding any additional sources.
* Juan Pablo proofread the annotated bibliography and is brushing up on the documentation to help out with the user dashboard.
* Lauren reviewed the literature paper and formatted sources.
* Jonathan and Alex worked on created interactive plot graphs to show the increase in population sizes within correction facilities, as well as crime rates, in order to put them onto our website for the final project
* Alex also worked on the html (website) layout that will contain all the interactive graphs and plots

1. **Problems/Issues**
2. **Next Week’s Planned Work**

* Adding any new sources to the literature review.
* Formatting the literature review to make sure sources are cited properly.
* Continue to format the website in order to place the graphs and plots.

1. **Time Log**

* Hani: 1 hour
* Chacon 2 hours
* Thompson: 1 hour
* Jonathan: 1 hour
* Blank: 2 hours

Total Team Weekly Hours: 7

Total Team Weekly Hours:

**REPORT WEEK 9 (APRIL 19-APRIL 26)**

1. Weekly Accomplishments

* Natalie completed working on the literature review and analyzing sources to give readers and overview of the subjects in our research project.
* Juan Pablo finished the template for the map of the U.S. on d3.js.
* Lauren found another source highlighting how computer science is used to analyze experiments related to the prison systems.
* Jonathan and Alex were able to make the beginning of the user interface for the upcoming project. This interface shows the graphical representation that we believe are needed to present to the audience in order to ensure they understand the topic being discussed.

1. Problems/Issues
2. Next Week’s Planned Work

* Proofread and adjust the literature review if necessary.
* Add the new source to the literature review.
* Converting the Python code Jonathan used to HTML/dj3 in order to present more accurate information. If this is not done, we are unable to represent the data that we have onto the dashboard.

1. Time Log

* Hani: 4 hours
* Chacon: 2 hours
* Jonathan: 2 hours
* Thompson: 2 hours
* Blank: 2 hours

Total Weekly Team Hours: 12 hours

**REPORT WEEK 8 (APRIL 12-APRIL 18)**

1. Weekly Accomplishments

* Natalie began a rough draft of our literature review. This included combining the research we have gathered from the annotated bibliographies.
* Lauren continued to read through articles and make connections within them
* Juan Pablo is still working on creating a template for the map of the U.S. on d3.js
* Alex has been working on the wireframe diagram and is awaiting data from Johnathan in order to continue

1. Problems/Issues

Finding a way to connect various topics covered in articles has proven to be challenging.

Making sure the articles provide consistent results and finding reason if the results vary.

Experiencing some bugs with d3.js commands that are not functioning properly outside of the html page.

1. Next Week’s Planned Work

* Finish the first draft of the literature review or make as much progress as possible. This task is a must because it needs to be completed soon in order to have time to adjust the literature review for the final product.
* Finish generating a wireframe diagram of the data visualization UI.

1. Time Log

* Hani: 3 hours
* Thompson: 2 hours
* Chacon : 2 hours
* Alex: 2 hours
* Wallace: 2 hours

Total Weekly Team Hours: 11

**REPORT WEEK 7 (APRIL 6-APRIL 11)**

1. Weekly Accomplishments

* Natalie began a rough draft of our literature review. This included combining the research we have gathered from the annotated bibliographies.
* Jonathan: Throughout this week, I have been able to use data.gov databases to determine the size of correctional institutions population sizes and their increasing size throughout the 20th century.
* Lauren continued to read through sources and connecting them to previous sources analyzed
* Juan Pablo: Finish consolidating the remaining data tables for the remaining years.
* Alex: Continue exploring the types of data we will be using for our dashboard using d3.js, exploring the code I will be using for various data and graphs.

1. Problems/Issues

* In some of the sources used in the annotated bibliographies, there is information that conflicts each other so it requires further research to see what information is more accurate.
* Jonathan: The main issue I am currently encountering is the combination of multiple datasets Data.gov provides multiple datasets, that relate to different years or portions of the United States. This causes errors such as data type and continuity errors.

1. Next Week’s Planned Work

* Finish the first draft of the literature review or make as much progress as possible. This task is a must because it needs to be completed soon in order to have time to adjust the literature review for the final product.
* Jonathan: The goal for this upcoming week is to finish data analysis of the data.gov and possible the CDC data that I have gathered in the past few days. This task must be completed NLT Wednesday due to my five-day field training for ROTC.
* Begin setting up visual map of U.S. to display information from analysis in D3.js.

1. Time Log

* Hani: 2 hours
* Jonathan: 2 hours
* Thompson: 2 hours
* Chacon: 2 hours
* Blank: 2 hours

Total Weekly Team Hours: 10 hours

**REPORT WEEK 6 (MARCH 30- April 5)**

1. Weekly Accomplishments

* All team members worked on the midterm presentation
* Created a PowerPoint and demonstration video to share our senior project findings and explain the dashboard we are working on creating
* Alex coded a short file using d3.js to make a line graph demonstrating crimes happening throughout the U.S. using data given by John

1. Problems/ Issues
2. Uploading the demo video to Github
3. Next Week’s Planned Work

* Continue reading through articles to further develop the literature review
* Further develop our literature review
* Complete the data merging of the data sets for the remaining years

1. Time Log

Hani: 2 hours

Wallace: 2 hours

Chacon: 2 hours

Thompson: 2 hours

Blank: 4 hours

Total Weekly Team Hours: 12 Hours

**REPORT WEEK 5 (MARCH 22- MARCH 29)**

1. Weekly Accomplishments

* Jonathan: Moved towards analyzing data regarding crime rates in New York City and nationwide. When regarding the statewide crime, there were similarities between violent crime and the weapons used to commit it.
* Juan Pablo worked on a base format (.csv file), that will be processed in D3.js, that will consolidate the data of states and territories for each year.
* Natalie focused on reading the articles from the preliminary lit review and wrote an annotated bibliography for the article “Mass Incarceration: The Whole Pie 2020.” In addition, I went through previously written annotated bibliographies to proofread and adjust accordingly.
* Lauren read through two articles: “Jails, prisons, and the health of urban populations: A review of the impact of the correctional system on community health” for the literature review and has started to analyze how the sources relates to others read.
* Alex has installed necessary components of d3.js to GitHub in order to start setting up the dashboard for the datasets.

1. Problems/ Issues
2. Deciding on how to handle the states with a few missing statistics, or in a couple instances missing many categories.
3. Combining multiple datasets and fixing bugs is my primary issue. I am currently trying to do linear regression with the dataset that I currently have, but there are errors that prevent me from doing so.
4. Installed the d3.js components, but have yet to test to see if this is working, not that it’s an issue, but it could be if it doesn’t work as intended.
5. Next Week’s Planned Work

* Finish consolidating the data tables for the remaining years.
* Continue reading through articles for the literature review while analyzing how the articles relate to one another as well as the project datasets.
* Continue writing annotated bibliographies for the found resources and incorporating them into a paper to give an understanding of the overview of our research project.
* To successfully analyze the nation-wide dataset based on crime activity from 1969-2016. This dataset may allow us to provide a perspective that will allow us to identify key factors of crime and why our prison population is so high.
* Discuss how the dashboard is setup and start working on the coding for the dashboard

1. Time Log

Hani: 3 hours

Wallace: 2 hours

Chacon: 2 hours

Thompson: 2 hours

Blank: 1 hour

Total Weekly Team Hours: 10 Hours

**REPORT WEEK 4 (MARCH 15- MARCH 21)**

1. Weekly Accomplishments

* Jonathan: Moved towards analyzing data regarding crime rates in New York City and nationwide. When regarding the statewide crime, there were similarities between violent crime and the weapons used to commit it.
* Juan Pablo created base template for data visualization with D3.js, representing general numbers from each state.
* Natalie focused on reading the articles from the preliminary lit review, and wrote an annotated bibliography for the article “Mass Incarceration: The Whole Pie 2020.”
* Lauren read through two articles: “Inmate Society in the Era of Mass Incarceration” and “Human Cattle: Prison Overpopulation and the Political Economy of Mass Incarceration” for the literature review and has started to analyze how these two sources relate to each other.
* Alex is helping setting up the dashboard with D3.js through GitHub, still studying a looking over example code of how this would be set up in GitHub

1. Problems/ Issues
2. Handling the different number of data sets (.csv files) and representing them with D3.js.
3. Combining multiple datasets and fixing bugs is my primary issue. I am currently trying to do linear regression with the dataset that I currently have, but there are errors that prevent me from doing so.
4. Since GitHub is not a platform I use often, Alex is still trying to figure out the coding using GitHub D3.js and will coordinating with teammates on what the dashboard will look like.
5. Next Week’s Planned Work

* Consolidate data sets into one.csv as well as include data from U.S. territorial areas into the consolidated data sets.
* Continue reading through articles for the literature review while analyzing how the articles relate to one another as well as the project datasets.
* Continue writing annotated bibliographies for the found resources and incorporating them into a paper to give an understanding of the overview of our research project.
* To successfully analyze the nation-wide dataset based on crime activity from 1969-2016. This dataset may allow us to provide a perspective that will allow us to identify key factors of crime and why our prison population is so high.
* Implement code for D3.js onto GitHub for the dashboard.

1. Time Log

Hani: 3 hours

Wallace: 2 hours

Chacon: 4 hours

Thompson: 3 hours

Blank: 2 hours

Total Weekly Team Hours: 14 Hours

**REPORT WEEK 3 (MARCH 8- MARCH 14)**

1. Weekly Accomplishments
2. Jonathan has downloaded a visualizations software, GeoDa. This software has allowed the visualization of the data and allowed it to display its relationships.
3. Juan Pablo: Began implementing datasets into D3.js
4. Natalie began analyzing sources for the literature review, beginning with research on the effects of overcrowding.
5. Lauren began to organize materials for the literature review by preforming a general overview and providing a rough annotated bibliography for six of the articles.
6. Alex started studying D3.js, as he is not entirely familiar with GitHub and JavaScript programs.
7. We worked on gaining knowledge on how the software is used, the abilities it has, and getting a basic understanding of how we can use this software to create a dashboard to display our data.
8. Problems/ Issues
9. Jonathan: GeoDa is a visualization software that allows users to plot, analyze, and interpret data in a way that allows users to easily understand it. The issue that is arising from it is the search for suitable shapefiles. Most shape files that are created do not use a standard identification column. I have been able to find two types of shapefiles that do work luckily, but now the issue is combining the data per county/state with the shapefiles data as well. Currently attempting to combine them through the excel sheets and csv files.
10. Next Week’s Planned Work
11. Jonathan: Combining the data from the csv and excel datasets with the shapefiles and their identification columns.
12. Reformat the data documents that will be used by D3.js.
13. Continue analyzing sources from the preliminary lit review for the literature review.
14. Start thoroughly reading articles in preparation for lit review.
15. Help set up the dashboard using D3.js.
16. Time Log
17. Hani: 2 hours
18. Jonathan: 4 hours
19. Juan Pablo: 3 hours
20. Thompson: 3 hours
21. Alex: 1 hour
22. Total Weekly Team Hours: 13 Hours

**REPORT WEEK 2 (MARCH 1- MARCH 7)**

1. Weekly Accomplishments
2. Natalie met with the group via Zoom to discuss goals, revise the proposal, set a plan for responsibilities, as well as set up a GitHub repository.
3. Jonathan: Found basic relations between prisons located throughout the country and their prisoners. This data is informational but needs more attention when analyzing.
4. Juan Pablo: Reformatting and cleaning up data tables. Began practicing with D3.js to experiment with different representations for the data.
5. Alex Blank: Worked alongside Juan and John to clean data tables, attempted to clean my own data that provided last week.
6. Lauren met with the group via Zoom to discuss goals, revise the proposal and summary sheet, and set a plan for responsibilities. Lauren also researched new tools for the team to explore for creating a dashboard.
7. Problems/ Issues
8. Natalie did not face any problems or issues this week.
9. Jonathan: Geopandas and the importing of shape files are creating error messages regarding the new update. Currently attempting to resolve this issue.
10. Juan Pablo: Still learning and familiarizing myself with the library.
11. Alex Blank: The data I provided last week was missing and the data that was provided was too messy to be used.
12. Lauren: The tools listed previously were not appropriate for displaying our dashboard.
13. Next Week’s Planned Work
14. Natalie will begin the lit review by analyzing sources and beginning the introduction of our research project.
15. Jonathan: To resolve the issue regarding Geopandas and begin executing more in-depth calculations.
16. Juan Pablo: Implement all current data sets using the D3.js library.
17. Alex Blank: Help Juan and Jon with implementing data, should be a good idea to start familiarizing myself with D3.js.
18. Lauren will begin the lit review and discover new sources for our research project.
19. Time Log
20. Hani: 2 hours
21. Jonathan: 4 hours
22. Juan Pablo: 2 hours
23. Alex Blank: 2 hours
24. Thompson: 2 hours
25. Total Weekly Team Hours: 12 hours

**REPORT WEEK 1 (FEB 22- FEB 28)**

1. Weekly Accomplishments
   1. Natalie completed the Project Proposal and Project Description portion of the project proposal assignment. In addition, cooperated with the team to organize a schedule and find a new topic for the research project to complete.
   2. Lauren: completed the Resource Requirements portion of the project proposal assignment. Actively communicating with the team through group chat and meetings about ideas and plans of action.
   3. Jonathan: Created three large datasets from Data.gov
   4. Alex: Located possible datasets regarding crimes specified by state and year, the files contain specific crime data that includes every state in 2019.
   5. Juan Pablo: Help Alex find data sets relating to incarceration rates and other prison inmate demographic details.
2. Problems/Issues
   1. Natalie struggled with brainstorming potential research project ideas that would be sufficient enough to complete a research project on.
   2. Lauren: struggled with maintaining the scope of the project until meeting with professor took place.
   3. Jonathan: Struggling to clean and process data for the upcoming data analysis.
   4. Alex: The data found itself is messy, some of the information goes by an ID, which it makes it difficult to decipher.
   5. Juan Pablo: Not much difficulty finding sources for datasets or for literature review.
3. Next week’s planned work
   1. Natalie will set up a repository for the team to share resources and keep up to date with the project.
   2. Lauren: will continue to provide support to team mates as well as begin review the articles for the Preliminary Literature Review
   3. Jonathan: Finish cleaning the data and execute it.
   4. Alex: Start to process the data in R and run datamining.
   5. Juan Pablo: Begin cleanup of data tables.
4. Time log

Total Number of Hours worked on project this week per team member:

Hani: 2 hours;

Thompson: ~ 2 hours;

Jonathan: ~1.5;

Alex: ~1 hour;

Juan Pablo: ~2. Total Weekly

Team Effort: ~6.5 hours