**Understanding The Connection Between Foster Care and Juvenile Incarceration Rates in America**

**Executive Summary**

The purpose of this project is to analyze is the link between the number of children in the foster care system and children in juvenile detention based on age. The object of this discussion is to do an in-depth discovery on the American foster care system and evaluate how much of an impact it has on its children and adolescents. In the United States there are many topics of conversation but never the conversation of its youth and especially the ones that are disenfranchised, impoverished, or orphaned. This project aims to tackle the heart of the conversation and get to the meat of why there is a foster care to prison pipeline in our country. In our research and data analysis, we will take raw data and statistics through research, and develop our hypothesis, use data wrangling and visualization to clean and prep our datasets for analysis, and create Chi squares to calculate the dependent and independent variables of our datasets. The software that will be used to develop and answer the questions posed are as follows: Python, R Studio, Github/GitKracken, Trello, zoom (for group meetings), slack (to enable and ensure proper communication between group members), Tableau (for visualization for easier analysis of data), Microsoft Office (for documentation and presentation preparation), Jupyter Notebook, and GPower. The end result of this project and to come to educated conclusions on the questions we have and maybe give others a better look into the foster care system and leave them with ideas on how they can learn more and possibly create open conversations with their peers or group on the subject as a whole.

**Business Objectives**

We plan to answer two pertinent questions on the foster care to prison pipeline.

1. How is the juvenile incarceration rate influenced by the foster care system?
2. Does the number of children being adopted out of the system change juvenile incarceration rates in any way?

Our objective is to ensure that the information we provide is as relevant and factual as possible with out giving our audience overwhelming amount of information that will lead them to have any insecurities on where they stand on the information that has been provided. We plan to use all necessary software, information, and datasets at our disposal to form a clear and valuable understanding what we will present at the end of the project.

**Background**

In the United States the foster care system is a vital part of society in that it provides temporary long-term care for children whose biological parents are unable to care for them in various capacities; from extreme financial hardships all the way to parents being incarcerated themselves. The foster care system is governed by the United States Department of Health & Human Services and any person who wants to foster children are required to undergo proper training and meet certain criteria to foster a child. The foster care system does have drawbacks however, and one of those drawbacks are the foster care to prison pipeline. According to research in 2018 there were approximately 437,000 children in America’s foster care system and each of them faced a much risk of becoming apart of the criminal justice system within 2 years of leaving foster care. If or when a child does become involved in the criminal justice system, it can greatly impact how they are viewed by their caregivers, homes they are placed in, and can easily lead to them becoming labeled as problem children. In a lot of cases there are no real discussions on the psychological and medical cases that have lead to these children feeling the need to resort to criminal behaviors which lead to their fall into the prison pipeline. According the voice for adoption a study was done in 12 states with 6000 inmate volunteers. The result of those studies showed that 1/4th of the inmates in the study has spent some time in foster care. Sean Hughes who conducted a study discusses in the article that focused on a 2014-2015 study that included 400,000 individuals who were under the ages of 24 that had been arrested of those 400,000 people the following was discovered.

* 10% of this population had experienced foster care.
  + - These children were 2.6x more likely to be involved with the criminal justice system.
* 43.4% had child protective services involved in their life at some point.
* 24.5% were subjected to un-substantiated allegations.
  + - These children were 2x more likely to be involved with the criminal justice system.
* 9.6% were subjected to substantiated allegations but were not placed in foster care.
  + - These children were 2.3x more likely to be involved in the criminal justice system.

*Sources:*

*What is the foster care-to-prison pipeline?* Juvenile Law Center. (n.d.). Retrieved December 19, 2021, from [https://jlc.org/news/what-foster-care-prison-pipeline](https://jlc.org/news/what-foster-care-prison-pipeline%20)

Voice for Adoption. (2020, October 17). *Foster Care & Prison: Connecting the right dots*. Voice for Adoption. Retrieved December 19, 2021, from [https://voice-for-adoption.org/news/foster-care-and-prison-connecting-the-dots](https://voice-for-adoption.org/news/foster-care-and-prison-connecting-the-dots%20)

S, A. (2021, May 27). *Juvenile justice: The National Foster Youth Institute*. NFYI. Retrieved December 19, 2021, from [https://nfyi.org/issues/juvenile-justice/](https://nfyi.org/issues/juvenile-justice/%20)

**Scope**

*When working to answer our questions there are vital tools that will be needed in order to work efficiently and generate results. The following tools will be imperative to the success of this project and any programs not listed are what will not be used.*

* Python
* R Studio: To assist with data wrangling and any plots for visualization purposes.
* Github/Git Kracken
* Trello: For project management
* Zoom: For group meeting and to work on projects
* Slack : For group communication to go over individual duties, increase/decrease timelines, and share any research that has been discovered and
* Tableau: To present a clear and easy to understand visual of the data we have used.
* Microsoft Office: For documentation and project presentation
* Jupyter Notebook: Use to work with Python to create plots and perform any annovas if necessary

All skills needed for this project have been acquired through proper training and education and for the scope of the project at hand no new upskilling will be required. As the project progresses with will add or change information as needed to make sure we provide correct information.

**Functional requirements**

*In order for this project to be successful we will require the use of Python/R Studio for data wrangling, performing any mathematical calculations for accuracy of information, daatasets and any research gained to create the project.*

*Other necessary requirements are:*

* *Fully functioning software and hardware to analyze any data discovered*
* *Use of Trello to create Kanban boards to ensure that backlogs are created and deadlines are met.*
* *Each team member having the skills necessary to do their and providing helpful information and watching workshops to assist with any barriers or lack of experience and knowledge on a particular software.*
* *Proper research and citation when quoting or using other people and/or organization’s datasets and statistical information.*
* *Data Wrangling: To ensure dataset that has been used is cleaned up for analysis.*
* *Data Analysis: Each team member will work together to view the data and develop a clear understanding of the data being used.*
* *Data Visualization: Creating any visuals buy using Tableau for easy viewing And understanding.*
* *Presentation: Once all information has been gathered and organized and the power point presentation has been created, edited, and cleared for use. We will then show and discuss findings with our audience.*

**Personnel requirements**

*A group of 3 members who all work cohesively to complete project. Team members working on this project are:*

* Rushelle Phillips
* Rachel Korman
* Douglas Bell

All team members will be required to spend 20 hours each week per person working on project. Must attend meetings at least 1 hour each week over zoom or slack and coordinate meetings with instructor to assess our progress and obtain any help per project requirements. A Saturday through Friday week will be adopted for this project. Saturdays will be the start of a sprint with Fridays being the end of the sprint. To best adapt to the website’s timeline.

**Delivery schedule**

This project will have a time frame December 12th – February 6th, with two weeks, December 20th – January 2nd being set aside for a winter break for holidays. Sprints will begin on Saturdays and end on Fridays. Time has been detailed for each members’ commitment to the completion of this project. A detailed schedule has been assembled to show the progression this project will follow*.* The breakdown of project deadlines and deliverables are as follows:

* Week 1: Project Planning
  + - Form a group
    - Agree on the topic for the project
    - Turn in both a primary dataset and secondary dataset
    - Formulate at least two evaluation questions for our dataset.
    - Meet on a zoom call
    - Collaborate on the Project Proposal
    - December 17th is the cut off for this Sprint
* Week 2: Data Wrangling - Douglas (s.m.)
  + - From December 18th through December 31st no work is required to be done.  If available or willing, during these two weeks progression on wrangling the data is encouraged. Doing so will put the project ahead of schedule
    - January 1st officially begins this Sprint
    - Starting January 1st with the data wrangled is preferred. At minimum this data begins the wrangling process.
    - January 7th is the cut off for this Sprint.  All wrangling must be done, or progress is behind.
    - Import datasets into R
    - Combine the two datasets into one dataframe
    - Drop unnecessary columns
    - Reformat any data structure (.int, .str, etc.)
    - Upload codes to GitHub
* Week 3: Data Exploration - Rushelle (s.m0
  + - January 8th begins this sprint
    - This sprint ends January 14th
    - Check normality of each dataset
* Week 4: Data Analysis - Rachel (s.m)
  + - January 15th begins this sprint
    - January 21st ends this sprint
    - Start with eval question on. Begin the predetermined analysis, Independent Chi-square.
    - For eval question two perform the predetermined analysis, Independent Chi-square
* Week 5: Data Visualization - Douglas (s.m)
  + - Gather all data and results
    - Sort the results
    - Plan out an outline for the PowerPoint
    - Work in Tableau to get graphs and charts for the PowerPoint from the results from the Data Analysis week
    - Assign each team member with a section of the PowerPoint to construct
    - Combine the separate PowerPoint into one.
    - Do a mock run of the PowerPoint to ensure grammar, data, and graphs are cleaned of errors.
* Week 6: Data Reporting and Presentation - Rushelle (s.m)

**Other requirements**

Additional requirements for success of this project are as follows:

* Constant communication among all team members
* If there are any technical difficulties seek help and speak with all instructors immediately.
* Where one team member has a weakness there must be another that can provide assistance.
* All work must be properly researched and all resources from research must be cited.
* Ensure accuracy of work provided by proof reading, editing, and double checking any assignments give.
* Stay committed to checking Kanban to ensure that all tasks have been assigned and completed.

**Assumptions**

* All members will have required skills to work each section of the project
* All team members will be present during weekly team meetings with no connectivity issues
* All team member equipment will be properly updated, fully functional, and no kinks will be present in systems
* All required software needed to analyze data will be fully functional at all times.
* There will be no need for additional data outside of what was acquired during research process.

**Limitations**

* Python/R Studio running smoothly and not running into any program crashes.
* GitHub/GitKraken; working through these programs with our limited knowledge and not allowing any problems to take up more time than is needed
* Zoom allowing us to connect with one another with no dropped calls
* Slack communications notifying us on new messages. Not getting left behind in any communication with the group and wasting any time catching up.
* Lack of commitment.

**Risks**

* Work schedule interfering with delivery schedule. Ask work supervisor to work with the groups schedule
* Poor Internet service/Internet service failing due to weather. Find a friend or family to their internet access. Or a library’s internet access. Mobile access is also a work around.
* Family matters (ex. death of family member). Be understanding and willing to take on team member’s tasks, if needed.