EFFECTS OF ACCESS TO MENTAL HEALTH SERVICES FOLLOWING RELEASE FROM CUSTODY

HOW CAN THE UNITED STATES CRIMINAL JUSTICE SYSTEM BENEFIT FROM ADOPTING REHABILITATION TECHNIQUES USED IN WESTERN EUROPE?

A Thesis Prospectus
In STS 4500
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Bachelor of Science in Systems Engineering

By:
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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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America currently leads the world in producing prisoners. Despite having around 5% of the world's population, the United States accounts for 25% of the world's prison population (Lee, 2015). Mass incarceration is incredibly expensive and it disproportionately affects people of color, yet recidivism rates suggest that it is not an effective method of criminal rehabilitation (Subramanian & Shames, 2013, p.3). Mass incarceration comes with a diverse set of negative consequences, one being that it can intensify or create mental illness in offenders. These flaws in the criminal justice system are the main focus of the STS and technical projects. The STS project specifically aims to identify how the United States would benefit from implementing alternative methods of criminal rehabilitation, and the technical project examines the current mental health services available to inmates in the Albemarle County Regional Jail (ACRJ) in Virginia.

The technical project is focused on improving the criminal justice system on a local scale, whereas the STS project is centered on conducting global research to repair the penal system on a national scale. Despite the two projects being different in terms of their scope, the technical project is dependent on the STS research. This is because the STS paper's identification of alternative methods of rehabilitation that have proven to be effective will further establish why there is a need to reevaluate the practices of local criminal justice systems such as the ACRJ. The successful outcomes of foreign models of criminal justice observed in the STS paper will also be utilized to define the desired effects of mental health services available to offenders in the Charlottesville, Virginia area.

This project will be completed by a team of fourth year undergraduate students majoring in Systems Engineering; namely, Grace Boland, Colin Cool, Nathaniel Donkoh-Moore, Patrick Leonard, and Maddie McNult. The students will work under the guidance of a team of advisors

including Professors Preston White and Michael Smith in the department of Systems Engineering, as well as Professor Peter Alonzi from the School of Data Science.

Throughout the fall semester, the capstone team will meet weekly to conduct research, acquire data, and plan for the technical project. The team plans to access and gather the technical project data by the end of the fall semester. Around January of 2021, the capstone team will have cleaned, merged, and loaded the data necessary for analysis. The next step will be conducting data analysis and visualization, which will be completed around February, 2021. Once the team has gathered their findings, they will compile them into a Systems and Information Engineering Design Symposium (SIEDS) paper in March 2021, and will present their recommendations at a SIEDS conference in late April. Throughout the spring semester, the STS research paper will be in development.

EFFECTS OF ACCESS TO MENTAL HEALTH SERVICES FOLLOWING RELEASE FROM CUSTODY

The deinstitutionalization of psychiatric hospitals and an ineffectual criminal justice system has placed offenders with mental illness in jails and prisons rather than in publicly funded hospitals (Hudson, 2019). Deinstitutionalization is the process of "moving severely mentally ill people out of large state institutions and then closing part or all of those institutions" ("Deinstitutionalization", 2005). Deinstitutionalization started in 1955 "with the widespread introduction of chlorpromazine, commonly known as Thorazine, the first effective antipsychotic medication" ("Deinstitutionalization", 2005). Since deinstitutionalization began, the number of individuals receiving mental health treatment from state institutions has declined as shown in Figure 1 below (Fisher, Lutterman, Maderscheid, & Shaw, 2017, p. 28).

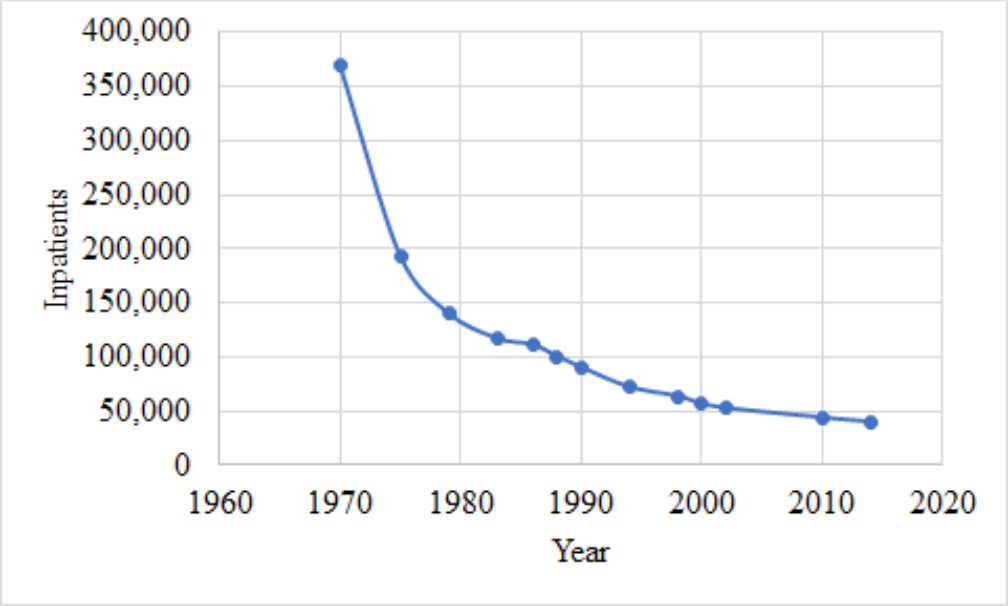

Figure 1: Inpatients in State Institutions: This figure shows the trend in the number of residents in state and county psychiatric hospitals on any given day, since 1970. (Adapted by Boland (2020) from Fisher, Lutterman, Manderscheid, & Shaw 2017).

One of the effects of deinstitutionalization is that when offenders with severe mental illness (SMI) are arrested for a nonviolent crime, they are sent to jail in lieu of a state or county psychiatric hospital. Currently, about 17% of inmates in prisons or jails are suffering from a severe mental illness (Osher, 2015). Breaking this figure down by gender shows that roughly 14.5% of the men and 31% of the women in jail have severe mental illness, which is four to eight times higher than that of the general population (Osher, 2015). The technical project focuses on the subset of inmates with severe mental illness specifically in the Charlottesville, Virginia area.

In the Charlottesville Area Regional Jail (CARJ) booking data spanning from 2015 to 2017, "5,284 unique individuals were identified, of which 48% were screened for serious mental illness" (Boland et al., 2019, p.1). Of those screened, "32% met the screening criteria for further mental health evaluation, and 21% of those were linked to a local community service provider for further mental health services" (Boland et al., 2019, p.1). As Figure 2 below indicates, there

are many individuals with severe mental illness in the Charlottesville area that are not linked to mental health services (Boland et al., 2019, p.1).

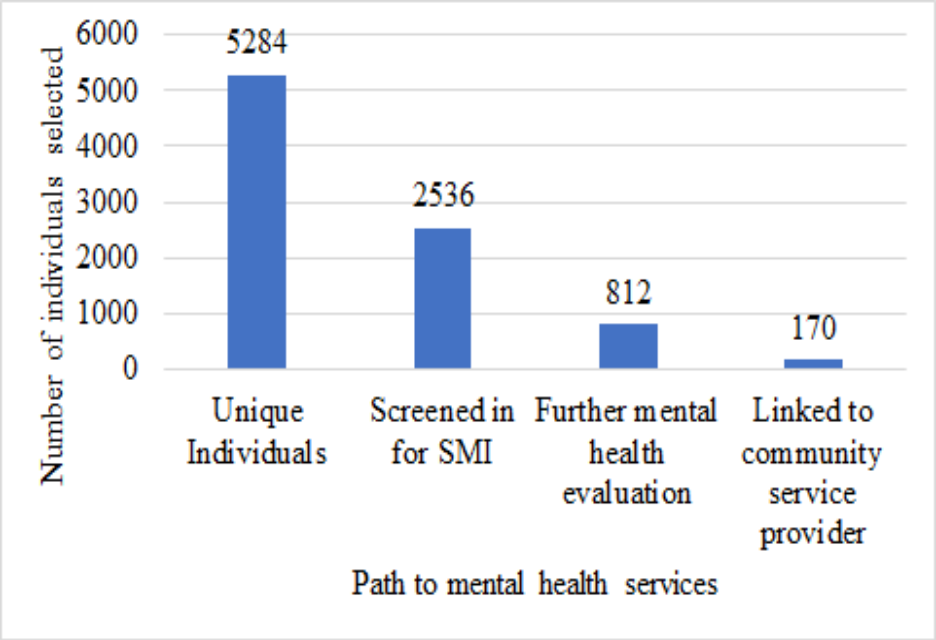

Figure 2: Path to Mental Health Services: This graph shows the number of individuals selected to progress to the next step on the path to receiving community mental health services. Despite there being 2,536 individuals with severe mental illness (SMI), 170 were linked to treatment. (Boland, 2020).

Untreated mental health conditions can contribute to a high rate of recidivism, as approximately 50% of inmates with a mental illness have at least one readmission within 4 years of initial release (Wilson et al., 2011, p.264). In order to more successfully rehabilitate offenders in the Charlottesville community, its current mental health services must be reevaluated.

The technical project builds on previous work to examine the current mental health services available to those released from the Charlottesville area regional jail. The project addresses three main questions: whether implemented community mental health programs have yielded desired outcomes, how effective the local jails are at linking mentally ill inmates to

treatment programs, and what the optimal "dosage" of mental health service is. This project will help the regional criminal justice system agencies and community mental health service providers understand how best to serve individuals suffering from severe mental illness. This project can also be used to emphasize the need for research to help individuals suffering from mental illness in jails and prisons around the United States

PROJECT APPROACH

The project is sponsored by the Thomas Jefferson Area Community Criminal Justice Board (TJCCJB). The team members will first research to gain a better understanding of the current mental health services available in the Charlottesville area. By reading the SIEDS papers from the previous capstone projects and surveying related studies and reports, the team will receive the necessary background information and determine how to further continue research on this subject. Next, the team will work closely with Neal Goodloe from the TJCCJB to determine how to define successful outcomes of mental health services.

Once these terms are defined, the team will collect data from local police departments, jails, hospitals and any other resources relevant to this project. All data used for this project will be protected under non-disclosure agreements between the researchers and data owners. Under the guidance of the advisors, data will be matched at the person level, depersonalized, and analyzed to provide answers to the aforementioned questions. Finally, the findings will be documented in a SIEDS paper, presented at the SIEDS conference in April 2021, and briefed to the Charlottesville Community Criminal Justice Board (CCJB) and the local Evidence-Based Decision Making (EBDM) Policy Team.

HOW CAN THE UNITED STATES CRIMINAL JUSTICE SYSTEM BENEFIT FROM IMPLEMENTING ALTERNATIVE METHODS OF CRIMINAL REHABILITATION?

The murder of George Floyd in May 2020 and subsequent protests against police brutality have raised important questions regarding the efficacy of the criminal justice system in the United States. Activists fighting for a more principled criminal justice system cite police brutality, harsh sentencing laws, racial profiling, and systemic racism as some of the major failures of the system that must be addressed. Another flaw of the criminal justice system in the United States is the issue of mass incarceration. As seen in Figure 3 below, the United States has the highest incarceration rate in the world (Sawyer & Wagner, 2020). There are currently almost "2.3 million people in 1,833 state prisons, 110 federal prisons, 1,772 juvenile correctional facilities, 3,134 local jails, 218 immigration detention facilities, and 80 Indian Country jails" in America (Sawyer & Wagner, 2020). Within these facilities, people of color, especially black men, are disproportionately incarcerated. For example, while "3% of white men born between 1965 and 1969 were incarcerated by their mid-30s, this was true of about one fifth

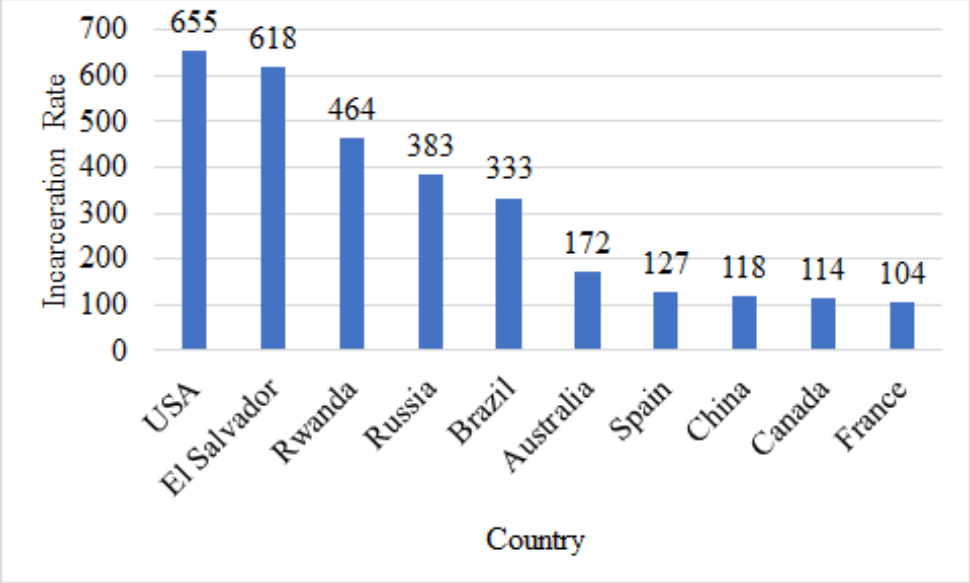

Figure 3: World Incarceration Rates: This graph displays the international incarceration rates, defined by the number of individuals incarcerated per 100,000. (Adapted by Boland (2020) from Sawyer & Wagner 2020).

(21 percent) of black men" (Turney, 2013, p.97). Incarceration is also costly, as the United States spends "$60 billion annually on state and federal prisons" (Collier, 2014), yet it has shown very few benefits as recidivism rates have not decreased. Prisoner recidivism rates represent the percentage of offenders who return to prison within three years of their initial release; they are "a key indicator of a corrections system's performance", and in the United States, they have remained at around 40% for the last 20 years (Subramanian & Shames, 2013, p.3).

OBJECTIVE AND APPROACH OF RESEARCH WORK

From the aforementioned preliminary research it is evident that the criminal justice system in the United States is racist, expensive, and broken. The STS paper will analyze how the United States would benefit from implementing alternative methods of criminal rehabilitation using the Social Construction of Technology (SCOT) approach (Pinch & Bijker, 1984). First, the research for the STS paper will compare the penal system in the United States to that of European countries, many of which have incarceration rates as low as 70 per 100,000 (Subramanian & Shames, 2013, p.7). The paper will specifically study the interpretive flexibility of criminal rehabilitation, and how it is conceived by different social groups as illustrated in Figure 4 on page 9. For the STS paper, the European countries that are being studied, as well as the United States, are considered to be the relevant social groups in the SCOT approach.

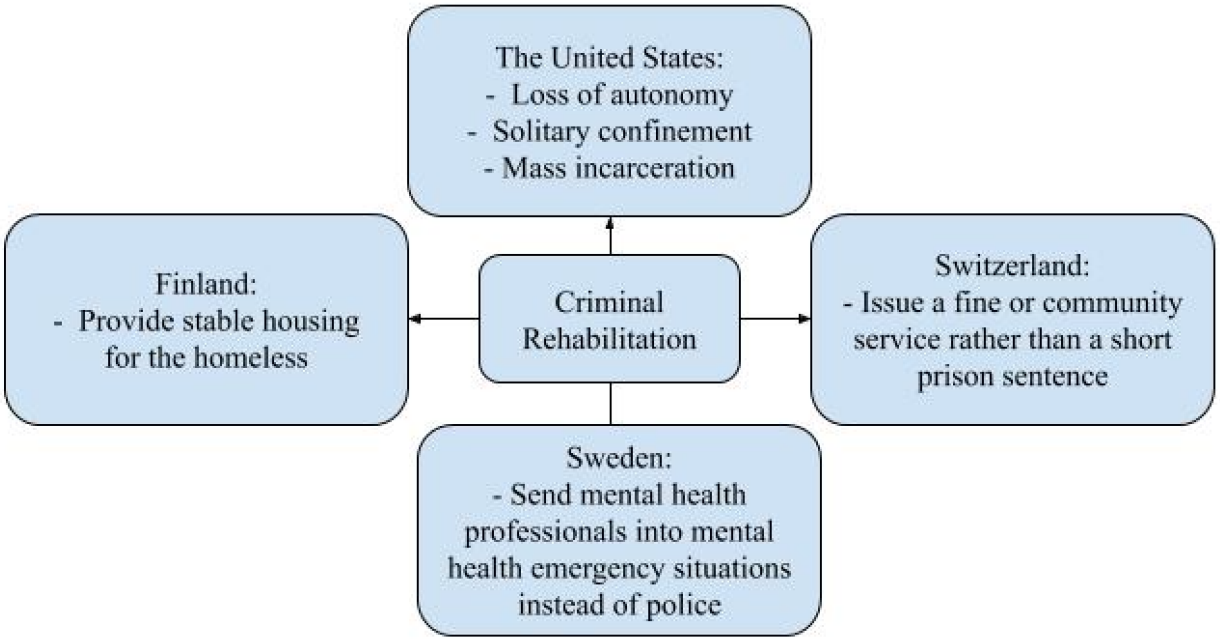

Figure 4: Interpretive Flexibility of Criminal Rehabilitation: This figure shows how the meaning of criminal rehabilitation varies between different social groups. The U.S. relies on methods that are more punishment-based than European countries. (Adapted by Boland (2020) from Carlson, 2009).

From Figure 4 above it can be deduced that in certain European countries, the prison systems are organized around resocialization and rehabilitation, while the penal system in the United States emphasizes punishment and loss of autonomy (Dervan, 2011, p.420). Next, the STS paper will analyze social factors, such as culture, values, and politics, and how said factors shape the criminal justice policies in each country. Finally, the STS paper will incorporate research to confirm that the European methods of rehabilitation are more successful and effective than those in the United States. One example to be incorporated into the paper is a successful case of a prison in North Dakota that implemented new rehabilitation policies based on a prison in Norway. In the American prison, by reducing the number of infractions that can land an inmate in solitary confinement, offering group therapy sessions, and writing positive behavior reports, there was a decrease in tense situations between inmates, and fewer incidents such as suicides, an inmate trying to flood their cell, and disorderly conduct (Corley, 2018). Ultimately, the paper, in

the form of a scholarly article, should examine the current state of the criminal justice system in the United States, compare it to the justice systems of European countries, and explain why the technology of criminal rehabilitation should stabilize to reflect the models used in Europe.

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