

Thesis Project Portfolio
Sociotechnical Synthesis

Analyzing Efficacy of Home Electronic Incarceration on Return-to-Custody Rates for Inmates
During the COVID-19 Pandemic
(Technical Report)

Alternative Forms of Mental Health Interventions to Decrease Incarceration
(STS Research Paper)

An Undergraduate Thesis

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Bachelor of Science, School of Engineering

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Introduction

Both my STS Research Paper and Technical Report revolve around the topic of alternative forms of incarceration within the criminal justice system. The STS paper focuses on different interventions and their recidivism rates, overall incarceration rates, and proportion of incarcerated people with mental health disorders compared to the traditional, custodial method of locking people up in jails and prisons. The Technical Report delves into one of these alternatives called Human Electronic Incarceration (HEI). It analyzes HEI usage at the Albemarle-Charlottesville Regional Jail (ACRJ), and its recidivism rates. The relationship between the papers is that the technical report digs deeper into one alternative of the STS topic.

Project Summaries

The STS research paper discusses alternative forms of mental health interventions at each level of arrest. The United States has a high jail and prison population where majority of people return to custody, also known as recidivating. Around half of this group suffers with mental health issues that are only exasperated in the incarcerated setting. The paper discusses the issues in the current criminal justice system and why it is important to find better-suited alternatives. It assesses the success and implementation of certain alternative interventions through available literature and case studies. In the paper, I evaluate the costs, benefits, and overall outcomes of each alternative.

The technical report analyzes the efficacy of home electronic incarceration (HEI) on return-to-custody rates at the ACRJ. The objective is to determine the efficacy of HEI relative to custodial incarceration with respect to public safety, return to custody rates, cost, and inmate eligibility. The results we found from the data include return to custody rates compared to custodial incarceration. We also analyzed effects of HEI based on additional demographic factors and arrest charge types. My capstone team presented our findings to the Jefferson Area Community Criminal Justice Board (JACCJB) and the Charlottesville/Albemarle Evidence Based Decision Making Policy Team which consisted of policymakers and leaders of the community. It provoked thoughtful discussion among Board members about what factors they should consider and what data they should collect/utilize to explore the expanded adoption of HEI.

Conclusion

Ultimately, these projects serve to provide evidence-based analysis to inform decision makers in designing and implementing appropriate interventions for reducing the jail population without compromising public safety. These projects can result in better alternatives to the general incarcerated population, and more specifically for those who have mental health disorders. The overall goal is to better help those stuck in the cycle of incarceration by keeping them out of jail and offering alternative services that are better suited for them. Lowering recidivism, overall number of people incarcerated, and people with serious mental illness is beneficial in supporting the needs the jail and prison populations. Overall, it is important to invest in more research in alternative interventions in the criminal justice system because a better understanding of this system will allow us to improve it most effectively.

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