

**Thesis Project Portfolio**

**Analyzing the Efficacy of Home Electronic Incarceration on Return-to-Custody Rates for Inmates During the COVID-19 Pandemic**

(Technical Report)

**The Forced Experiment of Home Electronic Incarceration in Post-Pandemic Charlottesville: A Case Study**

(STS Research Paper)

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## **Sociotechnical Synthesis**

With the onset of the Covid-19 pandemic, Albemarle County Regional Jail (ACRJ), the local jail in Charlottesville, Virginia, was pressured by increased risk of disease in the physical jail to decrease the overall inmate population. To do this, they turned to home electronic incarceration (HEI), more commonly referred to as “house arrest,” to limit the number of people in jail while still monitoring inmates and counting time served. ACRJ, commonwealth attorneys, and the judicial branch were all a part of HEI’s implementation and use, but none of these relevant stakeholders have done or seen any analysis into the effectiveness, or results, of this HEI experiment, to whom it was offered, and how its use was shaped by other stakeholders.

The technical paper, “Analyzing the Efficacy of Home Electronic Incarceration on Return-to-Custody Rates for Inmates During the COVID-19 Pandemic,” presents results of data analysis on ACRJ’s databases to analyze the efficacy of HEI, measured by return to custody (RTC) rate, and the equity of whom HEI was offered to, measured by various demographic factors. The results of this are novel and offer evidence for local decision makers to base decisions on moving forward. The methods in the paper consist of comprehensive, quantitative analysis of booking data provided by ACRJ, in conjunction with insight from various community groups: Region Ten Community Services (locally known as “R10”, a provider of mental health resources), Offender and Aid Restoration- Jefferson Area Community Corrections (OAR-JACC) and the Blue Ridge Area Coalition for the Homeless (BRACH). This compares post-Covid HEI sentences both with post-Covid non-HEI sentences, and with pre-Covid HEI sentences to compare the results of the newly adopted system and offer context with the minimally-used pre-Covid HEI system. Supplementing the core analysis, the capston team collaborated with key

community stakeholders to better understand the state of the Albemarle-Charlottesville criminal justice system.

The paper presents several key takeaways: pre-Covid, HEI was reserved for frequent offenders who typically were serving felony charges; post-Covid, ACRJ began placing individuals on HEI who were more representative of the jail population in terms of prior criminal history and charge type; individuals on HEI instead of traditional incarceration are incarcerated for significantly longer, as those in jail can serve decreased sentences for good behavior, while HEI participants are ineligible for such time credits; lastly, the calculated RTC rates at ACRJ shows that HEI inmates RTC less than traditional jail sentences, both pre- and post-COVID, and when split between misdemeanor and felony offenses. This analysis provides strong evidence for the efficacy of HEI as an alternative to incarceration in the Charlottesville area, supporting continuing or extending its use in Charlottesville and similar areas in the future.

The STS paper, “The Forced Experiment of Home Electronic Incarceration in Post-Pandemic Charlottesville: A Case Study,” uses the boom in the use of HEI in Charlottesville as a case study in how stakeholders affect the development of a technology. I use Bijker’s Social Construction of Technology (SCOT) as a framework to guide my analysis. SCOT describes how different social groups affect a technologies development and has four main tenets: interpretive flexibility – the shape a technology takes is dependent on the social environment it is formed in; relevant social groups – all those that share the same interpretation of a technological artifact are lumped into the same relevant social group; closure and stabilization – when all relevant social groups are satisfied by the technology’s design and it then stabilizes to its completed form; wider context – there is a wider cultural, political, and social context that the technology and social groups exist in. I use these tenets of SCOT to analyze how different relevant social groups,

mainly the jail, courts, inmates, public, and law enforcement, determined how HEI was implemented in Charlottesville after the pandemic, and propose how it could be used moving forward.

Interviews with Charlottesville Criminal Justice Planner Neil Goodloe and ACRJ Superintendent Col. Martin Kumer provide most of the information used to analyze the HEI system. There are plenty of groups both in favor and opposed to HEI for various reasons. First off, HEI and traditional incarceration are completely different approaches to punishment, but more specifically, HEI is a much cheaper alternative to traditional incarceration and arguably more humane/moral. Traditional incarceration is less risky, arguably more punitive, and, as the status quo, easier to operate. For these reasons, different social groups mentioned earlier have reasons to support or oppose HEI, which I analyze in depth with the SCOT approach.

The technical report offers data-informed insights into the composition and effectiveness of Charlottesville's post-Covid HEI system, while the STS report presents a qualitative study of how various stakeholders in the Charlottesville criminal justice system determined how HEI as a system took shape after the pandemic. Together, this portfolio can give readers an understanding of why HEI is in place in Charlottesville, how successful it was, and how it may be used moving forward.