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Clients who find themselves in need of Terrell's services regularly confront a supervision system that ensnares them more than it sets them up for even the system's definition of success.

Dawn was a working professional, who, enveloped in an abusive romantic relationship, developed a substance use disorder. When she was initially arrested for drug possession, she was sentenced to probation. She was not able to stop using drugs and eventually violated her probation with a "hot urine." This resulted in jail time and extended probation. Now Dawn is home again with two kids to support, probation time to serve, and she, due to her incarceration, no longer has her professional license.

Jessi's¹ life seemed to veer off track in his teenage years shortly after his parents' divorce. His mother suffered a substance use disorder and Jessi started using drugs at an early age. He was first charged as a teenager with possession of drug paraphernalia. Jessi completed his assigned Accelerated Rehabilitative Disposition² program successfully, but violated probation with a positive drug test and was sent to jail. He is 20 now and has never been free from supervision, cycling through jail, prison, rehab, and supervision. He suffers from mental health and substance use disorders that have not shown much improvement. He needs a wide range of support and services that are not readily available.

¹ Jessi is a composite of three clients with similar trajectories to maintain confidentiality.

² [Accelerated Rehabilitative Disposition](#) is an option for first time offenders to complete a rehabilitative program and have their charges dismissed and records expunged.

Introduction

In what follows, we use recidivism as an entry point to form an empirically grounded conceptualization of counterdata projects that challenge the datafied carceral state. We follow Seyi Olojo's definition of counterdata, which she defines as data "that is collected in contestation of a dominant institution or ideology," and "is collected as a means for communities to tell their own stories through the use of data."³ We choose to interrogate recidivism because it is datafied by the Pennsylvania Department of Corrections (PA DOC), it embodies the DOC's own metric of assessing success,⁴ and it is a concept that the datafied state itself marks as simultaneously insufficient *and* determining of people's fates, thereby providing a rich case study to conceptualize a counterdata project.

In the context of the US criminal punishment system, we advocate for counterdata and counteranalyses that hold state entities accountable and center the needs and aims of incarcerated people. In that regard, counterdata should highlight the fallacies of the system, center the victims of state violence, and/or reduce harm.⁵ Counteranalyses are analyses that either produce counterdata (even if they take state data as input) or are analyses that take counterdata as input. We pay attention to both counterdata and counteranalysis as two intertwined aspects of challenging the datafied carceral state. We distinguish between counterdata and counteranalysis to capture the countering potentials of both the data as well as the analyses. It may be the case that while underlying data are produced by the state and its associated entities, the countering could occur by outside agents, organizations, and/or activists seeking to break the hegemonic grasp of the state on such data through the production of counterdata and/or counteranalyses.

3 Seyi Olojo, "Counterdata," in *Keywords of the Datafied State*, eds. Jenna Burrell, Ranjit Singh, and Patrick Davison (Data & Society Research Institute, 2024).

4 Kristofer Bret Bucklen, Michele Sheets, Chloe Bohm, Nicolette Bell, Jessica Campbell, Robert Flaherty, and Kate Vander, "Recidivism 2022 Report," Pennsylvania Department of Corrections, November 2022, <https://www.cor.pa.gov/About%20Us/Statistics/Documents/Reports/Recidivism%202022%20Report.pdf>.

5 Catherine D'Ignazio and Lauren F. Klein, *Data Feminism* (Cambridge: MIT Press, 2020); Cathy O'Neil, *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy* (New York: Crown, 2016); Julia Angwin, Jeff Larson, Surya Mattu, and Lauren Kirchner, "Machine Bias," *ProPublica*, May 23, 2016, https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing?token=DtgTX_YLhwojQCM_xkrr4my1nl7Ucetj; Sandra Harding, *Whose Science? Whose Knowledge?: Thinking from Women's Lives* (New York: Cornell University Press, 1991).

The opening vignettes capture Terrell Mosley's experiences in his work as a reentry coordinator for Susquehanna Valley Mediation in Selinsgrove, PA. His position exists as a direct response to needs identified by formerly incarcerated people in the Susquehanna Valley of central Pennsylvania. When we examine the wide range of Mosley's clients, patterns of trauma, poor mental health, and isolation from the mainstream economy emerge.⁶ Clients find themselves without the skills, resources, and tools to get their lives onto the track diversion and supervision demand. When they find themselves unable to do so they are promptly returned to prison in a neo-liberal manifestation of the criminal punishment system's underlying logic of personal responsibility.⁷ The dominant assumption in carceral systems is that one's *individual* conditions are predictors of success, yet these stories reveal predictable patterns of *institutional* failure, and the institution's inability to set people up for its own definition of success. If Jessi tests positive for drugs, did Jessi or his probation officer fail? Or was the Accelerated Rehabilitative Disposition program a failure?

In his position, Mosley, one of the authors of this piece, draws from his personal experience as a Black man growing up in central Pennsylvania being targeted by police and eventually incarcerated through a plea deal and probation violation. The countering he engages in emerges from his community-based work and experience and informs the academic study of the other three authors, Vanessa Massaro, Darakhshan Mir, and Nathan Ryan, who comprise an interdisciplinary research team that studies carceral data and algorithms through a critical data studies lens.

In 2018, the team requested data from the PA DOC that contains variables related to parole decisions for more than 280,000 distinct individuals. The simultaneously expansive, intrusive, and reductive dataset consists of over

6 Susan Dewey, Bonnie Zare, Catherine Connolly, Rhett Epler, and Rosemary Bratton, *Outlaw Women: Prison, Rural Violence, and Poverty in the New American West* (New York: NYU Press, 2019); Kimberle Crenshaw, "From Private Violence to Mass Incarceration: Thinking Intersectionally About Women, Race, and Social Control," *UCLA Law Review* 59, no. 1418 (September 1, 2012): 1420–72; Beth E. Richie, *Arrested Justice: Black Women, Violence, and America's Prison Nation* (New York: NYU Press, 2012).

7 Judah Schept, *Progressive Punishment: Job Loss, Jail Growth, and the Neoliberal Logic of Carceral Expansion* (New York: NYU Press, 2015).

1,200 variables about the lives and experiences of incarcerated people. This includes parole board decisions, custody levels, demographic information, disciplinary actions while incarcerated, mental health diagnoses, and their physical movement through the PA DOC. In prior work, team members have used this data to counter the carceral state's narrative about the rehabilitative capacities of their tools and processes.⁸ In this work, Massaro, Mir, and Ryan combine their previous experience with carceral data and Mosley's experience to drive a conception of counterdata and counteranalyses (see Table 1).

What Does Data Counter and How?

Drawing from Mosley's experience, we note that there is widespread recognition among incarcerated people that probation and correctional officers possess a great deal of discretion when making decisions about parole and disciplinary violations, respectively. A collection of community-based data from the clients Mosley works with regarding the perceived fairness of such officers is crucially missing data⁹ — it is also an example of counterdata. Subsequently analyzing these data for a correlation with the parole outcomes of individuals would constitute a valuable counteranalysis, shifting the variable of inspection from the incarcerated individual to the officer. Another example of counteranalysis is evaluating the population density of an incarcerated person's state correctional institute (indicating their experience of overcrowding) and how likely density shapes their mental health and behavior. The PA DOC collects this data, but does not consider this data when predicting the likelihood of the incarcerated person recidivating through what they call a risk survey instrument. Their oversight eschews any concerted consideration of mental health status into actual outcomes

- 8 Vanessa A. Massaro, "Relocating the 'Inmate': Tracing the Geographies of Social Reproduction in Correctional Supervision," *Environment and Planning C: Politics and Space* 38, no. 7–8 (November 2020): 1216–36, <https://doi.org/10.1177/2399654419845911>; Andrew G. Ferguson, "Policing Predictive Policing," *Washington University Law Review* 94, no. 5 (January 2017), <https://journals.library.wustl.edu/lawreview/article/id/3851/>; Robert R. Belair, Paul L. Woodard, and Eric C. Johnson, "Use and Management of Criminal History Record Information: A Comprehensive Report," US Department of Justice, 2001, <https://bjs.ojp.gov/content/pub/pdf/umchri01.pdf>; Wayne Logan and Andrew Ferguson, "Policing Criminal Justice Data," *Minnesota Law Review* 101, no. 2 (December 2016): 541–616.
- 9 As an entry point to counterdata, we can consider what type of data is not collected by the state and what kinds of analyses are not undertaken by the state as part of its decision-making apparatus. See: Sharlene Nagy Hesse-Biber, *Handbook of Feminist Research: Theory and Praxis* (Thousand Oaks: SAGE, 2012); Brittany Farr, "Witnessing an Absent Presence: Bringing Black Feminist Theory to Traditional Legal Archives," *Black Scholar* 52, no. 4 (2022): 64–75, <https://doi.org/10.1080/00064246.2022.2111676>. See Alessandra Jungs de Almeida, Lauren Klein, and Catherine D'Ignazio, "Missing Data" in *Keywords of the Datafied State*, eds. Ranjit Singh, Jenna Burrell, and Patrick Davison. That entry also credits the artist Mimi Onuoha.

for people while simultaneously signaling the importance of mental health status to parole and recidivism outcomes.¹⁰ We argue that counterdata and counteranalyses should produce a vision from outside the carceral state, that should center the experiences of (formerly) incarcerated people and shift the responsibility to institutions.

Counterdata Analysis of Recidivism

Recidivism is a long-standing binary variable in the criminal punishment system. It is typically measured at one year and three years post-release. Recidivism rates are calculated based on the percentage of people who return to prison within that respective time. The rate is meant to evaluate the success of people post-release. Despite nearly a century of collecting incredibly detailed, to the point of invasive, data, the recidivism rate remains stagnant.¹¹ What, precisely, does the recidivism rate assess — individuals or the correctional system?

Recidivism exemplifies a strategy for enacting counterdata because it could be framed as a measure to evaluate the corrections system. The carceral state's focus on reducing recidivism rates indicates their awareness of the correctional system's failure to rehabilitate people. However, the state is invested in attempts to predict the portended risk that an *individual* has of recidivating through the use of the Sentencing Risk Assessment Instrument,¹² thereby placing the onus on the individual. There is little effort to assess and change institutional practices to reduce structural causes of recidivism, let alone examine the role the system itself plays in individuals recidivating. The missing counteranalysis reframes recidivism to be a failure of the system and its policies rather than the individuals passing through it.

¹⁰ Pennsylvania Department of Corrections, "Recidivism Report 2022," <https://www.cor.pa.gov/About%20Us/Statistics/Documents/Reports/Recidivism%202022%20Report.pdf>

¹¹ Pennsylvania Department of Corrections, "Department of Corrections Procedures Manual: Reception and Classification,"; Pennsylvania Board of Probation and Parole, "Annual Report 2016," <https://www.parole.pa.gov/Information/publications/Documents/PBPP%2016%20AR%20FINAL.pdf>.

¹² This predictive analysis undertaken by the state is based on variables collected by the state (such as age, gender, number of prior convictions, prior conviction offense type), and owes its existence to a long history of extreme datafication of the carceral experience in the United States, including the PA DOC. See: Brian Jefferson, *Digitize and Punish: Racial Criminalization in the Digital Age* (Minneapolis: University of Minnesota Press, 2020).

From Recidivism to Desistance

Recently, state actors have moved away from recidivism as an assessment variable due to its narrow scope.¹³ The National Institute of Justice (NIJ) instead recommends tracking “desistance,” defined as “an individual’s progress toward moving away from crime.”¹⁴ This emerging guidance corroborates years of scholarship that identifies, from myriad angles, the significant and impactful role of institutional decision-making on individual outcomes¹⁵. Pennsylvania has followed suit: in the PA DOC’s 2022 Recidivism Report, the agency pushes for the use of desistance to better show the institution’s “success.”

Even with this move to a different assessment variable, the state’s evaluations consistently place the failures on the incarcerated person rather than examining recidivism communally or systemically. This is because desistance as promoted by the NIJ remains highly focused on individuals being “successful.” Desistance remains anchored on the concept of criminality (the propensity of an individual to offend) and thus continues to assess the individual rather than institutions. Desistance is therefore an attempt at a progressive reform of recidivism data but is not productive of counterdata or a counteranalysis. For that, a greater shift in the focus of measurement is required — one that turns accountability on the institutions, not individuals.

The state’s failure to consider the institutional, contextual, or systemic factors that impact a person’s likelihood to recidivate produces a wealth of missing data. For example, the PA DOC does not collect data on probation and parole officers’ disposition, background, mental health, drug use, or any of the other myriad variables impacting successful performance of their jobs. Yet, all these variables are collected for incarcerated people during and after incarceration. We are not suggesting that such a collection by the state would remedy the underlying problems, but rather we are drawing attention to the contours of a (counter)-datafication project of the institution and institutional actors.

Another example is data collected on transitional housing. In Pennsylvania, these are either halfway houses or state contracted community corrections centers (CCCs). There is no data on ownership structures, programming, or financial policies. Homing in on financial policies of CCCs,

- 13 Nathan James, *Offender Reentry: Correctional Statistics, Reintegration into the Community, and Recidivism* (Washington: Congressional Research Service, 2015), <https://sgp.fas.org/crs/misc/RL34287.pdf>; Julia Dressel and Hany Farid, “The Accuracy, Fairness, and Limits of Predicting Recidivism,” *Science Advances* 4, no. 1 (2018), <https://doi.org/10.1126/sciadv.aao5580>.
- 14 National Institute of Justice, *Desistance from Crime: Implications for Research, Policy and Practice* (Washington: National Institute of Justice, 2021), <https://www.ojp.gov/pdffiles1/nij/301497.pdf>.
- 15 Angèle Christin, Alex Rosenblat, and danah boyd, “Courts and Predictive Algorithms” (workshop, Data & Civil Rights: A New Era of Policing and Justice, Washington, DC, October 13, 2015), https://www.datacivilrights.org/pubs/2015-1027/WDN-Predictive_Policing.pdf; Mikaela Meyer, Aaron Horowitz, Erica Marshall, and Kristian Lum, “Flipping the Script on Criminal Justice Risk Assessment: An Actuarial Model for Assessing the Risk the Federal Sentencing System Poses to Defendants,” *FAccT ‘22: Proceedings of the 2022 ACM Conference on Fairness, Accountability, and Transparency*, (New York, June 2022): 366–78. <https://doi.org/10.1145/3531146.3533104>; Safiya Umoja Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism* (New York: NYU Press, 2018); Ruha Benjamin, *Race After Technology: Abolitionist Tools for the New Jim Code* (Medford: Polity, 2019); Jackie Wang, *Carceral Capitalism* (South Pasadena: Semiotext, 2018).

there is no consistent data on how money is collected and held by a specific house and the fees charged to residents. In Massaro's ethnographic work in Philadelphia, she often heard stories of residents' money and paychecks going unaccounted for in these institutions. How might these data be better collected to hold those institutions accountable to formerly incarcerated residents, and thereby society at large? Further, how might being a victim of such an incident impact your inability to get your life on track and your likelihood to recidivate? Such counterdata and counteranalyses guide different questions toward different systemic ends.

Further, not all data is quantitative. What would a qualitative and holistic version of recidivism look like? Could it be understood and evaluated through storytelling? How long does it take you to get back on your feet? What do you need to get back on your feet? How much time do you need to get your feet under you? These are essential qualitative questions that also counter recidivism as a binary variable and represent a move toward "thick data."¹⁶

We can also examine the wide range of already existing data that can be counteranalyzed to serve different ends. Recidivism is a binary calculation of individuals. While more recent policy literature marks a turn toward desistance from crime, the main variables are still calculated on individuals: deceleration (slowing the rate of offending), de-escalation (reducing the seriousness of offenses), and cessation (the stopping of offending altogether).¹⁷ Using these variables, the PA DOC found that nine out of ten DOC reentrants meet one or more of these measures — the report does not ask why, if this is the case, 50 percent of them still return to prison. Desistance fails to be an

¹⁶ Tricia Wang, "Why Big Data Needs Thick Data," Medium, December 5, 2016, <https://medium.com/ethnography-matters/why-big-data-needs-thick-data-b4b3e75e3d7>.

¹⁷ Bucklen et al., "Recidivism Report 2022."

example of counterdata as it is being collected by the datafied state itself and it is decidedly not an example of counteranalysis since desistance only has meaning when compared to recidivism and therefore demands that our attention be placed on recidivism.

A counterdata approach can reorient variables already collected by the state to serve different ends, namely, support, healing, and rehabilitation. This radical reorientation of the goals and purposes of these analyses produces the resulting counterdata and counteranalyses. Table 1 lists several examples.

Table 1. Examples of Counterdata and Counteranalyses

The PA DOC ...	Community organizations/individuals while enacting counterdata projects could ...
Collects data about positive drug tests	Analyze how accessible substance abuse health care is and use that to contextualize a positive drug test in order to advocate for an incarcerated person or someone on parole.*
Reports recidivism rates	Use it as a measurement of institutional failure instead of as a measure of personal failure.
Monitors employment status	Analyze how easy it is to secure employment for someone in the parolee's neighborhood and with their history with the PA DOC to contextualize their employment status and advocate for them.*
Incarcerates parole violators	Assess the effect a parole officer has on a parolee violating the terms of their parole.
Prohibits contact between a parolee and the formerly incarcerated	Understand the family and social networks of the parolee to determine the benefit of having such networks, even if they consist of formerly incarcerated people.
Collects detailed data on PA DOC visitors, including drug searches	Determine the social and financial pressures incarceration has for a person's support network and offer increased services to the people who help incarcerated people during and after their period of incarceration.
Collects data on mental health to determine custody (housing security) levels	Assist incarcerated people with mental health care such as help in getting a dual diagnosis (both mental health and substance abuse disorder) for a better housing outcome.* Collect data to analyze the relationship between dual diagnoses and housing outcomes.
Collects data on race of incarcerated people	Analyze how the minoritized status of incarcerated people in a correctional institute (relative to its staff) impacts their experiences of incarceration — such as disciplinary tickets, indicating friction with the correctional staff — and ultimately parole outcomes.
Collects data on the capacity and population of each correctional institute	Analyze how the extent of overcrowding impacts the mental health and behavior of people. Analyze political and economic incentives to continue to populate prisons and stuff beds. Create an institutional score for each correctional institution that reflects their failure at rehabilitating people.
Does not collect data on the behavior and professionalism of parole or probation officers	Collect data on the behavior and professionalism of parole and probation officers. Analyze this data for the impact on people's parole outcomes.
Does not publicly report data on the success of cases assigned to a probation officer	Collect and publicize data (via public record requests and/or community-based collection) on the outcomes of cases assigned to individual probation officers.

* Work that Mosley engages in as reentry coordinator at Susquehanna Valley Mediation.

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Conclusion

The carceral state's processes of data collection are dehumanizing. Recidivism reduces people to binaries and even the most supportive, restorative parts of the incarcerated experience: such as visitations, your number of visits, your mail (which is read and heavily surveilled), your phone calls (also datafied and heavily surveilled), and your mental health notes; all become part of the database — further reducing people to numbers. Mosley's clients help us consider the possibilities of developing a counteranalysis of the variable and targets for evaluation.

We propose counterdata as a more comprehensive way of challenging the status quo, by not only patching gaps and omissions in the data but also challenging the datafied state's analyses and/or data. We imagine a system that could be focused on counteraction that leads us to healing and justice. While institutional data and algorithms seek to entrench punitive priorities of the state (under the veneer of neutrality), counterdata seeks to challenge the state's power and move the world toward what it could be, what it should be. When these larger visions of healing, restoration, and justice are centered, we can consider the larger goals of counterdata and missing data: that of examining institutions for their role in manufacturing harm, enabling us to flip the script of evaluation. What data would be needed to calculate a bank score (capturing how risky a bank is for an individual) rather than a credit score (how risky an individual is for a financial institution)? What would an institutional score for each prison in the Department of Corrections create instead of a score for each incarcerated person? Counterdata and connected counteranalyses could work in service of institutional accountability, transparency, and ultimately a larger reimagination in service of restoration and liberation.