Please cite the Published Version

"What benefits do homeless systems get from by-name data?"

Garrett L. Grainger

Published online: 30 Oct 2024.

Submit your article to this journal ↗

Article views: 98

View related articles ↗

View Crossmark data ↗

Taylor & Francis
Taylor & Francis Group

"What benefits do homeless systems get from by-name data?"

Garrett L. Grainger

Department of Sociology, Policy Evaluation and Research Unit, Manchester Metropolitan University, Manchester, UK

ABSTRACT

Built for Zero (BFZ) is a novel data-driven method to manage entries into and exits from homeless systems that is gaining popularity throughout the Global North. By-name data (BND) is the cornerstone of BFZ that gives local administrators up-to-date information about who enters, occupies, and exits their homeless system. A small body of research has analysed BFZ implementation, but neglected the benefits administrators reportedly get from BND. This paper extends that literature by answering the question: What benefits do homeless systems get from BND? The author uses interview data from administrators at 28 BFZ communities (n = 35) across the USA to answer that question. Participants said BND enhanced the efficiency, fairness, and capacity of their homeless system. This observation extends previous research by identifying ways this kind of data can help local administrators reduce the frequency and/or length of homelessness in their community. The author discusses policies and future research that are needed to maximize the benefits of BND.

Introduction

The US Department of Housing and Urban Development (2012) defines someone as "literally homeless" if they "lack a fixed, regular, and adequate nighttime residence." This definition includes people who are sleeping at night in places that are unfit for human habitation, shelters that were designed for temporary accommodation, or an institution for less than 91 days after living somewhere that is unfit for human habitation. At least 653,104 individuals were literally homeless in 2023 (US Department of Housing and Urban Development, 2024). This figure implies 19.5 in every 10,000 persons in the US experienced literal homelessness in 2023 and marks an 11.6% increase from 2022. Since 2007, federal authorities estimate the number of people experiencing literal homelessness has hovered around 586,413, exclusive of the brief dip to 380,630 in 2021 during the COVID-19 pandemic. The most recent estimate from 2023 is at the upper end of the distribution. This suggests homelessness has increased during the post-COVID economic recovery.

The US Department of Housing and Urban Development (HUD) has tested different policy interventions since the 1980s (Kizer et al., 2018). The "datafication" of "homeless systems" is a strategy that HUD advanced in the early-2000s (Willse,

2015). Datafication is "the transformation of social life into online quantified data, thus allowing for real-time tracking and predictive analysis" (van Dijck, 2014). A homeless system is a local network of individuals and organizations that delivers homeless services via a negotiated set of rules. Analysts have expressed mixed views about the ethics of homeless datafication. Some have identified ways homeless datafication can be "bad" when it in/directly harms worthy stakeholders (Cronley, 2020; Eubanks, 2018; Kithulgoda et al., 2022; Marquardt, 2016; Willse, 2015). Others have challenged that critique by showing homeless datafication can be "good" when it helps the right people (Clarke et al., 2021; Cronley et al., 2024; Grainger & Gaede, 2024). The upshot of that research is homeless datafication is ethically in/defensible under certain conditions. This paper advances that discussion by exploring the way some local administrators in the USA evaluate a new kind of homeless data that was not examined in previous studies.

Housing scholars have produced limited research on how local administrators in the USA view homeless datafication. Local administrators are important because they produce, analyse, and use homeless data. Previous research on local administrators in the USA have primarily examined their view of

assessment tools and processes (Brown et al., 2018; Cronley et al., 2024; Grainger & Gaede, 2024; Kithulgoda et al., 2022; Slota et al., 2021). Assessment scores are one data point that local administrators use to govern homelessness. HUD requires local administrators produce standardized data in a database: Homeless Management Information System (HMIS) (Willse, 2015). Community Solutions (2018) identified efficiency lags in HMIS data that it corrects with "by-name data" (BND). Although BND is diffusing throughout the Global North from the USA (Community Solutions, 2024a), housing scholars have not yet published research on whether local administrators are yielding efficiency gains that Community Solutions (2018) predicted. This paper advances discussion about the ethics of homeless datafication by answering the question: What benefits do homeless systems get from BND? The author answers that question with interview data that were collected from 28 US homeless systems in 2022.

Datafication through coordinated entry

Most people experiencing homelessness in the USA access housing assistance through their "Continuum of Care." Continuum of Care (CoC) is a performance-based grant that the federal government uses to finance local homeless systems (US Department of Housing and Urban Development, 2023). Federal authorities recognized 387 CoC jurisdictions in 2022 when this study was conducted. Each CoC is a multisector partnership composed of local stakeholders that collaboratively govern homelessness with a set of rules (i.e. a homeless system). Federal authorities require CoCs collect HMIS data on people who access their services (Willse, 2015). Residents of a jurisdiction get assessed, prioritised, and referred to homeless assistance through their CoC's "coordinated entry system" (CES) (see US Department of Housing and Urban Development, 2017). Through this process, caseworkers at "participating agencies" (i.e. federal grantees) create a "data double" of each service recipient in HMIS. A data double is a quantitative signifier of someone that gets produced for the twin purpose of monitoring and resource allocation (Haggerty & Ericson, 2000). Local administrators aggregate data doubles within each jurisdiction to monitor CoC performance and allocate funding to participating agencies (Willse, 2015).

Beginning in 2012, HUD mandated CoCs allocate federal homeless assistance through CES (Ecker et al., 2022). CES was created to maximize the use of resources by centralizing allocation, preventing high acuity clients from getting ignored, minimizing public expenditures on emergency services, and making more resources available to unhoused people (Sylla et al., 2017). Despite its significance, housing scholars have produced little research on the implementation and impact of CES (Ecker et al., 2022). The author divides that literature into two groups: process and impact. Regarding process, researchers have shown San Diego's CES complied with HUD policies in 2019 (Balagot et al., 2019), high acuity clients were more likely to get high-intensity services in Chicago (Dickson-Gomez et al., 2020), frontline workers shape individual journeys through CES (Grainger, 2022; Osborne, 2019; Smith, 2022), and resource constraints create inequitable entries into and exits from (i.e. flow) homeless systems (Grainger, 2023, 2024a). With respect to impact, one study showed people referred to housing through CES used fewer emergency services, but had shorter tenancies than the comparison group (Srebnik et al., 2017). Other studies have analysed how inequalities get re/produced through CES (Cronley, 2020; Kithulgoda et al., 2022) and local efforts to mitigate those disparities (Cronley et al., 2024; Grainger & Gaede, 2024).

A portion of that research has critiqued the ethics of homeless datafication through CES. Some scholars have criticized various forms of homeless datafication for "harming" service recipients. Willse (2015) criticized the theory underlying HMIS data for defining homelessness as an administrative rather than a social problem. Without addressing upstream causes of homelessness, like racism and affordable housing shortages, Willse (2015) argues the production of HMIS data will undermine service delivery and perpetuate homelessness for neglected subpopulations. Eubanks (2018) extended that critique by problematizing data sharing between CoC administrators and local police departments. Because HMIS data might include information on the whereabouts of clients, police can use it to arrest people with warrants. This could indirectly criminalize some people seeking help through CES and/or discourage others from divulging personal information at access points that most housing programs require. Other studies have critiqued an assessment tool that local administrators have used to prioritise and refer clients to housing assistance: Vulnerability Index–Service Prioritization Decision Assistance Tool (VI-SPDAT). Scholars criticized the VI-SPDAT for lacking construct validity and reliability (Brown et al., 2018); identified ways it reproduces gender and racial biases (Cronley, 2020; Kithulgoda et al., 2022); and documented concerns about its accessibility, accuracy, and misclassification among frontline staff (Slota et al., 2021).

A small body of research qualified those critiques by identifying ways homeless data can help service recipients. Clarke et al. (2021) provided evidence that outreach workers in Australia have used VI-SPDAT scores and HMIS data to help clients access permanent housing. In the USA, Brown et al. (2018) reported frontline workers viewed the tool as a useful way to allocate scarce resources and Grainger and Gaede (2024) showed local administrators have used HMIS data to correct racial biases in CES. This paper extends the discussion about ethics by examining the views of local administrators in Built for Zero (BFZ) communities toward BND.

Built for zero: a new way to datafy homelessness

BFZ is a CES upgrade that supplements HMIS data with BND to enhance system performance (Community Solutions, 2018).[1] BND is "a comprehensive data source of every person in a community experiencing homelessness, updated in real time … Each person on the list has a file that includes their name, homeless history, health, and housing needs. This data is updated monthly, at minimum" (Community Solutions, 2024b). BND differs from other kinds of data that CoCs produce (see Table 1). Unlike PIT data, which gives an aggregated cross-sectional snapshot of homelessness (Jocoy, 2013), BND is longitudinal data with personalized information about each service recipient that is updated at least monthly. This gives local administrators contemporaneous information about system flow (Evans & Baker, 2021). Similar to BND, HMIS data is disaggregated longitudinal data with personalized information about each service recipient. HMIS differs from BND by excluding information from privately funded agencies and retaining records for seven years after someone enters CES. Including (non-)federal grantees and excluding "inactive" cases means BND is more complete and timelier than HMIS data (see Grainger, 2024b).

Community Solutions (2018) predicted BND would positively impact both the homeless population and individuals of a BFZ community. For homeless populations, BND is expected to help local administrators track progress to systemwide benchmarks, make appropriate interventions that facilitate system flow in "real-time," stretch resources by making optimal program referrals, and lobby grantors to fill resource gaps that perpetuate homelessness for various subgroups. Those benefits would help individuals by reducing the length of time they experience homelessness and connecting them to the kind of assistance that they need to remain housed. A small body of research has used qualitative data to "test" these predictions. Batko et al. (2021) showed four BFZ communities increased the number of service recipients who got permanently housed; reduced lengths of homelessness, decreased service utilization, and sustained housing for service recipient in/out of targeted populations; and lowered demand for emergency services. Batko et al.'s (2021) findings suggest systemwide improvements positively affect individual service recipients by quickly getting them into sustainable tenancies. Recent studies suggest those benefits are unequally distributed. Grainger (2023, 2024a) showed resource constraints indirectly motivate suboptimal program referrals as local administrators used BFZ principles to achieve systemwide benchmarks. Those studies contradict the hypothesized alignment between population- and individual-level benefits that were posited by Community Solutions (2018). This paper advances that research by examining the way local administrators evaluate BND against other components of Community Solutions' (2018) theory of change.

The current study

Community Solutions (2018) defined homelessness as "a dynamic, person-specific problem that changes from night to night and from person to person" (p. 9). The temporal fluidity of homelessness means the administrators of homeless systems "need a rapid feedback loop to tell them how they're doing and to inform quicker, more adaptive decision making" (p. 9). BND is theorized to enhance resource efficiency, ensure vulnerable people are prioritised for housing assistance, facilitate system adaptation to emergent circumstances, identify resource gaps, and advocate grantors for funding (Community Solutions, 2018, p. 10). Based on that logic, Community Solutions (2018, p. 9) concluded "a rapid feedback loop on who and how many people are experiencing homelessness in a community at any given time is a more vital and actionable resource than almost anything else local leaders could possess." This logic

Table 1. The characteristics of homeless data types.

Point-in-Time	HMIS	By-Name
• Cross-sectional	• Longitudinal	• Longitudinal
• Annually collected	• Regularly collected	• Regularly collected
• Depersonalized	• Personalized	• Personalized
	• Extended retention	• Limited retention
	• CoC members	• CoC members
		• Non-CoC members

motivated the MacArthur Foundation to give Community Solutions $100 million to expand BFZ implementation (MacArthur Foundation, 2021) and HUD to integrate BFZ methods into its strategic action plan (Built for Zero, 2021). BFZ has diffused to Australia, Britain, Canada, Demark, and France (Community Solutions, 2024a). Limited research on BFZ implementation means housing scholars lack knowledge about the benefits local administrators actually get from BND. Thus, it is unclear if BFZ communities have benefited from BND the way Community Solutions' (2018) theory of change hypothesized. If those benefits have been achieved, the (non-)financial investments required to generate BND might be ethically justified and vice versa. To fill that knowledge gap, this paper answers the question: What benefits have homeless systems gotten from BND?

Methods

Design and sampling method

This paper is based on interview data that author collected in spring 2022. After getting permission from the institutional review board at their university, the author recruited administrators from BFZ communities. A list of BFZ communities was created from Community Solutions' website (see Community Solutions, 2024c). The author obtained contact information for 91 of the 105 BFZ communities from information that was available online. Because they help generate/use BND, the author recruited "CES directors." A CES director helps produce and uses BND to monitor and manipulate flow through their homeless system. Contacts were offered a £20 Amazon gift card, but many refused due to legal restrictions. This approach recruited participants from 28 BFZ communities. Some contacts invited their HMIS Analysts to the interview. Thirty-five people participated in this study. Repetition of themes suggests the author had reached saturation by April 2022. Table 2 describes the demographic characteristics of participants.

Interview protocol

The author used a semi-structured interview guide with five broad questions about BFZ implementation. This paper is based on responses to three questions: What kind of data is collected about people at access points? How do you manage your by-name list? How do you use your by-name data? Each participant described their demographic characteristics at the beginning of their interview. All responses to non-demographic questions were probed by the author. Interviews were conducted over Zoom with an audio recording device. The interviews ranged 30–90 min, but most lasted one-hour. Audio recordings were sent to a private transcription service. Pseudonyms were then given to each participant.

Data analysis

Demographic data were analysed descriptively in Excel. The author conducted thematic analysis on every transcript with NVivo. The author applied Braun and Clarke's (2006) processual framework to thematically analyse their data. The data were deductively analysed to answer the paper's research question. The author open coded relevant portions of interview transcripts to identify emergent themes. Open codes were grouped into superordinate themes based on commonalities. Subthemes were identified to highlight variation within each superordinate code. This let the author identify latent themes between semantically unrelated data. The author then defined each theme, selected exemplary quotes from each code, and used that data to write this report. Each superordinate theme was defined with terms that are commonly used in housing studies because the paper was primarily designed to make an empirical rather than theoretical contribution. Although the author's coding scheme accounted for

Table 2. Demographic characteristics of study participants.

		Frequency	Percent
Race	Black	3	8.57
	Hispanic	2	5.71
	Native	2	5.71
	White	26	74.3
	N/A	2	5.71
Gender	Female	24	68.5
	Male	9	25.7
	N/A	2	5.71
Age	(18–35)	13	37.1
	(36–55)	15	42.9
	(56–99)	1	2.90
	N/A	6	17.1
Education	High School	2	5.70
	Associates	1	2.90
	Bachelorette	12	34.3
	Post-graduate	15	42.9
	N/A	5	14.2
Years of experience	(0–5)	4	11.4
	(6–10)	14	40.0
	(11–15)	3	8.6
	(16–20)	6	17.1
	N/A	5	14.3
Years in role	(0–5)	21	60.0
	(6–10)	6	17.1
	(11–20)	2	5.71
	N/A	6	17.1
Total		**35**	**100%**

most of the data that was collected during this study, a minority of participants expressed both criticism and praise for BND. Because criticism was rarely expressed, the author could not justify separate themes based on those data. Instead, they address criticisms in the discussion section that will then inform the policy recommendations.

Results

The results are presented in three major subsections: efficiency, fairness, and capacity. Efficiency is the maximization of output whilst minimizing input. Fairness is the allocation of resources according to need. Capacity is the ability of stakeholders in a system to identify and solve problems.

Efficiency

BND was commonly said to make homeless systems more efficient. This subsection analyses three kinds of efficiency that participants derived from BND: narrowed waitlists, flexible prioritization, and effective interventions.

BND helped participants narrow the waitlist for program referrals. Homeless systems experience entries and exits by service recipients every day. Administrators adapted resource allocations to the dynamics of their system. P1 said BND helped them monitor system flow,

> We use [a] dashboard. It's a monthly report [of] our [entries], our [exits]. Who are people that are really experiencing homelessness? Who are people that are returning to homelessness? … That's helps people visualise movement through our system each month.

BND is produced on a spreadsheet with variables to track why someone enters and how they exit a homeless system (see Table 3). People regularly exit homeless systems independently; however, federal regulations require their information to stay in the HMIS database for seven years. This causes HMIS records to get outdated and overwhelming for local administrators. Participants created a "by-name list" (BNL), the spreadsheet on which BND is produced,

Table 3. The structure of a by-name list.

Inflow	Active	Outflow
Newly identified	Verified homeless	Housing placements
Returned from housing		Moved to inactive
Returned from inactive		No longer meets population criteria

that added an "active status" metric to the data double of each service recipient,

> We run a report every two weeks … We determine which clients are active by those that have an active assessment … We use that list every two weeks on our call … We use our vulnerability index and sort it by vulnerability … And prioritise housing by who is at the top of the list … [P12]

Active status measured someone's engagement with CES. "Inactive" clients were removed from the BNL,

> As long as we have contact with them … they stay on our list until they get permanently housed … We do have the occasional people will be [inaudible] or people will disappear … They're removed from the list. [P5]

Active status was determined by the date since someone last contacted a BFZ member. The threshold for active status varied across BFZ communities. The cutoffs ranged from seven days to 24 months, but most chose 60 or 90 days. Although getting labeled "inactive" meant administrators stopped considering someone homeless, inactive clients were reactivated once they recontacted a BFZ member. This feature of BND was said to make CES more efficient because it let administrators focus resources on people that were "actually" homeless.

The malleability of BND let participants flexibly prioritise assistance. Participants exercised discretion whilst creating supplementary variables in their BNL. This attached additional information to each data double that helped active clients move through CES.

For example, P13 said they changed the BNL for Veterans and that doing so helped them reduce homelessness for that subpopulation,

> We had one type of a by-name list. We've definitely changed it in order to have other pieces of data and other information on there. Without [that], we wouldn't be as far as we are in terms of our Veteran population...

When the author asked, "What kind of data did [they] recommend you add to your by-name list," P13 replied,

> They wanted to know if they were in the system before and for how long, and when they exited the last time? And then I also marked when they leave the system. But this time we're tracking at inflow/ outflow and if they moved to inactive and moved back to active. All those things are on the list now. I really didn't look at that before…

Such data gave P13 better information about the homeless history of Veterans in their system. This strategy, of course, was not limited to Veterans because P13 could apply it to any other subpopulation

that they prioritised for functional zero. That said, P9 created a variable that specified which clients had personal documents uploaded to HMIS that housing programmes used to determine eligibility,

> We added another thing - anybody with any kind of documentation uploaded to their file…We have a common application for permanent supported housing…The two most important pieces are verification of disability [and] then homeless verification.

And P7 added several variables to the BNL during programme referral meetings to measure each client's progress to a tenancy once they got prioritised for assistance,

> [We are] making sure [we're] asking for action items, next steps for each client. So, going through the list, we ask what their update is, what their current status is, and then what needs to be done next. That kind of gets folks to make sure that something gets accomplished…It's just a good way to have that accountability so that when next week comes around, we can look back and make sure that task was accomplished…

Facilitating outflow with housing assistance is complicated because the rules of each programme are different and most of them rely on the private rental market where clients frequently confront landlord discrimination. This can slow and/or impede exits from CES for some clients (Smith, 2022). The three previous examples showed the flexibility of data doubles created with a BNL gave local administrators current information about clients that was relevant to programme referrals. Enhanced data doubles could save resources by helping administrators understand a client's progress through CES, identify forms of assistance that each client was eligible for, and strategically address outflow barriers with multisector partners.

BND was argued to facilitate effective interventions. With a narrowed BNL, participants could strategically make program referrals that were less delayed than those made with HMIS data. P13 said data doubles helped them make "suitable" programme referrals that could end an episode or cycle of homelessness,

> [BND] certainly helps me think about if I see somebody's been in the system before and now they're almost again, it helps us to think about when they left the last time, what services did we have them exit with? And where is the breakdown, why this person is now back? And what is it we can do different this time when this person exits, so that they're successful?

Participants supplemented quantitative with qualitative data that was provided by caseworkers at referral meetings. This enhanced referrals by including information that someone's data double lacked. Participants also said BND helped them make system-level interventions. A bottleneck can increase the homeless population by blocking CES flow. To identify bottlenecks, administrators aggregated individual data doubles to find systemic barriers that impeded the flow of subpopulations through CES. P3 said this helped them fix bottlenecks,

> [BFZ has] this data-driven approach … You can see on a regular basis the progress. We can use the data to highlight where there are still challenges … That allows us to be able to communicate both what we're doing well and then also really pinpoint where we need the greater support.

Participants fixed some bottlenecks on their own. Local administrators who noticed a spike in Veteran homelessness could invite somebody from Veteran Affairs to referral meetings. For complicated blockages, participants lobbied for policy changes. Doing so meant participants like P31 learned how to speak to local politicians,

> The work that we've done over time has really been helpful to the messaging and just the awareness level of elected officials in our community…We can communicate our work…We have one list of folks that are experiencing homelessness, the talking points, the stuff that is jazzy to elected officials.

Several participants discussed talking points they used to communicate with elected officials. Some integrated BND into their talking points to persuade key stakeholders,

> …If you can show accurate numbers, then it's like, 'Okay.' Numbers talk to politicians. Numbers talk to communities…As long as you have a happy, fluffy story, and show them in the results that you're still doing your work…That will get it done…You can get things moving that way. [P20]

And a few participants created an online dashboard with their BND to influence local policy,

> …We put some things on our website. And obviously just being able to use our data to drive decisions in the community and all of that is very important. [P16]

The timeliness of BND thus facilitated multilevel interventions. At the individual-level, BND gave participants a current data double that helped them understand a clients' needs and make suitable referrals that prevented or ended cyclical homelessness. At the system-level, participants used BND to identify bottlenecks and make timely adjustments. This helped them prevent a backlog of assessments and/or program referrals that prolong homelessness for individuals and/or groups.

Fairness

The second subsection delineates two ways participants said BND made their system fairer: measuring inequality and enhancing the prioritization of vulnerable subgroups.

BND gave participants something to measure the fairness of their system. Since the mid-2000s, the federal government told CoCs to minimize outlays on emergency services by prioritizing chronic homelessness (Willse, 2015). Whilst explaining their CoC's reason for prioritizing chronic homelessness, P3 cited length of homelessness and personal vulnerability as additional reasons to justify that decision,

> They're the most vulnerable. They're the ones that have been experiencing homelessness the longest … I think, also kind of with the fundamental belief that people do better in housing.

Others prioritised the protection of minority groups. Mentioned above, the VI-SPDAT being was criticized as racially biased during this study. Because Black mothers constituted a large portion of homeless families in their CoC, critiques of the VI-SPDAT motivated P12 to prioritise families over singles,

> We had a surge in families that were experiencing homelessness … Considering the VI-SPDAT is particularly biased against black women … On our families by-name list there are a lot of African American families with black mothers as the head of the family … That would be a really big win to work around some of the biases that are built into the system …

Regardless of who was prioritised, BND gave administrators a resource to monitor how that group flowed through CES. This let P12 apply critiques of the VI-SPDAT to CES because their BND showed Black mothers were overrepresented amongst homeless families. BND can also be used to compare the VI-SPDAT score of racial groups in their system. Unlike PIT data, which lacks information about vulnerability assessments, BND has the assessment score of everyone in CES. BND more accurately describes homeless trends than HMIS data because it includes information from non-CoC grantees. If a minority group used a service provider that was privately funded, then HMIS data would mismeasure the VI-SPDAT's impact on that subpopulation and misestimate the size of that subpopulation in the homeless system. BND thus gave administrators better information about the fairness of their homeless system that they could use to make timely interventions.

Participants used BND to make fairer decisions within prioritised groups. Participants created a different BND for each subpopulation. Within those spreadsheets, participants "sorted" cases on a selected variable in ascending or descending order. This let them enhance system fairness by prioritizing factions within a prioritised subpopulation. Participants exercised discretion whilst choosing what criteria to prioritise. Some prioritised clients based on gender because they viewed women as more vulnerable than men

> As far as female Veterans, we definitely use them as one of our prioritisations … We will pull her for referral right away for a programme because there's more vulnerability to being a homeless female Veteran than a homeless male Veteran. [P21]

Whereas P21 used one metric to make programme referrals, others used multiple ones to make those decisions. For example, P6 used several metrics that they varied across prioritised groups,

> Depending on the sub-population, it changes a little…Age is a tie-breaker for a single population… For families, the main tie-breaker is minor children and the size of household…Some of the tie-breakers for youth are whether or not they're involved in an employment programme or involved in going to school…

P6 varied those metrics across prioritised groups,

> Depending on the sub-population, it changes a little … Age is a tie-breaker for a single population … For families, the main tie-breaker is minor children and the size of household … Some of the tie-breakers for youth are whether or not they're involved in an employment programme or involved in going to school …

By sorting prioritised groups on selected metrics, participants considered multiple factors at once whilst making referrals. This let participants adapt referrals to evolving circumstances. If something like COVID-19 made a subpopulation more vulnerable, sorting BND by several metrics let participants quickly change their prioritisation strategy,

> We're [using] the COVID assessment … It's capturing clients' medical needs, their disabilities, if they're high-risk of COVID, so if they're 65 or older, things like that bumped them up a little bit on our assessment, as well as length of time homeless is a big tie-breaking factor. [P16]

The three previous examples show the salience of using discretion to enhance the fairness of homeless systems with BND. The BNL has spreadsheet functions that administrators used to prioritise subgroups and make referrals. Participants praised this flexibility for letting them adapt CES to emergent circumstances. This helped participants shield vulnerable subgroups from

morbidity risks and marginalization through CES. BND provided better information than PIT data because it gave administrators timely and personalized information about system flow. Participants used that data to align prioritization with emergent needs. HMIS data also gave participants information to align prioritization with need, but it was less complete and timely than BND. Reliance on HMIS data to align prioritization and need could create unfair processes and outcomes if administrators were unable to observe new changes in subpopulation trends.

Capacity

The final subsection analyses four ways participants said BND increased the capacity of their homeless system: better strategic planning, tighter relationships with key stakeholders, identifying resource gaps, and advocating for new funding.

Participants said BND facilitated strategic planning by BFZ community members. Because BFZ communities include multiple stakeholders within and outside the CoC, administrators set systemwide goals that partners jointly achieved. Some participants said these goals helped partners coordinate action at planning meetings,

> We have an aim to end homelessness. It's not just talking about people … Focusing on what people need to get housed … We're going to focus on what it's going to take, what do [clients] want, and how can we get [clients] there. [P9]

Whilst others said they helped politicians motivate collaboration amongst key stakeholders,

> I think that's exciting to politicians because it's an easy soundbite for a media clip … It's a lot easier to talk about [ending homelessness], all these communities are doing it, we're all in this together. That camaraderie and energy I think is something that it is really easy for politicians to grab onto. [P28]

One way participants set systemwide goals was by splitting their BNL into subgroups (i.e. Veteran, youth, chronic, singles, and families) and selecting dates to reach population-level benchmarks. P13 said BND let them measure progress on those targets,

> I've learned a lot along the way … If you're looking at a big list, it's hard. But if you take a small list, like the Veterans, and you're looking at how long for when they entered the system to when they exit? … How many are just brand new to homelessness?

Participants also used BND to produce quarterly reports that were presented to CoC leaders. During those meetings, participants used those reports to interpret population trends and plan interventions,

> Each quarter we can look at those performance metrics and see how we are or we're not meeting certain targets … And we bring this information to our CoC partners … We're like, "What does that mean for our work moving forward?" [P13]

By allowing participants to set and measure progress toward systemwide goals, BND empowered BFZ communities to collectively define and solve problems. This simultaneously made joint meetings more efficient because partners had a resource to focus attention and actions on productive tasks. BND was better suited for strategic planning than PIT or HMIS data because its completeness and timeliness gave administrators better information to track progress toward system benchmarks.

BND can strengthen relationships with/in homeless systems. Participants just described how BND facilitated systemwide planning. Some participants thought accomplishing systemwide goals for a subpopulation created a bandwagon by winning over skeptics within and outside the CoC. This would in turn expand and strengthen the BFZ community,

> There's also a desire among some of the decision-makers to focus on Veteran homelessness … If we could get there, we can use that and say, "What we're doing is actually working." … [This would] get buy-in from the providers that might be wary of participating in these collaborative efforts. [P15]

Because homelessness impacts multiple stakeholders, participants engaged organizations outside of their system. Some external stakeholders had short timescales for ending homelessness. When they failed to meet those expectations, participants sometimes got criticized,

> There are a lot of people [in my community] that are doing outreach … [They] think that we do nothing because these people are still on the street … We're trying to debunk that. [P16]

P12 addressed that problem by using BND to create an online dashboard for external stakeholders to monitor system flow,

> We are working on a lot of visualisations for our website to let people know what homelessness looks like in our community … What resources we have available. What we've been doing to house people … That transparency is really going to help …

Transparency was meant to build trust. Using BND to illustrate system trends would challenge false

generalizations from local stakeholders. Participants also built multisector relationships by sharing knowledge with key stakeholders. P26 had expertise with BND that they used to identify system bottlenecks during COVID-19. Sharing that knowledge with the local housing authority helped P26 grow their relationship with that agency,

> HUD-VASH was, before COVID, a timely process to get in and get an inspection. During COVID, it took even longer. Because we'd been reviewing the data for so long, we already knew that it's a slower moving process and how we can make those adjustments to make it speed up. We've had some really great one-on-one meetings with the housing authority to improve that.

Developing stronger ties between stakeholders within and outside the homeless system enhanced system capacity in several ways. Because volunteer organizations are sometimes viewed as outside the welfare bureaucracy, those agencies can sometimes access information about unsheltered homelessness that professional outreach workers cannot. The ability of BND to strengthen the relationship between volunteer and professional organizations meant administrators could access better information about their homeless population. Likewise, growing multisector partnerships facilitated information sharing between the homeless system and external organizations. This helped participants understand issues that clients needed to be addressed through program referrals and discover opportunities that were available to clients from other agencies.

Some resource gaps were identified and filled with BND. Participants described several ways BND helped them define the needs of service recipients.

P8 summarised this consensus in the following statement,

> I don't think we can end to homelessness unless we know what it looks like. We have to have that data to be able to figure out what we need to do…What barriers are they facing? What gaps are we seeing in resources?

According to most participants, BND was the best way to "know what homelessness looked like" because it provided current information about resource gaps. Some participants cited their BND whilst estimating the shortage of permanent supportive housing (PSH) in their homeless system:

> We haven't done a real comprehensive gaps analysis, other than we do our by-names list…We currently have about 45 chronically homeless on our chronic

list right now. And we don't have any PSH openings. So, we currently have a gap of 45. [P18]

After they identified a gap, some participants used BND to lobby grantors for more resources. Some said a crucial benefit that they got from BND was the enhanced power it gave them to lobby local officials:

> It ties all back to the funding and the advocacy and the support…The easier you can explain something the more somebody's going to listen. It also helps us by being able to utilise HMIS in real-time, [and] be able to say, 'What you're seeing on our website is today's data, not last quarter's data,' because it's such an easy way to look at it and a way to present it that we're able to give you real-time. [P2]

And P3 used BND to expand their CoC's progress on Veteran homelessness to other subpopulations,

> There was a lot of progress initially done in [my community] around ending Veterans homeless … And I'd been thinking about ways now to leverage sort of a similar approach to kind of an "end homeless for all" model …

Lastly, participants used BND to expand housing access for service recipients. P31 used BND to pass a local tax increase that financed affordable housing development,

> We created a monthly dashboard of where we were with our by-name list … We were able to get a millage passed in our community for affordable housing … [We created] the message around, these are the people that are experiencing homelessness … We ended up [with a majority of] voter approval for our tax proposal …

And P24 used it to recruit new landlords into their governing coalition,

> We wanted to have this big Zoom with landlords. And we want to be able to present data to show what we have been doing, graphs, numbers, and so forth. We want to woo the landlords.

The continuation of homelessness in BFZ communities, regardless of when the CoC adopted that methodology, suggests resource gaps and housing shortages remain salient. The evidence presented here shows participants think BND can help them fill those resource gaps. Although one participant said this strategy worked in their community, it is uncertain how many BFZ communities in the USA have had similar success. Most participants had not yet tried to use BND to fill resource gaps and a minority said BND did not help them get more funding.

Discussion

This study explored administrative perspectives of BND in BFZ communities. Little research has examined datafication despite its growing salience to homeless service delivery. Some scholars have raised concerns that homeless datafication can harm key stakeholders (Cronley, 2020; Eubanks, 2018; Kithulgoda et al., 2022; Marquardt, 2016; Willse, 2015) whilst others have identified ways homeless data can be used to help them (Clarke et al., 2021; Cronley et al., 2024; Grainger & Gaede, 2024). Whereas previous studies have examined the ethical implications of VI-SDAT or HMIS data, this paper analysed how local administrators perceive the benefits of BND to their homeless system. The author did this to engage scholarship on the ethics of homeless datafication and determine if BND is generating the benefits that were promised by Community Solutions (2018): enhanced efficiency, need-based prioritization, systemic flexibility, resource gap identification, and funding advocacy.

For the most part, participants supported Community Solutions' (2018) theory of change. Efficiency was the first benefit that participants discussed. Most said BND made CES more manageable by narrowing their waitlist and honing resources on prioritised groups. This helped participants make effective referrals that reduced lengths-of-homelessness, sustained tenancies, and minimized re-entries to homelessness, as was observed by Batko et al. (2021). Participants also said BND enhanced the fairness of their homeless system. BND helped administrators make fairer decisions by aligning prioritization categories with emergent needs and combatting racial inequalities. This observation extended recent studies that delineated strategies local administrators are using to make CES racially equitable (Cronley et al., 2024; Grainger & Gaede, 2024). Participants lastly described ways BND increased their homeless systems' capacity. BND facilitated strategic planning, strengthened relationships with key stakeholders, demonstrated resource gaps, and advanced some lobbying efforts. This extended recent studies that problematized the impact of resource constraints on program referrals by showing how BFZ communities can use BND to access more housing assistance (Grainger, 2024a). Although this study only included administrative staff, the findings suggest at least some caseworkers and service recipients have benefits from BND.

The author, however, qualifies their analysis in four ways. First, most participants praised the active status metric for reducing their prioritization list. Homeless individuals who have disengaged from CES might get removed from the BNL (Grainger, 2024b). If a group of service recipients are more likely to get mislabeled inactive, the efficiency gains yielded from the active status metric could undermine the fairness of their system. Second, using BND to identify a bottleneck does not mean grantors financed its unblockage. Some participants said their local government refused grant requests to fix a bottleneck and/or would unlikely finance more permanent housing for chronically homeless individuals. This made some participants question the value of BND for resource attainment even when they praised it for other reasons. Third, discretion can be used to harm individuals and/or subpopulations (see Osborne, 2019). Local administrators can deprioritise people on the perception of desert rather than need. If there is weak oversight of their use of discretion, this could generate unfair processes and outcomes that harm a homeless subpopulation. Fourth, BND can spawn conflict. Some caseworkers resent the use of BFZ principles to manage system flow when their clients get disadvantaged (Grainger, 2024a). This can generate conflict with administrators when caseworkers prioritise service delivery over BND production during social work interventions (Grainger, 2024b). This is more likely to happen under-resourced CoCs that lack additional staff to maintain service quality whilst producing BND. The benefits of BND are thus conditional on contextual factors that are specific to each BFZ community.

The findings have several implications for scholarship on the ethics of homeless datafication. Willse (2015) criticized HMIS mandates for prioritizing administrative efficiency over economic redistribution and social justice. The evidence presented here suggests BND helped close resource gaps in some BFZ communities. If administrators elsewhere can replicate those successes, then the resource shortages that concerned Willse (2015) can be somewhat addressed without losing the benefits of BND. Eubanks (2018) raised concerns about the sharing of homeless data. Although nobody in this study discussed data sharing with law enforcement, participants identified several benefits that service recipients got when their data is shared other agencies. The benefits of those partnerships for clients may justify limited data sharing. Administrators can address Eubanks' (2018) concern with policies that restrict or prevent data sharing with police. A couple studies have warned some forms of homeless datafication can reproduce racial inequalities in homelessness (Cronley, 2020; Kithulgoda et al., 2022). This paper

showed BND can help administrators identify and change biased processes more quickly and accurately. Thus, the ethical concerns raised in previous studies are salient, but can be addressed so homeless systems yield benefits from BND without harming service recipients.

Policy implications

Four policy implications stem from the current study. First, administrative services must be adequately funded to ensure case management is not sacrificed for BND production. This will also reduce conflicts between local administrators and caseworkers. Second, community oversight is needed to monitor how local administrators use their discretion. This can ensure fairness is maintained whilst administrators use the BNL to prioritise clients for housing assistance and enhance trust between key stakeholders in BFZ communities. Third, local administrators should add variables to their BNL that are tailored to the unique conditions of their homeless system. This expedites system flow by giving administrators information they need to determine client eligibility for (non-)federal assistance. Fourth, political leadership is essential to BND production and usage. Local government should encourage key stakeholders to generate BND and base funding decisions on insights from BND. This will demonstrate the salience of BND to key stakeholders and motivate their participation in its production.

Limitations and future research

This paper has some limitations. The generalizability of this research is limited by the overrepresentation of cases from the Western and Southern regions of the USA and the cross-sectional snapshot of administrative perspectives. Moreover, the study solely relied on interview data because resource constraints prevented the author from triangulating with other forms of data. Although the author used thematic analysis to demonstrate intersubjectivity amongst participants, reliance on interview data exposed the findings to self-report bias. Relatedly, the author primarily interviewed CES directors. Because HMIS analysts play a central role in BND production, sampling more of them would have strengthened the data analysis. Lastly, interview transcripts were independently coded data because the author's colleagues were unavailable to help. And the author did not perform member checks because this manuscript was written two years after they lost contact with participants.

Future research can advance this study in the following ways. Scholars can explore how non-participating agencies perceive BND. Privately funded agencies are not required to produce BND. If those agencies serve a large portion of a homeless sub/population, their refusal to produce BND can undermine a system's efficiency, fairness, and/or capacity. Future research is needed to understand the concerns non-participating agencies have with BND. Furthermore, this was a qualitative study focussed on local administrators. It did not evaluate the effect of BND on performance measures like homeless counts, lengths-of-homelessness, returns to homelessness, and successful exits from homelessness. Future research should analyse the performance of BND vis-à-vis HMIS data to determine its relative efficacy. Lastly, this study identified several benefits that local administrators got from BND. The evidence-base for BFZ implementation remains weak, however. Housing scholars' knowledge about the barriers to and enablers of BND production in different contexts is lacking. Future research should examine the challenges and opportunities for wider implementation.

Conclusion

This study extended research on homeless datafication by analysing how administrators in BFZ communities perceive BND. It advanced previous studies by exploring the way BND benefits CES and extended the discussion to a new form of homeless data. The author showed BND can enhance the efficiency, fairness, and/or capacity of some homeless system. This observation supported key components of Community Solutions' (2018) theory of change. Those benefits must be weighed against ethical risks that vary across homeless systems. Key stakeholders must consider those risks whilst deciding whether to produce BND and take appropriate actions to protect service recipients.

Note

1. A "BFZ community" is a CoC that had adopted the BFZ methodology.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

Notes on contributor

Dr. Garrett L. Grainger is a Research Associate at Manchester Metropolitan University and Research Fellow at Wrexham University who specialises in social policy, homeless governance, and digital sociology.

ORCID

Garrett L. Grainger   http://orcid.org/0000-0003-4963-7726

References

Balagot, C., Lemus, H., Hartrick, M., Kohler, T., & Lindsay, S. P. (2019). The homeless coordinated entry system: The VI-SPDAT and other predictors of establishing eligibility for services for single homeless adults. *Journal of Social Distress and the Homeless*, 28(2), 149–157. https://doi.org/10.1080/10530789.2019.1622858

Batko, S., Solari, C. D., & DuBois, N. (2021). *The value of ending veteran and chronic homelessness in four communities: A framework community-wide costs and benefits*. The Urban Institute.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brown, M., Cummings, C., Lyons, J., Carrión, A., & Watson, D. P. (2018). Reliability and validity of the vulnerability index-service prioritization decision assistance tool (VI-SPDAT) in real-world implementation. *Journal of Social Distress and the Homeless*, 27(2), 110–117. https://doi.org/10.1080/10530789.2018.1482991

Built for Zero. (2021). *HUD Secretary Marcia L. Fudge remarks at Built for Zero learning session – November 2, 2021*. Accessed March 20, 2022, from https://www.youtube.com/watch?v = wUg1BU4yS1Q&t = 485s

Clarke, A., Parsell, C., & Lata, L. N. (2021). Surveilling the marginalised: How manual, embodied and territorialised surveillance persists in the age of 'dataveillance'. *The Sociological Review*, 69(2), 396–413. https://doi.org/10.1177/0038026120954785

Community Solutions. (2018). *Getting to proof points: Key learning from the first three years of the built for zero initiative*. Accessed December 1, 2021, from https://community.solutions/new-report-reflections-from-the-first-three-years-of-built-for-zero/

Community Solutions. (2024a). *International partner initiatives: Ending homelessness at scale*. Accessed August 28, 2024, from https://community.solutions/international-partner-initiatives/

Community Solutions. (2024b). *By-name data: A pillar of Built for Zero methodology*. Accessed April 1, 2024, from https://community.solutions/quality-by-name-data/

Community Solutions. (2024c). *Built for zero: The movement*. Accessed April 18, 2024, from https://community.solutions/built-for-zero/the-movement/

Cronley, C. (2020). Invisible intersectionality in measuring vulnerability among individuals experiencing homelessness: Critically appraising the VI-SPDAT. *Journal of Social Distress and Homelessness*, 30(1), 23–33. https://doi.org/10.1080/10530789.2020.1852502

Cronley, C., Tiderington, E., Aykanian, A., & Huslage, M. (2024). Voices from the field: Continua of care representatives discuss strategies and opportunities for promoting equity in homelessness services in the United States. *Journal of Social Distress and Homelessness*, 1–14. https://doi.org/10.1080/10530789.2024.2310955

Dickson-Gomez, J., Quinn, K., McAuliffe, T., Bendixen, A., & Ohlrich, J. (2020). Placement of chronically homeless into different types of permanent supportive housing before and after a coordinated entry system: The influence of severe mental illness, substance use disorder, and dual diagnosis on housing configuration and intensity of services. *Journal of Community Psychology*, 48(7), 2410–2427. https://doi.org/10.1002/jcop.22428

Ecker, J., Brown, M., Aubry, T., Pridham, K. F., & Hwang, S. W. (2022). Coordinated access and coordinated entry system processes in the housing and homelessness sector: A critical commentary on current practices. *Housing Policy Debate*, 32(6), 876–895. https://doi.org/10.1080/10511482.2022.2058580

Eubanks, V. (2018). *Automating inequality: How high-tech tools profile, police, and punish the poor*. St. Martin's Press.

Evans, J., & Baker, T. (2021). Breaking through the epistemic impasse: Ending homelessness with the invention of 'functional zero' in the Anglo-American world. *Futures*, 129, 1–8. https://doi.org/10.1016/j.futures.2021.102730

Grainger, G. L. (2022). Yielding returns on homeless policy through the micro-economisation of housing first recipients. *Sociological Inquiry*, 92(S1), 967–993. https://doi.org/10.1111/soin.12430

Grainger, G. L. (2023). Draining a flooded bathtub: A qualitative analysis of built for zero implementation during COVID-19. *Housing and Society*, 51(1), 50–79. https://doi.org/10.1080/08882746.2023.2276610

Grainger, G. L. (2024a). What tradeoffs are made on the path to functional zero chronic homelessness? *Housing Studies*, 39(7), 1702–1723. https://doi.org/10.1080/02673037.2022.2141203

Grainger, G. (2024b). How waitlist management biases data production in built for zero communities. *International Journal on Homelessness*, 4(2), 22–41. https://doi.org/10.5206/ijoh.2023.3.17541

Grainger, G. L., & Gaede, E. (2024). Making BIPOC lives matter: A qualitative analysis of managerial resistance to racial exclusions in US homeless systems. *Housing, Theory and Society*, 41(1), 89–109. https://doi.org/10.1080/14036096.2023.2254770

Haggerty, K. D., & Ericson, R. V. (2000). The surveillant assemblage. *The British Journal of Sociology*, 51(4), 605–622. https://doi.org/10.1080/00071310020015280

Jocoy, C. L. (2013). Counting the homeless: The culture of quantification in American social policy. *Cultural Geographies*, 20(3), 397–403. https://doi.org/10.1177/1474474012454999

Kithulgoda, C. I., Vaithianathan, R., & Parsell, C. (2022). Racial and gender bias in self-reported needs when using a homelessness triaging tool. *Housing Studies*, 39(8), 1951–1973. https://doi.org/10.1080/02673037.2022.2151986

Kizer, K. W., Brush, B., Hayashi, S., Hwang, S., Katz, M., Mujahid, M., O'Connell, J., Samuels, B., Shinn, M.,

Wang, P., & Wenzel, S. (2018). *Permanent supportive housing: Evaluating the evidence for improving health outcomes among people experiencing chronic homelessness.* Accessed August 28, 2024, from https://www.csh.org/wp-content/uploads/2018/07/25133.pdf

MacArthur Foundation. (2021). *Community Solutions awarded $100 million to end homelessness.* Accessed March 20, 2022, from https://www.macfound.org/press/article/community-solutions-awarded-$100-million-to-end-homelessness

Marquardt, N. (2016). Counting the countless: Statistics on homelessness and the spatial ontology of political numbers. *Environment and Planning D: Society and Space, 34*(2), 301–318. https://doi.org/10.1177/0263775815611421

Osborne, M. (2019). Who gets "housing first"? Determining eligibility in an era of housing first homelessness. *Journal of Contemporary Ethnography, 48*(3), 402–428. https://doi.org/10.1177/0891241617753289

Slota, S. C., Fleischmann, K. R., Greenberg, S., Surka, M., Evans, K. S., Snow, J., Rodrihuez, S., & Zimmerman, T. (2021). Just infrastructure? Field research on a standardized assessment tool for a continuum of care for people experiencing homelessness. *Proceedings of the Association for Information Science and Technology, 58*(1), 327–336. https://doi.org/10.1002/pra2.460

Smith, C. (2022). *Homelessness and housing advocacy: The role of red-tape warriors.* Routledge.

Srebnik, D., Sylla, L., Hoffman, M., & Franzen, R. (2017). Impact of a supported housing prioritization system using vulnerability and high service utilization. *Journal of Social Distress and the Homeless, 26*(2), 90–96. https://doi.org/10.1080/10530789.2017.1328007

Sylla, L., Franzen, R., Srebnik, D., Hoffman, M., & Shoenfeld, A. (2017). Creating a regional model to coordinate and prioritize access to permanent supportive housing. *The Journal of Behavioral Health Services & Research, 44*(4), 564–573. https://doi.org/10.1007/s11414-016-9527-6

US Department of Housing and Urban Development. (2012). *Criteria and recording requirements for definition of homelessness.* Accessed August 28, 2024, from https://www.hudexchange.info/resource/1974/criteria-and-recordkeeping-requirements-for-definition-of-homeless/

US Department of Housing and Urban Development. (2017). *Coordinated entry core elements.* U.S. Department of Housing and Urban Development.

US Department of Housing and Urban Development. (2023). *Continuum of Care (CoC) program eligibility requirements.* Accessed November 5, 2023, from https://www.hudexchange.info/programs/coc/coc-program-eligibility-requirements/

US Department of Housing and Urban Development. (2024). *PIT data since 2007.* Accessed August 28, 2024, from https://www.hudexchange.info/resource/3031/pit-and-hic-data-since-2007/

van Dijck, J. (2014). Datafication, dataism and dataveillance: Big data between scientific paradigm and ideology. *Surveillance & Society, 12*(2), 197–208. https://doi.org/10.24908/ss.v12i2.4776

Willse, C. (2015). *The value of homelessness: Managing surplus life in the United States.* University of Minnesota Press.