EFFECTS OF ASSESSMENT AND ASSIGNMENT REGIMES ON CHARACTERISTICS OF PARTICIPANTS IN HOUSING PROGRAMS FOR PEOPLE EMERGING FROM HOMELESSNESS

by

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Abstract

EFFECTS OF ASSESSMENT AND ASSIGNMENT REGIMES ON CHARACTERISTICS OF PARTICIPANTS IN HOUSING PROGRAMS FOR PEOPLE EMERGING FROM HOMELESSNESS

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Homelessness response systems evolved over the last 20 years into institutional regimes that assess and assign homeless people to a limited set of housing programs based on individual characteristics and experiences of homelessness through Coordinated Entry Systems (CES). CESs have become a central feature of US homelessness systems and are now required of all communities receiving HUD funding through the Continuum of Care (CoC) program, the nation's largest source of funding for homelessness assistance. In theory, housing program assignments are based on criteria reflecting an assessment of participants' degree of vulnerability for incurring greater harm if left homeless and an assumed capacity for developing self-sufficiency (i.e., exiting from homelessness and sustaining housing without assistance). Informed by theory explaining the causes of homelessness and a pathways research framework, this project investigates the impact of assessment and assignment (A&A) regimes, i.e., systems used to assess the needs of homeless persons and assign them to housing programs. It uses administrative data from a major metropolitan CoC (HUD region), participant interviews, and staff focus groups to understand whether the system's intended effect on program assignments places the intended people in the right programs. The study investigates the impact and

underlying theory of these A&A systems as they evolved from 2011 through 2019, observing regime changes in agency discretion over assignments and automation around assessment scores.

While researchers have begun to critically examine the validity of homelessness assessment tools, little attention has been paid in the homelessness literature to examining embedded concepts such as vulnerability and self-sufficiency and their relationship to program prescriptions and designs. More research is needed to understand homelessness entrances and exits at aggregate and individual levels to improve program targeting and increase impact at the population level. Largely missing from scholarly literature on homelessness is research into the impact of current targeting, assessment, and assignment. There also is little consensus in the literature around the causes of homelessness and particularly their relationship to program design and targeting, and most empirical research has found little impact of housing programs in reducing homelessness at the population level. This study contributes to continuing debates over structural versus individual causes of homelessness and their relationship to housing program design, responding to the critique of pathways research as overly focused on personal agency and individual factors. Building on previous scholarship, this study adopts a theoretical framework incorporating structure with other causes of homelessness in a pathways framework while addressing research questions from both aggregate and individual levels of analysis.

The study found that A&A systems developed in regimes that could be categorized by the amount of autonomy agencies exercised in accepting clients and the degree to which some automated system made decisions. Findings indicated that regimes of decreased agency discretion and increased automation coincided with changes in participant characteristics in the direction of local system priorities emphasizing greater vulnerability and targeted subgroups while excluding other subgroups (single women, black men) with unique vulnerabilities and

barriers to housing. However, despite increased consistency between assignment targets and participant characteristics, selecting populations with more intensive service needs, program models and resources did not change commensurately, thus straining staff capacity, program resources, and revealing gaps in program models. Further, the study found that the timing and sensitivity of assessments understated participant vulnerability while failing to effectively assess capacity for self-sufficiency. Participant characteristics in Rapid Re-Housing (RRH) (a housing program that assumes people homeless due to economic life shocks can become self-sufficient if provided time-limited rental assistance and light supportive services) were not consistent with the program's logic. The study found that RRH participants bifurcated into (1) a group homeless due to significant individual barriers to housing self-sufficiency, not dissimilar from those assigned to Permanent Supportive Housing (PSH) programs with long-term rental assistance and intensive supportive services, and (2) a group homeless due to structural factors and weak support systems. The study found that both groups struggled to achieve housing self-sufficiency with time-limited assistance, emphasizing the pervasive socioeconomic impact of low-wage work and careers and unaffordable housing. Program designs with limited and rationed rental assistance, as in RRH, failed to adequately address structural causes of homelessness. Taken in the context of the disproportionate assignment of black households to RRH, this finding is consistent with prior research that RRH program designs are inadequate to address the structural and individual factors in black homelessness, setting up the potential for a revolving door of returns to homelessness.

This study also revealed that, alongside evolving A&A systems, housing program participants have increased the severity of their problems, indicating a need to increase and rebalance the funding ratios between limited (RRH) and long-term assistance (PSH). Two

prepackaged housing programs (RRH and PSH) are inadequate to address the diversity of needs and capacities of people who become homeless, as well as the ubiquity of lifetimes of low-wage work and unaffordable housing. Finally, program participants and staff identified challenges to the fairness, efficiency, and effectiveness of A&A systems and associated housing program placements. Many program participants experienced lengthy periods of homelessness, particularly prior to their entry into emergency systems, where their homelessness could be documented, and attributed their eventual housing program assignments to luck or their own agency. The author concludes by suggesting policy responses addressing scholarly debates around program targeting and equity, the impact and use of assessment systems to address homelessness, the role of services and rental assistance in program models, and the relationship of homelessness response systems to mainstream welfare systems.

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Chapter 1

Introduction

Given significant increases in homelessness in the 1980s, US policymakers responded with legislation, programs, and billions of dollars in funding from the federal to the local level, especially through the federal Continuum of Care (CoC) program (Kyle 2005; Hambrick Jr. and Johnson 1998; Culhane and Metraux 2008; Federal Register 2012; Oakley 2002; National Alliance to End Homelessness 2016; Galster 2008; Millennial Housing Commission 2002; HUD 2019f; Belcher and DeForge 2012; HUD 2013b; Crowley 2011; Shinn 2007).[1] Following a call by prominent researchers to "reallocate the lifeboats" (Culhane and Metraux 2008), homelessness policy solutions in the US have moved toward systems that prioritize eligibility for assistance and prescribe particular interventions for homeless people with particular characteristics to make systems with limited funding more efficient and effective (Shinn 2007; O'Flaherty 2019; O'Flaherty, Scutella, and Tseng 2018; Chan et al. 2017b). Federal laws made coordinated or centralized assessment systems, using standardized diagnostic tools (structured questionnaires producing a numerical score), a requirement for communities receiving federal funding for housing programs to address homelessness (Federal Register 2012; HUD 2013a; USICH 2015; HUD 2015b). Two such programs, Rapid Re-Housing (RRH) (time limited) and Permanent Supportive Housing (PSH) (no time limits), have grown to represent 86% of annual CoC funding (HUD 2019a).

[1] The CoC is a federal program establishing regional entities organized around major metropolitan areas or rural geographies through which funding and policy priorities are distributed to address homelessness. CoCs coordinate a network of agencies providing homelessness services, maintain a Homelessness Management Information System (HMIS), and submit common community-wide applications for funding to the US federal government and other sources (HUD 2019b; TCHC 2019b).

Effective assessment and assignment (A&A) systems depend on knowing what interventions work to reduce homelessness for which people, and how to accurately identify the people who will benefit, both questions requiring more research (O'Flaherty 2019; HUD 2013a; 2013c; Shinn 2007; Vaclavik et al. 2018). Some researchers have challenged whether such program targeting is possible because, (1) no strategies have demonstrated the capacity to reduce or end homelessness at the population level, indicating a possible failure to affect structural causes (O'Flaherty 2019, 23); (2) the causes of homelessness are highly contested, ranging from individual to structural explanations and recently, the pathways framework (Fitzpatrick 2005; Pleace 2000); and (3) no research predicts who will benefit from any particular program, emphasizing the growing understanding of homelessness as a highly individualized process (National Academies of Sciences, Engineering, and Medicine (US) 2018). In the face of this uncertainty, this project examines a north Texas region's experience with evolving A&A systems through a case study of RRH and PSH program assignments and participant characteristics in the Fort Worth/Arlington/Tarrant County Continuum of Care (TX-601).

Informed by theory explaining the causes of homelessness, this project investigates the impact of processes used to assess needs and assign homeless persons to housing programs, using administrative data, participant interviews, and staff focus groups, to understand whether they have their intended effect on program assignments, placing the intended people in the right programs (McNaughton Nicholls 2009; Fitzpatrick 2005). Homelessness theory provides an important lens for analyzing the impact of evolving A&A systems, revealing their underlying theories of change (Weiss 2011; Bullen 2015; Connell and Kubisch 1998). Homelessness theory increasingly identifies multiple contributing factors to homelessness, including individual vulnerabilities (e.g. chronic health conditions, mental illness), structural factors (housing

markets, wage rates), life shocks (e.g. job loss, death of a family member, birth of child with disabilities), support system deficits (e.g. no family or family with limited resources), agency (personal decisions), and exclusion (e.g. discrimination based on race, disability, source of income). The new pathways research framework explains homelessness as an individual journey through some or all these contributing factors. Programs designed to affect homelessness address one or more of these factors and theoretically would match people with particular pathways into certain programs.

Local systems for addressing homelessness are influenced by HUD regulations and funding policies, and have changed over time, including requirements for A&A systems. To understand the impact of A&A systems, it is important to document the type of system in place at any point in time. The following section traces the evolution and characteristics of A&A systems used in TX-601.[2]

Assessment and Assignment: Evolution of A&A Systems in TX-601

Homelessness scholarship and policy have come together in the US and internationally to emphasize 1) identifying subpopulations with common characteristics and pathways into and out of homelessness, 2) targeting homelessness interventions to people for whom they might be most effective based on certain personal characteristics and experiences and 3) directing people to programs by intensity of need (based on assessment of individual characteristics and experiences

[2] Chapter 2 reviews the evolution of federal policy that drove regional systems to create centralized systems for managing regional homeless response systems to obtain competitively awarded HUD funding. Chapter 3 describes TX-601 and compares it with other major metropolitan CoCs. While substantial diversity exists among CoCs, federal policy shapes local policy toward common practices, especially in comparable communities.

of homelessness), reserving the most intensive/expensive interventions for those with the greatest vulnerability in the interest of cost-effectiveness (Culhane and Metraux 2008; USICH 2015; 2018). In the US, these goals have become embodied in Coordinated Entry Systems (CES), incorporating a standardized method for assessing and categorizing subpopulations and prioritizing people for resources based on assessment of vulnerability (HUD 2017b). HUD defines a CES as a "…centralized or coordinated process designed to coordinate program participant intake assessment and provision of referrals" in Continuums of Care (CoCs) receiving federal funding (HUD 2017b; Shinn 2007; O'Flaherty 2019; O'Flaherty, Scutella, and Tseng 2018; Chan et al. 2017a; HUD 2012). CESs have become a central feature of US homelessness systems since 2010 and are now required of all communities receiving HUD funding through the CoC program, the nation's largest source of funding for homelessness assistance (HUD 2019b; 2015b; 2019i). HUD encourages, and the local CoC (TX-601) has adopted, goals requiring that 100% of entries to housing programs (RRH and PSH) come through the CES and that housing program providers must accept 90% of referrals from the CES (TCHC 2019c; TX-601 CoC 2018). HUD CES criteria include prioritizing persons for service by severity of need (i.e. high utilization of crisis services, significant health issues, substance use disorders, or functional limitations) and length of time homeless, applied in a nondiscriminatory manner (i.e. not in violation of US civil rights laws protecting certain classes of persons) using a standard assessment tool, with the aim of increasing the proportion of the most service-intensive strategies used by chronically homeless persons (HUD 2016a).

Figure 1 characterizes the general conceptual framework behind CESs. First, homeless persons enter the process bringing a variety of characteristics, vulnerabilities, life experiences, support systems, and personal goals. They are assessed and assigned to programs through a CES

based (in TX-601) on information and scores from two structured questionnaires, the HUD Assessment and the Vulnerability Index-Service Prioritization Decision Assistance Tool (VI-SPDAT) (HUD 2017b). People are assigned primarily to two housing programs, Permanent Supportive Housing for the chronically homeless who have disabilities and time-limited Rapid Re-Housing programs for persons with shorter durations of homelessness (TX-601 CoC 2018). Program outcomes are measured in different ways but most importantly in terms of housing retention and returns to homelessness. The process is intended to assign clients to appropriate levels of housing and services based on need, and it prioritizes persons with severe service needs for the most intensive interventions. Individual characteristics can affect both program assignment and success in achieving housing stability (Boland et al. 2018; HUD 2019g). It is also possible that selection criteria or process characteristics can influence who applies for assistance and how they present themselves to agency staff (Osborne 2019).

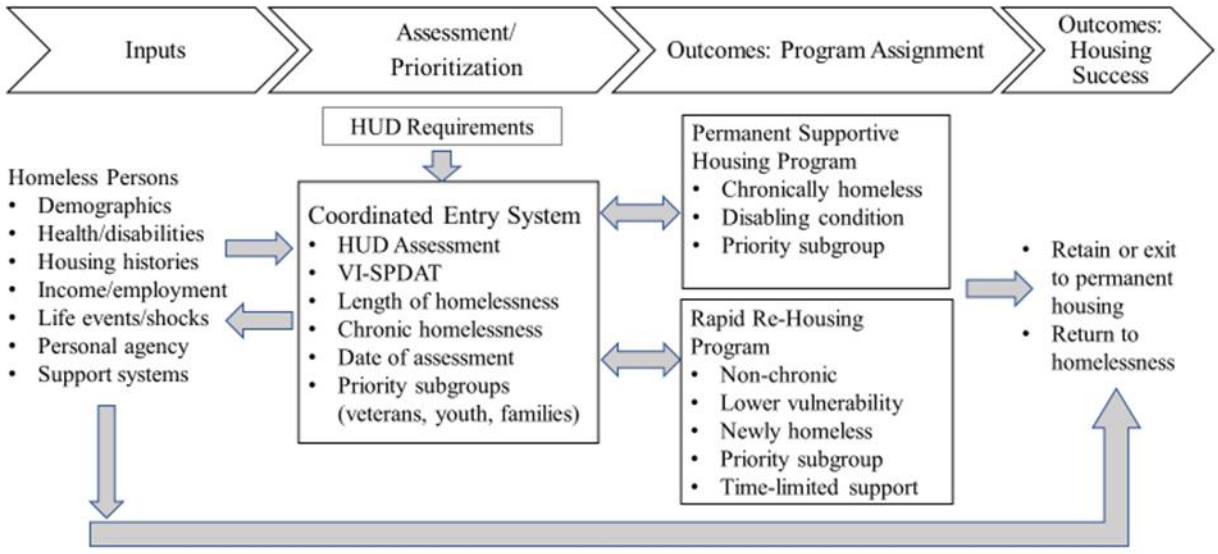


Figure 1. Generalized conceptual framework for Coordinated Entry Systems

Evolving social systems addressing homelessness can be described in terms of institutional regimes consisting of principles, norms, fundamental rules, rights, and decision-making

procedures that systematize service provision at the micro level of managers and beneficiaries, and that change over time (van de Kaa and Greeven 2017; Nkhata et al. 2017). In TX-601, HUD's process of institutionalizing CESs played out in approximately three A&A regimes, described in published policies and procedural documents. These regimes can be categorized by the amount of autonomy agencies exercise in accepting clients and the degree to which decisions are determined by some automated system:

(1) *Strong agency discretion, Weak automation*: decentralized assessment and assignment using a variety of methods and tools at the agency level (pre-2014)

(2) *Weak agency discretion, Weak automation*: centrally coordinated but non-determinant prioritization and assignment practices with performance-based contracting (2014-16)

3) *Weak agency discretion, Strong automation*: a largely automated and determinant CES based on required assessment tools (2017-present).

Strong agency discretion means that agencies accept any client they wish at any time without negative consequences to their funding. Weak agency discretion means that decisions to accept and refer clients are made centrally for some geographical area and individual agencies have less ability to select the clients they serve. Weak automation means that diagnostic tools or administrative data are considered in prioritizing and assigning clients to programs, but that decisions are made by people. Strong automation means that administrative data or scores on assessment instruments are used to automatically prioritize and assign clients to programs without human intervention except, perhaps, an appeal process.

The three types of A&A emerged in TX-601 out of a national context of increasing institutionalization of highly structured and centralized regimes of A&A, focused on meeting

specific performance goals set by HUD and the community for fairness, efficiency, and effectiveness. Table 1 summarizes characteristics of the three TX-601 regimes by period, including assessment tools used, prioritization criteria, and other conditions that characterize system operation, followed by a narrative description of the regimes (Hogg 2019; Spence-Almaguer et al. 2014; Spence-Almaguer, Petrovich, and Van Zandt 2012; TX-601 CoC 2017b; 2014).

Table 1. A&A system regimes used in TX-601 by time period, type, assessment tools, and prioritization criteria

A&A type	Strong agency discretion, No automation	Weak agency discretion, Weak automation	Weak agency discretion, Strong automation
Time	2011-3/2014	4/2014-5/2017	6/2017-2019
Assessment tools	• Vulnerability Assessment Score (VAS – certain programs only) • HUD Assessment	• Housing Assessment Form/VI-SPDAT • Documentation of Priority Status	• VI-SPDAT 2.0 • HUD Assessment
Prioritization criteria	• VAS • Length of homelessness (6 months)	• Length of homelessness (12 months) • Severity of need (disability, high-crisis service utilization, health/functional impairments) • Housing situation (unsheltered, TH, ES, Safe Haven) • Family composition (individual, family) • Priority subpopulation (domestic violence, veteran, HIV/AIDS, family w/children, mental health, unaccompanied youth)	• Priority population 1) veteran, 2) youth, 3) families, 4) single adults) • VI-SPDAT score • Length of homelessness • Date of assessment
Other conditions	• Not coordinated; each agency prioritized and selected its own clients • Assessment scores not retained in central database • Performance-based contracting	• Central coordination of program assignment by committee • Common prioritization tool, not determinate	• Automated system assigns applicants to programs and assigns priority rank for housing • Agencies incentivized to use system rankings and accept system referrals

Source: Information summarized and organized by author from Hogg 2019, Spence-Almaguer et al. 2012, 2014, TX-601 CoC 2014, 2017

Pre-2014: Strong Agency Discretion, No Automation

In 2008, the City of Fort Worth published Directions Home, its 10-year plan to end homelessness (Mayor's Advisory Commission on Homelessness 2008). In the plan, the Tarrant

County Homeless Coalition (TCHC), the managing nonprofit agency of the CoC, was assigned to create a centralized client waiting list and a web-based inventory of available units in housing programs. This was the beginning of efforts to centralize coordination of eligibility and assignment to housing programs (Petrovich and Spence-Almaguer 2009). Efforts proceeded over the following years, including experimentation with emerging assessment tools (Spence-Almaguer et al. 2014). Directions Home employed the Vulnerability Index (VI) (based on research conducted by Boston Healthcare for the Homeless predicting mortality) from October 2008 through 2010 to prioritize persons for housing placement with the greatest medical vulnerability (Spence-Almaguer and Petrovich 2010; Spence-Almaguer, Petrovich, and Chhetri 2014). From 2011 through 2013, the VI was replaced by a revised tool, the Fort Worth Vulnerability Assessment Scale (VAS), which had better internal consistency and wider variation in scores, making it more useful for prioritization and placement decision-making (Spence-Almaguer, Petrovich, and Chhetri 2014; Spence-Almaguer, Petrovich, and Van Zandt 2012). Both instruments were geared toward predictions of mortality with a high degree of intercorrelation. Program evaluators, contracted from local universities, expressed concern over the validity, reliability, and utility of available assessment instruments and lack of coordination among agencies (Spence-Almaguer, Petrovich, and Chhetri 2014). Each agency conducted assessments and made its own decisions about who to admit to its programs and in what order of priority (Hogg 2019).

2014-2016: Weak Agency Discretion, Weak Automation

In response to HUD directives (HUD 2014b), TX-601 implemented a coordinated assessment system in 2014 (TX-601 CoC 2014; Fort Worth/Arlington/Tarrant County COC 2013). The standardized system "could encompass the CoC-wide use of a standardized

assessment tool, as well as data driven methods" (TX-601 CoC 2014, 23). However, the system was intended to be non-directive and allow for decision overrides based on the "judgment of qualified professionals" (TX-601 CoC 2014, 23). The initial policy was focused on prioritizing households for referral to PSH based on length of homelessness and severity of need, including a history of high utilization of crisis services and significant health challenges verified by some source of relevant data, explicitly referencing HUD's funding preferences and policy directives (HUD 2014b). TX-601 also provided for centralized prioritization of homeless families with children based on a Housing Assessment Form (HAF) and a case management interview for referral to Rapid Re-Housing (RRH) and Transitional Housing (TH) programs. The 2014 TX-601 policy references standardized assessment tools but does not identify which tools and standards to use. In practice, no assessment tools were used and applicants were prioritized based on length of homelessness and documentation of disability (Spence-Almaguer et al. 2015). Participating CoC agency staff documented homelessness and need in HMIS for subsequent confirmation and Documentation of Priority Status by a central Coordinated Assessment System office that maintained a prioritized waiting list for program assignment. Program evaluation found significant lack of correlation between assessments of vulnerability and chronicity of homelessness (Spence-Almaguer et al. 2014). Another major shift during this period was adoption of performance-based contracting that put agency funding at risk if certain performance targets were not met (Spence-Almaguer et al. 2015). Evaluators expressed concerns that service providers were being held accountable for outcomes outside their control and that performance metrics were leading to "creaming" (agencies accepting higher functioning clients in order to meet performance targets such as housing retention) (Spence-Almaguer et al. 2014).

2017-2019: Weak Agency Discretion, Strong Automation

The most recent CES was documented in an Operations Manual in 2017, most recently revised in 2019 and is currently being revised again (TX-601 CoC 2017b; Hogg 2019; Tarrant County Homeless Coalition 2019b). The CES is administered by the Tarrant County Homeless Coalition (TCHC) through a Coordinated Entry Team responsible for data administration, participant training, and overall management. Participating agency assessors and case managers administer the HUD Assessment and the VI-SPDAT version appropriate to the particular household (unaccompanied youth, family, single adult) (OrgCode 2016). Assessment score are stored in the HMIS, and households are automatically assigned to a housing program (RRH or PSH) by algorithm. HMIS also assigns each household a priority and automatically populates and repopulates the Homebase database with households in priority order. Households are first prioritized by population subgroup: military veterans, unaccompanied youth, families, single adults. Within these subgroups, households are prioritized based on their VI/SPDAT score, length of time homeless, and how long they have been on the priority list since date of assessment. Separate priority lists are maintained for RRH and PSH. HUD assessments are updated every 90 days, and VI-SPDATs are updated if a significant change occurs in the applicant's circumstances. Agencies participating in CES must accept 90% of the clients referred by CES or lose points in annual funding competitions. A Coordinated Entry Implementation Workgroup may grant exceptions to automated assignment and prioritization decisions with evidence of high emergency service utilization or extreme vulnerability not reflected in the VI-SPDAT score. Agency case managers may appeal prioritization during regular case conferencing meetings.

Problem Statement and Justification

This project will explore the resulting characteristics of people assigned to homeless housing programs using case study data from the TX-601 CoC, comparing different institutional regimes of assessment and assignment (A&A). HUD awarded more than $2.16 billion in 2018 to CoCs with the stipulation that housing program eligibility and assignment be informed by coordinated assessment (HUD 2019a). Communities are making difficult, high-stakes decisions about whom to assign and how much funding to allocate to PSH programs for persons with disabilities who have been chronically homeless and to RRH programs for persons who are transitionally homeless and have the potential to become self-sufficient after a time-limited period of housing assistance (HUD 2019c; Toros and Flaming 2018). This project explores the effect of increasingly determinant assessment and assignment policies by examining the outcomes of these policies over time on actual housing program assignments and participant characteristics through the lens of evolving homelessness theory.

Rapid Re-Housing (RRH) and Permanent Supportive Housing (PSH) programs have become the mainstay of US homelessness program responses concurrent with a national shift away from programs that support people while homeless (emergency shelter and transitional housing) toward programs that provide housing without preconditions, buttressed by tailored supportive services (HUD 2020f; Henry et al. 2018). From 2007 to 2018, RRH and PSH programs increased from 31% of HUD program beds to 55%, as shown in Figure 2.

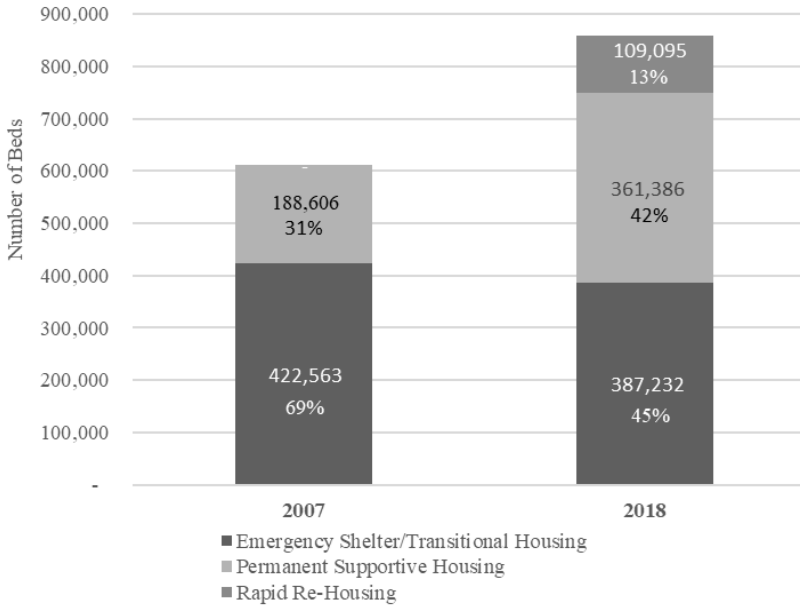


Figure 2. US homeless beds by program, 2007-18 using data from HUD 2020f visualized by the author

RRH and PSH programs are now used throughout the approximately 400 US CoCs, standardized by funding requirements for program elements, data collection, outcome measures, and, most recently, CESs (HUD 2019b; 2019a). The Fort Worth/Arlington/Tarrant County CoC (TX-601) is representative of large, US, municipal CoCs, receiving approximately $13 million per year from HUD, most of which is invested in PSH and RRH programs (Farrar-Myers and McGhee 2019). This project examines PSH and RRH participant characteristics in TX-601, a community with a fully developed CoC program administered by the Tarrant County Homeless Coalition (TCHC 2019d).

The impact of CESs has only recently begun to be examined (Osborne 2019; M. Brown and Cummings 2018; Chan et al. 2017a; Rice et al. 2018). The importance of understanding the effect of these targeting and prioritization schemes cannot be overstated given that homelessness assistance programs are not adequately funded to provide prescribed interventions to the number of people eligible, leaving many homeless people waiting for assistance (Quigley 2011; TCHC

2019d; Henry et al. 2018). Some experts question the ability of any social welfare assessment tool (i.e. artificial intelligence) to make valid, reliable, and unbiased decisions for eligibility and resource allocation, especially when the subjects of the assessment face significant consequences based on their responses (O'Flaherty, Scutella, and Tseng 2018; Culhane, Kane, and Johnston 2013; Levitt 2015; Mehr 2017). Recent research into the validity of the widely used VI-SPDAT finds disparate impact by race, ethnicity, and gender (B. T. King 2018). Practitioners express frustration that assessment tools and prioritization processes understate vulnerability and fail to serve persons with lower scores who are homeless (Fritsch et al. 2017). Only recently have widely adopted assessment tools begun to be critiqued for weak validity and reliability (Gubits et al. 2016; Fritsch et al. 2017; M. Brown and Cummings 2018). O'Flaherty questions the fundamental concept of "command and control" systems based on findings that assessments do not and cannot reveal substantial private household information, which is crucial to understanding which households need help to end their homelessness (O'Flaherty, Scutella, and Tseng 2018). However, for the last decade, local community consortiums like the Fort Worth/Arlington/Tarrant County Continuum of Care (TX-601) have been developing increasingly centralized and automated systems for targeting and prioritizing homeless persons based on assessments (TX-601 CoC 2018). Some researchers are calling for the adoption of such systems in all public housing assistance (Collinson, Ellen, and Ludwig 2019; Quigley 2011).

Finally, this project addresses larger scholarly concerns by investigating assignments in terms of evolving homelessness theory. Targeting persons for interventions based on individual characteristics and experiences of homelessness is situated within evolving dominant explanations of homelessness (Pleace 2016; Clapham 2002). This project employs the emerging pathways theoretical framework, incorporating structural, individual, and other contributing

factors, to characterize who is being assigned to housing programs. RRH and PSH programs are theoretically targeted to homeless persons representing different ideal pathways. RRH, a design emerging from the Great Recession, was intended for persons who are homeless due to structural contributing factors such as job loss, chronic unemployment, foreclosures, or rising rents and can regain economic self-sufficiency with limited assistance. PSH is intended for homeless persons with greater individual vulnerabilities, such as severe mental illness, who are not expected to be able to sustain housing without ongoing assistance. This project compared PSH and RRH participants' characteristics and experiences of homelessness with these models to identify whether A&A systems are populating programs with the people for whom they were designed.

Research Questions and Research Strategy

This project addresses four questions through a case study of the TX-601 CoC:

1. How do homelessness housing program assignments differ under different regimes of coordinated assessment and assignment in terms of the characteristics of those assigned to RRH and PSH programs? For example, do more determinant assessment protocols increase the percent of chronically homeless persons placed in PSH programs (an explicit HUD goal)?
2. How do these changes compare with system goals? Are participants being assigned to the right programs, consistent with the programs' theoretical homelessness pathway?
3. Under the most recent TX-601 regime, what are the characteristics of participants in RRH and PSH programs? How do participants characterize contributing factors to their homelessness? How closely does this characterization match program targeting? How useful is a pathways framework for analyzing participant characterizations?

4. What are the implications of findings for system design, program targeting, and program demand?

These questions are examined for using six categories of variables:

1. Demographic characteristics, including race, ethnicity, age, gender, and family composition, to identify included and excluded populations
2. Vulnerability, as indicated by criteria included in the VI-SPDAT
3. Chronicity or length of homelessness
4. Work and income histories reflecting possible potential for self-sufficiency
5. Perceived homelessness pathways, including contributing factors of personal agency, life shocks, individual vulnerabilities, structural factors, social exclusion, and support system deficits found in pathways literature
6. Program services received and valued from participant perspectives to identify experienced differences in program characteristics

These questions and variables are investigated using data from three sources:

1. Administrative data from the TX-601 Homeless Management Information System (HMIS) Annual Performance Reports (APR) aggregated by time period to reflect changes by regime, from strong agency discretion and weak automation to weak agency discretion and strong automation
2. Semi-structured interviews with recent TX-601 RRH (16) and PHS (15) participants to determine differences in homelessness pathways and housing program experiences under the most recent regime of weak agency discretion and strong automation

3. Focus groups with longer tenured TX-601 housing program directors and case managers to understand perceived changes in participants over time and comparisons of participants in relation to intended program target populations

In summary, this project informs the management of homelessness A&A systems as well as scholarly debate around automated program eligibility systems and the pathways framework for understanding experiences of homelessness. It employs a mixed methods case study of RRH and PSH program assignments, in different time periods, within a representative US CoC, using both administrative data and qualitative research, grounded in the pathways research framework.

Chapter 2

Literature Review

The scholarly literature around homelessness has developed significantly over the last 40 years while leaving many questions unresolved (Pleace 2016; O'Flaherty 2019). This chapter first reviews the theoretical literature examining scholarly debates around explanations for homelessness and emerging research frameworks and challenges, setting a context for examining homelessness systems and program assignments. Second, the chapter reviews government documents and scholarship describing the characteristics, evolution, and devolution of US homelessness systems, alongside research into the effectiveness of automated eligibility systems in social welfare programs. Homelessness theory is used to understand the theoretical logics underpinning US homelessness policy, housing program design, and A&A systems and tools. The chapter addresses each of these bodies of literature, setting a context for the problem selected and methods chosen for investigation.

Evolution of Homelessness Theory

Research, theory, and policy have evolved side by side in the US, particularly regarding best practices and service targeting. Scholarly theory about the causes of homelessness has advanced significantly over the past 200 years. Since at least the 1800s, the "individual causes" explanation suggests that homelessness is associated with individual characteristics (mental illness, substance use disorders) and personal deviancy. Under this theory, homelessness has been largely investigated with ethnographic research and mitigated through workhouses, asylums, and cheap market-based single-room-occupancy housing. But scholars expressed concern that theory focused on individual causes ignores the impact of larger social structures and power regimes (Kyle 2005; Parsell and Parsell 2012; Gowan 2010; Pleace 2000). In the

1960s, reflecting the impact of liberalism, homelessness began to be interpreted as a failure of housing and labor markets and social support systems that should be mitigated through housing programs (Burt 1991; Hanratty 2017; Raphael 2010). Population-level research using regression analysis found that structural factors overwhelmed individual causes of homelessness (Shinn et al. 1998).

However, scholars continued to find structural and individual factors evident in homelessness, depending on the level of analysis used. Theorists began to suggest that these factors interacted in some fashion to produce homelessness, contributing to a "new orthodoxy" in homelessness research (Burt 2010; Montgomery, Metraux, and Culhane 2013; Farrugia and Gerrard 2016). Economists entered the discussion with the first neoclassical economic models of the housing market including homelessness and the effects of life shocks (O'Flaherty 2004; 1995). The 1990s also saw development of the "housing first" program model combining initiatives to address structural and individual factors alike (Padgett, Henwood, and Tsemberis 2016). However, the interaction theory was critiqued for (1) treating homelessness as a static condition rather than a time-based process, (2) imprecise variables, (3) excluding the role of individual agency, and (4) failing to explain a mechanism for how structural and individual factors interact to produce homelessness (Clapham 2002; Pleace 2016; Somerville 2013; Fitzpatrick 2005; McNaughton Nicholls 2009).

Recently, critics of the new orthodoxy proposed a pathways framework to explain homelessness as a highly individual time-based process in which life shocks, personal agency, personal support systems, and vulnerabilities interact within the constraints of larger social structures and support systems (D. Clapham 2002; Fitzpatrick 2005). Research methodology returned to analysis of individual life histories with the aim of finding common pathways into

and out of homelessness among subgroups of households with common characteristics (Fitzpatrick, Bramley, and Johnsen 2013; May 2000; Anderson 2001; Chamberlain and Johnson 2011). Mitigation strategies turned to assessing homeless persons for characteristics that might place them into subgroups for whom the most efficient combination of support services and housing could be prescribed (Culhane and Metraux 2008; O'Flaherty, Scutella, and Tseng 2018). Critics argued that the pathways approach overly emphasized individual characteristics, decisions, and vulnerabilities and downplayed the importance of structural constraints (Pleace 2016; Clapham 2003). Figure 3 summarizes the evolution of homelessness theory, including a sample of the prominent contributing authors and theorists, associated research methodologies, interventions, and critiques.

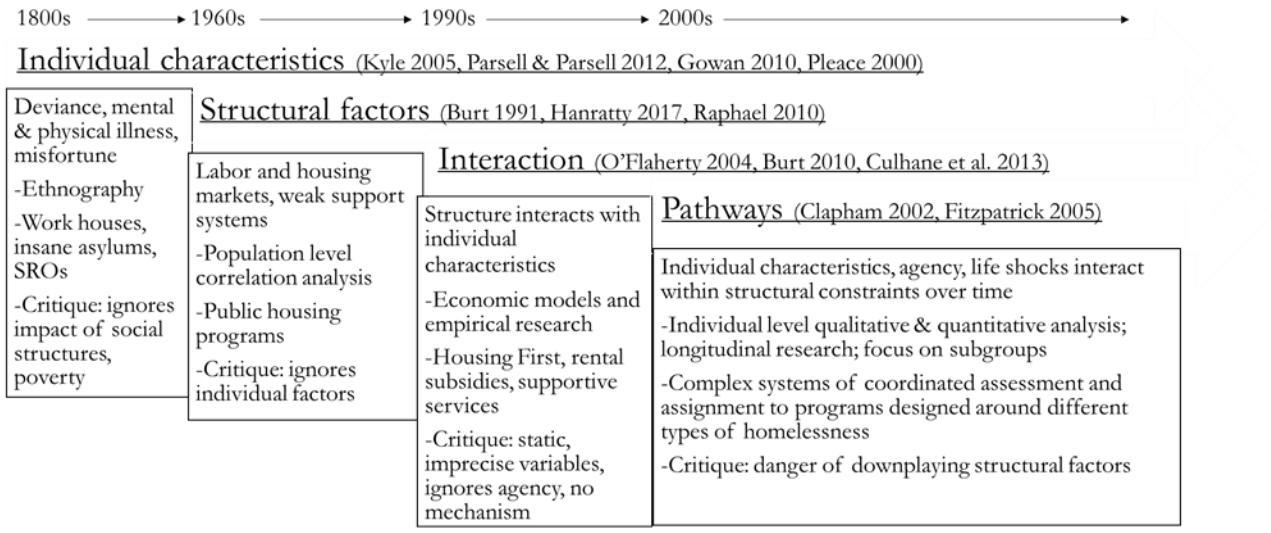


Figure 3. Evolution of theory on the causes of homelessness, summary of selected scholarly literature by author

Critical analysis of current homelessness theory

These different theoretical frameworks continue to coexist in what Pleace (2016, 25) calls "a conceptually inconsistent mess," with research based on all types of theories going on simultaneously. Recent scholarship, drawing heavily on critical realism, structuration, and

complexity theory, addresses homelessness as a symptom of a constellation of social problems, both individual and structural (Pleace 2016; M. Williams 2001). Anderson (2001) suggests that structural factors (e.g. unemployment, rental vacancy rates, poverty) influence the scale of homelessness, setting a context in any given period. According to Williams, "the range of symptoms we call homelessness is a manifestation of social complexity" (2001, 1) and the complex processes that produce homelessness are nested conditions and probabilities attaching to individuals, with each contributing factor, individual or structural, caused by other factor(s). This assessment defies any possibility of analyzing homelessness as a distinct social problem with unique intervention strategies (M. Williams 2001).

Fitzpatrick (2005) finds definitions of individual or structural explanations of homelessness unclear, reflective of the arguments brought by complexity theory. Nooe and Patterson, taking a social ecology view, attempt to build a grand model that transcends "tbche classic debate that posited homelessness as the result of either individual or structural factors" (2010, 106); they then proceed to ascribe biopsychosocial risk factors to either structural or individual categories, but with murky differentiation. For example, individual factors are presumed to be something over which an individual has personal responsibility or that increase vulnerability to homelessness such as age, experience of foster care, or incarceration (Nooe and Patterson 2010). However, the socially constructed norms that define old age, determine foster care practices, and promote incarceration are clearly structural and not individual characteristics. Family housing instability and households headed by single mothers similarly are factors difficult to ascribe to either structural or individual categories, each possibly preceded by a series of nested contributing factors (Fitzpatrick 2005; Nooe and Patterson 2010). Individual capital explanations of homelessness consider deficits in individual human, economic, or social capital as

contributing risk factors in a game of musical chairs with the housing or employment market defining the number of chairs available (Shinn 2007). But lack of education or skills, characteristics attaching to individuals, is itself the result of complex factors, including macro-institutional and larger organizational structures. Table 2 summarizes the variables used in more than 40 scholarly articles on the contributing factors to homelessness.

Table 2. Variables used in homelessness research by category of explanation

Explanations	Variables	Literature
Individual characteristics	Mental or physical illness or disabilities, substance misuse, family structure, individual capital (social, economic, human), age, military service	(Aubry et al. 2016; Shinn 2007; Shinn et al. 1998; Nooe and Patterson 2010)
Structural factors	Housing cost and labor market conditions including median rent, housing availability, low wages, poverty rate, unemployment, recessions, family housing instability, loss of jobs and public benefits, deinstitutionalization (prisons, psychiatric hospitals), health care cost, discrimination	(Brandon et al. 1980; Hanratty 2017; O'Flaherty 2004; Pleace 2016; Caton 1990; Lee, Tyler, and Wright 2010; Toro et al. 1991; Raphael 2010; Somerville 2013; Burt 2010; 1992; Culhane et al. 1994; 2007; Kuhn and Culhane 1998; Culhane, Kane, and Johnston 2013; McNaughton Nicholls 2009; Shinn et al. 1998; Shinn 2007; Cobb-Clark et al. 2016; O'Flaherty 2010; Benjaminsen and Andrade 2015; Stephens and Fitzpatrick 2007; Montgomery, Metraux, and Culhane 2013; O'Flaherty and Wu 2008; Culhane et al. 2013; Nooe and Patterson 2010)
Life Shocks	Bad luck; personal financial crisis including loss of job, housing or benefits; price increases; birth of child with disability/disease; divorce; adverse childhood experiences; trauma; relationship loss/death; family breakdown; hospitalization	(Piat et al. 2015; Padgett et al. 2012; Martijn and Sharpe 2006; Curtis et al. 2013; O'Flaherty 2009; 2010; Cobb-Clark et al. 2016)
Support Systems – access and adequacy	Formal (access to welfare benefits, housing subsidies); Informal (friends, family)	(Pleace 2016; Baptista, Benjaminsen, and Pleace 2015; Aubry et al. 2016)
Stigmatization and exclusion	Adverse discrimination based on race, criminal background, history of institutional care (foster, prison, psychiatric hospital), substance misuse, street culture activities (begging, survival sex), adverse life events and childhood trauma	(Fitzpatrick, Bramley, and Johnsen 2013; Shinn 2007)
Personal agency and individual navigations through homelessness	Choices/decisions; risky or non-normative behavior; individual constructions of constraints and homelessness; individual interactions with system players, staff; differences by subpopulations: gender, youth, age cohorts, types of life shock experiences	(Somerville 2013; Giddens 1984; Neale 1997; Clapham 2002; Dant and Deacon 1989; Hobbes 2019; Parsell, Tomaszewski, and Phillips 2014; Pleace 2016; Fitzpatrick, Bramley, and Johnsen 2013; Piat et al. 2015; Fitzpatrick 2005; Fitzpatrick, Johnsen, and White 2011; McNaughton Nicholls 2009; Isobel Anderson 2001; Alexander-Eitzman, Pollio, and North 2013; I. Anderson and Tulloch 2000; Brown et al. 2016; Clapham 2003; Kidd et al. 2013; McNaughton 2008)

Some scholars explicitly relate variables to individual or structural characteristics. Other variables are not clearly associated with one or the other category. Life shocks, emerging strongly in the economic literature, can be considered as either an individual characteristic (birth of a child with a disability) or the result of some larger structural problem (lack of affordable health care) (Curtis et al. 2013; Fitzpatrick 2005). Support systems can be considered as either individual capital (informal social networks) or as part of the larger social structure (formal welfare systems) (Shinn 2007; Johnstone et al. 2016). The work of Fitzpatrick et al. (2013) on multiple exclusion explores an array of individual characteristics, behaviors, and experiences for their role in producing homelessness while acknowledging that the effect of these characteristics is clearly mediated by structural and social stigmatization. Similarly, while personal agency is clearly an individual factor, agency is seen to operate within sets of available choices tightly constrained by larger social systems (McNaughton Nicholls 2009; McNaughton 2008; Parsell, Tomaszewski, and Phillips 2014; Clapham 2003; Ravenhill 2008; Parsell and Parsell 2012).

Farrugia and Gerrard assert that homelessness research and policy are also highly politicized, with structural causes often marginalized in favor of policy addressing individual explanations (2016). The severe rationing of access to housing subsidies in US policy bears this out (Kyle 2005). Limited housing assistance and services are available only through an intrusive process of assessment and prioritization focused primarily on individual characteristics and experiences (OrgCode Consulting Inc. and Community Solutions 2015). Cronley (2010) contends that US policy is dominated by the view that homelessness results from individual factors. Pathways and complexity theory research emphasize the need to study homelessness at the individual level, predisposing support for individual over structural explanations (M. Williams 2001; Clapham 2003; Gowan 2010). Characterizing homelessness as an individually

unique and anomalous condition requiring special intervention diverts attention from causes lying in the normal functioning of capitalist economies with their reification of power and privilege (Farrugia and Gerrard 2016).

In the US, homelessness intervention systems continue to incorporate new services and resources, reproducing parallel employment assistance, mental health and substance abuse treatment, victim assistance, and other mainstream programs in a menu of support services available only to people who are homeless, expanding the scope of a specialized homelessness service area (Farrugia and Gerrard 2016; Stefancic et al. 2013; TCHC 2019d; Culhane and Metraux 2008). Farrugia and Gerrard see this as an explicit realization of neoliberal discourses valorizing the "individual consumer who succeeds or fails according to their capacity to manage the social and economic world" (2016, 274). In the US, policy, interventions, and research seem to reify homelessness as being unique to individuals and "outside of the normal functioning of the social world" (Culhane and Metraux 2008; Culhane, Kane, and Johnston 2013; Montgomery, Metraux, and Culhane 2013; Farrugia and Gerrard 2016, 277).

Pathways Research Framework

Targeting programs to particular subgroups coincided with emerging pathways research for understanding homelessness, turning the discussion toward identifying subgroups with shared characteristics who enter and exit homelessness in similar patterns (D. Clapham 2002; I. Anderson and Tulloch 2000; Clapham 2003; Fitzpatrick, Bramley, and Johnsen 2013). The pathways research framework attempts to understand how individual and structural factors and agency interact to affect homelessness entries and exits (Clapham 2003; Pleace 2016; McNaughton Nicholls 2009). The pathways approach has been described as an effort to find "an analytical construction which maps an ideal typical route through homelessness" (Chamberlain

and Johnson 2011, 62) by aggregating household patterns of interactions with housing consumption (including periods of homelessness) over time and across space (Clapham 2002; 2005). Pathways can be both into and out of homelessness and are affected by personal choice and life events constrained by housing systems, market conditions, social cultures of exclusion, and personal resources (Anderson 2001; Fitzpatrick, Bramley, and Johnsen 2013; Pleace 2000; Shinn 2007; Chamberlain and Johnson 2011).

The pathways construct provides a conceptual framework for developing theory and conducting research into homelessness but is itself neither a theory nor a methodology (Clapham 2005; Fitzpatrick 2005). The methodological approach used in the pathways framework is generally based on analysis of housing histories taken through semi-structured qualitative methods that attempt to capture the sequence, length, and characteristics of housing accommodations, employment, and other personal circumstances (Somerville 2013; May 2000; M. Williams 2001). While the pathways approach addresses some of the critiques of individual, structural, and interactive (new orthodoxy) explanations of homelessness, it has its own set of limitations (Pleace 2016; Fitzpatrick, Bramley, and Johnsen 2013; Neale 1997; Fitzpatrick 2005).

Inherent in the choice of methodologies is a tension between social constructionism, interpretivism (Clapham 2005; Cronley 2010; Somerville 2013), and critical realism (Fitzpatrick 2005; McNaughton Nicholls 2009), played out in the relative importance assigned to individual meanings ascribed to homelessness, housing, and behavior. To understand the meanings ascribed to authentic experiences and individual agency, Clapham (2005) emphasizes the importance of using semi-structured interviews. Speaking from the social constructionist perspective, he (Clapham 2005, 252) places the "meanings of a household at the forefront of the analysis of its housing experience" in the pathways framework, while critical realists using a pathways

framework (McNaughton Nicholls 2009, 71) are "unconvinced by social constructionism that asserts social science can be reduced wholly to the interpretation of 'meaning.' " However, both social constructionism and critical realism lead to the importance of analyzing homelessness at the individual household (Clapham 2005; McNaughton Nicholls 2009). Understanding individual meanings can be very helpful in analyzing interactions among players in housing systems and embedded power differentials (case managers versus clients) (Clapham 2005). However, methodologies that transcend the analysis of what individuals experience to uncover layers of meaning ascribed to those experiences may produce data that is impossible to analyze and too individualized to inform any sort of policy recommendations. Neale (1997) suggests that emphasis on deconstructing language and analyzing meaning in studying homelessness is important but, taken too far, eliminates out any practical action and obfuscates the role of social structures.

Both constructionists and realists recognize the importance of time in pathways research as essential to causal explanations (Clapham 2005; Fitzpatrick, Bramley, and Johnsen 2013). Investigating the time dimension of homeless pathways is particularly problematic given the difficulty and cost of longitudinal research (Anderson 2001; Clapham 2005). Authors are left to collect retrospective housing histories and conduct biographical interviews, with all the attendant limitations resulting from reliance on memory and hindsight, perhaps particularly constrained in persons who have experienced the trauma common to homelessness (Clapham 2005). Pathways authors differ on the possibility of producing causal explanations. Critical realists emphasize causal analysis (from a post-positivist perspective) in service of developing public policy, but strong social constructionist scholars eschew causal analysis as being impossible (Fitzpatrick 2005; Neale 1997). Much research exploring individual histories into and out of homelessness

has been qualitative, using convenience samples and producing data of limited generalizable value (Fitzpatrick, Bramley, and Johnsen 2013; DeVerteuil 2003; Anderson and Tulloch 2000; Clapham 2005). To address this problem, Fitzpatrick et al. (2013) used highly structured, theory-based interviews for cluster analysis to identify pathways into homelessness, including recording event sequences to approach causal explanations and find trends in preceding or possibly precipitating events.

Challenges of pathways research: typologies, agency, governance

Developing ideal pathways that are true for certain subgroups, while central to the framework, is fraught with difficulties both methodological and theoretical. Clapham (2005) suggests that developing typologies can be an important strategy for revealing ideal pathways, except typologies/taxonomies can become difficult to manage as variables multiply and new data continuously challenges previous typologies (Pleace 2016; Fitzpatrick 2005; Somerville 2013). Chamberlain and Johnson (2011) briefly survey several published pathways typologies and find (1) a study of 25 teens resulting in six pathways, (2) a study of 40 teens producing four pathways, and (3) a literature review generating 23 unique pathways, concluding that pathways research tends to overly complicate and that detailed typologies generate little useful information.

Table 3 displays a selected sample of approaches to framing typologies in pathways research. Typologies resulted from widely varying research methodologies (questionnaires, interviews, case studies, cluster analysis, case note review) with a variety of homeless populations (persons age 30-49, youth, persons with mental illness and substance use disorders) and are based on widely varying factors (number of exclusionary experiences, type of exit from homelessness, life stage, event precipitating homelessness). The table shows the challenge to

developing an overarching set of pathways. Anderson's literature review and analysis finds pathways based on (1) events precipitating homelessness (e.g. household growth, relationship breakdown, loss of housing for financial reasons, disabilities, lack or loss of support system, mental illness); (2) race or gender; (3) type of shelter; and (4) types of life experiences such as institutional care (military, foster), social structure (lack of affordable housing), family structure and childhood experiences, individual characteristics (substance misuse, criminal history, prison, education level, debt, poor health), and inadequacy of formal support systems (I. Anderson and Tulloch 2000; Anderson 2001). Somerville (2013) opines that selection of typology frameworks says more about author interests than it does about a holistic understanding of pathways through homelessness and that this results in an overemphasis on certain homeless populations (e.g. chronically homeless or youth). The proliferation of pathways would appear to contribute little of practical or theoretical use (Pleace 2016).

Table 3. Examples of homelessness pathways typologies from selected studies

Study	Isobel Anderson 2001	Fitzpatrick, Bramley, and Johnsen 2013	Chamberlain and Johnson 2011	Mayock, Corr, and O'Sullivan 2008	McNaughton 2008
Population	Review of pathways literature	Cluster analysis of homeless persons age 30 – 49 (Gen X), sample size 1,286, questionnaire	Case note review (sample 4,291) with 65 interviews	Longitudinal study (18 months) of 40 youth	Case study of 28 individuals (interviews) over 18 months with substance use disorders and mental illness
Framework	3 major types of pathways identified with detailed pathways within each type	Typology created by average number of experiences of exclusion out of 28 total experiences possible (including life shocks, mental illness, substance misuse, institutional care, panhandling and other street behavior, eviction and others)	Typology based on events precipitating homelessness	Typology based on type of exit from homelessness	Identified 3 exemplary case studies reflecting primary pathways
Pathways	Youth (age 15-24) including unique pathways for foster care, abuse, family dissolution, mobility as a child, excluded	Five experiences (male, over age 35)	Housing or financial crisis (shorter duration of homelessness)	Independent exit (e.g. return to family home, living with friends)	History of childhood abuse, self-medicating with drug use, living in supported housing
	Adult (age 20-50) including unique pathways for changes in family composition, rent or mortgage past due, others	Nine experiences (female, mental illness)	Family breakdown, loss of partners, domestic violence (short, mid, long-term homeless)	Dependent exit (to transitional housing or permanent supportive housing)	Structural cause of loss of housing (e.g. revitalization) and disruption of life, family break-up, leading to substance misuse
	Later (age 50+) including unique pathways for retirement, layoff, loss of family members, mental illness	15 experiences (youth, thrown out by family, institutionalization)	Substance abuse (beginning in youth, becoming chronic homelessness)	Continued homelessness	Aged out of foster care, no personal support system, illegal drug use to manage anxiety, asset depletion to homelessness
		11 experiences (males, over age 35, street behaviors)	Mental health (beginning in youth, young adulthood, becoming long term)		
		16 experiences (age 30 to 39, illegal substance use, alcohol abuse, prison, survival sex)	Youth to adult (beginning homelessness at 18 or younger, becoming chronic, substance use disorders, history of trauma)		

Source: Data adapted from author's summaries of studies Anderson 2001, Fitzpatrick et al. 2013, Chamberlain and Johnson 2011, Mayock et al. 2008, McNaughton 2008

The pathways approach and its focus on subgroups feels uncomfortably like a return to emphasizing individual traits over structural causes and supporting policy that focuses on individual pathology (Pleace 2016; Shinn 1997). Pleace warns that the pathways research emphasis on individual-level data and units of analysis can make "structural factors inherently harder to see" (2016, 35). In addition, emphasis on understanding the role of personal agency and choice in creating pathways into and out of homelessness can similarly feel like blaming individuals for their own homelessness without methodological strategies for weighting the structural constraints presented by housing and labor markets, availability of formal support systems, and institutional racism or other regimes of social exclusion. This trend is particularly troubling if it (incorrectly) feeds social narratives of who or what is responsible for homelessness and who deserves government or philanthropic assistance (Kyle 2005).

The pathways inclusion of personal agency tends to intensify a focus on individual characteristics while posing significant methodological problems. Pathways critics of the new orthodoxy contend that prior theory portrays homeless persons as passive victims of personal traits, larger social structures, or a combination (Clapham 2002; McNaughton Nicholls 2009; Neale 1997). Methodology for studies of the role of agency in homelessness is complicated by agency's role in social construction as individuals act and react to reify constraining social structures. For example, how do authors methodologically characterize personal decisions made within a limited set of alternatives, when what might appear as a choice is very little choice at all (e.g. leaving housing in a flight from abuse or leaving a hostile work environment) (Somerville 2013)? McNaughton Nicholls (2009) addresses this challenge through "contextualized rational action theory," conducting biographical interviews of participants over 18 months to understand the "thin rationality" of choices to engage in transgressive or non-normative behavior (sex work,

begging, shoplifting, substance abuse) that contributes to homelessness within "a context generated by structural forces" (2009, 76). McNaughton Nicholls acknowledges the challenge presented by a focus on agency, stating that the "next step is to theorise the causation of homelessness with social structures explicitly written back in" (2009, 82). Pathways authors are clear that agency is important but must be balanced by an understanding of the social structures with which it interacts (Clapham 2005). Giddens' structuration theory is central to pathways research, with its emphasis on the reflexive relationship between social structure and social action, as is Clegg's "rules of the game" theory (Neale 1997; Giddens 1984). Policy emerging from this perspective emphasizes providing assistance to empower vulnerable households (individual focus) to navigate a structurally constrained environment rather than attempting to solve macro problems such as affordable housing supply or poverty (Pleace 2000). Clapham acknowledges the difficult task of choosing research tools that meet the pathways call to understand household meanings and their interaction with structure, in a time-based framework (2005, 241).

An additional methodological challenge comes from pathways research that relies primarily on institutional information mediated by governments and government agents such as case workers. While much pathways research focuses on hearing people's stories directly through interviews, case studies, and questionnaires, some research uses analysis of case notes and demographic or categorical designations that are socially or governmentally constructed, defined, and limited (gender, race, ethnicity, household composition, mental illness) (Chamberlain and Johnson 2011; Clapham 2005). Homelessness programs are socially constructed and mediated in the US and internationally through a devolution of implementation and policymaking to locally appointed entities and nonprofit, private corporations in a process of "governance" rather than

government (Phelan and Norris 2008; Hambrick Jr. and Johnson 1998; Chok 2014). Critical theorists find an emphasis on either individual or structural factors embedded in homelessness governance regimes and public policies, with an emphasis on individual pathologies and changing individual behavior found in prevention and support services programs reinforced by research conducted at the individual level (Phelan and Norris 2008; Wilson 2018).

Governance systems and devolution also interact with agency to affect individual behavior. Osborne (2019) found that US homelessness eligibility systems privilege certain types of homeless people who fit normative preconceptions of persons deserving assistance, representing certain target populations, and meeting certain characteristics of vulnerability. Case manager perceptions about behavior, identity, and who deserves assistance mediate who does and does not get help, even when standardized assessments are used. Applicants who do not initially fit priority subgroups or whose behavior does not align with norms of who deserves assistance may not receive sufficient coaching from case managers to reconstruct themselves and become eligible. Personal agency becomes directed toward playing by the rules of the game. O'Flaherty et al. (2018) even suggest that people have access to critical "private information" that is not readily accessible to public agents, authors, and system mediators. Social systems adopting a pathways framework that prescribe certain programs for certain subgroups can remove agency or limit authentic knowledge by shaping applicants to color information in order to obtain services.

Clapham (2005) recommends direct observation and discourse analysis in pathways research to mitigate the impact of policy, program implementation, and structure as structural agents interact with participants, including through interviews with practitioners and gatekeepers. Such discursive analysis is generally found outside the pathways research framework. Bullen (2015) and Kyle (2005) offer examples of critical and discursive analysis that uncovers

individual or structural explanations embedded in the institutional construction of homelessness using document review and interviews with policymakers that balance individual-level research into homelessness pathways. Belcher and Deforge (2012) also suggest using participatory action research to engage people who have experienced homelessness in critically thinking about its structural context. Parsell and Parsell (2012) use ethnographic research incorporating direct observation and formal interviews that directly consider homelessness as a choice within a structural context. For social system design, O'Flaherty et al. (2018) suggest that to compensate for the inaccessibility of private information, applicants should be offered a menu of contracts with which they can exercise their agency and best meet their needs.

Addressing challenges in pathways research with set theory

The pathways research framework presents challenges to traditional methods of correlation analysis. Pathways scholars hold that subgroups of households with common characteristics move into and out of homelessness in common ways (Pleace 2016). Further, these scholars seek causal relationships between patterns of household conditions and homelessness outcomes while acknowledging that such relationships may be highly variable (Fitzpatrick 2005; McNaughton Nicholls 2009). Williams (2001, 3) describes homelessness as a "wicked problem" in which a "plethora of antecedent conditions" produce "a complex range of outcomes" with "no necessary relationship between any given antecedents and any particular outcome but the clustering of a particular set of antecedents in any individual will increase the probability of particular outcomes". Thus homelessness is not well-served by positivist techniques such as multivariate analysis (M. Williams 2001; Fitzpatrick 2005). Additionally, pathways scholars find that this complex social problem must be analyzed at the individual level to reveal the interacting

conditions that cause someone to enter or exit homelessness (M. Williams 2001; Clapham 2005; 2003).

Set theory potentially addresses some of the methodological challenges to identifying common pathways to homelessness. It assigns cases to sets and assesses whether membership patterns may be sufficient to produce an outcome. Set theorists recommend techniques for creating typologies and finding causal pathways, particularly when different combinations of conditions can produce the same results, or causation is produced only by combinations of conditions (Schneider and Wagemann 2012). For example, to explain homelessness we might consider the following sets: people who are extremely poor, people who are disabled, people who have suffered a financial crisis, and people who have no family or other social support system. For a given collection of cases, set theory would investigate the members of each of these sets and discover how membership overlaps. With real data, we might observe the extent to which the members of the set of persons in extreme poverty might overlap with the set of persons who are homeless, while observing that most persons who are extremely poor are not homeless. We might also observe that, while some people are members of both the set of persons who are disabled and the set of persons who have suffered a financial crisis, most of these people are also not homeless. In fact, Shinn (1997) found that homeless families greatly resembled other poor families except they had been homeless in the past. Correlation analysis would not add much useful information to such a finding but, examining the set relationships among families with particular characteristics who become homeless might provide useful information on common pathways around which policy could be built. To this point, Shinn (1997) also found that 97% of families studied were in their own apartments three to five years after receiving

housing subsidies, indicating that subsidies were nearly 100% necessary and sufficient to assure an exit from homelessness.

Set theory is particularly useful for social problems characterized by conditions known as INUS (insufficient but necessary) and SUIN (sufficient but unnecessary), both traits of complex social problems like homelessness (Schneider and Wagemann 2012). INUS and SUIN conditions are consistent with scholars' characterizations of homelessness as the result of complex interactions of conditions with multiple possible pathways (Fitzpatrick 2005; McNaughton Nicholls 2009). Set theory also supports the pathways framework implication that homelessness results from conjunctural causation: conditions that produce outcomes only when combined with other conditions, e.g. extreme poverty may only produce homelessness when combined with traumatic life events, mental illness, substance abuse, or a lack of support systems (Schneider and Wagemann 2012; Berg-Schlosser et al. 2009).

Fitzpatrick et al. (2011, 506) used Venn diagrams, a set-theoretic technique, to reveal pathways to multiple-exclusion homelessness. In a sample of 1,286 users of low-barrier support services (soup kitchens, drop in shelters, etc.), Fitzpatrick et al. (2011) found that 98% were homeless and 47% had membership in four sets of social exclusion experiences. However, 15% of homeless persons in the total sample had no history of institutional care (foster care, prison) or engaging in street culture activities (panhandling, sex work) or substance misuse, revealing a significant subgroup with unique characteristics and a unique pathway through homelessness. In other words, institutional care, street culture activities, and substance misuse are neither individually or in combination both necessary and sufficient to result in homelessness among users of low-barrier support services.

Williams (2001) recommends using Qualitative Comparative Analysis (QCA) to lend generalizability to pathways research starting with life histories (Ragin 2008a). QCA is a set-theoretic research methodology, supported by commercially available software, that features "truth tables" (matrices) and Boolean analysis to reveal patterns among cases experiencing certain conditions (Ragin 2008b; Schneider and Wagemann 2012; Berg-Schlosser et al. 2009). Truth tables show the patterns of causal relationships among conditions associated with a particular outcome. For example, a truth table designed around Fitzpatrick's research framework could take the form displayed in Table 4. Zeros indicate the absence of the condition in the case, and ones indicate presence.

Table 4. Hypothetical Qualitative Comparative Analysis truth table

Cases	Conditions			Outcome
Service Users	Street Culture Activity	Institutional Care	Substance Misuse	Homeless
User A	0	1	0	1
User B	1	0	1	1
User C	0	1	1	1
User D	0	1	1	0
User N	0	0	0	1

Source: Authors application of QCA methodology to research framework used in Fitzpatrick et al. 2011

Marr (2012) used QCA to compare pathways exiting homelessness in Tokyo and Los Angeles, examining the effects of earning minimum wage, having a strong case management staff ally, having a social support system, and recent experiences of chronic homelessness with disabilities. He produced separate truth tables for each city and found that in Los Angeles subjects used two pathways out, the strongest combining minimum-wage-or-better employment with social supports and a history of chronic homelessness. Together with a second combining staff allies and social ties, these two pathways explain 84% of exits from homelessness (Marr 2012).

Summary: Homelessness Theory and Implications for Research

Theories of homelessness have evolved from simplistic single explanations (individual or structural) to complex interactions of contributing factors characterized as pathways. The dominant contributing factors to homelessness emerging from research and scholarship include individual vulnerabilities, social and economic structures, life shocks, support system deficits, stigmatization or exclusion, and personal agency. The pathways research framework, emerging alongside the development of current systems for addressing homelessness, identifies subgroups of homeless people with common sets of experiences and characteristics. The challenges of research into such a complex and dynamic phenomenon require new techniques (such as QCA) and data collected at both individual and population levels (O'Flaherty 2019).

Systems for managing homelessness have evolved alongside the theoretical debates and scholarship of the last 30 years. Even in theoretical research, scholars find evidence of the highly politicized and socially constructed nature of homelessness. The following review investigates how US homelessness policy, systems, and programs have developed and how their construction reflects assumptions about the explanations of homelessness. The following discussion addresses (1) a macro-level understanding of the principles driving US homelessness policy and systems, (2) the evolution of policy around A&A systems, (3) assumptions underlying housing programs and program targeting, and (4) research into A&A systems and their effectiveness.

Understanding US Homelessness Systems: Application of Theory and Literature

Homelessness is a challenging problem that has drawn major attention internationally, in the US, and at the community level, with significant research and investments in housing, rent subsidies, social services, and policy development (Toro et al. 1991; Raphael 2010; Shinn 2007;

Somerville 2013; May 2000; McNaughton Nicholls 2009; Neale 1997; M. Williams 2001; Byrne et al. 2014). Operating through regional CoCs, increasingly sophisticated homelessness planning and coordination systems are emerging, led by federal requirements and funding (HUD 2013c; Belcher and DeForge 2012; Culhane, Kane, and Johnston 2013; Osborne 2019). Adding to the complexity, federal homelessness programs function outside of and parallel to other mainstream welfare benefits systems, with implementation devolved to a plethora of nonprofit organizations competing for scarce resources (Culhane and Metraux 2008; Bassuk and Geller 2006; Dear and Wolch 1987; TCHC 2019d). A common array of policy solutions and programs has evolved to address homelessness, influenced by funding criteria, research, and federal policy (USICH 2015; TCHC 2019d; HUD 2019g; Culhane, Kane, and Johnston 2013). These programs include prevention, emergency shelter, transitional housing, supportive housing, permanent housing subsidies, and affordable housing (TCHC 2019d).

The federal Department of Housing and Urban Development (HUD) reproduces a national institutional regime for addressing homelessness through the US Interagency Council on Homelessness (USICH), established in 1987 to coordinate the federal response to homelessness across public and private sectors and a network of Continuums of Care (CoCs) (HUD 2019b; USICH 2017). The McKinney-Vento Act (1987) as amended in the Homeless Emergency Assistance and Rapid Transition to Housing Act (HEARTH, 2009) further codified the Continuum of Care system of governance, planning, and service provision, incentivizing collaborative regional applications for federal funding for housing and emergency shelter programs, and setting criteria used in evaluating applications and performance (Fowler et al. 2019). The following summary identifies fundamental characteristics and values of current US systems for managing homelessness. Prevailing US homelessness systems since the 1980s and

the McKinney-Vento Act share characteristics with common western neoliberal approaches to homelessness for service provision, governance, and planning.

(1) Planning: Service planning and implementation are devolved to the local community through decentralized arrangements between government and non-governmental agencies (Horsell 2006; Cronley 2010; Bullen 2015).

(2) Governance: Local service approaches and system requirements are prescribed by the federal government (Cronley 2010; HUD 2019b). System performance is monitored and managed against federally influenced outcome measures (Horsell 2006; Bullen 2015; HUD 2019b). Outcomes are monitored using governmentally sanctioned techniques implemented at the local level by case managers emphasizing individual progress toward self-sufficiency (e.g. increased income) (Bullen 2015; HUD 2019g).

(3) Service provision: Programs are designed for and targeted to selected subpopulations for whom they are assumed to be most effective based on federally driven criteria, such as public resources consumption and culturally mediated norms about who deserves assistance (Cronley 2010; Osborne 2019; Bullen 2015; Culhane and Metraux 2008; USICH 2010; 2015; HUD 2017b). Eligibility for services is mediated by case managers who surveil service recipients, assess deficits and vulnerabilities based on individual characteristics, and categorize recipients against a set of norms (Horsell 2001; 2006; Bullen 2015; Osborne 2019; HUD 2017b; 2009). Services are also mediated by case managers focused on resolving personal deficits, accessing cash and other welfare benefits, and obtaining housing rent subsidies. Service recipients receive resources assumed to address their individual needs (Horsell 2006; O'Flaherty 2019; Shinn 2007; Chan et al. 2017a; O'Flaherty, Scutella, and Tseng 2018; Osborne 2019; HUD 2017b).

No services or strategies address structural contributing factors to homelessness such as wages inadequate to afford market rate housing (Cronley 2010; Bullen 2015).

In summary, US homelessness systems are highly influenced by federal policy incentivized by access to resources and have a bias toward addressing or compensating for individual vulnerabilities as an explanation for homelessness. Programs and services address individual vulnerabilities and compensate for incapacity with access to rental assistance and other benefits. Over time the system evolved to address different levels of presumed individual vulnerability.

Evolution of Federal Policy Influencing Homeless Assessment and Assignment Systems

The US institutional regime for reproducing common approaches to managing homelessness has evolved toward centralized control of access to programs and benefits through an assessment process. The federal government has directly influenced policy at the CoC level through the following series of policies and programs.

- 2009: HUD released funding for the Homelessness Prevention and Rapid Re-Housing Program (HPRP) in response to the Great Recession, providing short- and medium-term assistance to households at risk of becoming homeless (HUD 2009). This program gave communities broad discretion to establish eligibility systems around risk factors emphasizing length or imminence of homelessness and severity of need and led to institutionalization of the Rapid Re-Housing model.
- 2012: The Homeless Emergency Assistance and Rapid Transition to Housing: CoC Program Interim Rule (HEARTH) required that to be eligible for federal funding, CoCs must employ a “coordinated assessment system,” evaluating people for intensity of need, assigning them to particular programs that move households into permanent housing

quickly, and limiting time spent in shelters and transitional programs (Federal Register 2012; HUD 2013a; USICH 2015; HUD 2015b).

- 2014: HUD published a notice encouraging CoCs to adopt written policies for Permanent Supportive Housing (PSH) programs that prioritize applicants for eligibility based on a federally mandated definition of chronic homelessness and "severity of service needs" (HUD 2014c). In its 2010 strategic plan, Opening Doors, HUD set goals to reduce chronic homelessness, especially for vulnerable populations, but found that, while dedicated PSH beds significantly increased, communities were not filling them with highly vulnerable, chronically homeless people (USICH 2010; 2015; HUD 2014c). Beginning in fiscal year 2013-14, HUD competitively awarded funding to CoCs that employed compliant prioritization regimes. CoCs were encouraged to adopt and use a comprehensive and standardized assessment tool to implement coordinated assessment and prioritization (HUD 2012; 2014c). Severity of need was to be assessed using data-driven methods and assessment tools such as the Vulnerability Index-Service Prioritization Decision Assistance Tool (VI-SPDAT) or Frequent Users Service Enhancement criteria (FUSE) (HUD 2014c).
- 2016: HUD updated its definition of chronic homelessness, strongly encouraged communities to adopt written policies to prioritize persons for PSH based on chronicity and severity of need, and restated the advice to use data-driven assessment tools while removing references to particular tools (HUD 2016a).
- 2017: HUD moved from recommending to requiring that CoCs use comprehensive, standardized assessment tools to gauge candidates for coordinated entry, supported by a policy brief describing recommended characteristics of processes and tools (HUD 2017b;

2015b). HUD further required that assessment tools be used to develop a standardized objective assessment score as part of the prioritization process. Coordinated entry processes must include assessment, scoring, prioritization, and eligibility determination. Access to assistance must be distributed geographically throughout the CoC reaching all target populations, and all access points must use a standardized methodology. The 2017 policy explicitly required for the first time that coordinated entry processes be used to prioritize households for referral to all CoC services and that the processes factor in vulnerability and risk. While HUD acknowledged that not all relevant information is accessible through standardized assessment tools and that case manager input should be incorporated (case conferencing), it ensured that assessment processes would be institutionalized by requiring written policies, record keeping, and common annual assessor training.

Faced with continuing homelessness and limited resources, HUD followed recommendations of researchers and policy experts to develop systems that ration limited assistance based on severity of need to socially acceptable target populations (Kyle 2005; Culhane and Metraux 2008). In summary, HUD (1) encouraged CoC experimentation with coordinated processes based on assessment of need beginning with the HPRP, created during the Great Recession; (2) codified requirements for generally defined coordinated assessment systems beginning in 2012 with HEARTH; (3) increasingly incentivized CoCs to use data-driven assessment tools beginning in 2014, especially for PSH program assignment; and (4) required prioritizing and assigning candidates for all CoC programs and services based on use of objective standardized assessment tools beginning in 2017.

Housing programs

The design of housing programs implies underlying beliefs about the causes of homelessness, emphasizing individual vulnerabilities, structural deficits, or a combination. If homelessness is a condition or a state (not a trait or persistent characteristic), then structural factors and associated interventions such as income supports, rent subsidies, or insurance should form the primary exit strategy (Shinn 1997; Shinn et al. 1998). If homelessness is caused by individual factors (e.g. mental illness, substance use disorders), it should be addressed by case management, support services, and health care (Montgomery, Metraux, and Culhane 2013).

PSH programs were developed to address chronic homelessness among people with severe mental and behavioral disabilities (Tsemberis and Eisenberg 2000). The PSH model says that people with mental illness or substance use disorders are not condemned by their behavioral health conditions to homelessness but can maintain housing without preconditions if they're provided (1) long-term subsidies to address the mismatch between their income and the rental market and (2) support services to ameliorate tenancy problems that might arise as a result of their disabilities (Padgett, Henwood, and Tsemberis 2016). Support services are offered rather than required, emphasizing personal agency and client choice (Tsemberis, Gulcur, and Nakae 2004). PSH programs are an example of a model based on a pathways framework where individuals with severe behavioral health problems receive individualized, choice-driven service options that address a variety of explanations for homelessness.

Scholars find that mental illness and substance use disorders on their own are neither necessary nor sufficient to produce homelessness but may do so when combined with poverty, thus supporting the need for rent assistance (Czachor 2017; Parsell and Parsell 2012; McNaughton 2008; Tarr 2018; Montgomery, Metraux, and Culhane 2013; 2013; Pleace 2016;

Fitzpatrick 2005; McNaughton 2008; Tarr 2018; McNaughton Nicholls 2009). The offer of intensive case management and support services in PSH programs is based on the theory that individual disabilities can contribute to housing instability for some people (Gilmer et al. 2014; de Vet et al. 2013). The PSH model adopts the "housing first" approach that it is neither necessary nor effective to withhold housing assistance until underlying individual problems contributing to homelessness have been solved even among people with severe mental illness. Many authors find that affordability is the primary challenge to housing stability for people with disabilities in the US, given limited access to health care, high health care costs, and inadequate income compared with rising rents (NTRHA and FWHS 2018; Montgomery, Metraux, and Culhane 2013).[3] Consistent with this finding, rent subsidies are provided indefinitely and universally in PSH programs. Further, most program evaluation and population research finds these subsidies essential to ending homelessness, again underlining the importance of structural factors (O'Flaherty 2019; Shinn 1997). With its attention to structural and individual contributing factors in the context of agency, the PSH model could be situated within the pathways framework for explaining homelessness, e.g. some people with mental illness or substance use disorders follow an individual pathway into homelessness combined with a unique collection of experiences that might include stigmatization, personal choice, and marginal support systems, constrained by social structures that offer insufficient opportunities to gain income adequate to purchase least-quality housing. In fact, scholars working in the pathways

[3] Cross-cultural comparisons conclude that countries with larger wealth transfer programs, less income inequality (including a greater share of national income received by the poorest 10% of residents), and a greater share of GDP invested in social programs have less homelessness, implying without proving causation that structural factors are salient in the homelessness of most households (Shinn 2007). Empirical research finds that structural factors such as higher housing prices and lower rental vacancy rates are associated with more homelessness at the aggregate level of analysis (Corinth 2017; Quigley and Raphael 2001; Byrne et al. 2013).

framework repeatedly find unique situations characterized by mental illness and substance misuse within the constraints set by structural factors (Anderson and Tulloch 2000; Anderson 2001; Fitzpatrick, Bramley, and Johnsen 2013; Chamberlain and Johnson 2011; McNaughton Nicholls 2009). Neale (1997) and Pleace (2016) contend that homelessness interventions, including ongoing rent subsidies, imply a theoretical acceptance of structural causes for homelessness.

Rapid Re-Housing (RRH) programs, in contrast, offer time-limited rent subsidies and tailored support services based on the presumption that persons with shorter experiences of homelessness and fewer individual vulnerabilities tend to be homeless due to temporary conditions created by life shocks (bad luck) or market (structural) conditions rather than persistent individual characteristics (Vaclavik et al. 2018; Cunningham, Gillespie, and Anderson 2015). In TX-601 RRH programs have lower unit costs than PSH programs, reflecting their more limited scope and services (TCHC 2019c). RRH candidates are expected to be capable of achieving economic self-sufficiency with more limited assistance compared with PSH participants. Research on case management and supportive service models generally compares client outcomes in different case management models combined with rent subsidies offering few opportunities to examine the relative importance of services versus subsidies (de Vet et al. 2013). However, HUD's Family Options Study compared outcomes for subjects randomly assigned to RRH, transitional housing, and emergency shelter programs with priority access to permanent housing (PH) subsidies without services[4] (Gubits et al. 2016). Gubits et al. found that families

[4] The permanent housing subsidy option could be likened to the US Housing Choice Voucher program of tenant-based rent subsidies.

had more housing stability in the PH experimental group (ongoing rent subsidies, no services) than in RRH (time-limited rent subsidies with services) and that this effect persisted regardless of the presence of special needs (mental illness, disabilities). Subjects with roughly equivalent characteristics were randomly assigned to experimental groups rather than selected based on certain criteria, as in a Coordinated Entry System (CES). While evaluations of housing programs with case management and support services find that services improve outcomes, the Family Options Study suggests that addressing individual vulnerabilities is not essential for housing stability (de Vet et al. 2013; Vanderplasschen et al. 2007).

Assessment and assignment systems

Assessment and assignment systems also adopt homelessness theory in their decision-making logic. The TX-601 CoC CES prioritizes and refers applicants to housing programs according to the criteria depicted in Table 5 (TX-601 CoC 2018). The first priority for RRH eligibility goes to persons with certain identities (target populations) considered to be deserving of assistance (military veterans) or having presumed vulnerabilities (unaccompanied youth), or both (families) (Osborne 2019). For persons eligible for PSH programs (meeting the criteria for chronic homelessness), priority is first based on vulnerability as indicated by the VI-SPDAT score, with persons who have longer lengths of homelessness and longer waits for housing receiving higher priority. “Chronic homelessness” is a socially constructed identity with a specific HUD definition based on length of homelessness and the presence of disabilities (HUD 2012; Culhane et al. 2013; Curtis et al. 2013).

Table 5. TX-601 Coordinated Entry System prioritization methodology

HOUSING INTERVENTION	TARGET POPULATION	PRIORITIZATION	PRIMARY PRIORITIZATION	SECONDARY PRIORITIZATION
RAPID RE-HOUSING	Non-chronic, less vulnerable, and newly homeless individuals and households	1st	Veterans	VI-SPDAT
				Length of Homelessness
				Date of Assessment
		2nd	Youth	VI-SPDAT
				Length of Homelessness
				Date of Assessment
		3rd	Families	VI-SPDAT
				Length of Homelessness
				Date of Assessment
		4th	Single Adults	VI-SPDAT
				Length of Homelessness
				Date of Assessment
PERMANENT SUPPORTIVE HOUSING	Chronically homeless households	1st	VI-SPDAT Score	Date of Assessment
		2nd	Longest history of homelessness	Date of Assessment
		3rd	All other CH households	Date of Assessment

Source: Tarrant County Homeless Coalition, TX-601 CoC 2018

The VI-SPDAT is central to determining priority and program type for both RRH and PSH applicants, assigning one point for each characteristic or experience listed in Table 6 (OrgCode Consulting Inc. and Community Solutions 2015; TX-601 CoC 2018). Based on their score, applicants are assigned to PSH (for highly vulnerable, chronically homeless persons), RRH (for non-chronically homeless persons with some need for support services), or to interventions designed to help regain market-based housing with minimal one-time assistance (Balagot et al. 2019; TX-601 CoC 2018). Persons with scores of eight or more are referred to PSH, with higher scores getting the highest placement priority. Persons with scores of four to seven are referred to RRH. Persons with scores below four are not referred to housing programs but may receive other types of services such as employment assistance. However, an individual who scores a five by combining chronic homelessness (item 3) and a physical or mental health problem (items 12, 13, 14, 15) will not score high enough to qualify for PSH so must also demonstrate other vulnerabilities. VI-SPDAT items are heavily weighted toward individual rather than structural causes of homelessness (mental or physical illness or disability, history of trauma), although some apparently individual characteristics are certainly socially constructed (legal barriers to

housing, income, debt, incarceration history, frequency of health system use), and their nested causes may lie in housing and labor markets, the judicial system, or accessibility of health care systems. Some variables included in the VI-SPDAT are reproduced in required HUD client data and stored in local Homeless Management Information Systems (HMIS). Required HUD Annual Performance Reports (APR) summarize this data and are used to monitor program performance. Table 6 cross-references variables from the VI-SPDAT with variables collected in the HUD assessment and included in Annual Performance Reports (HUD 2019g; 2019j; 2019k).

Table 6. VI-SPDAT items with supporting HUD HMIS data elements and associated questions reported in HUD Annual Performance Reports

VI-SPDAT Variables		HUD Data elements		APR Question
1	Elderly (60+)	Date of Birth 3.03		Q11
2	Unsheltered	Current living situation 4.12		Q15
3	Chronically Homeless (HUD definition)	Prior living situation 3.917A		Q5, Q26
4	4+ types emergency service experience			
5	1+ assault/self-harm experience	Domestic Violence 4.11		Q14
6	Legal barriers to housing			
7	1+ exploitation experience or risky behavior			
8	Debt or no income	Income and sources 4.02		Q16, Q18, Q19
9	No satisfying planned activities			
10	Unable to perform self-care	Disabling Condition 3.08		
11	Homelessness caused by broken social relationships	Domestic Violence 4.11		Q14
12	1+ physical health problem	Physical Disability 4.05, Developmental Disability 4.06, Chronic Health Condition 4.07, HIV/AIDS 4.08	Disabling Condition 3.08	Q13
13	1+ substance use housing barrier	Substance Abuse 4.10		
14	1+ mental health problem or disability	Mental Health problem 4.09		
15	Tri-morbidity (mental, physical, substance use)	4.05 or 4.06 or 4.07 or 4.08 and 4.10 and 4.09		
16	1+ medication misuse	Substance Abuse 4.10		
17	Homelessness caused by abuse or trauma	Domestic Violence 4.11, Veteran status		Q14, Q25

Source: Author's comparative analysis of information from OrgCode 2015, HUD 2019g, 2019j, 2019k

Assessment and Assignment Technology and Targeting

Just how effective have our assessment and assignment systems been in targeting programs to the people for whom they are believed to be most effective (HUD 2019i; Farrar-Myers and McGhee 2019)? Systems studied generally employ assessment tools with closed-end questions that produce a single score intended to measure vulnerability, such as the VI-SPDAT (OrgCode Consulting Inc. and Community Solutions 2015; Sylla et al. 2017). Attempting to assess the

population impact of PSH programs, Corinth (2017) found that from 2007 to 2014 only 51% of new US PSH beds were allocated to the chronically homeless people for whom they were intended. More recent studies of CES, using data from local Homeless Management Information Systems (HMIS) to correlate program assignment with assessment scores, are finding scores more consistent with program assignment (Rice et al. 2018; Chan et al. 2017a; Balagot et al. 2019), but there are still communities in which scores are not related to program assignment (B. T. King 2018).

Scholars, practitioners, and policymakers are concerned about the use of automated and determinate processes based on assessment scores to assign applicants to programs. Qualitative analysis shows staff judgment playing a central role in coordinated assessment and perhaps introducing biases about who is and is not deserving of assistance, even when incorporating required numerical assessments (Osborne 2019). Qualitative research on CESs finds that certain subgroups (single men, single fathers, persons with no mental or behavioral health diagnosis) are systematically excluded (particularly by gender), reifying social norms about vulnerability and who deserves assistance, and this is reinforced by the attitudes of case managers (Osborne 2019; Petrovich, Roark Murphy, and Storey 2018). King (2018) found worrisome differences by race, ethnicity, and gender in scores on the widely used VI-SPDAT with the result that white males might be more likely to gain access to PSH programs with permanent rent subsidies (OrgCode Consulting Inc. and Community Solutions 2015).

The few studies that have examined the impact of coordinated assessment and program entry systems find that tools used to prioritize and assign clients to programs have weak validity (M. Brown and Cummings 2018; Chan et al. 2017b; National Academies of Sciences, Engineering, and Medicine (US) 2018; Gubits et al. 2016; Fritsch et al. 2017; B. T. King 2018).

Brown et al. (2018) found very low inter-rater and repeat reliability for the VI-SPDAT (used in TX-601) along with weak construct and predictive validity. Balagot (2019) found that assessment scores were moderately consistent with housing placement but that assessors doubted the ability of the VI-SPDAT to accurately reflect vulnerability. King (2018), following a rigorous quantitative analysis of the VI-SPDAT conducted in a large Central Texas CoC, calls for mixed methods studies to investigate the construct of vulnerability and its relationship to race, ethnicity, gender, and length of homelessness. The impact of prioritization systems on homelessness has not been extensively studied and is crucial for addressing population homelessness (O'Flaherty 2019).

The debate over whether and which assessment tools fairly distribute limited housing assistance funds connects to the larger social debate over the use of artificial intelligence (AI) and especially machine learning in social programs. Chan et al. (2017a) used machine learning pattern recognition techniques to evaluate and suggest improvements to a tool widely used for assessing youth for entry into PSH and RRH programs. Scholars and experts contend that AI and machine learning threaten privacy and amplify implicit and explicit biases that can have devastating results if used to make eligibility decisions for social welfare benefits (Williams 2018; Nelson 2019). Experts do not recommend using AI for "critical government decisions about citizens" (Mehr 2017, 13). At the least, experts agree that AI systems require extensive testing and transparency (of data use, training protocols, and algorithms) to assure unbiased and socially beneficial outcomes (National Science and Technology Council 2016; Nelson 2019; Cath et al. 2018). A panel of experts convened by HUD in 2014 discussed the evidence for using assessment tools to assign homeless people to housing programs and found that they could not recommend their use over a lottery system (Levitt 2015).

Summary and Conclusion:

Even with vastly elevated research and resources over the last 40 years, homelessness remains a tenacious problem, and scholars still concern themselves with what interventions will make the biggest difference, who can be helped, and how (M. Brown et al. 2018). Homelessness systems that centrally assess, prioritize and assign persons to programs depend on the existence of subgroups with common characteristics and consistent pathways into and out of homelessness, as found in pathways research (Anderson 2001; Clapham 2003; 2002). Such research identifies possible common subgroup causal pathways associated with race, gender, age, length and timing of homelessness, experiences of trauma or institutionalization, and causes of homelessness (structural, individual, etc.) (Pleace 2016; May 2000; Anderson 2001; Fitzpatrick, Bramley, and Johnsen 2013; McNaughton Nicholls 2009; McNaughton 2008). Very few studies investigate the common conditions or particular pathways by which persons exit homelessness, e.g. self-resolution through personal resources versus participation in particular social programs (Mayock, Corr, and O'Sullivan 2008; Anderson 2001). Economists ponder the moral hazard of providing rent subsidies for people who may be able to find and sustain housing on their own, emphasizing the need to carefully design and target housing programs (O'Flaherty 2009b). Increasingly, scholars call for reforms to affordable housing assistance in general, including targeting assistance to those who could benefit most and might otherwise suffer or become homeless (Collinson, Ellen, and Ludwig 2019; Quigley 2011). More research is needed to understand homelessness entrances and exits at aggregate and individual levels to improve program targeting and increase impact at the population level. Largely missing from scholarly literature on homelessness is research into the impact of current targeting, assessment, and assignment

approaches on program participation and effectiveness from the perspective of persons with lived experience.

This literature review revealed that, to systematically understand the overall impact of homelessness A&A systems requires data from multiple sources using a consistent theoretical framework at both aggregate and individual levels. Informed by this review, the following chapter details data collection methods, characteristics of the data, the community context of the case study, and the theoretical model adopted for data collection and analysis.

Chapter 3

Methodology

Approach, author stance, and theoretical frameworks

A&A systems have become standard for US CoCs addressing homelessness. These systems are based on underlying assumptions that (a) certain homeless people with particular characteristics need certain types of programs, (b) that the most expensive programs should be reserved for the neediest people, and (c) that it is possible to accurately assess people for severity of need and assign them to the programs best suited for them using standardized diagnostic tools. A&A systems, implemented under federal guidelines at the local level, evolved gradually, decreasing agency discretion over assignments and increasing automation. Emerging research has questioned the validity of the assumptions and tools on which these systems are based. This project investigated the complex context and outcomes of an evolving A&A system in one north Texas CoC to learn its effect on who participates in homeless housing programs, addressing the following questions:

1. How do RRH and PSH housing program assignments differ under different regimes of A&A? Do systems with less agency discretion and more automation increase the proportion of participants matching system targeting?
2. How do changes in A&A systems compare with system and program goals and underlying theoretical frameworks?
3. What are the pathways/characteristics of participants in RRH and PSH in an A&A system characterized by weak agency discretion and strong automation?
4. What are the implications of findings for system design, program targeting, and program demand?

To increase our understanding of how centralized homelessness program assessment and assignment systems affect participant characteristics, the author selected a mixed methods case study methodology, appropriate for investigating "a contemporary phenomenon in depth and within its real-life context" with multiple sources of information from different perspectives and where prior theory guides data collection and analysis (Yin 2009, 5:18). Many researchers and theorists believe that social science in general and case studies in particular require multiple sources of evidence, an approach sometimes called triangulation, to examine the same problem with different data sources, from different perspectives, using different methods, revealing convergent and divergent findings, and corroborating or elaborating on each set of evidence (Yin 2018; Blaikie 2010; Creswell 2013). This project used data from four broad areas:

1. Documents from the Tarrant County Homeless Coalition (TCHC), HUD, and scholarly literature to describe the design, intentions, and embedded logics of Coordinated Entry Systems (CES), Rapid Re-Housing (RRH) and Permanent Supportive Housing (PSH) programs
2. Quantitative aggregate-level administrative data from the TCHC HMIS to compare and contrast characteristics of participants assigned to PSH and RRH programs during two regimes of coordinated assessment and program assignment (2014-16 and 2017-19), using information included in standardized HUD Annual Performance Reports
3. Semi-structured interviews with RRH and PSH participants assigned during the most recent regime to corroborate and elaborate on quantitative data, comparing and contrasting individual characteristics and experiences that relate to factors considered in A&A systems such as membership in preferred classes, vulnerability, and experiences of homelessness

4. Focus groups with agency case managers (front-line) and program directors (second-line) who had program experience both before and during the most recent regime of coordination to provide a lived-experience interpretation of changes in A&A processes and their impact on participant characteristics

Author stance and theoretical frameworks

The author adopted aspects of both critical realist and interpretivist research paradigms, maintaining that, while human knowledge of homelessness is fallible and subject to criticism, and subjective meanings are important, homelessness is not just socially constructed: It is an objective phenomenon that exists regardless of interpretation (McNaughton Nicholls 2009; Fitzpatrick 2005; Miles, Huberman, and Saldana 2020; Blaikie 2010). Critical realists understand homelessness as the individualized result of complex, open systems, including the exercise of personal agency within a range of structurally constrained options, consistent with the pathways research framework, and the recognized importance of individual-level data (Fitzpatrick 2005; M. Williams 2001). Consistent with the interpretivist paradigm, the author used existing theory to construct "models of typical meanings" for qualitative data analysis using existing theory as a basis (Blaikie 2010, 99). The author also considered the social construction of administrative data, collected through a decentralized network of variously trained agents, to fill data requirements and definitions determined by HUD. Case managers and program directors also construct interpretations of homelessness, combining professional, community, and personal values about who deserves help and what help is beneficial. Housing program participants additionally present a unique interpretation from their lived experience of homelessness and the systems through which they gain access to resources.

While collecting data in a descriptive and exploratory approach, this study also employed a deductive strategy for viewing data. Data was collected and analyzed within four categories that allowed for comparisons with policy objectives and principles and tested theory about homelessness:

- Demographics such as race, ethnicity, age, gender, and family composition to compare with policies about prioritized groups and look for disparate impact that might affect historically stigmatized people
- Characteristics associated with vulnerability as defined by homelessness policy and operationalized in assessment tools (VI-SPDAT)
- Experiences of homelessness as defined by HUD, e.g. chronic homelessness
- Life experiences and personal histories that relate to prevailing theories about contributing factors to homelessness

To explore participant characteristics in terms of experiences and theories that underpin RRH and PSH program assignments, the author adopted a theoretical model (Figure *4*) built from dominant explanations for homelessness and reflecting a pathways research framework. The Venn diagram depicts a set-theoretic approach to understanding homelessness (Schneider and Wagemann 2012; Berg-Schlosser et al. 2009; M. Williams 2001). Each combination of circles indicates a theoretically possible pathway into homelessness through a combination of individual vulnerabilities, experiences of structural and support system deficits, life shocks, social exclusion, and personal agency. Qualitative data was gathered using the model's categories through targeted semi-structured interview questions. The categories served as *a priori* codes reflective of homelessness theory to identify patterns and construct theory-based meanings across subjects and between programs (Miles, Huberman, and Saldana 2020; Blaikie

2010). The author compared RRH and PSH participants to learn whether their pathways differed as expected, consistent with program models. [5]

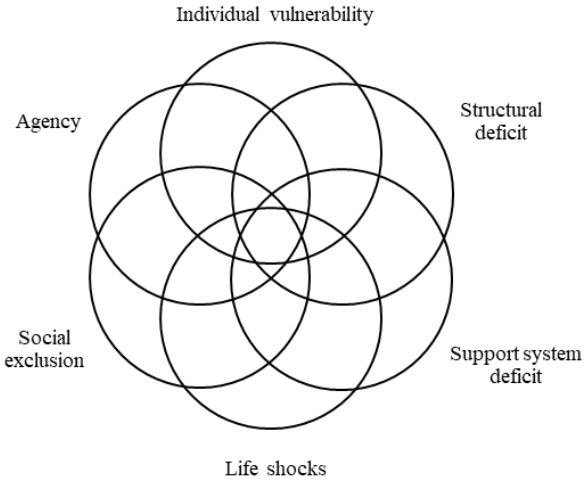


Figure 4. A set-theoretic model describing contributing factors to homelessness in the pathways framework by author

Research Approach

The remainder of this chapter discusses the selected case and research methods and data characteristics associated with each of the research questions. The case discussion includes characteristics of the TX-601 Continuum of Care and its community context to lay a foundation for generalization of findings. The case discussion also provides data for analysis of contributing factors to homelessness, contextualizing findings from interviews and focus groups. Then, each research question is addressed with its associated data:

[5] The author believes with Blaikie (2010) that detached observation is impossible in social research and acknowledges the unavoidable effect of personal biography and values on the results of research. While the author attempted to be a faithful reporter of subject meanings and other data, she acknowledges the impact on her research of 20 years of experience as a donor to and developer of supported housing programs for persons emerging from homelessness.

1. Regime Target Accuracy and Reliability: How do RRH and PSH housing program assignments differ under different regimes of A&A? Do systems with less agency discretion and more automation increase the proportion of participants matching system targeting?

   Primary Data Source: Quantitative case and administrative data analysis

2. Regime Structure and Design: How do changes in A&A systems compare with system and program goals and underlying theoretical frameworks?

   Primary Data Source: Archival and scholarly research

3. Automated Regime Participant Characteristics: What are the homelessness pathways and characteristics of participants in RRH and PSH in an A&A system characterized by weak agency discretion and strong automation?

   Primary Data Source: Semi-structured housing program participant interviews

4. Policy Implications of Regime Change (from agency discretion to system-wide automation, implying staff lose a certain degree of agency control to system designers): What are the implications of findings for system design, program targeting, and program demand?

   Primary Data Source: Staff focus groups

The author also synthesized findings from quantitative and qualitative analysis to address each research question from multiple perspectives and sources of data. Participant profiles from quantitative data were compared with profiles emerging from qualitative data, especially to understand the extent of vulnerability, situations, and backgrounds of the subjects as they related to criteria used in program assignment. The author used fsQCA software, a set-theoretic approach (Ragin and Davey 2016; M. Williams 2001), to explore whether RRH and PSH

participants differed in their contributing factors to homelessness consistent with what would be expected based on program design. The author compared time-based quantitative data with staff observations and documentary evidence to associate policy, practice, and participant profiles. The following sections describe data and methodologies used to answer each research question supported by more detailed discussions of the data and data collection methods in the appendix.

Case Selection and Characteristics

Fort Worth/Arlington/Tarrant County Continuum of Care (TX-601)

TX-601 is a well-developed major US metropolitan CoC in composition, size, and programming.[6] The federal government organizes US regions into 399 CoCs to measure homelessness and distribute funding for homelessness programs (Culhane and Metraux 2008; Federal Register 2012; Oakley 2002; HUD 2019b). More than half of all people reported as homeless through the annual US Point-in-Time (PIT) Count live in CoCs organized around one or two major cities, similar to TX-601 (Henry et al. 2018; 2020). Texas includes 11 CoCs associated with its largest metropolitan areas (HUD 2019d; 2019b; 2018a). Tarrant and Parker counties compose the TX-601 CoC along with the cities of Fort Worth and Arlington (Fort Worth/Arlington/Tarrant County CoC 2014). TX-601 received $13,306,444 in FY2018 CoC funding (14% of all Texas CoC funding) through competitions rewarding compliance with HUD policies and goals (HUD 2019h).

[6] TX-601 exemplifies a large metropolitan CoC, making it a reasonable candidate for case study with some potential for generalizability, but it also was selected for convenience based on geographic proximity to the author and the author's accessibility to its leadership and organizations by long association (Miles, Huberman, and Saldana 2020; Yin 2009).

Nationally, the bulk of HUD homelessness funding goes to two program types: PSH (71%) and RRH (15%) (HUD 2019a). Similarly, TX-601 allocated 63% of its 2018 funding to PSH and 21% to RRH. Table 7 displays the funding history for TX-601 housing projects from 2014 through 2019. TX-601 received more than $12 million for programs in 2019; normalized in 2014 dollars, the CoC increased its housing project funding by 6.14% over five years. For context, HUD granted more than $2.1 billion for housing projects in 2019, averaging only $5.4 million per CoC (HUD 2019a). TX-601 maintained between 29 and 31 housing projects from 2014 to 2019 while CoCs overall averaged 14 projects.

Table 7. TX-601 HUD funding for housing projects in current year and 2014 dollars

Years	Housing Projects	HUD Funding	Funding (2014 $)	Change
2014	32	10,797,663	10,797,663	
2015	30	10,882,851	10,801,141	0.03%
2016	31	10,218,027	10,067,862	-6.79%
2017	30	11,150,306	10,763,145	6.91%
2018	29	12,087,570	11,426,864	6.17%
2019	31	12,355,198	11,460,941	0.30%
Total Change in 2014 dollars				6.14%

Source: Data adapted and analyzed by author from HUD Exchange: CoC Awards by Program Component, HUD 2019a

TX-601's 2019 strategic plan included all HUD-required program elements, including a Homeless Management Information System (HMIS), community-based decision-making, and a Coordinated Entry System (CES) to assess and assign applicants to programs (Tarrant County Homeless Coalition 2019a; McGhee 2019). Table 8 displays HUD funding for TX-601 CoC system administration, awarded to the Tarrant County Homeless Coalition, its nonprofit system administrator. Since 2014, TX-601 has received significant funding to conduct system planning and maintain HMIS and Coordinated Assessment Systems (CAS), totaling $1.2 million in 2019 (HUD 2019a). For context, the average 2019 HUD CoC planning grant was only $162,355,

awarded to 377 of the 399 CoCs. The average HMIS grant was $155,912 and awarded to only 349 CoCs.

Table 8. TX-601 HUD funding for administration in nominal year dollars

Year	Planning $	HMIS $	CAS $	Total $
2014	145,133	282,122	155,040	582,295
2015	336,949	282,122	155,041	774,112
2016	332,736	282,122	155,041	769,899
2017	335,910	282,122	491,048	1,109,080
2018	357,704	370,122	491,048	1,218,874
2019	388,462	370,122	491,048	1,249,632

Source: Data summarized by author from HUD 2019a

Figure 5, reproduced from the TX-601 2019 State of the Homeless Report by the Tarrant County Homeless Coalition (2019d, 8), describes the scope of the CoC system – 35 agencies serving more than 20,000 persons per year through a variety of interventions, from prevention to permanent housing.

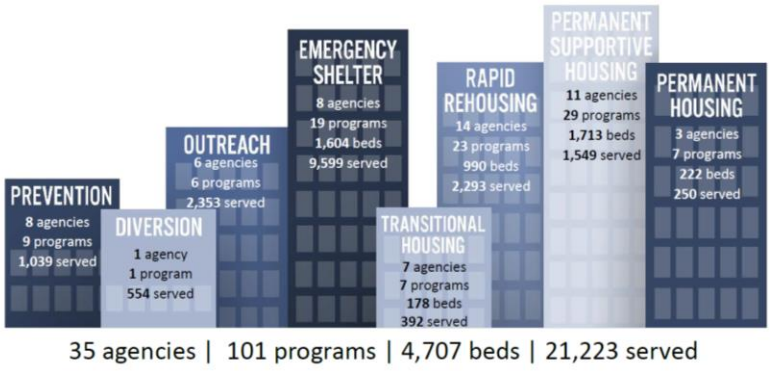


Figure 5. TX-601 2018 housing crisis system of care capacity *(TCHC 2019d, 8)*

TX-601 is one of 48 CoCs organized around the 50 largest US cities (Henry et al. 2020). More than 2,000 persons were counted as homeless in TX-601 at one point in time (PIT) in January 2019, including those in emergency shelters (1,263), transitional housing (185), and in

places not intended for human habitation (560) (TCHC 2019d, 15). Table 9 compares TX-601 with the median PIT counts of all major metropolitan CoCs on selected measures (HUD 2020a).

Table 9. 2019 US PIT Count of homelessness: Median count for major CoCs compared with TX-601 count

Population subgroup	Median	TX-601	Difference	% Difference
Sheltered ES Homeless	1,189	1,263	74	6%
Sheltered ES Homeless People in Families - Black	169	234	65	38%
Overall Homeless - Asian	15	22	7	47%
Overall Homeless People in Families - White	136	143	7	5%
Sheltered ES Homeless People in Families	327	333	6	2%
Unsheltered Homeless People in Families	8	10	2	25%
Overall Homeless - White	1,007	1,008	1	0%
Unsheltered Homeless Veterans	40	32	-8	-20%
Overall Homeless People in Families - Black	301	280	-21	-7%
Unsheltered Homeless	606	560	-46	-8%
Sheltered ES Chronically Homeless Individuals	210	159	-51	-24%
Overall Homeless Veterans	242	168	-74	-31%
Unsheltered Chronically Homeless Individuals	190	109	-81	-43%
Overall Homeless People in Families	522	431	-91	-17%
Overall Homeless - Non-Hispanic/Non-Latino	1,885	1,758	-127	-7%
Overall Homeless - Hispanic/Latino	405	270	-135	-33%
Overall Homeless - Black or African American	1,123	975	-148	-13%
Overall Chronically Homeless Individuals	483	284	-199	-41%
Overall Homeless	2,275	2,028	-247	-11%

Source: 2007 to 2019 Point-in-Time Counts, data adapted and analyzed by author from HUD 2020a

PIT counts can vary widely based on methods used, weather on the night of the count, community demographics, local policies around access to shelter, and emergency shelter capacity (Link et al. 1994; School House Connection 2019; Hopper et al. 2008; Glynn and Fox 2017). Using the median can adjust for extremely large homeless populations in cities like Los Angeles or where residents have a legal right to shelter as in New York (Toro et al. 1991). TX-601's PIT count of homeless white persons is identical to the median for all 48 major city CoCs. For other measures, TX-601's count is somewhat lower except for all people in emergency shelters (6% higher) and for black persons in families with children in emergency shelters (38%, or 65 additional persons). The count for all homeless persons was 11% lower in TX-601 than the median for other major city CoCs. TX-601 counted slightly lower numbers of unsheltered

homeless people (-8%) and chronically homeless people (-41%). Again, while too much should not be made of PIT numbers, they suggest that homelessness in TX-601 is comparable to that in other major city CoCs.

Table 10 explores the extent to which key 2019 PIT metrics in major city CoCs compare to TX-601(HUD 2020g).

Table 10. Selected 2019 PIT metrics for 10 major city CoCs surrounding median for number of overall homeless

CoC Number	CoC Name	Overall Homeless	Black	Hispanic	White	Female	Unsheltered	People in Families	Chronically Homeless
MN-500	Minneapolis/Hennepin County	3,400	58%	7%	22%	43%	18%	40%	22%
GA-500	Atlanta	3,217	86%	5%	10%	26%	22%	16%	12%
TX-500	San Antonio/Bexar County	2,872	22%	46%	73%	37%	41%	28%	12%
CA-514	Fresno City & County/Madera County	2,508	17%	46%	67%	34%	82%	10%	28%
MD-501	Baltimore	2,294	70%	3%	26%	28%	17%	15%	27%
TX-503	Austin/Travis County	2,255	34%	30%	59%	33%	48%	25%	27%
TX-601	**Fort Worth, Arlington/Tarrant County**	**2,028**	**48%**	**13%**	**50%**	**36%**	**28%**	**21%**	**16%**
TN-504	Nashville-Davidson County	1,986	45%	3%	50%	25%	29%	9%	23%
MO-604	Kansas City, Independence, Lee's Summit/Jackson, Wyandotte Counties, MO &	1,979	49%	6%	43%	40%	16%	30%	17%
MI-501	Detroit	1,965	88%	2%	9%	33%	4%	29%	14%

Source: PIT and HIC data since 2007, selected and visualized by author from HUD 2020g

The 10 major city CoCs with counts clustered around the median (central quintile) for all 48 major city CoCs (2,275) range from a low of 1,965 homeless in Detroit to a high of 3,400 in Minneapolis. The ranges overall are very wide, indicating there's no consistent profile for cities clustered around the median for number of homeless people. However, among these 10 CoCs, TX-601 is at or near the median on all metrics. The percent of homeless people who are black varies widely, from 17% in Fresno to 88% in Detroit, with TX-601 at the median with 48%. The percent of homeless people who are Hispanic ranges from 2% in Detroit to 46% in Fresno, with TX-601 just above the median at 13%. For percent of homeless people who are female, the range is 25%-43%, with TX-601 at 36%. Detroit and Fresno again peg the extremes with 4% and 82%

of homeless people living unsheltered, respectively. TX-601 is again near the median with 28%. From 9% to 40% of homeless people live in families with children in the 10 cities, with TX-601 near the median at 21%. From 12% to 28% of homeless people in these cities are chronically homeless, with TX-601 slightly below the median at 16%.

TX-601 Community Context

Clearly, while interesting that TX-601 is so near the median for all of these metrics, community context is also important to generalizing characteristics of homelessness in major US cities. TX-601 is composed of two counties, Parker and Tarrant, and is one of only two CoCs in the US to include two major cities, Arlington and Fort Worth (HUD 2020a). Figure 6 displays Parker and Tarrant counties with their major cities.

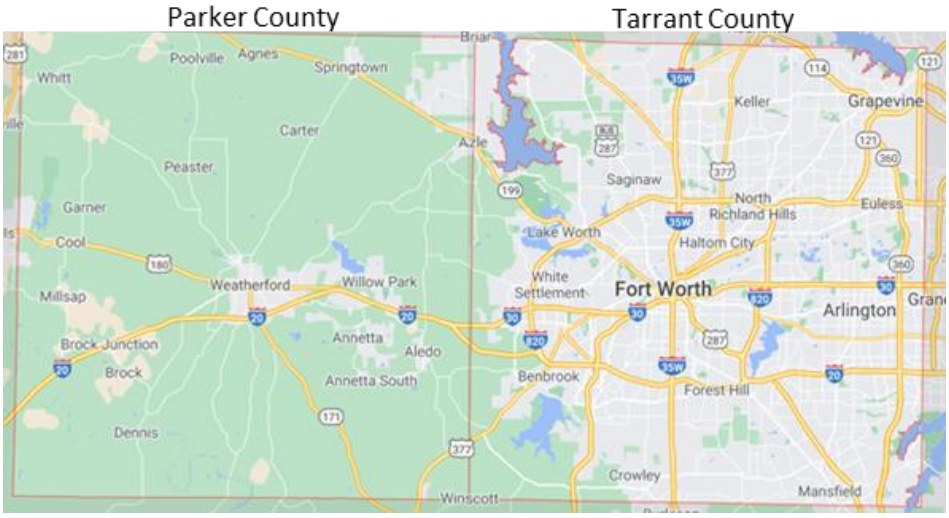


Figure 6. Map of Parker and Tarrant Counties, Texas with major cities (Google Maps 2020b; 2020a)

While TX-601 in many instances mirrors large US metropolitan communities, it differs in significant ways. TX-601 has been growing rapidly for the last 10 years and is one of the fastest

growing US metropolitan areas (Figure 7), with Fort Worth ranked the 13th most populous US city in 2019 (US Census Bureau 2019; NCTCOG 2020).

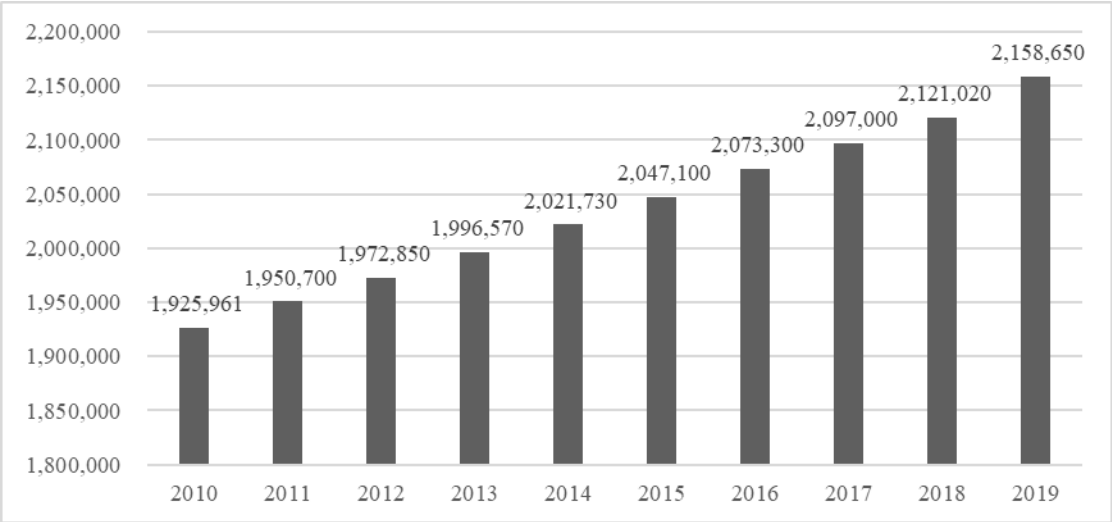


Figure 7. Population of TX-601 CoC *2010-19 (US Census Bureau 2019; NCTCOG 2020)*

Table 11 explores demographic data for the 10 largest cities at the heart of the 10 major city CoCs clustered around the median for overall homelessness (U.S. Census Bureau 2019).[7] Fort Worth is larger in households and population than most of these cities and grew the most (22%) since the last decennial census. Fort Worth has nearly the highest percentage of residents under age 18 (28%). Only 19% of Fort Worth residents are black, putting it below the median (23%) for these cities. Fort Worth has a significantly larger Hispanic population (35%) compared with the median (10%), along with a slightly larger proportion of foreign born and greater percentage (33%) of residents speaking a language other than English in the home. While owner-occupied

[7] Cities (Continuum of Care) included are Atlanta (GA-500), San Antonio (TX-500), Detroit (MI-501), Fort Worth (TX-601), Kansas City, MO (MO-604), Minneapolis (MN-500), Nashville (TN-504), Austin (TX-503), Baltimore (MD-501), and Fresno (CA-514).

housing is greater than the median in Fort Worth (57%), housing costs and household income are very similar across the 10 cities, although slightly fewer households in Fort Worth (16%) have incomes below the federal poverty line. Fort Worth tops the distribution for percentage of residents under age 65 without health insurance (20%).

Table 11. Selected US Census facts for the largest cities in the 10 major city CoCs reflecting the quintile surrounding the median for number of homeless persons compared with Fort Worth, TX (TX-601)

US Census Fact (2018 or 2019 estimates)	Fort Worth, TX	Median	Mean	Minimum	Maximum
Households	291,739	238,436	254,728	134,984	497,794
Population estimates, July 1, 2019	909,585	593,490	702,933	398,854	1,547,253
Population, percent change - April 1, 2010 to July 1, 2019	22%	11%	11%	-6%	22%
Persons under 18 years, percent	28%	23%	23%	19%	29%
Persons 65 years and over, percent	10%	11%	11%	9%	13%
Black or African American alone, percent	19%	23%	30%	7%	79%
Asian alone, percent	4%	4%	5%	2%	14%
Hispanic or Latino, percent	35%	10%	24%	4%	64%
White alone, not Hispanic or Latino, percent	40%	39%	39%	10%	60%
Foreign born persons, percent	17%	14%	14%	6%	21%
Owner-occupied housing unit rate	57%	47%	50%	43%	57%
Median selected monthly owner costs -without a mortgage	$540	540	545	451	766
Median gross rent	$1,015	997	1,003	798	1,225
Language other than English spoken at home, percent of persons age 5 years+	33%	22%	24%	9%	44%
High school graduate or higher, percent of persons age 25 years+	82%	85%	85%	77%	90%
With a disability, under age 65 years, percent	8%	9%	10%	6%	16%
Persons without health insurance, under age 65 years, percent	20%	14%	14%	8%	20%
In civilian labor force, total, percent of population age 16 years+	67%	67%	66%	54%	74%
Median household income (in 2018 dollars)	$59,255	$55,279	53,114	$ 29,481	$ 67,462
Per capita income in past 12 months (in 2018 dollars)	$28,330	$29,700	30,496	$ 17,338	$ 43,468
Persons in poverty, percent	16%	19%	20%	15%	36%
Population per square mile, 2010	2,181.20	3,154	3,793	1,265	7,672

Source: Data adapted by author from US Census Bureau 2015-2019 American Community Survey 5-Year Estimates

But to fully understand homelessness in TX-601, we must grasp the overall context, especially in relation to factors that have been shown to relate to homelessness:

- Rising rents | Researchers consistently find higher homelessness associated with higher median rents (Hanratty 2017; Lee, Price-Spratlen, and Kanan 2003; Glynn and Fox 2017; Raphael 2010). From 2012 to 2017, rents increased in Fort Worth by more than 5% per year (MPF Research 2017). Average rents in the Dallas-Fort Worth metropolitan area rank in the highest third of the 100 largest US rental markets (Zillow Research 2020).

- Rent to income discrepancies | Researchers also find homelessness driven by disparities between income and available housing (Shinn 2007; Shinn and Khadduri 2020; Burt 1992; Quigley and Raphael 2004). More than 15% of Fort Worth households spend more than 50% of their income on housing, particularly those households below 30% of area median income (NTRHA and FWHS 2018). In 2018, 36% of Tarrant County households earned below the federal poverty level or worked but lacked sufficient income or assets to afford housing and meet minimum household expenses ($25,500 for a single adult) (United Way of Northern New Jersey 2018)
- Deep poverty | Some researchers believe that the increase in deep poverty parallels increases in homelessness (Shinn and Khadduri 2020). Deep poverty is defined as people living in households with cash incomes equal to or below 50% of the federal poverty threshold. In Tarrant County, 5.3%, or more than 100,000 people, lived in deep poverty in 2018, down from almost 6% in 2015, for a reduction of 6,201 people (US Census Bureau 2018).
- Geographic concentration of homelessness services | Fort Worth is one of many communities where homelessness services and emergency shelters have been concentrated in service-dependent ghettos (Alexander-Eitzman, Pollio, and North 2013; Dear and Wolch 1987). Fort Worth's "homeless district," site of most of the largest emergency shelters and transitional housing in Tarrant County, is located in the census tract with the highest poverty rate in Fort Worth, near the city's original segregated public housing for black residents (Butler Place) (NTRHA and FWHS 2018). More than 50% of the tract's residents live in deep poverty (US Census Bureau 2018). Concentrated homelessness can further traumatize and pose barriers to exit due to lack of access to

opportunity (O'Flaherty 1996; Spence-Almaguer, Saks, and Hogan 2013). Figure *8* displays the locations of the four largest shelter agencies (Near East Side) with more than 1,273 beds within 0.75 miles (HUD 2020g). Seventy-seven percent of the emergency shelter beds and 37% of transitional housing in TX-601 are in the Near East Side.

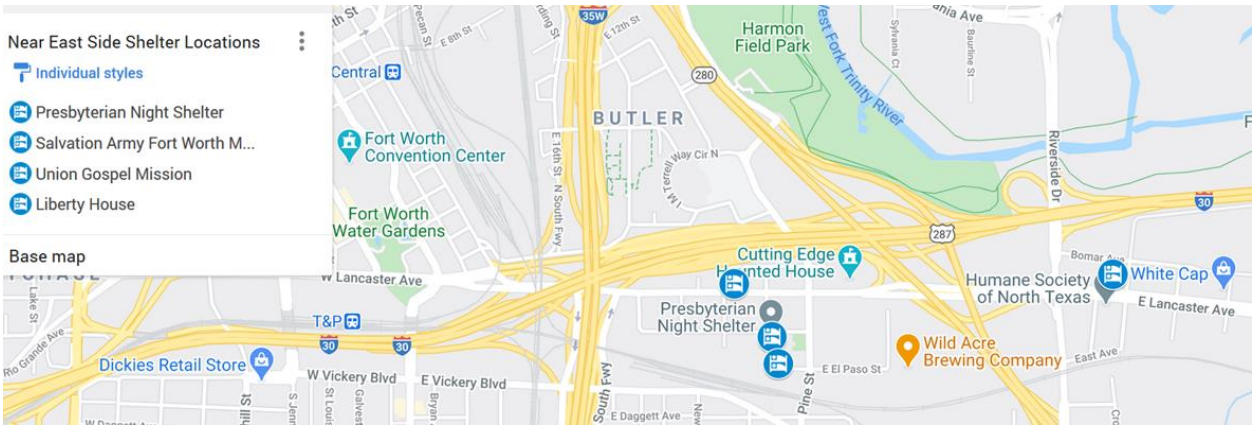


Figure 8. Near East Side, Fort Worth, Texas with locations of homeless shelters (Google Maps 2020a)

- Household composition | Researchers find that single mothers with young children are at greater risk for homelessness (Culhane et al. 2013). Nearly 40% of single mothers with children under age 5 in Fort Worth have income below the federal poverty level and live in some of the highest poverty census tracts (NTRHA and FWHS 2018).

- Regulation | Researchers have found connections among regulation, housing costs, and homelessness, particularly with zoning and land use (Pendall 2000; Raphael 2010; Stegman 2019; Glaeser, Gyourko, and Saks 2005; Green 1999). In Fort Worth, most residential land is zoned single-family housing, and only 7% of all land is zoned multifamily, greatly restricting land available for rental housing (NTRHA and FWHS 2018).

Neighborhoods with higher concentrations of black and Hispanic households and households with income below the federal poverty rate produce more homeless people (Byrne et

al. 2013; Culhane, Lee, and Wachter 1996; Crane and Manville 2008; Early 2004; Rukmana 2010). Fort Worth was one of the communities completing the Assessment of Fair Housing (AFH) under the recently rescinded Affirmatively Furthering Fair Housing rule issued by HUD during the Obama administration (NTRHA and FWHS 2018; US Department of Housing and Urban Development 2017). The AFH incorporated data from 1990 through 2018 to understand housing conditions, including cost burdens, residential segregation, and access to opportunity. Through the AFH, HUD introduced the concept of Racially and Ethnically Concentrated Areas of Poverty (R/ECAPs) to analyze the geography of low-opportunity neighborhoods based on research into the effects of multigenerational poverty and segregation (Chetty and Hendren 2015). R/ECAPs are census tracts where 40% or more of the residents live in households with income below the federal poverty threshold and more than 50% of the residents are nonwhite (NTRHA and FWHS 2018).

To create a geographic understanding of the changing structural context for homelessness in Tarrant County (TC), Table 12 displays the 34 census tracts that met the R/ECAP criteria in one or more years from 1990 through 2018 (US Census Bureau 2018; 2015; NTRHA and FWHS 2018). The number of R/ECAPs in Tarrant County fell from 18 to eight – a very small proportion of the county's 358 census tracts and 2.2% of its population. This decline was driven primarily by reductions in poverty. Overall, the TC poverty rate dropped from 15% to 13% in 2015-18, a reduction of nearly 25,000 people, or 9%. However, 36% of the residents in these historically low-income census tracts continued to fall below the poverty line in 2018. While poverty rates declined, the number of nonwhite residents in these tracts increased by 12% compared with a 15% increase in nonwhite residents overall in TC. Census tract 1017, site of TC's homeless district, continued to have the highest poverty (71%) while losing 13% of its population. These

changes were influenced by relocations from Butler Place public housing in preparation for redevelopment (NTRHA and FWHS 2018). The vast majority of these historic R/ECAPs are now located in southeast Fort Worth, home to most of the highest concentrations of black residents.

Table 12. Changes in historic Tarrant County R/ECAPs 1990-2018 by 2018 poverty rates

Census Tract	Sector	2015 Population	2018 Population	Population change	2015 R/ECAP	2018 R/ECAP	2015 % poverty	2018 % poverty	Poverty change	2015 % nonwhite	2018 % nonwhite	Nonwhite change
1017	SE	3,013	2,633	-13%	1	1	80%	71%	-22%	68%	67%	-14%
1036.01	SE	2,610	2,996	15%	1	1	66%	62%	7%	81%	80%	13%
1231	SE	2,699	3,390	26%	1	1	51%	52%	29%	53%	65%	56%
1223	Arlington	2,602	2,318	-11%	1	1	54%	51%	-16%	54%	55%	-9%
1038	SE	3,234	3,469	7%	1	1	60%	46%	-18%	82%	71%	-8%
1219.05	Arlington	5,635	5,056	-10%	1	1	50%	45%	-20%	52%	56%	-4%
1059.02	SE	4,707	5,250	12%	1	1	45%	44%	7%	80%	84%	16%
1046.02	SE	5,494	5,069	-8%	1	1	51%	43%	-23%	55%	64%	6%
1219.03	Far SE	6,402	6,158	-4%	1	0	45%	42%	-11%	36%	35%	-6%
1235	SE	2,796	3,225	15%	1	0	44%	39%	1%	72%	60%	-3%
1236	Near SW	2,636	2,890	10%	0	0	38%	38%	11%	38%	44%	29%
1052.01	West	5,221	5,505	5%	1	0	48%	38%	-16%	40%	41%	6%
1025	SW	3,485	3,279	-6%	1	0	53%	37%	-34%	80%	73%	-13%
1062.02	SE	5,075	5,187	2%	1	0	40%	37%	-7%	83%	86%	6%
1037.01	SE	4,219	3,846	-9%	1	0	42%	37%	-20%	32%	56%	60%
1037.02	SE	2,590	2,700	4%	1	0	43%	36%	-14%	57%	61%	12%
1014.03	SE	4,309	5,152	20%	1	0	41%	33%	-4%	56%	55%	18%
1048.03	S. Central	6,631	6,873	4%	0	0	39%	32%	-14%	20%	36%	87%
1050.01	NW	5,849	6,300	8%	0	0	39%	32%	-11%	22%	28%	38%
1046.03	SE	3,787	3,872	2%	1	0	42%	31%	-25%	46%	51%	15%
1014.02	SE	3,843	3,626	-6%	1	0	42%	30%	-31%	39%	45%	10%
1061.02	SE	3,540	3,912	11%	0	0	26%	30%	27%	53%	52%	8%
1045.05	SE	4,656	4,555	-2%	0	0	35%	30%	-17%	75%	68%	-11%
1046.05	SE	4,383	4,898	12%	1	0	41%	30%	-19%	63%	73%	29%
1046.04	SE	2,850	3,226	13%	0	0	39%	29%	-15%	79%	77%	11%
1048.04	South	2,899	2,883	-1%	1	0	44%	29%	-33%	22%	33%	49%
1066	NW	2,202	2,380	8%	0	0	37%	28%	-17%	8%	23%	208%
1065.16	Far East	4,975	5,153	4%	1	0	41%	28%	-29%	66%	71%	12%
1045.04	SE	3,202	3,082	-4%	0	0	29%	25%	-18%	27%	23%	-19%
1059.01	South	4,051	3,726	-8%	1	0	42%	24%	-46%	40%	48%	11%
1002.01	North	4,784	4,629	-3%	1	0	44%	24%	-47%	26%	35%	34%
1003	NW	4,805	5,150	7%	0	0	33%	23%	-25%	24%	28%	27%
1050.06	North	1,008	1,056	5%	0	0	10%	18%	88%	41%	61%	56%
1023.01	West	2,783	3,453	24%	0	0	21%	16%	-4%	28%	36%	62%
Total R/ECAPs		130,192	132,388	1.7%	18	8	43%	36%	-16%	48%	54%	12%
Total Tarrant County		1,889,101	1,994,417	5.6%			15%	13%	-9%	29%	32%	15%

Source: US Census Bureau 2015, 2018, NTRHA and FWHS 2018

The two-year AFH study found several conditions contributing to or impeding exits from homelessness in Fort Worth (NTRHA and FWHS 2018). The following findings for Tarrant County were consistent throughout the 20 cities and counties reviewed by the North Texas Regional Housing Assessment:

- Housing is highly segregated by race and ethnicity, especially between Fort Worth and its surrounding white suburbs, and most black and Hispanic residents live in segregated neighborhoods.
- Poverty is associated with racial and ethnic segregation. Neighborhoods with poverty rates exceeding 40% also tend to be nonwhite (69%-98%).
- Publicly supported housing tends to be highly segregated, also, with the majority of Housing Choice Vouchers used in just 22 census tracts.
- Housing costs have been rising for years, making housing increasingly unaffordable for people on fixed incomes, those with disabilities, and persons earning 30% of the area median income or below.
- Better jobs with higher wages tend to be located outside lower income, nonwhite communities. Lack of affordable transit creates barriers to accessing better jobs.
- Housing assistance is limited, and most landlords, especially in higher opportunity neighborhoods, do not accept government rent subsidies.

Summary: Case Selection

TX-601 is a fairly representative example of a major urban US CoC with a well-developed infrastructure, substantial federal funding supporting RRH and PSH programs, and more than 40 participating agencies. Its white homeless population is at the median for comparable CoCs while it has a higher proportion of black people who are homeless but a smaller proportion of

total black residents. Fort Worth, its largest city, has a history of residential segregation by race, ethnicity, and poverty, and homeless shelters and services are similarly concentrated. The TX-601 population grew 12% in less than 10 years coincident with substantial increases in housing costs. Recent housing costs were comparable to major cities in CoCs with similar numbers of homeless people. While median income was also comparable, 5% of Fort Worth residents live in deep poverty and 40% of single mothers with young children have incomes below the poverty threshold, both populations at high risk for homelessness.

Research Questions, Data, and Methodology

Regime Target Accuracy and Reliability: HMIS Data

Quantitative case and administrative data were used to address the first research questions: How do RRH and PSH housing program assignments differ under different regimes of A&A? Do systems with less agency discretion and more automation increase the proportion of participants matching system targeting? Quantitative data about programs comes from TX-601's HMIS administrative database. Since 2007, HUD requires all CoCs to maintain a centralized database (HMIS) to track individual information about service needs, program participation, and outcomes (Khadduri and Culhane 2007). More than 3,300 persons participated in TX-601 RRH and PSH programs in 2018 (TCHC 2019d). To support this research project, the author requested aggregate TX-601 data about program participants by program type and time period, as reported in HUD-defined Annual Performance Reports. HUD requires that every recipient of homelessness funding regularly submit APRs (HUD 2020b). APRs are highly structured aggregations of data from a recipient's HMIS answering 27 specific questions and sub-questions (HUD 2019j). HUD dictates the programming of APRs and downloads APRs directly from recipient databases.

APR data primarily derives from information entered by case managers when administering the required HUD Assessment (HUD 2019j). In addition to indicators of vulnerability, two broad variables are available from HMIS data and reported in the APR reflecting important determinants of homelessness entrances and exits based on scholarly research and theory (Brown et al. 2018):

- Participant characteristics: type of program, household composition (adult only, adult with children, children only), race, ethnicity, gender, age, income at initial assessment, presence of disability (mental, behavioral, physical), housing situation while homeless (including institutional settings), military veteran status, chronic homelessness (CH) status at program start, domestic violence history (DV), income and types of income
- Outcomes: program assignment, number of persons participating in programs, number exiting or staying in a program, length of program participation for program stayers and leavers, program exit destinations for stayers and leavers

Chapter 4 examines APR data from the 2014-16 regime, characterized by weak agency discretion and weak automation, and the 2017-19 regime, characterized by weak agency discretion and strong automation, to compare participant characteristics across time periods and housing programs. The Methodology Appendix includes detailed descriptions of APRs, how they were prepared and descriptions of the six APRs constructed for this research, covering each housing program and each regime. In addition to RRH and PSH programs, the author obtained APRs for Emergency Shelter programs to understand the larger homeless population from which RRH and PSH participants enter. The Appendix also describes the author's efforts to ensure that datasets covered a substantial portion of TX-601 agencies and the extent to which participants

were or were not included in more than one regime. Selected HMIS data quality metrics were examined to identify potential weaknesses in the datasets.

Summary: APR data

The project used Annual Performance Reports, based on aggregate HUD-required data, to analyze program participant changes from 2014-16, a period of weak agency discretion and automation in A&A systems, to 2017-19, a period of weak agency discretion and strong automation. APRs included measures of vulnerability and demographic data reflecting participant characteristics relevant to A&A systems. Data covered more than half of all participating agencies in TX-601, almost all with long tenures of participation. Approximately one-third of housing program participants entered from ES. Datasets for RRH and PSH appeared to have almost no overlap in participants based on analysis of flows into and out of programs. While almost all RRH participants entered during the concurrent data period, nearly half of PSH participants entered during previous regimes. While HMIS data is subject to flaws (missing data) common to large, decentralized, administrative data collection systems, HUD bases its monitoring of US homelessness initiatives on this data.

Regime Structure and Design: Archival Data and Scholarly Research

Archival documents from the Tarrant County Homeless Coalition, HUD, and scholarly research were used to answer the research question: How do changes in A&A systems compare with system and program goals and underlying theoretical frameworks? Chapter 2 reviewed the scholarly data and administrative records guiding program designs and target populations. This data included HUD memos, presentations, and other publications defining program criteria and principles. TCHC publishes and periodically updates operating manuals required by HUD. The

author also collected information directly from TCHC staff, documented by emails. Scholarly literature added information about underlying program design principles and A&A system criteria.

Automated Regime Participant Characteristics: Participant Interviews

Semi-structured interviews with participants who entered housing programs during the current regime of weak agency discretion and strong automation addressed the third research question: What are the homelessness pathways and characteristics of participants in RRH and PSH in an A&A system characterized by weak agency discretion and strong automation? The author collected data from both program participants and staff members to corroborate and contextualize quantitative data. Participant data was collected through semi-structured interviews with RRH and PSH participants entering programs during the most recent A&A regime. Staff perspectives were gathered using focus group technique. Focus group and interview questions were built around an *a priori* pathways typology. This section describes methods used to acquire research subjects and gather data, subject characteristics, and the theoretical and methodological considerations behind research decisions.

Clapham (2002, 67), a leading proponent of the pathways framework for understanding homelessness, suggests that "the most appropriate way to judge public policies is on the basis of their impact on housing pathways over time". He said analysis can be generalized across individuals by identifying common pathways either through induction (from data to theory) or theoretically (deduction) and that generalizations should include investigations of meanings, agency, the role of changes over time, and social practices and the factors affecting them. This project gathered data from program participants and staff alike to get multiple perspectives on

assessment and assignment outcomes. Qualitative data plays four roles in answering the project research questions:

- Corroborate and elaborate on quantitative data, describing characteristics of participants assigned to RRH and PSH programs in the current regime of assessment and assignment
- Understand the characteristics of program participants through the factors contributing to homelessness and compare with program designs and intended target populations
- Identify characteristics of participants not captured by assessment processes to understand whether private information plays a role in determining homelessness entrances and exits, from participant perspectives
- Understand participant and staff views on program designs

Sample size: review of the literature on data saturation in qualitative research

A primary methodological consideration for this research was sample size for participant interviews, i.e. how much data is enough. The concept of data saturation originated in grounded theory research with a focus on theoretical saturation but has been expanded to all types of non-probabilistic, purposive sampling in support of qualitative, interview-based research (Saunders et al. 2018; Guest, Bunce, and Johnson 2006). Grounded theory defines saturation as the point at which, using the widest possible array of relevant data, an author finds no new information relating to theoretical categories in the targeted area of research – categories are comprehensive, clearly differentiated, and related (Guest, Bunce, and Johnson 2006; Strauss and Corbin 1990).

Saunders et al. (2018) find four models of saturation discussed in the academic literature and used at different stages of qualitative research (sampling, data collection, and analysis). Theoretical sampling seeks samples sufficiently large to exhaust new categories for a developing

theoretical framework. Inductive thematic saturation happens in the analysis stage when no new themes are generated by the analysis of additional data. *A priori* thematic saturation is a deductive approach achieved when cases have fully illustrated a given theory. Data saturation, regardless of theory development, is achieved when additional cases yield no new information related to the research topic. The saturation criterion used, therefore, depends on the role of theory in the research: Deductive research exploring predetermined theoretical categories uses a different saturation criterion from inductive research seeking to develop new theory (Saunders et al. 2018). Alternatively, research that relies on life histories, as in the pathways framework to understanding homelessness, considers saturation within the individual – saturation is achieved when the author believes the individual has no more information to offer and the story is complete (Hawkins and Abrams 2007). The goal of biographical research is not so much to find inter-subject themes as to fully understand each individual subject, as in phenomenological interpretive research (Saunders et al. 2018).

Commonly used atheoretical criteria to demonstrate data saturation include 1) enough data to replicate the study, 2) no new information emerges with additional cases, and 3) data is fully coded, no additional codes or themes can be generated, and new information does not add to comprehension (Fusch and Ness 2015; Nascimento et al. 2018; Mason 2010). Data collected should have both quality (rich, layered, nuanced) and quantity (Fusch and Ness 2015; Nascimento et al. 2018; Mason 2010). Other considerations that may affect sample size include cost, whether frequency of code use matters, and whether the interviews simply were intended to gather data about the meaning of a phenomenon (Mason 2010). The number of codes produced does not necessarily demonstrate the quality of the data or coding (Saunders et al. 2018). But theoretical data saturation can demonstrate that results are representative of the population being

sampled and that they add to research validity (Nascimento et al. 2018). Qualitative research bears the burden of transparently demonstrating how it achieved data saturation (Nascimento et al. 2018).

Fusch and Ness (2015, 1409) also contend that "one size does not fit all" with regard to saturation. Saturation thresholds differ for various types of research (ethnography, phenomenology, case study) and depend on the study purpose, intended impact, heterogeneity of population (expectations for diversity of experience), interest in subgroups, budget, author experience with the population or topic, and the depth and number of interviews conducted with each participant (Mason 2010; Guest, Bunce, and Johnson 2006). In a review of the literature, Mason (2010) found a broad range of sample sizes proposed to demonstrate saturation. Some scholars recommended 30-50 interviews for ethnography and grounded theory research, other scholars recommended at least 15 interviews for all types of research, while still others said 20-50 (Guest, Bunce, and Johnson 2006). In his review of grounded theory PhD dissertations, Mason (2010) found a range of five to 350 subjects, with 34% of studies having 20-30 subjects and 22% having more than 30 subjects. However, studies using semi-structured, open-ended questions in interviews investigating homelessness pathways employed sample sizes ranging from 20 to 77 (Parsell and Parsell 2012), 28 (McNaughton 2008; McNaughton Nicholls 2009), 39 (Hawkins and Abrams 2007), 65 (Chamberlain and Johnson 2011), and 77 (Parsell, Tomaszewski, and Phillips 2014). Piat et al. (2015) interviewed 219, or 10% of participants, in a randomly controlled trial across five sites (approximately 40 per site) over 18 months. Fitzpatrick et al. (2013) conducted 452 highly structured interviews to discover the frequency of a theoretically predetermined set of 28 experiences of Multiple Exclusion Homelessness, which was then subjected to cluster analysis.

Commonly used techniques for conducting high-quality interview-based studies contribute to saturation. The most popular technique is semi-structured interviews with open-ended questions followed by analysis of themes (Nascimento et al. 2018). Researchers test questions for clarity and to ensure they are crafted to elicit information on the subject, thereby achieving efficiency in the number of interviews required for saturation. Researchers should ask every participant the same questions, using individual interviews (rather than focus groups) for more sensitive issues, to maximize resulting data (Fusch and Ness 2015). Most techniques for analyzing saturation begin with a matrix of interviews by themes, codes, or categories to show the impact of one more interview on theme generation (Fusch and Ness 2015; Nascimento et al. 2018; Tran et al. 2017). Multiple coders can help test for saturation (Fusch and Ness 2015; Nascimento et al. 2018). If final coding generates new information, the author may conduct more interviews to test for the new categories and codes. Authors should attempt to control for personal bias in data collection and coding and understand its effect on saturation (Fusch and Ness 2015). Triangulation – the process of iterative and concurrent sampling, data collection, and analysis across people, time, and space using multiple authors, multiple theories, multiple data collection methods, and multiple analysis methods – supports research reliability and saturation (Fusch and Ness 2015; Saunders et al. 2018).

A small number of researchers have studied data saturation seeking the point of diminishing returns, when additional interviews yield limited new information (Guest, Bunce, and Johnson 2006; Nascimento et al. 2018; Tran et al. 2017; Fusch and Ness 2015). Nascimento et al. (2018) found that saturation was reached with different numbers of interviews for different categories and themes. Analysis began during data collection and continued throughout the project. Some themes yielded no new detailed information after two interviews while other themes continued to

generate new information up to the 11th interview, with saturation generally reached by 15 interviews. Nascimento et al. (2018) added interviews equal to one-third of the total at the point of saturation to ensure that saturation had been reached. Two researchers coded the data and a third reviewed the coding for saturation.

Guest et al. (2006) conducted a seminal study to determine the point at which additional interviews yield no new information using data from 60 in-depth public health interviews conducted with women in two West African countries. Guest et al. (2006) found that 70% of the codes were generated in the first six interviews and 88% were generated (cumulatively) by the first 12 interviews, with 92% of first-country codes generated within 12 interviews. No refinements or elaborations were made in code definitions after 36 interviews. Moving from one country to another (interviews 36-60) resulted in little substantively new information (primarily language clarification). Regarding the importance of codes, 94% that were ultimately applied with high frequency were generated in the first six interviews.

Tran et al. (2017) developed a mathematical model for predicting data saturation in written, structured, open-ended survey instruments that consistently predicted a point of diminishing returns for generation of additional themes. This model found that, increasing sample size from 25 to 50 found 80% of total themes (Tran et al. 2017). The number of additional themes declined significantly after 100 cases, indicating approaching saturation, but 100% saturation (no new themes) was never achieved. The authors suggested closing samples when it takes 20 new cases to elicit one new theme.

Selecting a sample size for qualitative research with interviews appears to be fairly arbitrary. Mason (2010) found a suspicious number of studies with samples that were multiples of 10 when, according to data saturation theory, samples should only be as big as required to achieve

saturation. Further, Saunders (2018) observes that many authors conduct an arbitrary number of interviews after some point of saturation has been reached, possibly indicating a lack of confidence and a poor conceptualization of saturation as an event rather than a process. The need to stick to a sample size for funding purposes also seems to influence the number of interviews believed to be necessary for saturation (Saunders et al. 2018; Cheek 2011). Cheek (2011) began using 25 participants per category based on a comparable study that inspired her research; other authors have done the same (Fusch and Ness 2015). Her experience seemed to elicit a complete set of data for grounded theory development, so she continued the practice in future proposals, indicating that, while data saturation should not necessarily happen at any particular point, funders require a specific budget, and budgets are driven by number of interviews (Cheek 2011; Mason 2010). Mason (2010) contends that real data saturation is a matter of degree rather than a finite point and continues to evolve during analysis, after data collection is complete, yielding new insights, concepts, categories, and relationships from the same interviews. Sampling and data collection should end when more data is counterproductive and the marginal cost (in number of interviews) of additional data exceeds its benefit in new knowledge (Mason 2010). "Saturation is an ongoing, cumulative judgment that one makes, and perhaps never completes" (Saunders et al. 2018, 1901).

Qualitative data sample: program participants

For interviews, the author focused on participants housed during the most recent regime of coordinated entry from 2017-19 with a small number entering in 2016. Most participants in TX-601 RRH programs exit after seven months to independent living situations (TCHC 2020b); most PSH participants maintain their housing, staying one or more years, with a minority exiting within six months (TCHC 2020a). Limiting the sample to the most recent regime (late 2016

through 2020) enabled interviewing contemporary PSH and RRH subjects, including those who were still in their housing program as well as those who had exited. (It can be difficult to contact clients after program exit.) The target dates for subject program participation (2016-2020) allowed for a diverse sample of persons who had entered and exited RRH programs, entered and maintained housing in PSH programs, and those who very recently entered both types of programs.

Table 13 displays the percent of all subjects interviewed by program and the year they began their program. Slightly more than half (56%) of the RRH subjects exited prior to the interview, with the rest still enrolled at the time of the interview. All of the PSH subjects were receiving program services at the time of the interview.

Table 13. Subjects interviewed by year of program start

Program type	2016	2017	2018	2019	2020
All programs	16%	26%	10%	29%	19%
RRH	3%	16%	6%	16%	10%
PSH	13%	10%	3%	13%	10%

Half of the interview subjects entered their programs during 2019 and 2020 under a new coordinated entry policy (undocumented in operating manuals). In January of 2019, TX-601 implemented HUD's recommendations to shift to dynamic prioritization (Crites-Herren 2020). As early as 2015, HUD and researchers at Abt Associates (authors of the Annual Homeless Assessment Report to Congress) began to advise CoCs to stop keeping highly vulnerable people waiting for housing because there were no PSH beds available, instead placing them on a prioritized basis into any housing beds available as soon as possible (HUD Community Planning and Development 2018; White and Watt 2017). So, HUD issued a dual priority to increase the percent of people in PSH meeting the definition of chronic homelessness while at the same time

permitting prioritized entry for chronically homeless people into other programs like RRH (HUD 2016c).

To understand the homelessness pathways and characteristics of participants in RRH and PSH in an A&A system characterized by weak agency discretion and strong automation (2017-19), the author devised a pragmatic, non-probabilistic, purposive sample appropriate to qualitative, interview-based exploratory research with the goal of achieving data saturation rather than statistical significance (Saunders et al. 2018). The author was guided by Guest et al. (2006) to select a minimum sample size of 12 subjects for each program type. The author recruited participants by contacting leaders of the 16 organizations represented in the APR quantitative data, repeatedly following up to get participants from as many organizations as possible. Recruiting communications and interviews were conducted by telephone, email, and teleconferencing software from May through July 2020 during the covid-19 health crisis under protocols approved by the University of Texas at Arlington Institutional Review Board. The author provided project flyers and informed consent documents to case managers, who then approached clients to determine interest.[8] All clients interviewed received a $25 gift card for participation. Case managers provided contact information for interested clients to the author, who contacted the clients and read informed consent information to them by telephone. A separate phone was purchased for the project, and no personally identifiable client information was retained or used in reports. Table 14 displays the results of the recruiting process.

[8] Clearly, case managers exerted influence over the sample by the clients they recruited and the way they presented the project to them.

Table 14. Recruiting results for individual interviews of participants in housing programs

Program type	Responded to staff recruitment	Agencies represented	Interviewed	Declined after informed consent	No response to researcher follow-up	Not in target population – started program before 2016	Excess subjects, not contacted by researcher
RRH	25	4	16	1	5	0	3
PSH	25	8	15	2	2	6	0

Very few clients declined to participate after hearing the project description and provisions for confidentiality and privacy. The author interviewed 15 PSH and 16 RRH participants to maximize the number of organizations represented. While only four agencies offering RRH projects were represented, they are among TX-601's largest RRH projects. The resulting total sample of 31 subjects falls within the range of samples used in research exploring homelessness using the pathways framework (Parsell and Parsell 2012; McNaughton 2008; McNaughton Nicholls 2009; Hawkins and Abrams 2007). To assess the diversity of the sample and explore the potential for data saturation, the author examined subject characteristics using variables found in the APR data (demographics, disabilities, chronicity, household composition, employment), not to achieve a statistically comparable sample but to ensure that the diversity of the homeless population was represented. Table 15 displays characteristics of the subjects interviewed and shows that almost every category was represented in each program.

Table 15. Interview subject characteristics by program type

Subject characteristics	Total (31)	PSH (15)	RRH (16)
Program length (months)	2 to 52	2 to 52	2 to 18
Female	22	10	12
Male	9	5	4
Age (years)	26 to 63	31 to 62	26 to 63
Hispanic (ethnicity)	4	3	1
Race			
Black	14	5	9
White	12	8	4
American Indian	1	1	0
Mixed	2	0	2
Other	2	1	1
Household composition			
Married	3	2	1
Single adult	15	6	9
Single parent	13	7	6
Number of children	1 to 5	1 to 3	1 to 5
Individual vulnerability			
Years homeless	0.17 to 25	1 to 15	0.17 to 25
Disabled/Chronic illness - No income	14	10	4
Disability income	11	5	6
No disability	6	0	6

The subjects reflected significant diversity in length of program participation, age, number of children, and years homeless. Single parents included one parenting grandmother. Many cells in Table 15 include six or more subjects, exceeding Guest et al.'s (2006) threshold for generating the majority of unique responses from qualitative interviews. The following characteristics demonstrate subject diversity:

- Pre-homelessness income ranging from zero to more than $100,000 per year
- One military veteran
- Two subjects with substance use disorders contributing to their homelessness
- A broad range of mental illnesses, including bipolar disorder, depression, PTSD, schizo-affective disorder, schizophrenia, anxiety, and anger issues
- A broad range of physical disabilities and chronic health conditions, including one person using a wheelchair for mobility and others with chronic fatigue, cirrhosis, concussion,

dental problems, diabetes, fibromyalgia, gastroparesis, heart conditions, Hepatitis C, high blood pressure, kidney disease, work-related injuries and disabilities, chronic pain, sciatica, chronic back problems, arthritis, carpal tunnel, and neuropathy

- Children with disabilities, including autism, ADHD, congenital developmental disabilities, and bipolar psychosis
- Subjects reporting incarceration as playing a role in their homelessness, including two subjects whose husbands had histories of incarceration and three subjects whose own incarceration ranged from two to more than 25 years.
- Broad range of other life shocks and trauma, including verbal and sexual abuse in childhood; robbery and home invasion; identity theft; spouse lost to murder or death due to sudden illness; loss of home in a hurricane; injured by truck while crossing the street; job loss due to dispute with other employees, relocation of business, or natural disaster; death of family member who held tenancy to housing or provided emotional/financial support; shooting of family member in the home; divorce; serious illness and hospitalization of family member; loss of car due to theft or breakdown; domestic violence; military service experiences of violence; self-mutilation during psychotic episode; emotional breakdown; theft by family members; experience of violence and witness to violence while incarcerated

The author also compared nonwhite and white clients interviewed by program. Table 16 describes racial identities of subjects interviewed in comparison with TX-601 APR data from 2017-19 PSH and RRH programs.

Table 16. Race, ethnicity, and family composition for interview subjects compared with 2017-19 TX-601 data.

	Interview subjects			2017-2019 TX-601	
Race/Household	Total	RRH	PSH	RRH	PSH
Black	14	56%	33%	64%	54%
Black w/children	7	40%	20%	40%	13%
Mix/Other	4	19%	7%	2%	1%
Mix/Oth w/child	2	6%	7%	1%	0%
Amer Indian	1	0%	7%	1%	1%
Amer Ind w/child	1	0%	7%	1%	0%
Subtotal Non-white	19	75%	47%	67%	56%
White	12	25%	53%	33%	43%
White w/child	3	6%	13%	13%	5%
Hispanic	4	6%	20%	11%	7%
Hispanic w/child	1	0%	7%	7%	2%

Source: Data collected through individual interviews by author and administrative data from TX-601 Annual Performance Reports customized and analyzed by the author.

Race identity in interviews was based on how subjects chose to identify themselves. Nonwhite subjects included one American Indian, 14 black subjects, and two mixed-race subjects. Only four subjects identified as Hispanic, and two of them preferred "other" for purposes of racial identification and are included in the analysis as nonwhite. Sixty-one percent of subjects identified as nonwhite, including 47% of PSH subjects and 75% of RRH subjects. While the study was not expected to draw a statistically representative sample given the uncontrolled variables involved in recruiting through case managers, the racial and ethnic proportion of subjects reflects TX-601 2017-19 housing program participants – generally more nonwhite. The proportion of black interview subjects is less than in the TX-601 data, but the proportion of nonwhite is greater in the sample than in the TX-601 data for RRH clients (75% versus 67%). The interview sample exceeded the study's benchmark for qualitative data saturation for black, nonwhite, and white subjects (at least 12 interviews each). The benchmark for moderate data saturation (at least six interviews) also was achieved for black households with children (Guest, Bunce, and Johnson 2006).

The author collected qualitative data through one-on-one interviews using theory-driven, semi-structured open-ended questions. Interviews were conducted with Zoom teleconferencing to enable secure connections and recording. Researchers recommend individual (instead of group) interviews for sensitive subjects and participants (formerly homeless people) who have experienced trauma or stigmatization (Fusch and Ness 2015; Miles, Huberman, and Saldana 2020; Deck and Platt 2015). The author asked participants to explain conditions and events leading to their homelessness entrances and exits, probing for factors predicted by theory. Given that homelessness includes conditions that are themselves the results of antecedent conditions, the questions used a backward chaining approach to elicit a time-based causal sequence of conditions (M. Williams 2001). Questions included the following[9]:

- What do you think caused your homelessness? (followed by, What caused that to occur?) Probes: What choices did you make that contributed to your becoming homeless? What bad experiences (bad luck) might have led to your homelessness? What was happening in the community that might have contributed to your homelessness (cost of housing, job market, discrimination, loss of benefits)? What disabilities, illnesses, or health problems contributed? What happened in your network of family and friends that might have contributed? Of all these things, what had the biggest effect in leading to your homelessness?
- What have been the most important factors in ending your homelessness? (followed by, What led to that?) Probes: What did you do or think differently that led to you not being homeless? What positive events (good luck) led to your exit from homelessness? What was happening in the community that might have contributed to your exiting homelessness (cost of housing,

[9] A complete set of recruiting documents and interview schedules is included in the Appendix.

job market)? What support have you received from friends or family that helped end your homelessness?

- What services have you received from your housing program? How important were particular services you received/are receiving? If you were creating a perfect program, what services or benefits would you include?
- What did you do to get into your housing program? What do you think made the most difference in getting picked? What are the most important things that should be considered when selecting people for housing programs?

The author recorded, transcribed, and coded all interview data using *a priori* theory-driven codes reflecting the pathways framework to achieve a deeper understanding of the diversity among participants, variations between programs, and comparison of results with program intentions and design. Data coding employed a deductive approach beginning with a set of provisional codes and *a priori* themes generated from prominent theories explaining the determinants of homelessness entries and exits (Table 17) based on literature review (Miles, Huberman, and Saldana 2020; Saunders et al. 2018; Clapham 2005; Fitzpatrick 2005; Parsell and Parsell 2012; Shinn 1997; Shinn et al. 1998; O'Flaherty 2010; Curtis et al. 2013; Piat et al. 2015; McBride et al. 1998; Johnson et al. 2018).

Table 17. Codes and definitions for analyzing subject responses to questions regarding contributing factors to homelessness

Pathways codes	Definitions
Agency	Personal decisions, choices
Structure	Cost and terms of rental housing, wage rates and work schedules, lack of benefits or unemployment
Life shocks	Bad luck, traumatic, uncontrollable events
Individual vulnerability	Chronic illness, disabilities
Exclusion	Experiences of discrimination based on race, ethnicity, age, criminal background
Support system	Support (or lack of) from family, friends, church, public benefits

The author also coded data with participant attributes to identify patterns (Saldana 2016; Miles, Huberman, and Saldana 2020). Each of the following factors relates to some aspect or criterion used in assessment and assignment processes:

- Program type (RRH or PSH)
- Length of program participation
- Gender, race, ethnicity, age
- Length of stable housing, length of homelessness, time since last stable job
- Annual income prior to homelessness, current income, and field of work
- Family composition
- Capacity for employment, using McNeill's (2011) categories developed through pathways qualitative research, including work oriented (currently employed or about to be employed, actively seeking employment after being recently employed), work deferred to improve health or obtain additional education to improve employment opportunities, and unemployed (not seeking employment, no recent employment)

Interview questions were designed to elicit the subject's own views and analysis of contributing factors to his or her personal pathway through homelessness.[10] The researcher accepted whatever the subject had to say in response to any question.[11] Following an extended conversation in which the author probed for contributing factors representing the theoretical

[10] The detailed interview script is included in the Appendix.

[11] Many subjects commented on the importance of being listened to and believed by case managers and program directors, implying that the interview format gave them that opportunity.

framework, she asked, “Of all the things we have discussed, what do you think had the biggest impact on your becoming homeless?” and also asked subjects to gauge their housing stability.

Table 18 displays the number of times each code was used to assess saturation (Miles, Huberman, and Saldana 2020; Fusch and Ness 2015; Nascimento et al. 2018; Tran et al. 2017).

Table 18. Evidence of data saturation for analytical codes used in individual interviews

Subject characteristics	Total (31)	PSH (15)	RRH (16)
Greatest impact on homelessness			
Agency	3	2	1
Structure	4	1	3
Individual vulnerabilities	11	8	3
Life shock	6	3	3
Exclusion/stigmatization	1	0	1
Lack of support system	8	3	5
Contributing factors to homelessness			
Agency	15	8	7
Structure	21	9	12
Life shock	31	15	16
Individual vulnerabilities	24	14	10
Exclusion/stigmatization	5	1	4
Lack of support system	27	14	13
Outcome			
Stably housed	14	9	5
Not stable	4	0	4
Unsure of housing stability	8	5	3
Stable with supports	5	1	4
Employment capacity			
Work focused	14	5	9
Work deferred (health or education)	6	4	2
Unemployed	11	6	5

All six codes for contributing factors to homelessness were used by subjects in both programs to identify what had the greatest impact on their homelessness, except for exclusion among PSH subjects. Codes were used by between one and eight subjects in each program, demonstrating significant variation. When responding to the prompt, “Tell me the story of how you became homeless. What happened?” subjects again used all the codes with significant variation. Every subject told stories of life shocks, while only five subjects told of exclusion, discrimination, or stigmatization. McNeill’s (2011) categories for employability were similarly useful in examining

capacity to return to economic self-sufficiency with limited assistance as expected in RRH programs. Codes for housing stability were developed organically by the author using the subjects' own words.

Policy Implications of Regime Change: Staff Focus Groups

Staff focus groups were conducted to get a lived experience understanding of the change from greater agency discretion to system-wide automation, when agencies lost a certain degree of control over program participant decisions to system designers (TCHC). Staff perspectives also contributed to the fourth research question: What are the implications of findings for system design, program targeting, and program demand? The author conducted two focus groups with staff members to gather information that might help explain both APR data and program participant responses. Specifically, she wanted staff reaction to documentary evidence of a significant change in A&A protocols over time, creating the opportunity to compare official procedure with lived experience. The author recruited, through the leaders of the 16 agencies with housing program data in the APRs, staff members at multiple levels who had been engaged in TX-601 housing programs since 2016 or before. Researchers recommend that focus groups be as homogenous as possible, putting participants on an equal footing, so the author held separate focus groups for case managers (first-line workers) and program directors (second-line workers) (Cameron 2005). A third focus group was initially planned for CEOs, but these leaders said they were not sufficiently close to the work to answer the questions, referring the author back to their program directors. Table 19 shows characteristics of participants in focus groups. Ten agencies contributed 19 staff members to the project. The first year of work in TX-601 housing programs ranged from 2005 to 2016, with two participants starting in 2017. Nearly half of the participants

had worked in both PSH and RRH, and the remainder were divided evenly between the programs.

Table 19. Participants in staff focus groups by group and program

Focus Group	Total	Agencies	RRH/TH	PSH	Both	Median first year	White	Black	Female	Male	Hispanic
Case Mgr	8	7	2	3	3	2015	5	3	7	1	1
Prgm Dir	11	8	3	2	6	2014	7	4	10	1	3
Total	19	10	5	5	9	2015	12	7	17	2	4

The author chose a focus group strategy to access the potential bricolage resulting from interactions of experienced practitioners and program leaders, interpreting and socially constructing a picture of what happened and what is happening from both shared and diverse experiences (Denzin and Lincoln 2011; Creswell 2003; Kamberelis and Dimitriadis 2011). The author specifically did not seek consensus; instead, she asked participants to react to comments by others through the Zoom chat feature and verbally (Silverman and Patterson 2015; Ellingson 2011). The author began each discussion with a presentation designed to create a common frame of reference, including her CES model (Chapter 1, Figure *1*. Generalized conceptual framework for Coordinated Entry Systems), the three regimes of assessment and assignment from documentary evidence (Chapter 1, Table 1. A&A system regimes used in TX-601 by time period), and a depiction of the contributing factors to homelessness in the pathways framework (Chapter 3, Figure *4*. A set-theoretic model describing contributing factors to homelessness in the pathways framework). Focus group participants were asked probing follow-up questions[12] to address the following:

[12] A complete set of the materials, slide presentation, and script for the focus groups can be found in the Methodology Appendix.

- What subgroups of people are systematically included or excluded from housing programs?
- How have participants in RRH and PSH programs changed over time?
- When did the changes occur?
- What impact have system changes had on client behavior?
- Who should be assigned to which program type?
- Which program services do you consider most important to ending homelessness?

Summary: Participant Interviews and Staff Focus Group Data

Qualitative data was collected from program participants and staff members using a pathways research framework. Interview and focus group subjects, recruited through agency leadership, were demographically diverse and representative of overall TX-601 demographics. Sample size was based on a review of the literature on data saturation and pathways research. The selected sample achieved theoretical saturation, using all *a priori* codes and presenting substantial diversity in experiences and personal characteristics.

Summary: Methodology and Data

This discussion of data and methodology sets the stage for the following review of results, comparing aggregate administrative data, participant interviews, and staff perspectives to create a holistic picture of the impact of evolving A&A systems, within the context of the TX-601 CoC. Documents from the Tarrant County Homeless Coalition (TCHC), HUD, and scholarly literature were used to describe the design, intentions, and embedded logics of assessment and assignment of participants through Coordinated Entry Systems (CES) to Rapid Re-Housing (RRH) and Permanent Supportive Housing (PSH) programs. Quantitative aggregate-level administrative

data from the TCHC HMIS was gathered and assessed to compare characteristics of participants assigned to PSH and RRH programs during two regimes of coordinated assessment and program assignment (2014-16 and 2017-19), using information included in standardized HUD Annual Performance Reports. Semi-structured interviews with RRH and PSH participants assigned during the most recent A&A regime investigated individual characteristics and experiences that relate to A&A criteria such as membership in preferred classes, vulnerability, and experiences of homelessness. Focus groups with long-tenured case managers (front-line) and program directors (second line) were conducted to provide a lived-experience interpretation of changes in A&A processes and their impact on participant characteristics. A review of community-level data reflecting characteristics of the TX-601 CoC and the larger community context showed the case to be generally representative of large US metropolitan CoCs and their communities and revealed structural issues relevant to understanding participant experiences of homelessness. The preceding discussion of community context, subject characteristics, and the research framework informs the analysis of results that follows.

The following chapters present findings and analysis addressing each research question:

Chapter 4:

- Regime Target Accuracy - How do RRH and PSH housing program assignments differ under different regimes of A&A? (Quantitative case and administrative data analysis)
- Regime Structure and Design: How do changes in A&A systems compare with system and program goals and underlying theoretical frameworks? (Archival and scholarly research)

Chapter 5: Strong Automation Regime Participant Characteristics: What are the homelessness pathways and characteristics of participants in RRH and PSH in an A&A system characterized by weak agency discretion and strong automation? (Semi-structured participant interviews)

Chapter 6: Policy Implications of Regime Change: What are the implications of findings for system design, program targeting, and program demand? (Staff focus groups)

Chapter 4

Program Participant Characteristics by Assessment & Assignment Regime

Introduction

This chapter investigates the characteristics of participants in RRH and PSH programs under two regimes of assessment and assignment, comparing participant characteristics with program design and underlying theoretical frameworks. The following research questions are addressed through quantitative analysis of administrative data from specially aggregated HUD Annual Performance Reports (discussed in Chapter 3) and comparison with housing program targets and designs reflected in archival documents and scholarly research:

- Research question 1: Program Assignments by Regime - How do homelessness housing program assignments differ under different regimes of coordinated assessment and assignment in terms of the characteristics of those assigned to RRH and PSH programs?
- Research question 2: Program Assignments and Theory - How do these changes compare with system goals and are participants being assigned to the right programs, consistent with a program's theoretical homelessness pathway?

Chapter 1 discussed A&A systems in general and the TX-601 A&A system in particular. In general, HUD permits CoCs to identify local priorities to serve certain populations (HUD Community Planning and Development 2018). Acknowledging that need for housing far exceeds resources, HUD encourages communities to prioritize persons for housing with (a) longer periods of homelessness, (b) who live in places not meant for human habitation, (c) have greater vulnerability, and (d) use community and emergency services at a higher rate (HUD 2015c; HUD Community Planning and Development 2018). In response, TX-601 A&A policy sets the

following goals: (a) to give priority in housing program assignments to certain populations (veterans, families, youth, chronically homeless), (b) to select participants with characteristics reflecting greater vulnerability or need, using a standardized method and consistent criteria (Vulnerability Index-Service Prioritization Decision Assistance Tool – VI-SPDAT), and (c) to select participants in a non-discriminatory manner (especially addressing race) (HUD 2018b; TX-601 CoC 2014; 2017a). The TX-601 A&A regime of weak staff discretion and strong automation (2017-19) relies more heavily on diagnostic scores (specifically, the Vulnerability Index-Service Prioritization Decision Assistance Tool (VI-SPDAT) score), than did the previous regime (2014-16) of weak staff discretion and weak automation (TX-601 CoC 2017b; 2018; 2019; 2014). Chapter 1 compared elements of the VI-SPDAT with the HUD APR. The following discussion builds on that analysis focusing on APR questions relevant to selected target populations and vulnerability, as defined by the VI-SPDAT. The following discussion of research questions is therefore, organized in the following sections reflecting TX-601 priorities:

- Priority populations – veterans, families, unaccompanied youth, chronically homeless
- Vulnerability – age, housing situation while homeless, domestic violence, no income, disabilities and health conditions
- Race

Under each of these priorities, the author addresses each research question, first assessing changes in program assignments by regime and second, comparing resulting program assignments and theory. The author explores aggregate APR data to find whether increasing automation coincides with participant changes that move toward meeting local goals and addressing the scholarly call to target the most intensive services (PSH) to those with the highest needs (Culhane and Metraux 2008). First, for each priority and criterion, the author compares

APR participant data across regimes to assess the impact of changing A&A systems. A more successful A&A regime would show (a) increased numbers of participants from 2014-16 to 2017-19 who reflect program design and system priorities and (b) increased proportions of participants in each program meeting criteria and priorities. Changes in numbers of program participants, (especially in comparison with characteristics of the general population of homeless people reflected in emergency shelter (ES) programs), reflect the impact of increasing automation from one regime to the next. Proportions may also reflect the impact of accumulated practices from current and previous regimes, especially important when considering housing programs with low turnover, low growth, and no time limits for rental assistance (PSH).[13] This analytical approach responds to Corinth's (2017) observations that the impact of PSH on homeless populations may be reduced by failure to correctly implement program targeting.

Second, for each criterion and priority, the author discusses theory underlying the use of the criterion or priority, using a pathways framework, and compares theory with A&A system participant characteristics identifying congruence and contrast. The author particularly seeks to locate tensions, contradictions, and counterfactuals between participant characteristics and program theory, interrogating fundamental principles underlying homeless A&A systems and housing program design.

[13] See the Methodology Appendix for a discussion of participant tenure and its effect on proportions.

Program Assignments and Regime

For global context, from the 2014-16 regime to the 2017-19 regime, the number of unduplicated persons participating in TX-601 RRH programs increased by 34% while the number of participants in PSH programs only increased by 6.7%.[14] These increases were driven by a combination of turnover (higher in RRH than PSH) and increases in available beds, especially as relatively more funds were added to RRH. The average number of TX-601 RRH beds (indicating system capacity) increased from 577 in 2014-16 to 849 in 2017-19 (47%) while average PSH beds increased very slightly, from 1,727 to 1,756 (1.7%) (HUD 2020d). Within this context, Table 20 shows substantial increases in the number of persons served in priority sub-groups from 2014-16 to 2017-19.

Table 20. Percent change in number of participants and proportion of participants by program, sub-group, and period

	2014-16 to 2017-19			PSH				RRH				ES			
APR Questions: 5a	PSH	RRH	ES	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19	
Total number of persons served	7%	34%	52%	2,318		2,473		2,544		3,397		11,917		18,055	
Number of children (under age 18)	-21%	41%	13%	389	16.8%	306	12.4%	953	37%	1,345	40%	1,257	10.5%	1,415	7.8%
Number of veterans	145%	14%	41%	273	11.8%	670	27.1%	668	26%	763	22%	1,051	8.8%	1,483	8.2%
Number of chronically homeless persons	41%	36%	51%	641	27.7%	907	36.7%	193	8%	262	8%	782	6.6%	1,183	6.6%
Number of youth under age 25	-24%	106%	32%	17	0.7%	13	0.5%	82	3%	169	5%	1,248	10.5%	1,646	9.1%
Number of parenting youth under age 25 with children	-63%	141%	2%	8	0.3%	3	0.1%	34	1%	82	2%	45	0.4%	46	0.3%
Number of persons with unknown age				105	4.5%	79	3.2%	1	0%	3	0%	705	5.9%	1,840	10.2%

Source: Data from TX-601 Annual Performance Reports Question 5a provided by Tarrant County Homeless Coalition and analyzed by the author

The number of veterans in PSH increased 145% from 2014-16 to 2017-19; increasing much less in RRH (14%), but far more than the 41% increase in veterans who entered the TX-601 system through ES. The number of unaccompanied youths in RRH increased substantially (106%) while decreasing in PSH (-24%). The number of children served increased 41% in RRH

[14] All statistics refer to the APR reports obtained and analyzed by the author from TX-601 HMIS unless otherwise specified.

and decreased in PSH (-21%). The number of chronically homeless persons served in RRH increased 36% and slightly more in PSH (41.5%). Table 20 also shows the effect of changes in persons served as a percentage of program population (proportion) to find whether increases in persons served were effective in shifting proportions towards policy goals to prioritize certain populations (veterans, families with children, unaccompanied youth, chronically homeless). Even though the number of children in RRH increased 41% from 2014-16 to 2017-19, the proportion of RRH clients who were children increased only 3 percentage points (37%-40%). The proportion of RRH persons served who were youths more than doubled from 2014-16 to 2017-19, although the total numbers were small. The proportion of PSH clients served who were chronically homeless increased from 27.7% to 36.7%. The proportion of PSH clients who were veterans increased from 11.8% to 27.1% from 2014-16 to 2017-19, while decreasing 4 percentage points in RRH (26%-22%).

Program Assignments and Theory

In both the 2014-16 and 2017-19 A&A regimes, TX-601elected to prioritize military veterans, unaccompanied youth, families with children, and chronically homeless persons in assignments to housing programs. This selected list is a subset of homeless subpopulations tracked and valorized for special attention by the federal government (HUD), including households with children, ethnicity, race, gender, chronically homeless, severely mentally ill, chronic substance abusers, military veterans, victims of domestic violence, and unaccompanied youth (HUD 2020c; Kyle 2005).[15] Kyle (2005) finds that the emphasis on identifying subgroups,

[15] HUD clarified that prioritizing persons with particular disabilities (e.g. HIV/AIDS) was a violation of fair housing laws. These sub-groups were removed from the TX-601 priorities after 2016 (HUD 2018b).

embedded in the original McKinney Act (1987), reflects the individual vulnerability theory of homelessness and deflects attention from systemic and structural causes. Osborne (2019) suggests that identity (and vulnerability) have been substituted for homelessness in determining eligibility for housing programs due to insufficient resources for housing assistance. Housing assistance is rationed to selected population subgroups culturally expected to be more deserving of assistance or more vulnerable (veterans, disabled, women and children, excluding substance abusers) (Kyle 2005). PSH is designed for people who are homeless because of individual vulnerabilities and severe personal barriers to housing stability while RRH is intended for people who become homeless as a result of life shocks (personal and societal) but who, with a short period of assistance, can return to self-sufficiency and housing stability (Corinth 2017; M. Brown et al. 2018). Table 21 summarizes changes (from previous tables) in housing program participants representing locally selected priority populations, by program, from 2014-16 to 2017-19 discussed below by subgroup. The following sections discuss program theory compared with data for each subgroup.

Table 21. Changes in priority population participants by period, program proportions, and percentage point change in proportions

Priority populations	% increase in participants from 2014-16 to 2017-19			Proportion of program participants 2014-16			Proportion of program participants 2017-19			Percentage point change in proportion		
Program	PSH	RRH	ES	PSH	RRH	ES	PSH	RRH	ES	PSH	RRH	ES
Veterans	145%	14%	41%	12.0%	26.0%	8.8%	27.0%	22.0%	8.2%	15.0%	-4.0%	-0.6%
Youth	-24%	106%	32%	0.7%	3.0%	10.5%	0.5%	5.0%	9.1%	-0.2%	2.0%	-1.4%
Children	-21%	41%	13%	17.0%	37.0%	10.5%	12.0%	40.0%	7.8%	-5.0%	3.0%	-2.7%
Chronically Homeless	41%	36%	51%	28.0%	8.0%	6.6%	37.0%	8.0%	6.6%	9.0%	0.0%	0.0%

Source: Data from TX-601 Annual Performance Reports Question 5a provided by Tarrant County Homeless Coalition and analyzed by the author

Military veterans

Military veterans were the highest TX-601 priority population served in RRH during the 2017-19 strong automation regime and became the only priority population for PSH in 2018

(aside from chronically homeless) (TX-601 CoC 2017; 2018). The number of veterans increased in both programs in line with this priority with the advent of strong automation, with the greatest increase in both numbers (145%) and proportion (15 percentage points) in PSH. However, the proportion of veterans in RRH decreased by 4 percentage points even though veterans were the first-priority population in RRH. Why were so many veterans assigned to PSH programs rather than RRH programs during the strong automation regime of 2017-19 when they were a priority for both programs? To meet program design, veterans assigned to PSH would have had to also meet criteria for chronic homelessness, consisting of longer periods of homelessness and disabilities. Only 12%-13% of veterans in emergency shelter were chronically homeless in both regimes. The proportion of veterans in PSH who met the definition of chronic homelessness decreased to 16% under strong automation and increased slightly to 11% in RRH. So, while the number of veterans served substantially increased, many veterans admitted to PSH did not meet program criteria for chronic homelessness[16].

Table 22 reveals health conditions reported by veterans during initial interviews with case managers (APR question 25e). The number of veterans in PSH reporting mental health problems, chronic health conditions, and physical disabilities increased more than the increase in the total number of veterans served from 2014-16 to 2017-19, consistent with PSH design. However, in RRH, all health conditions except physical disability also increased more than the increase in veterans served, posing greater challenges to self-sufficiency. Increases in veterans with various health conditions in housing programs were also generally greater (with some exceptions) than increases among veterans served in ES (a more general population of homeless veterans),

[16] This data is presented more fully below in the discussion of the priority for chronically homeless people.

implying that veterans with health conditions were more likely to be in housing programs. Veterans with both alcohol and drug abuse conditions increased less in housing programs than in the ES population, possibly indicating barriers to housing program entry for this population.

Table 22. Changes in number and proportion of military veterans with physical or mental health conditions by program and period

Physical and mental health conditions at program start (APR q25e)	% change in # of veterans with conditions			PSH (# and proportion of veterans with condition)				RRH (# and proportion of veterans with condition)				ES (# and proportion of veterans with condition)			
	PSH	RRH	ES	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19	
Mental Health Problem	190%	76%	46%	67	25%	194	29%	183	27%	322	42%	328	31%	480	32%
Alcohol Abuse	69%	68%	39%	16	6%	27	4%	22	3%	37	5%	64	6%	89	6%
Drug Abuse	125%	52%	40%	20	7%	45	7%	21	3%	32	4%	62	6%	87	6%
Both Alcohol and Drug Abuse	45%	29%	61%	20	7%	29	4%	28	4%	36	5%	61	6%	98	7%
Chronic Health Condition	236%	28%	54%	36	13%	121	18%	218	33%	279	37%	311	30%	480	32%
HIV/AIDS	75%	200%	83%	4	1%	7	1%	3	0%	9	1%	12	1%	22	1%
Developmental Disability	100%	142%	10%	6	2%	12	2%	12	2%	29	4%	30	3%	33	2%
Physical Disability	195%	7%	52%	40	15%	118	18%	276	41%	296	39%	317	30%	481	32%
Total veterans	145%	14%	41%	273		670		668		763		1,051		1,483	

Source: Data from TX-601 Annual Performance Reports Question 25e provided by Tarrant County Homeless Coalition and analyzed by the author

Contrary to program design, the proportions of veterans with mental health, chronic health, and physical disabilities were higher in RRH programs than in PSH in both regimes. The proportions of veterans in PSH with these conditions were lower than in the general ES population in both regimes. However, while veterans who did not meet the criteria for chronic homelessness were being assigned to PSH programs in substantial numbers, increases in reported health conditions were generally greater in PSH than RRH. So, it may be that, while veterans were increasingly disabled, they may not have had sufficient documented time homeless to meet criteria for chronicity, but were entered in PSH nonetheless. Proportions increased from 2014-16 to 2017-19 for mental health and chronic health conditions in both programs. While this is consistent with the PSH emphasis on persons with individual vulnerabilities, it would not be consistent with RRH program design. Particularly concerning is the increase to 42% of veterans in RRH programs in 2017-19 with mental health problems, substantially more than the 29% in

PSH. This phenomenon could also be an artifact of the use of the VI-SPDAT score and the emphasis on prioritizing those with the most severe needs for any housing program with available openings.

Unaccompanied youth

Researchers find that youths experience complex and varied pathways into homelessness including structural problems (low income families, unaffordable housing, high youth unemployment, inadequate welfare benefits, limited housing supply), poor support systems (ranging from family tensions to alcoholic parents), individual vulnerabilities (mental illness, immaturity), exclusionary experiences (criminal justice experiences, deviant behavior), and life shocks (abuse and trauma) (Fitzpatrick 2000; Sznajder-Murray, Jang, et al. 2015; Hutson and Liddiard 1994). Further, researchers recommend that youth homelessness programs aim to prevent homelessness through early intervention with children and fragile families and to house vulnerable youths quickly before they can be further victimized and suffer long term consequences from homelessness (Sznajder-Murray, Bohyun Jang, et al. 2015; Fitzpatrick 2000). TX-601 prioritizes unaccompanied youths for RRH, aiming to move them into stable housing as soon as possible (TX-601 CoC 2018). However, Rice et al. (2018) found that PSH produced greater housing stability than RRH for youth with similar vulnerability scores. Among varied pathways into youth homelessness, Fitzpatrick (2000) found that all homeless youths needed material assistance (housing, jobs, income, furniture), practical assistance (navigation through bureaucracy), and general support (coaching on employment and household management). She also found that most homeless youths required emotional support to address isolation and about half required special support to address post-traumatic stress, mental illness, or substance use disorders. This set of requirements is more consistent with PSH program design.

However, the number and proportion of TX-601 youths increased in RRH programs (106%), where they were a priority population while decreasing by 24% in PSH where they were not a priority. Despite their prioritization, youths were present in ES programs at nearly twice their proportion in RRH and 10 times their proportion in PSH. Rice et al. (2018) also found that substantial proportions of homeless youth remained homeless waiting for program assignment, primarily in ES, over a two-year period following assessment, including 18% of youth assessed for housing with low vulnerability (scores of 0-3), 28% with moderate vulnerability (scores 4-7), and 30% with high vulnerability scores (8 or more). A&A systems cannot overcome lack of resources and other barriers such as weak skills and self-confidence in dealing with bureaucracies as well as distrust of social workers (Fitzpatrick 2000).

Families

RRH housing programs were originally designed for families with children based on the theory that experiences of homelessness and the stress of living in emergency shelter are detrimental to children, and that families with children do not need preparation to return to normal housing (Burt et al. 2016; Grant et al. 2013). The original RRH model preferred families who were homeless as a result of a life shock (temporary financial strain, loss of employment), weak support systems (inadequate childcare), or limited individual vulnerabilities that did not preclude the family's ability to sustain independent housing at the end of a limited period of assistance (Burt et al. 2016). Families with significant individual vulnerabilities (disabilities, mental illness, active substance abuse) posing long range employment barriers were seen as more appropriately housed in PSH (Burt et al. 2016).

Some researchers emphasize the structural origin of family homelessness (high housing costs, low wages) with weak personal and social support systems, life shocks, and individual

vulnerabilities intensifying inability to sustain stable housing (Bassuk, DeCandia, and Richard 2015; Grant et al. 2013). While in agreement with other scholars (Shinn et al. 1998; Stojanovic et al. 1999; Shinn and Khadduri 2020) that long-term housing subsidies are essential to ending family homelessness, Bassuk et al. (2015) argue that supportive services are also essential and that the federal government's emphasis on RRH for families, accompanied by its failure to adequately fund rental subsidy programs, is simply favoring the least cost intervention rather than the effective intervention. Scholars debate the relative importance of social services for families, theoretically provided at lower levels in RRH than PSH, hampered by a significant lack of high quality research that effectively teases out the differing effects of no services versus different types of services for different client characteristics (Bassuk and Geller 2006; Bassuk, DeCandia, and Richard 2015; Shinn and Khadduri 2020; Adam Dunn 2011; de Vet et al. 2013; Shinn 1997). Evidence from the three-year Family Options Study supports the effectiveness of deep, long term rental subsidies without services for families (Gubits et al. 2016). Most of the higher quality research around the effectiveness of supportive services focuses on persons with mental illness and substance use disorders (Rog et al. 2014; Rog 2004; Gilmer et al. 2014; Tsemberis and Eisenberg 2000; Kerman et al. 2019; Aubry et al. 2016).

TX-601 APR data show that the number and proportion of children in RRH programs increased from the weak automation regime to the strong automation regime becoming 40% of all RRH participants in 2017-19. This is consistent with the TX-601 priority for families with children in RRH and the goal to move them quickly from homelessness to housing stability, the original design for RRH programs. Further, the strong automation regime appeared to steer families with children away from PSH as the number of children in PSH declined 21% from 2014-16 to 2017-19 and the proportion declined from 17% to 12% of PSH participants. The

drive to house families quickly could contribute to this trend as families would have had to be homeless at least one year to qualify for PSH, regardless of the severity of their needs. This reveals a tension in the models for RRH and PSH that prevent either program from providing access to long term rental assistance quickly for any families and for families with special needs.

Chronically homeless

Based on cluster analysis of shelter users in New York and Philadelphia, Kuhn and Culhane (1998) created a typology that arguably led to our current definitions of chronic homelessness and perhaps presaged development of the pathways framework (Fitzpatrick, Bramley, and Johnsen 2013; Fitzpatrick 2005). They found the majority of shelter users were characterized by short, single episodes of homelessness and low levels of individual vulnerabilities, labeled transitionally homeless, who could best be served by one-time assistance. The remainder (approximately 20% of shelter users) either cycled from shelter to street and back (episodically homeless) or had long periods of shelter use (chronically homeless), both groups characterized by significant mental health or substance use disorders with high service needs. PSH programs and housing first were designed for Kuhn and Culhane's (1998) episodically and chronically homeless subgroups who need long-term financial housing assistance and more intensive supportive services. HUD's definition of chronic homelessness captures both groups and HUD requires CoCs to increase the proportion of their PSH clients who meet the definition (HUD 2016a; TX-601 CoC 2019; HUD 2014b). Chronically homeless people by HUD definition have documented homelessness of at least 12 months (at once or in episodes) and a documented disability and case managers are responsible for documenting chronic homelessness.

Theoretically, individual vulnerabilities play a larger role in pathways for persons defined as chronically homeless than other contributing factors consistent with the requirement for a

documented disabling condition. The VI-SPDAT adds another point to its vulnerability score for persons who meet HUD's definition of chronic homelessness[17], including meeting documentation requirements for longer periods of homelessness and at least one disability (HUD 2016c; CFR 2012; OrgCode Consulting Inc. and Community Solutions 2015). While some researchers argue that structural factors affect all homeless pathways, others observe that homelessness persists even in countries with stronger welfare and social housing sectors, albeit at much lower levels, with chronically homeless people with mental illness and substance use disorders present in all countries (Shinn 1997; Benjaminsen and Andrade 2015; Shinn and Khadduri 2020). Allgood and Warren (2003) and Fitzpatrick et al. (2011; 2013) make a case for pathways into chronic homelessness emphasizing characteristics and experiences of deep social exclusion and individual vulnerabilities including substance abuse, incarceration, early trauma and abuse, and deviant behaviors associated with street culture, reflected in the origin of PSH and housing first programs designed for persons with persistent homelessness, mental illness and

[17]*Chronically homeless* means:

(1) A "homeless individual with a disability," as defined in section 401(9) of the McKinney-Vento Homeless Assistance Act (42 U.S.C. 11360(9)), who:

(i) Lives in a place not meant for human habitation, a safe haven, or in an emergency shelter; and

(ii) Has been homeless and living as described in paragraph (1)(i) of this definition continuously for at least 12 months or on at least 4 separate occasions in the last 3 years, as long as the combined occasions equal at least 12 months and each break in homelessness separating the occasions included at least 7 consecutive nights of not living as described in paragraph (1)(i). Stays in institutional care facilities for fewer than 90 days will not constitute as a break in homelessness, but rather such stays are included in the 12-month total, as long as the individual was living or residing in a place not meant for human habitation, a safe haven, or an emergency shelter immediately before entering the institutional care facility;

(2) An individual who has been residing in an institutional care facility, including a jail, substance abuse or mental health treatment facility, hospital, or other similar facility, for fewer than 90 days and met all of the criteria in paragraph (1) of this definition, before entering that facility; or

(3) A family with an adult head of household (or if there is no adult in the family, a minor head of household) who meets all of the criteria in paragraph (1) or (2) of this definition, including a family whose composition has fluctuated while the head of household has been homeless. (CFR 2012)

substance use disorders (Tsemberis and Eisenberg 2000; Padgett, Henwood, and Tsemberis 2016). Stephens and Fitzpatrick (2007) and Benjaminson (2015), however, also show how different housing and welfare regimes may structurally exclude persons with these characteristics from labor and housing markets and social assistance indicating that chronically homeless persons may face a complex interaction of contributing factors, including structural, individual, personal agency, and life shocks in their pathways to homelessness. Padgett et al. (2016) contend that housing first (PSH), combining rental assistance with services, addresses both structural and individual factors.

The TX-601 proportion of chronically homeless persons served in PSH increased, consistent with their priority, from 28% in 2014-16 to 37% in 2017-19, indicating an increase in the proportion of participants who met target population definitions, coincident with the introduction of strong automation A&A. Table 23 shows that the number of chronically homeless persons served increased substantially in all programs but more in PSH (41%). In comparison, the total increase in persons served in PSH increased only 7% from 2014-16 to 2017-19. The proportion of program participants who were chronically homeless did not change for RRH and ES from 2014-16 to 2017-19. But the proportion of persons in PSH who met eligibility criteria for chronic homelessness increased to only 37%.

Table 23. Percentage change in chronically homeless persons served from 2014-16 to 2017-19 and percentage of persons served who were chronically homeless by program and period

	2014-16 to 2017-19			PSH				RRH				ES			
APR Question 5a	PSH	RRH	ES	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19	
Number of chronically homeless persons	41%	36%	51%	641	28%	907	37%	193	8%	262	8%	782	7%	1,183	7%
Total number of persons served	7%	34%	52%	2,318		2,473		2,544		3,397		11,917		18,055	

Source: Data from TX-601 Annual Performance Reports Question 5a provided by Tarrant County Homeless Coalition and analyzed by the author

However, these proportions indicate that the majority of participants in PSH still did not meet the target population definition, however improving, similar to Corinth's (2017) findings.

Some of this problem stems from the unlimited tenures of persons admitted to PSH in prior periods under different regimes and policies, who did not meet the definition of chronic homelessness, yet who need housing and do not have access to other programs with long term rental assistance. Table 24 sheds additional light on this question by displaying APR data by household (instead of by participant), including data for households with no chronically homeless adults and missing data.[18]

Table 24. Households with one or more chronically homeless adults by program and period

Q26a Chronically homeless households	% change in # of households 2014-16 to 2017-19			PSH (# and # of program participant households)				RRH (# and % of program participant households)				ES (# and % of program participant households)			
	PSH	RRH	ES	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19	
Chronically homeless no children	41%	34%	46%	502	29%	710	36%	131	9%	175	9%	767	8%	1,121	11%
Chronically homeless with children	28%	92%	220%	39	2%	50	3%	12	1%	23	1%	5	0%	16	0%
Not chronically homeless no children	19%	52%	91%	287	17%	341	17%	695	50%	1,053	56%	4,756	48%	9,101	86%
Not chronically homeless with children	-15%	55%	37%	67	4%	57	3%	330	24%	513	27%	214	2%	293	3%
Missing data no children	4%	-54%	-100%	758	44%	791	40%	193	14%	88	5%	4050	41%	0	0%
Missing data with children	-47%	-40%	-100%	66	4%	35	2%	30	2%	18	1%	105	1%	0	0%
Total	15%	34%	6%	1,719	100%	1,984	100%	1,391	100%	1,870	100%	9,897	100%	10,531	100%

Source: Data from TX-601 Annual Performance Reports Question 26a provided by Tarrant County Homeless Coalition and analyzed by the author

While increases in numbers and proportions are very similar to the data above by individual, the proportion of PSH households with missing data for whom status of chronic homelessness could not be determined was 48% in 2014-16 and 42% in 2017-19. The proportion of chronically homeless persons did not increase in RRH programs, although chronically homeless households

[18] Documenting chronic homelessness requires a great deal of information that may be difficult to obtain. First, periods of homelessness in formal programs (ES and transitional housing) and unsheltered (living in cars, motels, street) must be documented and quantified. Then, formal documentation of disability must be acquired. (HUD 2016c)

continued to enter RRH programs for whom they were not intended, increasing by 34% for adult only households and 92% for households with children.

The picture changes substantially when missing data is removed from the calculation of proportions of households with chronically homeless adults, as displayed in Table 25.

Table 25. Households with one or more chronically homeless adult without missing data

Q26a Chronically homeless households	% change in # of households 2014-16 to 2017-19			PSH (# and # of program participant households)				RRH (# and % of program participant households)				ES (# and % of program participant households)			
	PSH	RRH	ES	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19	
Chronically homeless no children	41%	34%	46%	502	56%	710	61%	131	11%	175	10%	767	13%	1,121	11%
Chronically homeless with children	28%	92%	220%	39	4%	50	4%	12	1%	23	1%	5	0%	16	0%
Not chronically homeless no children	19%	52%	91%	287	32%	341	29%	695	60%	1,053	60%	4,756	83%	9,101	86%
Not chronically homeless with children	-15%	55%	37%	67	7%	57	5%	330	28%	513	29%	214	4%	293	3%
Total	29%	51%	83%	895	100%	1,158	100%	1,168	100%	1,764	100%	5,742	100%	10,531	100%

Source: Data from TX-601 Annual Performance Reports Question 26a provided by Tarrant County Homeless Coalition and analyzed by the author

A majority of PSH households met the definition of chronic homelessness in both periods, increasing slightly from 56% in the weak automation regime to 61% in the strong automation regime. The percent increase in persons who did not meet the definition of chronic homelessness entering PSH was much lower than the increase in those meeting the definition and even decreased for families with children who were not chronically homeless. This was paired with an increase (in small numbers) of chronically homeless families with children entering RRH. This data possibly indicates an effect of either strong automation or more complete data from case managers or both.

But what characterizes chronically homeless RRH participants who would qualify for PSH programs and how do they differ from chronically homeless PSH participants? First, Table 26 displays the number of chronically homeless persons with health conditions by program. The

number of chronically homeless persons entering PSH and RRH with mental health problems increased from weak to strong automation regimes by very similar rates, 54% and 55% respectively, greater than overall increases in chronically homeless persons entering these programs (41% and 36%). PSH showed greater increases in chronically homeless persons with health conditions than in RRH except for developmental disabilities and HIV/AIDS, where total numbers were much lower in RRH. Proportions of chronically homeless persons by program and health condition were similar between PSH and RRH, ranging from differences of -7 to 8 percentage points.

Table 26. Chronically homeless persons with health conditions by program and period

Q26e Chronically homeless persons with health conditions	% change in # of chronically homeless persons 2014-16 to 2017-19 by program			PSH (# and % of chronically homeless persons in program)				RRH (# and % of chronically homeless persons in program)				ES (# and % of chronically homeless persons in program)				Percentage point difference PSH-RRH	
Health Conditions	PSH	RRH	ES	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19		2014-16	2017-19
Mental Health Problem	54%	55%	61%	404	63%	622	69%	108	56%	167	64%	512	65%	822	69%	7%	5%
Alcohol Abuse	35%	0%	19%	86	13%	116	13%	12	6%	12	5%	90	12%	107	9%	7%	8%
Drug Abuse	56%	40%	100%	87	14%	136	15%	20	10%	28	11%	93	12%	186	16%	3%	4%
Both Drug and Alcohol Abuse	22%	5%	111%	125	20%	152	17%	22	11%	23	9%	88	11%	186	16%	8%	8%
Chronic Health Condition	62%	28%	60%	263	41%	427	47%	88	46%	113	43%	386	49%	619	52%	-5%	4%
HIV/AIDS	48%	500%	179%	25	4%	37	4%	2	1%	12	5%	14	2%	39	3%	3%	-1%
Developmental Disability	122%	333%	56%	54	8%	120	13%	12	6%	52	20%	105	13%	164	14%	2%	-7%
Physical Disability	62%	40%	70%	245	38%	396	44%	81	42%	113	43%	357	46%	607	51%	-4%	1%
Total chronically homeless clients Q26b	41%	36%	51%	641	100%	907	100%	193	100%	262	100%	782	100%	1,183	100%	0%	0%

Source: Data from TX-601 Annual Performance Reports Question 26e provided by Tarrant County Homeless Coalition and analyzed by the author

Program design and pathways theory would expect to find a greater proportion of chronically homeless people in PSH with health conditions than in RRH and for most health conditions, this is borne out by the data. However, changing regimes changed the proportions very little with proportions remaining much the same from 2014-16 to 2017-19. The major exception to this was in chronic health conditions where 41% of chronically homeless PSH participants had a chronic health condition in 2014-16 compared with 46% in RRH. In 2017-19, proportions changed to 47% in PSH with chronic health conditions and 43% in RRH, moving these proportions in the direction expected by program design. Nonetheless, chronically homeless people in RRH in both

regimes reported high rates of mental health problems, chronic health conditions, and physical disabilities, all presenting challenges to employment and self-sufficiency with limited rental assistance.

Income could be another explanation for the presence of chronically homeless persons in RRH. Even with limited openings in PSH programs and policies like dynamic prioritization, placing the most vulnerable homeless people in any available opening instead of waiting for an opening more suited to their needs, one might expect that chronically homeless persons assigned to RRH might have more income than those in PSH. Table 27 shows the sources of income of chronically homeless adults.

Table 27. Chronically homeless adults with income by program and period

Q26g Chronically homeless adults with income	% change in # of households 2014-16 to 2017-19			PSH (# and # of program participant households)				RRH (# and % of program participant households)				ES (# and % of program participant households)				Percentage point difference PSH-RRH	
Types of income at program start	PSH	RRH	ES	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19		2014-16	2017-19
Earned Income	61%	52%	42%	49	9%	79	10%	21	13%	32	15%	53	7%	75	6%	-4.6%	-5.2%
Supplemental Security Income (SSI)	20%	110%	105%	180	32%	216	27%	21	13%	44	21%	103	13%	211	18%	18.4%	6.4%
Social Security Disability Insurance (SSDI)	60%	87%	92%	68	12%	109	14%	15	9%	28	13%	78	10%	150	13%	2.5%	0.5%
VA Service - Connected Disability Compensation	25%	82%	43%	12	2%	15	2%	11	7%	20	9%	14	2%	20	2%	-4.8%	-7.5%
VA Non-Service Connected Disability Pension	200%	-17%	13%	1	0%	3	0%	6	4%	5	2%	15	2%	17	1%	-3.6%	-2.0%
Temporary Assistance for Needy Families (TANF)	56%	167%	0%	9	2%	14	2%	3	2%	8	4%	5	1%	5	0%	-0.3%	-2.0%
Retirement Income from Social Security	257%	100%	267%	7	1%	25	3%	2	1%	4	2%	6	1%	22	2%	0.0%	1.3%
Pension or retirement income from a former job	100%	0%	100%	1	0%	2	0%	1	1%	1	0%	2	0%	4	0%	-0.5%	-0.2%
Child Support	33%	67%	50%	6	1%	8	1%	3	2%	5	2%	4	1%	6	1%	-0.8%	-1.4%
Other Source	-8%	67%	125%	12	2%	11	1%	3	2%	5	2%	4	1%	9	1%	0.2%	-1.0%
Total chronically homeless adults (Q26d)	40%	33%	49%	570	100%	796	100%	159	100%	212	100%	772	100%	1,154	100%	0.0%	0.0%

Source: Data from TX-601 Annual Performance Reports Question 26g provided by Tarrant County Homeless Coalition and analyzed by the author

As expected by program design, the proportion of chronically homeless PSH participants with earned income was five percentage points less than RRH participants, although only 13% (2014-16) and 15% (2017-19) of chronically homeless RRH participants had earned income. PSH participants, however, were more likely to have Supplemental Security Income (SSI) for persons with disabilities and insufficient work histories to qualify for Social Security Disability Income. The proportion of chronically homeless PSH participants with SSI declined from weak to strong automation regimes (five percentage points) while the RRH proportion increased eight

percentage points, consistent with theory that persons in PSH have greater vulnerability and fewer resources. However, while SSI can contribute to self-sufficiency for RRH participants, payment rates generally fall below monthly rent alone (Shinn and Khadduri 2020).

Another factor that may have had a depressive effect on the proportion of PSH participants who were chronically homeless was the significant influx of veterans into PSH. Table 28 shows a significant PSH increase in military veterans who were not chronically homeless (343, 154%) from the period of weak automation to strong automation compared with an increase of only 54 (108%) in those who met criteria for chronic homelessness.

Table 28. Percentage of veterans meeting HUD definition of chronic homelessness within each program and time period

	PSH				RRH				All			
Veterans	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19	
Not chronically homeless	223	81.7%	566	84.5%	602	90.1%	680	89.1%	825	87.7%	1,246	87%
Chronically homeless	50	18.3%	104	15.5%	66	9.9%	83	10.9%	116	12.3%	187	13%
Total	273	100.0%	670	100.0%	668	100.0%	763	100.0%	941	100.0%	1,433	100%

Source: Data from TX-601 Annual Performance Reports Question 25a provided by Tarrant County Homeless Coalition and analyzed by the author

Overall, the proportion of chronically homeless veterans in housing programs changed very little (12.3%-13%) from 2014-16 to 2017-19 (APR question 25a). But the proportion of chronically homeless veterans in PSH dropped almost 3 percentage points (18.3%-15.5%) while increasing slightly in RRH (9.9%-10.9%), even as the number of veterans in PSH increased substantially (52%), led by a substantial influx of veterans who were not chronically homeless. As discussed above, this evidence hints at the tension between program targets requiring chronicity, an arbitrary length of documented homelessness, and disabilities and health conditions that require long term financial supports. People may not have suffered homelessness long enough, or may not have lived in situations that permitted easy documentation of periods of homelessness, yet have serious disabilities requiring long term supports, while not qualifying for the PSH programs that provide them. However, veterans in the HUD Veterans Affairs Supportive Housing program

(VASH) are not required to meet HUD criteria for chronicity in order to enter this PSH program (Hogg 2021b; Evans et al. 2019; Monet 2020). Table 29 eliminates both veterans who are not chronically homeless and those for whom a status of chronic homelessness could not be determined due to missing data (most of whom entered the program prior to current eligibility requirements for chronicity). This view indicates that the regime of strong automation improved greatly over the prior regime, increasing the proportion meeting PSH eligibility criteria for chronic homelessness to 85%.

Table 29. PSH participants by period excluding veterans not chronically homeless and missing data

	PSH			
Chronic homelessness status	2014-16		2017-19	
Not chronically homeless excluding veterans	613	49%	163	15%
Chronically homeless (veterans included)	641	51%	907	85%
Total excluding veterans not chronically homeless and missing data	1,254		1,070	

Source: APR data for chronic homeless status questions 25a Number of Veterans and 26b Total Number of Participants

In summary, PSH participants were more likely to be chronically homeless (56% 2014-16, 61% 2017-19) while very low proportions of RRH participants were chronically homeless (10% 2014-16, 11% 2017-19), consistent with program design and pathways theory. There was little change in the proportions from a regime of weak to strong automation unless numbers are adjusted by removing veterans (who were not required to meet criteria for chronicity) and missing data (for persons whose chronic homelessness status could not be determined and entered prior to current regimes). Yet, 175 RRH households under strong automation were chronically homeless at program start, even accounting for missing data. APR evidence discussed above does not show that chronically homeless RRH participants have substantially more prospects for self-sufficiency than PSH participants based on their vulnerability

characteristics, indicating that they may have entered RRH because it was the only housing assistance available at the time.

Vulnerability

This section addresses aggregate data from HUD Annual Performance Reports related to characteristics that theoretically reflect greater vulnerability or severity of need. TX-601, along with many other CoCs, uses a standardized questionnaire, the Vulnerability Index-Service Prioritization Decision Tool (VI-SPDAT), to automate assessment of need, discussed in Chapters 1 and 2 (TX-601 CoC 2019). VI-SPDAT items add points for each aspect of vulnerability summing to a global score with higher scores theoretically associated with greater vulnerability and need (OrgCode Consulting Inc. and Community Solutions 2015; OrgCode Consulting Inc. 2015). The results of using the VI-SPDAT should be reflected in APR data measuring the same characteristics. The following discussion reviews changes in APR data relating to each aspect of vulnerability measured both by the VI-SPDAT and HUD's APR, in relation to the two research questions. For each aspect of vulnerability, the author first explores changes in program assignment results across regimes. Second, the author explores theoretical connections between the aspect of vulnerability measured in APR data and the theoretical designs and underlying pathways of PSH and RRH programs along with changes from a weak to a strong regime of A&A system automation.

Age

Program assignments and regime: Age

The VI-SPDAT adds one point to scores for participants who are age 60 or older. Table 30 displays changes in the number of persons served by age range in each program from 2014-16 to 2017-19 (APR question 11a). PSH and Emergency Shelter (ES)[19] programs had the greatest percentage increases in the numbers of clients who were 62 or older from 2014-16 to 2017-19. PSH programs showed substantial decreases in the number of participants who were children (especially those age 5 and below), along with substantial increases in older adults. RRH saw substantial increases in the number of children (especially age 5 or below) and younger adults (age 18-24), with substantially smaller increases in older adults than PSH programs. All programs showed substantial increases in persons age 62 or older, with PSH programs showing substantially greater increases. PSH saw a decline (-17%) in the number of persons served age 45-54 while RRH saw an increase (16%). The table also shows changes in the proportions of housing program participants by age group from 2014-16 to 2017-19. The proportion of PSH clients age 55-61 increased from 19% to 25%, and the proportion age 62 or over increased from 7% to 14%. The proportion of participants under age 5 in RRH increased slightly from 12% to 14%.

[19] Nearly one-third of PSH participants entered from Emergency Shelter programs, as discussed in the Methodology Appendix. Emergency Shelter, serving many more homeless people per year than any housing program, may be more reflective of the general population of people experiencing homelessness.

Table 30. Change in persons served by age and program with percentage of program participants served by age and period

	Population change			PSH		RRH		ES	
Age	PSH	RRH	ES	2014-16	2017-19	2014-16	2017-19	2014-16	2017-19
Under 5	-36%	56%	18%	5%	3%	12%	14%	2%	2%
5-12	-13%	34%	41%	7%	6%	18%	18%	3%	3%
13-17	-20%	33%	-4%	5%	4%	8%	8%	6%	3%
18-24	2%	64%	21%	3%	3%	5%	6%	8%	6%
25-34	13%	32%	53%	7%	8%	16%	16%	17%	17%
35-44	7%	34%	46%	13%	13%	13%	13%	18%	17%
45-54	-17%	16%	29%	29%	23%	14%	12%	23%	20%
55-61	35%	5%	72%	19%	25%	10%	8%	12%	14%
62+	104%	56%	116%	7%	14%	4%	5%	5%	7%
Missing	-25%	200%	161%	5%	3%	0%	0%	6%	10%
Total	7%	34%	52%	100%	100%	100%	100%	100%	100%

Source: Data from TX-601 Annual Performance Reports Question 11 provided by Tarrant County Homeless Coalition and analyzed by the author

Program assignment and theory: Age

Greater age is expected to indicate greater vulnerability and greater need for stable housing and supportive services, especially health care, as provided in PSH. Research with older homeless adults finds unmet needs for prescription drugs among those age 30 and older; higher rates of functional impairments, frailty, depression, visual impairment, and incontinence among those age 50 and older; and much higher mortality rates and rates of chronic disease than among non-homeless age peers (Baggett et al. 2010; R. T. Brown et al. 2012). Lending insight into the pathways of older homeless adults, Culhane et al. (2013) find an age cohort phenomenon for homeless persons born between 1954 and 1967, such that members of this age cohort are disproportionately represented among homeless people from 1988 through 2010. Culhane et al. (2013) theorize that there may be a structural component to the pathways of these homeless people based on their entering the labor force during the economic recessions of the late 1970s and early 1980s contributing to persistent problems connecting to the labor market, especially to higher wage occupations (Kahn 2010). But, as age increases, individual vulnerabilities may play

an increasing role in homelessness that may have been originally caused by other factors, including an inability to maintain adequate employment. Aging brings additional structural components to homelessness with persons age 50 and older experiencing more difficulty getting employment and longer periods of unemployment due to age discrimination (Neumark 2019).

Culhane et al. (2013) find a second disproportionately represented age group in young single heads of household in family shelters age 21 to 26. This age group persisted in every time period examined from 1988 to 2010, indicating that these individuals generally emerged from homelessness with increasing age without forming a persistently homeless age cohort. Culhane et al. (2013) theorize that this group is largely made up of single mothers with small children for whom the labor market, cost of childcare and housing conspire to contribute to their pathway into homelessness, largely structural factors. Shinn (1997) finds that homelessness among families is a temporary state resolved by provision of housing assistance rather than a persistent individual trait and that childcare assistance is arguably the most powerful supportive service required by these families, in addition to long-term rental assistance, for achieving housing stability, supporting a substantial role for structural factors in these homeless pathways (Shinn and Khadduri 2020).

The number and proportion of TX-601 housing program participants age 55 and older increased substantially in PSH but not in RRH, consistent with presumed greater vulnerability and limited ability to increase earned income. However, 454 persons in RRH in 2017-19 were age 55 or older, with expectations that they could become self-sufficient with time-limited assistance. Persons age 45 to 54 increased in RRH and decreased in PSH by similar amounts, possibly consistent with the idea that persons in this range should be able to work and therefore could fit RRH program design. Arguably, older homeless adults might need longer housing

assistance than provided by RRH to achieve self-sufficiency due to greater barriers to employment, creating a tension between A&A protocols and program design.

APR data for younger adults and children confirm scholarly expectations and prior research, with some intensification from weak to strong automation regimes. Table 31 contributes to the comparison by displaying APR age data only for those participants in families.

Table 31. Housing program participants in families by age, housing program and period

APR q11 Clients by age in families	Change in # of participants 2014-16 to 2017-19		Proportions (% of all program participants)							
Age groups	PSH	RRH	PSH 2014-16		PSH 2017-19		RRH 2014-16		RRH 2017-19	
Under 5	-38%	63%	98	4.2%	61	2.5%	270	10.6%	441	13.0%
5-12	-8%	39%	145	6.3%	133	5.4%	393	15.4%	545	16.0%
13-17	-6%	37%	86	3.7%	81	3.3%	169	6.6%	231	6.8%
18-24	-9%	77%	33	1.4%	30	1.2%	64	2.5%	113	3.3%
25-34	-17%	24%	60	2.6%	50	2.0%	223	8.8%	276	8.1%
35-44	-15%	38%	67	2.9%	57	2.3%	141	5.5%	194	5.7%
45-54	-28%	31%	40	1.7%	29	1.2%	48	1.9%	63	1.9%
55-61	100%	63%	6	0.3%	12	0.5%	8	0.3%	13	0.4%
62+	400%	0%	1	0.0%	5	0.2%	-	0.0%	6	0.2%
Participants in families	-15%	43%	536	23%	458	19%	1,316	52%	1,882	55%
Total participants all household types	7%	34%	2,318	100%	2,473	100%	2,544	100%	3,397	100%

Source: Data from TX-601 Annual Performance Reports Question 11 provided by Tarrant County Homeless Coalition and analyzed by the author

Children in families under age 13 were 26% (2014-16) and 29% (2017-19) of RRH participants. The greatest proportion of adults in families in RRH were age 25 to 34 (8.8%, 2014-16, 8.1%, 2017-19). The greatest increase in numbers of RRH adults in families was among those age 18 to 24 (77%), indicating some increased selection of these persons for RRH coinciding with the change to strong automation. The number of families selected for PSH declined in every age group except for those over age 55, even though older adults under age 55 might also find it difficult to achieve housing stability in RRH.

Housing Situation While Homeless

Program assignments and regime: Housing situation while homeless

The VI-SPDAT adds one point (indicating greater vulnerability or need) to participants' scores who were unsheltered and living in places not meant for human habitation. APRs report the prior situations of persons at program entry in question 15. Table 32 shows substantial percentage increases in the number of persons participating in each program who entered from unsheltered situations from 2014-16 to 2017-19. These increases were greater than increases in total program participation.

Table 32. Percentage change in number of persons whose homeless situation was unsheltered by period

Prior situation APR q15	PSH	RRH	ES
Place not meant for habitation	54%	44%	77%
TOTAL	15%	29%	45%

Source: Data from TX-601 Annual Performance Reports Question 15 provided by Tarrant County Homeless Coalition and analyzed by the author

The proportion of participants in each program whose prior housing situation was unsheltered (living in a place not meant for human habitation) also increased but more modestly. Table 33 shows that the proportion of participants who were previously unsheltered increased 4 percentage points in PSH (13%-17%) and 3 percentage points in RRH (25%-28%). A greater proportion of participants in RRH lived in unsheltered situations while homeless than PSH participants in both time periods.[20]

[20] APR question 15 only counts adults and heads of household so totals in Table 33 are lower than in other tables. The number of total RRH adults and heads of household in 2017-19 increased substantially more (460, 29%) from 2014-16 to 2017-19 than in PSH (270, 15%).

Table 33. Percentage of program participants whose homeless situation was unsheltered by program and period

	PSH				RRH				ES			
Prior situation APR q15	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19	
Place not meant for habitation	232	13%	358	17%	400	25%	574	28%	2,143	20%	3,785	25%
TOTAL	1,826		2,096		1,597		2,057		10,591		15,361	

Source: Data from TX-601 Annual Performance Reports Question 15 provided by Tarrant County Homeless Coalition and analyzed by the author

Program assignment and theory: Housing situation while homeless

The VI-SPDAT awards one vulnerability point for persons living most often in any situation other than ES, transitional housing (TH), or Safe Haven (shelter for persons with severe mental illness) implying that situations other than these do not constitute housing, are less safe, and indicate greater need for housing assistance and services (OrgCode Consulting Inc. 2020; OrgCode Consulting Inc. and Community Solutions 2015). This approach might be consistent with O'Flaherty's (1996) critique of the US tendency to consider persons in emergency shelter (ES) and transitional housing (TH) as homeless, maintaining that these situations serve as a form of housing for extremely poor households. Clapham (2005) reviews the literature addressing the meaning of house or home, finding that housing and its quality are socially determined constructs mediated by personal attitudes and meanings. Commonly perceived essential elements of housing include privacy, personalization, safety, comfort, and autonomy (Somerville 1992; Clapham 2005). Clapham (2005) finds that the individually mediated social construction of housing and home contributes to policy debates and conflicts over housing assistance and the definition of homelessness. International efforts to develop definitions of homelessness based on the security, physical, and social domains of housing resulted in three categories of homelessness: people (1) without accommodation (unsheltered), (2) living in temporary or crisis

accommodation (shelters), and (3) in severely inadequate and/or insecure accommodation (doubling up, motels) (Busch-Geertsema, Culhane, and Fitzpatrick 2016).

The VI-SPDAT also implies that ES and TH (category 2) contribute less to vulnerability, awarding vulnerability points for housing categories 1 and 3 but not category 2. However, this conflicts with TX-601 housing program eligibility policy that provides housing program assignments only for people who are literally homeless by HUD's definition (categories 1 and 2), excluding people who are doubling up in crowded or dangerous conditions with other households (category 3) (TX-601 CoC 2014; 2017a). Dehavenon (1996) studied families who had been doubled up and were seeking entrance into New York City shelters. These families were largely young, single parents with histories of low wage work and unstable housing. Dehavenon (1996) found that overcrowding made these situations unstable due to constraints on privacy, safety, access to benefits, and other individualized reasons. Emergency shelter has also been critiqued by homeless people who opt for unsheltered settings, especially encampments, that offer (from their perspective) greater security, safety, autonomy, and community (Loftus-Farren 2011; Herring 2014). A study in TX-601 found significant evidence of violent experiences and health risks among shelter and transitional housing residents (Spence-Almaguer, Saks, and Hogan 2013). Clearly, the idea that homeless pathways including shelter stays or transitional housing are safer and produce less vulnerability than unsheltered or doubling up experiences is contested.

Based on TX-601 A&A policy, we might expect to find more persons with prior unsheltered living situations in PSH than in RRH under a strong automation regime. Table 34 displays APR results for additional types of prior housing situations.

Table 34. Housing situation prior to housing program start for adults and heads of households by program and period

Q15 Housing situations prior to program start (adults and heads of households)	% change in # 2014-16 to 2017-19			PSH (# and % of program participants)				RRH (# and % of program participants)				ES (# and % of program participants)				Percentage point difference proportion PSH minus RRH	
Situations	PSH	RRH	ES	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19		2014-16	2017-19
Emergency shelter, including hotel or motel paid for with emergency shelter voucher	-12%	47%	85%	771	42%	682	33%	866	54%	1,275	62%	2,035	19%	3,765	25%	-12.0%	-29.4%
Transitional housing for homeless persons (including homeless youth)	-3%	-54%	15%	99	5%	96	5%	72	5%	33	2%	39	0%	45	0%	0.9%	3.0%
Place not meant for habitation	54%	44%	77%	232	13%	358	17%	400	25%	574	28%	2143	20%	3785	25%	-12.3%	-10.8%
Safe Haven	-29%	120%	182%	14	1%	10	0%	10	1%	22	1%	11	0%	31	0%	0.1%	-0.6%
Subtotal homeless situations	3%	41%	80%	1116	61%	1146	55%	1348	84%	1904	93%	4228	40%	7626	50%	-23.3%	-37.9%
Institutional setting	-22%	-30%	20%	27	1%	21	1%	27	2%	19	1%	628	6%	755	5%	-0.2%	0.1%
Permanent housing (other than RRH) for formerly homeless persons	-37%	0%	-27%	266	15%	167	8%	1	0%	1	0%	15	0%	11	0%	14.5%	7.9%
Rental by client, no ongoing housing subsidy	-17%	-52%	12%	35	2%	29	1%	21	1%	10	0%	170	2%	190	1%	0.6%	0.9%
Rental by client, with other ongoing housing subsidy	200%	333%	-21%	27	1%	81	4%	3	0%	13	1%	19	0%	15	0%	1.3%	3.2%
Hotel or motel paid for without emergency shelter voucher	150%	-72%	15%	2	0%	5	0%	36	2%	10	0%	401	4%	463	3%	-2.1%	-0.2%
Staying or living in a friend's room, apartment or house	-26%	-48%	4%	27	1%	20	1%	27	2%	14	1%	752	7%	784	5%	-0.2%	0.3%
Staying or living in a family member's room, apartment or house	-8%	-37%	-6%	66	4%	61	3%	35	2%	22	1%	1108	10%	1044	7%	1.4%	1.8%
Data Not Collected	117%	-35%	37%	259	14%	562	27%	96	6%	62	3%	3209	30%	4406	29%	8.2%	23.8%
TOTAL	15%	29%	45%	1826	100%	2096	100%	1597	100%	2057	100%	10591	100%	15361	100%	0.0%	0.0%

Source: Data from TX-601 Annual Performance Reports Question 15 provided by Tarrant County Homeless Coalition and analyzed by the author

The number and proportion of participants in *both* RRH and PSH who were unsheltered prior to program start increased from the period of weak automation to strong automation, consistent with a definition of vulnerability including unsheltered living situations, with the greater percent increase in PSH. However, the proportion of previously unsheltered participants (living in a place not meant for human habitation) in RRH (28%) was greater than in PSH (17%) during the regime of strong automation. From weak to strong automation, participants entering RRH from ES substantially increased (47%) while PSH entries from ES decreased, consistent with the view that persons in ES are not as vulnerable as those who had been living unsheltered and that PSH participants should be more vulnerable.

The number of participants entering PSH and RRH after staying with family or friends substantially decreased from weak to strong automation periods while remaining about the same in ES. This could reflect the inability of households doubling up with other households to qualify for housing programs because they were not considered homeless by TX-601 policy. Substantial proportions of PSH participants entered the program from another permanent housing program, declining from weak (15%) to strong automation (8%). Transitions from one housing program to another are consistent with PSH housing first program design supporting housing retention,

including moving people who fail in one program to another permanent housing program (Padgett, Henwood, and Tsemberis 2016; Stefancic et al. 2013). Household decisions on where to live while homeless are complex and reflect the unique situations and preferences of individual households. Further, all housing placements are affected by availability and timing of housing opportunities.

Domestic Violence

Program assignments and regime: Domestic violence

The VI-SPDAT adds up to three points to its total score for one or more experiences of assault or self-harm, homelessness caused by broken relationships, and homelessness caused by abuse or trauma (OrgCode Consulting Inc. and Community Solutions 2015). The APR includes a query reflecting this type of experience in its question on domestic violence (APR question 14a). Thousands of persons in emergency shelters (ES) reported histories of domestic violence, and their numbers increased 81% from 2014-16 to 2017-19 (Table 35).

Table 35. Change in persons with history of domestic violence by program and period, and percentage of persons served within each program

Domestic Violence History	2014-16 to 2017-19			PSH				RRH				ES			
	PSH	RRH	ES	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19	
Yes	77%	105%	81%	143	8%	253	12%	252	16%	516	25%	1167	11%	2107	14%
No	13%	21%	54%	1362	75%	1541	74%	1242	78%	1504	73%	5983	56%	9203	60%
Missing	-6%	-64%	18%	321	18%	302	14%	103	6%	37	2%	3441	32%	4051	26%
Total adults and heads of households	15%	29%	45%	1826	100%	2096	100%	1597	100%	2057	100%	10591	100%	15361	100%

Source: Data from TX-601 Annual Performance Reports Question 14a provided by Tarrant County Homeless Coalition and analyzed by the author

A fraction of ES participants with domestic violence histories were served in housing programs, although the number of RRH participants with domestic violence histories more than doubled. The proportion of persons with domestic violence histories also increased substantially in RRH (16%-25%) from 2014-16 to 2017-19. PSH proportions increased less (8%-12%).

Program assignments and theory: Domestic violence

Persons with a history of domestic violence or fleeing domestic violence were an explicit TX-601 priority population in 2014-16 but not in 2017-19. Domestic violence contributes to trauma and vulnerability along with homelessness itself and certainly indicates broken relationships, experiences contributing multiple points to the VI-SPDAT's vulnerability score (Deck and Platt 2015; Goodman, Saxe, and Harvey 1991; Herbers et al. 2014; K. Hopper, L. Bassuk, and Olivet 2010). Participants with a history of domestic violence increased in number and proportion in both housing programs, with greater increases in RRH, consistent with priorities on families and vulnerability. Twenty-five percent of RRH participants reported a history of domestic violence. Smaller increases in PSH participants with domestic violence histories may have been because housing candidates with domestic violence histories failed to meet the definition of chronic homelessness, including long time periods of homelessness and a documented disability.

No Income

Program assignments and regime: No income

The vulnerability protocol (VI-SPDAT questionnaire) adds one point to total score if the client has debt or no income (OrgCode Consulting Inc. and Community Solutions 2015). APR question 16 (Table 36) aggregates information about monthly income at program start, at annual assessment, and at program exit (HUD 2019h).

Table 36. Change in number of persons by income at program start from 2014-16 to 2017-19 and percentage of program participants by income and period

Income at program start	2014-16 to 2017-19			PSH				RRH				ES			
	PSH	RRH	ES	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19	
No Income	-3%	12%	133%	647	35%	627	30%	683	43%	762	37%	4,616	46%	10,757	73%
$1 - $150	-27%	28%	-28%	56	3%	41	2%	32	2%	41	2%	100	1%	72	0%
$151 - $250	-36%	4%	-40%	33	2%	21	1%	48	3%	50	2%	105	1%	63	0%
$251 - $500	12%	56%	11%	49	3%	55	3%	96	6%	150	7%	288	3%	321	2%
$501 - $1,000	-6%	52%	73%	631	35%	596	29%	291	18%	442	22%	1,307	13%	2,264	15%
$1,001 - $1,500	15%	43%	92%	120	7%	138	7%	228	14%	327	16%	399	4%	765	5%
$1,501 - $2,000	89%	82%	101%	27	1%	51	2%	91	6%	166	8%	171	2%	344	2%
$2,001+	30%	91%	132%	10	1%	13	1%	33	2%	63	3%	91	1%	211	1%
Missing	118%	-47%	-100%	251	14%	546	26%	88	6%	47	2%	2,878	29%	3	0%
Total Adults	14%	29%	49%	1,824	100%	2,088	100%	1590	100%	2048	100%	9,955	100%	14,800	100%

Source: Data from TX-601 Annual Performance Reports Question 16 provided by Tarrant County Homeless Coalition and analyzed by the author

Income data is more difficult to collect, as indicated by the substantial number of adult participants for whom data was not collected (missing). However, a plurality of adults served in housing programs had no income (30%-43%) or had incomes between $501 and $1,000 (18%-35%). A greater proportion of PSH participants in the two time periods (35%, 2014-16 and 29%, 2017-19) reported monthly incomes of $501-$1,000 than did participants in RRH (18%, 2014-16 and 22%, 2017-19). However, the proportion of participants with incomes from $501 to $1000 decreased in PSH (6 percentage points) and increased in RRH (4 percentage points) from 2014-16 to 2017-19. A greater proportion of RRH participants (43%, 2014-16 and 37%, 2017-19) had no income at program start than did PSH participants (35%, 2014-16 and 30%, 2017-19). Also, the number of PSH participants with incomes $0-$250 per month decreased from 2014-16 to 2017-19 while the number of RRH participants with such incomes increased, although the proportion of RRH participants with no incomes decreased from 43% in 2014-16 to 37% in 2017-19.

Program assignments and theory: No income

The proportions of participants with no income at program start decreased in both housing programs while increasing in the general ES population implying a preference for households

with income in housing programs. However, 37% of all RRH participants under strong automation had no income at program start, making economic self-sufficiency more challenging to achieve within a short time period. RRH participants were expected to return to economic self-sufficiency within 12 months in TX-601, less than the HUD regulation permitting up to 24 months of RRH assistance (HUD 2013b; TX-601 CoC 2017a).[21] APR income data reveal the tension between prioritizing people with greater vulnerability and placing people in RRH who have the capacity to increase their incomes and achieve independence from rental subsidies within a limited time period. People with no income score higher on measures of vulnerability in the VI-SPDAT while people with some income may not score high enough to be placed in a housing program. Incomes from $500 to $1000 include Supplemental Security Income (SSI) for persons with disabilities who have limited income and work history ($721-$771 per month, 2014-19) (Social Security Administration 2019; SSA 2020). The number and proportion of participants with incomes in the SSI range at program start decreased in PSH while the proportion of RRH participants with SSI at start increased to 22% under strong automation, begging the question, why wouldn't people with SSI be preferentially assigned to PSH because of their disabilities? The issue could be that they lacked sufficient documented time homeless to qualify for PSH. In contrast, only 29% of PSH participants had SSI-level incomes in 2017-19, higher than in RRH, but limited for a program intended for persons with disabilities.

Table 37 explores this issue further by displaying income sources at annual assessment for PSH adult participants and program exit for RRH adult participants.

[21] In 2020, the TX-601 examined its policy and moved to adopt the longer HUD allowable 24 months for RRH assistance (L. King 2020).

Table 37. Income sources at program annual assessment for PSH adults and at program exit for RRH adults by program and period

Q17 Income sources at program annual assessment or exit for adults	% change in # 2014-16 to 2017-19		PSH (# and % of program participants at annual assessment)				RRH (# and % of program participants at exit)				Percentage point difference proportion PSH minus RRH	
Sources	PSH	RRH	2014-16		2017-19		2014-16		2017-19		2014-16	2017-19
Earned Income	28%	79%	83	22%	106	28%	355	63%	637	67%	-41.1%	-38.8%
Supplemental Security Income (SSI)	7%	34%	294	78%	314	83%	148	26%	198	21%	52.0%	62.5%
Social Security Disability Insurance (SSDI)	15%	65%	162	43%	186	49%	89	16%	147	15%	27.3%	33.9%
VA Service - Connected Disability Compensation	-44%	52%	9	2%	5	1%	107	19%	163	17%	-16.7%	-15.8%
VA Non-Service Connected Disability Pension	-33%	30%	3	1%	2	1%	37	7%	48	5%	-5.8%	-4.5%
Temporary Assistance for Needy Families (TANF)	-50%	30%	10	3%	5	1%	30	5%	39	4%	-2.7%	-2.8%
Retirement Income from Social Security	18%	136%	11	3%	13	3%	11	2%	26	3%	1.0%	0.7%
Pension or retirement income from a former job	67%	22%	3	1%	5	1%	9	2%	11	1%	-0.8%	0.2%
Child Support	23%	113%	13	3%	16	4%	48	9%	102	11%	-5.1%	-6.5%
Other Source	-14%	70%	29	8%	25	7%	27	5%	46	5%	2.9%	1.8%
Adults with Income Information at Start and Annual Assessment/Exit	1%	70%	375	100%	377	100%	561	100%	952	100%	0.0%	0.0%
Total adults and heads of household participants	15%	29%	1826	21%	2096	18%	1597	35%	2057	46%	-14.6%	-28.3%

Source: Data from TX-601 Annual Performance Reports Question 17 provided by Tarrant County Homeless Coalition and analyzed by the author

First, a minority of all adult participants in PSH (21%, 2014-16 and 18%, 2017-19) and RRH (35%, 2014-16 and 46%, 2017-19) had APR income information at both program start and annual assessment or exit. However, of those with income information, a majority of PSH participants at annual assessment and a minority of RRH participants at exit had SSI. This would be consistent with PSH program goals to help qualify people with disabilities for benefits for which they are eligible as soon as possible after housing stabilization (Tsemberis 2010). This finding would also be consistent with RRH's program design intended for people who can become self-sufficient. Also, consistent with emphasis on self-sufficiency, the majority (63%, 2014-16 and 67%, 2017-19) of RRH adults (with income information) had earned income at exit. A slightly greater proportion of RRH participants (with income information) had earned income under strong automation while slightly less had SSI income, consistent with RRH program design. However, the number of persons with SSI at exit increased substantially under strong automation (by 34%) even though SSI does not offer income adequate to support rent payment. This could be consistent with increases in persons with disabilities in RRH and with efforts to increase any type of income that might support greater self-sufficiency.

Disabilities and Health Conditions

Program assignments and regime: Disabilities and health conditions

The VI-SPDAT assigns up to six points for disabilities and health conditions, including one point each for (1) inability to perform self-care, (2) one or more physical health problems, (3) one or more substance use barriers to housing, (4) one or more mental health problems or disabilities, (5) tri-morbidity (mental, physical, and substance use problems), and (6) medication misuse (OrgCode Consulting Inc. and Community Solutions 2015). The APR aggregates information about particular health problems and disabilities at program entry in questions 13a1 and 13a2 (HUD 2019h). Table 38 displays the number of persons reporting each type of health condition by program and period.

Table 38. Number of persons with health conditions at program start by program and period

Physical and mental health conditions at program start (APR q13a1)	2014-16 to 2017-19 % change			PSH (persons with condition)				RRH (persons with condition)				ES (persons with condition)			
	PSH	RRH	ES	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19	
Mental Health Problem	7%	95%	72%	1,079	47%	1,157	47%	515	20%	1,002	29%	2,813	24%	4,840	27%
Alcohol Abuse	-5%	56%	40%	191	8%	182	7%	45	2%	70	2%	378	3%	528	3%
Drug Abuse	-9%	56%	41%	302	13%	274	11%	87	3%	136	4%	718	6%	1,011	6%
Both Alcohol and Drug Abuse	-4%	31%	78%	264	11%	254	10%	72	3%	94	3%	417	3%	742	4%
Chronic Health Condition	39%	54%	87%	477	21%	665	27%	436	17%	671	20%	2,237	19%	4,176	23%
HIV/AIDS	-19%	557%	128%	156	7%	127	5%	7	0%	46	1%	92	1%	210	1%
Developmental Disability	63%	166%	54%	91	4%	148	6%	70	3%	186	5%	423	4%	653	4%
Physical Disability	27%	26%	77%	493	21%	626	25%	417	16%	527	16%	1,829	15%	3,244	18%
Total persons served	7%	34%	52%	2,318		2,473		2,544		3,397		11,917		18,055	

Source: Data from TX-601 Annual Performance Reports Question 13a1 provided by Tarrant County Homeless Coalition and analyzed by the author

A greater proportion of PSH participants reported health conditions in every category than RRH and ES. From 2014-16 to 2017-19, the number of PSH participants reporting chronic health conditions (39%), developmental disabilities (63%), and physical disabilities (27%) increased by more than the overall PSH population increase (7%), but decreased for alcohol (-5%), drug abuse (-9%), and HIV/AIDS (-19%). RRH participants saw greater increases in mental health

conditions (95%), drug and alcohol abuse (56%), chronic health conditions (54%), HIV/AIDS (557%), and developmental disabilities (166%).

APR question 13a2 tallies number of persons by number of health conditions reported per person (Table 39).

Table 39. Number of health conditions per person at program start by program and time period

Number of health conditions per person	2014-16 to 2017-19			PSH				RRH				ES			
	PSH	RRH	ES	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19	
None	-23.0%	57.2%	45.5%	418	18%	322	13%	1,167	46%	1,835	54%	2,862	24%	4,165	23%
1 Condition	-18.8%	69.7%	42.1%	458	20%	372	15%	386	15%	655	19%	1,976	17%	2,807	16%
2 Conditions	-5.3%	47.1%	62.8%	476	21%	451	18%	274	11%	403	12%	1,453	12%	2,366	13%
3+ Conditions	24.9%	69.1%	93.0%	538	23%	672	27%	236	9%	399	12%	1,306	11%	2,520	14%
Missing data	53.3%	-78.2%	43.4%	428	18%	656	27%	481	19%	105	3%	4,320	36%	6,197	34%
Total persons served	6.7%	33.5%	51.5%	2,318	100%	2,473	100%	2,544	100%	3,397	100%	11,917	100%	18,055	100%

Source: Data from TX-601 Annual Performance Reports Question 13a2 provided by Tarrant County Homeless Coalition and analyzed by the author

PSH programs had the lowest proportion of participants with no health conditions in both time periods, and the proportion decreased from 2014-16 (18%) to 2017-19 (13%). The proportion of RRH participants with no reported health conditions at program start increased from weak to strong automation regimes (46%, 2014-16, to 54%, 2017-19). However, nearly half of all RRH participants had one or more health conditions.

Program assignments and theory: Disabilities and health conditions

The practice of assessing the presence of disabilities and health conditions among homeless people implies an individual vulnerability theory of homelessness (Neale 1997; Piat et al. 2015; Pleace 2016; 2000). A&A regimes are arguably completely reliant on an individual vulnerability perspective in selecting people for housing programs, especially PSH (Cronley 2010; Tsemberis and Eisenberg 2000). The VI-SPDAT is highly oriented toward assessing health conditions and experiences of trauma (OrgCode Consulting Inc. and Community Solutions 2015). Assessments for entry to RRH amount to selecting those with fewer individual vulnerabilities, based on the

theory that people with fewer individual vulnerabilities have a greater capacity to achieve self-sufficiency with less assistance. However, TX-601 A&A regimes, relying on the VI-SPDAT, do not include tools that might assess the capacity to become self-sufficient after a limited time period with certain supports. Pearce (2001) is credited with beginning the conversation around measuring self-sufficiency or the ability of people to meet their own basic needs with decreasing levels of assistance (Fassaert et al. 2014). Psychometric tools (self-report questionnaires) have been developed to measure the construct of self-sufficiency (Bannink et al. 2015). The most well-validated factors in these tools include questions exploring income, employment, food access, and community involvement, in addition to health vulnerabilities (Cummings and Brown 2019). Although studies of the validity and reliability of these tools show promise, self-sufficiency assessment tools also suffer from significant limitations and, while researchers recognize their usefulness for case management and counseling, they do not recommend their use in discriminating among applicants to prioritize persons for benefits eligibility (Cummings and Brown 2019; Fassaert et al. 2014). The dynamic prioritization policy, promoted by HUD and adopted by TX-601 in 2019, places those scoring highest on the VI-SPDAT in RRH or PSH, even if they have significant disabilities and health conditions preventing them from increasing earned income (HUD Community Planning and Development 2018; Crites-Herren 2020).

As expected by program targeting, a majority of PSH participants (60%) had one or more health conditions and the proportion reporting no health conditions declined to 13% under strong automation, moving toward program design criteria for people with disabilities and chronic health conditions. In the direction of targeting toward people with fewer barriers to self-sufficiency, the proportion of RRH participants with no health conditions increased to 54% under strong automation. However, the number of RRH participants reporting mental health problems

nearly doubled under strong automation, reaching a proportion of 29%. While the idea that mental illness causes homelessness has been largely discredited, mental illness has been documented as a factor in the pathways of homeless people (Burt 1991; Aubry et al. 2016; Piat et al. 2015). Aubry et al. (2016) found that housing stability was significantly associated with interpersonal and social support systems and access to housing subsidies, but not mental health. The three-year Family Options Study also found that households achieved the greatest stability with permanent rental subsidies regardless of measures of individual vulnerability (Gubits et al. 2016). So, in the presence of long-term rental assistance, such as Housing Choice Vouchers or PSH, mental illness is not a barrier to housing stability. However, in a program like RRH, without access to permanent rental subsidies, mental illness arguably may pose a barrier to long-term self-sufficiency.

Race

Program Assignment and Regime: Race

HUD is increasingly concerned with the intersection of race and homelessness and the disproportionate representation of homeless persons by race and ethnicity in housing programs (HUD 2020e). Participants in TX-601 housing programs were disproportionately black, with 51% of clients active in HMIS in 2020 identifying as black, while only 15% of the total population of TX-601 was black (Hogg 2020a). Table 40 (APR question 12a) displays disproportional housing program participation by race and household composition, with very little difference in disproportionality between regimes of weak and strong automation.

Table 40. Persons served by race and household composition with percentage of program participants by period and program

APR q12a Race and family composition	PSH				RRH				ES			
	2014-16		2017-19		2014-16		2017-19		2014-16		2017-19	
White	962	42%	1,053	43%	908	36%	1,117	33%	5,459	46%	7,496	42%
White with children and adults	157	7%	131	5%	339	13%	442	13%	298	3%	252	1%
Black or African American	1,271	55%	1,329	54%	1,577	62%	2,167	64%	5,461	46%	8,214	45%
Black with children and adults	366	16%	319	13%	945	37%	1,371	40%	593	5%	882	5%
Other nonwhite	36	2%	48	2%	56	2%	102	3%	237	2%	378	2%
Other nonwhite with children and adults	12	1%	9	0%	33	1%	68	2%	32	0%	47	0%
Data Not Collected	49	2%	43	2%	3	0%	11	0%	760	6%	1,967	11%
Total persons served	2,318	100%	2,473	100%	2,544	100%	3,397	100%	11,917	100%	18,055	100%

Source: Data from TX-601 Annual Performance Reports Question 12a provided by Tarrant County Homeless Coalition and analyzed by the author

Black program participants were not only disproportionately homeless compared to community demographics, but they were disproportionately assigned to RRH programs. Forty percent of RRH participants in TX-601 in 2017-19 were black living in households with children while only 13% of RRH participants were white with children. While the presence of white participants in PSH programs (42%) was very close to their presence in emergency shelter (ES, 41.5%), white participants were less likely to be found in RRH (32.9%). Black participants were more likely to be found in both PSH (54%) and RRH (64%) than in ES (45%) in 2017-19. This was particularly true of black participants in households with children.

Program assignment and theory: Race

Overrepresentation of black people in US homelessness has been observed since the increase of homelessness in the 1980s, indicating a possible role for race in the pathways of homeless black people (Jones 2016; Burt 1992; Carter 2011). Overall in the US, typically 40% of homeless persons are black while approximately 13% of the general population is black (Jones 2016). TX-601 is an example of this disparity with blacks representing 48% of homeless people in its 2019 point-in-time count contrasted with a metropolitan population that was only 19% black (HUD 2020g; U.S. Census Bureau 2019). Researchers agree that the mechanisms underlying black homelessness are not well understood (Jones 2016; O'Flaherty 2019; Elliott

and Krivo 1991). In a recent scholarly literature review on race and homelessness, Jones (2016) found that only .08% of articles on homelessness addressed race.

The limited research available finds that pathways into homelessness vary significantly by race (Jones 2016). For example, Early (2004) found race among the variables predicting homelessness, after controlling for other factors. Black veterans have also been found to have higher rates of homelessness than white veterans, suggesting a role for social exclusion and racial discrimination (Jones 2016; Montgomery et al. 2015). Homeless youths are also disproportionately black, but less likely to have lost their homes through personal agency (Jones 2016).

Many scholars find evidence for a structural component in pathways to homelessness for black people, particularly through disproportionate incarceration and residential segregation (O'Flaherty 2019; Shinn and Khadduri 2020; Carter 2011). Research finds that disproportionality of blacks in the homeless population cannot be explained by poverty rates (Jones 2016; Shinn and Khadduri 2020). Shinn and Khadduri (2020) observed that people of color and minority groups are also disproportionately represented among homeless people in Canada, Australia, France, and Japan, suggesting that social exclusion (racism) is the operating factor. Racism and disproportionate outcomes are evident in disparities for US black people in employment discrimination, wealth accumulation, assets of social networks, and intergenerational asset accumulation, common structural contributing factors in pathways to homelessness (Tribble 2018). Paired testing continues to show that it's harder for blacks to get a job, rent or buy housing (all other things being equal), and that blacks are steered into lower opportunity communities (Quillian et al. 2017).

Carter's (2011) research associated residential segregation and housing affordability problems with black homelessness. Elliott and Krivo (1991) suggest that black homelessness is influenced by residential segregation in lower quality communities and discrimination limiting housing opportunities. Underlining the role of housing discrimination, Patterson et al. (2014) found that black homeless veterans with rental subsidies were placed in lower quality neighborhoods than white veterans but that this phenomenon was moderated when a case manager assisted with housing placement. Researchers also connect homeless racial disproportionality with disproportionate incarceration of black people in the US (Shinn and Khadduri 2020; O'Flaherty 2019; Jones 2016). Pathways to homelessness among black men have been characterized by incarceration (life shock, exclusion), unemployment (structure), and family breakdowns (poor support systems) associated with domestic violence (life shocks) (Jones 2016).

At the macro level, O'Flaherty (2019) finds that black homelessness is not so disproportionate in cities with proportionally more black people, theorizing that, perhaps in cities with higher percentages of black households, family and friend support systems are larger and have more resources. Marcus (2005) found that black homeless people had difficulty maintaining assistance from extended families to end their homelessness.

While 48% of the overall homeless population in TX-601 is black, black homeless people overall are more highly concentrated in emergency shelters (54% black) (HUD 2020g). In TX-601, 65% of homeless people in families were black and 70% of the families in emergency shelter were black. As is the case in TX-601, emergency shelters are disproportionately found near non-white communities (Carter 2011). Carter (2011) found that black homeless households tended to use shelter services adjacent to their previous residences, suggesting that greater

proximity to shelter services may be a factor in the disproportionate presence of blacks in the homeless population, given that people in shelters are more likely to be counted than people living unsheltered or doubled up with other households.

Culhane et al. (1996) found that sheltered homeless people were more likely to come from neighborhoods with high proportions of poor, black, female-headed households with young children, higher poverty and unemployment rates, and high rent to income ratios. Elliott and Krivo (1991) also found community homelessness rates to be associated with high rates of black, female-headed households and poverty suggesting a structural component to pathways to homelessness. Black homeless adults tend to be younger than white, less likely to be transient while homeless, more likely to be unmarried, have accompanying children under age 15, received public assistance prior to homelessness, and have grown up in poverty, indicating a greater impact of socioeconomic factors contributing to homeless pathways for black adults (Jones 2016). Shinn et al. (1998) also found that black families were at greater risk for homelessness when other risk factors were held constant.

Black households overall have greater individual health vulnerabilities than white, compounding health vulnerabilities found in homeless people (Jones 2016). However, while some studies of homelessness and race find evidence of individual vulnerabilities and life shocks in the pathways of black homeless adults, researchers also find that individual vulnerabilities differ by race with black adults less likely to have histories of psychiatric problems, alcoholism, or unmet health needs than white homeless adults, with socioeconomic factors like poverty and discrimination more prevalent than individual vulnerabilities in black pathways to homelessness (Koegel, Melamid, and Burnam 1995; Jones 2016; Rosenheck et al. 1997).

Overall, the scholarly literature, albeit limited, finds that black homeless people have unique pathways to homelessness that differ from white homeless people in the role of individual vulnerabilities and the salience of structural factors. Unique pathways may exist for black men and their families affected by incarceration and for poor, young, black mothers with small children, both situated within the context of racism and structural barriers to housing stability. Jones (2016) found no research relating race to the two prominent types of homeless housing programs currently available (RRH and PSH). If black homeless people have pathways highly influenced by racism in social structures and the economy, what housing program would best fit with these pathways? Black people in TX-601 may be more likely to be placed in RRH than PSH by A&A systems due to fewer personal disabilities and the greater presence of families with children, an explicit priority of RRH. PSH with its emphasis on intensive supportive services to address individual vulnerabilities, especially poor health and disabilities, might be less important for black people whose pathways are less dependent on health problems and disabilities. Yet, RRH, designed to overcome economic life shocks and quickly return households to self-sufficiency after a limited period of housing assistance and supportive services, would find it difficult to overcome histories of poverty, poor support systems, employment discrimination, limited access to quality education, persistently low wage work, and increasing housing costs. By contrast, permanent housing subsidies have been shown to lead to housing stability even for families from intergenerational poverty regardless of race or ethnicity (Shinn and Khadduri 2020).

Summary

This chapter investigated two research questions: first, the extent to which program assignments and participant characteristics varied between weak and strong A&A regimes, and

second, how participant characteristics and assignments compared with theory about homeless pathways and housing program designs. These questions were explored in terms of TX-601 A&A system criteria through administrative data included in the HUD Annual Performance Report, including membership in priority populations (chronically homeless, veterans, youth, families with children), vulnerability (age, unsheltered housing situations, domestic violence, no income, disability, or health conditions) and exclusion (race). For each prioritization and selection criterion, the author presented evidence of change in the number of persons served and the proportion of program participants from a period of weak automation (2014-16) to a period of strong automation (2017-19). Second, the author discussed the theory of homelessness underlying each factor's inclusion in the A&A system and its consistency with program targets and priorities, again using APR data to illustrate congruence or divergence.

For most criteria, evidence could be found that the regime of strong automation coincided with greater consistency with program targets and design, albeit modest improvements in most cases. Strong automation coincided with increases in the number of veterans, youth, children, and chronically homeless people served in RRH where they were targeted as priorities. Veterans and chronically homeless program participants increased in PSH under strong automation where they were priority populations. More modest increases were found in changes in the proportion of homeless people in each program matching system priorities. The proportions of youth and children increased in RRH while the proportions of veterans and chronically homeless people increased in PSH, consistent with their priority. When missing data were removed, a majority of PSH participants met criteria for chronic homelessness compared with a minority of RRH participants, consistent with program designs. These proportions changed very modestly from weak to strong automation.

Characteristics of vulnerability also changed across A&A regimes consistent with program theory. The number of older adults increased in both programs but more so in PSH. The number of children, especially under age 6, increased in RRH. The number of housing program participants who lived in places not meant for human habitation while homeless increased under strong automation with small increases in proportions. The number and proportion of RRH participants with domestic violence histories increased under strong automation, more so than in PSH. The proportions of participants with health conditions were greater in PSH than RRH, changing little under strong automation. The number and proportion of PSH participants with one or no health conditions at program start decreased under strong automation while the proportion of RRH participants with no health problems increased. Housing program participation by race continued to disproportionately include black people but did not change from one regime to the next. Black housing program participants with children formed a much greater proportion of RRH participants than PSH, consistent with the RRH program's priority for families.

However, the data begged questions revealing tensions in the underlying models.

- Veterans entering PSH actually reduced the proportion of veterans meeting program eligibility criteria for chronic homelessness, even as the number of veterans with health conditions and disabilities increased in both RRH and PSH. The proportion of veterans in RRH decreased, where they were a priority, while proportions of veterans in RRH with health conditions, particularly mental illness, were higher than in PSH in both regimes, a program designed around addressing individual vulnerabilities. Veterans with both drug and alcohol abuse problems increased more in the general homeless population housed in emergency shelter than in those assigned to housing programs, begging the question of

why a strong automation regime might not adequately prioritize persons with these conditions for assistance.

- Youths in both regimes were present in the general emergency shelter population in greater proportions than in either housing program, indicating a possible failure of A&A systems to quickly bring this highly vulnerable priority population into assistance.
- Persons meeting the criteria for chronic homelessness in both regimes continued to enter RRH programs, for whom they were not intended. These persons had high levels of health conditions and little or no income, with only slighter lower numbers of health conditions and slightly higher incomes than chronically homeless people in PSH. Strong automation had a very modest effect on increasing the proportion of PSH clients who were chronically homeless with a substantial proportion of participants not meeting eligibility requirements.
- In both regimes, the proportions of RRH participants living in places not meant for human habitation, an indicator of vulnerability, were greater than in PSH.
- Only a fraction of the general emergency shelter population with histories of domestic violence was served in housing programs. Persons with histories of domestic violence and drug and alcohol abuse were also more highly represented in the emergency shelter population than in housing programs.
- Under both A&A regimes, the proportions of RRH participants with no income, an indicator of vulnerability, were greater than in PSH and the number of PSH participants with incomes up to $250 per month at program start decreased under strong automation.
- The number of RRH participants with health conditions increased under strong automation, particularly mental illness.

- Greater proportions of black housing program participants were assigned to RRH while whites were more likely to be assigned to PSH programs, with little change by regime.

These findings reveal underlying tensions with fundamental program concepts:

- Self-sufficiency vs vulnerability: The increasing and persistent presence of persons with significant health conditions (individual vulnerabilities) in RRH programs challenges the underlying program intention to return persons to self-sufficiency with a limited dose of rental assistance and support. Similarly, households with no income or extremely low income might be considered highly vulnerable, but might also be poor candidates for a program designed to achieve self-sufficiency with limited-term assistance. No prioritization criteria reflect a household's past levels of self-sufficiency, arguably a better predictor of capacity to achieve future self-sufficiency. The A&A model assumes that persons with a lower overall load of vulnerability might be better able to achieve self-sufficiency without considering particular types of vulnerabilities and past history.
- Chronicity versus vulnerability: For persons to qualify for long-term rental assistance and supportive services, they must have documented homelessness of at least 12 months, all at once or episodically. The tension between chronicity and vulnerability is evident in the increasing proportions of persons in all programs with health conditions and experiences of trauma. Counter-intuitively, quick access to housing assistance (RRH) is intended for those with lower levels of vulnerability. Chronicity is further complicated by difficulties with documentation and definitions of homelessness, possibly explaining the higher proportion of RRH participants previously living unsheltered.
- Individual vulnerabilities vs structural contributing factors: Participants with characteristics associated with individual vulnerability increased in both programs, but

more so in RRH. Comparisons with theoretical homeless pathways reveal complexity within individual characteristics of vulnerability. For example, while greater age or chronic homelessness may indicate an individual vulnerability, these characteristics are social constructs that also relate to experiences of exclusion and structural barriers to self-sufficiency. A simplistic view would say that long-term rental subsidies and supports are for people whose pathways are marked by persistent individual vulnerabilities while short-term subsidies with fewer supports respond to pathways characterized by a life shock, especially associated with structural economic problems. However, structural barriers (low wages, lack of childcare, high housing costs) as well as persistent individual vulnerabilities are not obviously overcome by short-term assistance.

- Contested criteria: Program eligibility criteria are highly constrained by socially constructed definitions of homeless. Whether living unsheltered, doubling up with other households or staying in an emergency shelter is indicative of vulnerability is contested. Results under strong automation were consistent with criteria embedded in policy and scoring tools, valorizing only unsheltered living situations as a source of increased vulnerability.

More importantly, the preceding discussion reveals the complex interaction and tensions among factors and constructs embedded in both A&A systems and housing program designs. These constructs include vulnerability, self-sufficiency, severity of need, and sub-group identities, all socially constructed. Elements of vulnerability and self-sufficiency often conflicted, especially in RRH. TX-601 A&A systems use the same tool, the VI-SPDAT, a measure of vulnerability and severity of need, for determining eligibility for all housing programs, assuming vulnerability and the ability to become self-sufficient are two ends of the

same scale with less vulnerable people able to achieve self-sufficiency with limited assistance. Scholars increasingly find that housing stability or ending homelessness is dependent on permanent housing subsidies, irrespective of individual vulnerabilities and histories of poverty. APR data shows that substantial numbers of RRH participants lack income and have disabilities while being expected to achieve self-sufficiency within 12 months. Finally, the TX-601 A&A system is highly grounded in the individual vulnerability theory of homelessness, attempting to treat persons with similar measured levels of vulnerability the same for eligibility purposes. The system disproportionately assigns black homeless people to limited housing assistance, only partially explained by the greater presence of black households with children.

The next chapters present findings from samples of RRH and PSH participants and staff members who participated in TX-601 housing programs during the most recent A&A regime of strong automation to further understand who is being selected for programs using a pathways perspective investigating theoretical contributing factors to homelessness and how lived experience compares with and possibly explains aggregate administrative data.

Chapter 5

Characteristics of Participants and Homelessness Pathways

Chapter 4 explored the characteristics of RRH and PSH participants under two different regimes of A&A in relation to system priorities for subpopulations and vulnerability criteria using aggregate administrative data. Findings indicated that, for many criteria, a strong automation regime increased the number and proportion of participants who met system prioritization criteria. Table 41 summarizes findings from Chapter 4, showing where numbers and proportions of program participants with different characteristics relating to system priorities increased or decreased from weak to strong automation regimes.

Table 41. Summary of participant changes from 2014-16 weak automation to 2017-19 strong automation regimes

	Changes from weak to strong automation		
A&A criteria and priorities	PSH	RRH	Anomalies
Priority populations			
Veterans	Increased (n/p)	Decreased (p)	Veterans entered PSH who were not chronically homeless
Children	Decreased (n/p)	Increased (n/p)	
Youth	Decreased (n/p)	Increased (n/p)	Greater proportion of youths in ES than PSH/RRH
Chronically homeless	Increased (n/p)	Increased (n)	Chronically homeless entered RRH, both regimes
Vulnerability			
Age 55+	Increased (n/p)	Increased (n)	
Unsheltered	Increased (n/p)	Increased (n/p)	Proportion in RRH greater than PSH, both regimes
Domestic violence	Increased (n/p)	Increased (n/p)	Greater proportion with DV history in ES than PSH/RRH
No income	Decreased (n/p)	Decreased (p)	Proportion of RRH with no income greater than in PSH
No health conditions	Decreased (n/p)	Increased (n/p)	Proportions of RRH/PSH with 3+ health conditions increased
Race - black	Decreased (n/p)	Increased (n/p)	Greater proportions of blacks assigned to RRH than PSH

n=number, p=proportion, n/p=both

Source: APR data from TCHC reports summarized by author

For the programs for which they were a priority, subpopulations generally increased, except for veterans in RRH. For PSH, strong automation brought increases in participants with characteristics associated with vulnerability. However, increases in vulnerability were also seen in RRH. Aggregate data is inadequate to explain anomalies in the data, described in Chapter 4, where participants did not seem to reflect program eligibility criteria or priorities.

The purpose of this chapter is to use data from persons with lived experience of TX-601 A&A processes and housing programs to shed light on findings from administrative data addressing the research question: What are the homelessness pathways and characteristics of participants in RRH and PSH in an A&A system characterized by weak agency discretion and strong automation? Participant interviews included members of all system priority populations except youth (under age 18) and explored elements of vulnerability used in the VI-SPDAT Version 2.0, in use in TX-601 in 2017-20 (Hogg 2020b; OrgCode Consulting Inc. and Community Solutions 2015; OrgCode Consulting Inc. 2015). The remainder of the chapter addresses system criteria investigated in Chapter 4 under the following areas of exploration:

- Length of homelessness – to address criteria for chronicity and challenges to program entry
- Families with children – to understand characteristics of families selected for each housing program
- Chronic homelessness – to explore the experiences and assignments of people who met the HUD definition of chronic homelessness
- Vulnerability – to understand participant vulnerability in relation to program assignment using questions reflecting elements of the VI-SPDAT
- Vulnerability and families – to explore how VI-SPDAT scoring and housing program assignment might result from family characteristics
- Housing location, community context, and racial disparities – to understand issues relating to disparities in housing not accessible in administrative data or the VI-SPDAT
- Pathways analysis – to use a pathways research framework to understand whether participant pathways vary systematically by housing program

- Exclusion – to understand how participant characteristics, experiences, and pathways vary by race and ethnicity and particular experiences of exclusion

In each section, the author uses participant experiences of homelessness and the TX-601 selection process to better understand system results and their impact on participants.

Length of homelessness

Federal and local goals for addressing homelessness focus on "making homelessness rare, short-term, and non-recurring" (Mayor's Advisory Commission on Homelessness 2008) and on ending chronic homelessness (Perl et al. 2018), emphasizing the centrality of reductions in length and incidence of homelessness. Length of homelessness was an explicit prioritization factor in both RRH and PSH programs and affected one point on the VI-SPDAT (TX-601 CoC 2019). Ideally, PSH serves people with long histories of homelessness while RRH serves people quickly to resolve a housing crisis (HUD 2014a; 2014c). Interview subjects in both RRH and PSH had extended periods of homelessness, except that all subjects with less than one year of homelessness were in RRH. This finding reflects program eligibility criteria for PSH. Only persons who meet HUD criteria for chronic homelessness (at least 12 months continuously or episodically) are eligible to enter PSH with unlimited housing assistance (CFR 2012).

However, researchers found that many people eligible for PSH were left waiting for limited openings while openings might have been available in RRH (White and Watt 2017). HUD endorsed the concept of dynamic prioritization, encouraging communities to fill all openings with the most vulnerable persons and the longest time homeless (HUD Community Planning and Development 2018). TX-601 implemented the policy in January of 2019 (Crites-Herren 2020). If the sample of interview subjects' entries were affected by dynamic prioritization, we would

expect to see more people in RRH with periods of homelessness longer than one year. Table 42 compares length of homelessness between PSH and RRH subjects entering programs before and after dynamic prioritization.

Table 42. Interview subjects by years homeless and program type before and after dynamic prioritization policy change

Program entry	PSH	RRH
2016-18 - Number entering	8	8
Years homeless	1 to 15	.5 to 25
Number with 1+ years homeless	8	5
Median years homeless	2.75	1.125
2019-20 - Number entering	7	8
Years homeless	1 to 7	.17 to 4
Number with 1+ years homeless	7	1
Median years homeless	4.5	0.42

While interview subjects do not represent a statistically stratified sample of 2017-2019 participants, it is interesting to note that, among these subjects, the expected increase in the length of homelessness does not appear among RRH clients after implementation of dynamic prioritization. It might be expected that people with the longest periods of homelessness would more likely be housed in any program after dynamic prioritization and that people with longer periods of homelessness might begin to appear in RRH programs due to more limited openings in PSH. But for this sample, length of time homeless decreased for RRH subjects entering programs after dynamic prioritization. Median years homeless for PSH subjects increased after dynamic prioritization, consistent with an emphasis on (a) prioritizing persons with the longest homelessness and (b) with time homeless increasing while waiting for PSH opportunities or (c) staying in shelters to document time homeless. Generally, while the range of years homeless was equally broad in both programs, RRH subjects were homeless for shorter periods than PSH subjects, increasingly so in recent years, consistent with a program designed to rapidly return

homeless people to housing. Indeed, five of the 16 RRH subjects entered prior to dynamic prioritization with one or more years homeless, who might have been eligible for PSH.

Subjects expressed frustration with the length of time it took to get housing, while grateful for and mostly very happy with their housing programs and the support they received from case managers and peer support specialists. When asked, RRH and PSH subjects alike said they didn't know how they were selected for their program and many could not name their program or program type. While many subjects credited hard-working ES/TH staff, others said they "got lucky" or "happened to talk to the right person" or "heard people talking about the flag building" or "happened to be walking past the flag building and somebody grabbed me off the street." These occurrences did not involve ES or TH staff, and some subjects further said that staff had not told them about the available housing opportunities. One said that she had gotten "lost in the cracks for years, in and out of shelters with my two kids." One subject was only offered housing, following years of homelessness, after entering a domestic violence shelter. PSH subjects were more likely to say that a mental health diagnosis, mental health outreach, or special mental health program had finally helped them obtain housing. For some, this followed a crisis, breakdown, or hospitalization. One subject with severe, long-term mental illness and many years homeless, reported being ejected from a shelter for "yelling because I thought they were monsters"; only subsequently was she accepted into a Safe Haven program from which she entered PSH years later.

RRH subjects were more likely to attribute acquiring housing to their own agency: "the case manager saw something in me"; "they saw that I was positive" and "took care of business; "I was worrying my case manager every day to see where I was on the list"; "I worked the program"; "attended all the classes"; "did everything they asked." Some subjects said they were

highly motivated to "get out of the shelter." One subject with many years of homelessness said he took RRH (prior to dynamic prioritization) because he was desperate to "get off the street," even though he knew it was probably not going to work for him. At the time of the interview, six months following the end of his RRH rental subsidy, he was being evicted for failure to pay rent after losing a roommate.[22] One subject reported turning down a three-month RRH program because it was too little time to find work, and another rejected a site-based RRH program because of the location, thereby extending homelessness, but most subjects took the first program and housing unit they were offered. One RRH subject thought she and her disabled husband possibly got housing quicker because he had part-time employment, while a PSH subject said she thought her housing was delayed because she could not work due to significant physical disabilities. Many subjects reported staying at multiple shelters and in transitional housing before being referred to a housing program.

Families

TX-601 has prioritized families with children in its assessment and assignment processes since 2014, and families are an explicit priority population for RRH (TX-601 CoC 2019). Fifteen interview participants, seven in PSH and eight in RRH, were adults in families with children. This resulted even though the author did not set a specific goal or request subjects with children. Forty-five percent of the subjects participating in interviews were single mothers. Only one subject was married with children (white female with a disabled husband). Two subjects entered

[22] This subject was still in contact with a peer support counselor and was being closely followed.

their program in 2016, one in 2017, seven in 2019, and five in 2020 under the current CES regime, using the VI-SPDAT 2.0 customized for families (Hogg 2020b).

More than half of subjects with children entered programs during the period of dynamic prioritization, when people with the longest periods of homelessness were offered RRH (2019-20) or the first housing slot available in any program. Some research indicates that homelessness itself is a traumatizing experience, especially for children, and therefore should be as short as possible (Herbers et al. 2014; Goodman, Saxe, and Harvey 1991; HUD 2014a). However, only one subject with children entered RRH with one year or more of homelessness after the start of dynamic prioritization. In comparison, subjects with children entering PSH during this period had been waiting years for housing (one to seven years, median 3.5). The one household entering RRH under dynamic prioritization with one year of homelessness said she thought she was not a priority because she had not been using shelters but had been moving from home to home; she even placed one of her children with a family member, a situation resulting in a CPS investigation.[23] Most RRH subjects with children who entered during dynamic prioritization had between one and six months of homelessness. All but two RRH subjects were still in their housing program at the time of the interview.

Table 43 compares characteristics of RRH and PSH subjects with children. Almost all RRH subjects with children were single mothers with one to five children (median 2.5), including one parenting grandmother. PSH participants were all single mothers with one to three children, median two. Time homeless was shorter for RRH subjects with children (range two months to

[23] The VI-SPDAT assigns an additional vulnerability point to families who have to separate from their children sending them to live with other family and friends due to homelessness.

one year, median approximately six months) compared with PSH subjects with children (median approximately five years, range one to seven years). RRH subjects with children ranged from 26 to 63 years of age, median 34, with three subjects over 40. PSH subjects had a higher median age of 41 (range 31-52) and four were over 40. Seven of eight RRH participants were black and all were nonwhite, while only three PSH subjects were black. RRH and PSH subjects had comparable rates of chronic illnesses and disabilities contributing to their homelessness.

Table 43. Characteristics of subjects with children by program

Characteristics	PSH (7)	RRH (8)
Median years homeless	5	0.46
Median age	41	34
Black (number of subjects)	3	7
Other nonwhite	2	1
White	2	None
Age 40+	4	3
Age 62+	None	1
Health condition	All	6
Disability income	2	2
Pathways		
Life shock	All	All
Lack of support system	All	7
Structural barriers	5	7
Individual vulnerability	6	6
Exclusion	None	2
Agency	4	2
Employment		
Work-focused	3	4
Deferred work	2	2
Unemployed	2	2
Stably housed		
Yes	4	3
Yes with restricted rent/subsidy	1	1
Unsure	2	2
No	None	2

Both RRH and PSH subjects with children had work histories with very low wages, including home health or nursing home caregivers (three), call center representative, warehouse worker, food service ($9-$12.75 per hour), substitute teaching aide, bus driver ($12.57 per hour), hospital technician ($15.75 per hour), teacher and travel agent (salary $2500 per month), and self-employed artist. Median incomes prior to homelessness were clustered around the federal

poverty threshold when considering family size. Wages ranged from minimum wage to just over $15 per hour and work often was part time with unpredictable hours, resulting in total household income around $22,000 per year.[24] Subjects were proud of long work histories in jobs they loved but felt compelled to leave due to health problems or conflicts with management, in some cases precipitated by mental health issues. Many subjects said the combined effect of low-wage work and having children meant that they had not saved money for emergencies such as a car breakdown, temporary injury (child, self, or partner) and resulting missed work, or a lay-off. Some blamed themselves for failing to save, even though they were not earning a living wage. Most subjects reported having great difficulty renting an apartment due to poor credit scores, spouse's criminal background, insufficient income, history of evictions, or debt. Several subjects became homeless after moving across state lines fleeing natural disaster, seeking better health care or to find a safer community for their children. In each case, they had not anticipated the higher cost of housing in Fort Worth or other cities compared with their previous homes.

Four of seven PSH subjects with children said declining health had the biggest impact on their becoming homeless. Two PSH subjects receiving disability income were deferring work in order to address health concerns, but RRH and PSH subjects had comparable rates of work orientation despite their disabilities. Several subjects reported that the physical trauma of their work in health care or retail contributed to their health problems and inability to continue working. Three of the subjects had children with disabilities (two in PSH, one in RRH), some receiving SSI. Most found it very difficult to find work that would fit around childcare,

[24] The subject mentioned previously with pre-homeless income of $100k became homeless after the sudden death of a long-term domestic partner who was the sole wage earner. The subject had very little work experience, all low wage, and had not held tenancy to their housing.

especially with children with disabilities, and that lack of childcare posed a significant barrier to employment. Only a few of the RRH subjects had access to affordable (subsidized) childcare. While a disabled child might have access to health care, subjects reported their own health failing without insurance and the ability to access preventive health care for themselves. One of the PSH subjects had three children, grown and no longer living with her, when she first became homeless more than 10 years ago. All her children had disabilities, including one with a mental illness who could become violent. The subject was only able to work when she lived in her mother's home with her support. She became homeless with her children when her mother died.

Many subjects became homeless after leaving or losing partners, including one widow.[25] In some situations, the stress of poverty and homelessness led to the break-up and, in extreme cases, domestic violence. Several of the subjects left partners who would not or could not contribute financially because of infidelity, injury, disability, criminal background, or low-wage work. Only a few of the subjects with children had former partners who were able to provide child support, and then typically just enough to "pay the light bill." Family support was not available to prevent or end their homelessness, although many attempted moving in with family. Extended family members who offered housing often oversold their resources. The arrangements ended up being over-crowded and unsustainable because extended family members had their own struggles with children and limited resources.

The author asked what services subjects with children had been receiving to understand any differences by priority population and program. The author prompted participants when they

[25] The VI-SPDAT assigns one point for homelessness caused by broken social relationships.

frequently didn't mention rental assistance but gave no other prompts about specific services. All reported receiving rental subsidies, and only one PSH subject reported not receiving assistance with utilities. Many subjects were very satisfied with their housing program case management and peer support services. All PSH subjects were receiving regular case management visits to check on needs, generally once a month. But only three of the eight RRH subjects mentioned receiving regular calls or visits to check on welfare. PSH subjects also were more likely to say that they could easily contact their case manager to get help with referrals for whatever they needed. Some subjects said that some case managers were better than others and that turnover led to delays in communication. About half of the subjects with children, equally in RRH and PSH, noted receiving assistance with food and other supplies. About half of the PSH subjects mentioned receiving therapy or counseling through their case manager for themselves and their families, or children's programming and parenting classes. Only two of the RRH subjects mentioned receiving therapies for trauma and other mental health conditions for the family or their children. Two RRH subjects and one PSH said they received employment assistance services, and equal numbers mentioned having access to financial planning assistance. One RRH subject said the case manager helped find free tuition for continuing education. Some subjects acknowledged there were services available that they did not use. Overall, interviews with subjects who had children provided some evidence that service intensity was higher with PSH subjects with children than in RRH, primarily in terms of case manager visits and support. Other services appeared to be equal between the two programs.

Four of eight RRH subjects with children and two of seven PSH subjects said they did not consider their housing to be stable, or they were unsure of its stability. All subjects who were working (seven of 15) continued to be employed in the same low-wage fields that preceded their

homelessness. They continued to experience being laid off, some due to the covid-19 crisis. One RRH subject said she did not see how she could possibly earn enough to support herself and her school-age children, not even enough for a one-bedroom apartment. She did not consider it safe to leave them alone while she worked but was told that her children were too old for her to qualify for childcare assistance. Another fully disabled RRH subject was applying at properties affordable only if Social Security disability income came through. One subject said that, while at the shelter, she saw many "repeaters" who "cycled back through" after their housing programs ended because they could not earn enough to afford housing and expenses.

Another highly motivated RRH subject characterized her situation as "kind of scary." One month into a new job she was earning at a rate of $28,000 per year, or 108% of the poverty threshold for herself and her children. She was working double shifts whenever offered, but she had already missed time due to a child's illness, and her work hours were constantly changing. She was receiving TANF, childcare assistance, and significant childcare support from family members so that she could work nights. She was determined to save 20% of every check so that she could have funds for emergencies and "never let things go back the way they were." At her current wages, she expected that, after her housing program ended, apartment rent would consume almost 50% of her income. She expressed great frustration that "jobs don't pay enough and are hard to get in the covid-19 age and nobody is fighting to raise the minimum wage." PSH subjects unsure of their housing stability were over age 40 and fully disabled from employment. They were currently stable, but unsure how long their housing program would continue. One was actively working toward going to live with her aging mother, who was financially secure. But most subjects had no such family members. In summary, disabilities and low wages made economic self-sufficiency uncertain, especially for families in RRH programs.

Chronic homelessness

All PSH subjects and four of the 16 RRH clients would have met the definition of chronic homelessness (one or more years homeless and a disability or chronic illness) if case managers were able to document these factors consistent with federal regulations. Chronically homeless RRH subjects had been homeless one, three, four, and 25 years. Only one of the four, whose program ended in 2018, characterized current housing as stable. This was also the only one of the four receiving disability income. Only five of 15 PSH subjects were receiving disability income. Nine of 15 PSH subjects characterized their housing as stable, and the remainder expressed concern that their program might end and leave them with no way to afford housing. Two of the four chronically homeless RRH subjects and four of 15 PSH subjects were work focused (actively employed or in between jobs with prospects for continued employment).

Chronically homeless subjects reported from one to seven distinct health conditions contributing to their homelessness. RRH subjects had one to two conditions. PSH subjects had one to seven, median of two. All but one PSH subject had a mental illness either contributing to initial homelessness or, less often, developing while homeless. Six of the 15 PSH subjects also had physical disabilities and chronic illnesses. Three of the four chronically homeless RRH subjects reported a mental illness. Three of the PSH subjects and one of the RRH subjects also had children with serious, congenital health problems.

Chronically homeless subjects had histories of even lower incomes than subjects with children. Median income prior to homelessness was approximately $15,000 per year and averaged around the poverty line for each family size. Incomes ranged from zero to $32,000 per year. Work fields included selling plasma, retail clerk, exotic dancer, restaurant and fast-food service ($9-$12.75 per hour), part-time cook ($11.26 per hour), day labor ($10 per hour), bus

driver ($12.75 per hour), Walmart warehouse worker, administrative assistant, parking cars, grocery, sales, credit repair, medical technician ($15.75 per hour), horse trainer, and travel agent/teaching assistant ($2,500 per month). Many subjects said mental and physical health conditions made it very difficult to maintain regular employment. Some lost good jobs after mental health breakdowns or psychotic episodes, including self-harm. Some said their mental illness caused them to quit jobs when they should not have, because of the way employers treated them, sometimes leaving them with no unemployment compensation. Mental health problems contributed to poor work attendance and the inability to keep full-time employment. One subject reported hiding mental health problems from employers, and another said she would not take her medication because it made her sleepy on the job, and this contributed to a breakdown and loss of employment.

Only one veteran, a PSH participant, was recruited for interviews, even though military veterans are a priority population for both PSH and RRH. He reported many experiences common to other PSH subjects, including barriers to economic self-sufficiency. He experienced years of intermittent homelessness and credited mental illness, diagnosed after military service, with making it difficult to maintain employment in the decades since his honorable discharge. Although receiving mental health services, he never had disability income from any source. He described his military service as traumatizing. His most recent episode of homelessness was precipitated by the break-up of a long-term relationship in which he did not hold housing tenancy. He spent significant time unsheltered when it was difficult for him to document his homelessness in order to qualify for housing programs. Casual labor and selling plasma contributed to his typical income of about $3,600 per year or 28% of the federal poverty threshold. He said poor employment history, lack of skills, and homelessness also contributed to

making it difficult to find work in a competitive job market, especially over the last 20 years. A dysfunctional extended family offered no support. The subject said he got lucky and happened to talk to the right person who told him about the housing program he eventually entered, but only after being in ES a year to qualify. Now over age 55, his case manager recently told him that he cannot count on his program continuing, and he said he was "on pins and needles." This veteran's experiences are consistent with the target population profile for PSH, although it took a very long time of housing instability and homelessness before he entered a program, despite being in a priority population and motivated to become housed. It is unclear whether he would have scored eight or more on the VI-SPDAT, thus prioritizing him for PSH.

Vulnerability

Interviews shed light on factors found in the VI-SPDAT. Table 44 shows the percentage of subjects reporting experiences reflecting VI-SPDAT items. Again, the author did not administer the VI-SPDAT — subjects offered these experiences when asked to tell the story of what led to their being homeless.

Table 44. Percent of interview subjects reporting experiences consistent with VI-SPDAT items

Vulnerability factor	PSH	RRH
Age 60+ (current)	7%	1%
Unsheltered while homeless (street/car)	33%	56%
Homeless 1 year or more	100%	38%
Physical health problem	53%	50%
Mental health problem	87%	50%
Substance use disorder	7%	6%
No disabling health issues	0%	44%
Family member disabling health problem	13%	25%
Homelessness caused by trauma, abuse	40%	13%
Homelessness precipitated by broken relationship	73%	69%

Very few respondents were age 60 or older (the VI-SPDAT's threshold for vulnerability due to age). However, five PSH and three RRH subjects were 55 or older (early retirement age), and

23 subjects, 12 PSH and 11 RRH, were 40 or older (age at which federal age discrimination protections begin), indicating that most of these subjects in both programs might experience age-related barriers to employment while very few met the VI-SPDAT criterion for age-related increased vulnerability (Federal Trade Commission 2013).

Unexpectedly, more than half of the RRH participants reported living on the street or in cars, including single mothers with children, substantially more than in PSH. Some mothers reported sending some of their children intermittently to stay with family, but many bundled all their kids to sleep in their cars.[26] Many reported that living in ES or transitional housing (TH) was highly stressful. While some residents had positive experiences in ES/TH, others found the experiences to be negative. Many subjects reported being advised that they had to enter ES or TH in order to qualify for a housing program. While some subjects said they benefited from supportive ES/TH services and classes, most were anxious to leave. They found the East Lancaster shelter area to be dangerous and frequented by sex offenders or people using drugs. Some said the shelters were not as bad as they had been told but that leaving was a motivating factor for finding a housing program. Some said ES/TH staff members were rude to them and their children. Others said that they experienced chaos and that staff failed to address negative behaviors such as theft or bullying by other residents. Some found the pressure to fulfill program responsibilities very stressful while trying to work or care for their health or children. Although some subjects spoke highly of their case managers in ES/TH, experiences were uneven, with

[26] The VI-SPDAT for families assigns one point to persons who have had a child separated from them to live with a friend or family member (OrgCode Consulting Inc. 2020).

frequent turnover identified as an additional stressor. Most reported seeing no pattern in who got housing and how long it took.

The VI-SPDAT asks whether respondents had to leave housing because of health problems or if a physical disability limited the type of housing accessible to them or would make it hard to live independently (OrgCode Consulting Inc. and Community Solutions 2015). While similar proportions of PSH and RRH subjects (about half) reported physical disabilities and chronic illnesses, including some resulting from employment, very few (three PSH, two RRH) related these conditions in a way that would have met the VI-SPDAT criteria for vulnerability resulting from a physical health condition. Instead, subjects said physical health conditions were instrumental in pathways to homelessness by limiting their ability to keep or acquire employment adequate to provide sufficient income to maintain stable housing. Also, the VI-SPDAT limits the reporting of chronic illnesses to those affecting the liver, kidneys, stomach, lungs, or heart. More often, subjects (13) reported chronic illnesses or physical disabilities such as high blood pressure, diabetes (types 1 and 2), intestinal problems, ruptured discs, chronic back pain (often as a result of employment), arthritis, sciatica, fibromyalgia, or chronic fatigue, and having children with developmental delays. Only five subjects reported physical problems that met VI-SPDAT criteria. Four RRH and two PSH subjects also had immediate family members with disabilities.

The VI-SPDAT also prioritizes homeless persons who have difficulty maintaining housing because of a mental health issue, head injury, or developmental impairment, or who find it hard to live independently. Again, subjects said mental health problems prevented them from getting or keeping a job, leading to insufficient funds to afford housing rather than directly affecting their ability to maintain housing. Subjects also reported difficulty getting disability income to

compensate for the lack of ability to earn income. More than 80% of PSH subjects and half of RRH subjects said mental health problems contributed to their homelessness. Some of the subjects said mental health conditions emerged only after they became homeless, in the context of the stress and trauma of being homeless, and that mental health conditions presented barriers to emerging from homelessness.

Only one RRH subject and one PSH subject said drinking or drug use caused them to get kicked out of housing or made it difficult for them to stay in housing. This contrasts with comments from many subjects who said "everybody" on East Lancaster was abusing drugs and alcohol, "but that's not me." Both subjects had substance use disorders that emerged during their youth and persisted along with co-occurring mental illness, contributing to their homelessness. Homelessness for them was precipitated when family members who were providing support became exhausted by their alcoholism and refused to continue assistance with housing, leading to their living on the street and in shelters.

If we accept as true this recounting of experiences, it may be worth investigating whether persons with substance use disorders experience unique barriers to entry into housing programs (Conahan and MacIntyre 2012; McNaughton Nicholls 2009). This is especially interesting in the context of subject statements that they thought they were selected for housing because of their own agency, compliance, and initiative. It may be that persons with substance use disorders may be directly excluded from housing opportunities or by their inability or unwillingness to navigate system requirements. Persons with substance use disorders may live disproportionately unsheltered, as their addictions may make it difficult for them to live in shelters where drug and alcohol use is not allowed, where they may not come and go during the night, and where they may not enter while intoxicated. Overall, subjects repeatedly said that they could not get access

to housing until they moved into an ES or TH. One of the subjects with alcoholism found housing while living in a shelter, but the other subject was living unsheltered and only found housing by happening on a case worker at a community center where he was receiving food support.

Seven (44%) of the 16 RRH subjects said they had no health conditions that contributed to their becoming homeless. However, on examining subject stories, health conditions were heavily involved in their homelessness pathways, highlighting the interaction between health and life shocks:

- Husband broke his elbow and was unable to work (manual labor), leading to household income loss, inability to pay rent, and loss of housing.
- Subject hit by a car; temporary leg injury caused him to miss work and income, resulting in loss of housing; when attempting to qualify for a better job to emerge from homelessness, was unable to pass the physical.
- Two subjects said depression emerged after they became homeless; one moved in with family when she lost employment and housing until a traumatic experience caused by another family member precipitated unsheltered homelessness and depression.
- Two of the subjects (nonwhite women over age 50) had underlying heart conditions or high blood pressure, not a factor in their becoming homeless; one was engaged in a probationary program for a new, better-paying job while entering RRH and required emergency surgery and rehabilitation to address an undiagnosed blockage, requiring her to withdraw from the employment opportunity.

It is possible, based on these examples, that the timing of the VI-SPDAT, as well as how one interprets the questions around health conditions, could cause scores to vary, altering an individual's priority for housing and the program for which he might be eligible.

The VI-SPDAT also assigns points for homelessness resulting from trauma or abuse and from broken relationships (OrgCode Consulting Inc. 2020; OrgCode Consulting Inc. and Community Solutions 2015). Two RRH and six PSH subjects attributed their homelessness to trauma or abuse. The majority of both RRH (11) and PSH (11) subjects said their homelessness was precipitated by a broken relationship. In every case, the housing tenancy depended on resources from another party — roommate, parents, spouse, adult children or other relatives, domestic partner. The circumstances varied widely, and often the loss of housing was unexpected. In some cases, the other party did not hold tenancy but failed to fulfill a commitment to pay a portion of the rent. PSH and RRH subjects appeared to be equally subject to this form of vulnerability.

Vulnerability and Families

The VI-SPDAT version for families expands vulnerability to include all family members. Administrators are instructed to accept whatever answer the respondent gives without judgment. The author did not have access to subject VI-SPDAT scores. While impossible to know how the subjects would have answered questions, the author attempted to estimate a VI-SPDAT score for subjects with children, based on responses to questions and experiences of homelessness.

Estimating VI-SPDAT scores was challenged by the way many VI-SPDAT questions were phrased. For example, the family VI-SPDAT assigns one point if any family member has "ever had trouble maintaining your housing, or been kicked out of an apartment, shelter program or

other place you were staying because of a mental health issue or concern, a past head injury, a learning disability, developmental disability or other impairment [Or are there] any mental health or brain issues that would make it hard for your family to live independently because help would be needed?" (OrgCode Consulting Inc. 2015, 8). While 10 of 15 subjects with children reported that they themselves had mental health problems, and one had a child with a mental health problem, it is unclear whether they would have answered yes or no to this question. The awkward wording implies a direct relationship between the health condition and the need for assistance with housing or being ejected from housing. The subjects interviewed did not describe a direct connection, but one mediated through the ability to get and keep employment and earn income, which many felt was significantly impacted by their mental health. Given adequate income, the subjects did not seem to think there would be a problem maintaining housing because of a health problem.

Table 45 displays the results of the author's experiment to understand the impact of vulnerability assessment scores on housing program assignment. While dynamic prioritization and HUD policy encourage systems to use assessment scores complemented by human judgment, the VI-SPDAT continues to provide numerical cutoffs. Those with scores below four are not to be assigned to housing programs, those scoring between four and eight are to be assigned to RRH, and those scoring nine or more go to PSH (OrgCode Consulting Inc. 2015).

Table 45. Possible VI-SPDAT scores for subjects with children by program and score range, including adding points to reach housing program threshold

VI-SPDAT score ranges	VI-SPDAT score		VI-SPDAT score plus 3	
	PSH (7)	RRH (8)	PSH (7)	RRH (8)
No housing: 1 to 3	2	4	0	0
RRH: 4 to 8	4	4	3	6
PSH: 9+	1	0	4	2

Source: Authors estimate of scores based on interview responses using the VI-SPDAT scoring protocol (OrgCode Consulting Inc. 2015)

Six of the 15 subjects with families did not describe experiences or characteristics sufficient to score above three, even though interview questions covered all elements of the VI-SPDAT. No RRH subjects and only one PSH subject would have scored high enough for PSH. To adjust for possible underscoring, the author added three points to each score, pushing all subjects into a range for housing programs. In this scenario, three of seven PSH subjects still would have qualified only for RRH while two RRH subjects would have qualified for PSH. The primary contributing factors to higher scores across most subjects were single parents with two or more children (10 subjects), debts or no income (nine), change in family composition (nine), broken relationships or family member causing eviction or abusive situation (eight), at least one year of homelessness (eight), children separated in other housing due to homelessness (five), and a physical health problem involving major organs (five) (OrgCode Consulting Inc. 2015).

If the author's experiment reflects reality, low VI-SPDAT scores could explain why some households, even those with long periods of housing instability and a high degree of mental and physical illness, might still wait a long time for housing under a strong automation, weak staff discretion model. However, under a dynamic prioritization model, those with the highest VI-SPDAT scores (even if the distribution of scores was low) would be offered housing first in any available program opening. The only limiting factor would be the need to meet HUD criteria for chronic homelessness to enter PSH. Dynamic prioritization was created to keep chronically

homeless people from waiting for housing when there might be a RRH or other more limited housing program available, allowing them to exit homelessness sooner. The sample of participants interviewed demonstrates that people who qualify for PSH do enter RRH (before and after implementation of dynamic prioritization) and are homeless for a very long time before housing.

Housing Location, Community Context, and Racial Disparities

Many subjects expressed difficulty finding apartments to rent where conditions were optimal for their families. Many were satisfied with the location of their housing, but some said they had turned down opportunities or extended their homelessness looking for a satisfactory home in a safe neighborhood. Participants believed that their own agency had some influence on whether, when, and where they were housed, either by persistent follow-up, obeying rules, accepting or rejecting offers, and looking for housing themselves (in addition to referrals from case managers).

Table 46 displays selected characteristics of the census tracts in which subjects lived. Characteristics selected are typically referenced in the literature as indicators of opportunity contributing to upward mobility, including lower segregation, lower rates of persons with incomes below the poverty level, higher labor market engagement, and higher education levels (Chetty, Hendren, and Katz 2016; HUD 2016b; Quillian 2014). Census tracts are listed in order of decreasing poverty.

Table 46. Selected characteristics of census tracts where subjects resided during housing programs

Census Tract	% incomes below poverty	% with incomes below 50% of poverty	Nonwhite	% bachelors degree	% labor force employed	% employed with incomes below poverty	% employed worked full-time
1236*	38.2%	16.9%	74.0%	11.7%	95.6%	17.0%	67.9%
1014.03*	32.8%	16.1%	86.9%	3.9%	86.1%	10.2%	76.4%
1052.04	32.3%	13.3%	60.2%	8.0%	90.5%	19.3%	72.8%
1045.02	29.1%	13.2%	91.4%	3.0%	93.1%	13.7%	78.3%
1066*	27.9%	13.4%	54.1%	7.4%	96.1%	16.9%	70.9%
1052.05	27.8%	13.8%	69.7%	4.8%	87.5%	16.5%	67.8%
1216.04	24.7%	11.3%	49.2%	14.1%	97.0%	7.3%	86.9%
1026.01	20.2%	10.3%	63.1%	13.1%	93.4%	8.6%	70.8%
1234	19.7%	9.7%	45.3%	32.4%	95.0%	5.8%	78.9%
1024.01	18.8%	11.8%	45.1%	34.3%	93.2%	7.6%	73.1%
1115.24	16.5%	2.8%	76.4%	12.4%	93.2%	11.0%	73.5%
1230	16.2%	9.9%	31.4%	33.4%	89.6%	8.6%	73.4%
1065.03	15.9%	4.9%	72.4%	12.7%	95.5%	11.4%	75.0%
1021	14.1%	4.2%	34.8%	33.9%	99.5%	7.1%	74.9%
1134.08	13.7%	8.4%	36.4%	12.7%	93.3%	4.3%	77.1%
1041	11.7%	9.4%	49.3%	32.1%	99.1%	3.8%	73.2%
1225	10.0%	3.6%	28.2%	26.7%	95.7%	8.6%	71.6%
1233	8.9%	7.5%	22.6%	61.7%	94.1%	2.4%	82.0%
1065.02	8.7%	7.4%	65.8%	18.6%	88.8%	0.8%	76.8%
1028	1.0%	0.6%	10.3%	55.2%	99.2%	0.8%	70.1%
Tarrant County	12.9%	5.3%	52.6%	20.3%	95.0%	6.2%	74.2%

Source: Subject addresses provided during individual interviews. Authors summary of data from the US Census Bureau 2020

No difference was found in housing locations by program, race, or for subjects with children. Subjects were not living in the most segregated and highest poverty areas of Fort Worth. Only three subjects were living in areas that have been racially and ethnically concentrated areas of poverty as defined by HUD (indicated in the table by asterisks) (HUD 2016b). However, at least one-third of the subjects were living in tracts where more than 20% of residents had incomes below the federal poverty threshold, considered high poverty and a HUD benchmark for poverty de-concentration (Khadduri 2001). The majority of poor people in these census tracts have incomes that can be characterized as deep poverty, incomes below 50% of the poverty level associated with high risk for homelessness (Shinn and Khadduri 2020). These areas are also more racially and ethnically segregated, with 49%-91% nonwhite residents and lower educational attainment (3%-14% with bachelor's degrees). Employed people in these census

tracts are much more likely to have incomes below the poverty level (7%-19% compared with a county average of 6%).

Figure 9 displays the locations of the census tracts where subjects lived in families with children indicated by an icon showing people, with adults only households indicated by an icon showing a house. They are spread widely throughout Tarrant County with no pattern of differences between RRH and PSH participants and subjects with children. Locations cluster near major east-west highways and avoid the most affluent and highest poverty areas. Four subjects lived in areas without access to public transit (Arlington), challenging access to employment.

Figure 9. Map of census tracts where subjects lived with subject addresses mapped with Google.com by the author.

Some nonwhite subjects felt pressured to accept housing in racially and ethnically concentrated areas of poverty. One nonwhite single mother was offered, as her only housing option, a new site-based tax-credit RRH program immediately adjacent to the shelter where she and her children had lived. She said she did not want her children having "no place to play" and living around homeless "people walking up bothering you every day." Although not wanting to cause problems, after two years of homelessness she appealed to a case manager with another agency for a better neighborhood and was immediately placed in a PSH program in an area with lower concentrations of poverty and homelessness that she believed was healthier for her

children. Another single mother was pressured by her case manager to accept a poor-quality apartment in a predominantly Hispanic community where hers was the only black household and her children were among the very few black students in the local school. She said the case manager told her that she could not expect to find a better apartment due to her eviction history and the difficulty finding landlords who accept rent subsidies. She took the apartment with misgivings. Her family experienced harassment from neighbors and bullying at school, and the landlord was unresponsive to complaints and left her without a functioning heating system through the winter. This subject left RRH and the state to temporarily double up with family, choosing to return to homelessness rather than stay in the housing program at that location.

Research suggests that households located in higher poverty, higher segregation census tracts with lower employment and education, especially households with children, have fewer opportunities for increasing income and achieving economic stability. Some subjects delayed entering housing or left their housing programs when pressed into entering such neighborhoods.

Pathways Analysis

The author used an *a priori* typology of contributing factors to code subjects' stories about their pathways into homelessness. Table 47 shows the number of contributing factors to homelessness coded in each category for each subject along with the factor with the greatest impact on homelessness, in the opinion of the subject.

Table 47. Number of contributing factors to homelessness by interview subject and category with subject's assessment of factor with greatest impact on homelessness

		Number of contributing factors					
Subject	Greatest impact	Life Shock	Support System	Individual Vulnerability	Structure	Agency	Exclusion
R10	Life Shock (LS)	4	4	1	3	2	0
P3	Life Shock (LS)	5	0	1	1	0	0
P4	Life Shock (LS)	5	3	1	2	1	0
R15	Life Shock (LS)	9	0	1	5	0	0
R9	Life Shock (LS)	7	2	0	1	0	0
P7	LS/SS	6	6	1	0	1	0
P5	LF/SS	4	5	2	0	1	0
R11	Support System (SS)	3	7	0	2	0	0
R5	Support System (SS)	4	2	0	0	4	0
R13	Support System (SS)	4	4	0	0	0	0
P15	Support System (SS)	3	3	0	1	0	0
R7	Support System (SS)	3	7	1	2	0	1
R6	Support System (SS)	2	3	0	1	2	0
R3	Individual Vulnerability	2	1	4	0	1	1
P12	Individual Vulnerability	3	4	4	2	0	0
P9	Individual Vulnerability	4	3	5	0	1	0
P10	Individual Vulnerability	2	5	7	0	0	0
P8	Individual Vulnerability	5	4	7	1	0	0
P1	Individual Vulnerability	4	1	4	1	1	0
P13	Individual Vulnerability	1	4	4	1	1	0
P2	Individual Vulnerability	3	1	3	2	0	0
P6	Individual Vulnerability	8	5	4	2	0	0
R4	Individual Vulnerability	1	1	5	3	1	0
R16	Individual Vulnerability	2	1	4	0	0	0
R14	Structure	7	3	1	3	0	0
R2	Structure	4	0	1	4	0	0
R8	Structure	3	2	0	5	0	1
P11	Agency	1	4	3	0	4	1
R1	Agency	3	0	1	2	4	0
P14	Agency	1	4	1	0	5	0
R12	Exclusion	4	4	1	2	2	4

While acknowledging the qualitative and subjective nature of coding, the author recorded the number of unique experiences as a proxy for salience. She used her judgment and the scholarly literature to assign experiences from subjects' stories to a factor category and then confirmed the assignment with questions asking what, if anything, contributed to their homelessness in each factor category. Then she briefly summarized key elements of the stories and asked the subjects what contributing factor had the greatest impact on their homelessness. While responses varied, in all but three cases the subject's assessment was consistent with the

factor category with the greatest number of experiences identified by the author or tied with one or two other factors, lending some support for the author's coding and assessment.

Table 48 summarizes these responses by percent of subjects identifying each factor at least once and the percent of subjects reporting the factor as having the greatest impact, from the subject's perspective. All subjects identified life shocks contributing to their homelessness. Most of the subjects also identified dysfunctional support systems. Slightly more RRH subjects (nearly a third) than PSH subjects identified support system deficits as having the greatest impact on their homelessness.

Table 48. Contributing factors to homelessness by program

Overall Pathway			PSH Pathway			RRH Pathway		
Contributing Factor (CF)	% Subjects Identifying CF	% Subjects by Greatest Impact	Contributing Factor (CF)	% Subjects Identifying CF	% Subjects by Greatest Impact	Contributing Factor (CF)	% Subjects Identifying CF	% Subjects by Greatest Impact
Life shock	100%	23%	Life Shock	100%	27%	Life Shock	100%	19%
Support System	87%	23%	Support System	93%	20%	Support System	81%	**31%**
Individual vulnerability	77%	**35%**	Individual vulnerability	93%	**53%**	Structure	75%	19%
Structure	68%	10%	Structure	60%	0%	Individual Vulnerability	63%	19%
Agency	48%	10%	Agency	53%	13%	Agency	44%	6%
Exclusion	16%	3%	Exclusion	7%	0%	Exclusion	25%	6%

While more than 77% of all subjects identified individual vulnerabilities (chronic illnesses or disabilities) as contributing to their homelessness, almost all PSH subjects (93%) cited individual vulnerabilities while 63% of RRH subjects identified individual vulnerabilities. More than half of PSH subjects (53%) identified individual vulnerabilities as having the greatest impact on their becoming homeless. While a majority (68%) identified structural contributing factors such as low-wage jobs and unaffordable rents, RRH subjects (75%) were slightly more likely to identify such factors. Nearly half of all subjects (48%) identified a role for their own

agency and decision-making in becoming homeless. These subjects most often referred to bad decisions about allowing significant others to dominate their household without providing substantial support, relying on family members or roommates to fulfill financial commitments, and failing to plan and save money for a sustainable future.

Overall, more similarities than differences exist between PSH and RRH subjects' pathways into homelessness. All experienced life shocks, and most found themselves homeless through a synergy between poor personal support networks and life shocks. Two of the subjects specifically identified life shocks in combination with no support systems as having the greatest impact. In some cases, the family members who might have provided support instead caused one or more life shocks. Further, extended family members were marginally self-sufficient themselves, indicating that simply repairing a relationship would not have prevented the homelessness. Particularly striking is the significant presence of disabilities and chronic illnesses contributing to homelessness in both RRH and PSH subjects. The greater presence of individual vulnerabilities in PSH stories is consistent with PSH targeting chronically homeless persons with severe mental illness and substance use disorders. Similarly, a finding that RRH subjects have fewer individual vulnerabilities could be consistent with the original RRH model designed for people who can return to self-sufficiency after a short period of assistance following a life shock. The synergy among life shocks, lack of support systems, and individual vulnerabilities was evident among most subjects. In their stories it was the combination of these factors rather any one factor that contributed to their homelessness. RRH subjects recognized a more crucial role for structure, especially jobs that do not pay a wage sufficient to support childcare, housing, and transportation, in the factors that made their pathways to homelessness inevitable.

As recommended by several scholars, the author experimented with Qualitative Comparative Analysis (QCA) to analyze participation in PSH and RRH from a set-theoretic perspective. The author asked which factors would be necessary to membership in the sets of PSH and RRH subjects. A condition is necessary if, when a selected outcome is present, the condition is also present (Schneider and Wagemann 2012). The author used the six contributing factors to homelessness plus two primary target population measures (families with children and one or more years homeless). The author experimented with both fuzzy set methodology (calibrating responses using interval-level data) and crisp-set QCA (coding 0 and 1 to indicate absence or presence of a condition) (Schneider and Wagemann 2012). Table 49 displays the results of QCA analysis of necessity.

Table 49. Qualitative Comparative Analysis of necessary conditions for membership in housing program set

Necessary Conditions	PSH		RRH	
(0.9 consistency or above)	Consistency	Coverage	Consistency	Coverage
Years homeless (PSH)	1.00	0.68	0.44	0.32
Life Shock (PSH/RRH)	1.00	0.48	1.00	0.52
Support System (PSH)	0.93	0.52	0.81	0.48
Individual Vulnerability (PSH)	0.93	0.58	0.63	0.42
Structure	0.60	0.43	0.75	0.57
Agency	0.53	0.53	0.44	0.47
Family with children	0.47	0.47	0.50	0.53
Exclusion	0.07	0.20	0.25	0.80

Source: Data from individual interviews conducted by author and analyzed using Fuzzy-Set/Qualitative Comparative Analysis version 3.0 *(Ragin and Davey 2016)*

Only crisp sets produced results that passed the recommended threshold of 0.9 for consistency. One or more years homeless, a life shock, a deficient support system, and an individual vulnerability were always or nearly always present in the set of PSH subjects, indicating necessity. However, only the experience of a life shock was always present in the RRH subjects. For PSH, coverage of cases for necessary conditions was moderate, from 0.48 to 0.68.

The preceding discussion modestly explored using QCA in a situation where traditional regression analysis would not be appropriate. Results for PSH are in the direction expected based on program targeting, with membership in the RRH set far less clear. Analysis of necessity is only one step in a set-theoretic study. Further exploration with increasing expertise in applying QCA could yield additional insights on sufficiency, using fuzzy sets, and experimenting with conjunctions of conditions.

Exclusion

Exclusion was identified rarely by subjects as a contributing factor to homelessness. However, nonwhite and especially black subjects were disproportionately present in RRH, and most subjects identifying exclusion in their pathway to homelessness were black. This finding is consistent with APR data and other research findings (HUD 2020h; B. T. King 2018). Therefore, the author compared characteristics of homeless pathways for white and nonwhite subjects, combining black, mixed race, other, American Indian, and Hispanic subject responses.

Table 50 displays interview responses for nonwhite and white subjects by program. The first line of the table expresses the percentage of interview participants out of the 31 subjects. The next two lines compare median age and years homeless. Subsequent lines express proportions as a percentage of total subjects who were nonwhite and white by program category.

Table 50. Interview subject responses by race and ethnicity (nonwhite and white) and program

Interview queries	Nonwhite		White		PSH nonwhite		PSH white		RRH nonwhite		RRH white	
Number of subjects/Percent of total (31)	19	61%	12	39%	7	47%	8	53%	12	75%	4	33%
Median age (variance)	49	2	47	-2	50	1	49	-1	44.5	0.5	44	-0.5
Median years homeless (variance)	1.0	-2.5	3.5	2.5	2.3	-3.5	5.8	3.5	0.6	-0.3	0.9	0.3
Homeless 1 year or more (% of nonwhite/white)	12.0	63%	7.0	58%	7.0	100%	8.0	100%	5.0	42%	1.0	25%
Disability and homeless 1 year +	8	42%	9	75%	7	100%	8	100%	3	25%	1	25%
Disabilities and chronic illnesses	14	74%	11	92%	7	100%	8	100%	7	58%	3	75%
Disability income	5	26%	6	50%	2	29%	3	38%	2	17%	3	75%
Chronic illness/disability - no disability income	9	47%	5	42%	5	71%	5	63%	5	42%	0	0%
Work focused	9	47%	5	42%	2	29%	3	38%	7	58%	2	50%
Deferred work (health/education)	4	21%	2	17%	2	29%	2	25%	2	17%	0	0%
Unemployed (no disability income)	5	26%	1	8%	3	43%	1	13%	2	17%	0	0%
Household with children	12	63%	3	25%	5	71%	2	25%	7	58%	1	25%
Single mother/grandmother	12	63%	2	17%	5	71%	2	25%	7	58%	0	0%
Single adult	7	37%	7	58%	2	29%	4	50%	5	42%	3	75%
Female	15	79%	7	58%	5	71%	5	63%	10	83%	2	50%
Male	4	21%	5	42%	2	29%	3	38%	2	17%	2	50%
Contributing factors to homelessness												
Life shock	19	100%	12	100%	7	100%	8	100%	12	100%	4	100%
Support system	17	89%	10	83%	7	100%	7	88%	10	83%	3	75%
Individual vulnerability	14	74%	10	83%	6	86%	8	100%	8	67%	2	50%
Structure	14	74%	7	58%	5	71%	4	50%	9	75%	3	75%
Agency	9	47%	6	50%	4	57%	4	50%	5	42%	3	75%
Exclusion	5	26%	0	0%	1	14%	0	0%	4	33%	0	0%
Greatest impact on homelessness												
Individual Vulnerability	6	32%	5	42%	4	57%	4	50%	2	17%	1	25%
Support System	5	26%	1	8%	1	14%	0	0%	4	33%	1	25%
Structure	3	16%	0	0%	0	0%	0	0%	3	25%	0	0%
Agency	2	11%	1	8%	1	14%	1	13%	1	8%	0	0%
Life shock	2	11%	3	25%	1	14%	1	13%	1	8%	2	50%
Life shock/support system	0	0%	2	17%	0	0%	2	25%	0	0%	0	0%
Exclusion	1	5%	0	0%	0	0%	0	0%	1	8%	0	0%
Housing is stable	8	42%	6	50%	5	71%	4	50%	3	25%	2	50%
Unsure/not stable	8	42%	4	33%	2	29%	3	38%	6	50%	1	25%
Stable with assistance	3	16%	2	17%	0	0%	1	13%	3	25%	1	25%

More than half of all subjects reported being homeless for one year or more, including 12 of 19 nonwhite subjects and seven of 12 white subjects, although median years homeless were shorter for nonwhite than white subjects in all cases, particularly PSH. However, five of the six subjects with one or more years homeless in RRH were nonwhite. Four of the subjects interviewed in RRH programs had one or more years homeless and a chronic illness or disability, qualifications that might make them eligible for PSH programs. Three of these subjects were nonwhite. As to why they entered RRH instead of PSH, subjects said they took the programs that

were offered. Overall, higher proportions of nonwhite subjects in RRH might be explained in part by the CoC priority to house families with children. However, a lack of children did not seem to prevent white subjects from entering housing programs, as 75% of the white subjects interviewed had no children.

Both white and nonwhite subjects expressed similar levels of engagement in work. Work-focused subjects were those who either were employed or were about to begin a job and had worked recently. Nearly half of all RRH subjects said they were either not able to work due to disabilities or were postponing their job search to address goals to improve their health or increase their earning power through education.

Single mothers interviewed were disproportionately women of color. Sixty-three percent (11 mothers and one grandmother) of the nonwhite subjects interviewed were single mothers compared to only 17% of white subjects, including 71% of nonwhite PSH subjects (five of seven) and 58% of nonwhite RRH subjects (seven of 12). The PSH nonwhite single mothers reported experiencing almost 20 years of homelessness (mean 3.85 years). RRH nonwhite subjects averaged six months of homelessness ranging from three to 12 months. Nonwhite single mothers had a median of 2.5 children ranging from age 1 to 5 with a mode of three children per household. The median age of these mothers was 34, ranging from 26 to 63. PSH nonwhite single mothers had a median age of 42 while RRH nonwhite single mothers had a median age of 32 but included a 63-year-old black woman living precariously with a disabled son on two disability incomes and a 54-year-old disabled, parenting black grandmother with no income. PSH nonwhite single mothers were far more likely to say they had stable housing (four of five) than RRH nonwhite single mothers (two of seven). PSH nonwhite single mothers also were more likely to identify individual vulnerabilities (three of five) as having the greatest effect on their

becoming homeless. Nonwhite single mothers told of complicated pathways to homelessness involving multiple life shocks (12 of 12), missing or failed support systems (11 of 12), and individual vulnerabilities (10 of 12) within the context of structural barriers, including jobs that did not pay enough to cover market rents (10 of 12). Seven of the 12 nonwhite single mothers were either unemployed (three) or delaying work to address educational goals (one) or health problems (three). Ten of the 12 nonwhite single mothers reported that chronic illness or disability was a factor contributing to their homelessness, while only four of the 10 were receiving disability income. The five nonwhite single mothers who were work focused were evenly divided in PSH (two) and RRH (three) programs. All nonwhite single mothers did not fit the models for the programs to which they were assigned. Subjects in RRH included nonwhite single mothers with significant barriers to employment, including greater age, chronic illnesses, disabilities (their own and their children's), and work fields that could not provide enough income to afford housing.

Both white and nonwhite subjects identified an interconnected array of factors affecting their homelessness, with nonwhite subjects somewhat more likely to identify structural barriers as contributing factors. One-third of nonwhite RRH subjects identified some form of stigma or social exclusion contributing to their homelessness. One black subject said discrimination was the primary contributing factor to the family's homelessness, that "people looked down us, wouldn't work with us." Exclusion was generally among a chain of events leading to homelessness and ranged widely:

- Overt racial discrimination in childhood (1960s Fort Worth) led to becoming an "angry young man" unwilling to work for white people (majority of employers) and making bad choices leading to homelessness (black subject).

- Landlord would not allow husband with felony conviction to be on the lease, leading to a move to an unaffordable housing situation (black subject).
- Landlord would not accept rental assistance to maintain housing and avoid eviction (black subject).
- Landlord would not do repairs making the housing situation unsustainable (black subject).
- Family members were harassed and bullied in their apartment complex and at school, leading to exit from the housing program and return to housing instability (black family in predominantly Hispanic neighborhood).
- White subjects identifying exclusionary experiences contributing to their homelessness cited age discrimination in employment and criminalization of street homelessness (numerous citations for public urination, sleeping, etc.); some white women said they were treated unfairly in shelters where residents were disproportionately black.

Overall, five of 31 subjects reported that incarceration (their own or that of a primary breadwinner) was a contributing factor. Some researchers connect the disproportionate representation of people of color among homeless people with disproportionate incarceration, especially of black people in the US (O'Flaherty 2019; Shinn and Khadduri 2020). Four of the subjects citing incarceration as a factor were nonwhite, describing pathways including incarceration of themselves (two single men) or their partners (two single mothers). Only one white PSH subject reported a history of incarceration contributing to his homelessness. Three of the four nonwhite subjects affected by incarceration were assigned to RRH programs even though only one subject had been homeless less than one year, and all had chronic illnesses and

histories of trauma. The following themes emerged from analysis of pathways to homelessness including incarceration:

- Personal support systems that are dysfunctional, absent, or very low in capacity
- Multiple life shocks, including domestic violence, divorce, abuse in childhood, violent crime, and incarceration
- Individual vulnerabilities in the subject, their partners, and their children including chronic mental and physical illnesses impairing ability to work, without disability income
- Exclusion or stigmatization due to race or criminal background affecting ability to obtain work and rental housing
- Structural factors including history of exclusively low-wage work inadequate to afford market-rate housing (especially single mothers)

Five of 14 black subjects reported that lack of personal support systems was the most important contributing factor to their homelessness, compared with only one of 12 white subjects. All five of these black subjects were assigned to RRH programs, although one who had been homeless for four years and had chronic illnesses may have met PSH criteria. In cases where family members were willing to help, extended families had limited capacity and were themselves low income and living in crowded conditions, making help untenable. Perhaps in cities with higher percentages of black households, family and friend support systems are larger and have more resources (O'Flaherty 2019).

Subjects included substantial levels of people with disabilities, people over age 40, and people of color. Several observations summarize exclusionary experiences:

- Median ages of white and nonwhite subjects were nearly the same, with PSH subjects (approximately age 50) older than RRH subjects (approximately age 44). Even for the self-sufficiency focused RRH program, median age exceeded 40. Age added a barrier to employment and self-sufficiency in RRH programs.
- Nonwhite subjects had a greater presence in RRH programs than PSH programs, even though they had significant rates of disabilities, life shocks, and homelessness.
- Nonwhite subjects were more likely than white to live in households with children; for nonwhite households, this experience was exclusively that of the single mother or grandmother, underscoring the greater presence of females in every program.
- Single adults were more likely to be white than nonwhite. Nonwhite men were particularly underrepresented among interview subjects in all programs.
- Nonwhite subjects had shorter periods of homelessness than white subjects, especially those in PSH programs, perhaps indicating a greater willingness to use shelter services where nonwhite people are disproportionately represented.
- More than half of the subjects in every category reported that a disability or chronic illness contributed to their homelessness. White subjects reported disabilities somewhat more frequently than nonwhite subjects. Nonwhite subjects more often reported chronic illnesses or disabilities without receiving disability income.
- Half of nonwhite RRH subjects considered their current housing situation to be unstable or were unsure of its stability. One-fourth of the nonwhite RRH subjects said their housing was stable but only with continued access to income-restricted rents or housing subsidies. Nonwhite PSH subjects were the most likely to say that they considered their current housing to be stable.

Summary

The author conducted and analyzed 31 interviews evenly divided between participants in TX-601 RRH and PSH programs to understand the homelessness pathways and characteristics of program participants who entered each housing program under an A&A regime of weak agency discretion and strong automation. In general, PSH subjects reflected the targeting and priorities of the program model. PSH subjects all had long periods of homelessness with homeless pathways influenced by individual vulnerabilities. RRH participants, however, were more mixed with many participants sharing the characteristics and pathways of PSH participants. Overall, there were more similarities than differences between RRH and PSH participants.

All participants in both programs described pathways that incorporated life shocks. PSH pathways primarily consisted of an interaction among individual vulnerabilities, poor support systems, and life shocks. The pathways of RRH participants were more varied but a majority also included weak support systems and individual vulnerabilities with life shocks. Three quarters of RRH participants mentioned structural barriers (high housing costs, low wage jobs), but 60% of PSH participants also mentioned structural problems. Almost every participant had a history of very low wage employment, no savings, and few prospects for acquiring higher wage work. Barriers to better employment included lack of education and experience, poor work histories, mental illness, disabilities, and chronic health problems, some resulting from employment. The few participants in RRH with periods of higher wage work had pathways influenced by life shocks and/or mental illness with unstable employment patterns. All participants who mentioned individual vulnerabilities in their pathways to homelessness saw them as instrumental to their inability to gain adequate employment which in turn affected their housing stability.

A subset of RRH participant pathways met the definition of chronic homelessness and six of 16 had been homeless for more than one year. Like PSH participants, these subjects had pathways to homelessness that were based around an interaction among individual vulnerabilities, life shocks, and weak support systems. Further, income histories of chronically homeless participants were lower than other participants in both programs. RRH participants with histories of chronic homelessness saw their current housing situation as largely unstable.

Homeless pathways and characteristics of families were very similar between RRH and PSH participants and families with children made up half the subjects in each program. About half of the participants with children in each program were over age 40. Levels of work orientation were comparable with about half employed or actively seeking employment in each program. Pathways for subjects with children included life shocks, poor support systems, individual vulnerabilities, and structural barriers. A subset of RRH subjects in families with children were younger and black while PSH subjects in families overall were older and white.

Nonwhite and white subjects also shared very similar pathways emphasizing life shocks, poor support systems, and individual vulnerabilities. White subjects were slightly more likely to meet the criteria for chronic homelessness, but almost half of nonwhite subjects also met the criteria. Within each program, non-white participants had shorter periods of homelessness than white, although in RRH, more non-white participants had been homeless one year or more, meeting at least part of the eligibility requirements for PSH. White participants in RRH were slightly more likely to have disabilities and chronic illness in their pathways to homelessness but more than half of the nonwhite RRH participants also had disabilities and chronic illness. Nonwhite participants in both programs were more likely to have children while single adults were more likely to be white. One quarter of nonwhite participants identified experiences of

racism and exclusion in their pathways, primarily those in RRH. Nonwhite participants were also more likely to include structural barriers in their pathways, especially in RRH.

When considered through the lens of characteristics of vulnerability measured by the VI-SPDAT, PSH subjects would have scored slightly higher than RRH clients, primarily due to longer homelessness, more mental health problems, and histories of trauma. However, half of RRH participants also had pathways that included mental and physical health problems. Attempts to estimate VI-SPDAT scores based on interview data for subjects in families with children generated scores that were generally lower than necessary to meet targets for housing program eligibility using guidelines recommended by the instrument's author. Very few would have qualified for PSH based on VI-SPDAT related characteristics alone, even while meeting the definition of chronic homelessness.

Considering whether characteristics and pathways matched program designs, interviews revealed mismatches and substantial barriers to housing stability and self-sufficiency, especially in RRH.

- A substantial proportion of RRH subjects had been homeless more than one year, including those who might have been eligible for PSH. Participants expressed frustration with the length of time it took to be selected for a housing program, necessitating long stays in emergency shelters to document their homelessness. Subjects did not perceive consistent criteria for housing program selection and attributed program entry to luck or their own agency.
- Dynamic prioritization policies did not appear to have the intended effect on RRH entries for subjects interviewed given that most of those with longer periods of homelessness entered prior to its implementation and participant length of homelessness decreased after

implementation. Participants who entered both before and after the implementation of dynamic prioritization had significant levels of disabilities and health problems.

- Despite the priority for families in RRH, half of subjects with children were in PSH and had been homeless for years. Subjects with children in both programs had many barriers to self-sufficiency, including age, disabilities and chronic illnesses in themselves and their children, and histories of very-low-wage employment, lack of disability income, and no sustainable support systems. While PSH subjects reported more contact with case managers, subjects in both programs used similar levels of other supportive services, even though service intensity is a hallmark of PSH. Many RRH subjects with children doubted their housing stability due to health conditions, low-wage jobs, no childcare, and unaffordable rents, in contrast with RRH's emphasis on self-sufficiency.
- Nonwhite subjects were more likely to be in RRH even though many had substantial disabilities, long periods of homelessness, and many barriers to self-sufficiency. Black subjects were more likely to report exclusion and stigmatization, racial discrimination, and a history of incarceration as contributing to their homelessness.
- Mental and physical health conditions and individual vulnerabilities were present in substantial numbers of RRH participants interviewed, posing barriers to achieving self-sufficiency within a limited time period. Further, life-long histories of low wage work contributing to homeless pathways made sustainable housing without subsidies very difficult to achieve. Median age was over 40, increasing challenges to employment. RRH subjects faced significant barriers to self-sufficiency including individual and structural barriers.

- More than half of subjects in both programs reported significant vulnerabilities — life shocks, broken relationships, mental and physical health problems, and long periods of sheltered and unsheltered homelessness. However, a comparison with VI-SPDAT questions indicated that subjects may not have had sufficiently high scores to qualify for their program types.

Current systems for A&A of homeless persons to housing programs grew out of early studies of the causes of death among homeless people resulting in a triage approach that, given insufficient resources to help everyone, attempts to identify people who need help the most and might otherwise perish without it (Hwang et al. 1998; 1997; Bowie and Lawson 2018; Cronley et al. 2013). However, this triage approach has been layered with an additional task to determine whether persons are best served by (a) programs with unlimited rental assistance and intensive supportive services (PSH) designed for persons with the greatest individual vulnerabilities who presumedly might not survive without assistance or (b) housing programs with time-limited rental assistance and fewer supportive services (RRH) designed for an ideal candidate who was previously self-sufficient but who has experienced a life shock, particularly an economic one, that caused them to become homeless but who, with short-term help could return to self-sufficiency. Perversely, PSH programs also require people to remain literally homeless for long periods of time before becoming eligible for assistance. The policy of dynamic prioritization aims to address this by offering chronically homeless people limited assistance in RRH. RRH programs aim to house people quickly, especially families with children, before further traumatized by homelessness. Based on interviews with participants in TX-601 housing programs, the current system has triaged people with high levels of individual vulnerability for both programs, both families and individuals, before and after dynamic prioritization. People

with both long and short periods of homelessness, and fewer mental and physical illnesses enter RRH. Only a subset of RRH participants fit the profile of the program's original design.

Chapter 6 further explores the characteristics of housing program participants from the perspective of program staff with employment tenures covering earlier regimes of A&A to first, explain and possibly corroborate findings from participant interviews and second, to understand whether and when things changed from prior regimes of A&A when staff discretion was stronger and automated assignment was weaker.

Chapter 6

Policy Implications of Assessment & Assignment System Impact

Chapter 6 uses data from focus groups with TX-601 program staff to explain and corroborate findings from administrative data (Chapter 4) and program participant interviews (Chapter 5) and to explore the implications of findings for system design, program targeting, and program demand, the final research question. As discussed in Chapter 3, RRH and PSH front line case managers and second line program directors were recruited who had been engaged in TX-601 programs since 2016 or before and therefore, had lived experience of the A&A system as it transitioned from strong to weak agency discretion and from weak to strong automation. Staff focus groups also provided an opportunity to test the author's models of the current A&A system, system regimes, and homelessness pathways framework. During focus groups, staff were presented with the author's coordinated entry system model (Chapter 1), her model of the three regimes of TX-601 A&A systems created from documentary evidence (Chapter 1), and the author's working pathways model (Chapter 3) created from a literature review of contributing factors to homelessness and the pathways research framework (Chapter 2). Staff members were asked to use these models in framing answers to questions.

This chapter first presents staff perspectives on questions addressed in previous chapters, including characteristics of participants in the current regime of strong automation, and changes in participants assigned to housing programs over different regimes. In each section, the author first presents focus group data followed by a brief discussion comparing staff perspectives with findings from other data and underlying program designs and embedded assumptions about homeless pathways. Then, the author relates staff perspectives on program and A&A system design, comparing perspectives with underlying theory on homelessness. The chapter ends with a

summary and discussion of the issues facing assessment and assignment systems and program design. The chapter includes relevant findings and analysis from a staff perspective on each of the research questions, culminating in a discussion of policy implications.

- Regime Target Accuracy and Reliability: How do RRH and PSH housing program assignments differ under different regimes of A&A? Do systems with less agency discretion and more automation increase the proportion of participants matching system targeting?
- Regime Structure and Design: How do changes in A&A systems compare with system and program goals and underlying theoretical frameworks?
- Automated Regime Participant Characteristics: What are the homelessness pathways and characteristics of participants in RRH and PSH in an A&A system characterized by weak agency discretion and strong automation?
- Policy Implications of Regime Change: What are the implications of findings for system design, program targeting, and program demand?

Automated Regime Participant Characteristics

The author asked focus group members to describe who is typically included and excluded in each program under the current regime of weak staff discretion and strong automation. According to staff, people with the following characteristics are typically assigned to current PSH programs:

- Vietnam veterans (many having no prior engagement with the Veterans Administration (VA)), with no income or with Social Security disability or VA income supports, all with

mental health issues and many with physical health problems but able to live independently, who experienced military service as a life shock

- people with comorbidities and histories of high emergency service use
- people whose cognitive functioning is not adequate to live independently without daily checks, including wanderers, people with memory problems, and people who might be more appropriately placed in nursing homes or assisted living but for whom PSH is the only available option (rental subsidies won't pay for assisted living and participants refuse nursing home care)
- people with extensive trauma histories, including abuse, neglect, or witness to violence
- people with no family support
- people with no income (30%)

Staff said people with the following characteristics are currently prominent in RRH:

- African American single mothers, age 25-35, with two or more children
- members of multigenerational families, including parenting grandparents, whose age, disabilities, and trauma histories prevent them from increasing income and meeting RRH program criteria for self-sufficiency
- people with no income (70% of clients), some awaiting SSI determination, and no prospects for paying a portion of rent within three months or all rent at program end
- people receiving disability income but with insufficient documented time homeless to qualify for PSH whose income is not enough for self-sufficiency at program end, who return to homelessness and further trauma
- people with fragmented family ties largely stemming from trauma, abuse, and mental health issues, resulting in no support system

- people with multiple episodes of homelessness
- heads of households with children with serious barriers to housing stability, including chronic homelessness, mental and physical health problems and disabilities, criminal backgrounds, evictions, and higher VI-SPDAT and Adverse Childhood Experiences (ACE) scores (Larkin and Park 2012)

Staff said the following subgroups are typically excluded from housing programs:

- Excluded from PSH: Parenting grandparents with disabilities and inability to increase income who don't qualify for PSH; veterans with military service in Iraq, Afghanistan, and other wars on terror after 9/11 who are underserved by formal systems; people who don't stay in shelters, including those living with another family and motel users
- Excluded from RRH: single, unaccompanied adults, especially women (not a priority) and African American males; people in their first episode with little time homeless who are homeless primarily due to job loss and have low VI-SPDAT scores; people who are couch surfing, living in motels or have insufficient time documented as literally homeless

Analysis: Staff descriptions of program participant characteristics under the current regime of weak staff discretion and strong automation are consistent with findings from documentary evidence, administrative data and participant interviews. Both PSH and RRH participants have substantial levels of individual vulnerabilities. PSH participants are characterized also by substantial life shocks and lack of support systems, both public benefits and personal. Staff identified a subset of older PSH clients who are extremely disabled, including cognitive impairments, that make unsupervised independent living difficult. All of these characterizations are consistent with PSH priorities to serve highly vulnerable and chronically homeless people. RRH participants include a subset of younger, black, single mothers with children described by

researchers, consistent with the RRH priority for families with children (Culhane et al. 2013). Staff also described RRH participants as burdened by experiences of exclusion, including evictions and criminal backgrounds. Staff descriptions are consistent with system priorities to serve those with the greatest vulnerability first in both programs resulting in chronically homeless people in both PSH (priority) and RRH (not a priority) programs.

Staff said that insufficient documented time literally homeless kept highly vulnerable people out of both programs, preventing recent veterans and older parenting grandparents from entering PSH, and single adults, especially females and black males, from entering RRH. These exclusions were consistent with a lack of program prioritization for these people. The current emphasis on vulnerability excludes the very people for whom RRH programs were designed: recently homelessness as a result of an economic life shock with few characteristics of vulnerability.

Changes in Housing Program Participants and Programs

Staff focus group discussants, all with employment tenures in TX-601 from 2016 or before, confirmed that there have been changes in characteristics of housing program participants over time in both programs:

- PSH: Many more participants with more trauma requiring more intensive case management and services; more people with more severe mental illness and physical problems; more older clients with dwindling employment chances (60% of veterans over age 55) and declining health, including some with Alzheimer's Disease; greater service needs, including with activities of daily living requiring daily welfare checks; greater housing instability; more program participants who need help (previously clients perhaps

could have achieved self-sufficiency without assistance because they had fewer barriers); more often seeing people who have been living unsheltered and don't access local shelter services, with less ability to navigate formal systems

- RRH: clients less likely to be employed and have services and critical documents (identification) in place at program start, delaying education and employment assistance; more with length of homelessness close to qualifying for PSH who would be better served by the PSH model; bigger families; increasing proportion of older, disabled adults with limited incomes parenting grandchildren; more clients unable to work due to poor health and no child care
- PSH and RRH: more barriers to housing, such as evictions and criminal backgrounds, making it harder to get approved for an affordable apartment; more multigenerational families and older adults; more people fleeing domestic violence; more severe mental illnesses that landlords don't understand; more older adults needing Adult Protective Services; more people with no family support, not even an emergency contact; more clients either so severely challenged that they have difficulty being successful or new to homelessness with difficulty meeting program criteria; more clients with more barriers to housing who are unmotivated to work toward self-sufficiency (60%-70%)

Staff also identified the following changes over time in client outcomes and services:

- PSH: more recidivism; clients recycling through program after evictions who can only find housing in the worst neighborhoods with higher illegal drug activity ("now we're seeing the worst of the worst"); "everything takes longer because of increased client needs and barriers," including acquiring critical documents, finding housing, and making progress on health issues

- RRH: employment opportunities not as stable; more people failing to achieve self-sufficiency; more giving up and going back to the shelters due to lack of public transit, fixed incomes, higher rents and insufficient program time to address underlying barriers such as mental illness; assignment systems do not allow agencies to select the clients they think better fit program characteristics and reject others; agencies required to accept clients with characteristics they are not prepared for, leading to more case manager frustration and turnover; increasing rents too high for fixed incomes; households with less vulnerability waiting longer to be served; lower barriers to program entry (housing first) means more clients who might still be using illegal drugs and who bring down agency scores for program effectiveness; CES implementation had kinks and continues to operate with two data-keeping systems, slowing entry into housing and increasing time homeless
- PSH and RRH: more collaboration across agencies to reach people who were previously unserved and have the most barriers to housing

One staff member suggested that clients had not changed but that agencies are now required to take clients even though they might not succeed within the program design (RRH). All discussants agreed that clients have more barriers to self-sufficiency such as lack of transportation, no income, criminal backgrounds, addictions, and mental illness.

Staff members with the longest tenure in TX-601 tracked the origin of these changes to 2014-15 when the beginning of coordinated assessment closed the “backdoor entry” into services. Before this time, people could walk into or call agencies directly and get enrolled, an approach that favored those who were more physically and mentally capable of navigating fragmented systems. Then in 2014-15, longer tenured staff confirmed that agencies were

required to send potential referrals to TCHC for centralized scoring, which brought in older clients with more mental illness and substance use disorders. Staff said further changes in 2017, including adoption of the VI-SPDAT, added even more people with severe mental health problems, in some cases challenging case managers' training and resources. Also, in 2017, Presbyterian Night Shelter (PNS) changed its PSH program to a master lease, making it easier for clients who got in trouble with one property to move to another without eviction, consistent with the original housing first model (Tsemberis 2010). VA staff also observed that beginning in 2017-18, a reduction in chronically homeless veterans left only those with the most severe individual vulnerabilities and barriers to be housed.

The author asked whether clients had changed the way they present themselves in order to increase their chances of being selected. Staff said clients know the difference between RRH and PSH and the qualifications for each, which encourages them to stay in shelters until they meet criteria for documented length of homelessness. VA staff said the VA explicitly teaches clients about housing services available and entry criteria. One staff member said clients are questioning why mental illness is on their record, suggesting that, at one time, they may have thought a mental illness would help them get housing but now they don't want to participate in services associated with mental illness.

Analysis: All staff members agreed that over time, program participants had increased their individual vulnerability in both programs along with an increasing lack of support systems (disability income, childcare assistance, and extended family), increasing barriers from characteristics of exclusion (criminal backgrounds, evictions), and increasing numbers of participants with life shocks (domestic violence). The results of these changes were increased recidivism to homelessness and housing assistance; greater challenges to the skills, time, and

resources of case managers as they were required to address more severe health problems and addictions; and more time required for participants to stabilize and approach self-sufficiency.

Staff perspectives confirmed the author's analysis of documentary evidence identifying distinct regimes of A&A systems. Staff members with longer tenure dated changes to 2014-15, consistent with the author's regime of decreased agency discretion and weak automation. They credited centralization of A&A and decreased agency discretion in accepting clients with bringing in more participants with greater needs. Other staff members, generally with shorter tenures, dated the change in participants to 2017-18, consistent with the author's regime of weak staff discretion and strong automation. While staff members applauded the new regimes for bringing in needier participants, RRH staff found that participants no longer met the target of the original program design and PSH staff were increasingly pressed to address needs of aging people with greater challenges to stability.

Implications for Program Design and A&A Criteria

The author asked staff to suggest who should be assigned to what programs. For RRH, staff said clients should include those who have income, have been employed but became homeless after job loss, are employable and able to increase income quickly, are new to homelessness, have fewer barriers to housing and lower VI-SPDAT scores, or need housing while waiting for a more appropriate PSH slot. PSH clients, staff said, should be elderly (age 60 or over) with profound disabling conditions, more barriers to housing, and higher VI-SPDAT scores.

RRH staff said that increasingly participants were not a good fit for the program and lacked the capacity to achieve self-sufficiency with time-limited rental assistance because of barriers, disabilities, and age. RRH staff expressed frustration that, due to the emphasis on serving the

most vulnerable with the longest time homeless, they cannot work with newly homeless people who could become self-sufficient with limited assistance. All RRH staff said they have clients who need PSH and that RRH time limits are too short to address underlying barriers to housing stability for increasingly intensive needs.

Staff from both programs said that, after three to four months of working with a client, it was not uncommon to find more barriers and health conditions, indicating that the initial assessment and placement were inappropriate. Currently, no good option exists to move these participants into a more suitable program. Staff said there is an "abstractness or subjectivity of mental health issues … some more debilitating than others … differences in resiliency … don't see this until you get to know them", preventing accurate assessment of need at one point in time. One staff member said the HUD assessment and the VI-SPDAT are inadequate "if we're really looking at identifying what the needs are." One longer tenured staff member expressed concern about the additional trauma inflicted when clients must cycle through programs due to being placed in the wrong program: "It unintentionally promotes this sense of inadequacy, as opposed to, this is not the right program, because we don't have really any other options."

Many staff discussants expressed frustration with options limited to two programs (RRH and PSH). One staff member said clients often are offered a program on a "take it or leave it" basis coupled with pressure to leave the shelter. Some staff members said a third option is needed or more flexible program designs. Some said no existing housing program truly meets the needs of people who are unable to live alone but will not consider a nursing home. For less disabled clients, one staff member said the VA has a program that provides rent assistance alone and works well for elderly people who lack the ability to be financially independent. Staff members also expressed frustration with the PSH minimum time requirement of at least one year

of documented homelessness. “There are lots of people close to 12 months homeless who could have been PSH due to a lot of needs. Should they sit in the shelter for another 30 days?”

Staff members from both program types said program design characteristics lead to complacency, lack of motivation to work toward self-sufficiency, and “sitting on the program” up until just prior to a deadline. These program design characteristics include the promise of permanent rent assistance in PSH, time-limited deadlines in RRH, and increasing rent contributions required with increased income. A wide divergence of opinion was expressed over the proportion of clients who are complacent, ranging from few to 70%. Some staff said that helping develop motivation should be part of the case manager’s job. The discussion revealed wide differences in opinion about the purpose of housing programs. Some said that no program is intended to be permanent and that clients should prepare for the day their housing assistance ends. The “goal of both programs is not housing forever … goal is to move on to the next person … the population who should be served are people who have the ability and are ready to come up with the goals they need to accomplish becoming self-sufficient on their own.” Discussants expressed varying views relating to definitions of program success and client definitions of success, some asserting that clients and case managers may differ. For some clients, one case manager said that success consisted of a predictable roof over their head and a few dollars to spend, while case managers might not consider such a life to be consistent with program success or their own personal values for quality of life. HUD program designs and metrics generally focus on housing stability and increases in earned and unearned income as the sole indicators of program success (A. Dunn 2020).

Further discussion revealed differences of opinion about program principles such as housing first and permanent supportive housing, and views on who should be helped. One PSH staff

member said some clients need to address their addictions and acquire life skills such as cleaning before they are ready to enter PSH. One staff discussant questioned whether housing dollars are being used effectively by being directed to people with the greatest barriers to housing stability, including those with continued illegal drug use and criminal activity who might fail and recycle through programs, damaging an agency's performance scores. Another staff discussant with extensive PSH experience countered this perspective stating that addressing such issues is "part of the purpose of PSH" and that the emphasis on serving the most vulnerable first is "weeding out case managers" because the "clientele is tough" and case managers are "actually having to get in and do some work to get these people where they need to be." Another said, "I think they [case managers] also have to understand who it is we're working with. And know that not everybody is going to be motivated to do something they've never done. That's where we as the professionals have to come in and engage them in the services." Another staff member summarized the discussion by saying that "how you [staff] think and feel about families really is going to drive how you work with them … if you think, 'they don't want this, they're taking advantage of the system' … I don't want to work with them … we still have to give them an opportunity to work this program because you never know what the outcome is going to be." This long-tenured staff member said it's impossible to predict who will be successful and what that success will look like. "Let's assess the housing needs of the families we serve. And then to the greatest extent possible, let's create those housing services that are more appropriate to their needs. Families want just what we want. They want to feel valued. They want to feel respected. They want to know that they matter."

Summary and Implications for Program and System Design

Staff focus groups provided evidence, consistent with documentary evidence, administrative data, and participant interviews, that CoC priorities and targets implemented through the TX-601 A&A system influenced participant characteristics and the subgroups served. Families were more likely to participate in RRH and participants in both PSH and RRH were characterized as highly vulnerable. Groups not prioritized, such as black males and female single adults, were said to be underserved along with subgroups of target populations such as veterans of recent wars (although veterans were a priority). Discussants confirmed documentary evidence of A&A regimes, saying that the most important changes happened in 2014-15 with centralization of referrals and effects intensified with more determinate use of vulnerability assessment (VI-SPDAT) in 2017-19. Discussants said these changes substantially increased the proportion of participants with greater vulnerability. Service needs increased in both RRH and PSH participants, posing challenges to case management and housing stability. RRH staff expressed the concern that many participants no longer fit the service model, thus increasing recidivism to homelessness and recycling through programs with repeated failures.

There was substantial congruence in the responses of first line case managers and second line program directors. Both agreed that housing program participants had become much more challenging to serve with more intense service needs limiting prospects for self-sufficiency. Program directors, generally with longer system tenure, tended to see the changes in participant characteristics dating back to 2014-15 or the change to more centralized coordination and weaker agency discretion. Case managers, generally with shorter system tenure, saw the changes beginning in 2017-18 with the change to strong automation. RRH program directors and case managers agreed that participants increasingly did not fit the original program model designed

for people who had lost their homes due to a job loss and had no other factors preventing them from regaining self-sufficiency. RRH case managers were more likely to blame this problem on weak agency discretion – that agencies no longer had access to clients who fit their program's model and couldn't screen out those who would not be successful, required to accept whoever the coordinated entry system sent. RRH program directors tended to express more concern that the right program model did not exist for the clients they were getting. In PSH programs, both program directors and case managers saw the increased intensity of service needs as a positive change that indicated the system was improving its ability to engage those who most needed assistance. Both recognized that participant changes placed greater demands on case managers' skills, time, and other resources. Case managers in PSH expressed frustration with increased recidivism to homelessness that they attributed to severe intensity of need and people who needed more supervision. Case managers were also more likely than program directors to express frustration with housing first models based on low barriers to entry and continued housing even for noncompliant program participants.

Overall, documentary evidence, administrative data, participant interviews, and staff focus groups indicated that decreasing staff discretion and increasing automation in A&A systems coincided with participant characteristics that increasingly moved in the direction of system goals to admit (a) people with the most severe individual vulnerabilities and barriers to housing stability and (b) people in certain target populations (families with children). However, the resulting changes either admitted people who were not in line with original program design (RRH) or challenged program capacity to achieve goals for housing stability (PSH). Staff discussants suggested that current program designs no longer fit the needs of the people being assigned to them. Further, discussants offered comments that challenged foundational principles

of current housing program models, including the purpose of housing programs, the housing first model, self-sufficiency goals, and who should be served.

Permanent Supportive Housing: While staff discussants said that PSH program participants increasingly faced multiple barriers to housing stability including individual vulnerabilities (age, serious health problems) and structural barriers (lack of affordable housing, low wages and unstable jobs, lack of affordable child care, criminal backgrounds, landlord intolerance, and difficulty obtaining disability benefits) requiring long-term rental assistance and supportive case management, discussants also maintained that program participants should be told that their housing assistance is not permanent and that they should be continuously working on a plan for when assistance might end. PSH programs were designed for people with individual vulnerabilities that prevent them from achieving housing stability within the constraints of social and economic structures affecting housing and income. Participants are required to prove that they qualify for this level of assistance by being homeless for long periods of time. A combination of supportive services and ongoing rental subsidies has been shown to be effective in maintaining housing stability for people with a history of chronic homelessness. Staff seemed to be questioning whether any program should offer permanent assistance, but the context of the discussion indicated that this perspective was probably driven by scarcity of program openings. Staff were clear that the people currently entering PSH programs were very needy but suggested that some persons who entered the system many years ago, prior to coordinated regimes of A&A, were less impaired and possibly could be exited from the program with enough motivation. Staff did not indicate how people were going to overcome individual vulnerabilities and structural barriers to become prepared to exit the program. But they were clearly hoping to make space for more needy people. Program design must take resource planning into account

when designing programs for people who will most probably continue to need the assistance, especially when structural barriers and individual vulnerabilities combine.

Housing first: Some case managers questioned elements of the housing first model, contending that some participants weren't ready for housing, implying the need for a return to the staircase model (Padgett, Henwood, and Tsemberis 2016) necessitating periods of project-based, transitional housing to make people ready for independent living. Substantial research exists (Chapter 2) to support the idea that most chronically homeless people with significant behavioral health problems can end their homelessness immediately and, for the highest service users, at lower cost than through transitional housing (Chalmers McLaughlin 2011; Larimer et al. 2009; Rosenheck et al. 2003). But some staff discussants also challenged the housing first principle that persons who were the most difficult to house, with ongoing substance use disorders or patterns of behavior leading to recurring eviction, should be allowed to consume so many program resources, arguing instead that resources should be spent on people who would be more successful in achieving housing stability and perhaps self-sufficiency with fewer resources. This is a question that addresses fundamental issues about who deserves assistance and the goals of programs to address homelessness (Kyle 2005).

Client choice and motivation: Staff complained that participants were not sufficiently motivated to increase their self-sufficiency due to lack of intrinsic motivation or lack of adequate program incentives. Discussants differed widely in their assessments of the extent of this problem. Staff members seeing less complacency attributed lack of progress toward self-sufficiency to mental illness, health problems, and lack of prior experience with housing stability

and self-sufficiency, all issues that arguably should be the focus of case management efforts.[27] Staff discussants seeing more complacency tended to credit the problem to program models that did not offer incentives to change at all or until too late in the program. Program directors were more likely to point out that motivating people to change is an essential part of the case manager's job, however difficult. Also embedded in this issue is a client's right to choose their own living situation, set their own goals and lifestyle, an essential element of PSH program fidelity models (Gilmer et al. 2014; O'Campo et al. 2015; Stefancic et al. 2013). This issue also relates to economic researcher concerns with addressing moral hazard in homeless program design and with incorporating private information and client choice in selecting housing programs (O'Flaherty 2009b; O'Flaherty, Scutella, and Tseng 2018). Also embedded in this issue is the assessment of client capacity for self-sufficiency, only obliquely assessed in current A&A systems, as well as the definition of self-sufficiency. A&A program designs must clearly define underlying principles about the role of the client and the trustworthiness of the client in determining what is in their own best interest.

Priority for vulnerability: The TX-601 A&A system intentionally seeks people to assign to housing programs with the greatest vulnerability and has succeeded in increasing participants who fit this profile. Staff discussants clearly find that the number of people needing long-term rental assistance with supports exceeds the resources available in federally funded PSH programs resulting in assigning people to a program model (RRH) that does not meet their needs. RRH

[27] Motivational interviewing is a fundamental technique recommended for social workers and therapists working with people to make behavioral changes, especially those with substance use disorders and other behavioral health problems and is promoted for use with formerly homeless people in supportive housing (Miller and Rollnick 2013; Corporation for Supportive Housing 2020).

staff saw this as an inappropriate use of RRH resources. Further, they questioned whether the most vulnerable with no prospects for self-sufficiency should consume limited resources when less vulnerable households with prospects for self-sufficiency could be helped with fewer resources. This is a fundamental questioning of the triage protocol of the current A&A system. Further, given that most homeless people using emergency shelter services appear to self-resolve their homelessness or quickly leave the system, researchers agree that it is very difficult to know who can address their homelessness without assistance.

Chronic homelessness: A fundamental tenet of US homelessness policy is its definition of chronic homelessness, requiring at least 12 months of homelessness, consecutively or episodically, to qualify for long term housing assistance. Staff discussants questioned this tenet, wondering why highly vulnerable people needed to extend their homelessness to gain long term assistance meeting their needs.

This discussion of the staff perspective lays the final groundwork for a discussion of conclusions. Chapter 7 will summarize the overall findings of this wide-ranging case study of one homelessness A&A system and provide conclusions and recommendations for future research and system design.

Chapter 7

Conclusions, Policy Implications, and Future Research

Conclusions

Research Summary

Over the last twenty years, US policy for addressing homelessness has been influenced by scholarly theory and research into the causes of homelessness, characteristics of homeless people, and effective remediation strategies. Research and theoretical analysis by Culhane and other scholars led to policies that categorize homeless people by patterns and causes of homelessness, degree of individual vulnerability, and prospects for self-sufficiency, prescribing certain policy responses for certain types of homeless people (Culhane and Metraux 2008; Culhane et al. 2007). Chapter 1 discussed the impact of this research on developing policies and systems for assessing and assigning homeless people to housing programs. This strain of scholarly work emerged concurrently with an ongoing debate over the theoretical causes of homelessness, (discussed in Chapter 2) that juxtaposed structural economic causes, weak support systems, the effects of social exclusion, individual vulnerabilities, and life shocks, without clear theoretical grounds for connecting theory with program strategy (Shinn 2007; Pleace 2000; 2016; Shinn 1997; O'Flaherty 2010). A pathways framework for researching homelessness arose out of what Pleace (2016) called an ongoing conceptual mess of vague and conflicting theories about the causes of homelessness. The pathways framework acknowledged the multi-faceted and complex nature of homelessness, proposing that homeless individuals experience a variety of different pathways into homelessness, possibly producing a set of ideal types (Fitzpatrick 2005; Clapham 2003; 2002; 2005; McNaughton Nicholls 2009). To date, no consensus around these ideal types has emerged.

Also, concurrent with the ongoing theoretical debate, two major types of homeless housing programs developed in the context of the 'housing first' movement. As discussed in Chapter 2, researchers developed the idea that, no matter the severity of individual vulnerabilities, all homeless people were ready for immediate housing in normalized tenancies, albeit some with supportive services, without spending time becoming ready for housing in congregate shelters or transitional housing (Tsemberis 2010; Culhane and Metraux 2008). The housing first principle became broadly applied to all US homeless housing programs as they evolved to include a combination of rental assistance and supportive services designed to transition people from homelessness and help them maintain their housing. The permanent supportive housing model (PSH) was developed for chronically homeless people whose homelessness seemed to be highly influenced by individual vulnerabilities (health problems, addictions, disabilities) and provided unlimited rental assistance with intensive services (Henwood et al. 2013). The Great Recession added a second housing program model for persons whose homelessness theoretically originated from life shocks, especially job loss and financial crisis, providing time-limited rental assistance and lighter supportive services, later known as Rapid Re-Housing (RRH) (Cunningham, Gillespie, and Anderson 2015). RRH programs were intended to be offered quickly, minimizing time literally homeless.

Responding to emerging homelessness theory, scholarly research, and evolving program models, US policy, failing to fully fund programs to cover all persons experiencing homelessness, embraced the idea that expert assessment using standardized tools could be used to assign (A&A systems) homeless people with the greatest need to the most intensive programs. Those not served were expected to regain housing on their own, based on observations that most people only use shelter services briefly and then disappear from administrative view (Culhane et

al. 2007; Kyle 2005; Shinn and Khadduri 2020; Dickson-Gomez et al. 2020; Rice et al. 2018; HUD 2013a). Structured questionnaires emerged, first out of research on mortality and homelessness, to identify people more likely to die without assistance (Hwang et al. 1997). These tools (Vulnerability Index-Service Prioritization Decision Assistance Tool) were adapted to ration limited housing resources to those with the greatest need (PSH), and were further adapted and employed to identify people with lesser individual vulnerability who might emerge from homelessness with more limited assistance, assuming that those with a lower vulnerability score would also be more likely to achieve self-sufficiency with limited housing assistance (RRH) (OrgCode Consulting Inc. and Community Solutions 2015). The author suggested that changing federal policy resulted in different regimes of A&A systems over time, each varying in the degree of agency discretion over assignments with increasingly centralized decision making and automation of assignment decisions, with regime models proposed in Chapter 1. Most recently, research (discussed in Chapter 2) has questioned the validity and reliability of widely used expert assessment tools with scholars asserting that, without a coherent and defensible theory of homelessness, faulty tools should not be used to make high stakes program eligibility decisions (M. Brown and Cummings 2018; B. T. King 2018; O'Flaherty 2019; Fritsch et al. 2017; Levitt 2015; National Academies of Sciences, Engineering, and Medicine (US) 2018).

To understand how the evolution of assessment and assignment (A&A) systems have affected homeless housing program participation in a real-world setting, the author developed a series of research questions and data sources (fully described in Chapter 3 and its appendix with results described in Chapters 4 through 6):

- Regime Target Accuracy and Reliability (Chapter 4): How do RRH and PSH housing program assignments differ under different regimes of A&A? Do systems with less

agency discretion and more automation increase the proportion of participants matching system targeting? Primary Data Source: Quantitative case and aggregate administrative data analysis

- Regime Structure and Design (Chapter 4): How do changes in A&A systems compare with system and program goals and underlying theoretical frameworks? Primary Data Source: Archival and scholarly research
- Automated Regime Participant Characteristics (Chapter 5): What are the homelessness pathways and characteristics of participants in RRH and PSH in an A&A system characterized by weak agency discretion and strong automation? Primary Data Source: Semi-structured housing program participant interviews
- Policy Implications of Regime Change (under decreasing agency discretion and increasing automation) (Chapter 6): What are the implications of findings for system design, program targeting, and program demand? Primary Data Source: Staff focus groups

The author used a case study approach to bring together different types of information to address research questions, creating a rich picture of the impact of changing A&A systems over time in the TX-601 Continuum of Care. Chapter 3 described the selected TX-601 case in terms of its homelessness, demographic, and community characteristics in comparison with other US regions, making a case for bounded generalization of findings.

This research contributes to multiple strands of scholarship and theory development on the problem of homelessness. First, the author proposed and tested a theoretical typology of contributing factors to homelessness using a pathways framework, based on current understandings of the causes of homelessness, building on the work of Chamberlain and Johnson

(2011), Fitzpatrick et al. (2011), Anderson (2001), and McNaughton (2008). This typology was used to assess theoretical frameworks and criteria underlying housing programs and A&A systems (Chapter 4) as well as to analyze the homelessness experiences of more recent program participants, seeking evidence for common pathways and their interaction with housing program models (Chapter 5). The author further contributes to the debate over the theoretical causes and of homelessness by proposing a pathways typology including structure and personal agency, offering a practical research approach and insight into how agency, structure, life shocks, support systems, exclusion, and individual vulnerability contribute to homelessness, applying the critical realist approach suggested by Fitzpatrick (2005). Second, this research contributes to scholarly understanding of the use of A&A systems to determine eligibility, especially by interrogating embedded criteria and their relationships to housing programs and A&A results in both administrative data and personal experiences (Chapters 4 and 5). This work links to researchers (a) testing validity and reliability of A&A tools (M. Brown and Cummings 2018; Cronley et al. 2013; Fritsch et al. 2017; B. T. King 2018; Rice et al. 2018; Bowie and Lawson 2018; Edes and Bowman 2018), (b) breaking down underlying A&A conceptual frameworks around vulnerability (Luna 2009; Keay and Kirby 2018), and (c) investigating the impact of the use of A&A systems to determine eligibility (Corinth 2017; Srebnik et al. 2017). The author finds a situation similar to Pleace's (2016) 'conceptual mess' in theory underlying A&A systems as they simultaneously seek to ration limited housing resources and assign people to programs that will meet their needs. Third, this research contributes to critical analysis of homelessness policy and systems by revealing the workings and implications of A&A systems for who gets housing assistance in terms of socially constructed identities and values about who is deserving of assistance (Cronley et al. 2013; Kyle 2005; Osborne 2019). Finally, this research responds to the

policy debate furthered by Culhane and Metraux (2008) about the allocation of housing assistance based on characteristics of homeless experiences and homeless people in a real-world implementation of suggested policies. Regimes of assessment have evolved to primarily serve the purpose of providing a schema for rationing a very limited menu of assistance whose availability and characteristics do not reflect the level of actual need, especially for long-term assistance. The following sections summarize the author's conclusions around each research question.

How Do Housing Program Assignments Differ Under Different A&A Regimes?

A&A regimes in TX-601 differed by (1) the level of staff discretion over participant assignments to housing programs and (2) the degree of automated assignment using structured questionnaires and resulting scores, consistent with the author's model described more fully in Chapter 1. Centralized assignments and weaker agency discretion began in 2014-15 producing the greatest effect on participant characteristics. Stronger automation of assignment based on assessment scores coincided with changes in participant characteristics in 2017-18 (Chapter 4). According to staff focus groups and documentary evidence, the most significant changes occurred in 2014-15 when the CoC required central coordination of all referrals, effectively "closing the back door" to direct enrollment in any agency's program, and combatting the tendency of case workers to preferentially admit clients who had fewer barriers to housing self-sufficiency (Spence-Almaguer et al. 2014; Shinn and Khadduri 2020). Implementation in 2017 of a more automated approach to centralized assessment and assignment, based on a widely used questionnaire (VI-SPDAT), intensified results. Regimes characterized by weaker staff discretion and stronger automation coincided with changes in program participant characteristics in both

RRH and PSH programs in 2014-16 (weak staff discretion, weak automation) and 2017-19 (weak staff discretion, strong automation).

The author assessed changes in participant characteristics between regimes by analyzing changes in (1) the number of participants meeting a particular criterion, (2) the proportion of people assigned to a housing program who met that criterion, and (3) how changes in housing program participants compared with the larger population of homeless people in emergency shelter within the same period. Many changes in participant characteristics at assignment, as measured by changes in administrative data (Chapter 4), were in the direction prescribed by published policies for selected target populations and an emphasis on prioritizing people with greater vulnerability, but not always. Table 51 summarizes changes in number of participants and proportions of program participants in prioritized populations with assessed vulnerability characteristics. Where subgroups were prioritized, there were increases in the number of participants served from the regime of weak (2014-16) to strong (2017-19) automation: in PSH, veterans increased 145% and chronically homeless 41%; in RRH, veterans increased 14%, youth 106%, children 41%. However, in RRH where they were not a priority, the number of chronically homeless persons assigned also increased by 36%, nearly as much as in PSH. Based on discussions with system coordinators, this effect could have been influenced by TX-601's adoption of HUD's dynamic prioritization policy at the beginning of 2019 (discussed in Chapter 3) assigning the most vulnerable people with the greatest chronicity to any available housing resource when PSH program openings were not available (Crites-Herren 2020; White and Watt 2017). However, staff focus groups and participant interviews indicated that people with greater vulnerability who might have met PSH criteria were being assigned to RRH prior to this policy change.

Table 51. Summary of housing program participant changes from 2014-16 regime to 2017-19 regime for priority populations and selected vulnerability criteria

	Change from 2014-16 to 2017-19			
	% increase in participants		percentage point change in proportion	
Target populations and criteria				
Housing Program	PSH	RRH	PSH	RRH
Priority populations				
Veterans	145%	14%	15%	-4%
Youth	-24%	106%	-0.2%	2%
Children	-21%	41%	-5%	3%
Chronically Homeless	41%	36%	9%	0%
Vulnerability criteria				
Age 55+	54%	21%	12%	-1%
Unsheltered	54%	44%	4%	3%
Veterans chronically homeless	108%	26%	-2%	1%
Domestic violence	77%	105%	4%	9%
No income	-3%	12%	-5%	-6%
Income $501-1000	-6%	52%	-6%	4%
1+ health conditions	2%	63%	-3%	8%

Source: Author's analysis of Annual Performance Report data provided by TX-601

The number of persons served with characteristics considered in vulnerability assessments also increased in both PSH and RRH with greater increases in PSH for: persons age 55 and older (PSH 54%, RRH 21%), persons who were living in places not meant for human habitation prior to housing (PSH 54%, RRH 44%), and veterans who were chronically homeless (PSH 108%, RRH 26%). However, in RRH, the number of persons increased with no income (12%), income between $500 and $1,000 (52%, indicative of disability income), and one or more health conditions (63%).

Table 52 presents a profile of PSH participants at the time of assessment and program entry in both regimes. More than 50% of participants entering the program in both regimes were black and age 45 or older with a wide variety of other characteristics. During the regime of strong automation, the proportion of participants who were veterans increased from 12% (under weak automation) to 27% and those who met eligibility requirements for chronic homelessness increased from 28% to 37%. The proportion with characteristics of vulnerability also increased

modestly for chronic health conditions (six percentage points), three or more health conditions, persons living in a place not meant for human habitation prior to housing, and those with a domestic violence history (by four percentage points each).

Table 52. Characteristics of PSH participants at program entry by assessment and assignment regime

Characteristics at program entry	PSH 2014-16	PSH 2017-19	PSH Change	ES 2014-16	ES 2017-19	ES Change
Veterans	12%	27%	15%	9%	8%	-1%
Chronically Homeless	28%	37%	9%	NA	NA	NA
Age 45+	**55%**	**62%**	7%	40%	41%	1%
Chronic health problems	21%	27%	6%	19%	23%	4%
3+ health conditions	23%	27%	4%	11%	14%	3%
Unsheltered while homeless	13%	17%	4%	NA	NA	NA
Domestic violence history	8%	12%	4%	11%	14%	3%
Mental health problems	47%	47%	0%	24%	27%	3%
Physical disability	16%	16%	0%	15%	18%	3%
Black	**55%**	**54%**	-1%	46%	45%	-1%
No health conditions	18%	13%	-5%	24%	23%	-1%
No income	35%	30%	-5%	46%	73%	27%
Children	17%	12%	-5%	11%	8%	-3%
Emergency shelter while homeless	42%	33%	-9%	NA	NA	NA

Source: Author's analysis of Annual Performance Report data provided by TX-601

Comparisons with the emergency shelter population can only serve as a weak and partial proxy for the universe of homeless people given data collection challenges and the fact that participants enter housing programs from a variety of prior housing situations (discussed in Chapter 4 and the Methodology Appendix). However, for some characteristics, assessments under strong automation appear to preferentially select those they intend to select, particularly veterans, older adults, people with mental health problems and people with multiple health conditions, where proportions are higher in PSH than in emergency shelter (ES).

Table 53 presents a profile of participants in RRH programs during each regime. The majority of RRH participants were also black (increasing from 62% to 64% of RRH participants) but came to RRH from emergency shelters (increasing from 54% to 62%).

Table 53. Characteristics of RRH participants at program entry by assessment and assignment regime

Characteristics at program entry	RRH 2014-16	RRH 2017-19	RRH Change	ES 2014-16	ES 2017-19	ES Change
Domestic violence history	16%	25%	9%	11%	14%	3%
Mental health problems	20%	29%	9%	24%	27%	3%
No health conditions	46%	**54%**	8%	24%	23%	-1%
Emergency shelter while homeless	**54%**	**62%**	8%	NA	NA	NA
Physical disability	21%	25%	4%	15%	18%	3%
Children	37%	40%	3%	11%	8%	-3%
Unsheltered while homeless	25%	28%	3%	NA	NA	NA
3+ health conditions	9%	12%	3%	11%	14%	3%
Chronic health problems	17%	20%	3%	19%	23%	4%
Black	**62%**	**64%**	2%	46%	45%	-1%
Chronically Homeless	8%	8%	0%	NA	NA	NA
Age 45+	28%	25%	-3%	40%	41%	1%
Veterans	26%	22%	-4%	9%	8%	-1%
No income	43%	37%	-6%	46%	73%	27%

Source: Author's analysis of Annual Performance Report data provided by TX-601

The proportion served with no health conditions increased from 46% to 54% under strong automation. However, the proportion with characteristics indicating greater individual vulnerability also increased, including histories of domestic violence and mental health problems (nine percentage points each), physical disabilities (four percentage points), unsheltered (living in places not meant for human habitation), three or more health conditions, and chronic health problems (three percentage points each). The proportions of persons age 45 and older decreased by three percentage points, and those with no income decreased by six percentage points indicating a slight reduction in vulnerability characteristics. Although a priority population, the proportion of veterans decreased from 26% to 22%. Compared with emergency shelter participant characteristics, RRH participants under strong automation appear to be preferentially assigned for domestic violence histories (25% RRH, 14% ES), no health conditions (54% RRH, 23% ES), physical disabilities (RRH 25%, 18% ES), children (40% RRH, 8% ES), and veterans (22% RRH, 8% ES).

In general, these changes in participants are consistent with assessment and assignment goals, but most represent modest changes from the regime of weak to strong automation. Further

exploration indicates that administrative data requires disaggregation and finer analysis of actual policy implementation to understand what is going on. For example, while increasing substantially, the proportion of PSH participants who met the primary criterion of chronic homelessness increased to only 37% of active clients in 2017-19, underscoring the difficulty of changing outcomes in a program with unlimited tenure and limited turnover, and using highly aggregated data, consistent with Corinth's (2017) findings in a national study. However, when missing data and populations who entered programs under different A&A protocols were removed, the proportion of participants in PSH who met criteria for chronic homelessness increased to well over 60% (discussed more fully in Chapter 4). Staff and administrative data confirmed a change toward more intensive client needs in both RRH and PSH beginning in 2014-15 and intensifying in 2017-19, also reflective, however, of increasing health problems and characteristics of vulnerability in ES participants. In summary, participant changes from a regime of weak automation to strong automation were in the intended direction of greater vulnerability and preferentially selected members of targeted populations.

How do A&A Regime Changes Compare with Program Goals and Underlying Theory?

While changes in A&A systems may be influencing program participation in the direction of HUD system goals and criteria, these criteria, goals, and resulting participant characteristics may or may not be consistent with program models and underlying theories of homelessness. Table 54 summarizes the basic differences between RRH and PSH housing program models, more fully characterized in Chapter 2. PSH programs are intended for people with histories of chronic homelessness and disabilities. RRH programs were designed for people who are homeless due to a life shock, usually economic, but who can return to self-sufficiency with limited assistance.

Table 54. Summary of characteristics of RRH and PSH programs.

Program characteristics	RRH	PSH
Primary target populations	Veterans, families with children, youth	Chronically homeless
Time homeless	Rapid re-housing to prevent trauma	At least 12 months documented literally homeless
Pathways to homelessness	Life shock, primarily economic	Individual vulnerabilities, at least one disability
Rental Assistance	Time-limited	Long-term
Services	Some housing and employment assistance	Intensive to address disabilities and retain housing
Expected outcomes	Housing self-sufficiency	Housing retention with ongoing assistance

Source: Author's summary from literature and documentary review (Tarrant County Homeless Coalition 2018; Cunningham, Gillespie, and Anderson 2015; HUD 2016a; Rog et al. 2014)

A critical analysis of these program characteristics reveals inherent tensions. First, RRH programs appear to be targeted toward subgroups that might be termed the deserving homeless: veterans, families with children, and unaccompanied youth, who may be considered more important to society's functioning and future or inherently more vulnerable (Osborne 2019; Cronley 2010; Kyle 2005). Luna (2009) argued that the practice of permanently labeling particular subgroups as vulnerable fails to account for individual differences and different types of vulnerability, suggesting rather, that the concept is relational and situational, similar to the pathways framework's suggestion that there is no one set of conditions leading to homelessness. Staff discussants in focus groups (discussed in Chapter 6) argued that current A&A systems systematically and inappropriately excluded single women and black males, subgroups that also suffer from unique vulnerabilities and barriers to housing. The practice of targeting demographic subpopulations for RRH assumes that these homeless subpopulations are not only more likely to have "an identifiably increased likelihood of incurring additional or greater wrong" than other subpopulations if not quickly housed, as in Hurst's (2008, 195) definition of vulnerability, but that they are, at the same time, more capable of reaching housing self-sufficiency with only limited assistance. Assessments that simultaneously select for demographic subpopulations and greater vulnerability are further confounded by King's (2018) finding that the vulnerability

assessment tool used (VI-SPDAT) does not produce comparable results across important demographics (race, ethnicity, gender, length of homelessness, and chronic homeless status).

Second, while the harmful effects of homelessness are debated in scholarly research (O'Flaherty 2019; Deck and Platt 2015; Goodman, Saxe, and Harvey 1991; Herbers et al. 2014; Scutella and Johnson 2018), assessment systems and homeless housing program models suggest that we should shorten homelessness only for those in certain subgroups (veterans, households with children, unaccompanied youth) with lower individual vulnerabilities whose homelessness is attributable to an economic life shock[28] and are expected to achieve self-sufficiency in a relatively short time (RRH), while people whose homelessness is based more on individual vulnerabilities such as mental and physical illnesses and disabilities, with poor prospects for self-sufficiency, should demonstrate a need for long-term assistance by remaining homeless for at least 12 months (PSH). This view may be reflected in O'Flaherty's work using contract theory to identify when homeless people should gain access to rental assistance (O'Flaherty, Scutella, and Tseng 2018; O'Flaherty 2009b). O'Flaherty, addressing both moral hazard and individual characteristics, suggested that homeless people better able to obtain housing (good searchers) should be given assistance quickly (as in unemployment insurance models) while people with little capacity to obtain housing on their own should be required to wait a certain period before receiving assistance. O'Flaherty's analysis is theoretically complex and primarily based on costs and benefits to candidates and shelter operators. He also acknowledged the challenges in distinguishing good housing searchers from bad. However, this approach was certainly not what

[28] This research found that all interview subjects attributed their homelessness at least in part to a life shock but when asked what had the greatest impact on their becoming homeless, only 27% of PSH participants and 19% of RRH participants credited a life shock (Chapter 5).

Culhane and Metraux (2008) had in mind when they recommended that homeless persons with the greatest need be assigned to the most intensive (and expensive) programs. A close reading of their work reveals that they were primarily concerned with shortening time spent literally homeless and in congregate shelters or transitional housing, moving all homeless people quickly to permanent housing in normal tenancies. They further acknowledged that shelter stays typically understated total time spent homeless due to difficulty documenting unsheltered and unstable housing situations.

A careful analysis of the component criteria of A&A systems indicates that they are primarily based on an individual vulnerability theory of homelessness which has been highly critiqued and superseded by theories incorporating structural and other contributing factors (discussed in Chapters 2 and 4). Both priority subpopulations and the criteria used in assessment instruments are focused on a unitary model of individual vulnerability based on summing a total load of vulnerability characteristics. A unitary concept of vulnerability is highly contested with its theoretical basis primarily discussed in literature on research, health care, and policing, not in the homelessness literature (Keay and Kirby 2018; Wrigley 2015; Hurst 2008; Luna 2009). Wrigley (2015) argued for the elimination of vulnerability as a substantive concept except for informal discussion purposes because of continuing contentions over its definition, its failure to meaningfully contribute theoretical explanatory power, and because conceptualizations are too broadly inclusive. He contended that the concept of vulnerability is not needed because its role is already fulfilled by more particular concepts. Scholarly research defining the concept of vulnerability in relation to homelessness and its utility in determining housing assistance eligibility for homeless people is sorely lacking (B. T. King 2018). A&A systems and program models that, instead of individual vulnerability, recognize the role of life shocks, structure, and

social exclusion in homelessness, would look more like social insurance programs (unemployment and disability income) providing a safety net for the highly individualized effects of life shocks and the impact of competitive labor and housing markets (Dawkins 2021; Curtis et al. 2013; O'Flaherty 2010).

Chapter 4 used component criteria found in A&A protocols to compare changes in A&A regimes with underlying program designs and theories of homelessness. Table 55 compares participant changes in PSH and RRH by A&A regime for selected underlying assessment criteria.

Table 55. Summary of changes in proportions of participants with characteristics assessed in A&A systems

Characteristics at program entry	PSH 2014-16	PSH 2017-19	PSH Change	RRH 2014-16	RRH 2017-19	RRH Change
Priority subgroups						
Veterans	12%	27%	15%	26%	22%	-4%
Children	17%	12%	-5%	37%	40%	3%
Youth	0.7%	0.5%	-0.2%	3%	5%	2%
Chronically Homeless	28%	37%	9%	8%	8%	0%
Vulnerability						
Age 45+	**55%**	**62%**	7%	28%	25%	-3%
Unsheltered while homeless	13%	17%	4%	25%	28%	3%
3+ health conditions	23%	27%	4%	9%	12%	3%
Emergency shelter while homeless	42%	33%	-9%	**54%**	**62%**	8%
Domestic violence history	8%	12%	4%	16%	25%	9%
No income	35%	30%	-5%	43%	37%	-6%
Chronic health problems	21%	27%	6%	17%	20%	3%
Mental health problems	47%	47%	0%	20%	29%	9%
Physical disability	16%	16%	0%	21%	25%	4%
No health conditions	18%	13%	-5%	46%	**54%**	8%
Race: Black	**55%**	**54%**	-1%	**62%**	**64%**	2%

Source: Author's analysis of Annual Performance Report data provided by TX-601

Participant characteristics vary widely in both programs with few criteria characterizing more than 50% of the participants. Most indicators of vulnerability are characteristic of far less than half of participants in housing programs, reflective of the pathways framework's contention that experiences of homelessness are highly diverse.

In most cases, changes in participant characteristics coinciding with the change to strong automation can be explained by underlying theory about who might have an increased likelihood of suffering more harm by remaining homeless, have more difficulty achieving housing self-sufficiency, or who represents a socially valued demographic. PSH programs increased the proportion of veterans (15 points), older adults (seven points), chronically homeless (nine points), and those with chronic health conditions (six points). The proportions of participants entering from emergency shelters (increasing nine points) is debatably not considered a characteristic adding to vulnerability (discussed more fully in Chapter 4). RRH programs decreased the proportion of persons with no income (six points) and increased the proportion with no health conditions (eight points) consistent with preferring persons with greater chances for self-sufficiency but not with greater vulnerability. However, the proportion with no income at program entry (37%) in RRH was still greater than the proportion with no income in PSH (30%), contrary to a model emphasizing quick self-sufficiency. RRH programs also increased in the proportion believed to be more vulnerable due to mental health conditions and domestic violence histories (nine points each). These changes, especially those in RRH, reveal the challenges of simultaneously triaging the supposed most vulnerable and selecting those with the greatest chances for self-sufficiency, both measured on the same unitary scale with one score. Further, vulnerability assessment criteria embed stereotypes about the vulnerability of people with disabilities such as mental illness and chronic health problems, whose conditions may or may not impact capacity for economic self-sufficiency or predict continued homelessness, especially when provided with rental assistance (Shinn and Khadduri 2020; Shinn 1997; Greer et al. 2016; Gubits et al. 2016).

Change in military veterans' housing program participation is an example of the sometimes countervailing and complicated participant changes coincident with A&A regime change and changing program rules (more fully discussed in Chapter 4). The greatest single shift under strong automation was the increased presence of military veterans in PSH (15 percentage points), a prominent federal priority supported by VA and HUD funding (Evans et al. 2019). Some of this was driven by increases in available program beds. PSH beds for veterans increased in TX-601 by 24% from 2014-16 to 2017-19 compared with only a 2% increase in all PSH beds (HUD 2020f). Beds dedicated to veterans increased their proportion of all PSH beds from 19% to 23% from 2014-16 to 2017-19. However, these program beds come with different eligibility requirements. To participate in the HUD Veterans Affairs Supportive Housing (VASH) program, veterans must have a severe mental illness, substance used disorder, or physical disability, but are not prioritized through the TX-601 A&A system and did not have to meet criteria for length of homelessness[29], except when demand for beds exceeds supply (Hogg 2021b; Evans et al. 2019; Monet 2020). This meant that far more literally homeless veterans with disabilities could be served in PSH without having to demonstrate 12 months of homelessness. Most striking is the high percentage of veterans who did not meet PSH eligibility requirements and priorities for chronic homelessness in both regimes, increasing from 82% to 85%. The number of veterans in PSH who did not meet criteria for chronic homelessness increased (154%). Simultaneously, veterans increased in characteristics of vulnerability in both programs without meeting criteria for chronic homelessness, most probably length of homelessness, calling

[29] Veterans in HUDVASH programs are included in administrative Homeless Management Information Systems required by HUD even though they may not enter the program through the community's A&A system.

Table 56 shows selected characteristics of veterans in both programs and regimes. Most striking is the high percentage of veterans who did not meet PSH eligibility requirements and priorities for chronic homelessness in both regimes, increasing from 82% to 85%. The number of veterans in PSH who did not meet criteria for chronic homelessness increased (154%). Simultaneously, veterans increased in characteristics of vulnerability in both programs without meeting criteria for chronic homelessness, most probably length of homelessness, calling

Table 56. Characteristics of veterans entering PSH and RRH programs during two regimes of assessment and assignment

Veterans Characteristics at entry	PSH 2014-16	PSH 2017-99	PSH Change	RRH 2014-16	RRH 2017-19	RRH Change
Mental health problems	25%	29%	4%	27%	42%	**15%**
Chronic health conditions	33%	37%	4%	13%	18%	5%
Not chronically homeless	**82%**	**85%**	**3%**	**90%**	**89%**	**-1%**
Physical disabilities	15%	18%	3%	41%	39%	-2%

Source: Author's analysis of Annual Performance Report data Questions 25a, 25e provided by TX-601

into question the assumed covariance of vulnerability with a criterion for 12 months of homelessness. The proportion of veterans in PSH with mental health conditions increased from 25% to 29% and with chronic health conditions from 33% to 37%. The proportions of veterans entering RRH also increased in mental (15 percentage points) and chronic (five percentage points) health conditions, even more so than in PSH. Nearly half of veterans (47%) served in RRH under strong automation had mental health conditions compared with only 29% in PSH. Staff discussants reported increasing vulnerability and barriers to housing among veterans served, saying that they were exhausting the veteran homeless population and now serving "the worst of the worst". Evans et al. (2019), focusing only on veterans, found that increasing HUDVASH (PSH) units decreased veteran homelessness at a one-to-one ratio, while Corinth, et al. (2017) using national HUD data for all PSH programs found a much smaller effect. So, program criteria that increased availability of long-term rental assistance with fewer

preconditions for length of homelessness appeared to have had a greater impact on reducing homelessness.

A&A priorities for placing the most vulnerable in housing appear to compete theoretically with preferences for subpopulations. A&A theory assumes that families are best served quickly to avoid trauma to vulnerable children, directing them to RRH programs. However, the model also assumes that families generally do not require long term rental assistance, only available in PSH. The proportion of children in RRH increased very little (37% to 40%) from weak to strong automation, possibly because the proportion of children in emergency shelter declined. And although staff discussants said that single adults were systematically excluded from housing programs by system priorities, the proportion of households participating in RRH without children increased under strong automation by six percentage points to become 56% of RRH households, where families with children were a priority. This might indicate that the preference for families in RRH was overcome by preferences for any household with greater vulnerability, particularly when PSH units were limited, with more vulnerable individuals crowding families out of RRH. Staff discussants indicated that families in housing programs were increasing in their vulnerability, number of children per family, and barriers to housing and self-sufficiency, consistent with automated decisions favoring greater vulnerability. This further indicates the complexity of factoring vulnerability, length of time homeless, and membership in valued subgroups against length of rental assistance and level of services.

The author analyzed administrative data relating to criteria for vulnerability found in automated assessment tools (Chapter 2), including age, living unsheltered while homeless, chronic homelessness, history of domestic violence, no income, disabling conditions, health

problems, and substance abuse. Table 57 spotlights vulnerability characteristics of participants in both programs who met criteria for chronic homelessness, a priority only for PSH.

Table 57. Characteristics of chronically homeless participants in RRH and PSH programs by A&A regime

Chronically homeless participants	PSH	PSH	PSH	RRH	RRH	RRH
Characteristics of vulnerability	2014-16	2017-19	Change	2014-16	2017-19	Change
Supplemental Security Income	32%	27%	-5%	13%	21%	8%
Mental health problems	**63%**	**69%**	**6%**	**56%**	**64%**	**8%**
Physical disability	38%	44%	6%	42%	43%	1%
Chronic health conditions	41%	47%	6%	46%	43%	-3%

Source: Author's analysis of Annual Performance Report data provided by TX-601, Questions 26e, 26g

Proportions of participants with assessed vulnerability characteristics increased in both programs but with the greatest increases in RRH. The proportion of chronically homeless persons with mental health conditions and those receiving Supplemental Security Income (for persons who are disabled but have insufficient work history for Social Security Disability Income) increased by eight percentage points in RRH under strong automation.

The following global conclusions, observations, and possible explanations follow from the detailed discussion in Chapter 4 comparing each subpopulation and each vulnerability characteristic with program and homelessness theory and research:

- No program model provides for quick access to long-term rental assistance for persons who are homeless, have high vulnerabilities and few prospects for housing self-sufficiency, except for veterans in HUDVASH programs. Long term rental assistance is available only after at least 12 months of documented homelessness even in regimes that prioritize vulnerability.
- Some highly vulnerable populations (unaccompanied youth and persons with drug and alcohol problems) may be underrepresented in housing programs, even though prioritized

in A&A systems and housing first program models, possibly due to the difficulty of engaging and serving these populations.

- Theoretically, assessment tools and housing program models do not adequately consider some experiences or characteristics that contribute to trauma and vulnerability or reflect structural barriers to self-sufficiency, including time spent in congregate shelters or transitional housing, employment barriers to those over age 40, and no history of living wage employment. The disproportionate presence of black people in homelessness and their disproportionate assignment to RRH indicate the operation of structural barriers to housing self-sufficiency (Olivet et al. 2018).
- Overall, increased RRH participation for persons with increased levels of individual vulnerability under strong automation does not fit the underlying program model. Participant interviews revealed the substantial challenges in RRH for people with significant health problems, histories of trauma, and weak personal support systems. Further, assessments do not inquire into participant histories of employment, earned income, or housing self-sufficiency, focusing instead on characteristics of individual vulnerability at a point in time.
- The presence of people meeting criteria for chronic homelessness in RRH indicates a significant mismatch with the underlying program model. Administrative data also indicated that, chronically homeless people in RRH and PSH have similar levels of vulnerability (mental health problems, chronic health conditions, physical disabilities, and lack of income). Strong automation affected these characteristics very little, but increased vulnerability characteristics in both programs. Theoretically, people are assigned to PSH based on severity of need, while people are assigned to RRH based on

an expectation of ability to achieve self-sufficiency, but both constructs, under current practice, are expected to be predicted by the same assessment scale measuring only vulnerability.

- RRH program models also do not meet the needs of families with children with increased levels of vulnerability, especially those with heads of household or children with disabilities. Time limits for rental assistance are insufficient to achieve stability in the face of structural barriers such as low wage work, high housing costs, or no access to affordable childcare or health care, as revealed in participant interviews (Chapter 5) and other research (Gubits et al. 2016; Shinn 1997; Shinn and Khadduri 2020). While the proportion of RRH participants with Supplemental Security Income increased under strong automation, SSI is not sufficient to pay rent. SSI may be a component of long-term self-sufficiency but only with other assistance.

Finally, theories of homelessness are not sufficiently developed to predict who may or may not emerge from homelessness either with time-limited assistance, a finding from staff focus groups (Chapter 6). A&A systems as implemented are designed to ration insufficient amounts of assistance to those who are most in need while simultaneously predicting who can become self-sufficient with limited assistance. Even as they recommended better matching of needs to resources, Culhane and Metraux (2008) acknowledged that this strategy would not overcome gaps between wages and housing costs and that more housing assistance was needed than was being allocated.

How do Participant Characteristics Relate to Program Targeting using a Pathways Framework?

The author used a pathways framework (discussed in Chapter 2) to compare participant characteristics to system selection criteria and housing program models. The author's typology,

built around contributing factors to homelessness found in the scholarly literature (described in Chapters 2 and 3), explicitly included structural factors, agency, life shocks, support system failure, individual vulnerabilities, and experiences of exclusion, revealing characteristics of homeless people and communities not captured by assessment systems. Table 58 displays pathways into homelessness for 31 subjects interviewed from TX-601 housing programs. Pathways were very similar between PSH and RRH participants with individual vulnerabilities somewhat more prominent in PSH pathways and structural factors slightly more prominent in RRH pathways. More than 60% of participants in both programs reported that life shocks, weak support systems, individual vulnerabilities, and structural barriers (low wages, high housing costs) contributed to their becoming homeless.

Table 58. Contributing factors to homelessness by program for interview subjects

PSH Pathway			RRH Pathway		
Contributing Factor (CF)	% Subjects Identifying CF	% Subjects by Greatest Impact	Contributing Factor (CF)	% Subjects Identifying CF	% Subjects by Greatest Impact
Life Shock	100%	27%	Life Shock	100%	19%
Support System	93%	20%	Support System	81%	**31%**
Individual vulnerability	93%	**53%**	Structure	75%	19%
Structure	60%	0%	Individual Vulnerability	63%	19%
Agency	53%	13%	Agency	44%	6%
Exclusion	7%	0%	Exclusion	25%	6%

Interview subjects assigned to each program were also very similar in characteristics of vulnerability measured by assessments. Table 59 shows that similar proportions of participants in both programs experienced broken relationships (support systems and life shocks) and physical health problems or a disabling health problem in a family member (individual vulnerabilities). While all subjects attributed their homelessness to a life shock, those shocks more often included trauma and abuse for PSH participants.

Table 59. Vulnerability characteristics of interview subjects by program

Vulnerability factor	PSH	RRH
Homeless 1 year or more	100%	38%
Mental health problem	87%	50%
Homelessness precipitated by broken relationship	73%	69%
Physical health problem	53%	50%
Homelessness caused by trauma, abuse	40%	13%
Unsheltered while homeless (street/car)	33%	56%
Family member disabling health problem	13%	25%
Age 60+ (current)	7%	1%
Substance use disorder	7%	6%
No disabling health issues	0%	44%

Individual interviews (discussed more fully in Chapter 5) revealed that, not only had participants experienced unique combinations of life shocks, dysfunctional support systems, and individual vulnerabilities, but almost all individuals shared long work histories in low wage jobs and described an indirect relationship between health conditions and their inability to sustain housing. This confirms previous research finding that, while health problems are not a direct cause of homelessness, they affect homelessness by limiting ability to earn income (Shinn and Khadduri 2020; Shinn et al. 2007). Most subjects were clear that individual vulnerabilities did not directly contribute to their homelessness, but only through their effect on ability to earn sufficient income to afford housing.

Qualitative Comparative Analysis of participant interview data, a set theoretic technique discussed in Chapters 2 and 3, found that PSH subjects shared a more consistent pathway into homelessness, including longer periods of homelessness, life shocks, individual vulnerabilities, and inadequate support systems. These findings are consistent with PSH models prioritizing chronically homeless people with disabilities and greater vulnerability. RRH pathways were more varied, with high consistency only for life shocks, also consistent with a program model targeting situationally homeless people with fewer vulnerabilities who could emerge from homelessness with limited assistance. However, the pathways typology revealed two caveats:

56% of RRH participants interviewed had individual vulnerabilities preventing them from earning income and 75% identified structural factors (persistently low wage work, unaffordable childcare and housing) contributing to their homelessness. These caveats, especially in combination, do not respond quickly to remediation by time-limited rental subsidies. Many RRH subjects worried that they would never be able to earn enough in the jobs available to them to support their families. RRH subjects appeared to be split between (a) those who attributed their homelessness primarily to individual vulnerabilities and life shocks, who also had significant disabilities and hoped to gain or were receiving disability income and (b) those who attributed their homelessness to structural barriers (low wages, high housing costs) or failed support systems and were focused on work or education. Both groups faced challenges to self-sufficiency either from disability benefits or jobs that did not provide enough income to afford market rate housing.

Further, interviews revealed that RRH and PSH participants were largely receiving the same array of services, individualized based-on need, with PSH participants reporting slightly more consistent case management visits. Participants reported that these services were, for the most part, welcome and essential. A further blurring of the differences in the two programs came from reports by some PSH participants that they were not sure that their rental assistance was stable, although the program was designed to provide long-term, unlimited rental assistance. Half of RRH participants interviewed doubted their ability to achieve stable housing at program end.

Finally, experiences of exclusion and stigmatization in the homeless pathways of black subjects require some emphasis. RRH subjects were 75% nonwhite while 47% of PSH subjects were nonwhite. White and nonwhite pathways varied within each program type in ways that reflected possible systemic racial disparities. While 58% of nonwhite RRH participants had

disabilities or chronic illnesses, only 17% were receiving disability income, while all white RRH participants with disabilities or chronic illnesses were receiving disability income. Nonwhite subjects were also more likely to have children in both PSH (71%) and RRH (58%). Nonwhite subjects in both programs were more likely to report weak support systems (100% PSH and 83% RRH). These findings are consistent with Olivet et al. (2018) that black people in homeless housing programs are disproportionately assigned to RRH and that their social networks are weak in economic capital (O'Flaherty 2019). Black subjects reported experiences of overt racism and discrimination leading to housing loss due to incarceration and source of income discrimination. Olivet et al. (2018) found that RRH programs are inadequate to address the structural and individual factors in black homelessness, setting up the potential for a revolving door of returns to homelessness.

In summary, RRH and PSH participant pathways to homelessness and housing program experiences were more similar than different with RRH participants divided between those with health problems and disabilities contributing to homelessness, more like PSH participants, and a subset who were economically disadvantaged, black, single mothers. All RRH participants faced many barriers to self-sufficiency.

What are the implications for system design, program targeting, and program demand?

TX-601 A&A regimes evolved toward reduced agency discretion over program assignments and increased automation around assessment scores coinciding with an increase in severity of mental and physical health problems, increasing age, and greater barriers to housing, but no corresponding changes in housing programs, straining resources and creating inconsistencies with program models. While these changes may have in part been a representation of changes in the population of people becoming homeless, they are indeed in the direction of A&A system

criteria. Without changes in A&A criteria, programs need to change if they are to match the characteristics of the participants entering them. Staff focus groups generated the following program challenges:

- Increased severity of participant needs in PSH have strained the skills, knowledge and resources of case managers indicating a need for lower caseloads, staff training and support, and more resources for special health needs, especially mental health care.
- Emergence of a significant population of older adults with no family support, diminished cognitive capacity, and significant health problems who require greater supervision indicates the need for different programs or access to resources that fill the gaps between PSH, assisted living, and skilled nursing home care, especially for those who do not have access to long term care programs.
- The increasing number of people who are older, with disabilities, including parenting grandparents, with few prospects for increasing income, but who do not need intensive case management, indicates the need for a pathway to a program of long-term rental assistance only, as in the Housing Choice Voucher program.
- Increasing numbers of participants with significant mental and physical health problems, disabilities, criminal backgrounds, history of evictions, and no prospects for increasing income, who also may have difficulty documenting periods of literal homelessness or have been homeless less than 12 months but whose conditions are severe and deteriorating, indicates the need for a program that provides access to long-term rental assistance with supportive services without meeting HUD's minimum criteria for chronicity.

- Barriers to accessing housing programs for people whose homelessness is largely unsheltered with great instability indicates the need for more outreach systems that extend beyond emergency shelter systems. Highly vulnerable people with substantial health problems struggle to document their homelessness and navigate A&A systems, often due to these vulnerabilities. As a result, they may fail to qualify for long term housing assistance offered by PSH. Staff discussants reported the difficulties of documenting chronicity outside of emergency shelter and participants found that they had to enter emergency shelter in order to access housing assistance.
- Given an increased emphasis on housing people with greater health problems and longer homelessness, RRH resources are being increasingly consumed by participants who need long term rental subsidies and greater assistance, leaving little room for those for whom the program was designed, indicating the need for more PSH funding, other pathways to long-term rental assistance, or more one-time assistance for those who have just become homeless, are homeless for the first time, and have a history of independent tenancy and income sufficient to support the cost of housing.
- More participants with criminal backgrounds, evictions, and experiences of exclusion based on race or income source indicate greater needs for fair housing interventions and enforcement.

All of the preceding observations and implications for program change underscore the reality that US homelessness response systems are largely isolated from other mainstream social welfare programs (Culhane and Metraux 2008; Farrugia and Gerrard 2016). PSH and RRH programs do not automatically include a package of childcare assistance, Medicaid eligibility, nutrition assistance, disability income supports, and access to housing resources, such as the

Housing Choice Voucher (HCV) program controlled by public housing authorities. A primary job of case managers is to research and help homeless clients navigate each of these separate systems, but these systems have long waiting lists or are closed to clients based on their characteristics. For example, while more than 800 literally homeless persons were listed in the TX-601 Coordinated Assessment System waiting for housing assistance, the local public housing authority (FWHS) opened its waiting list to the public for the Housing Choice Voucher (HCV) program for the first time in three years (Sullivan 2021; Hogg 2021a). A place on the HCV waiting list will be offered to 5,000 persons with incomes at or below 50% of area median income without the need to demonstrate housing loss or instability. Applicants will be drawn by lottery from the tens of thousands expected to apply. There is no pathway from the TX-601 list of literally homeless people to this resource, even though research shows that long-term rental assistance, regardless of individual characteristics, is the only certain method for ending homelessness (Gubits et al. 2016; Shinn and Khadduri 2020). Staff discussants said that the current two housing options, PSH and RRH, were insufficient to address the diversity of situations presented by homeless applicants, calling for additional options and greater flexibility.

Perspectives from staff members and participants also shed doubt on the role of current vulnerability assessment protocols in assigning persons to housing programs. Staff members said that the timing of assessments failed to accurately assess severity of need, with mental health barriers to self-sufficiency often emerging after months of case management. This may indicate that the design of assessments understates severity of need for some people, producing low scores, or simply the lack of sufficient space in PSH programs. For example, regarding verifiable health conditions, King (2018) found poor sensitivity in the VI-SPDAT assessment tool indicating that persons under-reported actual health conditions. Staff discussants indicated that

underlying health problems were often not picked up in initial assessments but took months to manifest themselves. The author's attempts to approximate VI-SPDAT scores based on subject interviews produced scores below those required to qualify for a housing assignment. Further, program participants did not perceive that severity of need was considered in assignments to programs. Program participants did not know how they were selected for programs and observed that people with shorter time in shelters were housed ahead of others with longer homelessness.

Staff focus groups and participant interviews revealed beliefs about who should be assisted, listed in Table 60, that fundamentally differ from A&A system and housing program principles that are based on the idea that the greatest social benefit comes from serving those with the most difficulty sustaining housing, whatever the reason. Both program participants and staff espoused beliefs that emphasized merit rather than need for housing assistance, while at the same time acknowledging the increasing barriers to housing, both individual and structural, faced by people who are extremely low income, have health problems, have no support systems, and may face discrimination based on multiple factors.

Table 60. Beliefs about who should be served by homeless housing programs

Belief systems in conflict
Money is better spent on deserving poor who can improve
Only the deserving poor deserve help (not drug addicted, criminal backgrounds, unemployed, etc.)
Women with children and veterans deserve help, not men and individuals
No one deserves long-term assistance - all should become housing self-sufficient
Only the very old and very ill deserve long-term help
Housing programs should be able to select the people they think will be successful in their programs
All participants should exhibit motivation to achieve self-sufficiency
Consequences (loss of assistance) should be available to motivate participants to make progress toward self-sufficiency

In summary, program models and resources have not evolved in synchrony with A&A systems pointing to a need for additional resources and program options that more flexibly respond to the complex diversity of homeless people's needs. A&A systems, while bringing more people with more severe problems into housing programs, lack face validity, transparency,

and logical connection to program models for both staff and participants calling for a reassessment of A&A system goals and purposes.

Policy Implications

When Culhane and Metraux (2008) set the federal government on a path to move homeless people quickly into normal housing tenancies, avoid long shelter stays, and reallocate the most expensive housing interventions to homeless people with the greatest vulnerability and chronicity, the proposal was based on assumptions that (1) even chronically homeless people with severe behavioral health conditions could end their homelessness with long term rental assistance and supportive services (PSH) and (2) vulnerability assessments could identify those most in need of PSH (Padgett, Henwood, and Tsemberis 2016; Hwang et al. 1998). Centralized assessment and assignment systems were developed and expanded to prioritize homeless people for all housing assistance, including (a) no or one-time assistance, (b) RRH for persons with the ability to achieve housing self-sufficiency with a limited course of rental assistance and services, and (c) PSH for persons with disabilities who have been homeless at least 12 months and need long term rental assistance with intensive supportive services. This project found that increasingly centralized and automated A&A systems were gradually implemented and enforced resulting in housing people with greater vulnerability and more barriers to housing self-sufficiency without parallel changes in program options. These changes have implications for policy development addressing both A&A systems and housing programs for homeless people.

Assessment and assignment systems

A&A systems conflate many factors while attempting to serve competing goals. A&A systems for homeless people are currently used to (a) determine eligibility for housing programs,

(b) ration limited program opportunities, and (c) assign homeless people to packages of assistance that are assumed to best end their homelessness, all with one set of criteria combining (a) membership in some sub-population, (b) length of homelessness, and (c) vulnerability. Constructs underlying A&A systems have been poorly examined and weakly defined. For example, A&A systems use unitary vulnerability assessments to meet HUD's goal to identify homeless people who could "be able to independently sustain themselves, with or without a subsidy, after a short period of time" (Burt et al. 2016, xi; OrgCode Consulting Inc. and Community Solutions 2015). Assessments assume that high vulnerability equates to low ability to achieve self-sufficiency and low vulnerability equates to high ability to achieve self-sufficiency. Individual interviews revealed that reality is much more complicated and that people with lower levels of assessed vulnerability can still face strong barriers to self-sufficiency from social and economic structure (unaffordable housing, childcare) and patterns of exclusion (race, source of income, criminal backgrounds), while some with significant disabilities can achieve self-sufficiency with ongoing economic assistance alone. Further, eligibility requirements for length of homelessness do not necessarily covary with characteristics of vulnerability. Some people with shorter periods of homelessness can have severe barriers to housing stability. For example, people with limited capacity to earn income or who have significant health problems may have been stably housed all their lives with a parent. When the parent dies, they may become homeless with high vulnerability but still wait long periods of time for housing assistance. HUD's arbitrary criterion of 12 months of documented homelessness for access to long term rental assistance is dysfunctional and cruel.

Current assessment systems lack transparency. Interviews (Chapter 5) revealed that housing program participants could not say how or by what criteria they had been selected for their

housing program. They often learned about housing programs by chance and not from staff. They learned, over time and largely by word of mouth, that they needed to gain documented time homeless by using shelters, but beyond that, many said that they could not see a rationale in who got housing and when. Instead, they attributed their selection to luck or, especially for RRH participants, their own agency, by being persistent and following rules. Further, they did not understand why they had to wait so long for housing, increasing their trauma both inside and outside of shelters. Staff focus groups and the author's own attempts to score subjects, indicated a lack of confidence in the ability of assessment tools to accurately assess vulnerability and less so, to predict who might be most successful in which program. In the face of flawed assignments, positive program outcomes could reflect the fact that all people who have experienced significant levels of homelessness are helped by rental assistance and case management. None of the subjects interviewed in this study were on a path to economic self-sufficiency without rental assistance (subsidies, rent controls, family assistance, or ongoing income supports), even those who were employed and employable.

A&A systems need to untangle and make explicit the constructs of vulnerability, self-sufficiency, and length of homelessness and reconsider their use in making eligibility decisions. A&A systems go to great lengths to evaluate individual vulnerability and prioritize those most vulnerable even as we have learned that people become homeless in diverse patterns, but all these patterns include life shocks and inability to acquire adequate income in order to afford market rate housing, with most homelessness occurring in households with incomes well below the poverty rate. It could be particularly helpful to disentangle the use of assessment for eligibility and for determination of service needs. A simple system that prioritized persons based on length of homelessness (sheltered, unsheltered, unstably housed) and income history would

serve the neediest first and have greater face validity. Assessment of program needs could be delayed to a second step, allowing for sufficient time to understand individual situations, beginning with one-time assistance and adding a customized package of rental assistance and supportive services as needed based on individual situations and pathways into homelessness.

Homelessness A&A systems did not evolve with a coherent relationship to evolving homelessness theory, program models, and system goals. It's time to completely reassess their utility and, as King (2019) suggests, consider building new tools from scratch. Assessment tools without strong validity and reliability evidence should not be used to select people for important benefits on which the course of their lives may rely. Further, tools should not be used to answer questions for which they have not been validated. Tools must be validated for specific uses. For example, a tool that may show utility for assessing who may die if not housed, may not be good at determining who can be successful with time-limited rental assistance. Further, tools that may contribute to disproportionate assignment of persons by race (whites in PSH and blacks in RRH) should not be used until any possibility of racial bias has been eliminated. Communities are rethinking their use of tools like the VI-SPDAT, including incorporating more administrative data (hospital, jail, court, etc.) to determine who to serve with which strategies (Sylla et al. 2017; Srebnik et al. 2017; King County 2020). Finally, assessment systems should be designed with expected results and resource limitations in mind. If assessment systems are designed to select the most vulnerable, and if that vulnerability comes with high service needs, communities must design a complete system that is prepared to handle a preponderance of high-needs clients, including staff training and resources. This study showed that a more automated A&A regime with less agency discretion over assignments coincided with an increase in participants with greater service needs. The much bigger question is whether such systems add value over simply

serving those who have been homeless the longest first with the rental assistance and flexible level of services indicated by their unique needs.

Rapid Re-Housing and Permanent Supportive Housing Programs

Today, PSH and RRH remain essentially the only two accessible housing models in homelessness response systems. Funding for these programs was never based on an assessment of how many homeless people needed what kind of assistance (HUD 2020a; Kyle 2005). Limited by HUD funding and rules, PSH and RRH have become the only two housing solutions offered to homeless people who cannot self-resolve their homelessness or return to housing with one-time assistance. Dividing the population into who will benefit from just these two program options creates the unintended consequence of cycling some people repeatedly through programs that fail to meet their needs or provide some people more assistance than needed. While assessment and assignment systems were more likely to place people with greater periods of homelessness and more individual vulnerabilities in housing programs, this does not mean that they placed people within the housing programs most suited to their needs or where they might be most successful or even at the least cost. With staff discussants, interview subjects, and other researchers, this author calls for a rethinking of the current binary approach to homeless housing programs with more flexibility and innovation in program designs, including access to rental subsidies alone and expedited access to mainstream benefit programs. TX-601 is currently engaged in a process to create a 'bridge housing' protocol specifically because some RRH participants do not fit the housing program model to which they have been assigned and will not be housing self-sufficient at the end of time-limited rental assistance (Crites-Herren 2021). However, this approach is constrained by HUD's criterion for PSH requiring 12 months of documented homelessness and by long waiting lists for access to rental subsidies available

through public housing authorities. To meet HUD criteria for chronicity, chronicity requirements must be met prior to entry into RRH. The need for bridge programs underscores the inadequacy of current A&A regimes to place people into the right programs based on a single point in time assessment in combination with inadequate and inflexible housing programs.

Housing program participants said that the most important feature to incorporate into an ideal housing program is listening and believing what clients tell you about themselves, their needs, abilities, and desires. Both staff and participants said that people were forced into "take it or leave it" situations faced with a program option, property, or neighborhood in which they did not believe they could be successful and without the opportunity to consider other options. This author, with other researchers, calls for program models in which participants can exercise real choice, because people know themselves, their situations, and what will make them successful better than any case worker ever could, especially from an initial interview-based assessment at one point in time (O'Flaherty, Scutella, and Tseng 2018; Tsemberis, Gulcur, and Nakae 2004). Further, choice will always be limited unless fair housing policy is expanded to prohibit discrimination for past evictions, criminal backgrounds, and source of income. If the tenant can pay the rent, they should have a right to be housed.

Finally, with Shinn and Khadduri (2020), the author calls for much greater investment in and access to rental assistance and mainstream welfare benefits as the most cost-effective method to end homelessness. Most subjects said they would not have become homeless if they had enough money to pay the rent. The reasons they found themselves without funds were varied. All experienced life shocks that might have been resolved with a rental insurance program designed to help people working in the lowest paying jobs. However, access to the federal Housing Choice Voucher program, providing rental assistance alone, is available only

through a separate system with its own waiting lists and very limited preferences for people who are literally or imminently homeless (Hinson 2017; Shinn and Khadduri 2020). More severe life shocks and ongoing health conditions could have been addressed by strengthening programs to provide affordable access to health care and disability insurance income (Shinn and Khadduri 2020). For the most part, participants interviewed spoke highly of their case managers and their assistance connecting them to resources and providing encouragement. But most of these participants had been homeless for a long time, resulting not only in their loss of things, but a loss of their ability to function in a complicated and fragmented environment without support. Quicker access to normal housing with rental subsidies and disability income would have avoided much trauma and decreased their need for case management services. Further, adequate access to rental subsidies reduces the need to rely on questionable assessment tools primarily used as a rationing strategy. Rental subsidies should be widely available and well-targeted to extremely low-income homeless people, without preconditions for length of homelessness, providing quick access for people who are sheltered, unsheltered, or living in unstable housing situations. Supportive services should be provided only if residents are not able to sustain housing with rental subsidies alone.

The author found significant divergence of opinion among staff members in their understanding and beliefs about fundamental program goals, principles, values, and the role of staff in supporting clients. Participants, while generally very positive about many case managers, described a substantial level of unevenness in performance between case managers. Many staff members expressed frustration that participants were complacent and lacked motivation while at the same time expressing concern about increased levels of disabilities and other barriers to self-sufficiency. Some expressed serious doubt about the value of working with people with limited

prospects for economic independence. Work should be done at the system level to continuously develop clear, common, understandings about the role of the case manager, client choice, fair housing, definitions of self-sufficiency, the housing first model, dynamic prioritization, and community values about who is deserving of help.

Research Limitations

The challenges of studying new policies and programs in the real world create research limitations, particularly regarding generalizability, and especially in decentralized programs with implementation devolved to the local community. In practice, researchers find variation in program implementation, variable definitions, and definitions of key program elements such as 'case management', 'housing first', and measures of housing success, making comparisons difficult (Boland et al. 2018; de Vet et al. 2013; Vanderplasschen et al. 2007; Gilmer et al. 2014b; O'Campo et al. 2015). Variation exists between CoCs and between programs that are nominally the same type, despite HUD's efforts to establish common measurement systems and definitions (Brown, Klebek, et al. 2018). CoCs across the country vary in their implementation approaches, level of sophistication, and the quality of their HMIS data. This study included detailed information about the selected case, its characteristics, and community context to aide comparisons and identify limitations for generalization of results.

In addition, homelessness program interventions and systems change continuously as HUD requirements change and communities implement different programs and policies on different schedules. While the author attempted to identify distinct regimes of coordinated assessment, major and minor changes continued to be made, without official documentation, within these regimes and time periods. For example, the shift to dynamic prioritization made at the beginning of 2019 may have influenced results but was not widely recognized, documented only in

conversations and emails between the author and TCHC staff. CESs are continuously changing at the local level making conclusions time dependent (McGhee 2020). TX-601 will imminently implement yet another set of changes to its CES, largely to increase outreach and decrease time from program assignment to housing. This study attempted to be explicit about such changes, when discovered, but acknowledges that such changes make it difficult to associate any one change with particular results. The study rather provided a wholistic view of the combined effects of multiple and in some cases, unknowable, changes in practice.

The author used aggregate HUD APR data to understand program and system results. While such data is important, indeed, critical for understanding how public policy works, individual level data would have provided greater opportunity to tie individual assessments to individual assignments and program outcomes. However, by policy, TX-601 does not yet permit the use of individual level data, however de-identified, for research. In addition, the author was limited to normally produced APRs due to the lack of personal data access and TCHC staff time to support production of other data sets. VI-SPDAT results are not included in the same databases with HUD Assessment data, inhibiting the opportunity to access this data for research, even at the aggregate level. HMIS datasets are cumbersome and challenging to work with.

HMIS data quality varies by staff skill levels, training, and rigor of data entry and supervision, despite HUD attempts to increase data quality monitoring and requirements (O'Flaherty 2019; O'Brien 2008; Hogg 2019). APRs include data quality metrics that lend visibility to data quality problems (HUD 2019h). HMIS data over time is also subject to changes in HUD and local CoC program metrics and definitions. The author included HUD data quality metrics where available and relevant to identify APR questions with significant levels of missing data. The author used available aggregate data to identify potential overlap (clients appearing in

more than one report, discussed in detail in the Appendix), but this effort was again limited by the lack of access to individual level data. Using logical assumptions to examine the aggregate data, the author found little evidence of overlap between PSH and RRH data and significant overlap with ES, a primary source of participants for housing programs. APR data was not subjected to tests of statistical significance to examine differences in proportions. The author did not want to imply that the data was more rigorous than it was, given the inherent messiness of APR data, and the unusual way in which the reports were created, crossing multiple years. The author did not highlight differences of only a few percentage points, instead using the APRs to identify only substantial differences and trends. Finally, staff discussions and the author's own attempts to derive vulnerability assessment information comparable to that captured in the VI-SPDAT revealed that VI-SPDAT results are not intuitive, obvious, or transparent, consistent with studies showing limited reliability (Brown, Cummings, et al. 2018). The author used substantial judgment in drawing comparisons between APR and VI-SPDAT questions, attempting to provide enough transparency for the reader to appropriately consider the findings.

While the sample size for qualitative interviews was sufficient to generate a rich array of information, numbers of participants in subgroups may not have been sufficient to achieve data saturation for every subgroup by program. Table 61 shows subgroups exceeding minimum benchmarks for data saturation by program type (Guest, Bunce, and Johnson 2006). Data saturation should not be confused with generalizability and statistical significance. The sample of interview participants varied slightly from the demographics found in the 2017-19 APRs, but all groups were well-represented. The author erred on the side of including more data in the report, even though they may have been minority reports, in the interest of revealing as much information as possible from the interviews. It should also be noted that recruiting was

accomplished with significant engagement from case managers and most of the RRH subjects came from only two, albeit very prominent, organizations. Case managers certainly influenced who participated in the study, although not all participants reported positive experiences with their programs.

Table 61. Subgroups of interview participants exceeding minimum benchmarks for data saturation

Sub-groups	Total	PSH	RRH
Program type	31	15	16
Entry 2016-18	16	8	8
Entry 2019-20	15	7	8
Female	22	10	12
Non-white	19	7	12
Age 40 and older	23	12	11
Single mothers	13	7	6
Single adults	15	6	9
1+ years homeless	22	15	7
Mental health condition	20	13	7
Disability or chronic illness	25	15	10
Not employed	17	10	7

Finally, it is important to note that the author worked alone to analyze qualitative data. The process of coding subject comments and assigning them to categories can be highly subjective. While the author immersed herself in the interview recordings and the research literature on which *a priori* theoretical categories were based and tested her assessment against the subject's own assessment of the greatest impact on homelessness, it is possible that a multiple coder research design might produce different results in the analysis of homelessness pathways.

Future Research

This research opens the door to many different directions for future research into the role of A&A systems and the program responses to which they lead. The *a priori* typology based on literature into the causes of homelessness proved to be a useful tool for analyzing homelessness in a pathways framework. This framework effectively combined structure, agency, support

systems, individual vulnerabilities, exclusion, and life shocks into a coherent fabric illuminating some of the ways that these factors interact to produce homelessness. Future projects could continue experimenting with this theoretical model and interview method to gain insights into causes and solutions for homelessness. The model could be subjected to both qualitative and quantitative methods using multiple raters to refine the definitions of each category of contributing factor. Further experimentation with Qualitative Comparative Analysis, a set-theoretic approach, could reveal typical pathways through the six contributing factors.

Policy and program analysis and research are needed to craft new and more flexible approaches to meeting needs for housing assistance. This work should go beyond current binary program options divided between unlimited and time-limited housing assistance (both with supportive services) to address contributing factors including life shocks and structural problems including low wage careers and unaffordable housing. Research should also further explore this report's finding that supportive services vary little between RRH and PSH programs and consider programs that provide access to rental assistance only or with occasional assistance with referrals to community-based resources. Research should continue to examine and challenge the tools used to assess people for eligibility and assignment to housing programs. This research should be coupled with policy analysis into the purpose of assessments, interrogating concepts such as vulnerability and need.

Summary

This project investigated the impact of evolving regimes for assessing and assigning homeless people to housing assistance programs (RRH and PSH). Changing regimes were characterized by decreasing staff discretion over assignments and increasing automation around assessment scores. Administrative data was used to assess whether participant characteristics

changed and how (Chapter 4). Housing program staff members were consulted to understand what changed under different regimes (detailed in Chapter 6). Individual participants were interviewed to understand the experience of being the object of these systems and to get greater insight into how scholarly homelessness theory related to participant pathways into homelessness for each housing program (Chapter 5). The following summarizes results for each research question:

How do RRH and PSH housing program assignments differ under different regimes of A&A?

Participants changed in the direction of system priorities and targets with increased characteristics of vulnerability and increased participation by veterans and people meeting the definition of chronic homelessness. Reduced staff discretion over assignments had the greatest effect on changing participant characteristics. Multiple factors could have also influenced this effect, including greater automation of decision-making around assessment scores, policy changes to assign the most vulnerable to the first available opening in any program, and increases in the vulnerability characteristics of the larger homeless population.

How do changes in A&A systems compare with system and program goals and theory?

An increasing proportion of participants with theoretically greater vulnerabilities and lower capacity for self-sufficiency did not fit the program model (RRH) to which they were assigned. While PSH clients showed higher rates of vulnerabilities than RRH clients, consistent with program targets, both groups increased in their intensity of needs and barriers to housing, blurring differences between the two programs. Staff said that current assessment tools, used at program entry, were not adequate to identify all client issues and generate consistently appropriate program placement.

What are the homelessness pathways of participants assigned under the current A&A regime?

All housing program participants interviewed had experienced life shocks contributing to their homelessness while majorities also credited individual vulnerabilities, weak support systems, and structural barriers. RRH participants were slightly more likely to credit structural contributing factors and PSH participants were slightly more likely to credit individual vulnerabilities. Almost all participants interviewed had work histories confined to low wage occupations, earning incomes from zero to the federal poverty threshold and insufficient earnings to support housing without subsidies or other support. RRH participants were more diverse in their pathways than PSH participants, divided between a group with pathways very similar to PSH participants and another group largely consisting of work-oriented black, single mothers crediting structural barriers, weak support systems, and social exclusion with their homelessness.

What are implications of findings for system design, program targeting, and program demand?

Assessment systems should be redesigned around the purposes they are intended to serve using well-validated tools and administrative data to eliminate disparate impact and increase equity and transparency for all stakeholders. This study demonstrated that A&A regimes with less agency discretion and greater automation can move participant profiles in the direction of system goals. However, this study also revealed tensions among system priorities, goals, and models as well as contradictions between system principles and the views of agency staff and participants concerning who deserves help and how public funds should be best used. Policy analysis initiatives at local and national levels using decision-theoretic techniques considering latent and manifest stakeholder goals could be especially helpful to reorient, validate, and get greater stakeholder investment in goals for assessment systems and programs (Dunn 2012). Assessment criteria for eligibility should be simplified while psycho-social assessments should

be used by trained social workers to create individualized and flexible service plans. Further, eligibility criteria should not pose barriers to long-term assistance for people who are literally homeless and may have serious health problems. HUD should reconsider its policies requiring at least 12 months of documented, literal homelessness for eligibility for long-term rental assistance (PSH). Further, households who will not be successful in resolving their homelessness with time-limited programs (RRH), who have vulnerabilities and barriers to sustainable housing not revealed in initial assessments, should be given priority consideration for long term rental assistance. Assessments for eligibility should also recognize the salience of structural barriers to sustainable housing by considering income and housing histories.

HUD funding for homelessness prevention, emergency assistance, and housing programs should change to reflect the realities of the populations requiring assistance while connecting homelessness assistance to the larger system of US welfare benefits. More than 5,000 people entered the TX-601 homelessness response system in fiscal year 2020 and this number was arguably depressed by fears created by the current pandemic (TX-601 CoC 2020). Of those entering in 2020, 2,771 homeless households were assessed and assigned to a waiting list for housing assistance (Hogg 2021c). More than 800 literally homeless people are currently waiting to be assigned to a housing program in TX-601 and this number misses many unsheltered people (Hogg 2021a). This study revealed that housing program participants have increased in the severity of their problems indicating a need to increase and rebalance the ratios of funding for limited (RRH) and long-term assistance (PSH). Two pre-packaged housing programs (RRH and PSH) are inadequate to address the diversity of needs and capacities of people who become homeless as well as the ubiquity of lifetimes of low wage work and unaffordable housing. Federal housing programs for RRH and PSH should become more flexible by uncoupling rental

assistance and supportive services, allowing for more individualized prescriptions ranging from one-time to long-term rental assistance and one-time to long-term supportive services. Increased problem severity in an aging population indicates a need for stronger connections to a wider range of long-term care strategies (Medicaid) for homeless people with significant health problems. Homeless housing assistance should always be accompanied by automatic and expedited access to other federal and state welfare benefits including childcare assistance, healthcare, disability and other income and employment assistance.

This project, conducted during the 2020 coronavirus pandemic, found that, of housing program participants interviewed who were employed or actively seeking employment (about half of participants interviewed), many had lost their jobs or were having more difficulty finding work, and all were continuing to work in the low wage occupations that prevented them from achieving self-sufficiency and accumulating savings to protect against future life shocks. The current pandemic is especially serious for low income non-white households who, for many reasons, have failed to accumulate sufficient liquid assets to weather life shocks, all disproportionately represented in the homeless population (Chun et al. 2020). The National Alliance to End Homelessness, an advocacy group, has partnered with the Center on Budget and Policy Priorities, the National Innovation Service, the National Health Care for the Homeless Council, the National Low Income Housing Coalition, and the Urban Institute to propose a framework of priority uses for federal pandemic and HUD funding for assisting new and presently homeless people with an emphasis on equity (National Alliance to End Homelessness 2020). For its part, the Urban Institute has recommended first targeting funding to prevent homelessness toward neighborhoods meeting commonly identified structural risk criteria for homelessness, including high poverty, high percentage of households who are renters, severely

cost-burdened and over-crowded households, high unemployment, adults without health insurance, high rates of jobs lost due to the pandemic, high percentages of non-white residents and extremely low income renters, higher rates of people receiving public assistance, and higher rates of people born outside the US (Peiffer 2020; Alexander-Eitzman, Pollio, and North 2013). In addition to the Coronavirus Aid, Relief, and Economic Security (CARES) act for businesses, workers, and families, and the Coronavirus Relief Fund (CRF) helping governments, the federal response to homelessness during the pandemic has been to emphasize the variety of funding sources for housing, emergency assistance, and welfare benefits, and to authorize waivers and increased flexibility for the use of funding (USICH 2020; US Treasury Dept. 2021a; 2021b). The pandemic has brought into relief the structural nature of contributing factors to homelessness and housing instability, especially in its impact on people of color. Minorities have been disproportionately affected by pandemic-related unemployment (Couch, Fairlie, and Xu 2020). This project found that a life shock was the only ubiquitous factor in individual pathways to homelessness, emphasizing the need for federal housing policy addressing housing instability as a persistent characteristic of the modern US economy, most particularly for people in the lowest wage occupations, and especially for those with health problems and disabilities further depressing incomes. But this project also found great strength and resilience among those interviewed, with indications that, even given histories of trauma and ongoing health problems, they could have maintained housing stability given rental assistance. Dawkins (2021) proposes implementing a need-based guaranteed monthly housing allowance to address structural deficits driving housing unaffordability and homelessness, while other scholars maintain that

homelessness could be substantially decreased with housing assistance resembling insurance responding to life shocks (Curtis et al. 2013; O'Flaherty 2009a).

Appendix

Methodology and Data

Annual Performance Reports and Data Sets

APRs consist of 69 tables featuring 27 questions and sub-questions[30]. To create a report, the user selects a period, defined by start and end dates, and a project or set of projects. Each project is associated with only one project type (RRH, PSH, Emergency Shelter (ES)) and one provider organization (HUD 2019k). APR programming logic selects data only for the most recent project for each unduplicated person served during the selected time, even if the person participated in the project more than once or in more than one project during the reporting period. This research used six APR data sets defined by the time periods 2014-2016 and 2017-2019[31] for three project types: Emergency Shelter/Safe Haven (ES)[32], RRH, and PSH (Table 62).

[30] Detailed descriptions of APR questions were obtained from documents on the HUD Exchange website (HUD 2019j).

[31] Data was provided by TCHC and its operations director, Anthony Hogg. Each report lists the projects, providers, and dates requested under APR question 4 (CSV files available on request). However, the report for PSH projects in 2017-19 lists the start date as 10/12/2017 instead of 1/1/2017. The researcher identified the discrepancy, and the report was rerun with the same result. Mr. Hogg believes the report includes all data beginning 1/1/2017 but cannot explain why it continues to note 10/12/17 as the start date. Analysis was conducted assuming the report is correct, but it should be noted that the report may be flawed.

[32] TX-601 has one Safe Haven, which is included in the ES APR but only accounts for 20 beds. Safe Haven is a HUD program category that provides congregate housing for persons with severe mental illness with unlimited tenure (US Departments of HHS and HUD 1997). This program should not be confused with Tarrant County's primary domestic violence shelter, Safehaven.

Table 62. Annual Performance Report data sets created for the project

APRs	Project Type		
Time Period	ES	RRH	PSH
2014-16	APR-1	APR-2	APR-3
2017-19	APR-4	APR-5	APR-6

Source: Dates and project types for Annual Performance Report data sets created by Tarrant County Homeless Coalition

To prepare the reports requested for this research, the TX-601 TCHC operations director created a list of current projects for each project type. Twenty-two organizations provided the 62 selected projects, including 14 ES, 16 RRH, and 32 PSH projects. Each APR included data for only those participants active in these projects during each period. Data sets for both time periods include the same projects[33]. Examining the same projects in each period showed the effect of different selection regimes while holding projects and providers constant. Table 63 displays characteristics of the projects used in this research, by project type. There are twice as many PSH projects as RRH and ES projects in the APRs. Of the 22 organizations represented, six provide only one project (10% of all projects) while the remaining 16 organizations provide from two to 12 projects each. At least three quarters of the projects have been in operation in both periods

[33] Data for projects that existed in 2014-16 but no longer exist in 2017-2019 are not included in either time period. A small number of included projects (five or fewer) may not have had participants in 2014-16 or may have been created late in the 2017-19 period.

(2014-16 and 2017-19), with at least 50% of the projects (32) showing evidence of receiving funding in 2014 or before.[34]

Table 63. Characteristics of projects included in APR data by program type[35]

Project type	ES	RRH	PSH	Total
Projects (#)	14	16	32	62
Organizations (#)	7	11	12	22
Projects operating in both time periods	12	12	26	84%
Projects with Special Population Restrictions (#)				
Families	3	5	2	45%
Single adults	6	4	11	34%
Fort Worth residents	0	3	5	13%
Arlington residents	0	1	4	8%
Women	2	1	0	5%
Men	1	0	0	2%
Youth	1	1	0	3%
Veterans	1	2	3	10%
Unsheltered homeless	0	0	3	5%
HIV/AIDS	0	1	3	6%
Serious mental illness	1	0	2	5%
Substance use disorder	1	0	2	5%
Mental health disorder	0	1	1	3%
Dual diagnosis (MH/SUD)	1	0	1	3%
High hospital emergency utilizers	0	0	2	3%
Survivor intimate partner violence	0	1	0	2%
First pregnancy	0	1	0	2%

[34] It can be difficult to track funding over time for these projects as they change names, combine, expand, or become recoded into a different project type while remaining essentially the same. Detailed project information gathered, including organization and project names, dates of funding, and population restrictions, are available from the author (HUD 2020e; Texas HHS 2020; TDHCA 2020; VA 2020; HUD 2020i; TDHCA, TX Dept of Agriculture, and TX Dept. of State Health Services 2013; City of Arlington 2008; TX-601 CoC 2019; TCHC 2020c; Samaritan House 2020; Presbyterian Night Shelter 2020; ACH Child and Family Services 2020; AIDS Outreach Center 2020; Center for Transforming Lives 2020; DRC Solutions 2020; 2019; FWHS 2020; US Departments of HHS and HUD 1997; Spence-Almaguer et al. 2014; The Saint Jude Retreats 2018; North Texas CF Staff 2020; Marshall 2015).

[35] The number of projects operating in both time periods is based on a conservative review of HUD Housing Inventory Count data (HUD 2020g). However, HUD funding reports and other sources indicate that most of these programs have been in operation much longer than six years (HUD 2020e). The Appendix includes a master list of all projects and organizations included in the APR data.

Most of the projects (52) are restricted to clients with one or more characteristics based on geography (Fort Worth or Arlington residents), household composition (family or single adults), gender (male or female), domestic violence history, housing while homeless (unsheltered), age (youth), health problems (mental illness, substance use disorder, high utilization of hospital emergency services, HIV/AIDS), or military veteran status. A small number of projects (3%-16%) are restricted in most categories, except for projects restricted to families (45%) and to single adults (34%), creating significant diversity among projects. A master list of all projects included in APR data can be found in the Appendix including provider organization, project type, population restrictions, dates of data, year initially funded, and housing Inventory Count (beds) for each period.

The APR data used for this research does not represent all of the projects included in HUD's Housing Inventory Count (HIC) of the number of beds in the TX-601 CoC (HUD 2020g). The HIC documents total available beds, whether filled or vacant, at one point in time in the CoC. Table 64 displays the total HIC for each project type by year alongside the number of beds covered by the projects included in the APR data. APR data covers approximately half the total ES beds, three-quarters of the RRH beds, and almost all of the PSH beds.

Table 64. HUD Housing Inventory Count (beds) for projects included in APR data by project type as a percent of total HUD HIC for TX-601

Year	HIC ES/SH	APR ES/SH	APR/ HIC	HIC RRH	APR RRH	APR/ HIC	HIC PSH	APR PSH	APR/ HIC
2014	1,458	744	51%	159	59	37%	1,666	1,074	64%
2015	1,524	805	53%	772	569	74%	1,777	1,601	90%
2016	1,542	795	52%	799	662	83%	1,737	1,655	95%
Avg	1,508	781	52%	577	430	75%	1,727	1,443	84%
2017	1,684	920	55%	686	492	72%	1,756	1,663	95%
2018	1,872	893	48%	802	599	75%	1,771	1,678	95%
2019	1,640	907	55%	849	703	83%	1,741	1,681	97%
Avg	1,732	907	52%	779	598	77%	1,756	1,674	95%

Source: Point In Time and Housing Inventory Count data since 2007 (HUD 2020g)

The largest projects excluded from the APR ES data are Union Gospel Mission (UGM) (366 beds), Safehaven domestic violence shelter (169 beds), overflow and inclement weather projects (118 beds), and the Presbyterian Night Shelter (PNS) family shelter (122 beds). APRs are not required for projects that receive no CoC funding, for domestic violence shelters (due to safety and privacy concerns), and for seasonal beds, explaining the omission of UGM, Safehaven, Room in the Inn, and Fort Worth and Arlington overflow projects. It is not clear why the PNS family shelter (122 beds) was omitted. Safehaven beds are omitted from the APRs for RRH (64-168 beds) and PSH (22 beds). The Community Enrichment Center family RRH program (71 beds) also appears to have been omitted from the RRH APR, although this project has changed fiscal sponsors, names, and project type over the years, making it difficult to track. The Villages at Samaritan House (78 beds) appears to have been omitted from the PSH APR for 2015. Five small single-room-occupancy, veterans, and faith-based programs appear to have been omitted from the PSH APRs (86 beds). However, most of the organizations with omitted projects (except Safehaven and UGM) are well represented, with other projects included in each project type.

The same persons may be counted in more than one APR if they participated in more than one project type during the reporting period or participated in the same project in more than one period, requiring some analysis of report overlap. The APR counts all participants in each project type during the period even if their participation began during a prior period. This is especially true of PSH projects due to the unlimited tenure of participants. Therefore, the APRs drawn for this research provide a snapshot of the pool of participants in a selected project type during a selected period, even though some participants are included in both time periods and may have been admitted under earlier regimes of assessment and selection. Table 65 compares the average and median project tenure of participants who were still enrolled in a project at the end of the period (Stayers) and those who left (Leavers) during the period (prior to either 12/31/2016 or 12/31/2019, respectively).

Table 65. Length of participant stay by project type and period

	2014-16 PSH		2017-19 PSH		2014-16 RRH		2017-19 RRH	
Length of stay in project (years)	Leavers	Stayers	Leavers	Stayers	Leavers	Stayers	Leavers	Stayers
Average length (Q22b)	2.9	3.5	3.4	3.8	0.6	0.4	0.6	0.6
Median length (Q22b)	2.0	2.6	2.6	2.6	0.5	0.3	0.6	0.5
Enrolled > 3 years (Q22a1)	34%	43%	46%	47%				

Source: Specially customized Annual Performance Report provided by Tarrant County Homeless Coalition TX-601, questions 22b and 22a1

RRH participants are more likely to have been enrolled within each three-year period, while PSH participants, characterized by median stays of two years or more, were more likely to have been enrolled during a prior assessment and assignment regime. Nearly half (47%) of all PSH participants in 2017-2019 had stays of more than three years and therefore were enrolled during the prior regime. This demonstrates how insensitive PSH participant profiles are to changes in assessment and assignment practices due to the unlimited length of program participation.

The following tables explore the degree of possible participant overlap between the APRs by examining project activity, entrances, prior housing situations, exits, and destinations. Table 66 explores overlap between time periods by reviewing the proportion of participants served who started in each of the six APRs, using APR questions 5a and 6e.

Table 66. Unduplicated persons starting in and served during each period by program type

	2014-2016						2017-2019					
Question	ES		RRH		PSH		ES		RRH		PSH	
Total persons served Q5a	11,917	100%	2,544	100%	2,318	100%	18,055	100%	3,397	100%	2,473	100%
Total start records Q6e	10,295	86%	2,358	93%	1,169	50%	18,055	100%	2,890	85%	939	38%
Total exit records Q6e	9,746	82%	1,990	78%	786	34%	6,309	35%	2,698	79%	697	28%

Source: Annual Performance Report data for questions 5a and 6e by Tarrant County Homeless Coalition for TX-601

ES projects served 11,917 unduplicated persons in 2014-16 and 18,055 in 2017-19, for an increase of 52%. RRH projects served 2,544 persons in 2014-16 and 3,397 in 2017-19, for an increase of 34%. PSH projects increased the number of unduplicated persons served by only 7% (2,318 in 2014-16 and 2,473 in 2017-19), limited by lack of growth and significantly lower turnover in PSH participants. The majority of ES and RRH participants started services within each period, with starting records representing 85% or more of the persons served. However, only 50% of 2014-2016 PSH participants had start dates within the period, indicating that half of the participants entered the program under a prior entry regime. Only 38% of 2017-19 PSH participants had start records during the report time period, indicating the majority of participants entered during a prior regime.

The following tables shed further light on overlapping participants in each APR between project types. APR question 15 records the housing situation of each participant immediately prior to entry while question 23c records the participant's housing destination immediately following project exit (HUD 2019e). Table 67 shows that a little over one-third of participants in RRH and PSH programs in 2014-16 entered these programs from emergency shelter, indicating a

significant overlap in participants between ES and RRH/PSH APRs. However, the table shows almost no movement between RRH and PSH projects, indicating little overlap in the APRs.

Table 67. Participants by prior and destination housing situations in each APR for 2014-16

	2014-16											
	ES				RRH				PSH			
Housing Situations	Prior Situation		Destination		Prior Situation		Destination		Prior Situation		Destination	
Emergency shelter, including hotel or motel paid for with emergency shelter voucher	2,035	17.08%	600	5.03%	866	34.04%	48	1.89%	771	33.26%	8	0.35%
Safe Haven	11	0.09%	3	0.03%	10	0.39%	-	0.00%	14	0.60%	-	-
Permanent housing (not RRH, including PSH)	15	0.13%	81	0.68%	1	0.04%	57	2.24%	266	11.48%	29	1.25%
Rental by client, with RRH or equivalent subsidy	-	-	1	0.01%	-	-	-	-	-	-	-	-
Rental by client, with VASH housing subsidy	6	0.05%	32	0.27%	1	0.04%	187	7.35%	-	-	1	-
Total Persons Served Q5a	11,917	100.00%	11,917	100.00%	2,544	100.00%	2,544	100.00%	2,318	100.00%	2,318	100.00%
Client Doesn't Know/Client Refused	14	0.12%	225	1.89%	1	0.04%	15	0.59%	1	0.04%	7	0.30%
Data Not Collected	3209	26.93%	5803	48.70%	96	3.77%	203	7.98%	259	11.17%	94	4.06%

Source: Annual Performance Report data provided by Tarrant County Homeless Coalition TX-601 Questions 15 and 23c analyzed by author

Similarly, for the 2017-19 APRs, Table 68 shows that approximately 38% of RRH participants and 28% of PSH participants entered these programs from emergency shelter programs, while there was little or no movement between RRH and PSH programs. However, in both time periods, housing situation destinations from emergency shelter do not show a corresponding proportion of the participants exiting to RRH or PSH, possibly an artifact of missing data. Destination housing situations were missing for 49% of ES participants in 2014-16 and for 12% in 2017-19. Prior housing situations were missing for 27% of PSH participants in 2017-19.

Table 68. Participants by prior and destination housing situations in each APR for 2017-19

	2017-19											
	ES (APR-4)				RRH (APR-5)				PSH (APR-6)			
Housing Situations	Prior Situation		Destination		Prior Situation		Destination		Prior Situation		Destination	
Emergency shelter, including hotel or motel paid for with emergency shelter voucher	3,765	20.85%	464	2.57%	1,275	37.53%	74	2.18%	682	27.58%	14	0.57%
Safe Haven	31	0.17%	9	0.05%	22	0.65%	3	0.09%	10	0.40%	-	-
Permanent housing (not RRH, including PSH)	11	0.06%	62	0.34%	1	0.03%	5	0.15%	167	6.75%	3	0.12%
Rental by client, with RRH or equivalent subsidy	-	0.00%	293	1.62%	-	-	16	0.47%	1	0.04%	-	-
Rental by client, with VASH housing subsidy	10	0.06%	19	0.11%	-	-	160	4.71%	2	0.08%	2	0.08%
Total Persons Served Q5a	18,055	100.00%	18,055	100.00%	3,397	100.00%	3,397	100.00%	2,473	100.00%	2,473	100.00%
Client Doesn't Know/Client Refused	4	0.02%	36	0.20%	1	0.03%	8	0.24%	1	0.04%	-	-
Data Not Collected	4406	24.40%	2123	11.76%	62	1.83%	173	5.09%	562	22.73%	261	10.55%

Source: Annual Performance Report data provided by Tarrant County Homeless Coalition TX-601 Questions 15 and 23c analyzed by author

While HUD provides monitoring strategies and embeds data quality measures in its performance reports, the quality of HMIS administrative data relies on a decentralized network of social service providers who enter data for their clients, so data accuracy is an ongoing challenge (HUD 2019k; 2010). For example, embedded HMIS tools for deduplication can fail to catch some duplicate client records, especially across organizations (Liu et al. 2019). Table 69 shows APR results for question 6a, measuring the percent of items missing or entered incorrectly for demographic data. Dates of birth and Social Security numbers tend to have higher error rates along with ES 2017-19 data overall.

Table 69. HUD APR data quality question 6a, error rate for demographic data

	2014-16			2017-19		
Q6a Demographic Error Rate (%)	PSH	RRH	ES	PSH	RRH	ES
Name	0.02	0.03	0.00	0.01	0.00	0.00
Social Security Number	0.06	0.02	0.12	0.04	0.03	0.15
Date of Birth	0.11	0.02	0.08	0.13	0.02	0.10
Race	0.00	0.00	0.00	0.00	0.00	0.11
Ethnicity	0.02	0.00	0.08	0.02	0.00	0.11
Gender	0.00	0.00	0.06	0.00	0.00	0.11
Overall Score	0.16	0.06	0.16	0.16	0.05	0.16

Source: Annual Performance Reports created by TCHC for this project, Question 6a

Table 70 displays results for additional data quality metrics in the APR, question 6b. One-third of project start dates were found missing or entered incorrectly for ES clients in 2014-16. Data relating individuals in a household to the head of household was missing or incorrect in 7% (RRH, 2017-19) to 35% of records (ES, 2017-19). Whether the client had a disabling condition (HUD data element 3.08) was missing or inaccurate in 7% of records (RRH, 2017-19) to 37% of records (ES, 2017-19). This illustrates the significant problems when using HMIS data for understanding homelessness in the US and helps identify information that should be interpreted carefully.

Table 70. APR data element error rate (percent of data)

	2014-16			2017-19		
Q6b Data Element Error Rate (%)	PSH	RRH	ES	PSH	RRH	ES
Veteran Status (3.07)	0.03	0.01	0.03	0.02	0.00	0.01
Project Start Date (3.10)	0.17	0.05	0.33	0.07	0.09	0.00
Relationship to Head of Household (3.15)	0.22	0.13	0.32	0.29	0.07	0.35
Client Location (3.16)	0.04	0.01	0.00	0.06	0.01	0.01
Disabling Condition (3.08)	0.21	0.20	0.39	0.31	0.07	0.37

Source: Annual Performance Report provided by Tarrant County Homeless Coalition TX-601 Question 6b

Master List of Projects Included in APR Data[36]

APR organization name	Project type	APR project name	Population restrictions	HIC data	PIT data	Initial HUD funding	HIC bed count 2014-16	HIC bed count 2017-19
ACH Child and Family Services	ES	Emergency Youth Shelter	Youth	2014-19	2014-19	2003	16	16
AIDS Outreach Center	RRH	Tenant Based Lease Assistance	AIDS/HIV, all	2019	2019	?		11
Arlington Housing Authority	PSH	SPC Project Base	Arlington resident, all	2014-17	2014-17	2013	7	9
Arlington Housing Authority	PSH	Shelter Plus Care at Large	Arlington resident, all	2014-19	2014-19	2013	31	27
Arlington Housing Authority	PSH	Shelter Plus Care Chronic	Arlington resident, single adult	2014-19	2014-19	2013	4	4
Arlington Housing Authority	RRH	Arlington Nurse Family Partnership	18-24 yrs old, first pregnancy	2017-19	2018-19	2015		5
Arlington Housing Authority	PSH	SPC Tenant Based	Arlington resident, single adult	2018-19	2018-19	2016		10
Arlington Housing Authority	RRH	Arlington Housing Rapid Rehousing	Arlington resident, families	2018-19	2018-19	2016		28
Arlington Life Shelter	ES	ALS ES	None	2014-19	2014-19	2008	103	107
Catholic Charities	PSH	Master Lease	90% unsheltered, all	2014-19	2014-19	2013	14	12
Catholic Charities	RRH	SSVF Rapid Rehousing	Veterans, all	2014-19	2014-19	2012	72	46
Catholic Charities	PSH	Master Lease 2	90% unsheltered, single adult	2018-19	2018-19	2016		10

[36] Assembled by author from data available on HUDExchange.info

APR organization name	Project type	APR project name	Population restrictions	HIC data	PIT data	Initial HUD funding	HIC bed count 2014-16	HIC bed count 2017-19
Center for Transforming Lives	RRH	Rapid Rehousing Combined	Fort Worth resident, families	2014-19	2014-19	2013	88	101
Center for Transforming Lives	RRH	Rapid ReHousing Arlington ESG	None	2015-17	2015-17	2014	19	11
Center for Transforming Lives	RRH	YWCA-TBLA 114 RRH	Single adults	2016-19	2016-19	2013	22	45
Center for Transforming Lives	ES	Emergency Shelter	single women	2016-19	2016-19	2015	24	20
Community Enrichment Center	RRH	CEC 3CP (RRH3)	Survivors intimate partner violence, families	2015-19	2015-19	2013	69	37
DRC Solutions	PSH	Palm Tree	Chronically homeless, unsheltered	2016-19	2017-19	2015	20	28
DRC Solutions	RRH	Housing First RRH	Fort Worth resident	2018-19	2018-19	2014		39
DRC Solutions	PSH	Fort Worth Housing Finance Corporation Project Bas	None	Not HUD funded	Not HUD funded	2018		
Family Endeavors	RRH	FESSVF Rapid ReHousing	Veterans, all	2015-19	2015-19	2018	30	26
Fort Worth Housing Solutions	PSH	Directions Home PSH	FW resident	2014-18	2014-18	2008	108	124
Fort Worth Housing Solutions	PSH	SPC 1	FW resident	2014-19	2014-19	2013	297	268
Fort Worth Housing Solutions	PSH	SPC 2	FW resident	2014-19	2014-19	2013	353	269
Fort Worth Housing Solutions	PSH	SPC 6	FW resident, single adult	2014-19	2014-19	2013	19	19

APR organization name	Project type	APR project name	Population restrictions	HIC data	PIT data	Initial HUD funding	HIC bed count 2014-16	HIC bed count 2017-19
Fort Worth Housing Solutions	PSH	HHSP PSH	None	2014-2018	2014-2018	2014	77	74
Fort Worth Housing Solutions	PSH	Changes 2018-19	FW resident	2015-19	2015-19	2014	30	24
Healthy Community Collaborative	RRH	HCC-Rapid Rehousing	Mental health diagnosis, single adult	2015-19	2015-19	2014	63	77
MHMR Addiction Services	PSH	TBLA 17	Substance abuse	2014-19	2014-19	2013	40	32
MHMR Homeless Services	PSH Services Only	TC SPC	None	Services only	Services only			
MHMR Homeless Services	PSH	Gateway to Housing PSH	Serious mental illness, substance use	2014-19	2014-19	2013	42	42
MHMR Homeless Services	PSH	TBLA 13 MHMR	Serious mental illness	2014-19	2014-19	2013	20	20
MHMR Homeless Services	PSH	Project 40 (Changed from MHMR Project 19)	Mental health diagnosis, all	2016-19	2016-19	?	34	29
Presbyterian Night Shelter	ES	Moving Home Women's Program	Women, all	2014	2014	2003	80	
Presbyterian Night Shelter	Safe Haven	Safe Haven	Serious mental illness	2014-19	2014-19	2013	20	20
Presbyterian Night Shelter	PSH	Housing Solutions Combined	None	2014-19	2014-19	2013	89	97
Presbyterian Night Shelter	ES	Moving Home Men's Shelter	Men, single adult	2014-19	2014-19	2003	313	347
Presbyterian Night Shelter	RRH	State ESG RRH	Single adults	2015-19	2015-19	2012	7	11

APR organization name	Project type	APR project name	Population restrictions	HIC data	PIT data	Initial HUD funding	HIC bed count 2014-16	HIC bed count 2017-19
Presbyterian Night Shelter	ES	Veteran's Voice Shelter Based	Veterans, single adult	2016-19	2016-19	2003	22	35
Recovery Resource Council	PSH	Project New START	Single adults	2014-19	2014-19	2013	43	43
Tarrant County	RRH	Tarrant County-TBLA 114	Families	2016-19	2016-19	2013	78	69
Tarrant County ES	ES	Salvation Army	None	2014-19	2014-19	2003	80	67
Tarrant County ES	ES	Presbyterian Night Shelter	Single adults	2014-19	2014-19	2003	142	131
Tarrant County ES	ES	True Worth	None	Day shelter only	Day shelter only	2017		
Tarrant County Housing Office	PSH	SPC	Single adults	2014-19	2014-19	2016	8	10
Tarrant County Samaritan Housing, Inc.	PSH	Genesis	HIV/AIDS, families	2014-19	2014-19		22	27
Tarrant County Samaritan Housing, Inc.	PSH	TBLA 15 Samaritan House PSH	HIV/AIDS, all	2014-19	2014-19	2013	20	22
Tarrant County Samaritan Housing, Inc.	PSH	Grace Villages PSH	Families	2014-19	2014-19	2013	31	33
Tarrant County Samaritan Housing, Inc.	PSH	Samaritan House SRO 307	HIV/AIDS, single adults	2014-19	2014-19		32	32
The Salvation Army Arlington Corps	ES	Family Center Emergency Shelter	Families	2016-19	2016-19	2003	60	60

APR organization name	Project type	APR project name	Population restrictions	HIC data	PIT data	Initial HUD funding	HIC bed count 2014-16	HIC bed count 2017-19
The Salvation Army Mabee Center	PSH	TSA Housing First PSH 2	High utilizers hospital emergency departments, single adults	2019	2019	2015		14
The Salvation Army Mabee Center	ES	S.T.A.R.T	None	2014-19	2014-19	2011	49	53
The Salvation Army Mabee Center	PSH	Salvation Army Veteran's PSH	Veterans, single adult	2014-19	2014-19	2013	14	19
The Salvation Army Mabee Center	ES	First Choice	women with children with chemical dependency	2016-19	2016-19	2018	12	12
The Salvation Army Mabee Center	RRH	TSA Mabee ESG Rapid Re-Housing	None	2016-19	2016-19	2012	50	42
The Salvation Army Mabee Center	PSH	TSA Housing First PSH	High utilizers hospital emergency departments, single adults	2016-19	2016-19	2014	14	14
The Salvation Army Mabee Center	RRH	TSA Mabee Center TBLA 114	Families	2016-19	2017-19	2013	10	20
The Salvation Army Mabee Center	ES	SIMON	Dual diagnosis (mental health/substance abuse) single adults	2017-19	2017-19	2013		40
The Salvation Army Mabee Center	PSH	SIMON PSH	Dual diagnosis (mental health/substance abuse) single adults	2018-19	2018-19	2016		40
The Salvation Army Mabee Center	RRH	Rapid Rehousing-CFW	Fort Worth resident	No data	No data	2014		
Veteran's Administration	PSH Services Only	VA Shelter Plus Care	Veterans, all	Services only	Services only	2014		
Veteran's Administration	PSH	VASH	Veterans, all	2014-18	2014-18	2008	304	367

Subject Recruiting Documents and Interview Script

Recruiting email to program directors and case managers:

To: CEOs/Program Directors/Case Managers of RRH and PSH programs

Subject: Research Study request

Attachment: Recruiting flyers, Written Consents

Greetings!

I am seeking participants for a research study investigating the characteristics and experiences of persons who entered PSH and RRH programs over the past four to six years through the local Continuum of Care. Program assignment systems presume that we know what interventions work for which people and how to accurately identify the people who will most benefit from which interventions. This study will explore who is being selected, who is being excluded, and what is working for whom, informing system design and policy. Researchers are only just beginning to investigate the impact of changes in systems that prioritize and direct people experiencing homelessness to particular interventions. This project will look at the subject using APR data, client interviews, and staff focus groups to achieve a deeper understanding. The study is being conducted as part of research requirements for the PhD degree in Urban Planning and Public Policy and has been approved by the UTA Institutional Review Board.

The research includes three components:

- Quantitative analysis of APR data from 2014 through 2019
- Individual telephone interviews with clients entering PSH (12) and RRH (12) programs during 2017 and 2018
- Focus groups via Zoom with staff members associated with RRH or PSH programs from 2016 or before to the present

I would like to **request your assistance** in two ways:

1. Please invite your **clients** with RRH or PSH program start dates in 2017 or later to participate in a one-hour telephone interview with me. Case managers can notify their clients of the opportunity during regular telephone contacts. To participate, clients reply directly to me at 817.647.4431. I will mail a **$25 Walmart gift card** to all participating clients after the interview. Interviews will be offered to the first 12 PSH and 12 RRH clients to call. A flyer and formal written consent form are attached for more detail. I am hoping to recruit two client participants from each organization.
2. Please invite **staff** members who have experience working in RRH or PSH programs from 2016 or before to the present to contribute their experience to a one-hour peer group meeting. I will be conducting up to six on-line focus groups, with 5 to 10 participants each. I hope to recruit three or four staff participants from each organization. To

participate in a focus group, staff members **reply directly to me** at 817.647.4431 or by email to flora.brewer@mavs.uta.edu. I am seeking participants in all of the following roles/positions:

- System Executives and CEOs
- RRH/PSH Program Directors
- RRH/PSH Case Managers
- Housing Navigators and TCHC system facilitators

If **alternately**, you would like to **send me contact information** for suggested participants, I would be happy to initiate the contact.

This project will systematically gather information about the impact of the processes we use to assign people to housing programs, contributing to improved program targeting and design. Your support for recruiting participants for this research is crucial and greatly appreciated.

You may contact me by email at flora.brewer@mavs.uta.edu or at 817.946.4939 with any questions. **Please let me know if you would be willing to support this research and if you have any other suggestions for recruiting.**

Many thanks,

Flora Brewer, MPA

University of Texas at Arlington

Participant interview flyer

University of Texas at Arlington

Presents

Research Study Opportunity

A UTA researcher is seeking participants for a study of people's experiences with housing programs for homeless people. We want to better understand who gets into housing programs, how they get in, and what is working to help people end their homelessness.

What: We are looking for people willing to participate in one 60-minute telephone interview with a UTA researcher. Participants will receive a $25 Walmart gift card by mail at the end of the interview as a thank you.

Who can participate: People who started housing programs for homeless people in 2017 or 2018 in Tarrant and Parker Counties, particularly Rapid Re-Housing and Permanent Supportive Housing programs.

Contact: Flora Brewer
University of Texas at Arlington, Arlington, TX
817.647.4431

Participant Interview Informed Consent

The University of Texas at Arlington (UTA)

Informed Consent for Studies with Adults

TITLE OF RESEARCH PROJECT

Who participates in housing programs for homeless people?

RESEARCH TEAM

- Principal Investigator: Flora Alexandra Brewer, MPA; Public Affairs and Planning Department; College of Architecture, Planning and Public Affairs; flora.brewer@mavs.uta.edu; 817.647.4431
- Advisor: Dr. Ivonne Audirac; Public Affairs and Planning Department; College of Architecture, Planning and Public Affairs; audirac@uta.edu; 817.272.3338

IMPORTANT INFORMATION ABOUT THIS RESEARCH PROJECT

The research team is conducting a research study about housing programs for formerly homeless people. This research study is about understanding who gets to participate in housing programs through local systems that help homeless people and what is working for them. You can choose to participate in this research study if you are at least 18 years old and you started a Rapid Re-Housing or Permanent Supported Housing program for homeless people in Tarrant or Parker County in 2017 or 2018.

You might want to participate in this study if you would like the chance to tell a researcher about your experiences with homelessness and housing programs and provide your ideas on what programs and services are most important for helping people end their homelessness. You might not want to participate if you are uncomfortable sharing your personal experiences with a stranger or if you can't commit one-hour for an interview.

This study has been reviewed and approved by an Institutional Review Board (IRB). An IRB is an ethics committee that reviews research with the goal of protecting the rights and welfare of human research subjects. Your most important right as a human subject is informed consent. You should take your time to consider the information provided and ask me any questions about anything you do not fully understand before making your decision about participating.

TIME COMMITMENT

Participation in this study will take approximately 75 minutes including a short phone call to arrange a time to talk and one 60-minute interview.

RESEARCH PROCEDURES

If you decide to participate in this research study, this is the list of activities that we will ask you to perform as part of the research:

1. Call Flora at 817.647.4431 to set-up a time for a 60-minute telephone interview that's convenient for you. At this time, Flora will review the contents of this document with you to ensure you understand the project and your rights. She will ask if you want to participate. Ask questions to be sure you understand.
2. A few minutes before the interview time, use any phone to call-in to the number Flora provides for the interview. You may also need to enter a password that she provides to make sure the call is private. Flora will briefly review the project and your rights and ask whether you want to participate. If you want to participate, Flora will ask you questions about how you became homeless, what your circumstances were like when you were homeless, how you got accepted into your housing program, what your circumstances are like now, what services you received as part of your housing program, and what services or assistance you think have helped you the most. The interview will be audio recorded. After the interview, Flora will transcribe the recording, which means it will be typed exactly as recorded, word-for-word. After transcription, the recording will be erased.

Flora will analyze information from you and other participants and write a report from all the information she gets from interview participants without including any names or other personally identifiable information. She will store all her notes and transcriptions from the interviews electronically on secure UTA storage devices.

POSSIBLE BENEFITS

Your participation will be very important to this study which aims to understand how your housing program is working for you and to learn ways to improve selection processes and services.

POSSIBLE RISKS/DISCOMFORTS

This research study is not expected to pose any additional risks beyond what you would normally experience in your regular everyday life doing things like talking to your case manager or other service providers. But if you do feel uncomfortable, you have the right to quit the interview or skip over any questions at any time without any consequences to you. Just tell the research team any time you feel uncomfortable. The interviewer will ask you from time to time during the interview if you are feeling okay about continuing.

COMPENSATION

You will receive a $25 gift card from Walmart in the mail for participating in this research study. If you choose not to complete all the questions in the interview, you will still receive the gift card.

ALTERNATIVE OPTIONS

There are no alternative options offered for this study. If you have to miss a scheduled interview, you might be able to reschedule for another time if the project schedule allows.

CONFIDENTIALITY

All the information you provide will be treated as confidential, your privacy will be protected at all times, and your name will not be used in any document, report, or transcript. The audio recording of the interview will be immediately destroyed after transcription. The results of this study may be published and/or presented but always without naming any participant.

While absolute confidentiality cannot be guaranteed, the research team will make every effort to protect the confidentiality of your records as described here and to the extent permitted by law. In addition to the research team, the following entities may have access to your records, but only on a need-to-know basis: the US Department of Health and Human Services and the FDA (federal regulating agencies) and the reviewing IRB.

CONTACT FOR QUESTIONS

Questions about this research study may be directed to Flora Brewer at 817.647.4431 or Ivonne Audirac at 817.272.3338. Any questions you may have about your rights as a research subject or complaints about the research may be directed to the Office of Research Administration; Regulatory Services at 817-272-3723 or regulatoryservices@uta.edu.

CONSENT

By saying "yes" to the researcher, you are confirming that you understand the study's purpose, procedures, potential risks, and your rights as a research subject. By agreeing to participate, you are not waiving any of your legal rights. You can refuse to participate or discontinue participation at any time, with no penalty or loss of benefits that you would ordinarily have. Please clearly say "yes" if you are at least 18 years of age and voluntarily agree to participate in this study.

Participant Interview Call Script for Persons Interested in Participating in Research Project:

Caller: expresses interest in the project

Researcher: Thank you for your interest. I am a student researcher with the University of Texas at Arlington and my advisor is Dr. Ivonne Audirac. **I** am hoping to interview people who started housing programs for formerly homeless people in 2017 or 2018. We are trying to better understand who is getting assigned to programs, how they got into programs, and what they think about the services they have received. We hope this information will help us make programs better. How did you find out about the project?

Caller: my case manager gave me the information (or other)

Researcher: Thank you so much for calling about the project. Did you start in a Rapid Re-Housing or Permanent Supportive housing program during 2017 or 2018 in Tarrant or Parker County?

Caller: Yes (If no, tell the caller that this project is only for people in Tarrant and Parker County housing programs who started in 2017 or 2018 and thank them for calling.)

Important Information about this Research Project, time commitment, procedures, compensation:

Researcher: Great. Then I'd like to invite you to participate in a one-hour telephone interview with me. So that you can make a good decision about participating in this study, I'm going to read to you from something called an 'informed consent' document that will give you all the information about the project you need to make your decision. At the end of this call, I will ask you for your decision on whether or not you would like to participate. Would you like to get paper and pen to make notes?

Caller: Yes or No [Pause to give time if requested.]

Researcher: Great. Now I will start telling about the project. First, I will be asking you to tell me about yourself and how you became homeless, how you got into your housing program, what services you have received and what services have been most important to helping you end your homelessness. The information you provide will be combined with other interviews but your identity will not be shared. I will be recording the interview while we talk on the phone but recordings will be destroyed as soon as I finish typing them up. After the interview, you will receive a $25 gift card to Walmart in the mail to thank you for participating. Do you have any questions so far about the project?

Caller: No (If yes, provide answers)

Researcher: Let me give you a little more information about the project so you can decide whether you want to participate. You might want to participate in this study if you would like the chance to tell a researcher about your experiences with homelessness and housing programs and provide your ideas on what programs and services are most important for helping people end their homelessness. You might *not* want to participate if you are uncomfortable sharing your

personal experiences with a stranger or if you can't commit one-hour for an interview by telephone.

This study has been reviewed and approved by an Institutional Review Board (IRB). An IRB is an ethics committee that reviews research with the goal of protecting the rights and welfare of human research subjects. Your most important right as a human subject is informed consent. You should take your time to consider and ask me any questions about anything you do not fully understand before making your decision about participating.

Possible benefits:

Your participation will be very important to this study which aims to understand how your housing program is working for you and to learn ways to improve selection processes and services. Do you have any questions so far?

Caller: No (If yes, provide answers.)

Possible risks, discomforts, compensation:

Researcher: This research study is not expected to pose any additional risks beyond what you would normally experience in your regular everyday life doing things like talking to your case manager or other service providers. But if you do feel uncomfortable, you have the right to quit the interview or skip over any questions at any time without any consequences to you. Just tell me any time you feel uncomfortable. You will receive the $25 gift card even if you do not choose to answer all the questions.

Confidentiality:

All the information you provide will be treated as confidential, your privacy will be protected at all times, and your name will not be used in any document, report, or transcript. The audio recording of the interview will be immediately destroyed after it has been typed up, word for word.

I will put your information together with other interviews and write a report without including any names or other personally identifiable information. I will store all my notes and transcriptions from the interviews electronically on secure UTA storage devices. The results of this study may be published and/or presented but always without naming any participant.

While absolute confidentiality cannot be guaranteed, we will make every effort to protect the confidentiality of your records as described here and to the extent permitted by law. In addition to the research team, the following entities may have access to your records, but only on a need-to-know basis: the US Department of Health and Human Services and the FDA (federal regulating agencies) and the reviewing IRB.

Researcher: Would you like to participate?

Caller: Yes (If no, thank them for calling and say good-by.)

Contact for questions:

Researcher: Great. If you think of any questions about the study, you can call me at this number or my advisor at UTA, Dr. Ivonne Audirac at 817.272.3338 or you can contact UTA's Office of Regulatory Services at 817.272.3723. Let me know if you would like to have those numbers repeated. What day and time would be convenient for you to talk with me by phone?

Caller: Day, Time

Alternative options and procedure:

Researcher: Great. I will text or email you the information you need to call in for the interview. Is that all right? I will look forward to talking with you on Day at Time. When we talk, the first thing I will do is make sure you understand the study's purpose, procedures, potential risks, and your rights and that you still wish to participate. You can refuse to participate or discontinue participation at any time, with no penalty. There are no alternative options offered for this study. If you have to miss a scheduled interview, you might be able to reschedule for another time if the project schedule allows. Do you have any questions about the interview?

Caller: No [If yes, provide answers.]

Researcher: If anything comes up or you have any questions, you can reach me at this number, 817.647.4431. This number and phone will only be used for this project to protect your privacy. Thank you so much. Good-by.

Script: Individual Telephone Interview

Research Project Title: Who participates in housing programs for homeless people?

Introduction: Thank you so much for taking the time to speak with me today. We want to learn about who gets to participate in local housing programs and what's working well for which people. The questions I ask will help us understand the situations of people who are in different programs. We want to understand whether people think they are getting into the right programs for them. So, I'm going to ask you to tell me your story and then give me your opinion about what makes housing programs work. You can tell me as much or as little as you want. You do not have to answer any question you don't feel comfortable with, and we can stop at any time. The interview should last about 60 minutes. This research study is not expected to pose any additional risks beyond what you would normally experience in your regular everyday life doing things like talking to your case manager or other service providers. At the end of the interview, I will mail you a Walmart gift card for $25 to thank you for your participation, no matter how many questions you choose to answer. To what address would you like to have the gift card mailed? [Record address.]

I'd like to start the audio recording now. Is that okay with you? [Start recording or answer questions.]

Informed Consent: First I need to record your decision to participate in the interview.

By saying "yes", you are confirming that you understand the study's purpose, procedures, potential risks, and your rights as a research subject. By agreeing to participate, you are not waiving any of your legal rights. You can refuse to participate or discontinue participation at any time, with no penalty or loss of benefits that you would ordinarily have. Please clearly say "yes" if you are at least 18 years of age and voluntarily agree to participate in this study. [Record response or answer questions. If participant declines to participate, thank the participant and end the interview.]

Do you have any questions? Let's get started.

Confirm eligibility and program description: What type of housing program have you been participating in?

- When did you start your program? Are you still in the program? [If not] When did your program end?
- What services are you receiving/did you receive as part of your program?
- [Note: If the participant does not describe either a Rapid Re-Housing or Permanent Supportive Housing program started in 2017 or 2018, thank the participant and stop the interview.]

Characteristics of homelessness: Please tell me the story of how you became homeless. What happened? Ask the following or other probing questions to cover each of the following areas.]

- What do you think caused that to happen? [Repeat question as needed.]
- What bad luck did you have that might have led to your becoming homeless?
- What was happening in the community that might have led to your homelessness? I'm talking about housing cost, the job market, discrimination, or changes in benefits programs?

- What disabilities, illnesses, or health issues might have led to your homelessness?
- What happened in your network of family and friends that might have led to your becoming homeless?
- What decisions or choices did you make that affected your housing?
- How long were you homeless?
- Were you employed when you became homeless? When you became homeless, how long had it been since you had a steady job or other form of steady income?

Which of the things you mentioned [review the list from notes] do you think had the biggest effect on your becoming homeless?

Demographics: Now I'd like to ask some specifics about yourself and your situation:

- Do you identify as male or female?
- Do you identify as black or white?
- Do you identify yourself as Hispanic or non-Hispanic?
- How old are you?
- Who lived with you when you became homeless?
- Who lives with you now?
- Do you have stable housing now? [If yes] How long have you had stable housing?
- Are you employed now? How long have you had stable employment?

End of homelessness: Now I'd like to hear your thoughts about how you ended your homelessness:

What do you think helped the most to end your homelessness? [Ask the following probing questions as needed to investigate these areas.]

- What led to that? [Ask as many times as necessary.]
- What did you do or think differently that ended your homelessness?
- What good luck led to your exit from homelessness?
- What was happening in the community that might have helped end your homelessness? I'm talking about the cost of housing, the job market or new programs.
- What support have you received from friends or family that helped end your homelessness?
- How did you get into your housing program? [Ask the following probes if needed.] What got you selected?

Ideal program: Finally, I'd like to hear your thoughts about what should be included in housing programs. You mentioned receiving the following services as part of your housing program. [Review list from notes.] If you could make the perfect program for yourself and people like you, what services would you include? Who would you select to participate in your program?

Conclusion: We are done! Thank you so very much. It has been a real pleasure to talk with you. I will mail the $25 gift card within the next 24 hours.

Staff Focus Group Recruiting Flyer

University of Texas at Arlington

Presents

Research Study Opportunity

A UTA researcher is seeking participants for a study on changes in assignments to RRH and PSH programs in the Tarrant/Parker County area. We want to better understand who gets into housing programs, how they get in, and what is working to help people end their homelessness.

What: We are looking for people willing to participate in one 60-minute focus group discussion with a UTA researcher.

Who can participate: Staff-members who have been involved in Tarrant/Parker County Permanent Supportive Housing or Rapid Re-Housing programs since 2016 or before, including executives, program directors, case managers, housing navigators, and system facilitators.

Contact: Flora Brewer
University of Texas at Arlington
Arlington, TX
817.647.4431, flora.brewer@mavs.uta.edu

Staff Focus Group Zoom Meeting Invitation

Thank you very much for your interest in participating in our study investigating changes in participants in RRH or PSH programs over time. We are trying to better understand who is getting assigned to programs, how they get into programs, and what programs seem to work best for which clients. We hope this information will contribute to better program targeting and design.

Please join me at the following date and time for the focus group: Date, Time

We will be using Zoom for our meeting and will be using enhanced security to ensure that our Zoom meetings are private and undisturbed.

First, please read the attached Written Consent document to be sure you fully understand the purpose of the research and your rights as a participant.

Second, click on the following link or copy and paste into the URL field at the top of your favorite web browser (e.g. Chrome, Firefox) to **register** for the meeting.

LINK

You will be asked to answer demographic questions as we begin that will me capture the diversity of participants as well as documenting your consent to participate. This should take just a few minutes.

Third, about five to 15 minutes prior to the start time for the meeting, click on the following link to enter the meeting. You may want to test your computer microphone and video to be sure we can see and hear each other.

You will be placed in a 'waiting room' that allows me to make sure that only participants invited to this meeting can attend. You may hear music while you wait.

If you have not used Zoom before, you may want to watch this video for simple instructions on joining a meeting. https://www.youtube.com/embed/hIkCmbvAHQQ?rel=0&autoplay=1&cc_load_policy=1

When you enter the meeting, you will see controls across the bottom of your screen. You can unmute yourself to speak and participate in the discussion. You can use your video camera to let others see you. In addition, you may want to respond to questions in writing using the 'chat' control. Please try to participate in an area without background noise or use head phones. You can mute yourself at any time during the meeting if noise occurs unexpectedly.

If you have not attended a Zoom meeting before, this link includes step by step instructions for using meeting controls https://support.zoom.us/hc/en-us/articles/200941109-Attendee-Controls-in-a-Meeting.

Please call or email me if you have any questions or will not be able to attend the meeting.

I look forward to talking with you!

Flora Brewer, 817.946.4939, flora.brewer@mavs.uta.edu

On-line Staff Focus Group Script

Research Project Title: Who participates in housing programs for homeless people?

Arrival: As participants arrive, welcome them. Begin on time.

Set-up:

- Shrink script to wide, shallow window at top of screen; don't use finger to advance script, use arrow on right bottom corner
- Open Powerpoint, adjust set-up, start slide-show, adjust window size to lower right corner
- Start Zoom meeting; Pause recording; Start video and adjust camera; open Participants; Open Chat; extend across the screen horizontally at bottom
- Type in Chat: Flora, PF Residential, PSH, 5 years
- Unmute all

Introduction: Welcome and thank you for making the time to contribute your experience and expertise to this research. We will be here for no more than one hour.

To begin, I have unmuted everyone so that we can hear each other. If at any time you have a problem with background noise, please mute yourself until you are ready to speak again. We will also be using the chat tool. Please click on 'chat' at the bottom of the screen so that you can enter written input any time during the discussion. If you can't see the chat button, click on More to find it at the top of the list. Both verbal and written input are welcome! Let's introduce ourselves using chat. Please click on To: Everyone and type your first name, your current agency, and how many years you have been working with PSH or RRH programs or both. You should be able to see my initial Chat entry to use as a guide. To capture some demographic information, I'm going to launch a quick poll. Please complete the 5 questions while I continue with the introduction. [move poll to the side or minimize, close after people start to answer]

Now let me tell you a little more about me and this research project. I am a PhD candidate at UTA in Urban Planning and Public Policy and I study homelessness and housing. I have also been involved with homelessness programs and policy in Fort Worth for about 20 years and founded a site-based PSH program at the Palm Tree Apartments in 2016. The purpose of my research is to better understand the program participants in our local housing programs and how they may have changed over time as our entry systems have changed.

To begin, I'm going to share my screen and give you some context for our discussion. [Don't READ this: minimize video thumbnail and move to lower right; click participants and move to left, click More…Chat and move to left] [Show slide 1 and 2] This is a very high-level model of the big parts of our systems for entry into RRH and PSH programs as they were intended to operate up to now. Homeless people enter our system with many different characteristics and experiences of homelessness, we assess clients using a variety of tools and criteria and place them in programs through CES, which was designed to match people with certain characteristics with program type. Program outcomes are measured in terms of individual housing retention or returns to homelessness. Individual characteristics can both affect what program someone is assigned to as well as directly affect their success in achieving housing stability (bottom arrow). It's also possible that factors in the selection criteria or the process could influence who applies for assistance and how they present themselves (2 arrows between homeless persons and black box).

[Show slide 3] But what is really happening? These are the questions that I would like your help to answer today.

[Show slide 4] This is a high-level description of recent changes in how we have assessed and assigned homeless people to housing programs based on published documents and reports. I'm interested in your help to make this chart more real. It appears that, from 2011 to 2014, we began using assessment tools and length of homelessness to influence who got into programs, but the efforts were not coordinated across agencies. From 2014 to 2017, we began our first experiments with central coordination with the VI-SPDAT beginning to be used to influence decisions. Then after a system change effort in 2016, we implemented our most recent Coordinated Entry System around common priorities and tools. Assignment decisions were automated around assessment tools, and agencies were influenced to participate by including CES participation as a metric in annual funding competitions.

[Show slide 5] Finally, this a summary of the latest scholarly thinking about what causes homelessness and characterizes homeless people. One of the ideas underpinning coordinated entry is that different homeless people with different experiences and characteristics do better in different types of programs. The current thinking is that people experience individualized pathways into and out of homeless, influenced by their personal agency and decision-making within personal and social constraints. These pathways include unique combinations of individual vulnerabilities, like disabilities; structural issues like lack of affordable housing; weak or non-existent personal or public support systems; life shocks or bad luck such as the birth of a child with disabilities or death of the primary home-owner; and social exclusion or stigmatization such as racism. Every homeless person does not experience all of these things and only a small fraction of all people with these experiences and characteristics actually become homeless. Today I'd like to explore your sense of how PSH or RRH clients differ in what leads to their homelessness and whether this makes a difference in terms of the programs that work for them and whether these things have changed over time.

Now let me stop for questions and check whether you are ready for me to start recording the meeting. The recording will be deleted as soon as it is transcribed. Remember that you may leave the meeting or refrain from answering questions at any time. Any questions?

Here are some ground rules for our discussion [Show slide 6]:

- Our goal is to capture as many different ideas, opinions and observations as possible. We are not trying to get consensus. Differences of opinion are welcome.
- Please keep your fellow members' comments confidential, i.e. what happens in the focus group stays in the focus group!
- Please listen respectfully to all opinions and help me ensure that everyone gets a chance to contribute.
- You can participate in the discussion in two ways. First, chime in verbally just like you would in regular group discussion on Zoom. Or enter your comments in writing to Everyone through the chat feature. I encourage you to use both so that we can generate as much information as possible.
- My role here is to listen and keep the discussion focused on our topic. Let's begin our discussion. I will start recording now. [Click More to resume recording]

What sub-groups of people are systematically included or excluded from housing programs? [Show slide 7]

- Who gets into programs? Who typically doesn't get into housing programs?
- Think of the same characteristics of people's homelessness we discussed previously, for example, demographic groups, stigmatized groups, people with particular experiences or causes of homelessness, etc.

How have participants in RRH and PSH programs changed over time in your experience? Use the following probing questions as needed: [Show slide 8]

- How have participants changed in terms of their individual vulnerability? For example, their level of disabilities or illnesses, frailty due to age, history of un-sheltered homelessness, substance use disorders, history of trauma or domestic violence, personal support systems
- How have participants changed in terms of their length or chronicity of homelessness?
- How have the demographics of participants changed, for example, race, gender, age, family composition, employment, income?
- What changes have you seen in the causes of people's homelessness? For example, what changes have you seen in the impact of housing affordability and availability, poverty, racism and discrimination, bad luck, lack of support systems?
- What changes have you seen in outcomes of housing programs? For example, changes in returns to homelessness, achievement of some level of self-sufficiency?

When did the changes you have observed occur? [Show slide 9.]

- In what time period did you see these changes occur?
- What system changes (assessment protocols, coordination strategies, etc.) do you think contributed to the changes in program participants?

What impact have system changes had on client behavior? [Show slide 10.]

- What changes have you seen in who applies for programs, how they present themselves, and what they have to do in order get a housing program assignment?

Who do you think should be assigned to which program type (RRH/PSH) and why, based on your experience with client outcomes? [Show slide 11.] Note: please comment in relation what you think would be most effective, without consideration of HUD rules.

- Which program should people with certain types or levels of individual vulnerabilities be assigned to?
- Which program should people with certain levels of chronicity be assigned to?
- Which program should people with particular household types be assigned to? For example, family composition, income, employment history?
- Which program should people be assigned to whose homelessness was caused by particular reasons, for example, substance use disorders, mental illness, poverty, bad luck?

Which program services do you think are most important to ending homelessness for which program types? [Show slide 12.]

- For example, how important are rental subsidies versus case management versus specialized supportive services to ending homelessness for participants in each program?
- Using the Chat Box, please list what you believe are the most essential services for RRH and PSH programs. List them with the most important first. Note how they might be different for RRH and PSH.
- Let's talk about your answers. Who would like to explain?

Conclusion: We are done!

Is there anything you'd like to say to add-to or sum-up what you have said and heard today? [Show slide 12.]

Thank you so very much. It has been a real pleasure to learn from you. I will end the meeting now.

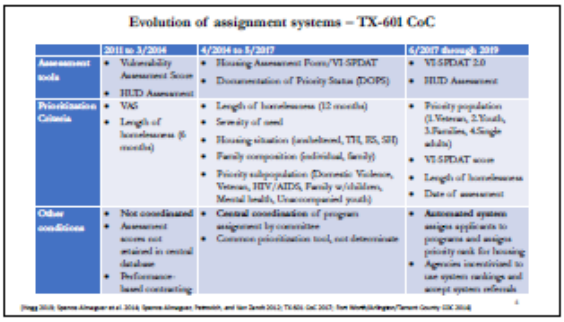
Staff Focus Group Slides

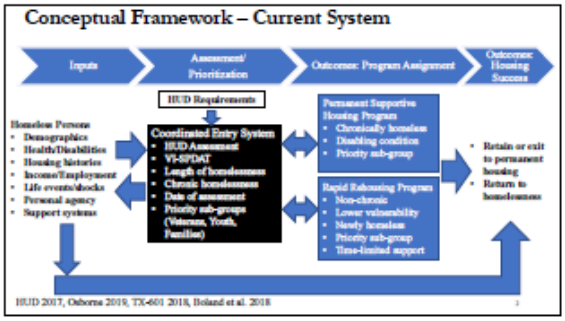
Who participates in RRH/PSH programs?

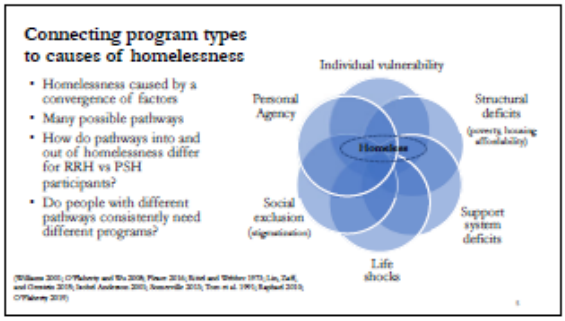
Hand-Outs

Staff focus groups

Flora Brewer, MPA







But what's really happening?

- What are the characteristics of people who have been actually assigned to RRH vs PSH programs?
- Are our assignment systems working as intended?
- What are the right programs for different participants?
- How have participants changed over time with system changes?

Groundrules

- Differences of opinion are welcome.
- What happens in the focus group stays in the focus group!
- Listen respectfully and give everyone a chance to speak.
- Participate both verbally and by typing in Chat box.
- Mute your microphone as needed to control background noise.

Discussion Question:

What sub-groups of people seem to be systematically included or excluded from RRH or PSH housing programs?

Consider:
- Demographics
- Health/Disabilities
- Housing histories
- Income/Employment
- Life events/shocks
- Personal agency
- Support systems

Discussion Question:

What impact have system changes had on client behavior?

Consider:
- Are different types of people applying now? What's different?
- How do they present themselves?
- What do they have to do to get into a housing program?

Discussion Question:

How have participants in RRH or PSH programs changed over time?

Consider:
- Demographics
- Health/Disabilities
- Housing histories
- Income/Employment
- Life events/shocks
- Personal agency
- Support systems
- Outcomes

Discussion Question:

Who do you think should be assigned to which program type (RRH or PSH)?

Consider:
- Demographics
- Health/Disabilities
- Housing histories
- Income/Employment
- Life events/shocks
- Personal agency
- Support systems

Discussion Question:

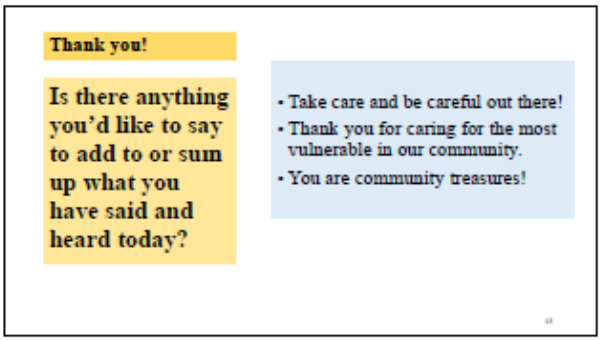
When did the changes you have observed in program participants occur?

Consider:
- Time period?
- System changes?
  - assessment protocols and tools
  - criteria
  - coordination strategies

Discussion Question:

Which program services do you think are most important to ending homelessness for which program types?

Use Chat Box:
- List in order from most important to least important for PSH or RRH. Include only the services you think are essential to ending homelessness, e.g.:
  - rental subsidies
  - case management
  - other supportive services or resources:
    - List most important/essential


Thank you!
Is there anything you'd like to say to add to or sum up what you have said and heard today?
• Take care and be careful out there!
• Thank you for caring for the most vulnerable in our community.
• You are community treasures!

Glossary

Chronic Homelessness (CH). A designation defined by HUD as a head of household with a qualifying disability who is currently living in emergency shelter, a place not meant for human habitation, or in a Safe Haven for persons with severe mental illnesses who were previously homeless; has been homeless for 12 consecutive months or has been living in an institution for less than 90 days and was homeless prior to entry; or has had at least four episodes of homelessness over the last three years cumulatively totaling at least 12 months of homelessness (HUD 2015a).

Continuum of Care (CoC). A U.S. federal program that establishes regions across the country through which funding and policy priorities are distributed toward the purpose of addressing homelessness. Most urban CoCs encompass one major city and its county while rural CoCs may include multiple counties. CoCs form a coordinated network of agencies that provide homelessness services, maintain a HMIS, and present coordinated applications for funding to the US federal government and other sources (HUD 2019b; TCHC 2019b).

Coordinated Entry System (CES). "…a centralized or coordinated process designed to coordinate program participant intake assessment and provision of referrals" for a CoC (HUD 2017b).

Emergency Shelter (ES). A place whose primary purpose is temporary shelter for homeless people that does not require a lease or other occupancy agreement (US Congress 2009).

Fort Worth/Arlington/Tarrant County CoC (Tx601). A US CoC including all of Tarrant and Parker Counties managed under contract by the Tarrant County Homeless Coalition. Tx601 is governed by a board of directors including the Mayors of Arlington and Fort Worth, county commissioner, and other stakeholder representatives (TCHC 2019b).

Housing Inventory Count (HIC). The number of beds and units of housing available in a CoC and reported to HUD on a designated night (HUD 2020d).

Homeless Management Information System (HMIS). Each CoC is required to maintain a HMIS to collect status and service data about every individual served. HUD establishes requirements for HMIS databases and functionality (HUD 2019e).

Permanent Supportive Housing (PSH). Package of supportive services, case management, and rental subsidies for community-based housing without time limits, under normal rental tenancies, suited to meet the needs of people emerging from chronic homelessness who also have disabilities (HUD 2019c).

Point in Time count (PIT). Annual count, typically during the last 10 days of January, of sheltered and unsheltered homeless people including those in PSH, RRH, Emergency Shelter, and Transitional Housing programs (HUD 2021).

Qualitative Comparative Analysis (QCA). A set-theoretic method employing formal logic and Boolean algebra to establish necessary or sufficient conditions (or sets of conditions) associated with an outcome (Schneider and Wagemann 2012; Berg-Schlosser et al. 2009).

Rapid Re-Housing (RRH). Time-limited package of tailored services, case management and rental assistance designed to help households facing a housing crisis return to permanent housing as quickly as possible. This US homelessness program model was developed as part of the American Reinvestment and Recovery Act of 2009 (HUD 2014a).

Tarrant County Homeless Coalition (TCHC). A nonprofit agency that leads, coordinates, and develops strategies to address homelessness for the Tx601 CoC, serving as the CoC collaborative applicant for HUD funding, HMIS manager, and performing fiscal and compliance duties (TCHC 2019b; 2019a).

US Department of Housing and Urban Development (HUD). A cabinet-level agency within the executive branch of the US government responsible for assuring fair access to affordable housing that oversees implementation of federally funded housing programs (HUD 2019f).

Vulnerability Index – Service Prioritization Decision Assistance Tool (VI-SPDAT). A structured questionnaire producing a single score used widely by homelessness response systems to prioritize homeless people for particular types of program responses (OrgCode 2016)

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