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Exploring Welfare Recipients' Self-Sufficiency Barriers through Information Management Systems in Tennessee

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Abstract

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by

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MBA, Delta State University, 1998

BBA, Delta State University, 1993

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Families living on welfare in low-income impoverished neighborhoods encounter multiple barriers that need mitigating before seeking work to reach self-sufficiency. Many welfare recipients' self-sufficiency barriers are unnoticeable to caseworkers due to lack of data sharing to assess clients' needs through information technology processes. The purpose of this exploratory descriptive phenomenological qualitative study was to understand welfare recipients' viewpoints on socioeconomic barriers to living self-sufficiently and gain perspectives from human services caseworkers and technical resources on data sharing issues that impact recipients' ability to live independently from government assistance. Data collection and observational field notes resulted from in-depth interviews of 11 participants to capture welfare recipients' lived experience on human services barriers to achieve self-sufficiency, as well as, caseworker and technical resources views on welfare systems data sharing issues. The analysis of semistructured interviews revealed that welfare systems data sharing is an enhancement needed to help caseworkers identify and mitigate welfare recipients' self-sufficiency barriers. The common assessment framework model provided a contextual view to exploring research questions to elicit participants' perceptions of data sharing in welfare systems processes. The data analysis showed that the lack of data sharing impacts caseworkers' ability to assist recipients with self-sufficiency barriers. Results indicated the need for caseworkers to use data sharing to understand client's socioeconomic barriers and to make effective decisions to lead them to self-sufficiency. The impact on positive social change is using automated data sharing to identify and mitigate recipients' barriers to self-sufficiency.

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Dedication

Most affectionately, I dedicate this research dissertation to my family. To my dearest mother, Dorothy Nichols-McCray, being the education pioneer in the family as the first to attend college and the first to graduate with a master's degree. When I completed my master's degree in business administration, my mother challenged me to pursue a doctoral degree. Her love, support, and encouragement inspired me to pursue this great challenge. I am deeply grateful for her high self-esteem and a strong sense of womanhood while raising me up as a single parent. The emulation of her strong-willed character also stirred me to endure hardships and become successful as a single parent. To my oldest children, Xavier and DeAndrea, I truly appreciate your patience and understanding during the struggles and obstacles we encountered. Your encouraging words of "You can do it Mom!" gave me an urgency to move forward. I am proud that you have followed the footsteps of your grandmother and mother in achieving higher heights so that one day you can pass the torch to the generation to come. You have already overcome the most difficult phase of any child's life in a single-parent home. Now that you are adults, it is my prayer that whatever goal you set out to endeavor that it is greatly blessed and completely achieved. To my 16-year old son, Michael Macario Ross, I dedicate this dissertation totally to you because of your constant hugs and kisses on my cheek while I studied motivated my desire to complete the assignments. Seeing your smile each morning rejuvenated a desire to continue this effort. You have a special gift, and my prayer is that you cling to the values that your family exemplified in keeping the faith and in becoming all that you can be in life. To my father, Charles Nichols, thank you for re-entering into my life and being a wonderful father and grandfather. You are a great example for all fathers in proving that it is never too late to return to your children. Thank you also for praying with me during times when I wanted to give up. The presence of your prayers has empowered me to continue this journey. Finally, I would like to dedicate this research to my late step-father Huley McCray Jr. whom during the time of the writing of this proposal met his demise on January 7, 2014. Thank you for being an instrumental part of my life from age 13. Your love shown to me as your daughter will always be cherished. The prayers, encouragement, and support throughout the years you gave me will never be forgotten. Most of all, I thank God for allowing the attainment of my degree to be fulfilled and useful in helping those who are most vulnerable and poorest in society to live a productive and independent life. His divine power has shown me that with His love and the love of those who truly care I can achieve this endeavor. I am indeed anxious and ready to make a great difference in the welfare of all humankind.

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The greatest acknowledgment in this endeavor is due to God whom I leaned on and depended on, through faith, for strength and direction over the past 8 years during the writing of this degree. I dedicate special acknowledgment to former dissertation committee members, Dr. John Nirenberg and Dr. Thea Singer of Walden University who started this journey with me. It was through Dr. Nirenberg and Dr. Singer's patience, knowledge, guidance, constructive feedback, and passion that I have obtained the zeal to continue the aspiration of completing this enormous task. I would also like to take this opportunity to thank my current dissertation committee chair Dr. Thomas Butkiewicz, Dr. Lisa Barrow as the second committee member, and Dr. Kathleen Barclay as the University Research Reviewer for their understanding and valuable counseling that was truly beneficial to carry on the efforts of attaining this milestone. Together, my dissertation committee team has made this journey one of great exhilaration towards reaching this memorable point in my academic career. I praise my family for the encouragement and support that they gave throughout this challengeable yet rewarding process. My family's support and prayers helped me to stay positive in the belief that through faith I could accomplish all things through Jesus the Christ.

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Chapter 1: Introduction to the Study

The lack of data sharing between welfare systems in some states impacts caseworkers' ability to ascertain welfare recipients' barriers to living self-sufficiently. Lack of information because of inefficient automated data sharing impedes welfare recipients' reform processes due to misplacement in programs or workers' inability to understand recipients' barriers and help them with their transition to self-sufficiency. In this 21st century of the information age, human services agencies are still faced with challenges to collect and share data. Issues with data sharing are impacted by technical, motivational, ethical, legal, economic, and political barriers that limit opportunities to optimize the value and availability of information in welfare systems (van Panhuis et al., 2014). Decision making is an important aspect for caseworkers to help welfare recipients attain self-sufficiency; therefore, data sharing is essential to derive appropriate client outcomes to address the socioeconomic needs of individuals (van Panhuis et al., 2014). The caseworkers' access to data within other human services entities allows them to address their clients' barriers, make sound decisions, and build a roadmap that leads clients to self-sufficiency. However, data sharing is missing in the welfare processes through which caseworkers can assess welfare recipients' needs and help them mitigate barriers and live self-sufficiently. This study addressed caseworkers' ability to assist welfare recipients with socioeconomic barriers using data sharing techniques to support self-sufficiency among welfare recipients.

Background of the Study

Data automation using an enterprise resource platform system is one of the ways organizations share data with other business applications or external entities to leverage customer services through automated processes (Olson, Johannson, & De Carvalho, 2018). However, many antiquated systems are operated in organizations that impede decision-making when serving clients. For example, child welfare caseworkers are overwhelmed with work due to antiquated systems, high caseloads, and many documentation requirements that impact their ability to regularly meet with families and make decisions on their welfare status to prepare them for a self-sufficient living (Mills-Brinkley, Cota, Miller, & McDonald, 2017). Data automation, antiquated systems, stand-alone processes and operations, lack of integration, data security, and manual workloads need to be addressed to enhance welfare reform methods to share data and assist families.

The Department of Human Welfare Services is an organization that in some states struggles to meet the needs of families due to lack of data automation, use of antiquated systems, and inaccessibility of data across multiple welfare platforms. Welfare systems have data inefficiencies that inhibit the ability to make decisions (Akin, Strolin-Goltzman, & Collins-Camargo, 2017), supporting that an enhanced welfare reform data sharing system can leverage caseworkers' capability to make decisions to help recipients toward self-sufficiency. For example, Hong, Polanin, Key, and Choi (2014) created a model called perceived employment barrier to help caseworkers assist welfare recipients with self-sufficiency issues by identifying and addressing services designed to support low-income people. But without data to conduct screening, caseworkers may not understand recipients' employment barriers to assist them in their transition from welfare to self-sufficiency. Thus, a system should be developed to enhance processes and remove old technology that does not support data sharing to address welfare recipients' barriers before seeking work.

Even though better data sharing systems are needed, some welfare workers may not be receptive to new technology. In a study on information and communication technology designed to provide caseworkers with the capability to assist recipients, Smith and Eaton (2014) indicated that some child welfare workers do not think that information and communication technology helps them make sound decisions for their clients to matriculate through the welfare reform system toward self-sufficiency or improve services provided to families. Caseworkers also questioned whether data automation would be beneficial in making sound decisions regarding the well-being of families (Smith & Eaton, 2014). However, to make the right choices to enhance welfare recipients' ability to live independently, data accessibility from multiple welfare systems are required to assess and adequately assign programs and other resources to help families in need. Another problem with data sharing within the welfare reform system is tracking welfare recipients' progress. Researchers had indicated issues with caseworkers not accurately tracking performance for support programs such as Work First regarding unmet needs like proper education, employment obstacles, or health barriers (Danziger, Wiederspan, & Siegel, 2013).

Whether caseworkers agree with the use of technology, data sharing is needed to make sound decisions, place recipients in the appropriate programs and services, have reliable information to provide job programs, and have the capability of monitoring recipients' progress postwelfare to determine if families have reached a level of self-sufficiency. Many states believe that reducing the caseworkers' caseload is an indicator that Temporary Assistance for Needy Families (TANF) and welfare programs are serving its goal to help families gain a self-sufficient living (Snarr, 2013). However, there is no way to verify this without data for measuring the progression of families to live self-sufficiently post-welfare.

The ability to access data is crucial for child welfare agencies to demonstrate effective services and meet federal guidelines. Caseworkers' daily activities involve retrieving, receiving, assessing, and analyzing data that is an essential component in child welfare organizations to meet TANF's goal to successfully lead families to self-sufficiency (Lee, Bright, & Berlin, 2013). Data sharing is also necessary to address barriers that impact recipients' ability to live self-sufficiency and improve the lives of people in social and child welfare services (Kum, Stewart, Rose, & Duncan, 2015), but caseworkers encounter challenges to assess recipients' self-sufficiency due to lack of innovative information technology data sharing systems.

The background information in this section was significant for this study in examining whether Shelby County Tennessee caseworkers use data sharing in automated information technology to view welfare programs and case history from local and other county human services agencies to assist clients toward self-sufficient living. The problem is many welfare recipients' self-sufficiency barriers are unnoticeable to caseworkers due to lack of data sharing to assess clients' needs through information technology processes. Therefore, it is important for technical resources to be persistent in seeking ways to create or enhance data sharing process that will help caseworkers with information reporting of clients to ascertain appropriate methods to mitigate welfare recipients' self-sufficiency barriers.

Need for the Study

The response to address poverty since welfare reform in the 1990s was to encourage people to seek employment for economic self-sufficiency (Gates, Koza, & Akabas, 2017). To help welfare recipients attain self-sufficiency, it is important to identify and mitigate their barriers on a case-by-case basis prior to seeking work. However, issues that many welfare services have encountered in addition to privacy and security risks of accessing data from multiple sources are data sharing in systematic processes to access recipient information appropriately (Kshetri, 2014). Lack of data sharing has a negative effect on low-income recipients, as it hinders the ability for caseworkers to assist with self-sufficiency issues (Kshetri, 2014). Prior research has addressed the need for data sharing; however, it does not address how data can be used to help identify barriers from received information to help recipients reclaim their place in society as self-sufficient consumers. The Shelby County Tennessee TANF model was viewed with caseworkers to understand the interrelation with local human service information technology systems data sharing between TANF and welfare programs to leverage caseworkers' capability to assist recipients for self-sufficient living.

Problem Statement

Lack of data sharing impedes caseworkers' ability to help low-income families with self-sufficiency barriers or impoverished instability (Allard et al., 2018), which has become a priority of social welfare policies the past two decades in the United States (Hong, Hodge, & Choi, 2015). But there is still little information on caseworkers' challenges to access or choose not to use data for decision-making purposes to ascertain clients' readiness for self-sufficiency (Lee et al., 2013). Welfare recipients desire to live self-sufficiently; however, caseworkers lack data sharing methods to assess clients' lived experiences. Twenty percent of families live below the federal poverty line because of economic hardship (Miller et al., 2017), and caseworkers take risks helping recipients reach self-sufficiency by disseminating inconsistent information due to data sharing inefficiencies (Wilson, 2014). The general business problem was the impact a lack of data sharing has on caseworkers to assess clients' self-sufficiency barriers through information technology processes. The specific business problem addressed was caseworkers' lack data sharing capabilities to analyze and mitigate the lived experience of welfare recipients' self-sufficiency barriers (see French & Williamson, 2016).

Purpose of the Study

The purpose of this exploratory descriptive phenomenological qualitative study was to understand welfare recipients' viewpoints on socioeconomic barriers to living self-sufficiently and gain perspectives from human services caseworkers and technical resources on data sharing issues that impact recipients' ability to live independently from government assistance. Data sharing is essential in government agencies to not only process information within the department but to establish sharing of information externally with other agencies that some state administrators find difficult to accomplish (Allard et al., 2018). Data sharing provides the functionality for caseworkers to understand the needs of families and the services they use as well as interpret the lived experience of recipients' self-sufficiency (Allard et al., 2018). Because data sharing is essential to ensure clients' needs and that barriers are met to attain self-sufficiency, it is important for caseworkers to understand the needs, challenges, and barriers of welfare recipients that may impede progression through the welfare programs to self-sufficiency. To address the purpose of the study, I collected data from 11 individuals who were caseworkers, welfare recipients, and technology staff in Shelby County, Tennessee. Questionnaires were used to guide the interview discussions with the research participants.

Research Questions

Research questions are important in the design to maintain focus of the study and trajectory of the research purpose. The research problem addressed the lack of data sharing capabilities caseworkers' encounter to improve welfare recipients' self-sufficiency barriers. The following research questions contributed to gaining an understanding of the research problem.

Research Question 1: How is data shared between welfare systems to assess welfare recipient's self-sufficiency barriers?

Research Question 2: How can information systems data sharing help caseworkers with decision making to meet the unique needs of welfare recipients?

Research Question 3: What integration implementation challenges do technical resources encounter to provide data sharing capability through information technology processes to caseworkers to effectively assess, analyze, and mitigate barriers to ensure welfare recipients' readiness to live self-sufficiently?

Conceptual Framework

This study's conceptual framework consisted of the common assessment framework (CAF) model. Chester, Hughes, Clarkson, Davies, and Challis (2015) developed the CAF model that provides visual interpretation on the importance for sharing information in health and social service agencies. This model shows the positive impact sharing information has on individuals to better understand the progression of their cases in addition to caseworkers or social services professionals being able to access client information. The CAF model is used by independent and third sector providers to address social service delivery needs to help families on welfare. The CAF model indicates that individuals with complex needs or barriers will predict whether a care plan assessment and information sharing in health and social services will lead to quality care (Chester et al., 2015). Chester et al. developed the CAF model to conduct individualized self-assessment about individuals' ability to change their lived experience from welfare to self-sufficiency. Using the CAF model has enabled researchers to identify whether information sharing is needed to obtain an in-depth assessment of service users' intensive or prolonged treatment by multidisciplinary agencies (Chester et al., 2015).

Although CAF was the conceptual framework used for this study to address the technical aspect on information sharing in welfare systems, a nontechnical component is important to address the social theoretical implications lack of information sharing has on welfare recipients' ability to live self-sufficiently. Viewing the nontechnical aspects of the framework are needed to support the CAF model on the usefulness of information sharing for the service users, service professional, and third-party providers.

Another model to consider for this study is the logit model that Requena (2015) developed to assess various welfare systems and support networks. The logit model is designed to allow social service workers to address the concerns on welfare and poverty. Social service workers using the logit model can understand whether information transferred from families and friends helps or hinders clients' cases during the follow-up recertification processes to determine continuation in welfare programs (Requena, 2015). Without a dedicated social connection, the emotional and mental well-being of recipients can be difficult to address when providing the support needed to help with recipients' transition from poverty to self-sufficiency. Requena defined *welfare systems* as a method to measure the needs of recipients and identify the social support from their personal network. Appropriately measuring or recognizing the needs of recipients is essential to help caseworkers move people from poverty to self-sufficiency and a stable lifestyle.

In addition to the logit model, the welfare system model is an important concept to understand welfare recipients and the factors that affect them. Case managers make up the welfare system and have more impact on the livelihood of families because they are the decision-makers. Case managers impact the likelihood for recipients to reach self-sufficiency due to their preconceived thoughts about their socioeconomic conditions, welfare culture and moral economy, and how caseworkers interact with the poor (Helena, Johanna, Christian, & Mikko, 2015). Therefore, to ensure welfare recipients are being helped to attain self-sufficiency, the welfare system model must be viewed holistically focusing on four major areas: (a) the welfare government, (b) the welfare recipients, (c) the welfare caseworkers or professionals, and (d) the welfare programs. Welfare systems do not consider the holistic needs of the people, social support, or the technology to ascertain recipients' barriers. Figure 1 shows a holistic view of the importance for interconnectivity of welfare systems archetypes.

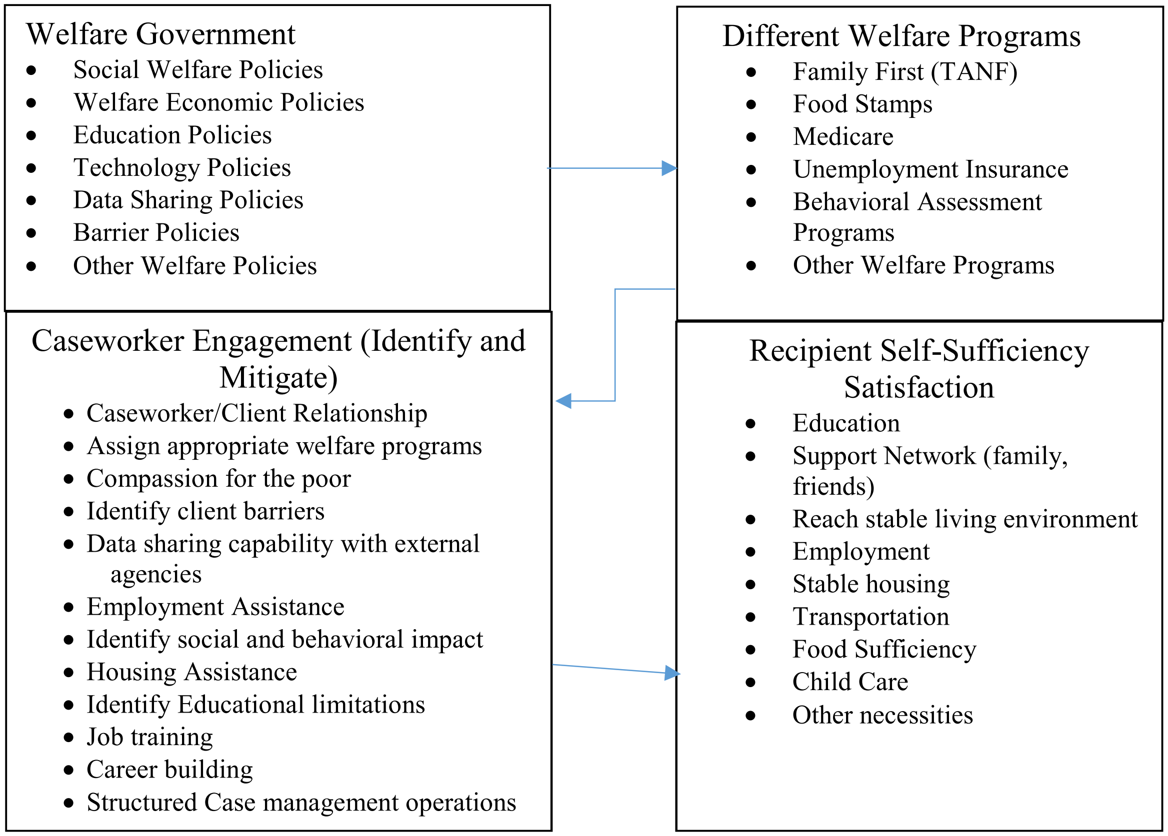

Figure 1. The welfare system archetypes model. This model shows four key quadrants that are essential to understand and help welfare recipients reach a level of self-sufficiency. Each quadrant has processes or policies to be considered throughout the welfare cycle of each recipient to leverage the pathway from welfare to self-sufficiency.

Figure 1 shows the different policies that may need revising to develop methods to better serve lower income families and lessen some of the restrictions such as removing recipients from benefits as soon as household income increase, which deters many recipients from seeking employment. After welfare government policies have been established, the next step is to ensure that welfare recipients are assigned to appropriate programs; therefore, policymakers must ensure that programs are designed to increase the success factors for recipients to transition from welfare to self-sufficiency. Caseworkers represent the third component of the welfare system archetype. The caseworker role is to follow the policies, conduct proper assessments to assign recipients to the appropriate programs, use available technology for data sharing needs, and build a relationship with their clients to help them attain self-sufficient living. Finally, the satisfaction of the client results from a combination of the prior welfare system quadrants once their basic needs are met and barriers have been mitigated.

Although CAF was the primary conceptual framework for this research, hedonism regarding welfare theories also informed my research. Hedonism, according to Woodard (2013), addresses areas of welfare that has limited information from prior researchers on welfare services. Hedonism can be used to focus on issues to understand the correlation between the services welfare offer and caseworkers' efforts to empathize with the ethical perceptions of families in need.

In my study, each welfare recipient had single or multiple barriers that were in some instances related; however, the treatment or mitigation program for these individuals may not be good for every individual. Therefore, to conceptualize the needs of recipients toward self-sufficiency, the practice of hedonism supported the conceptual framework of the study when caseworkers ask critical or enumerative questions with candidates to assert their thoughts toward self-satisfaction and address overlooked issues that hinder an individual from attaining self-sufficiency.

"Tripartite theory on welfare" is a term coined by Woodard (2013) that causes individuals to overlook views of another's phenomenon requiring discussion. The tripartite method does not allow the caseworkers to address the real issues preventing recipients from self-sufficiency. This concept of neglect is called *welfare nihilism*, meaning there are negative or a sense of emptiness from the recipients' standpoints that nothing good can come out of their lived experience because it "excludes the enumerative and explanatory questions about welfare" (Woodard, 2013, pp. 102-103). The enumerative questions address the *what* about a person's welfare and then the *why*. If the response to the *what* is negative, unpleasant, or unsatisfactory, explanatory questions are asked to understand the welfare nihilism of an individual's life experience that are focused on the internal and external views of the recipient's life to help understand the lack of living self-sufficiently (Woodard, 2013). Woodard conceptualized a framework on classifying welfare theories shown in Figure 2.

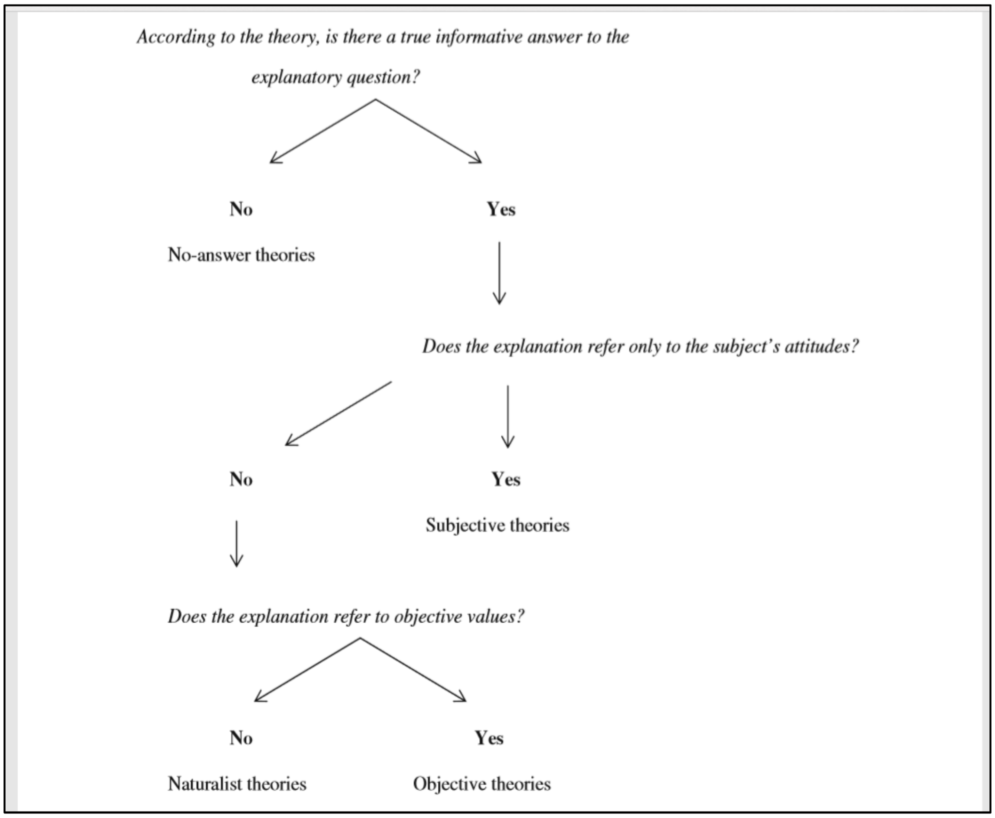

Figure 2. The classifying theories of welfare. This diagram supports information being extracted from recipients to obtain their internal and external views about their lived experiences and the need for each theory to be addressed during the explanatory or enumerative research questions. From "Classifying theories of welfare," by C. Woodard, 2013, *Philosophical Studies,* p. 801. Copyright 2012 by Springer. Reprinted with permission.

In addition to the previous concepts informed by Woodard (2013), the no-answer theory was described by Woodard as recipients who have no response regarding their life experiences. My interpretation of Woodard's naturalist, objective, and subjective theories is a theory allows research participants to answer questions about their lived experience from a factual and realistic standpoint of objectivity to understand the reasons for being on welfare. Subjective theory indicates that individuals only look at one side of their problem as being welfare recipients independent of seeking help, finding employment, or other resources to help them reach self-sufficiency. The need to ask recipients the right explanatory and enumerative research questions to obtain information about their lived experience and take a holistic approach to address barriers to self-sufficiency requires detailed discussion.

The conceptual theories of prior researchers support this study regarding the need for data sharing between welfare systems. The CAF model was used in the study to address perceived barriers, obtain information about participants' lived experiences, address the importance of taking a holistic approach to identify and mitigate barriers impeding self-sufficiency among welfare recipients, and to ensure recipients answered or responded to the explanatory research questions. Using the CAF model facilitated an increased understanding of caseworkers' lack of data sharing and inability to identify and mitigate welfare recipients' barriers to self-sufficiency.

Nature of the Study

I used an exploratory research method with qualitative phenomenology and an emphasis on the social constructivist philosophical worldview to understand Shelby County Tennessee caseworkers' viewpoints on the TANF model regarding data sharing in automated information welfare systems to identify welfare recipients' barriers to self-sufficiency. This research was guided by phenomenology psychologist Amedeo Giorgi, who provided a global description of how to conduct research using human subjects (Giorgi, 2009). Giorgi described phenomenology as a qualitative measurement of data expressed linguistically to ensure underlying assumptions or expected outcomes are met from the study. Phenomenology is centered on the experience of others in a phenomenon. Understanding participants' lived phenomena requires interpretation of what they tell to identify the significance of the experiences (Padilla-Diaz, 2015). Therefore, data were analyzed using NVivo 11 software, and a transcendental phenomenology design was used to collect data to explicate the mindset of the recipients' lived experiences (see Padilla-Diaz, 2015). Using a transcendental phenomenology design helped to understand the impact data sharing has on caseworkers' ability to identify barriers and effectively address the needs of welfare recipients to attain self-sufficient living.

This study was also designed based on previous phenomenological qualitative research on evidence-based practice (Avby, Nilsen, & Abrandt Dahlgren, 2014). The caseworkers' viewpoints emphasized the impact of data sharing to reduce the barriers encountered by welfare recipients' lived experiences for self-sufficiency. Caseworkers use evidence-based practice in social work practice to attain knowledge from other resources outside of personal assumptions to benefit the client by using different ways to understand and gain information from a holistic perspective when analyzing recipients' issues (Avby et al., 2014). Some researchers have also emphasized the need for an evidence-based policy as a big data initiative in government agencies to assist caseworkers with decision-making and to better understand the social policy and consequences of welfare reform (Allard et al., 2018).

To collect data, I used questionnaires as a guide to conduct interviews with five hard-to-serve welfare recipients 18 years of age and older to understand their self-sufficiency barriers and whether their participation in TANF programs helped or impeded them from establishing better living for their families and freedom from government assistance. Three caseworkers and three technical resources were also interviewed for their perspective about the successes or failures of using information technology to make decisions through data sharing analysis to help clients prepare for living without government assistance. The interviewing process was used to understand the commonalities and differences from welfare recipients' responses, caseworkers' responses, and technical resources. Data saturation of this study was met by interviewing 11 participants. The caseworkers' viewpoints on inaccessible data from local or county human service agencies to make accurate decisions for clients indicated a lack of understanding about the barrier recipients encounter to live self-sufficiently. Conducting interviews addressed the impact of lack of data sharing on participants' experiences with an accurate needs assessment to meet welfare program requirements and transition from relying on government assistance to reestablishing welfare recipients as individuals who can sustain their living standards.

It is important to understand the social, behavior, economic, or other barriers that may impact individuals' ability to live self-sufficiently. Therefore, phenomenological qualitative research was consistent with understanding the welfare recipient's viewpoints regarding their barriers to self-sufficiency. It was also important to understand caseworker and technical resource viewpoints regarding data sharing and the impact it may have on determining the efficiency and effectiveness of a person's ability to assess the needs to help recipients reach self-sufficiency. Thus, I used an exploratory descriptive phenomenological qualitative method to gain an understanding of how the use of information technology data sharing impedes or allows caseworkers to mitigate welfare recipients' self-sufficiency barriers.

Definitions

The following definitions are provided to ensure key terminology used throughout the study is understood.

Economic self-sufficiency: The ability of individuals and families to consistently meet their needs with minimal or no special financial assistance from private or public organizations (Gates et al., 2017).

Hard-to-serve: Interchangeably known as *hard-to-employ*, which implies that the needs of some recipients may be beyond the scope of services that are typically available in welfare or welfare to work offices (Danziger & Seefeldt, 2002, p. 76) or hard-to-employ individuals who rely on welfare but have the capabilities to be employed and to be economically self-reliant (Banerjee & Damman, 2013). Welfare recipients with multiple socioeconomic barriers that impede their ability to leave welfare and live self-sufficiently and are beyond the capability of services to exit welfare reform (Nichols, 2018).

Lived experience: Unemployed, disabled, homeless individuals of relative powerlessness depending on government assistance by claiming benefits, receiving advice, or seeking employment experiencing unwanted and unbidden intrusions in life (Wright, 2016).

Self-sufficiency: The ability to meet the needs of individual and family households making living wages without financial assistance from private or public organizations to attain financial well-being, security, and prosperity (Gates et al., 2017).

Social approach welfare system: A range of approaches government agencies take to improve data quality and data analysis allowing data users such as caseworkers to link data across multiple data systems to measure demographic data and detailed programs to understand clients' family inconsistencies of living in and out of poverty (Allard et al., 2018).

Statewide Automated Child Welfare Information Systems (SACWIS): An electronic information case management application used to document and monitor cases in child welfare services programs (Elertson, 2017).

Welfare reform: The principle of observing behavioral change to dictate the motivation and action of individuals to get them off welfare and into work (Wright, 2016).

Assumptions

One of the assumptions of the study was caseworkers' ability to share information on the day-to-day process of data sharing and their experiences to prepare clients for self-sufficiency as well as other disclosed information without jeopardizing the confidentiality of the caseworkers' clients or putting their job at risk. Another assumption was that caseworkers and welfare recipients would be able to identify and articulate the barriers preventing self-sufficiency. An additional assumption was caseworkers' ability to explain the welfare processes and system functionality to provide the underlining gaps needed to make decisions. Other assumptions included that the primary focus of caseworkers was helping mitigate barriers with a secondary focus on work first programs as well as that welfare recipients would be ready to live self-sufficiently by addressing barriers through improved information technology. Finally, it was assumed that hard-to-serve recipients, especially those in a low-income environment, are left out of the process and have not achieved self-sufficiency. These assumptions might have introduced biases due to my role as the sole researcher and primary data collection instrument.

Scope and Delimitations

This study involved collecting data from three groups of people: (a) welfare recipients, (b) caseworkers, and (c) technical resources affiliated with human service agencies in Shelby County Tennessee. Human service agencies included but were not limited to TANF, Department of Human Services (DHS), foster care, and children services. This research involved a phenomenological approach to assessing recipients' readiness to become self-sufficient through the proper tracking of their welfare reform program participation using automated information system technology. Although ethnography, narrative, grounded theory, and case study are qualitative methods, they did not relate to the research and therefore were not considered.

The scope of this exploratory descriptive phenomenological qualitative study was to understand the implications for improving information systems technology to analyze welfare recipients' barriers and use of data sharing between human service agencies to help recipients achieve self-sufficiency. One of the delimitations of the study was looking at the TANF work first system. Participation was delimited to welfare clients who were living at the poverty level in Shelby County, Memphis, Tennessee, were current welfare recipients during the last 2-5 years, and were age 18 or older. Welfare recipients excluded from the study consisted of those with 2 or more years' college degree or a professional job who may be on welfare temporarily due to job layoffs. Another delimitation was the examination of welfare recipients' barriers that impede their ability to live self-sufficiently.

Limitations

One limitation is participants' fears of giving honest responses because of the perceived impact it may have on them or their organization. Another limitation is that welfare recipients may have withheld information from the embarrassment of living in poverty and provided faulty information to caseworkers. Also, welfare participants may have had difficulties identifying or expressing barriers. Participants' understanding of questions may have also limited their ability to provide an accurate response to questions. Scheduling interviews during the workday was also a limitation because of time constraints and busy schedules. Another possible limitation is the caseworkers' knowledge and ability to use information systems and decision-making processes to assist welfare recipients in preparing them for self-sufficient living.

From a researcher's perspective, the lack of current data sharing techniques to obtain, analyze, and compare statistical data across various welfare information systems might have limited the amount, value, and method of data to be collected. Additionally, the number of participants is too small to generalize. However, the results can still help identify barriers and systems issues to provide caseworkers with the necessary tools to help the welfare recipients overcome encountered self-sufficiency obstacles.

Significance of the Study

I explored the ability of caseworkers to help recipients toward self-sufficiency through data sharing interconnectivity within the TANF information technology system. Implications discovered regarding the need for shared information between human service entities through automated systems dictated the need for caseworkers to disseminate shared information across local and state entities to better meet the needs of individuals in welfare reform programs. The proper use of data and information sharing is an ongoing human service issue that is underdeveloped in research to address socioeconomic needs, mitigate barriers, and help families overcome challenges to live self-sufficiently (Lee et al., 2013). Data sharing and data usage is a significant process that is essential for caseworkers to analyze welfare recipients' cases to make appropriate decisions to help transition them from poverty to self-sufficiency. However, caseworkers like child welfare workers have barriers such as:

> low rates of data use and data access, skill deficits, lack of time, limited understanding of the value of data, few dedicated organizational resources, and the need for additional training and support from supervisors to use and interpret data to supervise frontline staff in using data. (Lee et al., 2013, p. 99)

Therefore, this research is significant in identifying gaps in the use of information technology to make decisions on the well-being of welfare recipients to attain self-sufficiency. Dissemination of study findings may contribute to improving caseworkers' ability to understand system processes, interpret data, and place recipients in programs that will help improve their living standards economically during their transition from welfare to self-sufficiency. Caseworkers' ability to make decisions from automated data sharing processes increases welfare recipients' opportunities to reach a state of self-sufficiency.

Data sharing has improved within welfare reform entities; however, there are still challenges. For example, child welfare workers need to ensure that recipients' safety is considered by addressing privacy concerns and protecting the ethical rights of individuals using information security as a method to share data for decision-making purposes (Smith & Eaton, 2014). It is important to note that caseworkers' ability to share data to make proper decisions regarding the well-being of families on welfare is only one means to alleviate poverty and help recipients reach self-sufficiency. For instance, Gates et al. (2017) implied the need for government officials to comprehensively view and modify welfare policies to include procedures that allow caseworkers to analyze the economic challenges of individuals and encourage self-sufficiency as part of their social service process. But because some welfare agencies experience issues with the transformation of data within and outside of its respective service areas, a systematic flow process is needed to accurately track and retain data in systems that will allow retrieval of information by courts and other agencies to determine the best outcomes for children and families (Smith & Eaton, 2014).

Systematic use of a data automation process is needed to allow caseworkers share information and obtain insight into case clients to coordinate care by focusing on the need to help individuals toward self-sufficiency (Government Accounting Office, 2013). Without new technologies in welfare organizations, social workers will have a less influential impact to assist their clients and will encounter social work challenges due to lack of computer-assisted information systems (Smith & Eaton, 2014). Therefore, there is a need for caseworkers to use automated technologies that support data sharing, which was supported by this study. Recipients rely on caseworkers to be able to make proper assessments and decisions, which requires updated technology, but one of the issues with welfare systems is how long it is taking human service agencies to replace old technology with information systems that include data sharing capabilities that will protect recipient's personal information (Government Accounting Office, 2013). Replacing antiquated systems leverages the transferability of data allowing caseworkers to make sound decisions on behalf of their clients' socioeconomic well-being.

Resulting data from this study can be useful for caseworkers who work with welfare recipients on understanding the need for state and local governments to enhance their policies, processes, and procedures to ensure that data sharing between state and local TANF and welfare programs occur to help families make a transition to self-sufficiency. The implications that many states foresee in implementing data sharing processes is the impact on welfare recipients' privacy and confidentiality. There is a need for welfare services to have a means of measuring the progress and completion of recipients' education, employment, vocational training, or other welfare services to accomplish TANF's goal to move individuals from welfare to self-sufficiency.

Additionally, this study can help caseworkers in their roles to ensure welfare recipients have the benefits needed to provide for their families. This study can help caseworkers consider obtaining a complete view of family needs, understanding patterns of program participation and service use, and having a more holistic view of self-sufficiency or well-being of the clients (see Allard et al., 2018). Contribution to enhanced data sharing processes could further lead to accurate decision-making among caseworkers to ascertain the barriers impeding welfare recipients from self-sufficient living.

Caseworkers' ability to understand the socioeconomic conditions of welfare families and make sound decisions upon viewing welfare recipients' barriers to self-sufficiency might lead to increased chances of recipients dropping off the welfare roll.

Significance to Practice

Human service caseworkers who do not use automated information systems data sharing processes risk opportunities to improve welfare reform, identify barriers, and appropriately assign welfare recipients to programs and resources to prepare them for self-sufficiency. Technology enhancement in welfare systems leads to caseworkers' capability to help clients seek employment and focus on the well-being of clients to mitigate barriers and leverage job satisfaction among caseworkers (Taylor, 2013). However, there are still challenges with automated systems and data sharing within human services agencies and caseworkers' job satisfaction with helping families reach self-sufficiency rather than focusing on reducing caseloads. For example, even though communication is essential between caseworkers and clients, more time is usually spent on the application and determination process (Wilson, 2014). Therefore, an automated data process can streamline caseworkers' intake processes and open opportunities to communicate with clients about their experiences. Automated data sharing technology allows caseworkers to view the progress and cases of welfare recipients to communicate with them about their reform progress openly and to help plan out the path to self-sufficiency. Viewing policies and welfare practices and conducting a needs assessment of data management processes can help workers move low-income families to self-sufficiency and stability (Allard et al., 2018).

Despite the importance of data sharing, information sharing remains a challenge in several state and local efforts to integrate TANF and child welfare services data sharing processes. These efforts include improving, implementing, and developing an automated process to provide information data sharing across multiple TANF systems. The need for data sharing has been an ongoing agenda over the last decade for states' ability to design automated systems to allow data sharing between TANF and welfare programs and meet the needs of clients and government agencies (Allard et al., 2018). Though new business policies are continually developing to understand welfare recipients' barriers and the needs of individuals to become self-sufficient, this study was necessary to address the lack of information on welfare recipients attaining self-sufficiency when barriers are identified and mitigated by caseworkers accessing shared data from internal and external human services agencies.

Though research has confirmed states' efforts to modify federal program policies on electronic data transfer to implement a secure data sharing process to protect privacy and help families attain self-sufficiency (see Wilson, 2014), there are still issues that must be addressed. For example, Wilson (2014) indicated the need for legislation that includes an understanding of the viewpoints of the poor to create technological solutions rather than have reform policies based on underlying assumptions about barriers for those in poverty. Other issues also need to be addressed:

> Probable causes of technology challenges to further consider and implement the welfare data solution are: (a) each state has different application processes, (b) eligibility criteria, (c) residency requirements, (d) funding rates, (e) levels of technology maturity, (f) and each state maintain its own information technology environment that may not integrate with federal or county systems resulting in obviating opportunities, data sharing, and error reduction endemic in duplicate information. (Wilson, 2014, p. 44)

Caseworkers in many human service agencies still prefer to use paperwork rather than automated systems as a means of tracking, monitoring, and reporting data to assist their clients. Research has indicated that caseworkers spend more time on paperwork and little attention to helping welfare recipients move from welfare-to-work-to-self-sufficiency (Taylor, 2013). Applicants experience burdens during the delivery of welfare services due to inconsistencies or delays to determine eligibility to receive government assistance, which is an ongoing challenge among Health and Human Services internally and with other states (Wilson, 2014). Privacy concerns, insufficient technology, and unclear policies have also resulted in limited information sharing between federal and state programs (Wilson, 2014).

The ability for caseworkers to have as much information available to them about their respective cases is essential to develop a welfare plan of action that will aid in guiding the welfare recipients toward living self-sufficiently. But due to lack of automation to share data within welfare systems and other human services programs, caseworkers might overlook welfare recipients' barriers and improperly assess their progress toward attaining a substantial living absent from government assistance. Additionally, without automated data sharing functionality, it is hard to determine the percentage of families that become self-sufficient post-welfare.

Research has indicated the need for states to enhance or develop automated systems that will share data with other agencies within and outside of their respective states (Wilson, 2014). However, it has not been clear if this can help caseworkers assist welfare recipients to attain self-sufficiency successfully. Therefore, with this study's focus on data sharing, results can provide information to help caseworkers using data sharing automated techniques to ascertain and mitigate barriers of welfare recipients, assign them to appropriate programs, prepare them to seek jobs, enhance education levels, and address other issues that may prevent helping recipients live independently.

Significance to Theory

This study contributes to the idea that welfare systems should allow data sharing across multiple entities such as foster care, TANF, children services, employment, rehabilitation, or other human service entities to help caseworkers assess and analyze the needs of welfare recipients and help them live self-sufficiently. Common challenges include extensive data collection that individuals may sometimes find humiliating, individuals finding it burdensome to apply for assistance because of arbitrary judgments for worthiness, and applicants' distress from delay in receiving assistance (Wilson, 2014). The lack of automation and data sharing across multiple welfare systems also limits caseworkers' capability to determine the needs of welfare recipients. Allard et al. (2018) concluded in grounded theory the importance of understanding data before developing a strategy to undertake issues impacting families' capability to become self-sufficient. Caseworkers' ability to access information through data sharing to identify and mitigate welfare recipients' self-sufficiency barriers can lead to a positive social change in the lives of individuals by helping them with socioeconomic living standards.

Significance to Social Change

This study can affect significant social change, as dissemination of findings can inform caseworkers on improving the effectiveness of welfare reform programs to use data automation sharing to conduct pre-assessments on recipients to prepare them for self-sufficient living. The study results reflect the importance of sharing data to understand the barriers encountered by recipients. Improving data sharing can help recipients move from welfare and poverty to self-sufficiency because caseworkers will have a holistic view on the history of their clients. Welfare recipient's barriers determined from assessments may influence their ability to go directly into a work-first program rather than participate in specialized programs that will aid in overcoming multiple obstacles that impede them from attaining jobs of adequate pay to become self-sufficient and maintain sustainability in working society.

Summary and Transition

Chapter 1 included in the background information, problem statement, the purpose of the study, research questions, and conceptual framework. Also included were the nature of the study, definitions, assumptions, the scope of study delimitations and limitations, and the significance of the study to include the significance of practice, theory, and social change. Despite limited research about the lack of data sharing and its impact to welfare recipients' self-sufficiency, it was essential to research the topic on evidence-based policy further to gain more insight into systems and data sharing relationships among diverse government agencies and external human service partners.

Chapter 2 includes a literature review regarding welfare reform and the current understanding of the barriers that impede welfare recipients from living sufficiently. The literature review addressed the research problem and gap in research on the impact of innovative information technology data sharing on caseworkers' ability to identify recipient barriers and help them attain self-sufficiency.

Chapter 2: Literature Review

Introduction

Many attempts have been made to restructure welfare reform to streamline efforts to help families attain self-sufficiency. However, little has been studied on the policies of e-government automation and identified several areas for policymakers to consider regarding the automation of welfare programs and its impact to recipients, privacy issues, and accessing information (Wilson, 2014). When policymakers understand what poverty is, strategies can then leverage technology at different automation levels to help low-income people, but the current e-government policy and technology processes for human service programs do not address service delivery inefficiencies and recipient barriers (Wilson, 2014).

Research has indicated the need for data sharing to support the flow of information so that agencies can serve clients more efficiently in social work practices (Schoech, 2010; Smith & Eaton, 2014). Policymakers and local officials need to design a solution that provides recipients the opportunity to speak about their experiences regarding economic obstacles impacting their ability to cope with material hardship and to receive services that will help them mitigate barriers to self-sufficiency (Danziger et al., 2013). To ensure welfare recipients reach a level of self-sufficiency, it will take interconnectivity between people, programs, and policies through data sharing automation. Data sharing provides efficiency for caseworkers to address the needs of individuals and families, understand recipients' barriers, and make decisions through resources from other human services agencies on the most feasible program placement that will leverage opportunities from welfare to self-sufficiency. Access to child welfare data can leverage policy efforts, help measure the quality of services, and provide essential information on child and family outcomes. However, little information is known regarding how caseworkers use data in daily work activities and decision-making. Prior literature on child welfare services to identify data usage barriers indicates that research is underdeveloped due to lack of organizational influences (Lee et al., 2013) to advocate for data automation in welfare processes.

Chapter 2 includes a summary of the current literature on information technology data sharing between welfare systems to leverage opportunities for decision-making. I describe and synthesize peer-reviewed literature regarding data sharing to elucidate the barriers to becoming self-sufficient. The chapter begins with a description of the literature search strategy and explanation of data sharing in welfare reform systems, which was the conceptual framework for this study. The conclusion of this chapter is a summary of the literature review implications for social change. The literature review can help inform social workers on issues of service effectiveness, and ways automated information systems technology is understood or defined to help clients overcome economic barriers (see Taylor, Gross, & Towne-Roese, 2015).

Literature Search Strategy

I conducted searches to explore and identify literature about data sharing in the welfare system and its impact to help caseworkers mitigate self-sufficiency barriers among welfare recipients. I used the Walden University Library and Google Scholar search engines as well as peer-reviewed journals. Walden University's Social Science, Sociology, Computing and ABI/Inform Collection, Career & Technical Education were library databases accessed to obtain information for this study. The search process consisted of entering the terms *welfare reform, TANF issues, devolution, self-sufficiency, caseworkers, welfare reform technical,* and *work first programs* into the Social Science and Sociology Walden databases. Additionally, *human service systems, welfare reform technology,* and *welfare information systems* were terms entered into the Computing and ABI/Inform Collection databases. Little information existed on welfare system data sharing and impact to help participants with self-sufficiency needs; therefore, I expanded the search for broader issues or related topics using keywords in other subject areas or databases.

Conceptual Framework

The development of welfare reform information systems goes as far back as 1996 beginning with the Personal Responsibility and Work Opportunity, formerly known as Welfare-to-Work (Wilson, 2014). Traditional methods to apply for government assistance such as Medicaid, SNAP (food stamps), and TANF (welfare) can be burdensome or humiliating for people due to delays in receiving assistance caused by lack of well-designed and deployed technology solutions (Wilson, 2014). The problem is that many welfare recipients' self-sufficiency barriers are unnoticeable to caseworkers due to lack of data sharing to assess clients' needs. Each state has its information technology system, application processes, and eligibility requirements, whereas welfare systems at the local levels are incapable of communicating with each other to provide or meet data sharing needs (Wilson, 2014). Therefore, there is a need for automated welfare reform systems with data sharing functionality using information system technology to streamline data sharing across multiple welfare systems and operations.

Data sharing is an essential component for decision-making purposes within human services to help transition welfare recipients to an independent state of living. However, with data sharing, there is the need to address ethical concerns relevant to caseworkers' commitment to providing services that will protect the privacy and confidentiality of their clients (Reamer, 2013). Though the current NASW Code of Ethics includes standards regarding confidential information, most ethics standards do not address information transmitted electronically (Reamer, 2013). Additionally, there are significant limitations in data sharing such as the inability to obtain data from other agencies providing services to welfare recipients. It is difficult to assist clients receiving benefits or services from more than one agency in the city where separate standalone agency systems limit information sharing and interagency services (Sobkowski & Freedman, 2013).

Human agencies like New York have progressed toward interoperability to access data across multiple welfare systems and other agencies from their development of Access NYC (formerly HHS-Connect), though it is not clear this has helped caseworkers in decision-making to aid welfare recipients' self-sufficiency (Sobkowski & Freedman, 2013). The TANF and welfare programs were the benefits offered to welfare recipients considered in this study to determine the effectiveness of caseworkers' ability to assess an individual's welfare needs to attain self-sufficiency.

Common Assessment Framework (CAF) is the model considered in this conceptual framework. CAF has been used in prior research as a demonstration program for the government of England in assessing information sharing for reporting processes (Chester et al., 2015). The CAF researchers selected sites to develop solutions that would improve data sharing and information exchange between health and social care service on the transmittal of data through multiple systems for assessment planning. The researchers emphasized the importance of England's healthcare and social service issues to consider the ability to transfer information within various service entities.

The intent of CAF used at England's demonstration sites was to determine how data sharing impacted the ability to assess information for individuals, professionals, and third-party service providers by using integrated systems to provide effective and efficient means to exchange data in real-time (Chester et al., 2015). The conceptual framework for this study was influenced by the Common Assessment Framework to understand whether automated data sharing allowed caseworkers to identify welfare recipients' barriers and guide them to self-sufficient living. The CAF model selected for this conceptual framework because the identified concepts supported the purpose of this research on understanding data sharing information and how it can be used to help caseworkers in social services entities assess the needs of their clients. Data exchange concepts that derived from the CAF model was the ability to identify the importance of information sharing between human services social entities to leverage assessments to make informed decisions. Findings from the CAF model entailed that some workers continued manual to use for information sharing due to lack of technology to electronically process data or the preference of users at demonstration sites where data sharing was available (Chester et al., 2015). Figure 3 shows a view of what this conceptual framework might look like using the welfare information system.

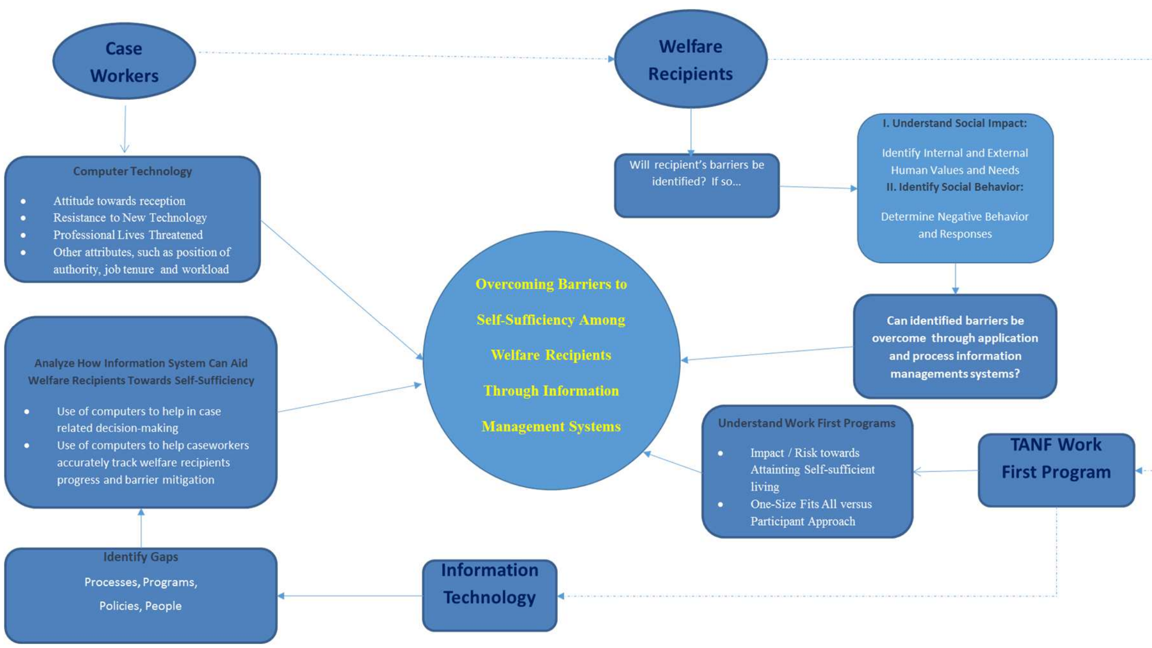

Figure 3. Welfare information system conceptual framework. Diagram of significant conceptual elements to consider in developing a welfare information system. The dotted lines depict the key components that interact in a welfare information system. The solid lines represent the possible processes to identify welfare reform barriers.

The conceptual framework outlines four essential components of TANF and welfare delivery elements: (a) caseworkers, (b) welfare recipients, (c) TANF work-first program, and (d) information technology. In this study, I aimed to have a conceptual outlook on the possible issues that each component encounters within welfare information technology systems to help welfare recipients to self-sufficient living. Figure 3 shows the different elements to inquire on the use of information technology regarding caseworkers' resistance or acceptance to perform daily tasks to meet TANF's goal to move recipients from welfare to self-sufficiency using data sharing methods. The dotted lines in the diagram indicate the process flow of suggestive welfare reform components; however, the underlying concern for this research was the identification of barriers and the process to assign recipients to appropriate programs to provide services for help with self-sufficiency. Once barriers are determined, action steps can be taken to mitigate barriers through TANF and welfare application and information systems. I anticipated that the TANF work-first program should help determine which method (one-size-fits-all or participatory approach) is being used by the human services department and how the use of information technology ties these components together to help caseworkers assist clients.

Literature Review

A comprehensive literature review encompassed the need for this study aimed at gaining an understanding of information technology in welfare reform services. The literature review entailed the concept of leveraging technology through data sharing techniques to guide caseworkers to make accurate decisions toward recipients' ability to live self-sufficiently. To further support the research and explore the need for data sharing, the historical aspects of TANF's welfare reform information technology and the statistics on Shelby County Family First are included in this literature review.

Statistical Poverty Data

The American Community Survey 2016 showed poverty for Memphis at 26.9% and Shelby County at 21% (Delavega, 2017). The 2016 poverty rates for Memphis have also been higher than Tennessee and the United States, with poverty rates showing 27% for Memphis, 14% for the United States, and 16% for Tennessee (Delavega, 2017). Additionally, Memphis ranks as the third most impoverished city in the nation and child poverty per the metropolitan statistical area data facts (Delavega, 2017). The Memphis and Shelby County poverty rates indicate the need for understanding the barriers in this metropolitan and county area that hinder families from living self-sufficiently.

Historical Research TANF Overview

The historical information provided in this section is on welfare reform and Shelby County Tennessee technology issues in human service practices. Also included in this section is historical information on subtopics regarding the various facets of welfare reform and technology.

Welfare reform inception. The history of social welfare in the United States started as early as 1935 during the Great Depression when the federal government took on the responsibility to help the poor through two programs (Ruth & Marshall, 2017).

The New Deal policy and the Social Security Act of 1935 were the two social work programs created during the Great Depression (Ruth & Marshall, 2017). However, under the New Deal policy, Aid to Dependent Children—later renamed Aid to Families with Dependent Children (AFDC)—was established to offer federal aid to needy families (Falk, 2017). In 1988, the Family Support Act was designed to promote welfare-to-work initiatives and ended the Work Incentive Program later replaced with the Job Opportunity and Basic Skills training program (Falk, 2017). The AFDC recipients received job training and education services through the Job Opportunity and Basic Skills program (Falk 2017).

This transitional undertaking was the responsibility of the states and local governments to fully implement welfare-to-work by first understanding what the new welfare reform operation would be and how to restructure the services and programs. However, the Family Support Act and AFDC were centered on work-first initiatives but did not indicate how local and state governments could aid welfare recipients through structured services and programs to live self-sufficiently post-welfare reform. They also did not indicate how to track the progress of recipients to ensure their readiness to live self-sufficiently.

In 1996, the federal government granted devolution to the states and local government through the enactment of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA; Falk, 2017). The devolution put a 5-year time limit per family to receive welfare benefits after which the eligibility to participate in welfare programs were no longer provided to families in need (Falk, 2017). TANF was designed to promote work and enable recipients to avoid dependency, and it replaced the AFDC program that provided monetary assistance. TANF is the current welfare reform program in operation to assist needed families through designed programs and services to be self-sufficient post-welfare.

The welfare reform system's goal to provide individual attention and assess barriers and programs is not preparing welfare recipients to live self-sufficiently before making the required focus to seek employment. Prior research has suggested that since the 1990s, the challenge continues with welfare social policies to place less encouragement on employment as the key to independent living and to address the response of poverty by promoting economic self-sufficiency (Gates et al., 2017). Devolution granted during President Reagan's administration allowed AFDC changes for state officials to make welfare reform decisions while also emphasizing recipients of welfare to seek work rather than work incentives (Falk, 2017). The devolution outcome allows for states and local governments to have control over their welfare policies and processes to ensure that plans are in place to help individuals out of poverty. However, there is little information in the literature on individualized welfare reform government policies as it relates to the concept of personal responsibility (Hamilton, 2014).

Personal responsibility implies that individuals are responsible for their setbacks that caused socioeconomic hardships and are responsible for taking the necessary steps offered by welfare programs to attain self-sufficiency. Government policy is a component to data sharing processes that are important to incorporate systems and programs that will prohibit caseworkers from placing recipients in a one-size-fits-all method to seek jobs and focus more on individualized risks preventing the attainment of self-reliant living.

Welfare reform caused indignities among some individuals because it constitutes poverty as a personal rather than systemic problem for welfare individuals to live economically. Gates et al. (2017) informed in their study that welfare policies are written to keep people in an oppressed way of living discriminating against the poor by using inadequate systems and processes preventing caseworkers to help recipients obtain the ability to live independently because of the disparities in access, services, and resources in welfare reform system processes. To improve welfare reform and leverage the opportunities to help recipients attain self-sufficiency, caseworkers need to do more than focus on reducing caseload and reducing poverty. More attention to the hardship and barriers on the recipients' lived experiences need consideration to meet TANF's goal to help families live independently.

State of Tennessee welfare history. After numerous online searches, the only information I found that gave a detailed overview of Tennessee's Human Service Welfare History came from an unauthored document called "Tennessee Department of Human Services Historical Timeline." The history of Tennessee's Department of Human Service Welfare programs obtained its inception as early as 1796 when the administration of poor relief became a county duty ("Tennessee Department," 2017). Several changes in the history of human services occurred between 1827-1975. In 1827, new legislation allowed the counties to establish almshouses to help the poor. The State Department of Institutions created the Welfare Division in 1925. In 1933, the Tennessee State Relief Program was organized and later became known as the Tennessee Welfare Commission which later became known in 1975 as the DHS. In 1977, the DHS became the agency responsible for administering the child support program; 1983 the division of vocational and rehabilitative services moved from the Department of Education to the DHS. In 1996, the Social Security Act of 1935 created AFDC that was replaced by Tennessee's TANF program named Families First.

The program's design was to focus on providing education, work, and training to welfare recipients to prepare them to obtain jobs and enhance their job skills to live self-sufficiently and independently from welfare ("Tennessee Department," 2017). There are approximately 17 services that make up the TANF programs in the State of Tennessee. Families First are the TANF program focused on for the research to ascertain whether integration from other human services exists and if shared data help caseworkers triage client's preparation to live self-sufficiently post-welfare reform. The ability to understand how Families First program works within its current information technology systems presumably is to determine whether it meets the TANF goal to lead welfare recipients towards self-sufficiency.

Managing caseloads. Caseworkers tend to focus on work-first and paper documentation rather than on the unique needs of welfare recipients to aid them in becoming self-sufficient. Caseworkers suggested that work-first does not address poverty issues among recipients and pushing paperwork is not the solution for recipients to seek work as a success factor to meet government welfare policy to reduce caseloads under the assumption that working individuals leaving welfare will be self-sufficient (Taylor, 2013). Managing workloads is a critical component in caseworkers' day-to-day activities. A decline in caseload should not be considered a success factor in TANFs goal to help families live independently from government assistance because homelessness and the need for emergency food still exist among the impoverished population (Pimpare, 2013). Factual data to obtain TANF's goal to help families become self-reliant to provide for their households requires a closer look at caseworkers' assessment on ensuring families meet self-sufficiency standards post-welfare (Pimpare, 2013).

Pimpare (2013) counted caseload decline as people fall off the rolls without the evaluation of the wellbeing of families' as an unacceptable standard which may cause a return to dependency on welfare. Smith (2014) listed concerns with caseloads processed with case management systems related to change in community practice to help practitioners support economically isolated families. The concerns mentioned were workers not knowing how to use information or express confusion about whether viewing the right information for making sound decisions and case management systems facilitated the process of child removal but did not help with the other system interventions. I viewed data sharing from the perspective of caseload load management as a method for caseworkers to process or receive information from the courts or other institutions for holistic assessment to help families reach independent living.

Managing caseloads is a continuous challenge for caseworkers to use the processes and programs in welfare reform to assess, track, and monitor the transition of recipients from welfare-to-work to self-sufficiency. Lack of information and data sharing are essential areas of focus that shall be considered to streamline caseworkers' ability; to obtain needed information automatically in similar case management systems to increase the likelihood to place welfare recipient in appropriate programs and services and to prepare them to live self-sufficiently.

Case worker's needs. An issue impeding welfare recipients' ability to live sufficiently is the inability of caseworkers to appropriately assign programs to correct or mitigate barriers such as completion of education, job training, social and behavior assessment of its clients. Eliminating barriers ensures clients have acquired business essentials needed to seek and obtain jobs that will provide them with the capability to live sufficiently. Some reasons why caseworkers experienced difficulties assigning programs and aiding welfare recipients to achieve self-sufficiency are due to lack of automation within their daily processes.

The approach to assist welfare recipients using automated systems is still an issue in the welfare reform process to monitor and help individuals live self-sufficiently post-welfare. In this study, I have established that there is a need to automate processes to derive information from all individuals or groups that can incorporate a multi-approach methodology to help families on welfare obtain self-sufficiency. The assumption is caseworkers understanding the needs of welfare recipients holistically and seeking ways to things better by focusing on preparing welfare recipients to live independently rather than focusing on merely closing case files. The lack of data sharing and automation can lead to errors in the system and inaccurate assessment of welfare recipients' barriers and other areas that impact their ability for financial, economic sustainability into society.

Historical legislation on welfare. Legislation policies on welfare reform are one of the major factors that impede welfare recipients' ability to live self-sufficiently. One of the loopholes in the legislative system is the implicit belief that work-first is the step towards self-sufficiency. There may be some differences in Congress regarding the direction of welfare reform innovative programs should take to leverage opportunities for impoverished people to live self-sufficiently.

This study focus was on data sharing in welfare systems that also required a view of legislative concepts regarding its policies on innovative reform processes. Allard et al. (2018) inferred data analytics used by custodians or caseworkers would support the work and priorities of information to help families in need but will be difficult to carry out. Allard et al. further suggested the need to evaluate current welfare programs for developing an innovative process to support data sharing and to engage external partners to create agreements that will promote sharing of information between welfare systems. However, support from executive and legislative leadership is required to have vested interest in welfare automation systems to encourage staff to embrace new advancement in welfare technology (Allard et al., 2018) to effectively streamline social work processes and decision making to help recipients engage in programs to attain awareness and readiness on self-sufficient living.

Data sharing is critical to combat the inefficiencies of reduced caseloads in TANF's program as the goal to decrease the number of people on welfare and to ascertain opportunities to view success in reduction when welfare leavers are employed and living self-sufficiently. People who are working full-time jobs can still experience living in poverty if they do not make a living wage and still seek some form of government assistance. President Barak Obama's State of the Union Address of 2014 corroborated this assumption by implying that "no one who works full time should ever have to raise a family in poverty" ("State of Union Transcript," 2014, p. 7). Therefore, restricting legislative laws on welfare reform to allow states the flexibility of developing innovative programs may hinder rather than help caseworkers guide welfare recipients in their quest towards self-sufficiency. As such, to ensure the success of PRWORA 1996, emphasis must be placed on leading people towards self-sufficiency and not reducing the caseload of work. Studies have shown that caseworkers spend time on documenting activities with less time spent on helping their clients find work ("House Report," 113-13, 2013).

However, as it relates to the above amendments, there are restrictions that states adhere to receive government intervention and benefits to promote self-sufficiency. These limitations may cause some impacts for states to provide the proper tools, processes, and programs to help welfare recipients live independently post-welfare.

In addition to obtaining information from welfare recipients, caseworkers will be interviewed to understand whether access to data helps them with the decision-making of its clients regarding welfare reform process gaps and barriers. For example, decisions to assess job readiness of clients rather than clients seeking work-first without being equipped with proper skills, education, vocational, and other tools needed to prepare welfare recipients for the workforce is essential towards reaching self-sufficiency.

According to PRWORA, work-first is the primary incentive to help people get out of poverty and live self-sufficiently; however, hard-to-serve people encountered multiple barriers are not equipped to seek employment first. Therefore, taking a closer look at the legislation and related policies to address ways to help hard-to-serve people establish self-sufficiency is imperative.

Statewide Automated Child Welfare Information Systems. Statewide Automated Child Welfare Information Systems (SACWIS) is mentioned in this research to understand functionality issues with the welfare data retrieval process to address the gap to aid caseworkers in their decision making to assign welfare recipients to appropriate programs and provide better planning for self-sufficiency readiness. The need for data sharing in SACWIS is essential for caseworkers to access data from multiple agencies to capture critical information about families lived experiences.

SACWIS is a case management application that is used by caseworkers in all states for processing electronic information providing the capability to monitor and document progress notes on clients' cases (Elertson, 2017, p. 125). The research questions were supported by (Elertson, 2017) that indicated the issues with SACWIS as a technology that operates in a silo with State-specific programs and antiquated technology. SACWIS outdated technology poses data sharing issues with other welfare service applications or programs because it cannot integrate methods for tracking and monitoring of clients' progress from dependency on receiving government assistance to attaining liberty of independent, self-sufficient living standards. The ability to share data locally and statewide between welfare information systems may significantly leverage the probability to not only use the system for caregiving benefits and administrative work processes but also to leverage the use of data sharing to help welfare recipients in their quest for self-sufficiency readiness.

Data collection is an ongoing issue within SACWIS that impedes the ability to provide welfare recipients with accurate guidance and program assignments to mitigate self-sufficiency barriers caused by lack of integrated service delivery to leverage caseworkers' decision making in data analysis of client reform cases (Casey, 2015). A plethora of research conducted on data issues within welfare systems shows the disparity between data sharing and social work practices, but very little research addresses the socio-economic challenges of using the technology to address barriers that diminish the wellbeing of families.

SACWIS is in three phases among the 50 states: (a) operating, (b) development, or (c) non-SACWIS models. The State of Tennessee has implemented SACWIS, and like other States that are currently using the application, there are many challenges crosssystem issues that impact data sharing in the welfare system. Therefore, effects the likelihood of recipients' readiness for self-sufficiency due to lack of information caseworkers' need for decision-making purposes regarding the client's wellbeing. SACWIS issues consist of inaccurate data due to limited amounts of information entered into the system that leads to caseworkers not having access to individual case data impacting the capability to share data across multiple human service agencies or organizations outside the State or local child welfare system (Casey, 2015). Other issues case management systems encounter with data sharing is protecting the confidentiality of families and children when sharing information with other human service agencies.

In correlation to this study, the State of Tennessee SACWIS system has an interface called the Tennessee Family and Child Tracking System (TFACTS). Brian v. Haslam (2014) mentioned the TFACTS development for the Tennessee DHS served the purpose of consolidating disparate systems into one integrated system by entering data and reusing it consistently throughout the system for viewing by end users to obtain a complete picture of the agency's involvement with a family. TFACTS is in place and operable; however, there is still a gap on whether data accessed from these automated systems increase the capabilities for caseworkers to help welfare recipients live self-sufficiently post-welfare reform. One of the critical issues with TFACTS is the ineffectiveness of caseload management processes such as automated caseload tracking and aggregate reporting and continuing use to track caseloads manually (Brian v. Haslam, 2014).

I ascertained from the SACWIS section of the literature review that data sharing in welfare reform processes is challenging for human services technology systems. The gap that requires further research is the ability to design a cross-functional system that allows collaboration (Elertson, 2017) of data sharing and communication between internal and external human service providers. Elertson (2017) indicated that case management systems such as SACWIS have underlying system gaps to interface data between various welfare reform systems. The information from SACWIS literary review showed that issues with data sharing are existent and causing a disservice for caseworkers to address the needs of recipients impeding them from self-sufficient living.

Government accounting office and data sharing. The State of Tennessee's counties Upper Cumberland, Rutherford, and Davidson listed in the government official report as part of a study on improving access to benefits and services by increasing data sharing across multiple human service entities. (Government Accounting Office, 2011). The report did not include Shelby County Tennessee. in this report.

The following paragraphs highlight background information on government officials attempts to implement data sharing processes in welfare systems from 2011–2013 to show continuing issues encountered with states and government efforts to leverage information technology in welfare processes. Government officials made much progress to integrate data sharing into the human services welfare systems. States such as Tennessee, Texas, and Washington have implemented data sharing programs to improve eligibility verification or case management processes (Government Accounting Office, 2011). Data sharing is among one of the common issues impacted by caseworkers in respective states to help families due to a lack of automatic access to share information about their clients with other human service agencies. The ability to share day may help caseworkers make better decisions about needed services and eligibility to help clients obtain self-sufficiency; whereas, less than half of states are moving forward with data sharing efforts (Government Accounting Office, 2011).

Data sharing issues with counties in the State of Tennessee is human agency staff sometimes are unaware of available services offered in each other's program to help clients participating in TANF and welfare reform programs (Government Accounting Office, 2011). This separation of information from disparities of system data across multiple welfare interfaces is a probable cause for caseworkers' ineffectiveness to access and address clients' needs in efforts to assist with self-sufficiency mitigation processes by viewing data in automated information systems (Wilson, 2012). Therefore, I alluded that inefficient data sharing within cross-functional welfare systems is one of the critical issues hindering the progress for caseworkers to help families mitigate self-sufficiency barriers.

In a most recent Government Accounting Office study, data sharing results from each of the participating states resolved that automation helped improved the time it took with clients during interviews, made faster connections between program offices with less effort, or sped up the ability to obtain information on families (Government Accounting Office, 2013). Officials made accomplishments with welfare systems data sharing; however, there are ongoing issues. One of the challenges with Government on data sharing is incorporating privacy protection into the automated process (Government Accounting Office, 2013).

Researchers in prior studies also established that antiquated technology systems are one of the barriers to welfare system data sharing methods. Three essential elements that impact the technology movement in welfare systems are: (a) privacy protection, (b) data sharing, and (c) outdated technology systems. The foreseen issue from my observation of the literature is the need for the creation of privacy protection laws for automated systems in this 21st century to use technology for data sharing with other people and human services agencies.

Particularly, none of the states' participants in the Government Accounting Office studies mentioned whether utilizing the integration of electronic systems, applications, or services helped caseworkers leverage and track recipients' readiness for self-sufficiency post-welfare. The results from the Government Accounting Office studies suggested that gaps exist in determining the need for enhancing interfaces between welfare systems to mitigate the gap that will provide data sharing capability to caseworkers to accurately access the socio-economic boundaries impacting the self-sufficiency of the recipients' lived experiences. Therefore, the Government Accounting Office findings supported the needs for this study as further addressed in the research assessment in the following paragraphs.

Research assessment. Cheng and Wong (2013) provided a few implications regarding TANF's effectiveness to prevent poverty. Cheng and Wong discussed in their study the ineffectiveness of TANF programs to meet the social needs of clients that causes dissatisfaction from disservice by avoiding the issue that reducing caseloads do not determine the success of TANFs goals to lead clients to self-sufficiency. Whereas, unemployment and poverty rates are steadily increasing that necessitates the need to review and update TANFs welfare reform policies (Cheng & Wong, 2013). One way of possibly bridging this gap is to seek understanding of the viewpoints of recipients regarding their lived experience in welfare programs to understand their perspectives on whether their needs or barriers are addressed to help them live independently.

Understanding the voice of welfare recipients' viewpoints on barriers to self-sufficiency and the welfare programs impact to achieve independence from government assistance is important for this research to identify technology data automation gaps. Danziger et al. (2013) implied that listening to the voice of welfare recipients allows an opportunity for policymakers to access what is currently received and what is truly needed by responding to the needs of welfare recipients rather than focusing on reducing caseloads. Danziger et al. indicated in their study that more research is needed to address the needs of welfare as voiced by low-income families. Policymakers and administration shall seek to hold forums to hear the needs and voices of welfare recipients, revisit the current policies, processes, and technology, and continue its work towards addressing data privacy issues to establish data automation processes across welfare systems.

Caseworkers, on the other hand, should be more concerned about the welfare policies and recommend changes to consider ways of modifying procedures or processes to address the needs and concerns of the welfare recipients holistically within the TANF system. To help recipients attain self-sufficiency, improvement of system functionality and the ability for caseworkers to access data from multiple service agencies is vital.

Prior history from Garcia and Harris (2001) reported that welfare recipients suggested the need for more resources to help remove barriers to employment, improvement of caseworkers' behaviors towards welfare recipients, and better provisions to enforce process and system tools utilization. A decade later, Taylor (2013) concurred with Garcia and Harris; whereas, Taylor mentioned:

> Competent caseworkers should be aware and sensitive to the unique needs and issues facing clients and should also design intervention strategies that align with the needs and worldview of the clients to successfully assists welfare recipients to achieve self-sufficiency rather than informing them that any job is better than welfare. (p. 15)

I inferred from the studies conducted on work-first programs that caseworkers need data sharing and access to information from other human services applications as a first approach to respond to and address the needs of recipients before sending them to work. Recipients have barriers that need to be addressed and mitigated before assignment to a work-first program. Improving data sharing in welfare systems is essential for caseworkers to jointly communicate with other human service areas to identify barriers, reduce overlaps duplication in servicing clients with the quality of care (Chester et al., 2015).

However, Luis and Magdalena (2013) conducted an assessment on welfare reform under a heterogeneity framework to test whether work-related sub-programs performed better than general activities. As a result, Luis and Magdalena concluded that more extensive participation in employment programs are needed to enable clients the ability to acquire skillset from intensive learning of a work trade yielded better results than finding general work-related occupations or life-skills activities. Luis and Magdalena also informed that although welfare reform may be a means to help improve self-sufficiency problems, one methodological issue is the ability to view programs from a holistic perspective to evaluate the effectiveness of focusing exclusively on employment or socioeconomic barriers to help recipients assess self-sufficiency challenges. What this entails is that whether welfare reform is heterogeneous or homogeneous if evaluating self-sufficiency barriers is not part of the process, there is a possibility of an ongoing issue for recipients of welfare to live liberally from government assistance. Many welfare systems work in silos; therefore, the use of technology if frivolous to understand the impact information data sharing of multiple systems has on aiding or preventing caseworkers to efficiently assess the assignment of programs to meet the unique needs of recipients and mitigate self-sufficiency barriers affecting social change phenomenon of their lived experience.

Welfare reform information technology challenges. Employment is promoted as one of the critical elements defined by the PRWORA of 1996 to help families out of poverty and off welfare and requires that most TANF recipients be employed to receive benefits. However, with today's economic conditions, many families experience difficulties in obtaining employment which hinders the probability for adults to care for their families and in some lived phenomenon, receive TANF benefits because they do not have a job. Job security is only one of the challenges that welfare recipients encounter in their quest to become self-sufficient; however, there are other challenges that welfare recipients face to pursue the pathway of efficacy to self-sufficient living. These challenges are described below with emphasis on the absence of information technology and how it may impact the movement for administrators, caseworkers, and welfare recipients to meet the goal of PRWORA of 1996 to get families out of poverty.

The improvement of welfare reform will need an information technology management approach. This approach will include gathering requirements to analyze the welfare system, obtaining understanding about the welfare recipients and user needs, conducting a strategic plan of action that identifies the scope of welfare integration to address information needs, and utilizing the expertise of technical resources to redevelop the required processes and programs. It is essential for caseworkers to share data, assess recipients' barriers, assign appropriate programs to welfare recipients, and establish a post-welfare reform automated process to track the progress of welfare leavers until they have become self-sufficient.

Understanding what barriers exist among welfare recipients and how caseworkers with limited information systems can track the progress of welfare recipients before leaving the welfare system is yet to be determined. The assumption implied is the reduction of caseloads determines the success factor for welfare reform when individuals depart the welfare system. However, the actual success of welfare reform is the assurance that once a recipient leaves the system, they are self-sufficient with a low probability of returning to welfare.

If caseworkers are still tracking information from hard copies due to the lack of automated systems to transmit data across welfare systems, it becomes difficult and causes delays in communicating and coordination between the different welfare TANF programs and services. An on-going issue or challenge regarding welfare information systems lies within data sharing and data gathering service processes. These shortcomings to collect and share data are a challenge for many case managers due to the lack of underdeveloped automated systems to provide the needed and required services to welfare recipients.

While administrators and caseworkers seek ways to design automated systems they face many challenges on what the system shall entail and how it will allow caseworkers to enter data in real time. Caseworkers that do not have the required data sharing automation tools in place to input, view, track, and analyze welfare recipients' case information, lessens the likelihood to ascertain welfare recipients' ability and readiness to live self-sufficiently. Lack of data sharing in welfare systems also determines the substantiation of TANF's success factor to lead families out of poverty and whether individuals' efficacy of being reformed upon exiting the system.

Cheng and Wong (2013) indicated that caseworkers could assist recipients effectively by providing them with a "dignified, delicate, and humanized social services to aid recipients with economic physical, or mental problems and to enable them to achieve the policy goal of encouraging recipients' self-sufficiency" (p. 55). Future needs to improve caseworkers' data sharing issues to accurately enter, retrieve, monitor, track and assess information to assign TANF recipients into appropriate programs and assist with their transition to self-sufficiency is essential for future integration of welfare data sharing process.

The lack of separate and antiquated systems, lack of data sharing, lack of automated privacy protection laws, and other welfare service system issues concur the research gaps for this study. The inability to share data across multiple TANF and welfare systems impact recipients' ability to be appropriately assigned to programs that may increase their chances of readiness to be self-sufficient. Although there is a great need to seek further ways to improve the welfare reform system through information automation, there are implications that still exists for state and local agencies to provide these services to low-income families to aid in the effort of changing lives through the transformation and transitioning from welfare to work.

Many of today's welfare systems were designed to perform multiple processes internally within the respective organization such as the DHS. Lee et al. (2013) stressed the importance of organizational factors in child welfare practice and the crucial ability for workers to interpret data to improve the effectiveness of welfare services to support the needs of the people. To properly use information obtained from the interpreted data, interoperable capability is required that will allow data to be shared across multiple human service systems to leverage opportunities for a holistic view of client's' needs and assurance of minimizing the amount of time it takes to understand and react to client problems (Sobkowski & Freedman, 2013). Therefore, I resolved from this research that despite the complexity of welfare systems, there is a need for policymakers to focus efforts on developing a welfare enterprise resource management system that will give visibility to recipients and other human service clients information for decision making purposes on aiding clients towards self-sufficient.

Although many providers endorse automation, each State has its application and process about welfare reform data sharing integration in federal and county municipalities that adds complexity for policymakers to address data sharing and policy needs (Wilson, 2014). However, as the demand for information, tracking of data, and welfare recipients' barriers and needs increase, human service agencies shall focus their attention to re-engineering their current automated processes to implement automated systems that will handle cross-program functionalities across multiple systems to provide accurate and useful services to welfare recipients. However, more research is needed because this process is far from being a positive development and the implementation of information systems can impede rather than enhance service delivery.

Complex welfare system and organizational barriers. Working in any form of information technology to develop new automated systems or enhance existing systems to meet the technological needs and customer demands as welfare agencies seek to change ways they currently do things is a complexed endeavor to undertake. There are three significant challenges some states may encounter while pursuing their automation endeavors. These challenges are system intervention, decision support data systems, and performance assessment (Kaye, Depanfillis, Bright, & Fisher, 2012). System intervention consists of the discontinuity between systems that poses a significant challenge for linking multi-agency service systems (Kaye et al., 2012). The IT issue for connecting multi-agency service systems lies within the ability of technological resources to identify critical fields across all systems that will link welfare and TANF systems to retrieve and analyze data.

Data collection is another challenge that is encountered in welfare reform to ensure caseworkers receive accurate information and have a means to decision support data systems. Decision support data systems challenge consist of the ability to collect information that is necessary to assess welfare recipients' needs. Kaye et al. (2012) implied from an automated welfare service perspective that decision support data systems are useful when continuous training on innovative applications and methods are provided to caseworkers to enhance their knowledge on utilizing data sharing strategies in social service work activities. Positive social change results when recipients overcome economic challenges moving them from a marginalized phenomenon state to a lived experience of self-sufficient living. The performance of caseworkers to thoroughly assess recipients' self-sufficiency barriers during their transition from welfare is vital to meet TANF's mission to lead families out of poverty. Kaye et al. implied that automation of welfare systems might have some complexities in observing organizational or clinical practice against aligning performance measures with the intervention and monitoring of the quality of service delivery.

Automating welfare reform remains a significant obstacle for federal, state, and local governments to undertake successfully in determining how to control data processing that will be reliable and retrievable to allow caseworkers to retrospectively view data to be responsive and to understand welfare recipients' needs fully. However, the challenge that seems to be most critical in the research is with the lack of data sharing across welfare agency systems. I implied in this study that caseworkers' predetermined response to welfare recipients needs without even understanding or knowing the barriers that welfare recipients encounter.

Policies and technology. There are critical areas of concern within human services centered around its policies and utilization of technology. Although it is feasible to rewrite guidelines to restructure welfare reform to meet the goal of moving families out of poverty, modifying the policy without focusing on recipients' needs, data automation improvements, and self-sufficiency barriers will impede the efforts. There are policy limitations that hinder this progress.

Pimpare (2013) implied that although tools are available to evaluate welfare reform, these tools provide little information for the assessment of welfare clients that is caused by “complexity of the policies being enacted, their variation over time and place, and the scarcity of reliable and consistent data, and the systematic evaluation of PRWORA challenges” (p. 56). As such, after decades of seeking ways to automate welfare and TANF systems, this issue still exists with very little progress being made to overcome this challenge. Pimpare accentuated that some of the difficulties with policy analysis are the failure to include barriers encountered by recipients of their lived experiences to thoroughly understand the need to provide more significant opportunities for families on welfare to be self-supporting by evaluating the effects PRWORA has on respected households to address the cause for government welfare dependency.

To be successful in this effort, federal, state, and local government shall first focus on information that ranges from multiple programs in the following areas: case management, service planning, and program oversight. Case management consists of the ability to interconnect across all programs and services to assist their clients and lead them towards employment and self-sufficiency. Research participants from my study described the TANF Work First program currently used in Shelby County Tennessee. Field notes derived from the research participants’ responses indicated that despite the ongoing automation progress made, policies need to be rewritten to align with meeting the needs of welfare recipients by assuring information is gathered on the recipients’ lived experiences to ascertain whether TANF's goal to lead recipients from welfare-to-work then to self-sufficiently is accomplished.

Review of Prior Research

Information in this section pertains to past and most current TANF and Organizational Welfare reform models that were created by former researchers to address the needs of current welfare reform issues. Additionally, the paragraphs below will also entail brief mentioning of welfare topics to share information on issues that impede recipients' ability to live self-sufficiency and whether information technology can aid in mitigating these issues through data sharing across multiple TANF systems.

Organizational change welfare reform model. To effectively share data across human services programs, caseworkers must have the ability to assess, analyze, and assign welfare recipients to programs that specifically address their self-sufficient barriers based upon data entered to automatically generate and design a welfare reform plan through information system thinking process. It is essential to understand the gap between welfare reform and information systems from the standpoint of expanding the boundaries of caseworkers. Government officials should not emphasize work first to reduce caseloads but consider leveraging the use of existing data sharing systems to identify welfare recipients' barriers and understand their unique cultures to accurately place them in programs to mitigate socio-economic obstacles to self-sufficiency before seeking employment.

Organizational culture changes in welfare reform among administrators and caseworkers have been an ongoing challenge towards designing programs and processes that will allow welfare recipients to retain jobs and sustain the ability to live self-sufficiency. Organizational culture problems mentioned were the use of data for sharing information and making decisions. The Government Accounting Office (2013) implied that privacy protection is a crucial issue for sharing data when employees work in a culture that has concerns about sharing data securely. Hyde (2012) established that challenges in human service agencies to address culture issues is a problem to be corrected and requires improvement to bring about change through education, communication programs, or training. Regarding the research, Livingood et al. (2015) implied the need to mitigate organizational culture barriers by incorporating data sharing that allows caseworkers to make informed decisions on the well-being of clients. However, neither of the studies mentioned how organizational culture needs could be integrated into an information technology system to help caseworkers and administrators assess the culture barriers among welfare recipients.

I inferred from the above studies that many human service agencies had not integrated the efforts to transform organizations to address cultural barriers that affect welfare reform and its recipients. Therefore, to improve welfare reform, the culture of people inside and outside the welfare system organization must be willing to analyze the existing policies, procedures, and programs and embrace a new way of conducting both the business and client processes of welfare services. Welfare reform is overwhelmed with many types of services, programs, and policies that hinder the capability to design a data sharing system that will integrate applications from external and internal service providers. As such, I ascertained from prior studies that to improve welfare reform, design programs, and implement new processes through the integration of information systems, may require an analysis of each significant component of welfare reform as it relates to specific services to ensure the effectiveness of enabling welfare recipients to live self-sufficiently.

Mandatory work requirements and time limits on welfare recipients are another major ongoing issue within welfare reform systems that impacted by data sharing processes. Reducing the caseload by mandating welfare recipients to find work first is seemingly more important to caseworkers than assuring welfare recipients receive and participate in appropriate programs to move them to self-sufficiency. Addressing welfare recipients' barriers on a case-by-case basis to identify, assess, and mitigate self-sufficiency issues before seeking employment or reaching the 5-year time limit is lacking in the welfare data sharing processes.

This study focused on the data sharing issues with the Families First program where I discovered that more research is needed to understand the gaps between the current and future welfare reform information systems at the organizational level. I ascertained five major components make up information systems in Families First programs: (a) organizational needs, (b) policies, (c) culture, (d) programs, and (e) people. The literature review on welfare reform organizational change revealed that gaps are existent within welfare systems data automation, antiquated systems, and manual processes to address the five components. I inferred from this literature review the need for data sharing to help caseworkers make better decisions to assign welfare recipients in appropriate programs and to ensure their readiness to live self-sufficiently.

Past TANF welfare reform system models. Lazere (2012) created a TANF model that provided a pictorial view regarding the service delivery interactions in the TANF system. Lazere's service delivery model provided insight into this study by allowing the ability to gain knowledge from prior research regarding TANF systems. Lazere's service delivery model is beneficial for this research. Lazere indicated in his study the need to remove barriers from welfare reform processes. Removing the barriers may provide an opportunity for recipients to establish financial support and job placement (Lazere, 2012). The delivery model developed by Lazere depicted that welfare recipients fall into one of the Individual Responsibility Plan service delivery categories. Lazere indicated in its model that an assessment needs to be considered first on recipients for other programs that most closely fit their needs or barriers by caseworkers before placing recipients directly into a work-first program to attain self-sufficiency.

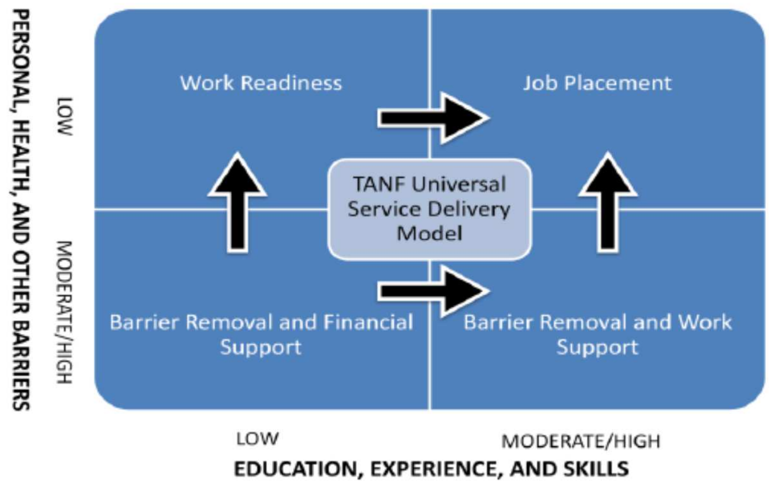

Figure 4. Service delivery model. Four categories of welfare recipient placement according to the Individual Responsibility Plan. Reprinted from "DC's new approach to the TANF employment program: The promises and challenges," by E. Lazere, 2012, *DC Fiscal Policy Institute*, p. 9. Copyright 2012 by Greater Washington Workforce Development Collaborative. Reprinted with permission.

Richardson and Andersen (2010) created a stock-and-flow model of the U.S. welfare system. Richardson and Andersen's model focused on the TANF process from families who are at risk and enter the TANF system until they reach diversion either through employment or time-limits. The barriers addressed to welfare reform and how information technology integration can aid in leveraging opportunities to lead families to self-sufficiency are not identified in the model. Richardson and Andersen participatory welfare model showed the systematic flow of the TANF processes. However, the model did not reflect or indicate its effectiveness to lead welfare recipients towards self-sufficiency post-welfare reform. Lazere (2012) welfare service delivery model focused more on identifying the barriers that impede welfare recipients from obtaining job skills, seeking employment, and enhancing education for proper job placement making more than minimum wage. Lazere's model is the missing component to Richardson's and Andersen's (2010) participatory model; whereas, through research of this study addressed the underlying gaps between TANF and welfare systems.

Lazere's (2012) service delivery model did not show how data processed through each of the systems allow caseworkers to share information internally or externally to assess, track, assign, and monitor welfare recipients' progress for a successful transition from welfare to work to self-sufficiency using information system technology. Lazere developed a service delivery model of the TANF process at a high level. The integrated process is unclear regarding which programs reside within each process to accurately identify, track, monitor, and verify that the TANF system led individuals to self-sufficiency after post-welfare reform. Lazere's service delivery model focused more on identifying welfare barriers and will possibly be analyzed in the research from researcher's perspective to determine if it can be combined with Richardson's and Andersen's (2010) participatory model to create a robust welfare system to aid recipients towards self-sufficiency.

Lazere (2012) indicated the need for integrating welfare reform with information systems to include assessing client needs (understanding the voice of the welfare recipients), partnering with district agencies, employment, and training centers. According to Lazere, the cause and effects of systems derive from a welfare service delivery system that allows recipients to engage in programs provided by human services agencies to either seek work or attend behavioral sessions to address personal or family problems via a method known as systems dynamics. This iterative modeling method is used for problem-solving to ensure identifying individuals' barriers are given precedence over placing recipients in work-first programs. Lazere's service delivery model more closely provided a guide for the intent of this research because it depicts a new welfare system that assesses clients' needs focusing on barrier identification in addition to employment and training options.

The models of Richardson and Andersen (2010) and Lazere (2012) will be considered for this research to determine if these models can be combined to produce a holistic welfare reform information system. The participants will become a part of the process to change policies that keep some low-income communities in oppressive conditions and to partake in understanding individual needs to become self-sufficient. Welfare recipients will have the ability to improve their living conditions, realize their barriers, and incorporate their needs into a welfare reform information system that would not only engage them in efforts to become self-sufficient but to also assist caseworkers in identifying and designing the appropriate programs to ensure welfare recipients success towards a better way of living.

The significance for social change using the participatory models included management or caseworkers as the participants and excluded welfare recipients from voicing their concerns about welfare processes that could help management and caseworkers focus on the best interest of their clients. Another area of concern considered from the models was the alignment of the administrator's goals with welfare recipients needs to improve welfare reform through information system technology to identify and mitigate barriers before mandating that welfare recipients seek work first. Currently, finding employment first reduces the caseload of the caseworkers but does not necessarily lead to social change that will enable welfare recipients to experience living self-sufficiently. Welfare recipients find themselves either back in the welfare system or living in poverty due to lack of preparation or readiness not obtained through the welfare reform program. In this dissertation research, I addressed the gaps between welfare reform, information systems, and self-sufficiency. The research participants provided information about existing welfare reform programs and process and suggested the need for a welfare reform information system tool that could be used to systematically process data to track, monitor, and assess the readiness of individuals to transition from welfare to self-sufficiency.

Current government TANF welfare reform system models. During a review of the Government Accounting Office (2013) in a report to understand how government officials perceived data sharing, I analyzed four welfare data sharing systems designed for the States of Utah, New York City, Allegheny County, and Michigan. Analysis. My observation concluded that these child services processes operate differently from a data sharing perspective. Also noticeable was neither of the child services processes mentioned how a data sharing system could be used to address clients' self-sufficiency readiness and capability to live on their own. The below figures were extracted from (Government Accounting Office, 2013) study and gave a clearer vision of the respective states' data sharing systems.

The data sharing designs confirmed part of the research gap regarding each states' welfare system operating in a silo using different systematic methods to service clients. Data sharing is an existing issue that government officials are seeking resolutions. To correlate the four figures with the research, I ascertained from my analysis that despite data sharing operability in many states, each system encountered problems with the retrieval and delivery of information. Also noted was neither of the systems satisfied the research question nor addressed how using data sharing for decision making could help recipients overcome poverty. The Government Accounting Office (2013) identified known issues among each of the four data sharing systems. These issues were: privacy issues, outdated technology systems, and human service agencies working in silos.

Figure 5 showed the various ways of data sharing usage in welfare reform systems, as well as, validated that thought processes in designing data sharing systems does not specify whether caseworker accessibility to the data helps them with decision making to leverage the opportunity to assist clients with attaining self-sufficiency. Therefore, this analysis of data sharing systems satisfied the research question on whether automated access to information leverages the opportunities for caseworkers to mitigate self-sufficiency barriers that may lead to social change in recipients lived experience of freedom from government assistance.

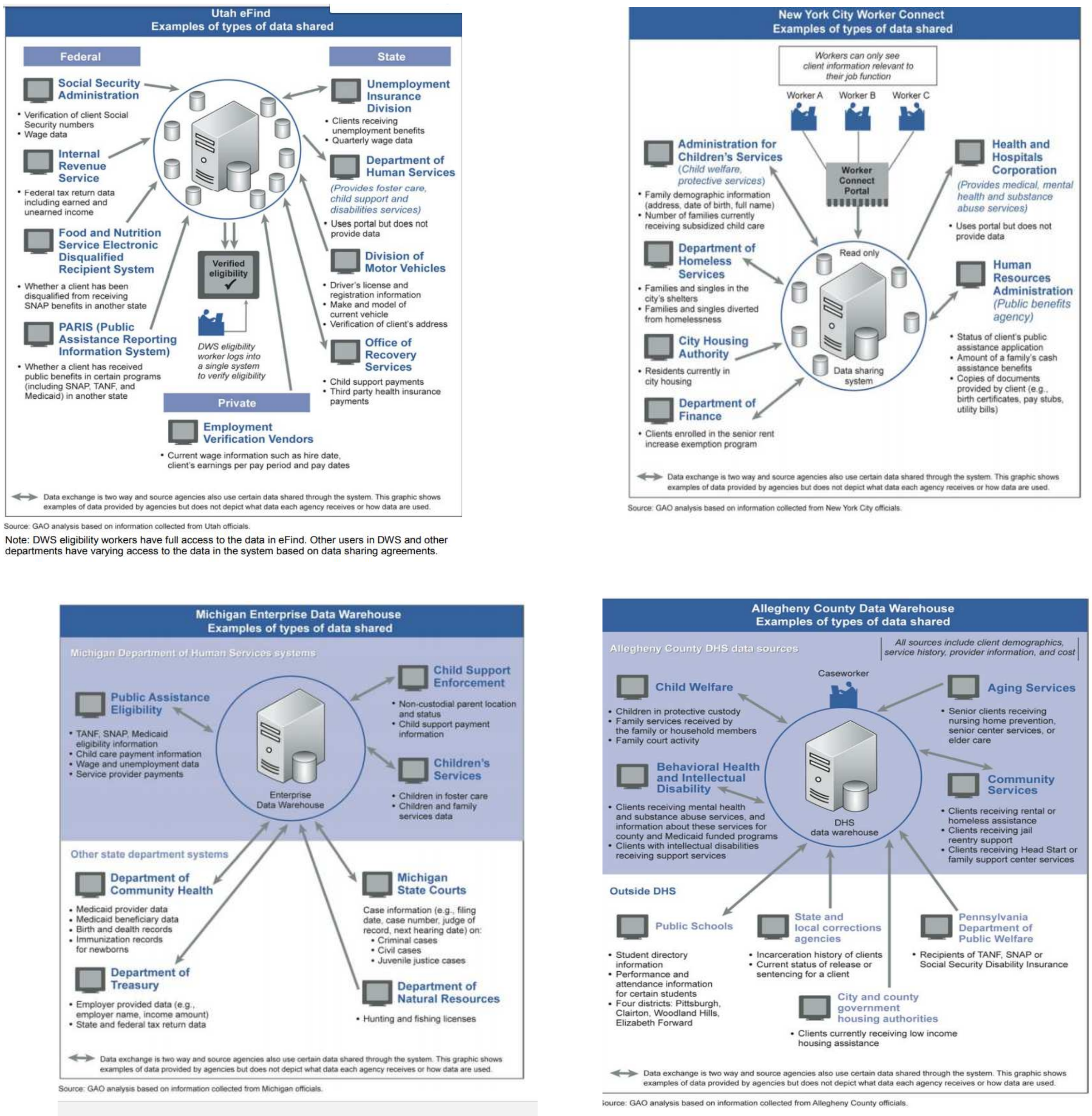

Figure 5. Analysis of four different data sharing systems. Comparison of data sharing systems in four different States. Adapted from “Sustained and Coordinated Efforts Could Facilitate Data Sharing While Protecting Privacy” by GAO-13-106, 2013. Copyright 2013 by Government Accountability Office. Adapted with permission.

Shelby County Tennessee TANF model. There are several financial, employment, rehabilitative, and protective service programs offered through the DHS whose overall purpose is to improve the well-being of individuals who are economically impoverished or disabled. The Families First program is the State of Tennessee's DHS constituent that makes up the body of services through the TANF programs. Currently, this program focuses on parents or adults to seek work first as a means of separating themselves' from welfare and gaining a level of independence to live self-sufficiently through support services. The accomplished goal is to find a job. In some cases, cash assistance aids families who are unemployed, caring for the needs of others, or at an economic disadvantage to pay for essential living expenses.

Although programs are in place to assist families on welfare, they each come with unique barriers such as transportation, child care, low education or job skills, substance abuse, or other impediments that prevent recipients from gaining self-sufficiency. Information on the Shelby County Tennessee TANF process entailed that caseworkers need more understanding on data sharing methods to assess, track, and monitor recipients' information at an individual level. The concept of data sharing is to address self-sufficiency barriers and plan accordingly for clients to complete required programs and training that will help people on welfare be more capable of living without government assistance.

Research Topics in Welfare

The following paragraphs entailed past and current information regarding welfare research topics on data sharing needs, policies, culture barriers, and welfare-to-work. I evaluated current welfare problems in comparison to welfare issues before 5 years to determine if data sharing and self-sufficiency issues persist in the reform process to address barriers and liberate recipients from government assistance to socio-economic independence as providers for their families.

Change in government policies to address the impact data sharing has on helping recipients attain self-sufficiency requires policy officials to understand and identify barriers to living below sufficiency meant to provide for a family. I noted from this study that when recipients leave welfare, it does not indicate they have the capability or resources to live on their own as implied by TANF's mission. Also, success should not be measured by caseload reductions but measured by the number of recipients who have left welfare and living self-sufficient lifestyles. Therefore, caseworkers must have access to clients' data from agencies outside of human services the share information and make assessments to help clients attain self-sufficiency.

Welfare data sharing needs. Information data sharing is essential for understanding the self-sufficient barriers encountered by welfare recipients. The lack of data sharing impedes caseworkers from making accurate decisions regarding the wellbeing of clients. Data sharing is an ongoing challenge frequently contended by the government and state officials to improve processes of sharing information with internal and external human service agencies. Chester et al. (2015) stated that the need to "improve data sharing between agencies is essential for better joint working, reducing gaps, overlaps, duplication in delivery, and providing better quality care" (p. 150). Data sharing within healthcare and social service agencies leverage opportunities to assess cross-functional processes and address the complex barriers clients' encounter to attain a desired economic foothold in society. However, until issues with data sharing practices, policies, and procedures are solved, caseworkers will continue to experience challenges with accessing data to determine next steps in the reform process for recipients' well-being. Chester et al. identified issues to data sharing as continuing use of paper or face-to-face information sharing methods, IT systems operating separately rather than jointly, and using antiquated technology that does have data sharing capability. Until government or state officials resolve these issues and enhance data sharing systems already implemented in most states, the disconnect between social services and the users will continue due to lack of information. The essential need to share data impacts the social change of recipients' because inconsistent information leads to inconsistent guidance on helping families reach self-sufficiency.

Welfare policy and culture barriers. Caseworkers' ability to understand culture awareness and cultural competence are essential when conducting work requirement assessments to address the unique needs of welfare recipients in efforts to help them roll off welfare into a life earning living wages to provide for their families. Therefore, caseworkers must ensure that a comprehensive approach is given to recipients by not only focusing on placing them in work-first programs but to also incorporate an understanding of the various barriers or challenges welfare recipients might encounter that impedes their ability to find work and become self-sufficient.

Understanding the unique cultural barriers on a case-by-case basis and incorporating culture privations needs into welfare reform policies and processes are needed to help recipients with self-sufficiency issues. Prior research identified technology, social, and economic factors as cultural barriers caseworkers need to understand clients' dilemmas with self-sufficiency. Smith and Eaton (2015) implied that in addition to analyzing welfare technology for efficiency in social service processes, focus on providing the capability to assess how culture fits into technology should entail incorporating methods to understand the socioeconomic conditions of families on welfare. Smith and Eaton's information and communication technology study on child welfare systems corroborated my research theory on the need for data sharing to help recipients become self-supporting through use of culture-centered computing. Smith and Eaton found in Hakken's concept of culture-centered computing that workers can map out the system flow of daily work processes to ensure information is used to meet the best interest of clients' wellbeing.

Welfare technology consists of complex systems that make it difficult to build a correlation of processes between technology and the cultural aspects to assess the lived experiences of welfare recipients' socio-economic needs. Current challenges within welfare reform regard cultural competence among caseworkers. Cultural awareness is unintentional and undervalued in welfare service delivery processes. I inferred from the literature review that more research is needed to address policy issues by sharing data and develop a culture-centered process to mitigate recipients' self-sufficiency concerns.

Review of Research Methods: Analytical Strategy

I considered the use of reflective, analytical strategy in this exploratory descriptive phenomenological qualitative method to explore the information provided by research participants. This strategy allowed me to provide an effective means to analyze research information regarding issues of the welfare recipients' lived experiences in welfare reform to understand the impact of their ability to become self-sufficient. Additionally, I was able to gather and analyze information from caseworkers and technical resources of their reflective viewpoints on how to best use processes and data sharing technologies to help families with self-sufficiency barriers. For this exploratory descriptive phenomenological qualitative study, I considered the exploratory and reflective analytical strategies of Giorgi (2009); Van Manen (2014); and Vagle (2014).

Exploratory method. The meaning of exploratory analytical strategy is to "explore a phenomenon such as a group or setting to become familiar with it and to gain insight and understanding about it, frequently to formulate a more precise research problem for further study" (Singleton & Strait, 2010, p. 107). This exploratory descriptive phenomenological qualitative research seeks to show the need for caseworkers to explore the phenomenon welfare recipients' barriers through information technology data sharing processes to assess how they see their daily lived experience in comparison to others in society (Vagle, 2014). This statement means that situations encountered in the world are also interrogated further for better understanding (Giorgi, 2009) of how individuals view perceptions of themselves in society. Therefore, gaining insight from the participant's point of view regarding welfare reform from a lived experience (welfare recipient), professional (caseworkers), and technological (IT resource) perspective shall hopefully uncover the underlying issues regarding the gaps between welfare reform and information technology towards self-sufficiency post-welfare.

Vagle indicated that the exploratory strategy should encourage participants to analyze and consider what life would be like in the world under different circumstances. Giorgi reported that an individual's lifeworld is analyzed through the everyday world people are born into and live. In other words, the perceptions of the participants on how they see their lives in society today are the information needed to determine whether welfare information technology processes and procedures are integrated to address the needs or barriers of welfare recipients for self-sufficiency readiness.

Reflective method. To ensure accurate data analysis from interview responses, the reflective approach included having an open mind and attitude throughout the research process from "identifying the phenomenon, choosing participants, gathering data, analyzing data, and presenting the results" (Vagle, 2014, p. 61). Establishing openness to the phenomenon gave awareness to what was revealed by the study participants during the interview. Writing is the reflective aspect of this exploratory descriptive phenomenological qualitative study to recover and express information gathered from the participants about their life experiences as they are living through it (Van Manen, 2014).

Six existing welfare recipients, three caseworkers, and three IT resources will make up the targeted participants for this research. The exploratory strategic goal is to determine whether the welfare recipients understand their social reality, barriers, and viewpoints regarding their welfare reform lived experiences. Additionally, to gain a holistic view of welfare reform from an information systems perspective, caseworkers and IT resources shall participate in the study. The reason for caseworkers and IT resources participation is to gain an understanding about the utilization of information system technology within human services and whether the technological information processes hinders or helps welfare recipient's readiness towards self-sufficiency post-welfare reform.

Analytical strategies. Vagle (2014) described that the approach to exploratory analysis is through the lens on how participants see themselves in the world through their day-to-day living; whereas, Giorgi (2009) implied that everything that is to be studied comes from a consciousness viewpoint. The exploratory concepts from (Giorgi, 2009 and Vagle, 2014) were considered in this exploratory descriptive phenomenological qualitative study to understand and gather information on the lived experience of the research participant's phenomenon. I also found Van Manen's (2014) reflective, analytical strategy of equal importance to analyze results from the study as it aligns with

(Giorgi, 2009 and Vagel's, 2014) concepts of exploring participants' responses of their lived experiences. Giorgi, Van Manen, and Vagel approached the analytical strategies that aided in the efforts for this exploratory descriptive phenomenological qualitative research.

I conducted this research by having a genuine interest in understanding the socioeconomic barriers that impede recipients' ability to live self-sufficiently and the ability for caseworkers and technical resources committed efforts to leverage data sharing techniques impacting positive social change in the world (Vagle, 2014). My interest for this exploratory descriptive phenomenological qualitative research turned to a researchable problem (Giorgi, 2009) that provided me the opportunity to understand and reflect upon the phenomenon that originated from an individuals' lived experience (Van Manen, 2014). As such, I also conducted this research on relevant literature to absorb information about the topic to write on the insightful lifeworld of participants (Van Manen, 2014).

Viewing the literature, I oriented into the phenomenon by removing the assumption of what is known and taking an interest in understanding the origin from where this lived experience derived (Vagle, 2014). Phenomenological questions were asked to guide the interview process and obtain perceptions from participants to give information about their human experience (Van Manen, 2014) to draw out concrete ways by which a phenomenon is lived (Vagle, 2014) and being mindful of individuals' real-life circumstances that occur in the lived experience of the phenomenon that is studied

(Giorgi, 2009). A phenomenological interview conducted to explore and gather the information from research participants allowed me to reflect and obtain a deeper understanding of the lived experience (Van Manen, 2014). I had continuous engagement with the research participants through data gathering, writing, analysis, re-writing and remaining in a teacher-learner relation to the phenomenon (Vagle, 2014), as well as, seeking out information from a participant's lived experience by directing the participant to speak to the phenomenon of interest (Giorgi, 2009).

Coding analysis strategy. The conventional content analysis is a qualitative research technique used as an analytical strategy for coding categories derived directly from the text. NVivo 11 is the coding strategy used to help execute the analytics of this research and to maintain the collected data. NVivo 11 allowed me the ability to analyze unstructured data and justify the findings of the study.

Qualitative interview approach. I conducted an exploratory descriptive phenomenological qualitative study using an exploratory research method to gather data on the lived experience of the participants (caseworkers/welfare recipient) to ascertain the boundaries between welfare reform, information systems, and self-sufficiency. Seidman (2013) provided a guide for researchers on how to interview in exploratory descriptive phenomenological qualitative research that I used as the qualitative interview approach for this study. Seidman also provided information that I adhered to formulate interview questions throughout the exploratory descriptive phenomenological qualitative interviewing process to ensure the interview inquired only about the phenomenon of the participant. When conducting the interview, according to Seidman comprehending the lived experience of other people is essential to understanding the perceptions of individuals about that experience from their viewpoint to remove bias judgments throughout the research. As such, in addition to having interest in the study, I had an interest in the participants' experiences using the exploratory research to obtain information about their lived phenomenon. Understanding participants' experiences and their ability to live self-sufficiently post-welfare was the intent of conducting a phenomenological qualitative interview. As such, gaining insightful inquiries about the human services processes as it relates to programs requiring recipients to use some method of information technology to meet welfare reform requirements was also the essence of this study. Hence, life-history interviews and in-depth focused interviewing were the approaches used in the research on data sharing and its impact to welfare recipients' self-sufficiency to have the "participant reconstruct his or her experience" (Seidman, 2013, p. 14). This research included the use of open-ended questions as the research approach to gain inquiry about the lived experiences of welfare recipients, as well as, inquiries from caseworkers regarding their perspectives in working with recipients and aiding them towards self-sufficiency through welfare information data sharing processes.

Restatement of thesis. Welfare recipients face multiple barriers that impede them from living self-sufficiently. The organization, caseworkers, and welfare recipients are the connectors impacted by welfare reform practices. The research participants in this study consisted of social service welfare recipients, caseworkers, and technical resources. I interviewed welfare recipients to gain knowledge about their lived experience in the reform process and their perspective on any barriers that may impede them from attaining self-sufficiency. Caseworkers and technical resources research participants were interviewed to gather data on the operations of the welfare process and to determine any data sharing gaps within the welfare system and its impact to decision making for the wellbeing of recipients.

This research included an analysis of welfare information technology systems conducted in prior studies and data collected from caseworker and technical resource research participants to understand data sharing processes used by caseworkers to assess, monitor, and track recipients' progress through welfare reform process to welfare recipients' self-sufficiency. Various programs made up the processes used by caseworkers in welfare reform practices to aid recipients in their transition from welfare-to-work to self-sufficiency within TANF and other agencies. Discovery from the research implied that technical gaps exist regarding how various programs integrate with respective TANF, educational, behavioral, and employment systems to develop a tracking process that will allow caseworkers to efficiently monitor the progress of welfare recipients' readiness to live self-sufficiently. Progress has been made for state and local programs to obtain information from automated systems to address welfare recipients' multiple barriers to employment. However, some literature reviews indicated concerns and provided little information to validate if data sharing can be used to help caseworkers analyze, identify, mitigate, and monitor the specific barriers that uniquely impedes welfare recipients' ability to leave the welfare programs and to live self-sufficiently.

The social service caseworkers and technical resource research participants provided an overview of the TANF and its ancillary systems usage in daily work of their lived phenomenon to assist recipients in the welfare reform process. Findings from research participants' responses captured in field notes confirmed causes of data sharing issues are from using antiquated technology or welfare systems processes are not integrated to share information from in-house programs or external agencies. Additionally, data sharing needs may be met in some state or local governments to obtain information on welfare recipients; however, there is little literature existing on how welfare information technology is used to improve welfare recipients experience towards preparation to live self-sufficiently.

Integration capability within the TANF welfare systems is imperative for welfare recipients to obtain advantages towards preparation to live sufficiently during their welfare reform experiences. My research inferred that the TANF welfare systems should allow caseworkers the capability to analyze efficiently, track, monitor, and mitigate welfare recipients' barriers and their participation in respective programs to better aid and prepare their clients for self-sufficiency. This study showed that until existing data sharing gaps are mitigated, caseworkers are limited using information technology as a mechanism to improve welfare recipients' experiences towards self-sufficiency. Caseworkers and technical resources envisioned that information technology could improve welfare recipients' readiness to live self-sufficiently by designing a system to accommodate recipients' needs to overcome the barriers they perceive preventing them from the liberality of financial security and wellbeing. Rather than using a top-down approach to design the system, a bottom-up method should be considered to capture and understand the barriers facing welfare recipients' self-sufficiency issues and caseworkers' data sharing needs.

The importance of understanding the caseworkers' and welfare recipients' perspectives on welfare reform and data sharing ensured research responses would not merely be presumed. Study results emphasized the need for system improvement to track, set triggers, generate reports, and automatically recommend programs based upon information received that welfare recipients meet all program requirements assigned to them. Caseworkers and technical resources conferred in their responses the lack of data impacted the monitoring of welfare recipients progress towards self-sufficiency due to unawareness about other barriers that impede effective economic living standards.

I furthered explored the assumption of the data sharing process from a participative and organizational change model perspective to integrate programs, systems, and applications to leverage client relationship to meet socio-economic needs. The participative and organizational change models would entail helping welfare recipients make the transition from welfare-to-work-to-self-sufficiency by identifying and addressing their needs through an automated problem-solving system. I presumed that the participative and organizational change models would enable caseworkers to ascertain better the initial programs welfare recipients participate in and efficiently monitor next steps through the process.

Analysis from prior research on welfare system design and information gathered from the study participants collaborated the thesis on data sharing gaps in welfare reform processes impacting recipients towards self-sufficiency. Other researchers have identified data sharing barriers; however, the underlining concept lies in determining how to bridge the gaps between data sharing and self-sufficiency barriers within information systems.

Further research is needed to promote and examine Health and Human Services data sharing processes. An analysis of results from Government Accounting Office (2013) implied that determining ways to coordinate data sharing between TANF and welfare processes to overcome data sharing challenges are determined on government officials' interpretation on welfare reform and their understanding of client's needs to protect data in accordance to federal privacy requirements.

Data sharing challenges reported in (Government Accounting Office, 2013) indicated there are some confusions or misperceptions in determining what information should be allowable to agencies, as well as, how to protect the privacy of individuals or other potential data sharing inconsistencies with federal privacy requirements to share data across multiple systems or programs. The effort to overcome TANF's gaps and mitigate TANF's complexed services requires more research to help recipients with self-sufficiency issues due to unresolved challenges with data sharing in welfare reform processes. Due to the lack of data sharing across different human services, workforce, and other local or state agencies, research showed that the inability to share data across various TANF and welfare systems hindered caseworkers' ability to assess welfare recipients' self-sufficiency barriers accurately. Data sharing across organizations shall leverage the ability for continuing efforts of integrating multiple TANF systems that require the need to define the federal privacy requirements (Government Accounting Office, 2013) to ensure that some form of data security is in place that will allow only authorized people to view specific information on welfare recipients. Stakeholders in the Government Accounting Office (2013) suggested the following as it relates to data sharing within the health and human services (p. 3):

1. Clarification of what data sharing is permissible in human services processes.
2. Develop a model data sharing agreements and informed consent language that comply with federal privacy requirements.
3. Reexamine the requisites to ensure more consistent privacy rules for data sharing across human services programs and agencies.

The Government Accounting Office (2013) reported that a toolkit is currently underway by the Department of Health and Human Services to describe privacy rules across several programs and data sharing activities. Further informed by (Government Accounting Office, 2013) is that a completion, dissemination, and follow-up has not been determined nor does the Office of Management and Budget (OMB) has plans to pursue efforts related to privacy requirements, such as identifying data sharing agreements. Stakeholders in the Government Accounting Office (2013) report consisted of state and local human services agency officials in program administration, technology, and legal positions, private and nonprofit information technology providers, and representatives for advocacy and research organizations who responded to questions using the Delphi Survey method. The difference from the Government Accounting Office (2013) study in comparison to this exploratory descriptive phenomenological qualitative research is a bottom-up approach was used to gather information. Rather than obtaining data using a top-down approach from upper-level personnel, I used welfare recipients, caseworkers, and IT resources as the key players for information gathering.

The bottom-up approach allowed the capability to obtain information from resources directly involved with the system at the client level who could share from their lived experience the usefulness of data sharing within the welfare reform systems and the impact data sharing has on leveraging the ability for recipients attain self-sufficiency. The Government Accounting Office (2013) report did not indicate how or whether data sharing will lead recipients to self-sufficiency. Determining how information systems can be used to automate the workflow processes of TANF systems and welfare programs goes beyond data sharing while recipients are partakers in the welfare system. To meet the goals of welfare reform and to accurately determine if the goal is met to transform people from welfare recipients to individuals or families living self-sufficiently, it will take the development of an automated system to track data and progress post-welfare reform.

Summation of Gaps in the Research

There is a need to access data to efficiently collect information about past and current welfare history using automated welfare systems that are integrated with TANF systems to aid caseworkers in determining eligibility by collecting accurate data, to place welfare recipients in appropriate programs, and to track welfare recipients' progress post-welfare towards self-sufficiency. Lack of information sharing in welfare reform systems hinders caseworkers from obtaining accurate or relevant information to help recipients overcome self-sufficiency barriers. Data sharing between TANF and welfare programs might allow caseworkers to make sound decisions from reliable information to place recipients in appropriate programs and services, as well as, the capability to monitor recipients progress post-welfare reform to determine if families can live independently from government assistance.

Many states will not share data due to privacy and confidentiality concerns which impact the ability to measure the progress of welfare recipients' transitions from welfare-to-work to self-sufficiency. The gap in accessing data from other states caused caseworkers to rely on information provided by the welfare recipients. Obtaining data solely from the recipients can lead to inaccurate dissemination of reported information, ineligible individuals receiving payments, or inappropriate welfare participant assignment in other TANF programs. Research findings insinuated that misuse or lack of data sharing impacts caseworkers from accurate decision making to ascertain welfare recipients' barriers to transition from welfare-to-work to self-sufficiency. The State of Tennessee

Government Accounting Office (2012) study researchers implied that information gaps prevent decision makers from determining the success rate of TANF to lead recipients to self-sufficiency.

The above gaps summarized from this study revealed that more work is needed to incorporate data automation into welfare reform system processes. The literature collaborated the intent of this study and inferred that to improve data sharing in welfare reform government officials should consider the privacy of data and the ability to recognize barriers hindering recipients from attaining TANF's goal to move people out of poverty.

Exhaustion of welfare benefit period is another barrier found to impede recipients from leaving poverty or making living wages to support their family. In the State of Tennessee, the exhaustion period to receive welfare benefits is 5 years. Upon reaching the 5-year time limit and no longer accepting government benefits, recipients are most likely to stay in the environment of their current lived experiences that diminishes opportunities for social change to live self-reliant.

In the literature review several gaps were identified that hindered data automation to share information in cross-functional welfare systems such as privacy guidelines and antiquated operation of information technology equipment. Welfare recipients' self-sufficiency barriers were also identified in the literature review. Welfare recipients are hindered from their barriers to live independent from government assistance to become self-reliant to provide for their families. The literature review revealed data automation of shared information is needed to help caseworkers with decision making to help welfare recipients attain self-sufficiency to enhance their lived experience of the current phenomenon and bring positive change to their social environment.

Summary and Conclusions

Welfare agencies data sharing automation have been a challenge with federal and state government to implement a technology system that would aid in the delivery of data, quality services, and efficient processes as a decision-making tool for caseworkers to assess barriers impeding clients from attaining self-sufficiency. States that have implemented data automation reported encounters with sharing data in cross-functional welfare agencies. Privacy limitations and incompatible antiquated technology with modernized information systems are challenges encountered by the states to establish collaboration with other agencies to assess the socio-economic and behavioral needs of welfare recipients through data sharing processes. Technical resources are currently seeking ways to improve data sharing in welfare systems under the federal privacy requirements. Obstacles that technical resources encounter to protect privacy while sharing data is building tools such as data sharing agreements that can be used by state and local agencies (Government Accounting Office, 2013). Pimpare (2013) implied that little information is provided to caseworkers to evaluate the effects of welfare reform because of complexed policies, unreliable and inconsistent data, and the ability to assess PRWORA systematically. Caseworkers validated concerns that lack of data sharing processes hinders the ability to make accurate decisions and identify self-sufficiency barriers encountered by recipients.

Lack of information impacts monitoring and reporting on TANF goals to transition welfare recipients to self-sufficiency that causes some welfare recipients to continue living in poverty. The effectiveness of welfare reform is minimal regarding the capability to assist welfare recipients with barriers impacting their current lived phenomenon to provide economically for their families. The above research shows the ineffectiveness of policies in welfare reform. It leaves to question whether policies impact the information systems aspects of welfare reform to develop a robust application welfare system. A review of welfare policies is needed to determine whether enhancements of welfare systems will provide caseworkers the ability to leverage the processes and guide recipients towards self-sufficiency and to better access data across multiple welfare systems with more efficiency. The challenge upon discovering how the gaps between the human services organization, caseworkers, and welfare recipients can be leveraged lies within the redesigning of information technology system to meet new criteria and obtaining the information that is not currently known.

Chapter 3 comprised a discussion on the research methodology and the focus and approach to the study. The method of the study is described, as well as, the explanation of the research design and rationale. Also provided is the research justification and role of the researcher description. Additionally, I described the methodology, participant selection logic, instrumentation, procedures for recruitment, and data analysis plan. Chapter 3 concluded with a discussion on the issues of trustworthiness.

Chapter 3: Research Method

Introduction

The purpose of this exploratory descriptive phenomenological qualitative study was to understand welfare recipients' viewpoints on socioeconomic barriers to living self-sufficiently and to gain perspectives from human services caseworkers and technical resources on data sharing issues that impact recipients' ability to live independently from government assistance. In this chapter, I include a description of the study methodology, research design, rationale, research questions, and definition of the software. I also describe my role as an interviewer and ethical issues in this study. I obtained an understanding of the lived experiences and barriers for welfare recipients in Shelby County Tennessee and how caseworkers used information technology to overcome these self-sufficiency barriers.

Chapter 3 includes the research questions on data sharing and the impact program placement have on welfare recipients due to misinformation, analysis of data and ethical issues. Exploratory research chosen for this study consisted of understanding and identifying the lived experience of welfare recipients' self-sufficiency struggles through the data sharing technology. The data collection tools for this study consisted of informal interviews with expert informants and background research to assess the information technology infrastructure on TANF welfare systems. Participants' interview responses provided information about barriers to attain self-sufficiency and issues encountered by caseworkers from data sharing processes. The exploratory descriptive phenomenological qualitative study research design satisfied the goal of this exploratory research using data collected from multiple sources. Chapter 3 also includes the research design and justification and the population. A discussion on the rights and ethics of the participants concludes Chapter 3.

Research Design and Rationale

I used an exploratory descriptive phenomenological approach research design. This type of research design is used to consider the conscious state of others regarding their perspectives on their lived experience (Giorgi, 2009). The exploratory descriptive phenomenon design does not include assumptions about participants' everyday life; only the perspective of the person on how they experience a phenomenon is regarded (Giorgi, 2009). Therefore, I removed all perceived notions about the research participants' experiences and focused on the people participating in the research to channel their current awareness of welfare self-sufficiency barriers to have a willingness to see the phenomenon as one to be explored.

I explored the concept of phenomenology to describe how the society that welfare recipients lived in was different from the reality of their lived experiences; welfare recipients constructed their lived experiences from their truth. Welfare recipients conveyed that the TANF programs do not help them with their quest to become self-sufficient. However, caseworkers interviewed in the study stated that welfare recipients fail at becoming self-sufficient through the offered programs for one of two reasons: (a) their reluctance to participate in welfare reform programs and (b) lack of information on recipients' information due to inability use of automated data sharing methods. This research was designed to understand the Shelby County Tennessee welfare reform information system and to analyze the reality of the welfare recipients experience and how TANF information system is used to determine the outcome of welfare recipients' ability to live self-sufficiently.

The constructivist role was used to study the multiple realities encountered by welfare recipients and to identify any implications of their lived experience constructed from socioeconomic barriers, automated data sharing, TANF processes and programs, or other aspects that may impact their ability to live self-sufficiently. I considered other resources involved in welfare programs such as the staff, recipients' family, and welfare administrators who might have different experiences or perceptions regarding self-sufficient needs of welfare recipients. The success rate to transition welfare recipients into self-reliant people requires looking at privacy laws for data sharing, replacing antiquated systems, and providing caseworkers with information data sharing system to leverage decision-making about welfare recipients' ability to live self-sufficiently post-welfare reform.

Research Design Justification

I chose an exploratory descriptive phenomenological qualitive study for this research to explore a topic of little knowledge (see Singleton & Strait, 2010) through observation to understand experiences of a person from their perspective (see Giorgi, 2009). I gathered information on the participants' situations regarding data sharing automation and its impact on welfare recipients' self-sufficiency barriers. The exploratory approach entailed focusing on the commonality or differences of welfare recipients lived experiences and inability to live self-sufficiency while caseworkers reduced barriers preventing them from independent lifestyles through automated data sharing methods.

Understanding the perspectives of research participants came from Giorgi's (2009) exploratory descriptive method, as I assumed that "humans live in the world as interpretive beings" (Vagle, 2014, p. 74). Therefore, I interpreted the meaning of the participants' lived experiences through the lens of their phenomenal and experiential world (Giorgi, 2009). Interpretation of data confirmed welfare recipients' viewpoints of their experiences that validated the ongoing barriers to welfare reform processes. The interpretation of information received from caseworkers and technical resources corroborated the need for continuing enhancements to the TANF information systems processes and programs to leverage welfare systems automated data sharing capability toward service-oriented methods, emphasizing ways to identify the socioeconomic patterns hindering self-sufficiency among welfare recipients. Therefore, I fulfilled justification of this research met in the purpose statement, research design, and problem statement of this study.

Confidentiality. To protect the privacy of individuals participating in this research and to ensure data were not at risk of disclosure, I adhered to the confidentiality procedures upon completing and receiving a Certificate of Confidentiality from the

National Institutes of Health. I demonstrated an understanding of confidentiality to protect information shared by the research participants (see Wolf et al., 2015). Additionally, I abided by Walden University Institutional Review Board (IRB) guidelines on protecting the rights and ethics on human research subjects. I also maintained the confidentiality of research participants through masking data or using alias names to protect personally identifiable information. I also conducted interviews in a room secluded from outside intervention.

Research location. The public library, research participants' homes, or a local community center were locations used for data collection. I considered these locations because they were central to participants' communities and frequented by the residents. I conducted three interviews with the research participants' homes at their request due to transportation issues. I was unable to use the Shelby County Tennessee service locations to interview caseworkers and technical resources to protect their privacy by participating in the research at their place of employment. Therefore, I met caseworkers and technical resources at an offsite location. Limitations to research locations occurred when participants were unable to attend in-person interviews that resulted in conducting phone interviews to gather data.

Research material. Various materials were used for gathering, collecting, interpreting, and analyzing data. The research materials used were questionnaires, observation of processes, consent agreement documents, contact summary forms, and interviews with welfare recipients, caseworkers, technical resources, or other pertinent individuals who shared their experiences and provided insight regarding gaps that impede welfare recipients' progress toward self-sufficiency.

I used prewritten questionnaires in the interview process to capture research participants' information about their welfare reform experiences, welfare reform issues, the systematic processes in which they participate, and self-sufficiency barriers. Gathering this type of information increased the chances to identify gaps in the information system process by understanding the values and needs of the welfare recipients and understanding caseworker and technical resources' perspectives regarding the integration of various welfare information system processes and programs. Research participants (welfare recipients, caseworkers, and technical resources) were interviewed to understand their respective lived experiences about welfare reform from a practitioner and participant perspective. Interviewing the welfare recipients gave me the ability to ascertain recipients' feelings, thoughts, intentions, and behaviors. I made visits to the home of three welfare recipients, which also allowed me to gain more insight into the recipients' living conditions. Finally, interviews allowed me to explore and understand participants perspectives about TANF's processes to ascertain whether the functionality of the system provided the capability for caseworkers to address welfare recipients' barriers and make appropriate program placement decisions that will enhance their ability toward self-sufficient living.

The questionnaire consisted of open-ended questions for the interview process. I categorized and coded the responses for summarizing, analyzing, and interpreting the received information. I considered participants as unique informants providing different information from their perspectives about welfare reform and recipients' self-sufficiency and automated data sharing. Credibility entailed ensuring participants' responses were validated and truthful by using member checking, researcher reflexivity, peer review, and triangulation on how data is used and to protect private information.

The exploratory interview protocol for this research followed the reflective interpretation of the collected text to understand how the phenomenon revealed and concealed itself during the study and how the outcome influenced the recipients' lived experiences (see Vagle, 2014). I used reflective research to provide the means of obtaining a holistic and more meaningful understating of the participants' experiences as well as analyze the underlying conditions that may have either a positive or negative impact of the experience.

I built trust with the participants by identifying my role as the researcher and addressed participants' concerns about the research. The overall purpose of the study communicated to the participants provided information regarding their benefit to partake in the study. I helped the participants establish an understanding of the meaning of barriers, self-sufficiency, and data automation sharing to ensure there was no misunderstanding of the terminology while they partook in the research. Participants benefited from this research by having ownership or feeling part of the process to elaborate about their perceptions on TANF welfare reform, self-sufficiency readiness, lack of data sharing, and antiquated systems. The identity of the participants was obscured to protect the information provided and the participants informed will be kept confidential.

Consent agreement forms were used to provide potential participants with information regarding the research so that they could decide whether to participate in the study or not. The participants were informed that their engagement in the study was voluntary and all information gathered was kept confidential. As part of this consent agreement process, I further advised participants on the presentation of the information found in the results of the study. The Walden University IRB approved the consent form on June 14, 2016, via e-mail (approval no. 06-14-16-0053852). Essential information provided to the research participants in the consent agreement form was to:

- Ensure participants' awareness to participate in the research.
- Explain the purpose of the research.
- Explain the procedures for the research.
- Inform about the risks and benefits of the research.
- Inform about the voluntary nature of research participation.
- Explain the participants' rights to stop the research at any time.
- Explain the procedures used to protect confidentiality and storage of collected data.

A contact summary form (see Appendix A) was used for each participant to capture and record information after the interview session ended. I used a voice recorder in the research and informed the participants that the need to interview recordings was for research purposes only. Additionally, I noted the mannerism of research participants as they responded to questions about their lived experiences by observing the change in body language, demeanor, or listening to the tone of voice. To ensure participants confidentiality, no identifying information of the participants was used. A coding system was used to remember the participants for the summary of results such as BF361 (black female; age 36; first participant). The contact summary form was designed in a questionnaire format to simplify capturing the information.

I considered the observation of processes and people to measure subjective experiences regarding the attitudes and behaviors of the participants' viewpoints and understand the TANF information system operations. However, I did not gain access to the Shelby County Human Services work area with caseworkers and technical personnel to observe their operation. Despite this limitation, I was able to validate the research from a verbal description of how the process operates and viewing TANF systems from prior studies. The caseworkers and technical resources were unable to provide a documented layout of the Shelby County Tennessee welfare reform system but were able to thoroughly explain each step of the process from intake to case management closing and captured in the field notes of this study. Caseworkers described the welfare reform process from a functional perspective in working with day-to-day operations engagement with clients. The technical resources provided information from an information system perspective that enabled me to gain more insight of the technological aspects to identify and understand where gaps in welfare reform processes occur regarding caseworkers decision-making usage to help clients obtain self-sufficiency.

Research context. I ensured that the context of this research met Walden University's guideline on social change in scholarly writing by recording data of each research participants' responses to prevent misinformation, noting the behavior, body movements or change in tone of voice, and analyzing data collected from the interviews. This meant that I gained an understanding of the participants from their actions, experiences, or circumstances of their lived experiences. For this research, I analyzed the similarities and differences from participants' responses to identify themes or characteristics about the context. This analysis resulted in welfare participants' common interests regarding readiness to live self-sufficiently post-welfare reform. Caseworkers' research context involved understanding automated data sharing as a decision-making tool to assist recipients. Research context from the technical resource perspective allowed me to gain insight into the underlying gaps of information processes to streamline welfare information application and program processes by accurate tracking, monitoring, analyzing, collecting, and reporting welfare recipients' progress to determine their needs for self-sufficient living.

Creating research questionnaire. I used open-ended questions during the interview process to allow research participants the opportunity to elaborate on the questions asked with the expectation of acquiring information regarding the study. Interviews were used as a method to obtain verbal responses rather than using questionnaires for written responses by the participants. The welfare recipients had little education that corroborated my anticipation to conduct oral interviews for the research with captured field notes. Caseworkers and technical resources participated orally in the study to gauge the opportunity for them to provide detailed discussions on about welfare reform and the data sharing impact to self-sufficiency for recipients. The analytical design for this exploratory descriptive phenomenological qualitative study came from the concepts of prior research experts (Giorgi, 2009; Seidman, 2013; Van Manen, 2014) in this method. I asked questions based on the participants' experiences and the situation in which they experienced the phenomenon allowing the participants to reconstruct their experience according to their reason for what they think about the phenomenon. Therefore, the research questions will start with the words 'how' or 'what' to ensure asking open questions so that the research participants can describe their experiences.

Research forms. I used different forms to ensure the ethical rights of each participant were acknowledged and the Walden University IRB policies and procedures followed. The contact summary form was designed to provide a means of summarizing responses to questions after each interview to reflect on the moment after the discussion. Each participants' interview responses had a contract summary form filled out to review written notes and write the theme, issues, or other information perceived during the interview. I presumed that caseworkers or technical resources would provide documents about their processes; therefore, I created a document summary form to collect and analyze data to capture information about each record. However, there was no document exchange between the participants and the researcher (see Appendix C).

I used the Walden University IRB document to ensure research complied with specified guidelines. After providing participants with the research purpose and how their involvement can support the research efforts, if the participant agreed to partake in the research, a consent form was filled out indicating their agreement to the terms and process of the study. The research participants received a confidentiality agreement form to provide them the assurance that any personal information was kept confidential and responses from the interview used for dissertation purposes only or publication. The letter of cooperation from the Walden University IRB website is another pertinent document that I used to obtain authorization from participants to conduct the research that served as an agreement between the researcher and the participant about the study process. This letter of cooperation disclosed the title, research summary, and protocols to conduct the study. I received the participants’ confirmations to conduct the study.

Developing coding. In the analysis of data collection, I used coding to put data into themes for organization and feasibility of data interpretation by grouping the data into categories for comparison and analysis. As part of the coding process, I developed a transcript of the recorded interviews. Coding occurred from the transcript data and placed into themes and categorized. Developing coding of notes allowed the ability to conduct a thorough analysis and summarize the research findings.

I used several techniques in this study as preliminary measures for coding the data. The coding methods I used were color-coding to highlight data that had similar response information, labeling the data based on who provided the data, or what process or situation inferred from the interview session. I entered information in NVivo 11 software that I purchased to create the coding and themes of the data. I used NVivo 11 software to derive qualitative data collected from the research, as well as, manage and organize information to obtain an analysis of results. I used data collected from interviews, and field notes in NVivo 11 coding feature to help create coding for the research. NVivo 11 has source classification and a node of codes section I used to organize field notes. An example of research codes (see Appendix E) that I used for this research is WR: Process (Welfare Recipients response regarding reform process); WR: LESS (Welfare Recipients lived experiences responses regarding self-sufficiency); IT: WFSP (Information Technology Welfare Reform System Processes). The fieldwork derived from the conceptual framework and research questions constructed the coding process to present, analyze, and categorize interview data.

Data reliability and validity. The ability to measure and interpret the categories and themes of data collected from research is vital in determining the reliability and validity of the data findings. I measured the reliability of data based on the repeated consistency and stability of the questions from the participants' responses. To determine the reliability of the research, I looked for significant themes or words during the data analysis process to identify similarities and differences between the responses.

Interpretation and analysis of the data were used to determine if consistency occurred from the participants' responses to the research questions.

Measuring the validity of data in an exploratory descriptive phenomenological qualitative study may be problematic or lead to some inconsistencies that may cause the data to be unreliable. The foreseen problem with data validity is the unknown of participants addressing or answering questions truthfully for the gathered information to be reliable leading to random or systematic errors in the study. To overcome the unknowns and ensure the validity of data, in addition to the interview questions, I used a list of closed-ended questions that were significantly related to the interview questions for conducting a comparison of participants' responses. The validity check occurred when both the interview questions and a summary of the research using closed-ended questions derived similar responses. Data reliability and validity was determined using NVivo 11 software during analysis.

The purpose of the closed-ended summary questions is to test-retest reliability (Singleton & Strait, 2010) at that moment because it may be difficult to get participants to return for the second interview if needed. The test-retest reliability process was used to test and measure the same person in a single-setting but using two different methods to validate and ensure the reliability of data. The test-retest process used open-ended questions at the beginning of the interview and closed out the interview process with a recap by asking participants closed-ended questions. I used the test-retest method to ensure the stability of the questions asked and to eliminate systematic errors that occurred from asking different questions.

Data storing. After completing the dissertation and research findings, I archived and stored all data in a secured location where it will remain for 5 years under Walden University requirements to maintain confidentiality using masked or alias information. I saved electronic data on a USB with two backup copies of all computer files. The voice recorder used for interview audio recording has been labeled and stored in a protective case. Handwritten field notes or other types of documents reside inside appropriate file folders. I archived the voice recorder, disks, and research materials in a secured external storage location. I used Dropbox as an online storage location to archive electronic documents and files that are password protected to maintain participants' confidentiality. I masked the names of participants on all electronic and hard copy documents.

Research design foreseen issues. A few limitations that occurred with the participants during the interviewing process were time conflicts, inability to take off work to participate in face-to-face interviews, or no transportation to the location to partake in the discussions. I used Skype to conduct interviews with study participants who were unable to meet in person, or I met the participant at their home as permissible to establish a face-to-face setting. A research account can be set up on Facebook to seek out Shelby County Human Services administrators, caseworkers, or welfare recipients. Skype can be used to conduct interviews if time does not allow for a face-to-face meeting to take place. To ensure the research was conducted according to the Walden University IRB and academic standards, the research design indicated in detail the research method that I used to carry out the activities of the research such as selecting and interviewing participants. Information gathering, data collection, and collaboration between myself as the researcher and study participants will be imperative to derive results from the research and to provide research summarization and findings.

Role of the Researcher

Before conducting research for this study, I received permission from the Walden University IRB and adhered to IRB processes regarding the rights of research participants. My role as the researcher for this study entailed collecting data from various sources to analyze the mannerism and behavior of the participants during the interview process. I gained an understanding of TANF information system from the research participants. I determined the interests of potential individuals to participate in the study, and their willingness to provide personal information about their lived experience in an interview setting requiring audio recording. I informed the participants that findings from the research might be published and received participants consent release dissertation for publishing. I removed all research bias perceptions about the participants to ensure I understood the information provided from the interview, to remove all prejudices, and to stay focused on questions, issues, or other matters that were directly related to the research. Finally, my role as the researcher of the study entailed understanding the participants’ issues with the welfare reform system and determined the precept on rather or not the systems helped or hindered welfare recipients' readiness for self-sufficient living.

Methodology

The exploratory descriptive phenomenological qualitative methodology will be used to explore the welfare recipient's phenomenon experience of living insufficiently. Interviews will be conducted and tape-recorded to gather information for the research utilizing flyers, word of mouth, and other advertisements will be used to obtain participants for the study. A signed document by the participants will be required as their consensus to participate in the research. A preliminary overview shall be given to each participant to inform them about the research and the central phenomenon of the study. Consent to interview forms serve as a document of record for participants agreed to participate in the research. Keeping all participants involved via phone, e-mail, or other communication mediums determine ongoing cooperation among participants. Participants will be updated on the next steps in the research process to ensure meeting times are adhered to for further interviews or other dialogues to complete the research.

Participant Selection Logic

The marketing strategy I used to recruit participants included the distribution of information about the research using flyers at local libraries, nonprofit organizations that provide services to welfare recipients, churches, online posts to appropriate social media outlets, or word of mouth. As it relates to this study, I used prequalifying questions (see Appendix E) for the selection criteria to seek out potential welfare recipients to participate in the research. I used the following characteristics as the criteria for the participant selection: age (18 or older); education (dropout-4-year college); nationality (all); years on welfare (3); income level (unemployed-$25,000); handicap (none); family household size (2-6) and language (fluency in English). I created a flyer that contained the above information to collect information based on the selection criteria data as potential persons to partake in the research. I used several methods as options in the selection criteria process; however, word of mouth was the most effective approach to collect participants for the study. If the potential research participant met the criteria, I notified them via phone to give a brief overview of the research. I scheduled a date and time for the first interview if the participant agreed to participate. The proposed number of welfare participants to research was 13. The participants consisted of seven welfare recipients, three caseworkers, and three technical resources. However, only 11 individuals participated. The number of welfare recipients was reduced by two because they did not meet the 'no disability' research requirements. Therefore, only five welfare recipients', three caseworkers, and three technical resources data were captured in the results of the study. The selection criteria for caseworkers and technical resources was two or more years of work experience in human services.

Gaining participant access. The Memphis, Tennessee IRB was contacted via e-mail to inquire about obtaining individuals to participate in this research. I informed the Memphis, Tennessee IRB that my goal was to include ten up to 20 persons in the research. Based on the IRB response that review was not required if subjects were contacted directly through public information, I chose to contact potential participants directly for the research.

The initial assumption of gaining access to the research participants was through the Shelby County Tennessee Human Services Department. Letters were mailed to each of the Human Service Branch managers with a brief overview of the research and asking agreement to participate. I received one response with a referral to another person in social services. After several attempts, I was unable to contact the referred person. Therefore, considering the difficulty of the unknown stipulations that taken to obtain participant access, word of mouth was used to acquire access to research participants. Gaining access to the people and the organization was challenging. Other challenges that I encountered was getting individuals to participate in the study, building trust, and credibility. These issues were overcome by sharing with the participants my IRB number and approval letter from the Walden University IRB to ensure the participants there was no potential harmful impact or risk to their social service case or employment. I had to assure the welfare recipients that I was not a caseworker to obtain their consent for research participation. A consent form was used to view with the participants to debrief the research and address questions before signing an agreement to partake in the exploratory descriptive phenomenological qualitative study.

Instrumentation

The tool that I used for collecting and summarizing data was NVivo 11 to analyze and make sense of the data collected and to organize the data into specific categories or themes from the resources that participated in the research. NVivo 11 was also chosen as the software to conduct data analysis because it provided the capability to display coding and categories used in the study graphically. I selected snowball sampling for this research to allow the expansion of the sample by asking participants to recommend others to participate in the study.

The process taken to screen participants for the research involved creating a sample questionnaire that asked general questions required to meet the research criteria. Participants met the standards and received a brief overview of the need and benefits for them to partake in the study. I provided a consent form to the participants to ensure communication of ethical rights to gain trust to conduct interviews. Interviews occurred after receiving consent from the participants. I used two sets of questionnaires to determine if participants (welfare recipients and social services resources) met the research sample criteria. The welfare recipient and social service questionnaires were used to sample out the prospective participants for the research.

Procedures for Recruitment, Participation, and Data Collection

Recruiting procedures for this exploratory descriptive phenomenological qualitative study consisted of placing flyers at locations where potential participants congregated. I received approval from the Walden University IRB, and dissertation chair before putting flyers in public areas. Another recruitment method used was word of mouth through discussions with other people inquiring about their knowledge of someone receiving welfare or working in Social Services. The participants derived from referrals or word of mouth to partake in the research. I made the initial contact with the participants in person to establish relationship and trust. Each participant received a brief overview of the study, the role of the participant, and the details about confidentiality and consent to participate in the research to ensure understanding of their involvement by the signing of required documents. I used the interview method to collect data, audio recording to capture data, and field notes to document a summary of interviewees sessions. The frequency of data collection events occurred no more than twice during the interview process.

The first interview was used to capture participants' data and the second interviews to collect data for follow-up with participants for clarification purposes or to obtain more information after conducting a reflective process of the information gathered. The duration of data collection events is over a 30-day period per participant allowing time for analysis and summarization of data. Participants were debriefed to address concerns about the research. Additionally, participants exited the study upon final agreement that the summary of their findings is accurate based on the data collected from the interview process. A verbal or signed agreement was acceptable and noted in the recording or documented as part of the field notes. The participants engaged in follow-up discussions as needed to obtain additional information on their lived experience. Participants were contacted via phone or text message to schedule a follow-up interview within a 48 hours timeframe as deemed necessary. More information is in the subsequent paragraphs on data analysis procedures and its interpretation for this exploratory descriptive phenomenological qualitative study.

Data Analysis Plan

Qualitative software tools are available to allow various tasks such as coding, storing, comparing, linking, grouping data, and creating themes and categorizations associated with the data gathered. Content analysis was used to identify the coding, labeling, and categorizing of collected data to determine its significance. NVivo 11 is the software that I used for entering, conducting, classifying, and analyzing data. Data analysis in this study was an essential attribute for qualitative data because I derived from the information collected the lived experience of the participants. I also gained an understanding from the participants' responses in the study and comprehended the unique situations that impacted their lives or the social environment from experiences, perceptions, thoughts, assumptions, or behaviors (Tavallaei & Abutalib, 2010) each research participant encountered respectfully. Only relevant data to the research was provided to ensure credibility and validity to prevent distortion of the study purpose. Any redundant data or repeating statements were removed to ensure the accuracy of creating categories that were common to document the findings. I provided a summary of the participants' lived experiences and technological discoveries of the welfare reform system that included any identified impacts, and recommendations that leveraged the probability for recipients to live self-sufficiently post-welfare reform in the data analysis process.

Analysis-synthesis and explicitation were the procedures I used for data analysis based on the method defined by Giorgi (2009). The strategy from Giorgi allowed the opportunity to view welfare recipients' lived experiences phenomenon by breaking down each area of their complex lives (i.e., environment, financial, work, education, etc.). The ability to understand the significance and unique barriers of each recipient was important to get a holistic view of causes to welfare recipients' barriers. Additionally, I was able to obtain the caseworkers' viewpoints on assessing their clients' ability to live self-sufficiently, as well as, the technical resources insight from this research on information technology impact and the need to provide better data sharing processes to aid in addressing the welfare issues resulted from using Giorgi's analysis-synthesis and explicitation process. This procedure provided the means to separate the data to exist independently of each other for analysis and to determine dependencies from other collected data. After synthesizing the data, I used Giorgi's analytical process to clarify the understanding of the study participants' experiences.

The reason for choosing the exploratory descriptive phenomenological qualitative studies is because they do not require formulas for analyzing findings or interpretation from interview methods used in this research. I interpreted results by reflecting on the participants' responses to the interview questions to understand the meaning of the information by assigning codes to responses that were meaningful to the research. Reflection of the findings entailed thinking more in-depth into the participants' responses to understand the reasoning and to observe any behavioral or emotional expressions during the interview leading to a critical analysis of thinking through the process. Interpretation of data was conducted by comparing responses for each question and looking for keywords to determine similarities or differences to analyze the lived experience of each participant. Interpretation of findings enabled me to determine if the findings gave any information about the phenomenon that is being studied or provided meaning to the research questions.

The ability to make sense of the information gathered to determine the sensibility and meaning of the facts based upon interpretation from the participant's lived phenomenon were essential for this study. Reflections from interviews were captured using an analysis research form to capture interpretations or thoughts from participants' responses immediately after the interview session. These forms were compared to identify keywords that used for coding purposes during the analysis process. Information gathered from the research was synthesized to analyze findings to determine the new phenomenon of an individuals' lived experience. Further interpretation of qualitative data involved the use of handwritten notes taken during each interview to complement the audio recording and transcripts to show relevance to the research (Sutton & Austin, 2015).

Interpretation of data depended on two conceptual standpoints that derived from the research. The first standpoint was the phenomenology lived experience and demographics of welfare recipients and their viewpoints about welfare reform to understand barriers to living self-sufficiently post-welfare. From the second conceptual standpoint, I interpreted welfare reform information systems from the views of caseworkers and technical resources in human services regarding data sharing and integration of systems and its impact on assisting social service resources as a decision-making tool for recipient placement into programs to help them attain self-sufficiency. Using phenomenology allowed the researcher to inquire with the participants about their lived experience and interpret the meanings by reflecting upon the research findings.

I found in the data analysis summary that dissemination of electronic information to provide data sharing capability is one of the issues hindering caseworkers to assist welfare recipients to attain self-sufficiency successfully. Caseworkers and technical resources reported that the use of antiquated systems is another issue that is currently impacting progress because they do not have the capability for data sharing and are not compatible with modern methods such as SACWIS to electronically transact data.

Data analysis also revealed that many social service system processes operate on separate platforms. Welfare recipients' data analysis showed since TANFs creation in 1996 people is still encountering the same barriers. Therefore, findings from the data analysis confirmed that more investigation is needed in welfare reform to address socio-economic obstacles and incorporate processes such as data sharing from multiple human service related agencies to for caseworkers to obtain a holistic viewing of phenomenon impacting welfare recipients' ability to attain self-sufficiency.

Data access. Data sharing in welfare systems is still an ongoing issue for many states in finding a soluble technical solution that will allow caseworkers to track, monitor, assess, and interpret recipients' data from multiple human service agencies system. The inability to share data results as a hindrance for caseworkers to access data. This lack of data access capability is due to insufficient skillsets that eventually leads to incompetence in understanding and interpreting data, the lack of time to learn new automation technologies to understand the value of data, and a few dedicated organizational resources to support the need for data sharing in welfare reform processes (Lee et al., 2013). Gaining access to welfare recipients' information leverages effective decision-making to address self-sufficiency barriers. However, to gain access requires a system with functionality to link data across multiple systems to allow caseworkers the capability to ask questions and examine issues impacting the well-being of families to leverage decision-making using data integration to view information holistically at the individual level (Shaw, Lee, Farrell, 2016). According to prior research, interoperability is the process human services shall consider to electronically link agencies to work together and use data for decision-making purposes. Data integration is an important collaboration tool to ensure welfare systems contain information to help caseworkers access information from several sources to better serve families (Shaw, Lee, & Farrell, 2016) and help them with their transition from welfare to self-sufficiency. Caseworkers' analysis of an individuals' lived experience to self-sufficiently is limited or difficult to attain without enough data to understand the needs of welfare recipients by using data to not only transform the works in social services improve decision making regarding the well-being of families but to change society by helping families overcome socioeconomic barriers hindering autonomy.

According to Cliggett (2013), it is the “linkages of welfare agencies data that facilitates data dissemination and sharing that will depend on the quality of the system of metadata accompanying the dataset” (p. 8). Metadata will allow the ability to gather descriptive statistical information about the data collected in each dataset. DeHart and Shaprio (2016) study acceded with Cliggett’s (2013) concepts on data linkage by also inferring that accessing administrative data from a single agency can be overcome by integrating data from multiple agencies servicing families to gain an understanding of clients’ lived experience impacting their socioeconomic environment. To combat data sharing and integration issues in social services to leverage caseworkers’ opportunities to help families reach self-sufficiency requires a robust centralized system to, gather information, allows de-identification, storing, and distribution of linked data (DeHart & Shapiro, 2016). Challenges that some local social services may encounter with data sharing is operating in a silo from other agencies, retrieval of data from multiple systems, and lack of implementing a centralized welfare system that will remove data sharing, confidentiality, privacy, identity management, and security risks of clients’ information.

This research design entailed obtaining information about welfare recipients lived experiences, caseworkers, and technical resources perspectives on acquiring administrative data about the poor who are on government programs and gaining access to information for understanding welfare recipients’ movement throughout the process. I adhered to The Privacy Act of 1974 to protect any information accessed by participants. I selected to abide by this privacy act to also protect the privacy and confidentiality of information. The ability for caseworkers to access data from shared integrated systems requires the capability to interpret information and offer services that will aid in the decision-making of individuals' program participation towards self-sufficiency. Although data integration across multiple agencies gives caseworkers the ability to understand the impact of welfare recipients' self-sufficiency barriers, it is vital for technical resources to ensure identity management, client privacy, data security, and confidentiality are managed through data warehousing mechanisms to protect the sensitivity and disclosure of information (DeHart & Shapiro, 2016) to ensure the benefits to help recipients outweighs the risk and barriers encountered in their lived experiences to live self-sufficiently. Therefore, as part of the research design for this study, I collected data from public records and responses from research participants.

There were two events used to collect data for initial interviews and follow-ups as required. I informed the research participants about the data collection process and voluntary participation in the study. Participants notified on how the data would be used in the research and published. The duration of the first data event lasted no more than 45-90 minutes for each interview as followed by the Walden University IRB approved data collection process. Any subsequent data events for follow-ups or review of details with the participants allocated no more than 30 minutes. The follow-up plan will be the same as the initial data collection document used for interviewing to address statements requiring clarifications. A voice recorder was used to collect participants' responses as part of the data collection process. Participants exited the research after discussing the final interview summary and giving consent for accuracy on information provided by the participants. The participants and I agreed that all concerns or questions were addressed and corrected as needed.

Data usage. The 1973 U.S. Department of Health, Education, and Welfare's Advisory was the origin of the Fair Information Practices that published five principles regarding the use of personal information to govern where data will be used to learn about research individuals (Hoofnagle, 2014). According to a 2014 review of the 1973 Health, Education, and Welfare's Advisory Automated Personal Data Systems report, the conversations about privacy was minimal and has barely changed in 40 years (Hoofnagle, 2014). I considered the Fair Information Act principles on data usage as part of this research regarding the personal protection of participants.

These principles were found in the original 1973 U.S. Department of Health, Education, and Welfare's Advisory report and referenced in the 2014 Archive of the Meetings of the Secretary on Automated Personal Data Systems (Hoofnagle, 2014):

1. There must be no personal data record-keeping systems whose very existence is secret.
2. There must be a way for a person to find out what information about the person is in a record and how to use the information.

3. There must be a way for a person to prevent information about the person obtained for one purpose from being used or made available for other purposes without the person's consent.
4. There must be a way for a person to correct or amend a record of identifiable information about the person.
5. Any organization creating, maintaining, using, or disseminating documents of identifiable personal data must assure the reliability of the data for their intended use and must take precautions to prevent misuses of the data.

Based upon the First Information Act principles described in the 1973 Health, Education, and Welfare's Advisory Automated Personal Data Systems report, I used data from my research to understand the lived experiences of welfare recipients' self-sufficiency barriers. I used the aggregation of data to validate the need for caseworkers to understand the impact of its recipients to reach self-sufficiency before finding work. I further used the data from the study to confirm the continuous issues with caseworkers' inability to share data across multiple systems and how the lack of data sharing hinders the ability to accurately assess self-sufficiency boundaries.

Data interview preparation. Before meeting with research participants to conduct interviews, I took the following preliminary steps. I did a literature review of peer-reviewed articles to obtain background or historical information on the research topic. I identified potential site locations to meet with research participants. The site locations selected for research interviews were public areas such as the library and community services offices. I created a list of open-ended questions for each participating group: welfare recipients, caseworkers, and technical resources to ask during the interviews.

After gaining the Walden University IRB approval to conduct the research, I scheduled a prescreening phone meeting with research participants and provided an overview of the study and need for their participation. If the participant agreed to participate in the interview, another date was scheduled to meet face-to-face within the 24 hours at a location of their choosing and received a signed consent agreement form from each participant.

I used face-to-face research discussions to collect data because it leveraged the opportunity for participants to respond to open-ended questions in their own words. Three welfare recipients had transportation problems; therefore; I held research interviews at the home of the participants after getting their approval. As an incentive to participate in the research, individuals received a $10 gift card. Data interview preparation gave me the ability to structure that would provide purpose and meaning to the lived experience of the participants to openly express their phenomenon.

Sampling procedure and size. The sample quota for this exploratory descriptive phenomenological qualitative exploratory research consisted of interviews with seven welfare recipients, three caseworkers, and three technical workers of social service entities. This research consisted of 13 total participants. Potential participants were prescreened via initial contact by phone to determine eligibility to meet research criteria for participation. During the prescreening process, I gave participants a brief overview of the research, the research process, and approximate length of time to conduct interviews. Upon receiving an agreement from the potential participant, I scheduled a face-to-face interview session to meet with the participant within a 24-48 hours timeframe with the participant.

Issues of Trustworthiness

Trustworthiness was the potential issue for this exploratory descriptive phenomenological qualitative study with the welfare recipients more so than the caseworkers and technical resources. I found in this study that trustworthiness with welfare recipients was because of reluctance that I was a social worker. To gain the welfare recipients trust, I gave some personal background information about myself such as where I worked to ensure them that I had no affiliation with social services.

I derived this exploratory descriptive phenomenological qualitative method from Creswell's (2014) approach to data collection and analysis. I discussed issues of trustworthiness during the participant interview process to ensure validity and accuracy of findings in this exploratory descriptive phenomenological qualitative research. Creswell's perspective of trustworthiness lies in the ability to evaluate the research by considering the credibility, transferability, dependability, and confirmability to address the validity of qualitative literature.

Credibility

Creswell (2014) described credibility as a means for establishing validity and truth in research findings by providing the steps taken to check for accuracy and reliability on ethical questions, sponsorship of the study, and overall use of information. Triangulation, member checking, saturation, researcher reflexivity, and peer review are strategies I used to establish credibility for this exploratory descriptive phenomenological qualitative study. Fusch and Ness (2015) asserted viewpoints on determining when a study reach saturation was used to prevent failure of obtaining data saturation that impact the quality of the research conducted and hampers content validity. I attained data saturation when enough information was collected to replicate the study, and I reached the need for no additional new information, and coding was no longer feasible (Fusch & Ness, 2015). In general, the saturation principles that I adhered to are no new data, no new themes, no new coding, ability to replicate the study, and attainment of at minimum six interviews (Fusch & Ness, 2015) depending on the sample size of the population. I attained data saturation for this research by assuring that I asked the same interview questions for each participating group (welfare recipients, caseworkers, and technical staff) to obtain a holistic view of welfare reform self-sufficiency issues from the three essential roles of welfare practices. I analyzed the data collected using NVivo 11 to derive the themes and transcript coding from the research.

I ensured triangulation in the research by viewing different aspects of welfare recipients' self-sufficiency barriers phenomenon impacted by lack of data sharing. I obtained triangulation by using multiple sources of data from interviews and prior research studies. Fusch and Ness (2015) noted that triangulation involved the employment of multiple external methods to collect data as well as the analysis of the data to enhance objectivity, truth, and validity. Therefore, I used the correlation of people (welfare recipients, caseworkers, and technical resources) for triangulation of this social research.

I used the reflexivity method to reflect upon or analyze information throughout the research process by entering interview data on the Contact Summary Form to capture thoughts, interests, or other perspectives to understand the phenomenon of lived experiences undertaken in the study. Member checking was used not only to ensure the credibility, but the validity of work performed by obtaining feedback from the participants regarding the accuracy of information that I derived from their interview. Finally, a peer review method was used for the credibility of the research to understand the findings of other researchers in similar studies and to generate from their ideas or recommendations additional work needed on the topic and to meet the University's criteria to use peer review work to meet scholarly research requirements.

Credibility methods excluded from this research were using a third person to relay communication between myself, as the researcher, and the participants. I used direct communication with participants. Prolonged contact was excluded to mitigate the risk of participants' attention and continued participation in the research from lengthy interview processes.

Transferability

Findings of this study were transferable using a small participant sample size representing similar demographics within the proximity of a specific geographical location. Transferability for this study allowed me the opportunity to understand and acknowledge the possible challenges conducted in the interviews and validated responses obtained from the participants. This aspect coincides with the viewpoint that the collaborative efforts of social order lie with participants sequences of talk. Therefore, I transferred the external experiences to describe the impact of the research participants' lived experiences was impacted by a phenomenon (Silverman, 2016). Establishing transferability of the current study included a strategy that thoroughly described the lived experiences of each participant. This strategy involved asking open-ended questions that allowed participants to be more transparent in their responses to obtain in-depth information about their lived experiences.

Dependability

Dependability regarding research strategies inferred that the same results derived from the same method in the research with the same participants, within the same context and phenomenological circumstances. I followed the concept of the dependability research method that entails assuring any information resulting from the study supports the data provided by the research participants (Anney, 2014). Therefore, I attained dependability from the study when participants viewed the summaries of their interpreted responses to ensure the accuracy of data and recommendations for the research. I ensured dependability of this research required detailed research that would allow others interested in researching similar processes to repeat the work with the expectation to gain the same results.

Dependability strategy for this research entailed relying upon the interview questions as the primary source of information to collect data and ensuring that I repeated queries into the lived experience of participants to make sure they understood the questions asked for research credibility purposes. Utilizing a voice recorder and writing notes to each asked question was a dependability strategy that was detrimental for analyzing and coding the results based upon themes regarding the welfare recipients' needs and recommended information technology processes that may aid in developing tools to help welfare recipients make the transition from welfare to self-sufficiency. I conducted one-on-one interviews that were most effective due to the sensitivity of the research questions asked. Participants elaborated on issues about the research and gained a sense of trust that resulted in collecting qualitative data that confirmed the need for data sharing in welfare reform system to help caseworkers' decision-making to aid welfare recipients to reach self-sufficiency.

Confirmability

Confirmability involves having someone to confirm or corroborate the findings of another by viewing data and interpreting the results to make sure data is derived (Anney, 2014). Assuring evidence of trustworthiness from participants was integral to confirm data after completion of research. Through several literature reviews, fact-checking of participants' responses, and prior research, I assured that interpretation of data was clear, credible, and accurate. I did not use my perspective of the participants' lived experiences to confirm information collected. To establish trustworthiness for confirmability, I gave the participants an interview summarization of their interview session to ensure accuracy in documenting information. I used a voice recorder to capture data from interview settings to confirm data missing from field notes. Collaboration with participants to view results was used to corroborate the findings of the study and adhere to ethical conducts of the research.

Ethical Procedures

Before I began recruiting participants or collecting data for this research, I obtained approval from the Walden University IRB. I submitted the Research Ethics Review application as part of the IRB approval process. I showed an understanding of ethical procedures by receiving the Certificate of Completion after completing the National Institutes of Health web-based training course 'Protecting Human Research Participants'. The Walden University IRB process necessitated the protection of individuals participating in the research and the University to ensure adherence to the integrity of the researcher, University compliance, and federal regulations throughout the study. Participants agreed to and signed full-disclosure of informed consent, and Confidentiality forms as an attestation to understanding their voluntary role, confidentiality, and purpose of the research with the option to withdraw at any time.

The participants received a summary of the interview process that explained the purpose and needs of the research. I established trust between myself and the participants by giving them an opportunity to address concerns about their role as partakers in the study. I built an open dialogue and formed an honest relationship with the participants by ensuring prevention from disclosure of identifying information and exclusion of the use of their names or other biographical data from the study to protect their ethical and privacy identities.

As the researcher, I served as the primary instrument to collect data. Ethical concerns encountered prejudgment of welfare recipients regarding their inability to live self-sufficiently based upon society's views that people of welfare are lazy, uneducated, and unskilled that leads to them not having a sustainable lifestyle to care for their families. To mitigate these concerns, I disallowed personal bias, preconceived thoughts or feelings, and assumptions.

Precaution was taken in this exploratory descriptive phenomenological qualitative research to prevent ethical issues that were most likely to occur during data collection, analysis, and dissemination of qualitative reports. I followed Creswell's (2014) list of five ethical issues as they happened in the research process for this study. The research process entailed checking for five ethical issues: (a) before conducting the study, (b) beginning the study, (c) during data collection and data analysis, (d) reporting and sharing, and (e) storing of data (Creswell, 2014).

Three groups participated in this research (i.e., welfare recipients, caseworkers, and technical resources). The welfare recipients' group had sensitive information taken under consideration for data collection. The social service caseworkers and technical resources supported the research for its intended purpose regarding welfare information systems technology and the gap to efficiently assess recipients' self-sufficiency barriers. Information gathered for this research involved interviewing welfare recipients who expounded on sensitive or private information regarding their lived experience.

Audio recording is the method that I used in the research to capture data from the interview process. After being advised that the interviews were a recorded process, the participants provided their consent to move forward in the research. Each participant agreed to recorded research sessions. I obtained validity and accuracy before completing the interviews by briefly recapping the information captured in the process with the participants. Additionally, I informed participants about data storage and the use of information in the dissertation regarding confidentiality and publishing.

After completion of the data collection process, I categorized the participants' information process and grouped under specific themes for this exploratory descriptive phenomenological qualitative research. There was very little emotional distress or uneasiness observed during the interview research process. Since the completion of data collection, I have stored and archived data at an external storage location where it will remain for 5 years to comply with Walden University requirements. I masked information and met ethical confidentiality requirements before archiving research materials. The study participants received a summary report as part of the dissemination plan.

Summary

In Chapter 3, I outlined the research methodology design for this exploratory descriptive phenomenological qualitative study and elaborated on the issues of trustworthiness as credibility, transferability, dependability, confirmability, and ethical procedures as essential research components to ensure the accuracy of information and protection of study participants privacy rights. The participants' rights entailed the confidentiality of information and consent as a volunteer to partake in the study. Data collection, methods for recruitment and data analysis plan provide in-depth information on the selection criteria of participants and process on how data collected from the research is analyzed. Also outlined in Chapter 3, were details on concluding the study with participants to verify data from interview responses, as well as, the rationale for selecting the research methodology, sample size, and setting for conducting interviews. Chapter 4 comprised a discussion of the study results, the setting of the research, and participants' demographics. Chapter 4 also included the detailed data collection and data analysis using NVivo 11. A presentation of the study results will conclude Chapter 4. In Chapter 5, the researcher interpreted the findings, specified the implications, limitations, and recommendations from the study, and summarized the conclusion of the research.

Chapter 4: Results

Introduction

The purpose of this study was to explore welfare recipients' self-sufficiency barriers to ascertain whether the lack of information and data sharing impacted caseworkers' decision to help clients' transition from welfare to self-sufficiency. The goal of this exploratory descriptive phenomenological qualitative research was satisfied by using an exploratory research design and data collected from multiple sources. Qualitative data were collected using in-depth interviews. Obtaining knowledge of gaps in the overall process of welfare case management and feedback from welfare recipients accomplished the purpose of the study.

The research design required interviews with three different groups of people (seven welfare recipients, three caseworkers, and three technical workers). From this study, seven welfare recipients were interviewed; however, only five qualified for the study. The other two welfare candidates informed me that they had a disability with limited working capabilities; therefore, they did not meet the research criteria. Three caseworkers, one each from the DHS, foster care, and community action agencies that support low-income and families on welfare, were interviewed. Three technical resources affiliated with social services entities were also interviewed. Each of these agencies provides different services to support families on welfare but have a common goal to help families attain a level of self-sufficiency.

Shelby County DHS caseworkers provide families with "temporary economic assistance, work opportunities, and protective services to improve the lives of Tennesseans and to be a leader in effectively partnering with human service customers in establishing or re-establishing self-sufficiency to create a better quality of life" (Tennessee DHS, 2017, p. 1). The Tennessee DHS also provides programs that offer job training and educational enhancement for welfare clients. Families First are Tennessee's TANF programs that provides workforce development and employment programs for welfare recipients with emphasis on helping them gain self-sufficiency through employment by providing transportation, child care assistance, education, job training, employment activities, and other support services. Additionally, to temporarily assist families with dependent children, Shelby County DHS provides cash assistance for necessary living expenses such as shelter, utilities, food, and other essential needs due to the parent(s) being either incapacitated, unemployed, deceased, or absent from the home.

Foster care, a constituent of the Department of Children Services, is Tennessee's public child welfare agency to help provide temporary service until the family or children can attain stable living environment by addressing problems that lead to the placement of a child into foster care and child welfare. Another facet of welfare reform is within the Tennessee community action programs that offer short-term assistance and long-term self-sufficiency to Tennessee families through various programs to help families with emergencies to provide food, shelter, utility assistance and other self-sufficiency support needs. These three agencies assist families and provide the roadmap toward self-sufficiency or getting the additional help needed for clients to live a stable lifestyle; however, these agencies are not integrated to allow caseworkers to retrieve data on clients for other programs or services that are outside of its agency protocol.

All participants gave their consent to participate in the research. The caseworkers came from a cross-section of the human services agencies. The three caseworkers interviewed for this research were considered to provide a holistic view of each of the three entities. Caseworkers from the three respective agencies provided information regarding their viewpoints about welfare reform and how their agency associated with the human services department from a technology perspective. The caseworkers implied that a form of partnership and collaboration efforts are needed to ensure the well-being and security of children and parental guidance to help families work on having sustainable households and promote their means to live self-sufficiently. The findings indicated that data sharing processes could help caseworkers to better assess and address welfare clients' readiness to live self-sufficiently.

Chapter 4 includes the information on the research setting, demographics, data collection, data analysis, participants' interview responses, and derived conclusions. I also answer the research questions from the findings. I made sure confidential or identifiable information was excluded from the study.

Research Setting

After contacting the DHS IRB to share the concept of the research and to obtain information on attaining participants, the DHS representative informed me that there was no need to go through the IRB process because of the small number of participants. I initially placed flyers in areas where welfare recipients live and on vehicles where they assembled (i.e., laundry mats, libraries, and low-income apartment complexes). I also used word of mouth through family and friends who provided referrals. I conducted interviews at the residence of the research participants and the library. Participants signed the consent to interview forms at the place of meeting.

Demographics

This research involved three different groups: (a) welfare recipients, (b) caseworkers, and (c) technical resources in obtaining holistic viewpoints regarding self-sufficiency barriers and information technology impact in case management processes. Out of 11 research participants, five were welfare recipients between the ages of 25 to 52 years old. The demographics of the welfare recipients are the focus of this section because the information gathered of their lived experience gave insight into self-sufficiency barriers and impoverished living dependent upon government assistance for the family's well-being. The welfare recipients resided in Memphis, Tennessee zip codes 38115 and 38118. Table 1 shows these comparisons for each zip code as it relates to the percentile for each demographic level relevant to this study.

Table 1

Welfare Participants' Zip Code Demographics

Zip Code	High school graduate	High school or less	Poverty rate	Transportation	Employment status	Income level	Household size
38115	62.7%	16.8%	30%	1.5% (walk, bicycle); 1.5% (public transportation)	46% employed, 25% part time, 28% unemployed	39% make less than $25,000	44% 2-3 people; 15% 4-5 people
38118	60.6%	24.4%	33.9%	1.5% (walk, bicycle); 2.3% (public transportation)	38% employed, 26% part time, 36% unemployed	39% make less than $25,000	46% 2-3 people; 20% 4-5 people

Note. The welfare participant's zip code demographic data were retrieved from https://www.unitedstateszipcodes.org and www.niche.com. The demographics are important to note the target residents that most need help with self-sufficiency.

Table 1 shows that most of the people in the 38115 and 38118 zip codes do not have enough education to pursue employment that will pay beyond living wages to obtain self-sufficiency. As it pertains to this study, participants did not own a vehicle; therefore, they fell within the 2% who took public transportation or the 1% who used transit such as walking, catching a taxi, or riding a bicycle. The welfare recipients' education level resulted in four out of five participants had less than a high school education. None of the participants had a college degree. All participants were unemployed. One participant mentioned that she made only $7,826 per year during the time that she was working. The statistics gave relevance to this research regarding the characteristics of welfare recipients, their barriers, and needs of the participants and additional work to be done by the DHS to meet the needs of welfare recipients to transitions from welfare to self-sufficiency.

Data Collection

Interviewing and audio recording procedures were the data collection method for this exploratory descriptive phenomenological qualitative research. I chose interviews for the data collection because it is informal and involves interaction between the researcher and the participant using open-ended questions to inquire and gain an interest in understanding lived experiences of others and to understand their viewpoints about their phenomenon (see Seidman, 2013; Vagle, 2014). I collected data using a voice recorder and a data collection form to write notes related to each question during the interview process. Prior to starting the data collection process, I received permission from the participants to volunteer in the research. Data were analyzed using the NVivo version 11. The epoche´ process was used for data collection to ensure prejudgments, and biased interviews avoided. Phenomenological reduction helped me set aside my own experience and analyze or gain meaning of the events experienced by the participants (see Giorgi, 2009).

I conducted interviews to obtain descriptors about the experiences the participants lived through. Descriptors are information that study participants provide about their lived experiences that is of interest to the researcher to learn more about them (Creely, 2018). In this study, the descriptors were barriers, work-first programs, information technology to obtain data about welfare recipients, and technological barriers to data sharing. Although there are several ways to gain information such as asking the participant to describe their experience in writing, interviews were the best method for this phenomenological study. I recorded, transcribed, analyzed, data according to the impact of facing barriers both in becoming self-sufficient and in participants' relationships with caseworkers and the TANF system.

Some challenges I encountered conducting the interview process suggested by Giorgi (2009) was avoiding discussions unrelated to the initial question and guiding the interviews. Sometimes participants deviated from questions related to the research topic. However, I minimized the deviations by assuring that the participant stayed on track with responses to questions by directing them to speak only to the lived experience according to the researchers' phenomenon of interest.

Welfare Recipients Data Collection

The five welfare recipient participants were of African American descent; one male and four female welfare recipients participated in the research. The flyer placement did not work; therefore, to obtain participants for the research, word of mouth was used by asking family, friends, and coworkers if they knew people on welfare. Then I received the potential participant contact information. After communicating with the recipient about the importance of the study and explaining my role as the researcher, I obtained permission to use them as volunteers. Data were collected through interviews at the library, community center, or home of the welfare recipients for privacy and protection of identity. Interviews took approximately 30-60 minutes each via either tape recording and documenting the participants' responses. Due to the sensitivity of the research questions and fear of recorded information provided to caseworkers, all but one welfare recipient did not want their research sessions recorded; therefore, responses to the questions were in writing. A consent summary form was filled out for each participant to capture any afterthoughts of the research interview for part of the summary and analysis of the data collection. The data collection instrument used in this study was NVivo 11 to enter and analyze the data. It took approximately 2-3 hours to input and analyze data collected from the research for each of the participants. There are no variations in the data collection provided in Chapter 3.

There were no unusual circumstances encountered in the data collection process. However, some of the questions had to be explained through scenarios or examples to gain recipients' responses. I ensured that rephrasing the question did not lead the participant into a response that was biased or sought.

Welfare recipient summary. I conducted interviews with welfare recipients at their place of residence or library. The total number of potential candidates reviewed resulted in seven; however, only five qualified to participate in the research. Out of the five welfare participants, only one lived in a home with his mother. The other four welfare participants lived in apartment complexes. Family members living in the apartment complexes ranged from two to five persons. None of the welfare participants had transportation. Interpretation of the study results for the welfare recipients provided more insight into the barriers that impede welfare recipients from living self-sufficiently. What I concluded from the welfare recipients' interviews was that more work is needed from DHS to provide caseworkers with necessary tools or programs designed through information technology to help welfare recipients move from poverty to self-sufficiency and better living environments.

Caseworkers Data Collection

Caseworkers. Data gathered from agencies that support low-income and welfare recipients were derived from three caseworkers. The caseworkers participated in interviews via Skype and face-to-face with each session being voice recorded to ensure the accuracy of information. The caseworkers' initial interview was in person, and the follow-up session was via Skype. Each caseworker expressed their concern regarding data gathering for clients across multiple welfare systems or other ancillary systems clients obtained welfare recipients information. Word of mouth was the method used to acquire caseworkers for participation in the study. Privacy of individuals was protected, as I directly contacted the caseworkers to eliminate any third-party communication and kept the identity of the individuals anonymous.

There were three different types of welfare agencies with similarities of working with low-income and welfare recipients represented in this research. The research questions were generalized to ensure they remain the same for the caseworkers' respective welfare entities. Table 2 shows the names of programs that were interchangeable in the research questions that are provided to families to aid them with self-sufficiency. To improve the efficiency of transitioning welfare recipients to self-sufficiency, below are only a small number of programs used in the state of welfare reform.

Table 2

Research Agency Human Service Programs

Department of Children Services	Community Action Agency	Department of Human Services
Health Connect	Rapid Rehousing	TANF
Out of State Compact	Welfare Intervention Network (WIN)	Family First
Carl Perkins Center	Homeless Management Information Systems	Two-Generational Program

Note. This table was created to show the comparisons between programs of which data was gathered to support the need for technology in across multiple human services agencies.

Each caseworker informed me about their respective systems that do not integrate to allow data transferability for optimal decision making of program placement and welfare recipient readiness to reach a level of self-sufficiency. As such, caseworkers expressed the need to integrate welfare systems to leverage opportunities for tracking clients progress and other program activities to monitor eligibility for their self-sufficiency.

Caseworker's interview summary. Three caseworkers interviewed for this research dealt with families on welfare from different entities related to family and child welfare services. DHS, foster care, and Community Action Center are the agencies where the caseworkers perform duties to help families on welfare or distressed low-income families in crisis situations. The caseworker's expressed their goal to provide the best programs and services to help their clients attain a level of self-sufficiency or provide direction to improve their living standards. Tape-recorded phone interviews were conducted using Skype. All data entered in NVivo 11 for data analysis purposes. Each caseworker met the minimum criteria to participate in the research.

Department of Human Services Research Overview

An overview of caseworkers' respective human service agency is provided in the following paragraphs. The purpose for this overview is to provide background information on the recipients' barriers, the workflow of the entities, and current impact on the socioeconomic well-being of the recipients from the caseworkers' perspective on technology issues that may impede client's ability to self-sufficiency. Below is a summary of each caseworkers' interview followed by a discussion to synthesize caseworkers' findings gathered from information received.

DHS caseworkers. The sole responsibility of the DHS caseworker is to address issues about families on welfare. DHS caseworkers' goals are to ensure families receive all benefits they are entitled to and help them reach a point of living on their own. DHS caseworkers informed that transportation and family counseling are areas of concern to help families on welfare.

Transportation process. DHS caseworker informed that transportation barriers in social service entities need more attention to address self-sufficiency issues. One of the critical issues welfare recipients encounter is transportation to work. As such, attending job interviews, meeting with the caseworker, or taking children to daycare are among other transportation issues encountered by welfare recipients. The missing component is the ability to track transportation barriers within the welfare reform system through data sharing technology and requires future research to address the impact lack of transportation has on welfare recipients' ability to attain self-sufficiency.

Family counseling. When asked about the effectiveness of the programs offered to the welfare recipients, the DHS caseworkers inferred that the family counseling programs work well for the welfare recipients, but the recipients must have the initiative use the programs offered to improve their living standards. The DHS caseworkers informed that families need counseling that will include all members of the household rather than focusing on the individual receiving welfare to address their lived phenomenal on self-sufficiency barriers. Part of the challenge is lack of information from the people on welfare which makes it difficult for DHS caseworkers to provide services and assist families in need effectively.

Currently, according to the DHS caseworkers, there is a program called Second Generational Approach to provide a holistic means to work with and counsel families on welfare. Second Generational Approach is designed to help the adult family member(s), as well as, ensure that children do not grow up in situations that will impact or hinder their education while focusing on the economic living standards of the adult(s). The issue with the Second Generational Approach program is it does not integrate with other welfare systems. The lack of data sharing impacts the caseworker's ability to know whether a family is partaking in a program and understanding the impact of their living conditions before instructing them to seek work. The caseworker mentioned that separation of systems and unavailable information makes it challenging to help clients with social and behavioral problems, as well as, attain independence from government assistance.

DHS caseworkers on technology. Regarding how DHS caseworkers use technology most of the processes are still manual for gathering information especially for clients who come from out of state and enter the State of Tennessee welfare system. For example, if a person comes from Georgia to Tennessee and needs government assistance, the caseworkers obtain the social security number of the individual and calls the state of Georgia DHS to confirm whether the case in Georgia closed before opening a case in the state of Tennessee. The DHS caseworker pointed out that although it is not difficult to obtain information, data automation would save less time to retrieve information from other states or local human services agencies. Data automation is an area where information technology usage regarding data transactions and system processes from other states to analyze or gather prior information on out of State clients to ensure client placement in similar or new programs to receive tools needed to transition from welfare-to work-to self-sufficiency.

Regarding high caseloads that impact the continuing work to view clients' progress and conduct follow-ups, the DHS caseworker further informed there is not enough workforce to execute tasks to help clients, and this is an area that needs to be improved to allow client representatives to be more accessible to welfare recipients' information. The inability to access information automatically result in cases not being worked because caseworkers lack data; therefore, causing caseloads to increase due to a backlog of work.

Researcher's DHS caseworker's summary. According to the DHS caseworker, it is essential to understand the impact each socioeconomic and behavioral barrier have on the lived experience of people on welfare and how technology integration can help overcome barriers by disseminating information through shared data processes. Transportation and family counseling are examples of self-sufficiency barriers encountered by welfare recipients. The social change could improve in low-income communities or leverage opportunities for families on welfare to live in a better environment if they had personal transportation means to seek employment. Therefore, as it relates to this research, there is an opportunity for the DHS in the State of Tennessee to strategize ways to mitigate the transportation barrier by implementing programs using information technology methods. Caseworkers will have more significant opportunities to assess the transportation needs of their clients for work, school, daycare, and interviewing through data sharing capabilities before the clients find employment. Therefore, to better assist families towards self-sufficiency, it is recommended from a technological perspective that DHS government resources take a closer look at the personal transportation issues.

Department of Children Services Research Overview

Foster care (foster care) caseworkers. The family service caseworker representing the Department of Children Services has 3 years of experience working in the foster care system which is a counterpart to the DHS. The caseworkers' role was working with children in the foster care system to place them in a safe environment and to also work with parents to help them towards getting their children returned to their primary residence.

Foster care clients. The foster care caseworker informed that many of the children come from dysfunctional families where 99% of the families are on welfare and considered as generational. The label 'generational' means as children are born into the living environment if the parent or guardian does not make changes to improve their living standards, then living on welfare in poor communities is passed on from one generation to the next. The foster care caseworkers mentioned that many of the families either live in a poverty-stricken environment, members of the household have been incarcerated, or have run away from rehab. Therefore, these hard-to-serve individuals are more at risk of improving their living conditions for a quality life of self-sufficiency.

Foster care client barriers. When a child comes into the custody of foster care, the caseworker places the parent or guardian of children in a parenting plan. The parenting plan allows the caseworkers to go inside of the homes to conduct required services for the family such as referring them to another facility due to mental health status, enrolling them into a drug or alcohol rehabilitation center, and assessing other reasons for child removal from the home. As such, for the families attending parenting classes, they are not disciplined or knowledgeable enough to understand the importance of their attendance and do not take parenting courses seriously. Many of them show up to get the certificate of completion but then continue in their old ways and teach their children how to manipulate the system. The foster care caseworkers' concern is the issue of what can be done to prevent the cycle of clients manipulating the system and that a technological process is needed to combat this situation.

Foster care department barriers. The foster care caseworkers mentioned the need for stricter policies and procedures such as decreasing food stamps and cash if the parent(s) or guardians of the foster children do not comply to make their living environment safer for children and to seek ways to live on their own. The people on welfare see no need to work because in some cases their utilities are getting paid, they are receiving food stamps and cash, and the children are on TennCare Health insurance; therefore, do not have a desire or need to work. Less than 60% of the families try to better themselves according to the foster care caseworker. Many of the parents lose their children because they cannot maintain a household from the services that are in place once they complete the program. The makeup of many family members is they have no high school education and children having children with no adult guidance.

Additionally, the foster care caseworker informed during the research interview that parents encounter barriers finding a job and the inability of not working impeded children from returning to their primary residence with the parents. The foster care caseworker further implied that the parent's downside to getting a job is low education, drug habits, lack of transportation or something as simple as not having a driver's license. Finding and sustaining employment is a big issue with families on welfare. Programs are available to help low-income families connect to the proper sources offered by the caseworkers; however, the foster care caseworkers informed that the acceptance of the services are strictly voluntary and should be mandatory for their clients' participation and information sharing will help streamline issues encountered by caseworkers.

Foster care technology. As it relates to technology, the perspective from the foster care caseworkers informed they have no issues with data integrity with the State of Tennessee welfare processes. Progress notes are a function used in the Foster Care system to track clients. Caseworkers can connect to different services to obtain information from the Foster Care system. However, one downfall is that caseworkers cannot view information on clients outside the State of Tennessee. Therefore, if a client relocates to Tennessee, the caseworkers process an out of State notification for the client that is submitted electronically through TFACTS to obtain information from the former State. However, it still takes 30 days or more to complete and verify closing of government benefits from another state. Considering there is no automated connectivity to verify information more efficiently, this process impacts the family livelihood who are dependent on government benefits. The foster care caseworker expressed concerns for enhancement of welfare systems to allow other States to share data using integrated welfare systems.

The foster care caseworkers' position entailed setting clients' goals to determine changes in the living environment for children to return home. Any information gathered is provided to the court system and documented. The foster care caseworker did acknowledge that there is no automation in the court system's process to receive information. Therefore, having the ability to virtualize the court system process may aid in social change to minimize the impact of biological parents losing their children for not showing up to court with all documents electronically signed if needed.

Foster care caseworker summary. With today's advanced technologies, automated process meets business or client data sharing needs. Within welfare reform, there are many operable systems, but the systems do not integrate with the other to transfer data between welfare entities. The foster care caseworker obtains information through fax, e-mail, postal mail, or phone call. Information Technology could help with moving families towards independent living more effectively and efficiently if systems from the different entities associated with welfare families were integrated. Caseworkers will have the ability to view clients' data upon request rather than going through manual processes of contacting caseworkers at another agency to obtain information that can take 30 or more days to receive. Integrating welfare systems across multiple entities can aid in the provision of social change by providing the caseworkers with processes that will be more effective in delivering and acquiring data to assess better and make decisions regarding client's programs to help with readiness towards self-sufficiency.

Community Action Agency (CAA) Caseworkers Research Summary

Caseworkers' experience. With 8 years of experience as a caseworker and educational trainer, the community action agency (CAA) caseworker added to the understanding of welfare systems operations from a CAA perspective. The CAA caseworker explained the difference between low-income and families on welfare. Low-income families have an adult working in the household but may need assistance with a light bill or rent payment. Depending on the household income, some low-income families may not receive welfare benefits but are subject to services provided by the CAA as needed. Families on welfare are dependent on receiving government assistance to care for their household. The CAA help their clients by paying their rent or utility bill if they are behind, assist them with social service needs, assist with finding jobs and education such as obtaining a GED. For those who are eligible, clients will be paid through the

CAA program to take up a trade, cover childcare cost if an adult is working, help with legal fees, as well as, furnish their homes that come from items donated to the agency.

CAA programs. The CAA caseworker informed that Rapid Re-Housing is a CAA program designed to make clients self-sufficient. Many of the clients that CAA assist is people living on the street (has no place else to live). Most of the clients are referred to CAA by the DHS. The other criteria are the head of household must have children under age 18. Only 15% of the CAA clients are working individuals.

Workforce Investment Network is a job center where the clients register to look for jobs. The CAA clients are required to look for jobs three days a week. The CAA caseworkers provide clients with a service plan that determined the goal of the individual (what they want to do to help themselves reach self-sufficiency). The program lasts 1 year to help families achieve the accomplishment to live on their own. However, what has been seen by the caseworkers is that before the year program ends many families become evicted from their homes. To help prevent their clients from evictions, the CAA caseworkers educate the clients by teaching them how to communicate with their property owners. However, per the CAA caseworkers, it is still left up to the client to follow the guidelines provided to them to stay in their homes or apartments.

Another system used by CAA is Homeless Management Information Systems, which is a database that is used as a tracking site to inform CAA caseworkers when clients are on task. Work Incentive Nutritional Supplement is also used to update the clients' service plans and allows the caseworkers to gather information such as the number of people in a household and whether the client qualifies for the CAA program. Caseworkers enter information into a database where data is accessible to gather information. However, they still do not have a way of retrieving information from other states until after 90-days evaluation. During this time-period, the caseworkers verify the clients' homelessness and check their DHS status. To get assistance, the client must sign documents that give the caseworkers rights to obtain any information from other human services related agencies.

CAA client barriers. The CAA caseworker informed also that transportation is an issue that is commonly known to low-income/welfare families. Although CAA caseworkers provide transportation for their clients during the work hours between 6 am and 6 pm, recipients still encounter transportation problems if they earn below minimum wage to pay for travel fees; thereby, impeding their ability for self-sufficiency.

Finally, like other caseworkers, the CAA caseworkers also encounter working with heavy caseloads. The CAA caseloads are averaging 24 to 30 clients per caseworkers. The CAA caseworkers are required by the Housing for Urban Development funding source to contact their clients at least once a month. Depending on instances with other caseloads there are times contacting clients may be delayed and this also causes an impact on client's progress towards receiving help to reach self-sufficiency.

Other barriers such as client communication with the caseworkers to report changes in their job or household status are burdensome in tracking the client to provide needed assistance to help them reach a level of self-sufficiency. Programs and processes are available; however, it is the mindset of the individual and having self-motivation to better their living environment for themselves or stay stuck in a community of continuing family dependency on the government.

Overall caseworkers' summarization. To summarize caseworkers' research perspectives, I identified six behavioral and social issues impacting the ability for welfare families to live on their own. The caseworkers in the study indicated the following barriers to self-sufficiency:

- lack of job training,
- job availability,
- lack of communication regarding the clients' household or income changes to the caseworkers,
- lack of motivation to go through the programs and processes provided to help in their transition from welfare to work,
- the inability to transform their mindset to live in a better environment, and
- attain jobs making living wage earnings as barriers to self-sufficiency.

From a researcher's standpoint, stricter guidelines can be implemented to help individuals obtain jobs or job training by mandating their participation in the programs and not giving clients' a choice. The ability to track progress and share data are key elements in welfare information technology that needs attention to better guide the caseworkers' efforts to assist clients towards self-sufficiency. Structures and systems must be in place to track progress through data integration across welfare and other family or child government systems so that caseworkers know and understand the history of the family across all systems within all agencies of which they have been a client with the ability to retrieve this information from other state systems. Table 3 shows a brief comparison of the responses received by the caseworkers to depict the similarities provided by the research.

Table 3

Caseworkers' Comparison of Welfare and Technology Barriers

Caseworker Category	Years of Experience	Entity Type	Program Involvement	Welfare Program Barriers Needing Improvement	Caseworkers' Viewpoint about the Clients	Welfare Barriers	Caseworker Barriers	Technological Barriers
DHS Caseworker	22	Department of Human Services.	Family First (cash); day care; employment, child support, and SNAP (food stamps).	Family counseling.	1. Low Motivation. 2. Do not understand welfare is temporary to help families in need. 3. Need to change living environment.	Recipients without personal transportation.	1. Lack of information on client. 2. Low manpower to work cases and be accessible to clients.	Manual processes for gathering information.
Foster Care Caseworker	3	Department of Children Services.	Family service caseworker.	Stricter policies and procedures need to be in place.	1. Ninety-nine percent of families are on welfare. 2. Families live in poverty stricken environments. 3. Clients' inability to improve their living environment. 4. Lacks utilizing resources to learn how to maintain living and economic conditions. 5. Satisfied with government providing basic necessities for household needs and feel no need to work. 6. Parents can not maintain their children resulting in termination from programs.	1.Government dependency. 2. Unable to sustain after program completion. 3. Transportation.	Inablity to receive information electronically outside the State of Tennessee.	1. Data integrity meets caseworker needs within the State of Tennessee but not outside the State of Tennessee. 2. The length of time it takes to receive out of state notification or other information from another state. 3. No automated connectivity to verify information more efficiently.
Community Action Agency Caseworker	8	Family Welfare Community Action.	Low income and welfare families.	Job training and securing employment for clients.	1. Low-income/Welfare recipients. 2. Only 15% are working individuals. 3. Not motivated to help themselves.	1. Some clients live on the street. 2. Not following guidelines to continue CAA's assistance. 3. Transportation.	1. Inability to obtain client information automatically from other states. 2. Job employment for clients above minimum wage.	Inability to retrieve information outside of the State.

Note. Table created from responses information derived from the research to show the needs comparisons for technological data sharing systems.

Technical Resources Viewpoint to Welfare Technology

Three technical resources participated in this exploratory descriptive phenomenological qualitative research and provided information from a technology perspective regarding existing welfare systems and integration needs or impacts of data sharing capabilities. We are living in a technology world where any operation such as welfare reform can enhance information systems to provide better services for clients. One technical resource believed that the issue with improving welfare systems is the number of funds it takes to build newer systems to meet welfare reform needs.

Discussions with technical resources indicated that funding may be an issue with moving forward in technology to improve welfare reform processes. Therefore, social services representatives shall continue to identify strategies that will help case managers assess the appropriate programs and placement for clients through automated retrieval of data internally and externally from other government assistance agencies. Technical resources implied that to build a welfare reform system that will provide robust data sharing to help caseworkers with the decision-making requires understanding the systematic process of services to help needy families reach sustainability and self-sufficiency within the home.

Child Advocate Technical Resource

CAD_TR participant's work experience. Child Advocate Technical Resource (CAD_TR) has worked for the child advocate agency in the State of Tennessee and Arkansas for the past 8 years. Disclosure of personal identification of the technical resource is compliant with IRB guidelines. The CAD_TR participant role entailed helping families who cannot manage their home to partner with a community organization to help make a safe environment for children to live and working with families to obtain skills and other tools needed to maintain and sustain their households.

CAD_TR role also entailed removing children temporarily from the home while working with the adults to provide a stable environment. The placement of children in residential (foster care or group home setting) is due to an unsafe societal environment of the biological parent or guardian where the child lives. There are also in-home services for children and families who are at risk of being removed and separated from the parents. The goal of in-home assistance is to help maintain or keep families in the home. However, if the child is leaving a group home or foster care setting the child advocate works with the families to ensure the child stays with the parents.

The makeup of the child advocate clients are families considered as low poverty homeless, low poverty farmers or people living in rural areas, and there may also be high-income families that child advocate caseworkers assist in stabilizing a home for children. Mental health also has its part regarding the stability of the living environment for children but does not have an economic background associated with the individuals. The CAD_TR emphasized that improvement in technology is necessary to capture, analyze, and make decisions from information provided by clients or other ancillary agency systems, processes, or caseworkers. The findings from the CAD_TR response confirmed that human service agencies have its advantages and disadvantages regarding data sharing utilization of applications and systems across multiple service entities.

CAD_TR process and technology. CAD_TR research participant informed that communication with other agencies is a critical concept that must be conducted to obtain information about the individual who is in a crisis state. The child advocate technical resource mentioned they communicate with the children case managers from other agencies such as the DHS to help their case matriculate through specific processes more efficiently.

Communicating information can either delay or leverage the process for the families to obtain the assistance needed to improve their living standards. For example, a child can be under the department of children services and connected to a family member receiving benefits from the DHS. Although the state offers these two programs, they do not have the same systems. Therefore, communication between these agencies impedes the process for proper placement or services due to lack of information or timeliness to receive information from other agencies. The CAD_TR informed delays in communication slowed down the preparation for families to get assistance to help reach the goal towards stabilizing their home and attaining self-sufficiency.

The Child Advocate Agency has a system that communicates with the department of children services called the Tennessee Family and Child Tracking System (TFACTS) to obtain information about the child. CAD_TR informed that TFACTS is Tennessee's statewide automated child welfare information system that replaced 12 systems in the Department of Children's Services. The child services caseworkers obtain information monthly about families when a child transitions as a client to the DHS. The Child Advocacy Agency has a program that pulls specific documentation and provides the child advocacy caseworkers with a month of information needed for case managers at other agencies. The DHS views documents on what the child advocate caseworkers have done with the children while assigned under the care of the Child Advocate Agency. The DHS' caseworkers access this program that links to the child advocate program to retrieve information; however, the DHS and the Department of Children Services systems do not integrate with each other.

The CAD_TR caseworker gave an example that of a child released from foster care to live with the biological father because the courts ruled the mother as an unfit parent but still received benefits from the DHS for the child who will live with the biological father. In the above example, the CAD_TR informed that child services department has no way of knowing when the mother is receiving benefits through the DHS. The Department of Children Services and the DHS do not have the same program or is not integrated through its systems to detect the movement of children from one service agency to another to ensure proper procedures are taken to close out the process from one agency and start the process at another agency.

The issue with this process is the DHS and Department of Children Service systems do not integrate. The CAD technical resource implied that the two systems need to be integrated to send an alert or daily report to the DHS caseworkers automatically from child services with notes regarding the status of the child. The CAD technical resource further explained that caseworkers need the capability to work on new cases from child services in a real-time data sharing environment to receive information.

Lack of data integration across systems hinders caseworkers from making sound decisions about their clients and impacts the economic ability of families to live self-sufficiently. Data integration across multiple systems such as human services, child services, foster care, employment services, food stamp services, and child advocate is integral for accessing, planning, assigning, and analyzing data automatically.

CAD_TR provided insight into the welfare system by stating that the system administrator from each core agency should have access to information from other agencies. Rather than granting access to all caseworkers' due to privacy issues, CAD_TR suggested data pulled or accessed should be granted upon request by caseworkers for system administrators to retrieve information through a centralized database portal to view client information from other agencies. CAD_TR further suggested that the design should automatically check the portal to pull current history on a child or other family members once caseworkers entered a child's social security number in any child welfare services the system.

The research information gathered by CAD_TR in this study confirmed that employment and welfare agencies are separate entities. Further established is the need to improve technology as a means for child services, foster care, and human services caseworkers to access information. A plan for leveraging the ability to work more closely with families across various human and child service agencies to guide them towards self-sufficiency using data sharing technology requires further research.

CAD Technical Pros and Cons

Pros. The new program has removed 50% of documentation that is used by the counselors to help them move more efficiently with their workload because the documents are now digitized, considering the child advocate system being a year old.

Cons. The use of Wireless Fidelity (Wi-Fi) is a common issue for caseworkers to process data when working externally to meet with their clients. Wi-Fi is a wireless technology that allows sharing of information using LAN with high frequency wireless to connect electronic devices to process communication between the user and respective business entity (Moate, Chukwuere, & Mavhungu, 2017).

The effectiveness of the system is considered a disadvantage because of its inability to work without Wi-Fi if the client's home or community does not have Wi-Fi available in their surrounding area. Therefore, before leaving the office to visit a client, the child advocates spend 10-15 minutes preparing documents for families to sign. The documents automatically synch after assignment by the child advocate caseworkers. The issue that child advocate workers encounter is the inability of the system to synch programs each day. If the applications do not synch, the child advocate caseworker mentioned that it would take an additional 15 minutes to start a client session. Another issue is if a child advocate is working in the community and documents have been sent, and IT shuts down the program for 10-15 minutes that causes the program to lock, and data does not automatically synch to the system. The CAD_TR participant informed that in situations where child advocate caseworkers cannot access Wi-Fi while visiting a client’s home and need documents signed electronically, they either leave and go to a nearby place that does have Wi-Fi to download the documents and then got back to the client for signing. However, considering that it can be time-consuming and cause delays to see other clients, the child advocate may not have the client sign the documents and notate it as a system error due to inability to access the records for client signing and obtain the signatures at the next visit.

Wi-Fi issues encountered when caseworkers work externally to meet with clients confirms the need to leverage data sharing connectivity to access information and assist clients with document processing. Therefore, the local government shall consider providing smart devices and free or discounted Wi-Fi services to low-income families in rural geographic areas where there is limited LAN coverage to communicate and connect with their caseworkers (Eyrich-Garg & Moss, 2017). Clients’ living in these rural areas or homeless locale can obtain positive social change by having the capability to share data by accessing Wi-Fi using government assigned smart devices to communicate with their caseworkers on needed services such as food, shelter, treatment, children services, or other programs offered by government social agencies.

In summary, child advocate systems comprise many different processes for its various programs. Although TFACTS is an automation system that is used by child advocate workers to obtain information about children progress, according to research participant CAD_TR, this system still has technical flaws such as slow speed, inadvertent logouts, unable to work outside of Department of Children Services computer systems.

Due to recent upgrades to the child advocate system, the process has become more efficient to retrieve documents and data.

Child advocate workers have the technological tools to conduct thorough in-home and therapy processes. However, regarding data integration from other agencies, the child advocate system like many others operates separately. The primary goals for child advocate workers are the safety and livelihood of children and stabilizing family homes towards self-sufficiency. Therefore, access to human services and other agency's data through integration is essential to ensure proper analysis and decision-making regarding the welfare of the children.

Department of Human Services Technical Resource

The DHS technical resource provided information on data sharing systems concerns and needs in welfare operations. The DHS technical resource (DHS_TR) is a program coordinator with 10 years experiences in the Appeals and Hearing with the Tennessee DHS. However, total work experience with the DHS spans to 37 years with work performed in the position of case manager with promotions to Field Supervisor I, overseeing other caseworkers and now working as a program coordinator. Affiliations with the DHS Welfare entailed working with the coordinator of welfare which is now called Families First and the food stamp program that is now called SNAP (Supplemental Nutrition Assistant Program).

Several integration attempts have been made and desperately needed within the Family First and other human services programs. Paper and thin client were methods used during the earlier years of DHS_TR's employment. Informed that even the current system called ACCENT is an antiquated system that the DHS mimicked from Ohio's human resource system. This 19-year-old system that has been used since 1998 as a paperless system does not meet the intended purpose of a paperless process. According to the DHS_TR research participant, more paper is used now than in the past. Another issue with the ACCENT system is caseworkers only has access to limited information. The DHS_TR suggested the need to replace older systems by adding functionality that provides clients the capability to apply for services in a user-friendly automated technical environment to prove clients' financial ineligibility that impacts poor people lives to live self-sufficiently. Filling out a 15-page application is deterrence of its own because many people do not have anyone to help them fill out the forms.

There are three programs integrated with ACCENT: AFDC (Welfare), Medicaid, and SNAP (Food Stamp). Some issues encountered with using the ACCENT system were initially, the entire case information entered in the ACCENT system. However, due to significant caseloads, the caseworkers were instructed only to enter the necessary information. Therefore, lack of data in the systems impact the proper decisions to be made by the caseworkers for their clients. It is imperative that IT development and automation of information be corrected and improved within all entities of the DHS to integrate information technology structure better and systems to not only reduce caseloads but to better provide a means for caseworkers to work with clients through its various programs attentively.

DHS_TR informed that the agency officials attempted to implement another computer system called Vision Integration Platform. DHS_TR was one of the technical leaders who worked on this project for six months in the role of a supervisor whose expert knowledge was in the Families Assistance system during the Vision Integration Platform implementation endeavor. According to DHS_TR, the State of Tennessee failed to implement the Vision Integration Platform computer system after $20 million had already been exhausted.

Additional information about the Vision Integration Platform implementation project can be found in the article Another Excuse for Why Tennessee Will Make IT Workers Reapply for Their Jobs written by Charette (2013). A few highlights about Vision Integration Platform as referenced by (Charette, 2013) are in April 2013, the DHS stopped the project after 7 years of development. The Vision Integration Platform implementation is also a result of Tennessee having a high number of IT state projects over the last few years impacting services such as Department of Children's Services, the Department of Labor and Workforce Development.

According to Charette (2013), the budgeted $37 million Vision Integration Platform project goal was to provide automation to programs like Temporary Assistance for Needy Families, Food Stamps, Medicaid and TennCare, as well as, other state-supported projects by the summer of 2008. However, Charette (2013) indicated from information noted in the Tennessean, that the project stopped due to missed deadlines. April 1, 2013 was the last deadline not met due to defects in designs and functionality requirement after spending over $20 million in the Vision Integration Platform implementation effort (Charette, 2013). Additionally, the lack of IT technical and project management skills may have also been an issue causing the failed implementation.

The DHS_TR participant reported that due to the failure to implement the Vision Integration Platform system, the DHS is still utilizing the 19-year-old system, ACCENT. The effort to install the Vision Integration Platform system indicated that many of the child welfare government systems do not have appropriate automation processes in place or data integration usage for caseworkers and its clients. With IT government attempts to develop a system of automation, it will involve not only people with the right skillset, knowledge, and expertise but also thorough planning to identify core needs, as well as, causes of failed attempts from prior implementations.

Ultimately, the goal should be to provide caseworkers with a system that will allow them to work more efficiently in a systematic manner to help clients matriculate through their respective programs with the goals of becoming self-sufficient. The DHS may need to revamp processes to ensure that the results are not just getting a client out of the system but making sure that upon completion of programs they will be self-sufficient individuals.

The DHS_TR mentioned there is much work to be done to integrate government child and family welfare systems although there has been some improvement with case management work to be more effective in assisting clients or performing their work tasks. DHS_TR informed that Alternative Workplace Solutions implemented on September 20, 2016, has been put in place to allow some caseworkers mobile flexibility to work within their homes or an area other than their office location when conducting community interaction (Hunter, 2016). This capability can leverage the probability of working cases more efficiently. Similar, to the child advocate caseworkers, it puts the DHS caseworkers in the lived environment of its clients to witness firsthand their conditions and to better understand the barriers that impact clients from moving towards self-sufficiently. However, as also mentioned by the child advocate caseworkers, maintaining access to the system while working in the community may be a likely issue to complete due to Wi-Fi or other technical encounters.

Several issues still exist with the DHS technical capabilities and process. Caseworkers only have limited access to information using the ACCENT system. Also, welfare recipients are hindered by the 15-page TennCare application of which DHS_TR indicated is problematic to fill out. Preferably, it is recommended to fill out the TennCare application online, but many clients do not have access to a computer. High staff turnovers, low staff, and low morale are other issues faced by DHS caseworkers. Staffing issues can also hinder the progress of welfare recipient matriculation through the system. DHS_TR also informed that foster care and DHS caseworkers could not view or access data from one another systems. Probable reason may be due to the confidentiality of the respective clients.

Another concern that derived from the interview with DHS_TR is unawareness or knowledge about the Statewide Automated Child Welfare Information System

(SACWIS) and informed that it is not a DHS system. SACWIS is a Department of Children Services system that is not seen by the caseworkers at DHS. These systems are standalone and separate with no integration to retrieve data from external sources. However, all entities (child services, human services, foster care) or other family government agencies shall be made aware of each systems utilization in its day-to-day operations.

DHS_TR confirmed that integrating systems will leverage caseworkers' knowledge of its clients to communicate and inquire with respective agencies more efficiently to assist clients in their efforts to get the appropriate assistance needed to attain self-sufficiency. Another issue that the DHS_TR provided was regarding visibility to caseworker information and data entry from Maximus workers. As an appeal and hearing resource, DHS_TR informed that one of the problems is the inability to view caseworkers notes from the client representatives. The client representatives' role is to assist clients before they become self-sufficient. The concern with the DHS_TR is they appear in court on several appeals cases but do not have access to view clients' files. Not having access hinders process for preparation relying on others to provide information needed for an appeal hearing.

Clients impacted by way of doing things within the government agencies information lack of data entry in the Maximus system. Maximus is the contractor that helps find clients employment. The DHS_TR research interviewee described the issue with Maximus systems when caseworkers neglect to type client provided information such as place of work or employment information as hindering progress for assigning clients to programs and benefits needed to help them with socioeconomic issues. Data entered by Maximus resources is clients' program compliant status. DHS_TR informed lack of data entry causes problems throughout the client's progression due to lack of information that is not in the system for verifiable purposes by other agencies or counselors. Meaning that, if Maximus is not doing their due diligence in updating the system, it could make it more difficult due to a lack of information for caseworkers to make sound decisions.

DHS_TR indicated that government welfare systems such as Families First, Foster Care, TANF, Child Welfare and other government services need to be integrated and designed to send message alerts to the respective department or caseworkers to take immediate action on incoming cases. The following example given by DHS_TR supports the efforts of this research regarding the need to integrate government welfare systems. For example, a foster care child taken out of or brought back into a home, the caseworkers have no way of knowing about the change in the child's residential status. Once the client meets with the caseworkers, they are asked to send or bring a letter or other documentation to verify that the child is in their custody at the parent or guardian place of residence.

DHS_TR further informed that technology would help the caseworkers authorize benefits quicker and more efficiently if systems were integrated, as well as, help the clients matriculate through the system only if the client is willing to meet state requirements for programs assigned to them to prepare them to live self-sufficiently. The DHS_TR mentioned employment as services that will aid clients in seeking work if data was integrated into and shared in the welfare and employment office systems. Maximus is a contractor system that amalgamates with ACCENT to help families in need of employment. It is the responsibility and willingness of the client to take the opportunity of utilizing the program to get the assistance provided to them during their job search and hiring into a position.

The DHS_TR Appeals and Hearing resource informed that IT utilization is needed to help clients become more engaged in programs to help mitigate self-sufficiency barriers and enable caseworkers to communicate more efficiently with the appeals and hearing representatives regarding changes in policies or information for case appeals. The downfall is the failed attempt to implement the Vision Integration Platform automation system. No further efforts have been made to design and develop a system to replace the 19-year antiquated ACCENT system.

SEEDCO Technical Resource

The SEEDCO technical resource participant for this research referenced as SEC_TR has an educational background in business administration management and Human Resources with 4 years experiences working as a Sr. Programmer on the incarcerated of change benefits and the entrepreneurship workforce development programs.

SEEDCO is a national nonprofit organization that advances economic opportunity for people, businesses, and communities servicing Shelby County Mid-South area for over 10 years when it opened its office in 2004. SEEDCO was selected in 2007 by the Tennessee DHS to implement its Families First program to help thousands of Shelby County residents make the transition from public assistance to employment by working with multiple nonprofits, employers, and government partners in Shelby County SEEDCO is a grant-funded organization that uses systems that are required by the department of labor. Business operations and support, management information systems, and salesforce are the three systems used in the SEEDCO organization. Each of these systems has functionality that allows workers to support families or individuals in need, as well as, provide documentation for uploading to respective databases. However, neither of these systems communicate or integrated with one another. Workers with individual logins for each system access applications via the web for entering information.

Understanding SEEDCO systems. SEC_TR research participants provided information about the integration between the SEEDCO, salesforce, business operations and support, and ACCENT systems. Business operations and support is a system that is used to obtain information for youths 16-24 years of age and is approximately 20 years old. The management information system which is about 4-5 years old is used to gather information for returning citizens such as ex-offenders. Salesforce is a web-based database platform that allows users to create, upload or export different reports such as sales documents or PDF documents. Salesforce also provides functionality for documents or data to be uploaded or pulled from other systems to create reports based on the information that is needed. The Salesforce system is approximately 14 years old. Reports to provide estimates on monthly salary ranges, zip code reports on clients are only a few report examples generated from Salesforce. Reports from the Salesforce system are mainly for low-income or unemployed individuals who are participants in SEEDCO's work program Salesforce does not have the capability to be used as a communication tool. Salesforce generates reports from data entered directly into the system. However, before the Salesforce system, SEEDCO was the recipient of the TANF grant which is Tennessee's Family First Grant. As a grant recipient from TANF, SEEDCO workers upon approval from the DHS resources can extract data from their ACCENT database.

ACCENT is the system that was once used by SEEDCO but is now only used within the sector of the DHS. SEEDCO and ACCENT systems are integrated with one another to give SEEDCO workers more flexibility to pull data from ACCENT. Data utilization involve creating transportation, participant, and geographical reports to track the whereabouts of clients. Training reports developed to obtain information on whether clients are in school or participating in community service efforts, and other information that is provided by the ACCENT system. However, the issue with this integration between the two systems is since SEEDCO is now disparate from the TANF grant that allowed them to communicate between and see all participants' information through ACCENT and extract it into Salesforce. Therefore, to obtain information from ACCENT, the SEEDCO workers request permission from the state to pull data to be used. Due to privacy laws, the State must grant permission to access or extract client data from ACCENT. Part of the process to obtain information on a client from ACCENT is that the SEEDCO employee must be actively working with the client daily or be a partner with the State because of the Health Insurance Portability and Accountability Act (HIPAA).

This information above confirms the concept theory of this study that significant gaps exist with data sharing in welfare systems. Until government officials mitigate gaps, caseworkers are limited to information for accurate decision making and to enhance the work capability of helping recipients attain self-sufficiency by attending appropriate programs and services provided by the government.

Technology vs. self-sufficiency. SEC_TR's declared that information technology could be helpful for viewing data about clients but only if the information entered into the system is accurate. The SEC_TR informed data entered in the management information system is for keeping track of participant's enrollment into a program. Additional tracking in management information systems includes assessing intake data for capturing personal information such as the type of work interests, certifications obtained, employment information, or other pertinent client information to help identify potential barriers that may impede their process within the systems for self-sufficiency readiness.

The SEC_TR response regarding self-sufficiency was the programs are only as successful as the ability and desire for the client to want to change their living standards, as well as, the attitude and passion of the caseworkers utilizing the programs to help their clients reach that goal of self-sufficiency. Even though the programs are successful, there will always be barriers that impede the process. SEC_TR informed that clients will always have barriers to overcome because people progress and achieve success at different levels in life. SEC_TR indicated that some people are not ready to change their lives and to succeed in the programs offered clients must be committed to doing the work.

As it relates to the SEEDCO organization itself, one of the barriers to continuing assisting clients is the deficiency for lack of funding. Grant funding can be decreased or dissolved at any time and is a welfare reform element most clients do not quite understand. Grant usage span for 5 years; however, grants for 2 or 3 years have been proposed. The process is temporary to guide clients to improve their living situations.

Barriers and issues. The SEC_TR explained one major issue encountered with the systems at SEEDCO is the difficulty of obtaining information about clients. Permission must be granted to extract data from the SEEDCO systems. In some instances, resources may not be available to give that permission promptly. Another issue is regarding the length of time that it takes to transition an individual for self-sufficiency readiness. Twelve months is the allowable amount of time to matriculate individuals through various programs. However, depending on specific needs or barriers, it may take longer than 12 months to recruit an individual, convince them they do not have to live in an inadequate or unsafe environment and help them get on the road towards self-sufficiency. Sometimes it may take up to 36 months or more for lifelong transformation to happen for individuals that they can support themselves and live self-sufficiently. SEC_TR informed that communication to clients about their living situation is not clearly understood regarding their participation in government programs to receive benefits is only temporary. Therefore, their way of thinking must be transformed about their lived phenomenon to move them from poverty to self-sufficiency and not rely on government assistance for temporal gains to provide for their families.

Some ways to overcome these issues are to ensure that enough funding is granted to provide the required services for individuals and assign program mentors to work with the same individuals for more extended periods of time by matching the client/worker together to establish and build stronger relationships. The program mentor serves as an accountability partner to help clients get through life issues that they may encounter while adjusting to different methods. Behavioral change and transformation of the mind about client's present living situation and the ability to see their future living situation by putting in the work and going through the process designed for them is a critical area to be addressed.

SEC_TR shared a viewpoint that clients living in poverty or recipients of government assistance in the same environment for 10, 25, 30, 40, and 50 years are the hardest mindset to change. It is the learned behavior of the individuals from an impoverished environment that requires consideration, and it may be difficult depending on individual's unique barriers to transform them from poverty to self-sufficiency in a 12-to-36 months' timeframe. The clients and the workers must realize that it takes time and the effort to reach the goal requires the work of both the client and the caseworkers. The caseworkers must ensure that clients are participating in life transformation discussions, obtaining soft skills through training, and engaging in points of services designed to help their clients overcome various barriers. However, the clients are accountable regarding their future living conditions by participating in the roadmap activities created for them and trust the process.

The availability of more on-the-job training opportunities or internships where clients can learn a trade and work in that environment for 3-4 months and hired into an organization that will give them a chance at employment without judging their past may be an approach to consider helping clients improve their living conditions. SEC_TR provided other barriers realized from caseworkers at other entities such as transportation, childcare, low self-esteem as factors that impede client's unawareness of what is available to help them with their transition. SEEDCO services aid clients with children by referring them to childcare organizations once they start working.

Other areas of improvement are to make the web-based system user-friendly and integrate them with other systems. Updates and maintenance conducted on the database for the business operations and support, management information systems, and salesforce systems; however, the system is not user-friendly due to lack of training on new updates. Instead, workers are provided with manuals to learn the new updates which can be challenging to some caseworkers who are not technically savvy. Therefore, discovering how a system works without being trained slows down the service process with clients to assign them to appropriate programs to start their journey towards self-sufficiency. Another issue with SEEDCO system is the inability to retrieve data from outside sources. These are government systems that require special permission to obtain information from other systems.

Envisioned human services IT future. SEC_TR informed that having a human service department comprised of all government child and family services entities in one centralized database, would indirectly help the clients because they are already familiar with the backend services and only needs the frontline services. Informed that if a system is created that communicates with every human service organization application within the city and have waiver and confidentiality agreement signed concurring that shared information will be kept confidential, this process of collective data gathering across multiple systems shall enable caseworkers to be more effective in placing clients in respective programs. As such, clients will benefit because they will have the capability to obtain all assigned next steps in their process regardless of the location or type of human service entity visited.

SEC_TR suggested that centralizing all human services applications creates a system of care for the individual where they are not repeating the same information each time they visit another human services entity. It shall also allow agencies to create an atmosphere for individuals by conducting a warm handoff by obtaining information about the services and type of treatments provided to the clients from one database. According to SEC_TR, having one centralized database will allow collaboration among all caseworkers for each human service entity to also support an individual in crisis mode by providing them with all the resources they need and establish a plan of action from a one-stop shop information systems location to address behavioral, social, economic, educational, and self-sufficiency needs.

New technology underway. SEC_TR informed that the research I am conducting is perfect for this moment given that the State of Tennessee is currently seeking ways to improve its processes through integration of systems. Wrap-Around is a type of service to consider whereas the caseworkers are not reliant on their clients to provide them with information. However, with the integration of various human services systems, caseworkers will be able to share confidential information by following the HIPAA laws and have the consent of the client serviced. The discussion is minimal about this process; however, it is proposed with board members from other City of Memphis human service agencies to provide input on their respective systems to fit the model of a collaborative human service and welfare system.

The overall purpose is to mitigate barriers such as employment, transportation, childcare, Medicare, housing, financial literacy, or other obstacles by creating a wrap-around service as a one-stop process to share pertinent information at the consent of the individual with agency caseworkers. SEC_TR informed that the City of Memphis is currently working on a seamless system to provide the systematic process of which this research is based upon to help individuals come out of poverty and not have to travel to various locations to throughout the city to get the services they need. The pilot of this new system occurred in the summer of 2016; however, there is no current implementation update on when the full rollout of the system becomes available for active usage. The name of the pilot process was called Driving the Dream whose purpose is to break generational cycles of poverty by connecting people with resources that will enable them to move towards self-sufficiency.

The concept of the logic model is a method to consider in the work of social services to ensure self-sufficiency stays at the forefront of welfare reform, policy and program measures are needed to prevent individuals from re-entering the reform process receiving the same assistance to re-establish their place in society as self-reliant people (Wade, 2016). Currently, there is not a name for the new system; however, the system once implemented will not replace business operations and support, management information systems, or salesforce. The new system will be integrated with these three systems because they are state and federally mandated to obtain grants for the services and resources provided to help the clients. This new integrated technology shall leverage caseworkers' knowledge about their clients to make decisions and referrals to improve the socioeconomic environment of families until they reach self-sufficient stability.

SEEDCO summary. Tracking and monitoring of the SEEDCO systems provide efficiency to obtain information on clients' progress. However, there are other known areas for improvement that will bring more effectiveness to provide better services to support clients and leverage opportunities to help them through programs leading to self-sufficiency. SEC_TR research participant insinuated that caseworkers would have the ability to retrieve information from any entity through a centralized database integrated with all human services entities (childcare, foster care, employment, housing, food stamps, etc.). Therefore, providing a wrap-around service that allows all systems to communicate as one with other agencies throughout the city and to improve collaborative efforts for caseworkers to assist clients in one setting better and reduce clients traveling to several locations to inquire about government assistance.

The wrap-around service concept is of great importance. For example, many clients do not have transportation to travel to different agencies located in other parts of the city outside of their living area. If a client misses an appointment with their caseworkers, it risks the chances of eliminating or reducing their benefits. Integrating welfare and human services systems to track, monitor, and view information from all city-wide entities regardless of which agency the client is visiting shall leverage opportunities for the caseworkers. Data sharing between multiple welfare systems according to SEC_TR is to provide enhanced solutions and work with the clients to create a realistic roadmap based upon their unique living, behavioral, educational, or other barriers to complete programs and other services with the goal of becoming self-sufficient. Furthermore, operating from within one robust database as a one-stop service process, may eliminate clients' frustration, as well as, remove the excuses that clients usually give for not attending appointments. Integrating information systems will aid in overcoming some of the issues clients encounter because it will leverage the opportunity for the client to overcome barriers to move from a state of lack to a state of self-sufficiency. The SEC_TR research participant confirmed the need for the State of Tennessee government officials to continue work on improving the SACWIS system and to replace antiquated systems that have been in use for the last 20 years with automation data sharing functionality.

SACWIS vs. CCWIS Welfare Reform Technology

Ongoing efforts are continuing to improve welfare reform processes. Some states have moved from using the Statewide Automated Child Welfare Information System (SACWIS) to using the Comprehensive Child Welfare Information Systems (CCWIS). Both systems are designed to aid caseworkers with their caseloads and to aid with an accuracy of data to make sound decisions for their clients on a case-by-case basis. The issue with the former system (SACWIS) is the ability to rapidly share data across welfare system platforms supporting multiple health or human service programs with efficiency (Administration of Children & Families, 2016).

The SACWIS is a single comprehensive system used in the State of Tennessee. The Children's Bureau examined SACWIS in 2009 to determine if a newer technology strategy will "program interoperability through data sharing; rapid, modular system development at lower costs; and greater efficiency through the adoption of industry standards" (Administration of Children & Families, 2016, p. 35450). As a result, resources of the Children's Bureau proposed adoption of CCWIS to support different child welfare practices with emphasis on data and data quality instead of specific functions. CCWIS method ensures support for modular, standardized designs and a system that will support data exchange with other agencies and provide data quality standards (Administration of Children & Families, 2016, 2016). The essence of data exchange in the practice of welfare services provides the capability for caseworkers to work effectively toward helping families on welfare gain an economic foothold to independently support their households and re-establish their place to become contributors in society.

Today, welfare systems require the use of improved technology to better support welfare programs and practices (Administration of Children & Families, 2016). Caseworkers' participants in this study informed that data sharing is an issue that slows down their processes to better assist client due to the 30-90 days delays to receive information from other agencies. As reported in the research interview, data needed from other agencies internal or external, a phone call is made to request information or request are made via fax or e-mail method to other agencies. Caseworkers are unable to retrieve data from other agencies about their clients in the current welfare systems. Data sharing is a big issue to help clients obtain a state of self-sufficiency that leads to the limited availability of information that will support the efforts of caseworkers to provide safety for children and assist families to attain economic well-being to households (Administration of Children & Families, 2016).

Technology and Welfare Reform 20 Years Later

Transitioning welfare recipients from poverty to self-sufficiency is an ongoing issue within the DHS. One concern regards the capability for welfare systems to retrieve or send data to multiple agencies (internally or externally). Twenty Years later welfare reform has slightly improved, and many families are still living in poverty unable to fulfill the transition to self-sufficiency. Welfare recipients in this study expressed interest to someday live on their own. Welfare recipients expressed that more need to be done within the welfare reform process to help them reach the goal of self-sufficiency.

Twenty years later, the issue proposed is whether data sharing within cross-functional welfare systems will help welfare recipients through the reform process to independence from receiving government assistance. A study conducted by Esch (2016) supports this research regarding the need for technology enhancement in welfare systems to help caseworkers manage client records to guide them towards self-sufficiency. Esch stated that although "welfare rolls dropped dramatically (from 4.4 million families in 1996 to 1.6 million in 2014), the number of families living in poverty has stayed about the same and the number of families in deep poverty has increased" (p. 1). Some of the welfare recipients in this study do not receive cash assistance to care for their families. For those who do receive cash benefits, the amount received as reported is not sufficient to take care of a family. Many of the recipients indicated, off the record, there are instances they sell food stamps for cash to have money to pay bills or meet other needs.

There is still a gap within the systems of welfare programs and processes regarding cash assistance preventing families to gain self-sufficiency because of their dependency on receiving government service. As a reference to welfare recipients' responses, a statement from U. S. Texas Representative Kevin Brady supports the concerns regarding cash benefits by informing that in 1996 the nation's cash assistance program to help people move from welfare to work was modernized; however, changes to numerous programs serving the same individuals were unapplied. This study resolved that there is a disconnect between welfare systems preventing the use of data to be shared and accessible by caseworkers to help their clients gain economic advantage in society. Brady (2016) reported that "80 federal programs do not integrate with welfare systems impacting one-third of Americans receiving benefits from at least one welfare program" (p. 1). Technology enhancements are needed to join or integrate federal welfare systems to ensure each state has access to all programs that can be made available to welfare recipients based upon individual needs to prevent replacing welfare for work but to integrate processes through various welfare systems to enable welfare recipients to attain self-sufficiency.

Although information technology (IT) has little effect on reform, its utilization could act as a mechanism to either advance or hinder reform efforts (Kraemer, 2017) depending on data usage in the daily routine of providing welfare services to help clients become self-reliant. Integrating IT applications can help caseworkers achieve the best possible solutions for their clients if amalgamated with various federal welfare programs. However, the use of IT can thwart reform efforts if data integrity policies are not adequately established to protect the privacy of individuals.

Data Analysis

This exploratory descriptive phenomenological qualitative research follows the concept of Vagle (2014) data analysis method. Vagle's data analysis concepts guided me on how to use the transcription of each research participant to derive the findings and recommendations from this study by reflecting on the essential themes of the phenomenon. I used NVivo 11 qualitative data analysis software, to analyze the transcribed interviews with 11 research participants that consisted of seven welfare recipients, three technical resources, and three caseworkers from several human services entities. Using NVivo 11, I identified 48 individual welfare topics and narrowed those down to eight themes. From interviews conducted with the caseworkers, I derived from 15 topics and narrowed those down to five themes. After uploading the transcribed interviews into NVivo's 11 Sources feature, I coded each session by reviewing key phrases and recurring words to create Nodes for themes. Notes were maintained using NVivo's 11 Memo feature on the Create tab during the coding process to capture relevant information to help with the data analysis. I also created Nodes and Case Classifications.

The case classifications contain the demographic view of each of the research participants such as age, gender, employment status and other information to generate an analysis. NVivo's 11 Data feature was used to upload Microsoft Word and Excel document for data input. Interview transcripts and participant's demographic information were uploaded into NVivo 11 using the data feature. The Query Wizard feature used determined where terms occur, identified frequently occurring terminology, and searched for contents based on coded data. The Word Frequency feature was used to view the count of words to determine which to use as possible themes. For example, the word 'transportation' mentioned 77 times, caseworkers and daycare noted 51 times, food stamps 48 times, and so on. The text search feature used allowed me to identify how many times each research participant referenced a word. According to the five major areas of concern for welfare recipients, Table 4 shows the number of times during the interview each participant mentioned barriers impacting their progress to self-sufficiency.

Table 4

Welfare Status Concerns by Category

Participant Name	Transportation	Low Paying Jobs	Unemployment	Child Care	Need Education
AQUI	23	17	12	34	4
CJON	12	11	2	23	5
DDUN	17	9	3	14	3
MNSON	3	3	8	3	4
TSTO	22	8	15	14	3
Totals	74	48	40	88	16

Note. The welfare status of research participants shows the number of times in each category concerns from the phenomenon of their lived experiences were mentioned during a one-hour interview session.

The above information derived from NVivo's 11 data analysis showed the three highest levels of the welfare recipient's barriers are childcare, transportation, and low paying jobs for living self-sufficiently. NVivo 11 also provided the mechanism to understand documentation of the data and how to process the data into organized data concepts to view how data connected among welfare recipients by using the Explore Diagram feature.

A total of seven welfare workers interviewed for the research; however, two participants considered discrepant resources disqualified from the study as a participant due to their disability status. However, both participants still had interests to interview to help me with the research because they were not 100% disabled and can do light duty work. Although their information did not factor into the analysis, they did mention similar concerns and needs regarding barriers preventing them from living self-sufficiently.

Data analysis results contributed to understanding the demographics of the research participants. This process allowed the opportunity to see the commonalities among all participants such as no transportation, recipients of welfare benefits, African American, and make less than $25,000 per year. Table 5 shows the demographics of welfare research participants. As indicated in the table many of the recipients are unemployed and undereducated. This demographic status shows the relevance for the recipients' participation in the research to understand their barriers and how technology can be used to help caseworkers transition their clients from welfare-to-work by knowing the obstacles from a demographic standpoint impacting the socio-economic phenomenon of the lived experiences.

Table 5

Welfare Participants' Demographics

Person	Age	Current Income	Number of Children	Household Size	Education Level	Unemployment Check	Gender	Employment Status
MNSON	31	$0	0	2	1 yr. college	YES	Male	Unemployed
DDUN	25	$0	2	5	11th Grade	NO	Female	Unemployed
AQUI	33	$0	3	4	11th Grade	NO	Female	Unemployed
CJON	29	$7.80	4	5	12th Grade - did not graduate	NO	Female	Working
TSTO	28	$0	2	5	11th Grade	NO	Female	Unemployed
*IWIL	34	$0	0	3	12th Grade - did not graduate	NO	Female	Unemployed
*MANTH	52	$0	1	3	GED	NO	Female	Unemployed

Note. Demographics of research participants age range 25-52.

Welfare recipient's data analysis summary. Participants' provided information about their phenomenon of which they are currently living. Participants selected live in impoverished neighborhoods that indicated the awareness they would be useful resources to participate in the research. All participants were given pseudonyms to hide the identity of the individual and adhere to privacy ethics.

I selected five out of seven potential welfare recipients to participate in the study. Only one participant completed high school. The other participants dropped out of school at either the 11th or 12th grade. There were four females and one male who participated in the study. Two research participants were interested in attending school to complete their education. One participant had already enrolled in continuing school to start classes as soon as her child reached 6 weeks old. Other areas of concern to help welfare recipients achieve self-sufficiency is understanding how multiple barriers interrelate and how to mitigate them in shared data systems.

Data connection on three research categories shown in NVivo 11 is low pay, childcare, and transportation. It is evident from the interviews conducted with research participants that income is one major factor impacting families on welfare ability to live self-sufficiently. Caseworkers cannot guarantee that all welfare recipients will attain jobs above minimum wage to put them in better financial situations to independently care for their families. However, assuring that technology is used effectively in welfare processes to share data across integrated welfare systems allowing caseworkers to make the right assessment and decisions for recipients to prepare them for self-sufficiency that will eventually lead to social change in environment as recipients continue to work towards changing their current lived experience.

The hourly rate of working recipients interviewed for this research is between $7.25 minimum wages but no more than $9 an hour. Figure 6 shows that 60% of the participants informed more pay beyond minimum wage is needed to live a self-sufficient lifestyle.

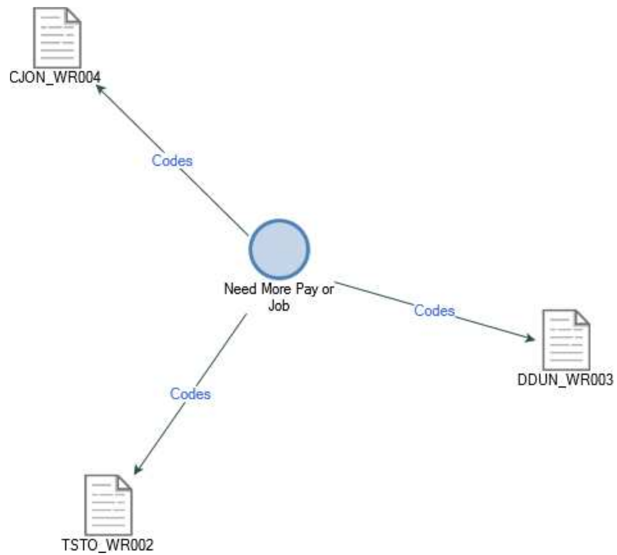

Figure 6. Recipients need more pay. Three out of five research participants considered more pay is needed to live self-sufficiently.

The ability to pay for childcare is yet another concern for welfare recipients to sustain out of their own merits. Although childcare services pay working welfare recipients for childcare through DHS, many research participants feared to lose their jobs due to DHS no longer provided childcare assistance, and insufficient monthly income to cover childcare costs. The inability to pay for childcare impacts the ability for welfare recipients to work; thereby, enabling them to rely on government assistance. Figure 7 shows each participant with children and currently on welfare has concerns about meeting childcare needs.

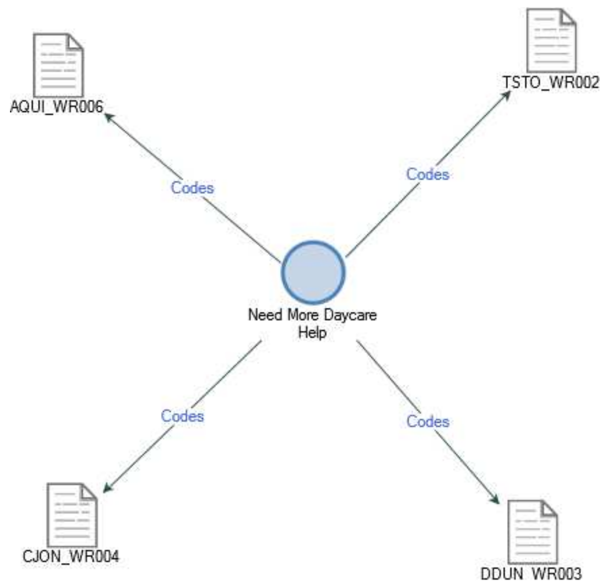

Figure 7. Need help with daycare. Four out of five research participants have daycare concerns. The other participant is a male and does not have any children and was not included in this finding

Reliable transportation is another necessity for welfare recipients to restore their status in society as self-sufficient individuals. The lack of transit mobility per this study is an element that prevented recipients from not only seeking work but sustaining employment. Welfare recipients and caseworkers consented there is a need for DHS to form partnerships with transportation services and create a program that will mitigate transportation barriers that many welfare recipients encounter. A technology used in this effort by partnering with organizations such as Uber, Lyft, or public transportation to aid in transporting welfare recipients to respective places such as work, doctor, caseworker visits, or childcare facilities payable by DHS shall leverage stability with employment leading to self-sufficiency. Using technology in this manner shall increase the possibility for welfare recipients to improve their living standards due to consistency in work and income into their household leading to a positive outcome in social change as welfare recipients work towards changing their environment to live with sufficiency. Figure 8 shows the results from recipients that expressed transportation needs are detrimental towards their quest for self-sufficiency.

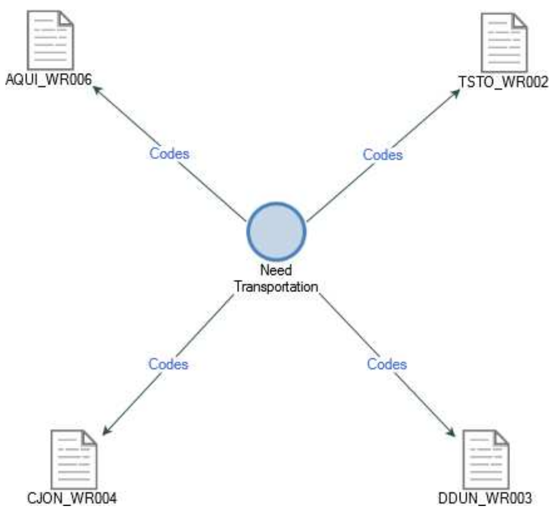

Figure 8. Recipients need transportation. Four out of five research participants have transportation needs. The other participant is a male and has the support of his mother for transportation.

Preconceptions of welfare recipients viewed as people who are lazy, uneducated, government users, or other names indicate they are noncontributors to society or people who rely on taxpayers' money for their livelihood. However, despite the low living standards that the recipients encounter, each of them explained their willingness to put themselves in better positions to take care of their families. Some of them expressed one of the following interests to engage as a start towards their journey to seek fulfillment to someday live without government assistance as shown in Figure 9 below: going back to school, finding a higher paying job, living in a safer environment, becoming a medical assistant.

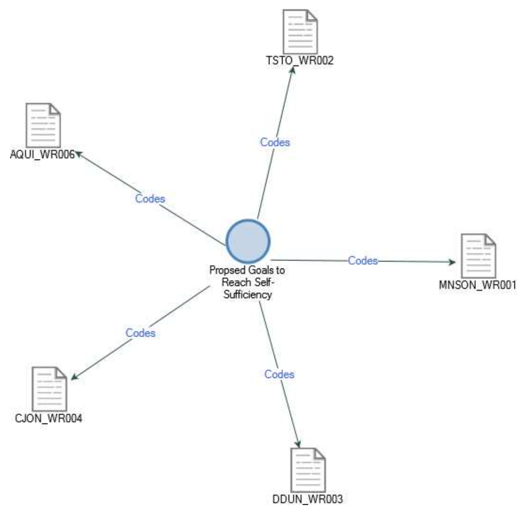

Figure 9. Goals to reach self-sufficiency. The proposed goals from welfare recipients are going back to school, finding a higher paying job, living in a safer environment, becoming a medical assistant.

All participants expressed interests in aligning themselves with goals to reach self-sufficiency. Regarding the processes and technology used in welfare programs, the welfare recipients participated in scenarios to ensure their understanding of welfare technology that allowed them to elaborate on their lived experiences regarding the technical issues they encountered in the welfare reform process. The recipients participated in a scenario for using a phone app incorporated with scheduling a shuttle to take recipients to and from jobs, interviews, or daycare to help with transportation issues and asked if they considered an app of this caliber useful to help overcome barriers. The recipients expressed they would benefit from this type of technology if it were part of the welfare process especially for recipients who are not working and has no transportation.

The feedback from this scenario by two research participants was: AQUI mentioned that having a welfare app to request transportation for work and childcare services will be beneficial considering that some people on welfare do not own vehicles or have money to pay for transportation services. Research participant CJON also concurred that a web app technology is needed and mentioned that welfare services had a program called First Wheels were caseworkers would assist clients with obtaining vehicles with clients' obligation to cover insurance payments. Fact-finding of CJON's information about the First Wheels program was found in a research conducted by (Richards & Bruce, 2004) that revealed Tennessee's First Wheels program provided the means for welfare recipients to purchase vehicles at zero-interest loans to leverage the opportunity to pursue self-sufficiency.

The significance of the web app to assist welfare recipients with transportation issues is data sharing occurs between the app and the transportation source to trigger the need for travel assistance from participating companies that will cater part of their services solely to welfare recipients. This concept aligns with the purpose of this research on using technology to overcome barriers impeding welfare recipients' self-sufficiency.

Caseworkers data analysis summary. The scope of this research required interviewing at least three caseworkers. Each caseworker was very knowledgeable and provided information to derive the need for technological advancement, as well as, areas of improvement to help welfare recipients reach a level of self-sufficiency. There were 14 themes grouped into five nodes as shown below:

1. Client representative issues (high caseloads, competent workforce, and data tracking).
2. Client representative role (coach welfare recipients, provide entitled benefits, monitor cases, help provide daycare).
3. Program Needs (Transportation process and group sessions).
4. New Program (two-generational approach).
5. Client representative perception of welfare recipients.

In the following paragraphs, I synthesized information between the caseworkers and welfare recipients to show the similarities or differences related to the themes identified in this study.

The client representative for the Family Assistance programs has 22 years of professional experience addressing issues with welfare recipients. These issues are to help recipients (a) determine a career path, (b) monitor each case to view their progress, and (c) get background information on the family to decide benefits and resource entitlement. The client representative also recommends clients to another program for family counseling.

The family assistance client representative and the welfare recipients had similar feedback on transportation issues and inferred that the transit assistance process needs to be tweaked or given more consideration to help welfare recipients with stable channels to work, daycare and to see their caseworker. However, the family assistance client representative indicated gaps exist for people on welfare who are not working and need transportation to get to an interview or seek employment opportunities.

During the interview, the family assistance client representative informed that opportunities are underway to improve the welfare process by putting in place a two-generational approach. This approach is tailored to ensure that all persons in the household receive counseling to better assist families with education, economic, medical, social, and other needs as reported or identified to provide guidance towards self-sufficiently. The client representative informed that programs would not work unless the participants use them. As it relates to the perception of welfare recipients, the client representative conferred in the interview that welfare recipients are not motivated and need to take the initiative to seek work.

Client representative issues encountered are high caseloads, workforce, and data tracking. In the discussion regarding the technical aspects of the welfare process on data integration across multiple systems, the client representative shared if a recipient comes from another state to file for welfare benefits they call that states' DHS and provide the social security number to confirm case closed. Afterward, the client representative obtains information from the welfare recipient to start a new welfare entry. The client representative explanation of the reform process confirmed the need for this research because it proved that gaps still exist regarding the ability to view out of state information on incoming clients caused by the inability to share data.

To summarize the data analysis findings, common barriers (transportation, childcare, low pay, lack of education) still exists and impedes people from reaching a level of self-sufficiency to care for their families independently. However, findings from this research showed that there is a need for DHS to consider technological enhancements and develop ways to improve processes that will help welfare recipients with readiness to live self-sufficient as mentioned in the recommendations section of this study.

Evidence of Trustworthiness

Trustworthiness in an exploratory descriptive phenomenological qualitative research involves the ability to thoroughly understand the phenomenon of each research participant to ensure the data are trustworthy. Evidence of trustworthiness for this study occurred through the usage of the phenomenological method derived from Silverman's (2016) phenomenological approach to data collection and analysis that provided evidence of trustworthiness. Establishing trustworthiness involves establishing relations that will show both the researcher and the work as trustworthy taking into consideration the aspects of credibility, transferability, dependability, and confirmability (Silverman, 2016). Trustworthiness involves the ability to offer reliable and valid data gathered from the research (Silverman, 2016).

Credibility

Credibility strategy for this exploratory descriptive phenomenological qualitative research did not have any bias perceptions regarding the participants' responses during the interview sessions. I adhered to the Walden University IRB requirements by completing the National Institute of Health's certification for protecting human research participants approved data collection process allowing no more than 90 minutes to interview participants. I reviewed the interview transcript with the participants for accuracy (Creswell, 2014). Keeping an open mind to participants' responses was relevant to the credibility of the research. I analyzed the phenomenon of each participants' lived experiences for each question asked in the interview.

Observing the participants' behaviors or change in tone for each question provided credibility as the participants expounded in more detail about the issues concerning their ability to live self-sufficiently. This exploratory descriptive phenomenological qualitative research underwent an exploratory interview protocol that allowed for the reflective interpretation of the collected text. The credibility of the research relied on the questions asked and the participants' responses that revealed their phenomenon about barriers regarding the way they live and what is needed from the Shelby County DHS to help them move from welfare to self-sufficiency.

Iterative questioning was used by rephrasing the questions to ensure same or similar answer was given or to uncover deliberate lies if research participants provided different responses to questions of similarity. This iterative questioning was a method used to seek out any discrepancies about the participant's responses. Additionally, I used the strategy of the reflective commentary to document information at the completion of each interview and summarized notes for each participant in a contact summary form. This process allowed impressions of the information that was collected from the participants to be analyzed. Reviewing and confirming data with participants to validate captured information contributed to the study findings of validity and truthfulness.

Transferability

Transferability strategies used were having individual face-to-face sessions with the participants and being transferable by letting the participant know that I was once a recipient of welfare which is why the study is of importance to understand the underlying needs for recipients who are struggling to live on their own. The face-to-face interview sessions provided a level of comfort with the participants because it allowed them to see the concern of the researcher regarding their needs. Therefore, the participants elaborated more on questions that pertained to what they needed from the DHS. Informing participants that I was once a welfare recipient also aided in the transferability strategy for this research. This transparency ensured them of the awareness of someone who also experienced the same phenomenon but was able to get out of welfare to live self-sufficiently and has their best interest regarding researching ways to help others achieve a level of living independently. I used the transferability strategy without implying any information that would discredit the validity of context for this exploratory descriptive phenomenological qualitative research.

Research results can be applied to a broader population to determine whether similar responses regarding the barriers (transportation, child care, and low pay income) are still among the top issues regarding welfare recipients to rise above poverty-stricken situations with the DHS assistance. This transferability strategy also resulted in getting the understanding that a higher milestone is needed beyond TANF and work first programs to help welfare recipients obtain the goal to live self-sufficiently. Information technology strategies are necessary to probe deeper into the usage of technology to integrate welfare processes that will provide the capability for caseworkers to support recipients in mitigating barriers that hinder the ability to achieve self-sufficiency.

Dependability

This current study is dependable because follow-up interviews were conducted to assure the accuracy of information received from the participant's responses. Handwritten notes, as well as, voice recordings were used to have more than one method to capture information to meet the credibility and validity of data trustworthiness for the study. I obtained detailed information about the participant's responses in the contact summary form. Participants evaluated their findings and viewed the summary information to make sure the researcher had accurately captured the data received (Anney, 2014). I used NVivo 11 data analysis software to code data and created themes from information obtained from interviews.

Confirmability

Confirmability of the research was to remove bias intentions by utilizing open-ended questions. Confirmability also entailed ensuring the objectivity of questions so that the findings or research participants responses obtained from the phenomenological experiences did not have a perceived outcome of the researcher. Information received from asked questions obtained confirmation when viewing the transcript with the participants. Preliminary thoughts or theories regarding the results of the research were avoidable and research confirmations derived from the reflective commentary after the interview sessions. The adjustment to consistency strategy was the inability to contact caseworkers and technical staff to conduct interviews for this research. Therefore, research is further needed to thoroughly understand the concept of utilizing and enhancing the use of technology for welfare processes and programs to track, analyze, aid, and equip recipients to move from welfare to self-sufficient living.

Study Results

The findings from this research resulted in four key themes: (a) transportation, (b) low pay, (c) school, and (d) childcare. These four themes are the key barriers that impact individual ability to live on their own according to the responses received by the research participants. Although these limitations are not new to the research on welfare recipients, the way the DHS handles these barriers through their respective programs and processes do not help the welfare recipients through their journey to reach a self-sufficient lifestyle. A new gap introduced in the welfare reform is to address the needs and barriers of welfare recipients using data sharing techniques to help caseworkers in decision making regarding recipients' ability to live on their own. The research interview results with the welfare participants are as shown in Figure 10.

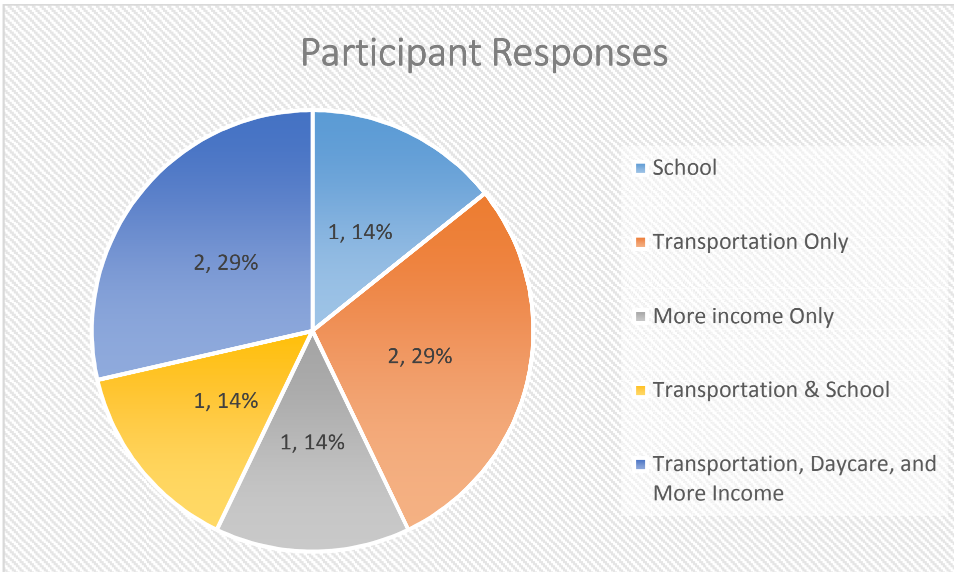

Figure 10. Welfare recipient needs. Research results from welfare participants on what they need from the DHS to help them with means of going to work and childcare while transitioning from welfare to self-sufficiency. Note: Some participants provided multiple needs. Transportation needs are the highest falling into three of the responses with more income and school as a secondary need and then daycare assistance as the final need from the DHS to help them prepare for living on their own.

Transportation is an integral part in the lives of many households to get families to and from work, school, grocery store, doctor's office, events, or other activities that involve one's daily lifestyle. However, the recipients who do not have transportation find it overbearing to meet the needs of their families. As one participant expressed during the interview, after being hired for a job to work at a warehouse; her driver's license expired due to not having transportation to get a license renewed and therefore did not get the job. However, according to the welfare recipient, the issue is that even if she does get her driver's license renewed, there is no transportation to get to and from work. Depending on the income of welfare recipients, these individuals can use Tennessee's MATA public transportation or catch a taxi but for recipients who do not receive unemployment or a check from Family First program, having monetary funds for public transit or taxi is a big issue.

In the State of Tennessee, according to the Memphis Area Transit Authority, the adult base price for public transportation is $1.75 or $3.50 on the MATA bus one-way; $2.50 to $7 for a round-trip fare. Therefore, it would cost $17.50 or $35 round trip per week during weekdays for welfare recipients to get to and from work, and this does not include taking children to daycare. Transportation is an ongoing issue especially for recipients who may not only have money for transportation through MATA bus or taxi but do not have a reliable means of transportation through their friends and family.

MANTH mentioned that this barrier could be mitigated if DHS "furnish gas cards, MATA cards for sure way back and forward to work that will help the transportation problem." MANTH also further explained that "there used to be a time if you had a driver's license and insurance, they would help get you a car, but they stopped the program. DHS will help you pay the note on the car, big help and need to start back up." Removing the transportation assistance program seemingly according to this research left a potential gap in the welfare reform process by impacting the means for people on welfare to have transportation for work, school, or other needs.

Low paying jobs is another barrier that is commonly known as an impact on individuals transitioning from welfare to self-sufficiency. Dutifully noted during the interview process is that welfare recipients fear to have their benefits immediately cut off after finding employment and felt that rather than having food stamps cut off and stopping or reducing cash benefits, DHS should give them at least 3 months to ensure they maintain employment. At least let them get through a probation period before removing or cutting down the benefits. The reason is that in many cases they are only making minimum wage and still cannot provide for the family due to a low paying job. Another participant conveyed if the minimum wage was increased to $10 to $15 an hour that it would be sufficient to take care of her family on her own but believes her benefits should not be cut off immediately after being employed.

All welfare participants agreed if there were a 3-to-6 months grace period upon being hired for a job before benefits are cut off it would lessen the fear of seeking employment. The reason for the 3-6 months grace period is to give recipients ample time to determine if they are going to remain on the job considering transportation and childcare may be an issue. Secondly, the grace period will give them time to make the adjustments while working to prepare for either having reduced or no benefits at all at the end of the grace period depending on the hourly job pay rate and DHS guidelines. Finally, participants asked about budgeting financial households for bills, food, clothing, and other essentials to help them transition from welfare to self-sufficiency. Some of the participants informed that financial budgeting sessions are necessary to help them understand the proper way to meet their household obligations without welfare benefits.

I did not address low-pay as a gap found in this research because it is already a known barrier for many recipients who fear to attain jobs because their benefits will be immediately cut off or reduced with uncertainty if they will be able to keep a job due to transportation or childcare needs. A worst-case scenario is they will most likely revert to receiving government assistance. Therefore, mitigation is needed in DHS processes and programs to help recipients overcome the fear of losing or having reduced benefits if they find a job. One welfare recipient's concern is choosing between staying on welfare or getting a job and losing benefits. Her fear is having benefits cut off after receiving a first paycheck and uncertainty of making enough money to pay bills and provide for her children.

The welfare recipients mentioned three options that are needed from DHS to help them with self-sufficiency. The first option is to raise minimum wage to $10-$15 an hour. Secondly, the recipients expressed that cutting or reducing benefits based upon the hourly rate is not feasible and should continue receiving benefits until their probationary job period ends. Finally, the recipients informed that receiving financial advice on how to manage their expenses while they are employed will help them prepare self-sufficiency. The primary concern is for the recipient to know if they will be able to handle paying bills, paying for transportation if they do not have their vehicle, paying for childcare costs after the probation period with check earnings only. The fear recipients have about being cut off from benefits is not knowing if they will keep a job or be laid off. Research participant AQUI mentioned an issue encountered in the lived welfare reform experience that receiving unemployment is a case-by-case process because most companies do not offer unemployment benefits or sometimes they experience a delay in receiving earnings through Family First program.

Child care is another barrier that participants in the research mentioned. The concern is once employment begins will the recipients afford childcare expenses in addition to the other obstacles such as transportation, bills, food, and other necessities. As mentioned from one of the research participants during the interview process, when DHS was covering most of the childcare expenses, she could pay her portion which was $64 for childcare. However, after 6 months of employment, according to the recipient, DHS stops payments on childcare. Therefore, she could not afford to pay the full childcare fee that went from $64 to $200 per week. Due to the inability to pay for childcare, the recipient informed she chose to either get back on welfare to better support her family or work a job making less than minimum wage to cover family household obligations including childcare. Participant DDUN shared that the issue she encountered with DHS childcare process is the ability to get children in daycare unless they are on Family First. Again, this poses another gap in the DHS process taken into consideration regarding provision for childcare. These two instances both impact people on welfare from working due to the inability to cover childcare expenses. Per interview discussions, it shouldn’t matter whether someone is in the Family First program if childcare is needed for the recipient to work, DHS should provide provision to assist with childcare expenses.

The last barrier that some recipients encounter is the educational level to help them obtain jobs with higher pay. Only one participant out of those studied had at least one year of college. The remaining participants had an 11th or 12th-grade education. Although some of the participants stressed interests in going back to school, the barrier of not having transportation or childcare is a hindrance to pursue this desire. DDUN is one of the participants who is taking steps to finish school to better herself and applied to Concorde college to get her high school diploma and wants to attend business school to open a clothing store.

DDUN has a newborn baby. At the time of this research, the child was six weeks old. DDUN informed during the interview that Concorde would contact her in 3-4 months about her enrollment to attend school. However, she is inclusive of other research participants regarding transportation and childcare needs to get to school but informed she relies on her mother.

Many recipients have been stigmatized by society as being lazy and do not want to better themselves. However, after interviewing the seven participants, it became known that not all people on welfare are lazy or choose not to work. The research participants have a desire to improve their living standards better. However, the barriers that are preventing them from living on their own are transportation, low paying jobs, childcare, and little education. These are the gaps that need to be revisited by DHS to seek ways through advanced technology to incorporate or improve programs and processes that meet the needs of the welfare recipients through the TANF and Family First programs.

Discrepancies found in the research regarded the wording of the questions to determine similarities in the response. For example, a question may have been asked differently about the participant's welfare status. In two interview cases, the responses were different but should have been the same. Therefore, to clarify information gathered from the questions, follow-up interviews were conducted with all participants to validate their response to confirmability. Discussed in the next paragraphs is a closer look at these three barriers and how they impact welfare recipients.

Summary

Research findings indicated that enhanced technology is needed within welfare reform practices to assist families towards self-sufficient living. The DHS staff must ensure its processes and way of doing things provide an efficient means for data sharing to support recipients. These programs shall be designed to help recipients meet their behavioral and physiological needs by adapting to a changing world socially, economically, and technologically. Data sharing across human services entities is essential to ensure caseworkers are viewing the same information to make effective decisions to help recipients with social change and improve their lived experience by placing them in appropriate programs based upon the efficiency of the information supplied.

Recommendations from this research are DHS staff to take a closer look at leveraging technology to enhance their assessment processes by incorporating data automation to share information and thoroughly track the progression of recipients throughout the welfare reform life cycle. Integration across multiple welfare reform systems platforms shall increase the likelihood for recipients to become self-sufficient. Findings from this research dictated data sharing will provide the functionality of decision-making for caseworkers to track progress and provide continued support post-welfare for limited timeframe until recipient reaches self-sufficiency. The ability of recipients to transition from welfare to self-sufficiency is a positive social change for recipients to care for their families without government assistance independently.

Adapting to social change is essential for recipients to achieve a level of independence and self-actualization of realizing their full potential or ability to live freely. The ability to share data and integrate welfare systems enhances opportunities for caseworkers to make the right decisions for the welfare recipient's social change to improve their current lived phenomenon. Incorporating human services, foster care, TANF, behavioral, and other welfare organization systems to provide a robust enterprise communication process for caseworkers to share data through automated methods may leverage welfare recipients' ability to move from poverty to self-sufficiency. The use of technology can help caseworkers make a social change in the lives of welfare recipients by incorporating methods to properly track the progress of client' post-welfare reform until they have reached a level of self-sufficiency and ensuring they no longer need assistance from the government to take care of their families.

Chapter 5 encompasses discussions, conclusions, and recommendations including explanation and interpretation of findings from the conducted research. Study limitations, viewpoints of research participants, and implications addressed in Chapter 5 lead to the conclusions of the research findings.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this exploratory descriptive phenomenological qualitative study was to understand welfare recipients' viewpoints on socioeconomic barriers to living self-sufficiently and to gain perspectives from human services caseworkers and technical resources on data sharing issues that impact recipients' ability to live independently from government assistance. The study was conducted to determine how the use of information management system technology can be used as a decision-making solution to provide the DHS with new approaches that will aid recipients through their transitioning process.

The TANF program primary objective is to promote work, responsibility, and self-sufficiency for people on welfare. However, based on the findings in this study, TANF programs fail to address how to meet the transportation, low pay, and childcare needs of the recipients. Based on interview responses, there are still barriers preventing individuals to transition out of welfare. Findings from this study indicate a need for DHS government personnel to redesign their programs and create new policies that will broaden their processes using information technology to share data across multiple human services agencies to ensure the accuracy of program planning for recipients to reach a level of self-sufficiency.

Interpretation of Findings

The goal of this exploratory descriptive phenomenological qualitative study was to increase understanding of how data sharing is used in welfare reform processes to help caseworkers influence welfare recipients' ability to complete programs and prepare for self-sufficient living post-welfare. Exploring the lived phenomenon of welfare recipients, caseworkers, and technical resources experiences in the welfare reform process brought insight into understanding the barriers of each group and the technological gaps needed to refine welfare reform processes.

Research findings indicated that a decrease in caseloads (people no longer recipients of government assistance and established self-sufficiency) determined the success in welfare reform. The conclusions of this research coincide with Mallon and Stevens (2011) that about 60% of those who leave welfare with a job still fall below the poverty line. Additionally, all five study participants are still living in poverty. The findings of this study indicate that TANF programs designed to help people out of poverty and free from government assistance are still an issue for future research. Interview responses indicated that TANF's success factor to move people out of poverty should not include caseload reduction but the welfare leavers who attained self-sufficient lifestyles. Research findings showed the need for the Tennessee DHS to seek advanced technology methods and incorporate processes to help people with their barriers. Data sharing integration across multiple human services entities is essential for caseworkers to view information from other servicing clients to make the right decisions regarding next steps to help recipients make the transition to self-sufficiency.

Transportation, child care, and low paying jobs were among the top three barriers impacting the ability of welfare recipients to live self-sufficiently. Findings from this research showed that to combat barriers, the Tennessee DHS personnel considers "concerns raised by researchers, advocates, and especially the clients regarding the complex needs of poor families regarding family poverty, unemployment, and material hardship" (Danziger et al., 2013, p. 325). Research findings further indicated that data sharing through integrated systems can allow caseworkers to analyze and understand welfare recipients' lived experiences to make better judgment on helping recipients complete programs to reach a level of sustained self-sufficient living. Caseworker participants in this study suggested a revision of policies, modification of programs, and enhanced technology processes focused more on mitigating recipients' barriers before they seek work that are not helping the recipients move from welfare to self-sufficiency.

The final interpretation is that each barrier needs to be assessed to determine the improvement of processes through information technology and a partnership formed with external entities such as daycare, employers, and transportation company to assist recipients with barriers, equipping them to transition from welfare toward self-sufficiency. Like many businesses using an enterprise resource management system to share data from different areas of their company on clients, vendors, and other resources, government officials need to consider HIPAA guidelines that companies use to protect the privacy of individuals to integrate human services entities that allows data sharing processes.

The study results aligned with research purpose on the need for the integration of information that will allow caseworkers to view data from other agencies and make sound decisions to help recipients attain self-sufficient living. However, it may be a challenge to take the barriers of recipients (i.e., transportation, child care, education) and develop an information management model that will show how to first assess and mitigate barriers before seeking jobs. This process means having data sharing capabilities with other human service agencies.

Limitations of the Study

Unlike quantitative research, it can be difficult to validate and show reliability in qualitative research. The concepts of validity and reliability are essential in the writings of qualitative research. Data validation and reliability in qualitative research entails avoiding data generalization and gathering information on a lived phenomenon and experiences (Green, 2015).

Validation and reliability of this qualitative research included four essential views during the study. The validation views considered were the transactional approach, bracketing, transformational validity, and self-reflexivity as described by (Green, 2015). The active interaction between myself and the research participants through a method called the transactional approach where member checking was used to inquire with participants the accuracy of interpreted information was one of the techniques applied in the research. All participants listened to a recap of the notes taken and read to them before ending the interview session. Participants' received interview transcripts to read for correction and validation of information. Modification of the transcripts also occurred from questions asked of participants to clarify information to avoid misinterpretation.

Bracketing was the second validation approach that was essential for validating the research findings to make sure if challenging circumstances occurred, the research would continue without getting overwhelmed emotionally (Green, 2015). Bracketing was encountered in this research as I entered the homes of some welfare recipients and observed firsthand the poor living conditions of which I immediately removed personal biases of the participants' phenomenon. There were no bracketing issues encountered with caseworkers and technical resources.

The third approach called transformational validity used in the research was about social change and justice on how the participants interpreted and responded to the research findings related to change in their lived experience. (Green, 2015). Welfare participants' ideas about the change from the research findings entailed their desire to improve their socioeconomic living conditions'; whereas, the caseworkers and technical staff response to change from the findings was data sharing techniques are needed in social service processes to help streamline the ability to share information and effectively assist clients with self-sufficiency barriers. Finally, I used self-reflexivity to check my own bias against the voice of the welfare participants, caseworkers, and technical resources opinions about data sharing and self-sufficiency barriers based upon interview feedback and interpretation of data by avoiding assumptions and preconceptions. In the rest of this section, I describe the limitations of the trustworthiness of this study.

Trustworthiness is a qualitative concept that consists of credibility, transferability, dependability, and confirmability. Credibility comprises using member checking and peer review in a qualitative study. Member checking and peer review were used to obtaining credibility for the study by asking five people the same research questions and following up on interviews to review and clarify the translations from the responses and to ask additional questions derived from the first interview. One of the limitations was depending on the wording and understanding of the research questions. To ensure the research participants comprehended and understood the questions, they were restated but kept in the same context as the original question. Another limitation was trust with participants because of my position as a social service caseworker. To gain trust in the participants, I informed them of my research as a doctoral student welfare reform and technology. I obtained credibility during the research process by signing the confidentiality form and being transparent with the participants when asked about my credentials and purpose for the research.

Transferability for the study was accomplished by being open and elaborating on questions that allowed acquiring purposive sampling during the data collection process. Purposive sampling is the maximization of specific information provided by research participants. For this research, the maximization of information entailed understanding the different functionalities of welfare systems discussed in the study and the need for data sharing to provide better assistance to welfare recipients. The limitations of dependability and confirmability relied on participants' honest responses to research questions. As a strategy to ensure participants' reliability and to confirm responses, I asked questions in another way that would result in the same answer. If there was a discrepancy from inquiries, clarification was requested from the participants to ensure the study met credibility requirements.

During the interviews, observation of participants to withhold information was a limitation noted throughout the process. The indication of body movements such as a slight back and forward rocking, change in tone of voice, or slight hesitancy to answer questions provided evidence of possible fear of caseworkers receiving information. Therefore, I established reiteration regarding confidentiality and trust by ensuring the participant that this research is not associated with the DHS caseworkers or other personnel. The research results yielded similarities regarding the ongoing barriers that welfare recipients encounter and the need for welfare systems to enhance and integrate with internal and external ancillary social service systems. Data sharing is essential to equip caseworkers with tools and technology needed to identify clients' barriers to place recipients in programs and services that will enhance their ability to live self-sufficient.

Recommendations

Overcoming barriers such as transportation, childcare, low pay, and limited education are among commonly known obstacles outside of substance abuse, mental illness, or being disabled that prevents an individual to reach self-actualization to live self-sufficiently. Currently, these barriers are not being fully addressed with policies and programs in place to help families on welfare attain self-sufficiency. In this study, I noted from caseworker responses that there is a need to review the current policies and programs at both the government and state levels to consider innovative ways through information technology to better serve and meet the needs of the DHS welfare clients. Further research is still needed to overcome decades of failed efforts to move people from welfare-to-work to self-sufficiency. The following are recommendations derived from this research regarding the barrier of recipients and technology issues with caseworker data sharing processes.

Transportation is one of the key barriers that hinder people on welfare from reaching a level of self-sufficiency. Reflections and information gathered from this study indicate that policymakers should consider ways to mitigate transportation barriers for both the unemployed and employed welfare recipients who are in the TANF Families First Program or receiving food stamps. Innovative means might include adding a program modeled after New Jersey's EZ Ride to meet the transportation needs of the unemployed welfare recipients. The second recommendation regarding transportation barriers is reestablishing the First Wheels program into the welfare process in Tennessee. First Wheels is a program previously provided to current and formerly employed TANF recipients but has been suspended. However, to meet the transportation needs of employed welfare recipients, it is recommended that the Tennessee government place the First Wheels program back into the welfare reform process. Additionally, car dealerships, daycare facilities, or other transit agencies may need to be integrated into the welfare process. Welfare recipients need transportation to work, and data sharing can help track this barrier to ensure recipients maintain a job until they reach self-sufficiency.

Second, the findings in this study indicated that the ability to pay for childcare is still an ongoing barrier that needs to be addressed in the TANF process and policies. Childcare expenses and transportation to daycare facilities are two of the issues encountered by welfare recipients. There are three categories for consideration regarding childcare barriers. The first category is employed welfare recipients without transportation. This group of people, although working, risk not maintaining employment due to little or no means to transport their children to daycare.

The second category is employed welfare recipients with transportation, who may not be able to pay for childcare if the DHS does not supplement part of the pay to cover some of the childcare costs. When the government stops paying their share of the childcare fees, as mentioned by one of the participants, they are unable to pay the full costs for childcare due to low job wages. Therefore, many welfare recipients return to welfare rather than work. The third group is unemployed recipients without transportation and inability to pay for childcare, who need the most focus because they do not have transportation to job interviews or for taking children to childcare.

To address the barrier of childcare, policymakers can form a partnership with daycare facilities to implement a program for families who do not have transportation that will allow the daycare facility to arrive at recipients’ place of residence within specific mile standards to transport children to the daycare center. Further research is needed to determine the feasibility of this type of process to mitigate the child daycare barrier that many welfare recipients encounter that impacts their ability to work or find work. Tracking barriers such as transportation and daycare can be performed using data sharing processes. Participants mentioned that building a database that contains each of the Shelby County daycare centers information can trigger transportation assignment based upon the welfare recipients' residence to automatically e-mail information to the daycares within a 5- to 10-mile radius requesting transportation assistance for child daycare pickup. Using data sharing techniques in welfare systems to mitigate barriers is the primary need for government officials in advanced technology to improve welfare reform and TANF's goal to help people attain self-sufficiency.

Third, welfare recipients suggested policymakers should work on increasing minimum wage in the State of Tennessee. Currently, the minimum wage is $7.25 an hour which is less than $20,000 per year (Federal Minimum Wage, 2018). Based on responses received from the research participants, improvement to them regarding low-pay would be raising minimum wages to $10-$15 per hour. Raising minimum wage is an issue that is uncontrollable by the DHS. Therefore, the probability of considering raising the minimum wage as a recommended option is unusable for this research.

As such, participants informed that one of their fears about working is losing or having their benefits reduced after receiving their first paycheck. To better assist employed welfare workers making minimum wage, a recommendation from this research is policymakers revise its current standards to allow recipients a 3 to 6 months grace period according to the employer's probation standards to continue receiving benefits. The welfare recipients inferred that the reason for continuing benefits during the first 90 days of employment is to ensure individuals are still working at the end of the probationary period and allow them ample time to acquire steady transportation, childcare assistance, and become accustomed to living independently and managing household expenses. These processes require further analysis in determining whether this approach will provide a higher chance of leveraging the pathway toward self-sufficiency.

Lastly, lack of education is a potential constraint that limits the ability of some people on welfare to obtain more than a minimum wage job. Like childcare and work, finding a way to attend school can be a significant concern for welfare recipients who want to finish school. Two participants expressed interests in attending Concorde Career College to get their high school diploma. However, one of the concerns again is transportation to attend school. It is apparent that the critical factor for welfare recipients is transportation to get to work, school, or transport children to daycare. Therefore, to overcome this barrier, each of these recommendations will require careful planning with one of the major transportation companies in the state of Tennessee to help innovate, plan, and develop a centralized transportation program for the DHS. This process will require utilizing advanced technology to integrate data and transact information between TANF systems, schools, daycare centers, and MATA public transportation services. Although this recommendation may seem farfetched for this study, with today's technology focusing on the cause impacting welfare reform which is transportation to implement a program that will help welfare recipients seek employment and go on interviews to leverage their chances of gaining employment.

Implications

Positive Social Change Impact

Positive social change can be impacted by ascertaining the needs of recipients first on a case-by-case basis by leveraging knowledge of their prior lived phenomenon utilizing data sharing and data systems integration. For example, caseworkers cannot expect a person with a 12th-grade education or lower to work in jobs paying more than minimum wage if they have not used data from unemployment other agencies to understand their job skills or other issues preventing them from work. Innovative programs needed for each barrier as an integrated means to track and monitor the progress of all individuals in the welfare reform system to thoroughly understand the socioeconomic needs of an individual.

The impact of positive social change can result through the mindset of individuals by giving them a sense of self-actualization to believe in the welfare process to help them and not hurt them by removing benefits as soon as they begin employment. Positive social change among people on welfare requires fixing the current welfare flaws. Flaws such as putting people to work first, taking away, or reducing benefits as soon as recipient receives the first paycheck, not meeting or understanding the cause of one's ability for not working, and not having programs and processes in place that will allow caseworkers to access the needs of their clients better. A transition process must occur during the roll-off from welfare to self-sufficiency to assure and build trust in the recipients that upon completion of any programs they will be able to live on their own. People want to feel a sense of security and positive social change can occur when policymakers strategize ways to take innovative approaches to information technology to meet its client's needs. For barriers already identified, the next steps are working on ways to mitigate those barriers through shared data from integrated welfare systems.

Information provided by research participants indicated there is a need for enhancement or new technology initiative for welfare reform systems and processes to help caseworkers offer proper programs and decision making for welfare recipients. Caseworkers in this study expressed that data sharing is an issue that many caseworkers experience to assist their clients in self-sufficient readiness efficiently. Problems identified in the Government Accounting Office 2000 report regarding welfare technology explains the technology issues facing welfare reform. The below automation welfare issues cited from (Government Accounting Office, 2000) are prevalent today:

1. The difficulty for case managers to arrange needed services, ensure services provided, and quickly respond when problems arise.
2. The impossibility to query automated systems to obtain information for planning service strategies for their overall TANF caseloads, such as information on the number of adults with no prior work experience.

3. Automated systems have shortcomings for program oversight purposes. Specifically, they do not provide enough information to support enforcement of the 5 years TANF time limit and to monitor the employment progress of TANF recipients overall in some instances.
4. States' automated systems projects embody a range of approaches to expanding the ability of system users to obtain and analyze data from multiple sources.
5. Some projects are designed primarily to support TANF case managers and other frontline workers in providing more coordinated delivery of services.
6. Other projects, geared more to improving the ability of program managers to collect and analyze data from different programs. Involvement for developing new query tools and databases that are expected to help program managers with significant tasks, such as determining program results and assessing the performance of service providers.
7. States face obstacles to improving their automated systems, such as the magnitude of changes in the mission and operations of welfare agencies due to welfare reform, the inherent difficulties associated with successfully managing information technology projects.

Recent research accentuated the (Government Accounting Office, 2000) prevalence of data integration challenges by reemphasizing that some social service agencies operate as a single entity. Therefore, data is gathered and consolidated as pieces of information is received, as well as, different coding or critical identifiers across multiple agencies causes difficulty among caseworkers to access data to interpret the phenomenon of a recipients' lived experiences (DeHart & Shapiro, 2016). Competition with the private sector to recruit and retain information technology staff, and the complexity of obtaining federal funding for systems projects that involve multiple agencies. Therefore, to help improve integrated technology in welfare reform, the federal government could take various actions to help overcome obstacles. These actions consist of providing "more information on best practices for managing information technology and serve a facilitative role, in addition to its regulatory role, in helping states improve automated systems for social programs" (Government Accounting Office, 2000, p. 10). Overcoming self-sufficiency barriers through data sharing requires leveraging data to ensure the socioeconomic benefits and rights of individuals are attained from practical use of integrated systems to help caseworkers with effective decision-making to better assist recipients in mitigating challenges with self-sufficiency.

The above issues result in a lack of data sharing that may impact the assignment of welfare clients to appropriate programs and services. Research from information gathered found that accurate data and the ability to assess data in real time without having to involve a middle person is a necessity for welfare reform processes. Data sharing could increase the likelihood for case managers to ensure clients placement in programs that will provide proper training, rehabilitation, job placement, education assessment more efficiently and to develop a roadmap for welfare recipients to be self-sufficient post-welfare that could lead to positive social change.

The ability to live self-sufficiently is an ongoing challenge for many families. Multiple barriers such as transportation, child care, low pay, lack of education, and others such as disabilities mental health issues, drug, and alcohol are among the barriers that hinder welfare recipients from living self-sufficiency without the government assistance. The above statements are only a few of the issues that need to be analyzed, addressed, and acted upon by policymakers to support families and strategically adopt a plan to aid families in need towards self-sufficiency. A closer look at the lived phenomenon of welfare recipients is needed to determine how integrating welfare systems could help caseworkers anticipate the need for services to address and mitigate barriers impacting recipients' ability to live self-sufficiently.

Methodological Implication

Research findings indicated that Strengths, Weakness, Opportunities, Threats (SWOT) analysis for welfare recipient clients are considered for placement in welfare reform programs using shared data so that caseworkers can make informed decisions. A SWOT analysis would benefit caseworkers by enabling them to understand the strengths, weaknesses, opportunities, and threats for each welfare recipient. This method will show the areas of need for most help from an individual, as well as, a family perspective. Table 6 shows a SWOT analysis of the welfare recipients from this research.

Table 6

SWOT Analysis of Welfare Participants

Strengths	*Weaknesses*	*Opportunities*	*Threats*
• Have a place to live • Willingness, desire, and goals to live better	• No job • 11th-grade education • Transportation • Daycare Issues	• Attend school • Get training through welfare programs	• Daycare cost affordability • Losing welfare benefits • Cannot afford Daycare costs • Unsafe living environment

Note. SWOT analysis to assess the needs of welfare participants and integrate them into an information system data process for tracking and monitoring.

Tangible improvements that are underway is the two-generation approach that allows client representatives to not only work with the welfare recipient but its family members in the household. This approach allows the client representatives to better understand in depth the needs and concerns of all household family members to better assist with placement into programs to help them move from welfare to self-sufficiency. This approach regards counseling with the family members to better ascertain their needs and incorporating data into an integrated welfare system that is available for other caseworkers in other human services agencies to view by abiding by HIPAA and privacy laws.

Findings from this research indicated that data sharing between integrated welfare reform systems is a needed process across human services agencies. Caseworkers need access to view other human service agencies information to analyze and adequately assess the needs of its clients. Data sharing shall leverage self-sufficiency opportunities among welfare recipients on completion of programs that mitigate barriers first. Caseworkers shall track and monitor the progress of the recipients using integrated systems to view data and address the mental, behavioral, educational, and economic stability of clients. Caseworkers shall ensure through data sharing, recipients' readiness to live self-sufficiently. Lack of data sharing may mislead caseworkers to place clients in required programs inaccurately. Positive social change occurs when the caseworker has done its due diligence to make sound decisions using data sharing to successfully assist clients with job placement, transportation, and childcare needs that will enable them to re-enter society free from dependency on government assistance to living in a new phenomenon as self-sufficient contributors in society.

Theoretical Implication

Theoretical concept for this research is if welfare systems were integrated with other human and health service agencies to share data, caseworkers could increase opportunities to help welfare recipients prepare for and become self-sufficient citizens. However, it takes an understanding and insight into the holistic life of the individual's transportation, employment, behavioral, daycare, education, and other barriers to equip them for higher paying jobs that will eventually lead them to sustain self-sufficiency.

Empirical Implications

Findings from the research derived that more consideration is needed to improve welfare reform. The same barriers that have existed for many decades are still the underlying issues hindering recipients from moving out of welfare. Although processes are in place, it is left up to the clients to use the help presented by the caseworkers and motivation to enhance their living situations for their families to become self-sufficient. Research showed there is a need for the DHS to consider developing new or enhance current methods through technological advancements to improve data sharing between welfare systems throughout the State of Tennessee. New enhancements to be incorporated in data sharing processes is the identification, capturing and monitoring of the various barriers encountered by clients. From this research, I have concluded that the Five A's (analyze, address, act, adopt, and aid) are considered to plan for and implement a program that will improve welfare reform technology and its subsidiary systems to develop data sharing processes that will provide functional capability for caseworkers to effectively help recipients' transfer from welfare to self-sufficiency. Taking a broader view on welfare technology regarding data integration across ancillary systems to enhance case management processes and provide stricter monitoring through data sharing is a significant concern to be addressed to move families from poverty to self-sufficiency better. Work is still needed to reduce conditions in impoverished neighborhoods and to view technology as the mechanism to integrate data across various welfare systems to leverage the ability for right decisions to be made regarding the progress and roadmap to lead families on welfare out of poverty.

Conclusions

Data sharing is a major issue within the welfare reform system due to HIPAA laws to protect the identity and privacy of individuals. In this exploratory descriptive phenomenological qualitative study, it was discovered after conducting interviews with welfare recipients, caseworkers, and technical resources in Shelby County Tennessee that the ability to share data with other affiliated human service agencies are needed within its processes. Data sharing will leverage the opportunity to address barriers and lived experiences of clients, to leverage caseworkers' ability to develop a plan of action to help recipients' transition from welfare to work effectively. Using data sharing methods as a decision-making tool shall also help caseworkers accomplish TANF's goal of leading welfare recipients towards self-sufficiency as a measure of success rather than a decrease in welfare caseloads. Data sharing can also be used post-welfare to ensure recipients' stability to live self-sufficiently that will not only change their environment but change the societal view to be contributors making a positive impact in their lives and their communities. DHS should investigate the use of new technologies to integrate welfare systems across multiple human service agencies.

Future research shall entail a study on new technologies that might enable caseworkers to assist clients during and after welfare reform to explore and monitor recipients progress until reaching a level of self-sufficiency. Researchers might consider taking a closer look at current policies to define technology acquisition and adoption of information technology integration with multiple welfare systems to incorporate data sharing techniques within various entities that will bring positive social change to recipients by first placing them in proper programs to mitigate barriers impacting self-sufficiency.

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Appendix A: Contact Summary Form

Contact Summary Form

Post-Research Analysis

Contact Type:	Visit ____	Phone ___	With Whom	____________	
Site:	____________			**Other Location:**	________
Contact Date:	________	**Today's Date:**	________	**Written By:**	________

1. What were the main issues or themes that intrigued or stuck with me in this contact?
2. Summarize the information obtained (or failed to get) on each of the target questions for this contact?

3. Is there anything else that intrigued me as being salient, interesting, illuminating, or important in this contact?
4. What new target questions are derived from this contact to consider with the next contact?
5. What concern or information was captured that will aid in providing the information needed to meet purpose for this research?

Appendix B: List of Acronyms

AFDC.. Aid to Families with Dependent Children

CAA .... Community Action Agency

CAF.. Common Assessment Framework

DHS... Department of Human Services

HIPAA .... Health Insurance Portability and Accountability Act

PRWORA .... Personal Responsibility and Work Opportunity Reconciliation

SACWIS .... Statewide Automated Child Welfare Information Systems

SEEDCO .... Structured Employment Economic Development Corporation

TANF .... Temporary Assistance for Needy Families

TFACTS.. Tennessee Family and Child Tracking System

Appendix C: Document Summary Form

Site: ______________________________		**Document Type:** _______
Date Received or Picked Up: ___________	**Today's Date:** __	**Document Entry By:** _____

Name or description of document:
Event or contact, if any, with which the document is associated:

Significance or importance of document:

Brief summary of contents:
How does this document impact or provide overall value to the analysis and results of this research?

Appendix D: Research Codes List

WELFARE RECIPIENTS VIEWPOINTS	WR-VP
WR: Personal Barriers	WR-PB
WR: Self Sufficiency	WR-SS
WR: Welfare Reform Barriers	WR-WRB
WR: Process	WR-PR
WR: Programs	WR-PG
WR: Self-Sufficiency Readiness	WR-SSR
CASEWORKERS VIEWPOINTS	CW-VP
CW: Client/Relationship Barriers	CW-CRB
CW: Workload Barriers	CW-WB
CW: Welfare Reform Processes	CW-WRP
CW: Implied Changes–Welfare Reform Process	CW-ICWRP
CW: Welfare Recipients & Self-Sufficiency	CW-WRSS
CW: Track and Monitor Welfare Self-Sufficiency	CW-TMSS
CW: Implied Changes–Welfare Recipient Readiness	CW-ICSSR
CW: Adequate Experience, Skills, & Tools	CW-EST
CW: Computer Equipment and Information Technology	CW-CEIT
CW: Acquiring External Agencies Information	CW-EAI
INFORMATION TECHNOLOGY PROCESS	IT-PR
IT: Welfare Reform System Integration Processes	IT-WFSP

IT: Information Technology Program Assessment	IT-ITPA
IT: Integration with External Social Agencies	IT-IESA
IT: Welfare Reform Software Applications	IT-WRSA
IT: Data Retrieval from Ancillary Systems	IT-DRAS
IT: Data Retrieval from Other States	IT: DROS
IT: Technology Leveraging Self-Sufficiency	IT: TLSS

Note. The above list is welfare research codes that were created for usage to code information received from conducting interviews.

Appendix E: Research Criteria and Prequalifying Interview Questions

Welfare Recipients Research Criteria

The below questions will be used as the bases to determine if welfare recipients meet requirements to participate in the research. The following identification code will be used to identify the participant: FIL4LNRGARS#. An example will be: VNichBlkF48_001. This identification code indicates first initial, last four letters of last name, black female, and age 48_research subject #1. The legend is: FI = first initial; L4LN = Last 4 initials of last name; R= race; G=gender; A=age, RS#=Research Study #. The following criteria must be met to consider welfare recipients for research:

- Age: 18 or older years.
- Education: Any.
- Years on Welfare: 3 years (Existing Welfare Recipients).
- Income Level: Unemployed - $25,000 (Existing Welfare Recipients).
- Family Size: 2 or more persons.
- Language: Fluent in English.
- Disability: None.

Welfare Recipients Prequalifying Questions

To participate in the research, there are certain requirements that shall be met. Do you have 5 minutes to answer a few questions to determine your eligibility to participate in the research?

1. Are you currently receiving welfare government assistance?
2. What is your first initial and last name?
3. What is your age?
4. What is the highest education level you have completed?
5. How much income does your family make each year?
6. How long have you been on welfare?
7. What is your family household size?
8. Do you have Internet access?
9. Do you have a Skype, Facebook or Twitter account?
10. Do you have an e-mail account?
11. Face-to-face is the preferred method for conducting the research interview. Will you be able to meet face-to-face? Will you be willing to openly speak to respond to interview question on the record confidentially?

Interview Questions for Existing Welfare Recipients

1. Do you have prior work experience? If so, what positions have you held?
2. How long have you been unemployed?

3. Are you currently in school or studying a trade? If so what school/trade are you enrolled in?
4. What circumstances caused you to be on welfare?
5. What has your lived-experience been like about becoming self-sufficient?
6. What kind of welfare programs do you participate in?
7. Are there any barriers preventing you from leaving welfare, if so what are they?
8. Are there barriers preventing you from seeking employment, if so what are they?
9. What are your thoughts about living self-sufficiently (on your own without government assistance)?
10. How has or does the welfare process help you become self-sufficient?
11. What are some of the barriers you encounter at home that may prevent you from taking care of your family on your own?
12. What kind of assistance do you feel is needed for your caseworkers (or the welfare system, generally) to help you overcome the barriers you mentioned?
13. What steps do you feel are needed to help you get off welfare and live self-sufficiently?
14. What are your experiences regarding the Work First Program?
15. Are there any changes in the welfare process or programs that you would like to see done differently to prepare you to live on your own?

16. What would you like to see done differently to help and prepare you to take care of your family?
17. What situations have typically influenced or affected your experiences as a welfare recipient to someday live self-sufficiently?

Follow-Up Interview Questions for Existing Welfare Recipients

1. Do you have access to a computer to participate in online welfare programs and job training courses?
2. What kind of job skills are you most interested in learning and why? Are they available to you?
3. What have you experience in getting the job skills you need to help get employment while on welfare?
4. What programs are you currently participating in to help with your readiness to find employment?
5. What are your views regarding your readiness to seek employment and earn wages that will help you live self-sufficiently?
6. Do you have any fears about living self-sufficiently after the time limits on your welfare ends or when you find employment? If so, what are they and why?
7. Are your caseworkers actively involved with helping you with job search and job skill readiness? Why or Why not?

8. How often does your caseworkers follow-up with you on your progress while participating in work programs, job placements or other areas to enhance your readiness to someday transition from welfare to living self-sufficiently?
9. What are some things you would like your caseworkers to do differently to better prepare you for self-sufficiency post-welfare reform?
10. Have you been offered any assistance through the welfare program on resume writing?
11. Have you had training through any of the welfare programs on job interviewing techniques or shown how to interview for a job?

Caseworkers Research Criteria

- Two or more years as a Human Services Case Worker,
- Ability to provide both practical (day-to-day tasks) and technological insight to welfare reform, processes, and programs.
- Ability to offer throughout the duration of the research, a minimum of two hours for interviewing, and explaining processes and programs.

Caseworkers Prequalifying Questions

1. What is your first initial and last name?
2. Do you have two or more years working as a Human Services Case Worker with Tennessee Shelby County Human Services Department?
3. Do you have practical and technological experiences or knowledge of the welfare reform TANF system?

4. Do you have at least 2 hours that you give towards research?

Research Questions for Caseworkers

1. Tell me about your experience as caseworkers and why you chose this career path?
2. How does your job promote or impact the ability for welfare recipients to live self-sufficiently?
3. What processes and programs best meet the needs of welfare recipient's readiness to live self-sufficiently and why?
4. What programs do not meet the needs of welfare recipient's readiness to live self-sufficiently?
5. If you could change the welfare reform policy as it relates to leveraging the ability for welfare recipients to live self-sufficiently, what changes would you make?
6. Are there any welfare reform policies that may put stringent limitations on welfare recipients that will impact their ability to become welfare leavers and live self-sufficiently?
7. What welfare reform policies put stringent limitations for welfare recipients who are welfare leaver's post-welfare reform?
8. How does information technology impact your ability to provide the proper assessment for welfare recipient's assignment of programs and processes to help recipients reach self-sufficiency?

9. What kind of client/caseworker relationship do you have with the welfare recipients?
10. How do you track and monitor the progress of welfare recipients to ensure their readiness to acquire jobs, education, training, and other means to aid them for self-sufficiency?
11. How does acquiring existing information from other resources impact your job as a case worker to have required data to assist welfare recipients (i.e., data sharing, reporting, organization system process etc.)?
12. What is the level of difficulty, if any, to obtain information on welfare recipients from other States?
13. How do you collaborate or communicate with other social service agencies within Shelby County Tennessee to obtain additional information on welfare recipients?
14. What automated processes are available to caseworkers and how are they used to carry out welfare reform tasks?
15. What methods or processes are used to make decisions regarding the path welfare recipients should take during welfare reform processes?
16. Are these decisions making techniques automated?

Follow-Up Research Questions for Caseworkers

1. What do you enjoy most about your job as a case worker?
2. What do you like least about your job as a case worker?

3. What would you do differently as a case worker to ensure welfare recipients readiness to live self-sufficiently?
4. How many caseloads are currently assigned to you?
5. How does the number of caseloads impact your ability to focus on the progress of the welfare recipient's preparation for self-sufficient living in addition to your day-to-day tasks?
6. Tell me your thoughts about the work-first program?
7. Please describe the information services available to you to help your clients attain self-sufficiency.
8. Can you share the effectiveness, as well as ineffective aspects of the Work First program as it relates to aiding welfare recipients?
9. What barriers do you encounter with the existing information technology system?
10. What barriers do you encounter with the existing welfare reform processes?
11. What barriers do you encounter with the existing welfare programs?
12. Have there been moments you believed you failed welfare recipients by not providing them the proper tools to help them leave the welfare system? Why?

Information Technology Personnel Research Criteria

- Three or more years experiences working with welfare reform technology systems.

- Ability to provide walkthrough and overview of the various welfare TANF systems and other ancillary applications.
- Available to provide at minimum two hours towards the research.

Information Technology Personnel Prequalifying Questions

1. How many years of experience do you have in welfare information technology systems?
2. Are you available to provide at least two hours of your time towards the research?

Research Questions for Information Technology Personnel

1. Please describe your lived experience as an information technology leader on welfare reform technology system.
2. Please provide an overview of your current welfare reform system.
3. What are the names and functions of the applications that are directly associated with welfare reform processes and services?
4. How can information technology be used to improve the existing welfare reform processes to help recipients overcome barriers to live self-sufficiently?
5. How many application and systems are integrated from an IT perspective with the aim of helping recipients achieve self-sufficiency and the skills to do so?
6. How can welfare information technology systems improve the effectiveness of integrated processes to aid welfare recipients towards self-sufficient living?

7. How can we use information technology as a mechanism to monitor and track the progress of welfare recipients during their tenure on welfare and post-welfare until the level of self-sufficiency has been obtained?
8. How reliable is the welfare reform information technology systems to effectively help recipients overcome barriers and prepare welfare recipients to live self-sufficiently through the processes and programs of which they participate in?
9. What do you foresee as being a major concern with information technology and its ability towards a robust welfare reform system?
10. What are other possibilities that can be used in information technology to leverage the chance for caseworkers to assist welfare recipients in identifying their barriers and their quest towards and living self-sufficiently post-welfare reform?

Follow-Up Research Questions for Information Technology Personnel

1. How long has it been since the welfare reform information systems was enhanced or replaced?
2. What are the pros and cons of the applications, processes, programs, and systems that are used by the caseworkers?
3. What new applications are planned to better assess recipient's readiness for self-sufficiency? Is there any attempt to consolidate resources to help recipients achieve self-sufficiency and have a portal for their use?

4. What new processes, tools, applications, or procedures would you mostly consider incorporating in the existing welfare reform systems to help recipients get better served?
5. What processes, applications, or systems would you consider removing from the existing welfare reform systems that interfere with client services?
6. What are some known gaps in the welfare technology process and integrated systems?
7. What mitigation techniques are currently in place to close the gaps?
8. How is data retrieved internally across the multiple systems to determine client's readiness towards self-sufficiency?
9. How is data retrieved externally across other social services agencies both local and within other States?
10. What information technology tools are in place within the welfare reform systems that would help improve the effectiveness of welfare recipients to complete required programs, job training, vocational training, and education leveraging to monitor or measure if TANF's goals to transition individuals from welfare to self-sufficiency are accomplished?
11. What elements within the technological aspects of welfare reform are missing that may increase the probability for administrators, caseworkers, and welfare recipients to meet the goal of PRWORA 1996 to get families out of poverty?
12. Do welfare recipients have online capability to report directly to his/her caseworkers via mobile technology or computer regarding changes within

their job, family, income, education, or other status? If not, why? If so, what are those online capabilities?

13. How is collaboration with other agencies during daily operations to share or obtain data in real-time for caseworkers to properly assess the needs of welfare recipients and assign them to appropriate programs?
14. In your own words, how can information technology be used to leverage welfare reform processes, to track, monitor, report, and share data across integrated systems and platforms to provide recipients assistance in seeking self-sufficiency?