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Retaining Foster Parents in San Bernardino County: Identifying and Accessing Resources and Support Services Since California's Continuum of Care Reform

Charles A. Varadin
Claremont Graduate University

RETAINING FOSTER PARENTS IN SAN BERNARDINO COUNTY: IDENTIFYING AND ACCESSING RESOURCES AND SUPPORT SERVICES SINCE CALIFORNIA'S CONTINUUM OF CARE REFORM

by

CHARLES A. VARADIN

Claremont Graduate University

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APPROVAL OF THE REVIEW COMMITTEE

This dissertation has been duly read, reviewed, and critiqued by the Committee listed below, which hereby approves the manuscript of Charles A. Varadin as fulfilling the scope and quality requirements for meriting the degree of PhD in Political Science.

Jean Schroedel, Ph.D. Chair
Claremont Graduate University
Professor Emerita of Political Science

Heather Campbell, Ph.D.
Claremont Graduate University
Professor, Department of Politics & Government
Chair, Division of Politics & Economics
Field Chair, Public Policy

Brian Hilton, Ph.D.
Claremont Graduate University
Clinical Full Professor

ABSTRACT

RETAINING FOSTER PARENTS IN SAN BERNARDINO COUNTY: IDENTIFYING AND ACCESSING RESOURCES AND SUPPORT SERVICES SINCE CALIFORNIA'S CONTINUUM OF CARE REFORM

by Charles A. Varadin
Claremont Graduate University: 2022

Foster care is a vast social justice issue that impacts nearly every local community. Yet, it receives relatively little attention due, in part, to the low social constructs of many of the most affected groups (Schneider and Ingram 1997). Thus, it should come as no surprise that foster care and the child welfare system in California, and the United States in general, is in a crisis as more children enter the system than there are foster parents to care for them.

Retention of quality foster parents reduces the need for recruitment and increases the likelihood of more stable placements with experienced foster parents, leading to better outcomes for children in foster care. Thus, it seems incumbent upon policymakers, practitioners, support professionals, researchers, and the like to help provide resources and support services that are needed, accessible, and effective; and essentially help reduce the cost that foster parents pay for their "community altruism."

Accordingly, this research project fields survey data of foster parents licensed in San Bernardino County to identify sentiment among current foster parents of the barriers associated with their retention as foster parents, and to explore whether these perceptions change depending on whether they are relative or non-relative foster parents. The analysis then turns and uses

logistic regression of the survey data to determine what resources and support services that best predict being satisfied and the retention of foster parents and whether these results change depending on the foster parent group (relative or non-relative). Finally, an exploratory spatial analysis uses a key support to determine if the results justify further investigation into the potential need for a more robust spatial decision-making process for social services associated with foster care.

Access to their social workers is identified as a key support for both relative and non-relative foster parents and the one policymakers and practitioners have the most direct agency in leveraging. Mental health services are the most significant resource in the formal support category. Healthcare and social supports from other foster families and spouses/partners are more moderate in their significance but could benefit from further research. The results also indicate that significant differences exist between the relative and non-relative foster parent groups and justify developing different resource and support models for each. In exploratory analysis, a net-promoter score (NPS) tool was tested and found to provide a parsimonious metric that predicts both being satisfied and a desire to continue fostering. While more research is needed to confirm these results, the NPS tool could enable practitioners to use this "one-question" survey to obtain foster parent feedback on resources and support services quickly and more frequently, thereby enabling policymakers and practitioners to be more agile and responsive to the needs of foster parents. This would give foster parents a greater voice into the resources that best support their changing needs and circumstances. Finally, including spatial utility and spatial policy considerations may be an area of untapped potential for improving resource allocation, distribution, and utilization of foster parents.

DEDICATION

To Donna, Sophia, and Sarah whose love, support, and sacrifice are beyond words. God brought our crazy family together as only He could. I also dedicate this to all those who sacrifice so much to help care for the children and families from hard places. I pray that you continue to persevere and never lose hope, knowing that you are not alone.

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CHAPTER 1

INTRODUCTION: WHY THIS RESEARCH MATTERS

INTRODUCTION

Foster care is a vast social justice issue in many local communities. It often feeds many other societal concerns since the foster-care experience has been shown to significantly increase a child's likelihood of experiencing poverty, homelessness, mental health issues, drug addiction, human trafficking, prison, and having their own children taken into the foster care system (AFCARS 2014). Yet it receives relatively little attention due, in part, to the low social constructions of many of the most affected groups (Schneider and Ingram 1997). Thus, it should come as no surprise that foster care and the child welfare system in California, and the United States in general, is in a crisis—a "resource family"[1] crisis—as the number of children going into foster care is increasing at an increasing rate while the number of resource families is decreasing (Chronicle of Social Change 2017).

In response to the growing foster care crisis, many states have started drafting and implementing legislation that tries to improve the recruitment and retention of foster parents. California signed AB 403, the Continuum of Care Reform (CCR), into law in 2015. CCR's vision is to get more children into good families and out of congregant care facilities (formerly known as group homes), requiring more good foster parents to care for these children.

[1] "Resource Family" is a new term that refers to both non-relative caregivers and relative caregivers (formerly known as kinship families) in the state of California. The state's CCR legislation coined the term via its new requirement for both types of families to have the same licensing requirements (known as Resource Family Approval or RFA). The term foster parents and resource parents are used interchangeably throughout this dissertation and both refer to relative and non-relative foster parents, unless otherwise noted.

"Recruitment is a costly, time-consuming activity" that often fails to meet the demand for quality foster homes (Rhodes et al. 2001; Rodwell & Biggerstaff 1993; CDSS 2010; LAC 2017). Retention of quality foster families reduces the need for recruitment and increases the likelihood of more stable placements with experienced resource families (Rhodes et al. 2001; Pasztor and Wynne 1995). Thus, given the state of limited resources, retention of families going through the licensing process as well as those who are licensed would seem to be the most productive area of focus, which is why this research project focuses on resources and support services associated with retaining foster parents.

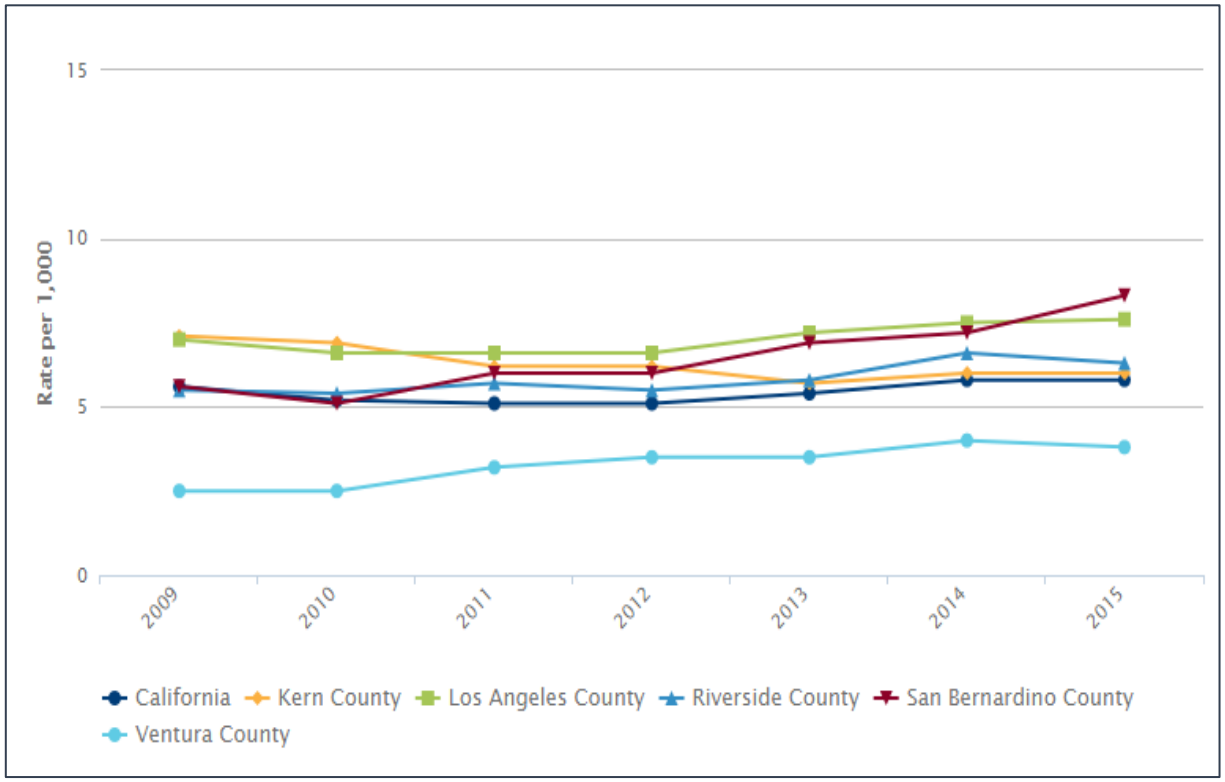
Moreover, DeGarmo (2017) says, "In order for a child in need to find a loving, safe, and stable home, foster parents need to find the emotional, educational, physical, and financial support they need… If not, both the child in foster care and the foster parent will suffer." Many foster parents in California are assumed to be quitting due to a lack of training, information, support and resources, such as trauma-informed childcare and mental health services for children from hard places, leading to further legislative measures associated with the Continuum of Care Reform act like the Emergency Childcare Bridge Program (CDSS 2017) and the Emergency Caregiver Funding bill (AB 1811). Multiple San Bernardino County (SBC) social workers and some supervisors (who wished to remain anonymous) have asserted that access to support resources often means the difference between keeping a child in a good home and a child returning to the system. Moreover, on a recent conference call (July 2018) a practitioner for the Continuum of Care Reform Act for California's Child and Protective Services, highlighted some of these issues with accessing needed services when she said in response to a question about obtaining mental health services, "…resource parents need to use the right verbiage to access services for behavioral issues in the home." For example, to access Therapeutic Behavioral

Services[2] (commonly referred to as TBS) the supervisor said that parents have to "ask specifically for TBS" and note that they want someone to "observe the child's behavior." Resource families cannot simply say that the child is expressing extreme behavior (e.g., climbing onto the roof, putting holes in walls, hitting siblings, etc.). To access services, foster parents need to know the name of the service, the provider, and the right verbiage to use when asking for help. Access, then, relies, in part, on personal characteristics like socioeconomic status, race, and other variables that impact the flow of information—in addition to geospatial characteristics, which are explored and discussed in Chapter 6 of this dissertation.

Four counties in Southern California comprise over 10% of the nation's foster youth, and of those counties San Bernardino County is experiencing the highest rate of increase of foster children in out-of-home care (see Figure 1). Not only do 10% of the nation's foster youth reside within four Southern California counties, but out of all US counties San Bernardino County has one of the highest rates of out-of-home care, with over 5,700 children in its foster care system. This does not include many of Los Angeles County's 18,000 foster children (35,000 total in L.A. County's child welfare system) that end up in many San Bernardino County foster parent homes because Los Angeles County cannot possibly meet the demand for resource families on its own. San Bernardino County has more foster children than almost half the *states* in the US (26 states including Virginia, Louisiana, and Alabama), thereby further justifying an analysis at the county and sub-county level. Therefore, this paper focuses on foster parents in San Bernardino County.

[2] "Therapeutic Behavioral Services (TBS) is an intensive one-to-one, short-term outpatient treatment intervention for children and youth with serious emotional problems or mental illness who are experiencing a stressful transition or life crisis and need additional short-term specific support services." (This was taken from San Bernardino County's CPS website: http://wp.sbcounty.gov/dbh/mental-health-services/children-youth/cycs/tbs/).

Figure 1: Children in Foster Care*: 2009 to 2015 rate per 1,000 children in out-of-home care**



* Definition: Number of children and youth under age 21 in foster care per 1,000 on July 1 of each year (e.g., 5.8 per 1,000 California children/youth were in foster care on July 1, 2015).
** Data Source: As cited on kidsdata.org, Webster, D. et al. Child Welfare Services Reports for California, U.C. Berkeley Center for Social Services Research (Jun. 2016).

Finally, issues surrounding foster care and child welfare, in general, involve inherently geospatial elements. Casey (2016) implies that recruitment and retention strategies should differ by geographic location due, in part, to geographic clustering by differences in culture, socio-economic concerns, and family characteristics. Moreover, the research shows that children are more likely to reunify when they are placed in homes that are geographically closer to their biological family (Davis et al. 1996). While safety is the top priority of the courts, they initially seek to reunify children with their biological family. Research shows children have fewer attachment issues or adverse outcomes when they can remain with their biological parents or a

friend of the family, barring the more extreme cases[3] (Doyle 2007). When children are removed from the home, research suggests that children incur less emotional trauma when environmental changes are limited—e.g., they stay in the same school, neighborhood, ethnic community, and proximity to biological family members. Therefore, issues involving foster care have an inherent geospatial element, making an exploratory geospatial analysis a key piece of this research project.

Prior studies have linked a host of factors to foster family retention. These variables include but are not limited to: age, race, gender, income level, the individual child's behaviors, agency support, agency accessibility, emotional support, training, social service supports, bureaucratic red tape, etc. Eaton and Caltabiano (2009) provide the most clarity via a model with four categories (Locus of Control, support, satisfaction, and commitment). But questions remain about what variables to include for each category, especially when it comes to resources and support services. Moreover, the lack of generalizability due to regional focuses of past research has also limited agreement on key variables. Understandably, foster parent retention is a complex issue and many of these studies have failed to come to a consensus on the strongest contributing variables. The research presented in this paper will focus specifically on the resources and support services for foster parents.

While prior studies have provided useful information about foster parent satisfaction and retention, they have missed some crucial questions: Given that relative foster parents (a.k.a. kinship foster families) make up almost half of all resource families, do these previous findings apply to relative foster parents or primarily non-relative foster caregivers? Moreover, while

[3] For research on the adverse effects of foster care versus in-home care see Doyle 2007; Doyle 2008; Vanderfaeillie et al. 2013; Lindquist and Santavirta 2014; and NCCPR 2015)

many studies have looked at what foster parents need for retention, they have failed to look at whether support resources are accessible to those in need. They have also left gaps in analyzing the equitable distribution and utilization of support resources, which the Continuum of Care Reform seeks, in part, to encourage as part of an overall effort to provide good homes to children from hard places who are in the foster care system.

Thus, analyzing the factors of foster parent retention by identifying its causes and correlations is not enough to improve retention. Assessing the access, placement and adequacy of resources and support services that foster parents identify as critical to their satisfaction and desire to continue fostering is needed and should be a public policy priority.

The research presented here brings the above issues and arguments together into a dissertation with the following research questions:

1. *Identifying current barriers:* In San Bernardino County, why do some foster parents intend to continue while others do not? What are the perceptions among current foster parents of the prevailing barriers associated with their satisfaction and desire to continue fostering (retention) in San Bernardino County? Do these barriers vary according to whether they are relative versus non-relative foster parents and does geographic location matter?
2. *Resource and support models for predicting satisfaction and retention*: What resources and support services (identified by foster parents) best predict their being satisfied and their wanting to continue fostering? Do the regression analysis results generalize across foster parent groups or do they change depending on the foster parent group being analyzed (i.e., whether it is relative or non-relative foster parents)?

    a. Can a more parsimonious survey and research design provide similar explanatory powers? Can a net promoter scale (NPS) tool be used to predict foster parent satisfaction and retention? Does a NPS tool operationalize satisfaction as well as prior psychology-based scales? Does a NPS tool provide a valid substitute for satisfaction in predicting foster parent retention? And do these results vary by foster parent group?

3. *Exploratory spatial analysis: Analyzing accessibility:* Does an initial exploratory spatial analysis using a key support variable identified by foster parents (from the survey results) justify further investigation into the effects of spatial variables and questions of where when analyzing resources and support services for foster parents? Do these exploratory results point to the need for a spatial decision-making process for social services associated with foster care that considers spatial utility of targeted stakeholders?
    a. Note that this exploratory analysis relies on the assumption of spatial welfare theory that says the closer a person is to a social service, the more likely they are to use it.

The analysis fields a survey and then uses logistic regressions of the survey responses to determine statistical significance of the resources and support services that best predict being satisfied and retention of foster parents. The models are run for the combined parent group (i.e., combining relative and non-relative foster parents) and then rerun separately for relative and non-relative foster parents to determine the generalizability of the models and their predictive power across these key parent groups.

In the third substantive area, a geospatial analysis is conducted to identify if an

association is seen between foster parent locations and the location(s) of support services that foster parents identify as critical to their satisfaction and retention. Ideally, the spatial variable would be a significant predictor of being satisfied and their desire to continue fostering as well as being generalizable across foster parent groups. Access will be defined initially as the ease with which foster parents of a given area can utilize services and resources at a location (Heckwo, 2002) and characterized as a combination of distances and levels of supply and demand as compared to a supply location facility. Weber and Kwan (2003) contend that access should be analyzed based on individual travel characteristics. For the topic of foster care, however, most support resources are based on either a family's home or a professional treatment facility. Thus, using the distances from home locations along with the catchment method for assessing geospatial access appears justified in this circumstance.

The target populations for this project consist of non-relative and relative foster parents. Most research does not segment these two foster parent groups in the research design and tends to focus on non-relative foster families. However, since California treats them similarly in that they both face the same licensing requirements (known as Resource Family Approval or RFA), the two parent groups are compared together and separately for the first two research questions. Therefore, combining these two parent groups under the same research umbrella allows for some intentional direct comparisons that will help identify statically significant overlaps and differences, thereby filling in some gaps in the literature. It should be noted for context that the courts still view the two foster parent groups differently by giving preference to relative foster families due to their biological and psychological ties to the children in the care of Child and Family Services (CFS).

In summary, this research project aims to increase the understanding of the barriers

facing foster parents in San Bernardino County and help improve the effective utilization[4] of resources and support services for foster parents. The analysis combines survey methods and regression results with spatial analytics to look at satisfaction and retention (desire to continue fostering) of foster parents and provides insights for future policy decisions of policymakers, practitioners, and researchers. The policy implications for supporting foster parents and the downstream impacts are significant not only for retaining foster parents but also for recruiting new foster parents, minimizing movements of foster youth, improving resource allocation, and improving outcomes for children in the foster care system.

THE LAW: CONTINUUM OF CARE REFORM (CCR)

In 2015, when California passed AB 403, also known as California's Continuum of Care Reform (CCR), it aimed to "comprehensively reform placement and treatment options for youth in foster care" (CDSS 2018). It is often seen as an overhaul of California's child welfare system. CCR combines numerous reforms (listed below) to California's child welfare system and relies on the "understanding that children who must live apart from their biological parents do best when they are cared for in committed nurturing family homes" (ibid.). CCR attempts to limit the use of congregate care homes (formerly known as "group homes") to short-term interventions and to ensure that the "services and supports provided to the child and their family" focus on "maintaining a stable permanent family" whether relative or non-relative (ibid; CalSWEC 2018). The reforms rely on two additional fundamental principles: first, that children should be able to

[4] Rossi et al. (2004, Ch. 6) define service utilization by "coverage" and "bias." Coverage is defined as the degree that target population(s) use services at levels specified by design. They define bias as the proportions of participation by different subpopulation(s). For example, Rossi et al. note that the location of offices and/or services can create accessibility issues and result in service utilization bias.

receive “services including behavioral and mental health in a home setting” without having to change placements, and second, “agencies serving children and youth including child welfare, probation, mental health, education, and other community service providers need to collaborate effectively to surround the child and family with needed services, resources, and supports, rather than requiring a child, youth, and caregivers to navigate multiple service providers” (CalSWEC 2018).

The Continuum of Care Reform essentially combines the following reforms (taken from CalSWEC 2018):

Approved Relative Caregivers Program (ARC)

This is a program where counties support relative caregivers with a payment equal to the basic foster care rate.

Resource Family Approval (RFA) Program

This is a 12-county pilot program that provided upfront training and assessment of families seeking to parent children in foster care, and then expanded statewide in 2017.

Child and Family Teaming

This is an effective approach to coordinated care and case planning for all children and youth in the child welfare system.

Pathways to Mental Health

This is intended to improve the coordination between child welfare and mental health systems so that children in foster care receive timely and effective individualized mental health services.

Quality Parenting Initiative

This is intended to create new strategies and practices within child welfare for the

recruitment and retention of quality caregivers and support biological parents with reunification efforts.

Residentially Based Services Reform (RBS)

This four-county demonstration project begun in 2008 tested a short-term residential program model with ongoing community-based services and support and serves as the foundation for STRTP (Short-Term Residential Therapeutic Program), which is a new concept that congregate care facilities (formerly known as group homes) are enacting.

The thrust of CCR took effect in January 2017, with implementation involving county deadlines for updating currently licensed homes to RFA standards. CCR has increased the demand for foster parents due to its emphasis on decreasing the number of group homes in favor of congregate care facilities. It has also increased the need for support services for foster parents since most of the children in these group homes are hard to place due to behavioral and physical issues. However, since CCR's implementation began, county Child and Family Services struggled to license foster parents, causing relative foster parents to not receive stipends for months and non-relative foster parents to endure even longer processing periods. These wait times tended to increase as CCR required counties to update currently licensed foster homes to the RFA license requirement. These bottlenecks have also led many foster parents, up to 50%, to quit the licensing process and never actually become licensed as resource parents. Thus, additional legislation is being proposed to help make CCR's vision a reality—legislation such as grandfathering-in currently licensed foster homes (SB 1083) and offering immediate access to resources for relative caregivers (AB 1181), formerly known as kinship families.

Research for CCR began in 2011 and has led to the passage and implementation of related legislation. For example, California SB 238 (2016) "mandates that the state develop

curriculum to train professionals involved with the oversight of children in foster care (e.g., foster parents, relative caregivers, group home staff, social workers, juvenile court judges, attorneys, and foster care public health nurses) on the authorization, uses, risks, benefits, oversight, and monitoring of psychotropic medications and mental health treatments" (Park et al. 2017). This is because children from hard places have much higher rates of post-traumatic stress disorder (PTSD) and other serious mental health issues than similar medically enrolled children—30-43% compared to 4-10%, respectively (ibid., p. 2). This further supports the assumption that mental health services and resources are a major area of need for families.

Finally, CCR also led California legislators to pass SB 89, the Emergency Childcare Bridge Program (Bridge Program), in 2017 to provide immediate childcare support for families accepting emergency placements. Families often cannot accept placement of children due to limitations in accessing childcare (CDSS 2017). This is further complicated by a lack of resources to find childcare facilities that have workers trained in trauma-informed care. The Bridge Program aims to facilitate these support mechanisms for resource families so they can accept and continue to care for foster children.

While these regulatory efforts go a long way to supporting foster parents and provide more forms of formal support, they miss a key piece—the connection of the foster parent with the agency social worker—which is often the first step in accessing many of these resources. Foster parents often do not know about various services and do not have the time to research them, as they not only care for one or more children but also navigate the logistics of biological family visits, required medical appointments, school requirements, etc. Thus, the social worker becomes the key connector and agent to reducing information asymmetry.

The next chapter reviews the literature surrounding the research question topics outlined above. The literature informs the research design by helping define the variables and survey scales to use as well as identifying potential methods and gaps that need filling.

CHAPTER 2: LITERATURE REVIEW

INTRODUCTION

The literature is helpful for developing a research design that identifies barriers and analyzes resource and support models for predicting being satisfied and a desire to continue fostering (i.e., retention). But an initial review of the literature indicates that these topics tend to lack consistency in the results, the variables to use, and the process for operationalizing those variables. Many psychologists and sociologists have studied satisfaction and retention of foster parents in numerous geographic locations and at various levels (national, state, etc.). But very little research has looked at these topics through a political, economic, or spatial lens. Being satisfied and wanting to continue fostering have behavioral elements implied in their concepts that open the phenomena up to incorporating concepts from political economy, where the concepts of efficiency and the net promoter score (NPS) tool might help to guide research questions and develop more efficient and effective models. Moreover, the spatial tendency of each study is to start by defining the geographic area that they are analyzing. Yet very few studies initially incorporate spatial considerations in their research designs and even fewer talk about them in their results. The research reviewed below informs the research design for each of the three research questions, in order to analyze barriers and access to resources and support services and help address some of the gaps previously mentioned.

FOSTER PARENT SATISFACTION AND RETENTION

A review of the literature indicates that most of the early research focuses on retaining foster parents and on comparing current and former foster parents (Pasztor & Wynee, 1995;

Denby & Rindfleisch, 1996; Rindfleisch et al., 1998; and Rhodes et al. 2001). This changed slightly in the late 1990s when Denby et al. (1999) started to look at foster parent satisfaction. The most recent literature is now starting to combine these two areas, looking at models that include satisfaction as key to retention while comparing current and former foster parents (Cleary et al. 2018). While Eaton and Caltabiano (2009) provided a basic model (see Figure 2) with overarching categories, questions remain as to what variables are most critical to include in each of those categories and how best to operationalize those variables.

Figure 2: Eaton and Caltabiano's (2009) model for predicting foster parent satisfaction and retention

Looking first at the initial literature that compared current and former foster parents, Pasztor and Wynee (1995) provide a general historical overview of foster care, in general, along with the development of recruitment and retention efforts in the United States. They were the first to really highlight Casiles's (1990) study of a St. Paul, Minnesota program that noted satisfaction is key to retaining foster parents. Denby and Rindfleisch (1996) compare African-American and European-American foster parents and determine that while African-Americans might be harder to recruit (presumably due to mistrust of the system due to racial disparities), they are less likely to quit fostering than their European-American counterparts.

Rhodes et al. (2001) provide the most relevant article of the initial literature, summarizing the research through the late 1990s on retaining foster parents. Rhodes et al. (2001)

use national survey data from the Department of Health and Human Services (the Children, Youth, and Families National Survey of Current and Former Foster Parents, 1989-1993) and examines why some foster parents continue to foster while others decide to stop fostering. Rhodes, et al. (2001) look at five main categories: demographics, reasons for quitting, licensure, information and training, as well as services needed, services received, and services needed but not received. Their results were mixed and somewhat inconclusive. But overall, they found that foster parents stop fostering due to a lack of agency support, difficult behaviors of children in their care, and poor access and communication with social workers.

Rhodes et al. (2001) also compare three foster parent groups: current foster parents, those about to quit fostering, and those who already quit. Their results showed limited statistically significant differences between these three groups, which could be due to their national-level perspective that over generalizes across spatial economic differences at state, county, and census tract levels without measuring and analyzing these spatial-economic differences.

The proposed analysis for this study aims, in part, to see if the findings of Rhodes et al. (2001) are supported when the data is disaggregated both socially and spatially at the local level, and then complemented with more current data that includes both relative and non-relative foster parents in the research design. That is, prior research may have aggregated away many of the significant differences among foster parents at different stages of the foster care process. The research questions in this analysis aim to help explain some these inconsistent results like those found in Rhodes et al.'s (2001) study and to reveal the reason for their lack of significance. Thus, the Rhodes et al. (2001) analysis will help serve as a basis of comparison for the proposed barrier analysis.

In the late 1990s and early 2000s, research shifted to using regional survey data to analyze satisfaction among foster parents. The seminal work of Denby et al. (1999) found that satisfaction is statistically significant in predicting foster parent retention. Denby et al. (1999) shows that the key predictors of the satisfaction for non-relative foster parents in the state of Ohio are the following: the felt approval of social workers by the foster parent, accessing information from social workers when needed, and a desire to take in children in need of a loving family. Denby et al. (1999) also looks at intent to continue fostering and found that the felt ability to access a child's social worker when necessary, social support of other foster parents, and satisfaction with their fostering experience are key predictors for non-relative foster parents. Therefore, the support of social workers appears as potential key predictors for both satisfaction and retention. But it is unclear whether their findings generalize across other foster parent groups in areas outside of Ohio, since their results like many others almost exclusively reflect the opinion of non-relative foster parents (more than 93% of their respondents were non-relative foster parents).

Sinclair et al. (2004) provide the most comprehensive study on retention of foster parents. In their book *Foster Carers: Why They Stay and Why They Leave*, Sinclair et at. (2004) focus on resources and support services identified by "traditional"[5] non-relative foster parents in the United Kingdom (UK) and "confirmed the role that the provision of support plays in the retention of foster carers."[6] While they focus on the impact of formal supports for foster parents, Sinclair et al. also identify a distinction between formal and informal types of resources and

[5] Sinclair et al. (2004) defined "traditional foster families" as mainly white families with stay-at-home moms.

[6] They looked at three dependent variables, namely, retention, strain, and family fit.

support services. They define formal supports as things like training, services, financial reimbursements, as well as social worker support, whereas informal supports are things like social support of an immediate family member, relatives, friends, and neighbors. They found that the perceived value of a social worker's formal support increases with the frequency of "visits" (phone calls were perceived as "visits"), which would equate to increased access and connection. Sinclair et al. (2004) did not give informal supports significant focus because they saw policymakers as having limited leverage over informal supports, as they defined it in their study. For example, they noted that "social workers cannot provide supportive family members." But they believed informal supports impact outcomes and need to be included when analyzing foster parent supports. Sinclair et al. (2004) concludes that foster parents are the "linchpin of the system" and "provide an outstanding example of community altruism." Sinclair et al. argues, "Providing better support improves the attractiveness of fostering and aids recruitment and retention."

Sinclair et al.'s work helps clarify the understanding of formal and informal support mechanisms and identifies social workers as key resource to be considered. But their findings primarily reflect the views of non-relative foster parents who tend to have more personal resources than relative foster parents. As a result, non-relative foster parents have greater ability to circumvent barriers and access necessary supports, especially given their significant social networks, which are likely to be more influential than the social networks of relative foster parents. Thus, given their target parent group, Sinclair et al. might have found more significant or slightly different results if they had an increased focus on the social supports of different foster parent groups. Their work greatly informs the research design of retention models especially those that focus on resources and support services by justifying the need to include

formal and informal support variables and by identifying social workers as a potential support mechanism.

Future research furthered Denby et al. and Sinclair et al.'s work. Rodger et al. (2006) surveyed 652 foster parents in Canada and used factor analysis of Denby et al.'s (1999) foster parent satisfaction questionnaire to show that "foster parents' satisfaction is predicted by their perceptions of teamwork, communication, and confidence in relation to the child welfare professionals." They also found that "challenging aspects of fostering" correctly classified 75% of parents who considered quitting. Brown (2008) used qualitative data and clustering techniques to show that mental health support services had a significant impact on foster parent satisfaction in Canada. Then Eaton and Caltabiano (2009) laid the groundwork for future research by using data from Australia to develop a conceptual model (Figure 1 above) for determining whether foster parents are likely to continue, thereby making the logical connection between support, satisfaction, and retention. They took job satisfaction survey scales from Spector (1988) and came up with four sets of scales. They found statistically significant support for their theoretical model. Geiger et al. (2013) used Eaton and Caltabiano's (2009) demographic and satisfaction survey scales for the state of Arizona and found further evidence that satisfaction is a key predictor of a desire to continue fostering (i.e., retention). This brought the research back to the United States.

Cooley et al. (2015) build on Denby et al. (1999) and Rodger et al. (2006) by using more parsimonious scales to measure foster parent satisfaction. Cooley et al. (2015) used national level survey data from the United States, and argue that foster parents need "access to support and resources to be satisfied with their caregiving role and continue providing foster care services." They focused primarily on whether "child disruptive behaviors moderated or influenced the

nature or strength of the relationship between foster parent supports and satisfaction as a caregiver as well as intent to continue fostering." They find that foster parents who perceived lower frequency of difficult behaviors had much higher confidence than foster parents who reported higher frequencies of difficult child behaviors, "highlighting the role that perception of child behaviors plays." But they also argue that this results in "a lack of moderation of child behaviors on the types of supports, satisfaction, and intent to continue fostering." Cooley et al. argue that it is likely that "foster parents with more positive attributions of their ability to manage difficult child behaviors could perceive fewer problems with child behaviors," citing Whenan et al. (2009). Moreover, foster parents who can pay for access to "help and therapeutic services dealing with disruptive child behaviors" could have lower perceptions of challenges related to fostering. It is also possible that foster parents with "lower incomes may perceive fewer challenges with fostering because they are more tolerant and realistic perception of their fostering role" (Cole and Eamon 2007). Cooley's discussion provides great understanding for interpreting results and reinforces the notion that disruptive behaviors and other challenging aspects of fostering should be included in the analysis of the desire of foster parents to continue fostering.

Cleary et al. (2018) then combined prior analysis and compared foster parents with adoptive foster parents[7] to determine whether significant group differences were evident in relation to satisfaction and commitment. Cleary et al. disagree with Eaton and Caltabiano's (2009) survey instruments because they were derived from job satisfaction surveys. Thus, they came up with their own survey instruments to measure satisfaction and commitment in an unnamed "small northeastern state." They provide the most parsimonious measure of satisfaction

[7] Foster-adoptive parents are those who adopted through the foster care system.

(based on the work of Fees et al. 1998) and define it simply as "the feeling that one's needs and expectations are being met." They found that foster-adoptive parents and adoptive parents had higher satisfaction than parents who only fostered and did not adopt. Cleary et al. (2018) provide an initial roadmap for comparing different foster parent groups using the theoretical model outlined by Eaton and Caltabiano (2009).

Many of the prior studies encourage future research to include relative foster parents as part of the data collection. While some studies analyze relative foster parents *post hoc* (e.g., Sinclair et al. 2004; Cleary et al. 2018), none include relative foster parents as part of their research design. Cleary et al. (2018) comes close in that adoptive parents included relative foster-adoptive parents. But since these families were not analyzed in comparison to their non-relative counterparts, research on satisfaction and retention among relative foster parents in comparison to their non-relative counter parts remains lacking. Thus, this research project intentionally compares responses and statistical models of three foster parent groups: relative foster parents, non-relative foster parents and the combined group of relative and non-relative foster parents. Typical research designs and discussions focus on the satisfaction and retention of non-relative foster parents. A few look at the combined group (i.e., relative and non-relative foster parents together) but it is often a *post hoc* type analysis, since some of the respondents happened to be relative foster parents.

Other research looks at barriers for various subgroups, like barriers for fostering Native American children (Casey 2017), barriers for transitional-aged youth entering college (Day et al. 2018; Davidson & Underwood 2017), or barriers to fostering for gay and lesbian families (McRoy & Ayers-Lopez 2010). Other barrier analyses might be at the local level but focus on barriers from the social worker perspective (UCLA 2015; Casey 2016), or they look at barriers

for adopting from foster care (Kamarck et al. 2012), as opposed to barriers related to accessing resources and support services from a foster parent perspective that lead to increased satisfaction and a desire to continue fostering from a foster parent perspective. A report by the Annie E. Casey Foundation (2016) does look at how child welfare agencies *should* "provide foster families with targeted resources, information, and support services to help children grow and thrive." While the Casey report highlights some great ideas, the researchers fail to include significant and meaningful empirical support (whether qualitative or quantitative evaluation) for their recommendations. For example, they imply that implementing their suggestions would lead to better outcomes for foster children and higher retention rates of good foster families, but they fail to provide or cite evidence like the methodology of their (presumed) interviews of foster parents or statistical evaluation of existing programs that might help connect their hypotheses to the conclusions.

Finally, the Texas Department of Family and Protective Services (Texas DFPS 2020) started requiring annual reports on recommended supports for foster parents licensed in the state. Like other studies and prior research, they focus almost exclusively on non-relative foster parents (88% of the respondents were non-relative foster parents) and analyze formal support mechanisms. They look at resources and support services such as health care, education and developmental resources, daycare, transportation, training, and other formal supports. They identify "help with costs related to providing care to children in foster care" and childcare (defined as babysitting and day care in their study) as the most important resources, which are followed by training, respite care, and foster parent support groups. They did not include a regression analysis with these variables and they did not include questions that analyzed informal supports—i.e., the social supports—like Sinclair et al. (2004) did as part of their research.

The research presented here analyzes the two main foster parent groups (i.e., relative, and non-relative foster parents) in the specific geographic location of San Bernardino County and helps identify the variables that generalize between the parent groups and those that are more specific to a particular foster parent group. While the analysis is at the county level, it is worth reiterating that San Bernardino County's foster care system is larger than those of most states (it has more children in foster care than 26 states) and its geographical area is more than some states as well.

Since much of the research is relatively recent, there appears to be a general lack of agreement and consistency in the results and operationalization of the variables that best predict satisfaction and retention of foster parents. Eaton and Caltabiano (2009) seem to provide a theoretical model as a starting point that can be used to help identify categories of variables and their potential relationships. Their model seems to be gaining more support as other studies help support their findings (e.g. Geiger et al. 2013). Thus, this research project brings these prior studies together by looking at resource and support services models for predicting satisfaction and retention and comparing the different foster parent groups and incorporating an exploratory spatial analysis based on the results of the survey and regression analyses.

THE NET PROMOTER SCORE (NPS) TOOL

Since some of the research in this project explores the possibility of using a net-promoter score (NPS) tool as a possible mechanism for collecting data. The NPS gives foster parents a greater voice into the resources and support services they need, and potentially predicts the satisfaction and retention of foster parents A brief overview of the literature on the NPS tool is included. The literature provided immediately below focuses on NPS's origins and on a specific

area of application (healthcare) in order to provide understanding and insights for applying the NPS tool to social services.

Reichheld (2003) originally presented the concept in a Harvard Business Review (HBR) article in 2003. His initial paper, which he later turned into a book (Reichheld 2006), brings together two years of research on organizations worldwide. He focuses on identifying a simple tool that could supplant "the complex black box of customer satisfaction surveys" that asks too many questions and often "measure the wrong thing," rarely providing "usable information" to practitioners in a timely manner (Reichheld 2003, 2006). He tested a "variety of survey questions by linking the responses to actual customer behavior—purchasing patterns and referrals"—and finds that respondents' willingness to promote a product, service, or organization to friends, family, and colleagues is one of the best indicators of having received value from that product, service, or organization. In essence, a promoter puts their own reputation on the line; and they will only risk their reputation if they feel outstanding value and a great relationship from the benefits they received and are now a "brand evangelist."

Reichheld's (2006) book describes the NPS tool as a "wholly new kind of measure" that is a "radically simple" way for measuring "customer-relationships" and provides examples of for-profit organizations using the "one-question survey" to improve these customer relationships. He argues that the NPS tool effectively measures both dimensions of an organization's relationship with their customers—the rational (i.e., value-added) and the emotional (i.e., feelings about the relationship with the organization)—which makes the NPS tool superior to other metrics, such as satisfaction that focus more on the emotional dimension (Reichheld 2006). A promoter must believe the organization will provide superior value to the referral as well as

make the referral feel good about their relationship with the organization (Reichheld 2003, 2006; Reichheld & Markey 2011).

Reichheld (2003, 2006) and Reichheld and Markey (2011) argue that organizations can divide the customers they aim to serve into three groups: **promoters**, who are brand evangelists that urge friends, family, and colleagues to use the organization's service or product; **passives**, who are identified as "unenthusiastic customers who could be easily wooed by competitors;" and **detractors**, who are unhappy customers "trapped in a bad relationship." Respondents are categorized by their answer choices to the question, "How likely is it that you would recommend this (company, product, service, etc.) to a friend or colleague?" Response options are based on a 0-10 scale where 0 is "not at all likely" and 10 is "extremely likely." Through trial and error, Reichheld (2003, 2006) found that starting the scale response at "0" (rather than "1") helped prevent respondents from accidently transposing the scale responses. His segmentation of respondents into promoters, passives, and detractors came from research on referral and repurchase rates. Promoters (i.e., respondents who picked 9 or 10) made up 80% of referrals, while passively satisfied customers (or passives, those who answer 7 or 8 on the response options) were about 50% lower than promoters, identifying a natural break in the data. Finally, detractors (those who chose 6 or less) accounted for more than 80% of the "negative word-of-mouth comments" about the organization. Detractors might provide profitability from an accounting standpoint, Reichheld (2006) argues, "but their criticisms and attitudes diminish an organization's reputation, discourage new customers, and demotivate staff." In summary then, respondents who answer 0-6 are considered "detractors," 7-8 are "passives," and 9-10 are "promoters." In practical terms, Reichheld and Markey (2011) argue that the average respondent (in the United States) "intuitively understands this scale, where 9-10 corresponds to an A or A-,

an 8 or 7 represents the adequate performance of a B or C, and 6 or below is a failing grade." This grading structure of school systems in the USA seems to undergird the natural breaks that helped Reichheld's (2003, 2006) team identify the response categories. Categorizing a respondant as a promoter, passive, or detractor is the first step. For those interested in measuring the overall efficiency of an organization's ability to grow relationships (i.e., what Reichheld calls the "growth engine"), the next step would entail calculating the NPS score of the organization by taking the total percentage of detractors (D) and subtracting that percentage from the total percentage of promoters (P). The total NPS formula model is seen below in Equation 1 (Reichheld 2003, 2006; Reichheld & Markey 2011). The total NPS score at the organization level is akin to net profit for a business but measures the organization's relational equity with their customers, clients, or those they aim to serve.

$$\textit{Promoters (\%)} - \textit{Detractors (\%)} = \textit{NPS Total Score} \qquad \textbf{Eq. 1}$$

According to Reichheld (2006), the concept of measuring promotion (instead of satisfaction) is based on the Golden Rule: "treat others the way you would want to be treated" and has broad application in a wide variety of arenas in business and nonbusiness organizations like "schools, hospitals, charities, and even government (and non-government) agencies." These non-business organizations have clients and constituents they aim to serve in such a way that the quality of the relationship they have with the organization creates promoters of the organization and their services (Reichheld 2006).

The healthcare arena is one social service sector that has been mandated by Medicare in the USA and the NHS (National Healthcare Service) in the UK to obtain patient satisfaction

metrics as part of the patient care experience (HCAHPS[8] 2021, Krol et al. 2015, Wilberforce et al. 2018, and Alismail et al. 2020). Wilberforce et al. (2018) analyzed patient satisfaction in the UK and went so far as to argue that patient satisfaction "sits alongside clinical effectiveness and safety as the legislated definition of health care quality," linking patient care experiences to "patient rights" and health outcomes. "Patient satisfaction has been a driving force of quality improvement" for the last two decades in healthcare and patient care strategies, according to Alismail et al. (2020).

Despite the importance and relative widespread use of this concept, agreement on how best to measure patient satisfaction as a metric, lags in the research arena. As Wilberforce et al. (2015) note: "For researchers and service managers, how to measure patient experience is crucial. In recent decades, satisfaction metrics have fallen out of favor because of conceptual and empirical concerns over what they measure. Satisfaction may be regarded as too passive and lacking objectivity as a goal for evaluating health service quality and driven more by expectations rather than actual experience." Moreover, satisfaction surveys tend to be "lengthy and time consuming to both the administrator and patients," resulting in low response rates and limited insights, highlighting a broader issue with satisfaction surveys in general that is not isolated to the business sector or healthcare (Reichheld 2003, and Alismail et al. 2020). As a result of the limitations of satisfaction surveys, and even though research lags behind its implementation, the NPS tool has received widespread use in healthcare due to "its ease of application and potential for comparison across service settings and countries" (Wilberforce et

[8] HCAHPS stands for Hospital Consumer Assessment of Healthcare Providers and Systems (pronounced "H-caps"). The full link is: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/hospitalHCAHPS and the full citation is found in the references section under HCAHPS 2021.

al. 2018). Therefore, due to the overlap and similarity of the services provided as well as the unresolved tension on how best to measure satisfaction, the healthcare arena provides relatable research that fits the social services associated with the foster care services provided by foster parents. The healthcare research on the NPS tool helps inform the methodology of this research project regarding the analysis and scoring of the satisfaction variable and the exploratory analysis of using the NPS tool in the foster care arena.

In the healthcare research, Krol et al. (2015) aims to assess "what the NPS adds to patient experience surveys" by testing it "against three other constructs being used in surveys to summarize patient experiences and satisfaction" in six Dutch hospitals. They use a large dataset that focusing on outpatient hospital experiences (N = 10,902) and inpatient hospital responses (N = 6018), analyzing NPS scores at the patient (i.e., individual) level. They find that "the NPS is moderately to strongly correlated with the other three constructs," but "their distributions proved distinctly different." They found differences in the distribution of the "passives" category of the NPS, which largely revolve around whether an answer choice of an "8" on the NPS 0-10 scale is categorized as a "passive" or as a "promoter" (Krol et al. 2015). Krol et al. suggests that the differences in the distributions are largely related to cultural differences in the Dutch school system having a different grading structure than that of the USA (Krol et al. 2015). Along the lines of the distribution of passives, another research study by Raassens and Haans (2017) find that by combining the NPS tool with electronic 'word of mouth,' added value to the "passives" category of the NPS (Alismail et al. 2020). Thus, the NPS tool may be somewhat sensitive to cultural differences, since the scoring system of the NPS tool is based on how people have experienced scholastic grading categories (Reichheld 2003, 2006). It may also be sensitive to the survey's method of distribution (e.g., electronic or analog).

The methods Krol et al. (2015) uses are highlighted in greater detail in the following paragraph, since they compare the NPS tool with similar constructs that have different response options than the NPS tool used in the US. They are also the first to analyze the NPS scores at the individual level for a social service. The methods Krol et al. uses inform the methods of analysis employed in this research project regarding the NPS tool and satisfaction for the reasons just stated.

First, even though the "actual NPS score is an aggregate score at the institutional level (range from -100% to +100%)" due to the limited number of hospitals in their data, Krol et al. (2015) examines the NPS tool at the patient (or individual) level (response ranges 0-10). Krol et al. (2015) uses the individual level NPS scores and compares the NPS tool results to 3 similar constructs, namely: a global rating, a recommendation question, and an overall "patient experience" score. The global ratings tool uses a similar scale (i.e., 0-10) to that of the NPS tool, but asks respondents to rate the quality of the care they themselves received, instead of ranking their likelihood of recommending the provider or institution to a friend or family member.[9] The recommendation question does include recommending the provider or institution, but instead uses a labeled 4-point scale (1-4), ranging from *Definitely no* to *Definitely yes*. The "overall score" scale is a composite indicator, "constructed from patient experiences" based on 9 indicators each having two or more questions. Moreover, to better suit Dutch culture and examine "the potentially different psychological boundaries of the NPS classification," Krol et al. (2015) also compare the three prior constructs with a slightly altered NPS tool (they did this in addition to using the regular NPS tool), "where 0–5 (detractors), 6–7 (passives) and 8–10

[9] The global rating question asked, "*How would you rate the hospital/clinic*?" (Ranging 0-10, where 0 was labelled the "*worst possible hospital/clinic*" and 10 labelled the "*best possible hospital/clinic*" (Krol et al. 2015).

(promoters)," essentially adjusting the categories down one response option to fit the typical Dutch scholastic grading system.

They found the NPS tool is most strongly associated with the global rating question. Its relationship with the recommendation question is slightly weaker, but stronger than the association between the recommendation question and the global rating. The overall score had limited association with the other constructs. Thus, the NPS tool analyzed at the individual level is "moderately to strongly correlated with the three other constructs." The alternative NPS tool that adjusted the categorization of scale responses to fit the psychological boundaries in the Netherlands versus the USA, improved the distribution differences of passives, implying that the categorization of respondents who choose 8 (who would typically be categorized as "passives" on the normal NPS scale but "promoters" on Krol et al.'s alternative scale for the Netherlands) might be sensitive to different cultural grading scales and might be analyzed with slightly different boundaries to limit overly negative or overly positive responses, depending on the context within which the NPS tool is being used. It is also worth noting that by expanding the "promoter's" category to include responses of 8, 9, and 10 (not just 9 and 10 as Reichheld 2006 recommends), the analysis is weighted toward more positive responses. The point is that Krol et al. demonstrate clearly that the NPS tool is not a universal metric. Numerical results may skew depending on the country being surveyed.

Other countries have synonymous metrics to the NPS.[10] In the UK, the NHS trusts are required to include the synonymous "Friends and Family Test" in patient experience surveys

[10] The Consumer Quality Index (CQI) recommendation questions are equivalent to those used in the Consumer Assessment of Healthcare Providers and Systems (CAHPS) surveys in the US. The Consumer Quality Index (CQI) surveys are the Dutch equivalent to CAHPS for measuring patient experiences and both include the NPS tool as part of their official assessment of the patient experience (Krol et al. 2015).

(NHS 2013). Despite the "spread and influence of the NPS tool in health care," the research of Wilberforce et al. (2018) is "the first to consider the application of the NPS tool in community mental health services for older people." Wilberforce et al. (2018) looks at patient satisfaction among the elderly in the UK regarding mental health services, and provide an exploratory study of using the NPS tool to measure patient satisfaction. They find that "a strong but imperfect correlation coefficient with the satisfaction score indicates they evaluate related but distinct constructs." Wilberforce et al.'s (2018) exploratory analyses also indicates that a relationship exists between the length of time a patient received services and their likelihood to recommend the service to others; those in the first six months of receiving services were less likely to recommend the organization than other respondents with more than six months of services. Wilberforce et al. ultimately conclude, "Despite doubts over its validity in community mental health services, the Net Promoter Score (NPS) tool may produce results of value to researchers, clinicians, service commissioners, and managers, if part of wider data collection…"

The methodology Wilberforce et al. (2018) use is informs and supports the research methods used to score and analyze the satisfaction scales in this study. The next paragraph outlines some key takeaways.

Since "there is no agreed or standardized international NPS scoring system," Wilberforce et al.'s (2018) team measures the NPS using a 5-point Likert scale, where "extremely likely" to recommend the service were classified as "promoters," "likely" as "passives," and all other responses were classified as "detractors," which is the classification initially employed by NHS (2014). They find that receiving support from an agency professional (psychiatrist and/or support worker) is linked to higher NPS scores at the individual level. They also tested an alternative version the NHS uses (with scoring options updated 2014), where they divide respondents into

just two categories—namely, recommend or not recommend—by combining responses of "extremely likely" and "likely" as promoters and "unlikely" and "extremely unlikely" as not recommending services. They excluded the "neither likely nor unlikely" responses in this alternative NHS-based scoring system model. Replication of the results using the alternative scoring system outlined by the NHS "revealed no meaningful differences with all directions and strengths of association being broadly maintained, and no change is significance at the 5% threshold." Wilberforce et al. implies that the lack of statistically significant difference between the different scoring methods is likely due to the notion that the "NPS is driven by those extremely likely to recommend services (promoters)." That is, using a 5-point Likert scale for the NPS question of recommending a service to others is driven largely by the "extremely likely" category, which helps justify the potential categorization of satisfaction variable in the similar manner to facilitate comparisons of the two metrics. Wilberforce et al. (2018) concludes that since their analysis is exploratory in nature, the findings "are geared to demonstrating the potential value of the NPS (along with some of its limitations) rather than for reaching firm policy conclusions."

Alismail et al. (2020) also analyze the use of the NPS tool in healthcare settings and looks at a similar population as this study of foster parents, namely, individuals in need of social services in San Bernardino County. While Alismail et al. (2020) analyze patient satisfaction for an outpatient clinic associated with Loma Linda University Hospital[11] and focus mostly on the delivery method of survey (digital versus analog), their research is important to mention here and helps inform this study because Alismail et al.'s study compare the NPS tool with satisfaction

[11] Loma Linda University Hospital is in San Bernardino County and is commonly known for its specialty of child healthcare, implying significant overlap with the focus of this research paper regarding the population of foster parents in San Bernardino County.

surveys for a social service in San Bernardino County and finds that the NPS tool and satisfaction provide "similar outcomes in terms of patient satisfaction NPS scores," which is the same area, general population, and metrics (satisfaction and NPS) as the research for this paper.

However, the NPS tool facilitated higher response rates than the satisfaction surveys due to the concise nature and ease of use of the NPS tool. Alismail et al. also argue that due to its brevity and ease of use the NPS tool provides more timely and thus applicable feedback for practitioners, thereby enabling them to make meaningful adjustments that help improve future patient satisfaction scores. In essence, Alismail et al. (2020) argue that NPS scores and satisfaction scores, as measured at the individual level, provide consistent results when comparing patient experiences; but the NPS is suggested to be the better choice because its ease of use facilitates more timely feedback and application for practitioners, which enables social service workers to make adjustments that facilitate better patient experiences.

Graf (2022) and Stahlkopf (2019), on the other hand, point to some potential limitations of using an NPS tool. Stahlkopf (2019) compares the NPS ratings of 2000 consumers with survey responses to "whether they had, in fact, actively promoted brands or urged other to avoid them." She found that people's actual behavior "often did not line up with their NPS categorizations"—suggesting that the NPS should be interpreted as asking about the "intent to recommend" and not be misunderstood to imply actual advocacy. She goes on to argue that since humans are complex, their "promotion of a product or service also depend on the characteristics of the person they are talking with. They want to make sure it is a good match." She recommends using open-ended questionnaires that inquire about the "why" they would, or wouldn't, recommend the service or brand as a possible better method for obtaining feedback. Graf (2022) contends that surveys in general are problematic for obtaining customer feedback "because they

typically give voice to only a very small, self-select group," who are characterized by a "brag and moan bias" and are thus more apt to want to respond. Graf (2022) also suggests that since organizations are different and constantly need to adapt to an ever-changing environment, each organization should ask different questions and analyze data in different ways rather than relying on a standardized survey, which he argues highlights the need to use machine learning tools to "predict engagement," sensing a customer's intent and directs them to the right content or support person, and making the service feel more personal. Ironically, Graf (2022) uses survey data from consumers and senior-level executives to support his arguments. While both Graf (2022) and Stahlkopf (2019) make valid points that should be understood when using an NPS tool, their insights provide better understanding on the interpretation and application of the results. But their arguments and findings do not shift the actual method of using an NPS tool in social services.

While NPS is not the panacea of satisfaction surveys, it does provide a meaningful option to investigate regarding a metric for measuring an organization's relationship with its customers (Graf 2022), which in the case of this analysis is foster parents. As Reichheld (2003, 2006) and Reichheld and Markey (2011) contend, using the NPS tool provides a more practical measure of this relationship between the provider and the user than the typical satisfaction metric. But like most survey questions, the researcher must weigh the tradeoffs between the benefits and the costs of using the metric. In this case, of the NPS tool, it provides a simple tool for rapid feedback that empowers dynamic adjustments in close to real-time, thus improving service quality sooner, which naturally assumes the provider wants to improve customer feedback.

In the next section, spatial accessibility is looked in relation to supporting foster parents.

SPATIAL ACCESSIBILITY

While psychologists and sociologists have studied foster parent satisfaction and retention, policy analysts and economists have barely broached the subject of the geographical location of the subjects in question; nevertheless, they may offer tools that help reduce the costs of foster parents' altruism. Studies conducted by economists, they tend to focus on foster parent reimbursements and whether changes in these payments improve retention (Simon 1975; Denby et al. 1999), which assumes fostering children from hard places is like a job with similar motivations and risk tolerances. Studies by policy analysts have been relatively limited (Pasztor & Wynee, 1995). Few studies have analyzed the accessibility and distribution of critical resources and support services meant to facilitate retention from a spatial-economic and spatial-welfare theory perspective. Even though most of the research on foster care, especially foster parent satisfaction and recruitment, implies spatial variances and limitations to their analysis (e.g., levels of analysis are geographically bound like at the state level), few have incorporated spatial policy considerations in their research.

Allard (2007, 2009) looks at the geography of poverty and concludes that the closer people are to social services, the more likely they will be to use those services. Allard (2007), according to Martin (2016), uses modified geospatial accessibility Equations to show that resources are spatially mismatched in low-income communities. Allard (2007, 2009) and Martin (2016) also note that that as poverty rates move toward suburban locations, mismatches in the allocation of social services may change between those in need of support services and those able to provide support services.

While spatial elements and environmental circumstances permeate nearly every issue surrounding child welfare and the foster care system, an initial search of the literature found

almost nothing that focuses on spatial accessibility and matching of resources to the needs of foster parents or spatial policymaking processes. Casey (2016) provides the most prominent research, but their writeup of an analysis of a county in the state of Washington state (they do not identify the county by name) seems more of a software sales pitch aimed at various county agencies than a research article. Casey highlights the benefits of spatial analysis but fails to identify necessary details to make the research reliable and falsifiable. Most other spatial analyses consist of identifying locations where foster children originate prior to entering the system (CDN 2018) and "understanding how community level characteristics may build resilience amongst vulnerable children" (CDN 2018; Daleya, et al. 2016). Other spatial research focuses on matching children to homes within a geographical distance of their school or their biological parent's home. Since little research exists that looks at the geospatial issues of accessibility and matching of resources and support services to the felt needs expressed by foster parents, the spatial analyses of this research project are exploratory in nature and aim to determine whether further spatial research regarding the spatial utility of foster parents and the spatial policymaking processes are justified.

Some parts of the reforms of California's Continuum of Care Reform Act (CCR) consist of in-home services, such as parent trainings, which might lead some people to assume that no accessibility issues exist. Yet many resources and support services related to foster care are limited by spatial access to make the ability to supply these resources and services reasonable and effective supports for foster parents and the children in their care. For example, if a mental health clinic is expected to cover a large geographic area, services are often limited by their resources like time, money, as well as the number of mental health professionals, their skill level, and their availability; this is also a function of spatial variables like travel distances to a patient's

residence. In some instances, a foster parent cannot access services for a child in their care for a year or more, leading to a worsening mental health condition in the children, secondary trauma to other children in the home, and potential seven-day notices[12] by the foster parents. Moreover, instead of the prescribed two or three sessions per week, a child and foster parent may only receive one session that often gets canceled or delayed due to outside conditions like traffic, overbooking, staff shortages, emergency cases, COVID-related issues, etc. Moreover, much of the prior research on satisfaction and retention shows that the increasing significance for support and access to social workers is critical to foster parents continuing to foster. Social workers, by law, are supposed to visit the homes of foster parents, monitor the child's development, and provide access and information to additional support services. Thus, access to agencies and social workers is essential and often determined by spatial parameters such as the quantity and geographical distribution of a social worker's caseload. Many other services and resources outside of parent trainings, such as many professional mental health services, trauma-informed child care, parenting classes, wrap-around services, WIC, and healthcare, are not administered in the home or are only partially administered in the home.

Thus, spatial access of services and resources seems to be a critical aspect to maximizing service utilization as defined by Rossi et al. (2004). This research project attempts to fill the gap and help determine whether spatial utility and a spatial policymaking process should be considered when seeking to support and resource foster parents.

The next section takes the previous research and outlines the gaps this research project attempts to help fill. It also summarizes the models that will be tested in the regression analysis,

[12] A 7-day notice is when a foster parent requests that a child in their care be removed from their home and placed with a different foster parent.

which also inform the questions in the first research question on barrier analysis and what spatial variable(s) to use in the exploratory spatial analysis of the third research question.

Gap Summary: Summary of the Gaps Being Addressed by This Research Project

The gaps that this research project attempts to help fill are summarized into three general areas: methodological, policy, and domain gaps. Methodological gaps addressed in this research project are associated with model specification for resource and support service models, operationalization of variables, as well as more high-level gaps like the type of methodological approach being applied, such as incorporating political-economic concepts like efficiency to determine if such concepts shed more light on how best to support foster parents. Policy gaps consist of opening the black box of foster care policies like the Continuum of Care Reform (CCR) by analyzing research questions that go beyond the typical descriptive research designs and incorporating concepts such as utilization of resources and whether spatial utility and a spatial policy process should be considered by policymakers, practitioners, and researchers seeking to support and resource foster parents. Finally, domain gaps are defined as those associated with the topic areas of being satisfied and retention of foster parents. Specifically, the research design for this project aims to analyze the generalizability of different resource and support services and the associated models for three foster parent groups—relative, non-relative, and the combination of relative and non-relative—to help identify what variables and models apply to specific individual groups (i.e., not generalizable) and what variables apply to both (i.e. are generalizable). This research project also fills in a practical gap in that the research design and results are filtered through the lens of whether the policymakers and practitioners have agency in leveraging the resources and support services that are included, analyzed, and

discussed. That is, the resources and support services are interpreted, in part, through the level of agency policymakers and practitioners have in administering and allocating a resource or service.

This chapter identified many of the variables and models that have been used to examine relationships between variables in regards to analyzing satisfaction and retention of foster parents. The next chapter outlines and examines the methods used in this analysis of the models employed to address some of the gaps in the literature. It also identifies some of the necessary methodological decisions made in the analysis along with the logic supporting those decisions.

CHAPTER 3: METHODS

STUDY DESIGN OVERVIEW

The previous literature review informs the variables used in this research design as well as how those variables relate to each other. It also provides many of the scales used in the survey methods of the data collection process. But the prior research also leaves many holes to fill, some of which are the focus of this research project. This chapter provides an overview of the methods used to fill some of the gaps. It also explains some of the decisions made along the way that differ slightly from prior research. The results chapters provide additional understanding of each method used to address the research questions presented in that chapter along with the potential weaknesses of those methods and ideas for future research. This chapter is an overview of those processes.

This study uses a somewhat of a mixed methods survey design to (1) examine sentiment of foster parents on the barriers they face in accessing resources and support services, and (2) analyze what resources and support services best predict their satisfaction with fostering and their desire to continue fostering. The results of these two analyses help identify and confirm a key variable to use in an exploratory spatial analysis that examines whether spatial utility and spatial policymaking considerations should be studied further by policymakers, practitioners, and researchers in the future as they consider resources and support for foster parents. The survey methods incorporate a mixed methods approach by incorporating two open-ended qualitative questions on what barriers foster parents view as most critical to their satisfaction and desire to continue to foster. These qualitative responses helped confirm and inform the interpretation of

the results and insights from the closed-ended quantitative responses, which comprised most of the 76-question survey. (A copy of the full survey is included in the Appendix.)

The scales employed in this survey were adapted from prior research. When validated scales were available, they were used. A draft of the survey was created and reviewed by a select group of 20 foster parents, who gave feedback on the content, order, response options, and style of questions in the survey. Their feedback was incorporated into the final survey when appropriate. The Institutional Review Board (IRB) of the author's institution (Claremont Graduate University) approved the final survey design to be conducted. Then, a lengthy process (due to overwhelming caseloads) led to the final approval by the Director of Child and Family Services (CFS) of San Bernardino County to conduct the survey of County RFA homes (i.e., foster parents licensed directly with the County), which consisted of approximately 1400 individual foster parents. The researcher had to obtain approval separately from the 72 individual Foster Family Agencies (FFAs), who contract with the County to help with licensing and administration of foster parents and represent mostly non-relative foster parents and consist of approximately 1700 additional licensed foster parents. (This group of foster parents are commonly referred to as FFA foster parents.) However, most of these FFAs did not grant approval for their foster parents to be surveyed nor did they provide spatial data for the exploratory analyses. Three agencies did grant approval for the survey and those foster parents' responses are included in the results. Despite the limited access, a sample of 303 total foster parents participated and of those responses, there were 117 responses from each foster parent group (relative and non-relative foster parents). That is, of the 303 total responses, a total of 234 were usable for the regression analyses, and of the 234 there were 117 each from relative and non-relative foster parents. There was a 21% response rate (303/1400), which is a relatively good

response rate for the given population (i.e., foster parents), who are typically more difficult to survey than the general public. For example, a 2020 survey for the Texas Department of Child Protective Services and conducted by a professional survey firm had a 13% response rate of mainly non-relative foster parents (DFPS 2020).

Spatial data on foster parents licensed in San Bernardino County came from the San Bernardino County's Department of Child and Family Services (CFS). The FFAs were also asked about providing spatial data. Only one of the FFAs provided the requested data. Additional spatial data were obtained from US Census data and Environmental Systems Research Institute's (ESRI's) Living Atlas.

DATA COLLECTION AND SURVEY DESIGN

To increase the reach and response rate across a large county, an online survey was used. This strategy enabled foster parents to complete the somewhat lengthy survey of about 76 questions at their convenience over a two-week timeframe. A link was distributed via email to foster parents. The email addresses were obtained from the County. Of the 1400, about 390 did not have email addresses. Thus, one limitation to this strategy could be hindering the voice of foster parents who do not have an email or internet access.

Communication with potential participants was also done through email. The survey was distributed in groups of less than 100 using the distribution tool in Qualtrics, which is an online survey software program that was used to build, distribute, and collect responses for the survey. Groups of less than 100 were used to avoid the email getting caught in spam filters. Prior to sending the survey link, it was recommended to send an initial email letting potential respondents know to be on the lookout for the survey in 2 days and that they would get paid a $5

Amazon.com gift card for completing the survey and they would get two weeks to complete the survey. The initial email also explained the purpose of the survey and affirmed that their opinions matter, and notified them that their responses could help shape future policy decisions. Qualtrics tracked who completed the survey and allowed follow up emails that nudged foster parents to complete the survey, and only sent them to those who had not already completed it. Each email correspondence provided bumps in participation rates. At the end of the two weeks it was communicated that the window for completing the survey would be extended another 48 hours, which provided another bump in participation rates. The researcher's school (Claremont Graduate University) account with an email address ending in *.edu* was provided to participants if they had questions or comments. The same email address was used to distribute the $5 Amazon.com gift cards. A few respondents replied harshly to simply receiving the initial email about getting paid to take a survey (e.g., one person replied with a middle-finger emoji and no words, just the emoji), which highlights the point that surveying foster parents can be particularly difficult. Foster parents often live with a great deal of stress and can endure secondary trauma,[13] which can present itself in various ways, such as a harsh response to an unwanted survey about fostering. These daily difficulties likely reduce participation rates in surveys such as these. But there were many more who expressed thanks for the opportunity to do this survey and for allowing them to express their opinions.

A significant weakness of this project is the limited participation by the 72 FFAs, who represent a large portion of mostly non-relative foster parents. While a good-sized sample of non-relative foster parents were obtained, there could be significant value and possible impact to

[13] Secondary trauma is when a foster parent (in this case) is somewhat traumatized by trying to parent children with severe trauma (e.g., PTSD), which causes the foster parent to endure prolonged periods of highly emotional states of mind that lead to secondary trauma.

the results with a larger sample set of these foster parents who work with Foster Family Agencies (FFA). Future research may provide additional insights by using similar methods as those presented in this project and comparing these two groups of foster parents—i.e., those who work with a FFA and those who do not work with an FFA.

The next section looks at the variables and how they were measured using the survey scales. It starts with an overview of the regression models tested as part of the second research question; the models also inform the variables used in the barrier analysis and exploratory spatial analyses.

VARIABLES AND MEASURES

Model Summary

The models outlined below provide a summary of the resource and support models that are tested for each dependent variable and analyzed in the results' chapters. While these models apply specifically to the regression analyses (see Chapter 5), which is part of the second research question, they also identify the key variables that inform what metrics to include in the survey for the first research question and highlight the potential variable(s) for the exploratory spatial analysis of the third research question.

For each set of models below, the conceptual model is presented first, followed by the expanded mathematical models associated with each conceptual model. The mathematical models provide the specific variables used to measure each concept and their association within the model. The models are grouped according to the dependent variable being analyzed (i.e., the first set of models are grouped according to the dependent variable of satisfaction and the second stanza of models are grouped for the dependent variable of retention). Moreover, to facilitate the

analyzing the generalizability among the different foster parent groups, the models for each dependent variable use the same set of variables with the only difference being the data of the foster parent group being analyzed for a given model. For example, each model associated with Equation 2 (i.e., Equations 2.1, 2.2., and 2.3) use the same set of variables but each model looks at a separate foster parent group, which is denoted in the subscript of each where "Combined" or "c" means the data includes both the relative and non-relative foster parent groups. The subscript "Relative" or "R" denotes that the data for the variables in that model only include data for the relative foster parent group, and the "Non-Relative" or "Non-R" subscript denotes that the model and its variables are segmented for the non-relative foster parent group. The following are the models for satisfaction:

Satisfied = Constant + Social Supports (SOS) + Formal Supports + error term **Eq. 2**

$$\text{Satisfied}_{\textit{Combined}} = \alpha + \beta_1\ \text{SOS\_Social Worker}_c + \beta_2\ \text{SOS\_Best Friend}_c + \beta_3\ \text{SOS\_Other Foster Parents}_c + \beta_4\ \text{SOS\_Family Member}_c + \beta_5\ \text{SOS\_Spouse/Partner}_c + \beta_6\ \text{Childcare}_c + + \beta_7\ \text{Respite}_c + \beta_8\ \text{Info Access}_c + \beta_9\ \text{Healthcare}_c + \beta_{10}\ \text{Mental Healthcare}_c + \beta_{11}\ \text{Medical Costs}_c + \beta_{12}\ \text{Training}_c + \varepsilon_c \quad \text{Eq. 2.1}$$

$$\text{Satisfied}_{\textit{Relative}} = \alpha + \beta_1\ \text{SOS\_Social Worker}_R + \beta_2\ \text{SOS\_Best Friend}_R + \beta_3\ \text{SOS\_Other Foster Parents}_R + \beta_4\ \text{SOS\_Family Member}_R + \beta_5\ \text{SOS\_Spouse/Partner}_R + \beta_6\ \text{Childcare}_R + + \beta_7\ \text{Respite}_R + \beta_8\ \text{Info Access}_R + \beta_9\ \text{Healthcare}_R + \beta_{10}\ \text{Mental Healthcare}_R + \beta_{11}\ \text{Medical Costs}_R + \beta_{12}\ \text{Training}_R + \varepsilon_R \quad \text{Eq. 2.2}$$

$$\text{Satisfied}_{\textit{Non-Relative}} = \alpha + \beta_1\ \text{SOS\_Social Worker}_{\text{Non-R}} + \beta_2\ \text{SOS\_Best Friend}_{\text{Non-R}} + \beta_3\ \text{SOS\_Other Foster Parents}_{\text{Non-R}} + \beta_4\ \text{SOS\_Family Member}_{\text{Non-R}} + \beta_5\ \text{SOS\_Spouse / Partner}_{\text{Non-R}} + \beta_6\ \text{Childcare}_{\text{Non-R}} + \beta_7\ \text{Respite}_{\text{Non-R}} + \beta_8\ \text{Info Access}_{\text{Non-R}} + \beta_9\ \text{Healthcare}_{\text{Non-R}} + \beta_{10}\ \text{Mental Healthcare}_{\text{Non-R}} + \beta_{11}\ \text{Medical Costs}_{\text{Non-R}} + \beta_{12}\ \text{Training}_{\text{Non-R}} + \varepsilon_{\text{Non-R}} \quad \text{Eq. 2.3}$$

Satisfaction = Constant + Locus of Control (LOC) + error term **Eq. 3**

$$\text{Satisfied}_{\text{Combined}} = \alpha + \beta_1\ \text{LOC}_C + \varepsilon_C \quad \text{Eq. 3.1}$$

$$\text{Satisfied}_{\text{Relative}} = \alpha + \beta_1\ \text{LOC}_R + \varepsilon_R \quad \text{Eq. 3.2}$$

$$\text{Satisfied}_{\text{Non-Relative}} = \alpha + \beta_1\ \text{LOC}_{\text{Non-R}} + \varepsilon_{\text{Non-R}} \quad \text{Eq. 3.3}$$

$$\text{Satisfied}_{\text{Combined}} = \alpha + \beta_1\ \text{I}_C - \beta_2\ \text{PO}_C - \beta_3\ \text{C}_C + \varepsilon_C \quad \text{Eq. 3.4}$$

$$\text{Satisfied}_{\text{Relative}} = \alpha + \beta_1\ \text{I}_R - \beta_2\ \text{PO}_R - \beta_3\ \text{C}_R + \varepsilon_R \quad \text{Eq. 3.5}$$

$$Satisfied_{Non\text{-}Relative} = \alpha + \beta_1 I_{Non\text{-}R} - \beta_2 PO_{Non\text{-}R} - \beta_3 C_{Non\text{-}R} + \varepsilon_{Non\text{-}R} \quad \text{Eq. 3.6}$$

Satisfaction = Constant + Net Promoter Score (NPS) + error term **Eq. 4**

$$Satisfied_{Combined} = \alpha + \beta_1 NPS_c + \varepsilon_C \quad \text{Eq. 4.1}$$
$$Satisfied_{Relative} = \alpha + \beta_1 NPS_R + \varepsilon_R \quad \text{Eq. 4.2}$$
$$Satisfied_{Non\text{-}Relative} = \alpha + \beta_1 NPS_{Non\text{-}R} + \varepsilon_{Non\text{-}R} \quad \text{Eq. 4.3}$$

The set of models for Equation 3, the Locus of Control (LOC) Equations (i.e., Equations 3.1, 3.2, and 3.3) analyze each of the foster parent groups as well as the subgroups of the locus of control variable. The LOC subgroupings are explained in more detail below but essentially consist of "I" as the internal control, "PO" stands for powerful others, and "C" denotes chance. As noted below and in Chapter 4 and 5, the segmentation of the LOC into its subcategories helps identify how the different foster parent groups view control in relation to their fostering environment. Moreover, the LOC variable is not included in the larger satisfaction model (Equations 2) because one of the key focal points of this analysis is the informal and formal support of social workers, who function as powerful others in their formal and informal roles in relation to foster parents. Thus, if included, the locus of control would cause simultaneity issues and multicollinearity, biasing the estimated coefficients and increasing the likelihood of type 2 errors. This is explained in more detail below. The results in Chapter 5 (in footnotes) also support this notion as evidenced when the models are run with the locus of control variable included and show that the individual variables lose their statistical significance as their p-values drop below the 0.05 level.

Next, the models for retention as the dependent variable are shown below. Similar to the those for satisfaction, each conceptual model is presented first and then, below each conceptual model, is the more detailed mathematical model that includes the specific variables used to measure each concept and their association within the model. Again, each model contains the

same variables but are broken down by foster parent group (i.e., combined, relative, and non-relative). The other notable difference between models for Equation 5 and models for Equation 6 is that they test the experimental notion of using the NPS tool instead of the satisfaction metric, which is emphasized by the italics of each in their respective Equations. As explained in more detail below, while much research outside of foster care argues for the use of the NPS tool instead of satisfaction, the research presented here is the first to look at the use of the NPS tool for predicting retention of foster parents. This potential relationship is exploratory in nature but justified through the foster parent literature that suggests a consistent relationship exists between satisfaction and retention of foster parents. It would seem logical, then, that if the NPS tool is a potential replacement for satisfaction, and satisfaction has been shown to predict retention of foster parents, then if the prior research of the NPS tool generalizes to the foster care arena, the NPS tool should also be a significant predictor of foster parent retention, which is one aspect the models below aim to highlight and test. The following are the models for retention:

Retention = Constant + Commitment – Challenging Events + *Satisfaction* + Social Supports + error term **Eq. 5**

$$\text{Retention}_{\textit{Combined}} = \alpha + \beta_1 \text{Commitment}_C - \beta_2 \text{Accusations}_C - \beta_3 \text{Child\_Reunifies}_C - \beta_4 \text{Birth Parent Conflict}_C - \beta_5 \text{Behaviors}_C - \beta_6 \text{Accessing Mental Health Services}_C - \beta_7 \text{Social Worker Info}_C - \beta_8 \text{Childcare}_C + \beta_9 \text{Satisfaction}_C + \beta_{10} \text{SOS\_Social Worker}_c + \beta_{11} \text{SOS\_Best Friend}_c + \beta_{12} \text{SOS\_Other Foster Parents}_c + \beta_{13} \text{SOS\_Family Member}_c + \beta_{14} \text{SOS\_Spouse/Partner}_c + \varepsilon_C \quad \text{Eq. 5.1}$$

$$\text{Retention}_{\textit{Relative}} = \alpha + \beta_1 \text{Commitment}_R - \beta_2 \text{Accusations}_R - \beta_3 \text{Child\_Reunifies}_R - \beta_4 \text{Birth Parent conflict}_R - \beta_5 \text{Behaviors}_R - \beta_6 \text{Accessing Mental Health Services}_R - \beta_7 \text{Social Worker Info}_R - \beta_8 \text{Childcare}_R + \beta_9 \text{Satisfaction}_R + \beta_{10} \text{SOS\_Social Worker}_R + \beta_{11} \text{SOS\_Best Friend}_R + \beta_{12} \text{SOS\_Other Foster Parents}_R + \beta_{13} \text{SOS\_Family Member}_R + \beta_{14} \text{SOS\_Spouse/Partner}_R + \varepsilon_R \quad \text{Eq. 5.2}$$

$$\text{Retention}_{\textit{Non-Relative}} = \alpha + \beta_1 \text{Commitment}_{\text{Non-R}} - \beta_2 \text{Accusations} - \beta_3 \text{Child\_Reunifies}_{\text{Non-R}} - \beta_4 \text{Birth-Parent conflict}_{\text{non-R}} - \beta_5 \text{Behaviors}_{\text{Non-R}} - \beta_6 \text{Accessing Mental Health Services}_{\text{Non-R}} - \beta_7 \text{Social Worker Info}_{\text{Non-R}} - \beta_8 \text{Childcare}_{\text{Non-R}} + \beta_9 \text{Satisfaction}_{\text{Non-R}} +$$

β_{10} SOS_Social Worker$_{\text{Non-R}}$ + β_{11} SOS_Best Friend$_{\text{Non-R}}$ + β_{12} SOS_Other Foster Parents$_{\text{Non-R}}$ + β_{13} SOS_Family Member$_{\text{Non-R}}$ + β_{14} SOS_Spouse/Partner$_{\text{Non-R}}$ + $\varepsilon_{\text{Non-R}}$ Eq. 5.3

Retention = Constant + Commitment – Challenging Events + *NPS* + Social Supports + error term **Eq. 6**

Retention $_{\textit{Combined}}$ = α + β_1 Commitment$_c$ – β_2 Accusations$_c$ – β_3 Child_Reunifies$_c$ – β_4 Birthparent Conflict$_c$ – β_5 Behaviors$_c$ – β_6 Accessing Mental Health Services$_c$ – β_7 Social Worker Info$_c$ – β_8 Childcare$_c$ + β_9 NPS_c + β_{10} SOS_Social Worker$_c$ + β_{11} SOS_Best Friend$_c$ + β_{12} SOS_Other Foster Parents$_c$ + β_{13} SOS_Family Member$_c$ + β_{14} SOS_Spouse/Partner$_c$ + ε_c Eq. 6.1

Retention $_{\textit{Relative}}$ = α + β_1 Commitment$_R$ – β_2 Accusations$_R$ – β_3 Child_Reunifies$_R$ – β_4 Birthparent Conflict$_R$ – β_5 Behaviors$_R$ – β_6 Accessing Mental Health Services$_R$ – β_7 Social Worker Info$_R$ – β_8 Childcare$_R$ + β_9 NPS_R + β_{10} SOS_Social Worker$_R$ + β_{11} SOS_Best Friend$_R$ + β_{12} SOS_Other Foster Parents$_R$ + β_{13} SOS_Family Member$_R$ + β_{14} SOS_Spouse/Partner$_R$ + ε_R Eq. 6.2

Retention $_{\textit{Non-Relative}}$ = α + β_1 Commitment$_{\text{Non-R}}$ – β_2 Accusations – β_3 Child_Reunifies$_{\text{Non-R}}$ – β_4 Birthparent conflict$_{\text{Non-R}}$ – β_5 Behaviors$_{\text{Non-R}}$ – β_6 Accessing Mental Health Services$_{\text{Non-R}}$ – β_7 Social Worker Info$_{\text{Non-R}}$ – β_8 Childcare$_{\text{Non-R}}$ + β_9 $NPS_{\textit{Non-R}}$ + β_{10} SOS_Social Worker$_{\text{Non-R}}$ + β_{11} SOS_Best Friend$_{\text{Non-R}}$ + β_{12} SOS_Other Foster Parents$_{\text{Non-R}}$ + β_{13} SOS_Family Member$_{\text{Non-R}}$ + β_{14} SOS_Spouse/Partner$_{\text{Non-R}}$ + $\varepsilon_{\text{Non-R}}$ Eq. 6.3

The next section describes the different variables and looks at the methods involved in measuring each of the variables for the different regression. It also explains how each of the research questions will be analyzed.

The Response Variables: Satisfaction

Operationalizing satisfaction of foster parents takes more explaining due to the nature of the concept being somewhat complex, difficult to define, and subject to a person's ever-changing expectations, which results in greater variance and the need for more assumptions and liberality of the methods used to measure the concept (see Reichheld 2003, and Alismail et al. 2020). As a

result, this section on the methods for operationalizing satisfaction is longer and more complicated than for other variables. However, the additional complexity around operationalizing the concept of satisfaction simply underscores the work of Reichheld (2003) and serves as additional justification to find a more parsimonious metric than satisfaction, which is part of the reasoning for exploring whether a net promoter score (NPS) tool might provide a plausible alternative that is more parsimonious and easier to measure. This hypothesis is examined in greater detail in Chapter 5.

Due to necessary length of the survey—it has 76 questions and was estimated to take 16 minutes[14]—it was decided to follow the work of Cleary et al. (2018) and measure satisfaction using a single scale. The alternative measure for foster parent satisfaction—i.e., the Foster Parent Satisfaction Scale (FCSS), developed by Denby et al. (1999) and refined by Roger et al. (2006) and Eaton and Caltabiano (2009)—is based on Spector's (1988) Job Satisfaction Survey (JSS) and consists of a 36-item scale and six responses choices to measure one variable. As noted in the literature review in prior chapter, Roger et al. (2006) used factor analysis to show a more parsimonious measure of foster parent satisfaction was possible. Cleary et al. (2018) essentially refined it further and used a single question to measure foster parent satisfaction. In addition to the lengthy questionnaire to measure one variable, the FCSS also assumes foster parents are more similar in nature to employees than to parents. This assumption does not fit the philosophical underpinnings of the research assumptions for this study or this researcher's lived experience. While it is true that there are some foster parents who may appear to foster mainly for the money, most foster parents are assumed to foster out of altruistic sense of duty to their

[14] According to Qualtrics.com, 9 minutes is ideal for surveys on mobile devices because their research shows that "substantial levels of respondent break-off occur" with surveys longer than 9 minutes.

community and family, which is expanded upon in the discussion sections of the results in future chapters (also see the arguments asserted by Cleary et al. 2018). Also, similar to Cleary et al.'s (2018) work, this study looks at group differences, requiring the same question be asked to each foster parent group. Therefore, the construct for measuring foster parent satisfaction in this research uses Cleary et al.'s (2018) validated scale, which also aligns with satisfaction scales used in other arenas like healthcare (Wilberforce et al. 2018). Satisfaction is measured by asking, "Overall, how satisfied do you currently feel with your experience as a foster parent?" Moreover, each of the healthcare studies noted in the literature review on the NPS tool (in Chapter 2) compared the NPS tool with a satisfaction metric, and each of those surveys used a single question design for measuring satisfaction (see Reichheld 2003, Krol et al. 2015, Wilberforce et al. 2018, and Alismail et al. 2020).

Just prior to asking this question on satisfaction with fostering, respondents received a text box that provided an encouraging statement (i.e., "You are doing awesome!") and a brief statement that prepped them to mentally adjust and think about their overall satisfaction and future as a foster parent. Overall, the survey design followed a conversational style format, where sensitive questions were introduced with a little bit of context rather than abrupt changes that require more mental gymnastics by participants.

More specifically, the satisfaction item is also scored like Cleary et al.'s (2018) scale and uses a 5-point Likert scale, where "Extremely Dissatisfied" = 1, "Dissatisfied" = 2, "Neither Satisfied Nor Dissatisfied" = 3, "Satisfied" = 4, and "Extremely Satisfied" = 5. When satisfaction is used as an independent variable in the models for predicting retention (i.e., Equations 5 and 6 above), the scoring of the responses is unchanged to provide the maximum amount of variance and explanatory powers on the righthand side of the Equation. When satisfaction with fostering

is used as the dependent variable in the logistic regression models (i.e., Equations 2, 3, and 4 above), the five responses categories are converted into a dichotomous variable, where responses of "extremely satisfied" are recoded as a 1 and the other responses ranging from "satisfied" to "extremely unsatisfied" are recoded as 0. (The reasoning for this scoring method is below.)

The logic behind the coding system employed for Equations 2, 3, and 4 is based largely on the research cited in the literature review of the NPS tool (in Chapter 2) that compared the NPS tool with the typical satisfaction survey metrics. Reichheld (2003) and Wilberforce et al. (2018) noted (in Chapter 2) that metrics related to measuring the concepts of satisfaction and promotion (i.e., the willingness to recommend a service to a friend or family member) are driven largely by the "extremely likely" category. Wilberforce et al. (2018) and Alismail et al. (2020) also found that the NPS tool and satisfaction metrics provide "similar outcomes" (as previously noted in Chapter 2). Thus, if their findings hold true for this analysis, then satisfaction of foster parents should also be driven by the "extremely likely" to be satisfied responses. (The descriptive data and response breakdown, in the Chapter 4, for satisfaction supports this notion that satisfaction of foster parents is driven largely by the "extremely satisfied" category, which is like the health care research of Krol et al. 2015 and Wilberforce et al. 2018.)

Moreover, Reichheld and Markey (2011) find that "passives are just satisfied" and that 60-to-80 percent of passives indicate that they are "satisfied" just "prior to defection." As Reichheld (2006) notes, "Satisfaction is simply too low a hurdle if the goal is superior relationships." Logically then, in foster care (where relationship is at the heart of the entire system), choosing "satisfied" instead of "extremely satisfied" indicates a degree of discontent due to some unmet need or expectation, which aligns with Graf's (2022) argument of a "brag and moan bias" in satisfaction-related surveys (noted in Chapter 2). The scoring system for

satisfaction (as a dependent variable) in Equations 2, 3, and 4 also facilitates the comparison of the NPS tool with the satisfaction metric, where promoters relate to those who are extremely satisfied, passives theoretically relate to those who are simply "satisfied," and detractors should relate to all other responses that are less than satisfied if the arguments of the NPS tool (noted in Chapter 2) hold for the foster parent arena.

Finally, the scoring system for satisfaction is also justified by the unique circumstances and social norms of fostering, where foster parents who respond to surveys are more likely to be on the positive extreme of Graf's (2022) "brag and moan bias." Many foster parents are unlikely to indicate dissatisfaction with their fostering circumstances because it could be perceived as a negative against them as parents—i.e., they're helping someone in need and they are not satisfied, implying a type of cognitive dissonance must be overcome to indicate dissatisfaction. Thus, choosing "somewhat satisfied" identifies a certain level of dissatisfaction by the foster parent while avoiding the dissonance. Moreover, caring for children from hard places is a fundamentally different context of the concept than satisfaction in the context of a work environment (Cooley et al. 2015).

Understanding that this scoring system, while theoretically justified, may seem unconventional to some researchers, a sensitivity analysis for Equations 2, 3, and 4 was also done, where the dichotomous dependent variable was coded with "satisfied" and "extremely satisfied" as a 1 and "dissatisfied" and "extremely dissatisfied" as 0, excluding the "neither satisfied nor dissatisfied" responses. Moreover, the satisfaction models (Equations 2, 3, and 4) were also tested with the previous notion except including "neither satisfied nor dissatisfied" with the dissatisfied" and "extremely dissatisfied." In each case, the results showed independent variables as statistically insignificant at the 0.05 level and minimal practical significance for

practitioners and policymakers—further supporting the notion that satisfaction of foster parents seems to be driven by the extremely satisfied category. While more research is needed to justify generalizing this operationalization of the concept of satisfaction of foster parents, the research presented here provides a possible step in that direction.

The next section examines the methods used for operationalizing the other dependent variable in this research, namely, retention of foster parents, which is synonymous in this research with the foster parent's desire to continue fostering for the next 12 months.

The Response Variables: A Desire to Continue Fostering (i.e., Retention)

The methods for measuring retention, the dependent variable for Equations 5 and 6 above, are looked at next. To measure foster parents' intention to continue fostering (i.e., retention), a dichotomous dependent variable is used following similar verbiage and scoring of Geiger et al.'s (2013) scale for measuring desire to continue fostering. The question used in this survey stated, "How unlikely or likely is it that you will be fostering 1 year from now?" This wording differs slightly from that of Geiger et al. (2013) in that Geiger et al. uses the phrase "giving up fostering" and they looked at it over an 18-month timeframe. Feedback from the pilot test of 20 foster parents unanimously said they did not like the phrase "giving up"[15] because it had a negative connotation, which would likely bias some responses—i.e., some respondents may be less likely to indicate their true intentions if they felt perceived as "giving up" on helping children from hard places. As a result, the verbiage was changed to the more neutral sounding phrase noted above.

[15] Geiger et al. (2013) actual question for measuring desire to continue asked, "What is the likelihood of you giving up fostering in the next 18 months?"

Also, the 18-month timeframe was changed to a 12-month timeframe as a practical response to the uncertainties of COVID and other recent social upheavals, acknowledging the fact that in the current circumstances future plans are increasingly uncertain as major unforeseen global shifts increase uncertainty at the individual level. That is, due to the increasing level of uncertainty and the rapid pace of societal changes impacting individual living circumstances, a shorter timeframe seemed like a more realistic and valid measure that respondents could answer with more veracity. Intention to continue (retention) was scored on a 5-point Likert scale, where "Extremely Unlikely" = 1, "Somewhat Unlikely" = 2, "Neither Likely nor Unlikely" = 3, "Somewhat Likely" = 4, and "Extremely Likely" = 5. The responses were recoded for a dichotomous dependent variable, where extremely unlikely to somewhat likely to continue were recoded as 0, and responses of extremely likely to continue were recoded as 1. This follows the logic and structure used to recode satisfaction as a dependent variable and focuses on predicting those who are extremely likely to want to continue fostering within the next 12 month. If respondents are more in the extreme category in their sentiment on satisfaction, and if satisfaction is predictive of retention, then retention is also assumed to be driven by more extreme responses. This recoding structure helps ensure consistency across the dependent variables of the different models by keeping a consistent focus on predicting those whose sentiment is in the extremely likely range. It also provides consistency with structure of the NPS tool that focuses on measuring promoters, who are also on the extremely positive side and score 9's or 10's on the NPS question (the range is 0-10). Sensitivity analysis was also done for the retention models (Equations 5 and 6 above) with different variations of the scoring system, where extremely likely and somewhat likely were recoded as 1 and the other responses including the neutral response of "neither likely nor unlikely" recoded as 0. (The next chapter provides

response distributions of each dependent variable and segments the results by parent groups, which supports the recoding system presented here.)

Next, the methodologies for operationalizing key independent variables will be explained.

Key Explanatory variables: formal and informal supports, commitment, challenging events, the NPS tool, and satisfaction

This section looks at the methods for measuring the key independent variables used in the barrier analysis and the logistic regression models. These are deemed "key" independent variables because they are hypothesized to be the ones most likely to predict changes in satisfaction and retention of foster parents based on past research and personal experience as a foster parent.

Before moving to the key independent variables, it is important to note that in general a standard 5-point Likert scale was used wherever possible to provide consistency throughout the survey. This consistency is believed to help respondents move through the survey somewhat easier and slightly quicker. Changing things up in the middle of the survey is not thought to be helpful in the case of measuring sentiment among foster parents, since they already have challenging circumstances. For some audiences, such as college students, it makes sense to change response options in the survey to ensure they are paying attention to the survey questions, especially in longer surveys. But in this case, consistency is assumed to provide more valid results and better response rates given the target population. Now the explanatory variables will be outlined.

Looking first at the formal supports, these included scales measuring access to social workers, health care access for a child in their care, mental health care services for a child in their care, childcare services, gaining access to information from their social worker,[16] as well as respite care and medical cost assistance. These scales were adapted from the 1991 national survey (National Survey of Current and Former Foster Parents reported by U.S. Department of Health and Human Services 1993[17]) of mainly non-relative foster parents in the U.S. and analyzed by Rhodes et al. (2001). Following the 1991 survey logic, these formal support items were measured using a matrix with dichotomous response options for each. The question stem asked whether the foster parent needed the specific resource or support service in the past 2 months (e.g., "Have you needed childcare in the last 2 months?"). Response options consisted of "Yes" = 1 or "No" = 0. If they answered "Yes", survey logic was used to ask a follow-up question regarding how much of the resource or service they received in the last 2 months, where "None at all" = 1 to "Completely met what I needed" = 5. (The results for each potential barrier are detailed in the next chapter.)

Just before respondents received this question matrix, they saw a text box that eased them into this set of questions by letting them know that the next set of questions would ask about "support services foster parents often need." This text box prepares their brains to answer questions about possibly difficult or sensitive subjects. The method employed in this survey is a

[16] Information includes things like resources and services that the child or foster parent qualifies for and how to access those support services. Information from social workers also includes updates on the court decisions that impact how long the child(ren) will be with them, which can impact what support services are needed by the foster parents.

[17] The initial report itself and Rhodes et al. (2001) are the only researchers to analyze this national-level survey data on foster parents. This apparent lack of interest in researching the needs of foster parents seems to highlight the low social constructs of this key stakeholder group.

conversational structure due to the sensitive nature of the subject matter. The downside to this method is that it lengthened the survey considerably, which may have led to a decrease in completion rates. However, the pilot test group (20 foster parents) affirmed the inclusion of these text boxes that made the survey feel more friendly and conversational.

Measuring the informal supports of foster parents followed the work of Sinclair et al. (2004) and Eaton and Caltabiano (2009). Sinclair et al. confirmed the difference between informal and formal supports and measured the informal resources using social supports of those close to the foster parents—i.e., spouse/partner, best friend, extended family member, another foster parent, and their county social worker. Eaton and Caltabiano (2009) measured social supports using the Foster Care Significant Others Scale (FCSOS), which was adapted from the Significant Others Scale (SOS) of social support developed by Weinman et al. (1995).

The question stems and response options for this study followed the methods used by Eaton and Caltabiano (2009), where respondents were asked 4 questions about each significant relationship and their level of support the foster parent felt from them regarding their foster care experience. For example, the most significant question of the four question stems asked, “Can you share your feelings about fostering with your best friend?” The four questions measured emotional and practical support for each relationship and generated a SOS scale index for each relationship, following the methodology of Weinman et al. (1995). (The reliability, which was very high, and other statistics for these social support indexes are reported in the survey results section in Chapter 4.) The index for each relationship was then used for analyzing those relational supports. The one change included in this study was the inclusion of the role of social workers as a social support for foster parents. Prior research only looked at social workers as a formal support. Comparing social workers’ social support with that of close family members and

friends highlights the impact of the informal/social role social workers play in the life of foster parents. The results sections provide insights and discussion into the results of this hypothesis, which proved to be significant.

Since the minds of participants were primed for thinking about what formal and informal resources and support services they needed most, the first open-ended question was asked after the quantitative support questions. The open-ended question asked, “In your opinion, what type of support do foster parents need most?” The pilot group of foster parents affirmed the positioning and the wording of the question. Responses were manually coded into one of the main barriers if the response mentioned, referenced, or implied a specific barrier. The qualitative data helped inform and confirm the interpretation of quantitative results of the barrier analyses.

The construct for measuring foster parent commitment to children in their care was measured with the following scale: “The child(ren) I have fostered will always be a part of my family.” This item was measured using a 5-point Likert scale, ranging from “Strongly Disagree” = 1 to “Strongly Agree” = 5. The construction method for measuring commitment follows verbatim the methods used by Cleary et al. (2018). Nothing was changed and the instrument statistics (mean and standard deviation) for the overall parent group followed those of Cleary et al., where a mean of 4.5 confirms that most respondents conform to the social norms as well as the assumption of altruistic motives for fostering rather than financial motives that would assume respondents to be more aloof (cold and distant) in their commitment. The results section of the next chapter provides more details regarding commitment of foster parents.

Measuring challenging events followed the same matrix style as employed for measuring potential barriers except a 5-point scale was used to measure response options, where “Not at all” = 1, “A Little” = 2, “A Moderate Amount” = 3, “A Lot” = 4, and “A Great Deal” = 5.

Respondents were asked to determine the degree that each challenging event had on their desire to continue fostering. The scales and response options followed those of Cooley et al. (2015).[18] The only change was that the survey for this study used a 7-item scale rather than the 13-item scale employed by Cooley et al. (2015). The items were shortened to improve response rates for the survey and some items were not necessary for the analyses of this research study. Due to the very sensitive nature of these items (e.g., being named in allegations, losing a child—i.e., returned to the biological family—dealing with difficult behaviors, etc.) an introductory statement was provided prior to seeing this matrix of questions. The statement prepared the respondent by letting them know that the next set of questions involved challenging events that are common experiences for many foster parents. In this way, the participants were mentally prepared to see somewhat difficult statements. Afterward they were thanked for their honesty, which again points to the conversational format of the survey.

A question for the NPS tool was also included in this survey, testing an exploratory hypothesis of obtaining similar results with a more parsimonious measure. The net-promoter score (NPS) tool was set up and used as is commonly prescribed (Reichheld 2006). The only difference is that the question stem verbiage was tweaked to focus on whether respondents would promote being a "foster parent" (rather than a product, service, or experience as is commonly used for NPS scales) to their family and friends. The response options were anchored at either end and ranged from "10" being "very likely" to "0" being "not likely." As noted in the literature review on the NPS tool in Chapter 2, responses of 0 to 6 are identifies as "detractors" of being a foster parent, responses of 7 or 8 are identified as "passives," and responses of 9 or 10 identify

[18] Dr. Cooley was contacted directly and graciously provided the scales and response options that her team used in their survey.

"promoters" of being foster parents. In most literature, the NPS tool is then used to come up with an overall score for the origination by subtracting the percentage of detractors from the percentage of promoters (scores range from -100 to +100). While this secondary process was done and noted in the results by providing an overall score for the County's Child and Family Services, the NPS tool's primary use for this analysis was at the individual level to test whether it could be used as a possible predictor of satisfaction (Equation 4 above) and retention of foster parents in San Bernadino County (Equation 6 above). That is, each respondent's score indicated whether their likelihood of promoting foster parenting to their family and friends. Since the NPS tool is analyzed at the individual level and employed as an independent variable, it was used in the models as numeric independent variable rather than as a categorical variable because the former provides greater explanatory power than it would if the variable was segmented into its respective categories. That is, individual responses were tested based on their actual score (0-10) rather than their category (detractor, passive, or promoter). In this way, results are interpreted as the impact a unit change in the likelihood of respondents' degree of willingness to promote being a foster parent has on predicting their satisfaction and retention as a foster parent.

As a sensitivity check for the regression analyses, the categorial variables of promoter, passive, and detractor for the NPS tool were also tested in the regression models (Equations 4 and 6 above) to determine the impact on the results. But the real value of the NPS categorical segments for this analysis is in the descriptive analysis of these results that look at the distribution of each category compared with the different foster parent groups. The idea behind including the NPS tool in this analysis of foster parents follows the research of Reichheld (2006), Krol et al. (2015), Wilberforce et al. (2018), and Alismail et al. (2020) (noted in the literature review in Chapter 2) in that the NPS tool is easier to distribute than satisfaction surveys such as

the one used in this study and the idea of "promotion" is more parsimonious than other variables like satisfaction. Thus, if significant, the NPS tool (at the individual level) could be used to provide more rapid feedback to practitioners and policymakers on the utilization and effectiveness of resources and services for foster parents, thereby giving foster parents more of a voice in evaluating support services and policy decisions. (This suggests that the NPS tool be used in foster care in a similar fashion as it is being used in healthcare.) The results chapters, especially Chapter 5, expand on the potential benefits of using an NPS tool to gain feedback on foster parent support services and whether the results support it or not (which, incidently, they do). But the notion and methods are noted in this section for further understanding of the underpinnings of the exploratory analysis of a including the NPS tool in a survey of foster parents.

Finally, a variable for satisfaction is used in the model (Equation 5) on the righthand side of the Equation as an independent variable, which necessitates some methodological explanation. The theoretical basis for using *satisfaction* in Equation 5 and the dependent variable of *satisfied* in Equation 2 is found in the seminal work of Denby et al. (1999) and the framework of Eaton and Caltabiano (2009) who each helped establish and refine the general conceptual model for analyzing satisfaction and retention of foster parents being employed in this analysis. While it could be a potential weakness in their research, it is assumed that they accounted for simultaneity (although they do not explicitly note it) in their use of the satisfaction variable in their retention models. Ideally, in this scenario, a two-staged least-squared statistical model would be employed. But since the variables in question (satisfaction and retention) are not continuous in nature, the two-staged least-squared method is not an option at this point. Satisfaction is used on the righthand side of Equation 5, but it is believed to be different enough than the satisfied variable

used as the dependent variable in Equations 2, 3, and 4 that issues of inconsistent estimates due to unaccounted for simultaneity (in eq. 5) are minimized and do not significantly impact the results. When satisfaction is used in Equation 5 (on the righthand side of the Equation), it is measured with the typical 5-point Likert scale (noted previously as ranging from extremely unsatisfied = 1 to extremely satisfied = 5), thereby providing the most variance possible to help with the explanatory powers of the righthand side of the Equation. But when satisfied is employed as a dependent variable (Equations 2, 3, and 4), as argued previously in this chapter and noted in Chapter 2, the satisfied variable is recoded and driven by the extremely satisfied category, where extremely satisfied is coded as a 1 and the other responses are recoded as 0 (noted previously in this chapter).

An additional benefit of this unique method for creating the dichotomous satisfaction variable (noted above) is that, while it is believed to accurately reflect the reality and to be justified in the literature on the NPS tool, it also provides a hedge against simultaneity by having a different distribution of variance than the satisfaction variable employed in Equation 5. This is because the satisfied variable used in Equations 2, 3, and 4 is driven by those who were extremely satisfied (as noted previously in this chapter), whereas the satisfaction variable used as an independent variable in the retention model (Equation 5) is not recoded and not driven by those who are extremely satisfied. The increased variance is useful when satisfaction is an independent variable, but it is not useful as a dependent variable because it creates more variance to try to explain or predict. Thus, simultaneity is believed to be mitigated and not adversely impacting the results. To test this argument, the results of Equation 6 are compared to those of Equation 5, where the only difference is the substation of the NPS tool for the satisfaction variable, which should reveal whether simultaneity is present by the amount of change in the

standard errors. If present, one would expect the betas to change and the standard errors to decrease significantly when the NPS tool is used instead of satisfaction. One might argue that the NPS tool and satisfaction are similar concepts, but Wilberforce et al. (2018) found that "they evaluate related but distinct constructs," implying for the purposes of this analysis that there should be a noticeable decrease in the standard errors when the NPS tool is employed instead of satisfaction if simultaneity is present. If it is not present, then one would expect to see little change in the betas and standard errors. (Note that the results in Chapter 5 show no change in the standard errors of the other independent variables when the NPS tool is employed rather than the satisfaction variable.) Thus, while type II error may be an issue in this analysis due to a small sample size, they are minimized by limiting any impact due to simultaneity. (Note that to facilitate the understanding regarding which variable is being addressed—satisfied is used to relate to the binary construct and satisfaction is used otherwise.)

The next section finishes up the presentation of the variables and provides an overview of the methods for measuring the other independent variables included in the survey. The following variables are less important in that they are necessary to include in the analyses based on past literature, but they are not key to the hypotheses being tested in this study.

Other variables: personal characteristics and locus of control variables

The Locus of Control variable (often denoted as LOC) applied to the foster parent experience was shown by Sinclair et al. (2004) and Eaton and Caltabiano (2009) to be a significant predictor of satisfaction of foster parents in England and Australia, respectively. While the results are somewhat mixed in the literature as to the significance of the locus of control on fostering, it was included here to ensure thoroughness of the analyses, to provide

further support for the internal consistency of the results, and to identify potential differences between foster parent groups in their viewpoints on control in the foster care system. The locus of control was measured using a setup like that of Eaton and Caltabiano (2009) who took the original locus of control items developed by Levenson (1981) and adapted them to fit the lens of being a foster care parent, meaning that they adjusted the verbiage in the survey questions to apply specifically to the foster care experience. (The full survey used in this analysis and verbiage of these locus of control questions, which copies Eaton and Caltabiano 2009, can be seen in the appendix). Dr. Eaton was contracted directly, and she graciously shared her entire survey. Thus, the construction of the locus of control variable followed Eaton's construct, where "Strongly Disagree" =1, "Moderately Disagree" = 2, "Slightly Disagree" = 3, "Slightly Agree" = 4, "Moderately Agree" = 5, and "Strongly Agree" = 6. The 6-point Likert scale was employed in this case to follow the methodology developed by Eaton and Caltabiano (2006).

Whereas Eaton and Caltabiano used an 18-question matrix with 6 question stems for each of the subcategories of the LOC variable, namely, internal control (I) and external control of powerful others (PO) and chance (C), this study shortened the matrix to 12 questions with 4 stems for each subcategory to increase completion rates of the survey. The internal consistency reflected that of prior research. Thus, no reliability was lost in shortening the matrix. The shortening of this variable was deemed to be justified since it was not critical to the hypotheses, and it was expected to help improve completion while also providing a valid measure of the variable. The Equation for compiling the individual locus of control scores was the following:[19]

$$\text{Total LOC} = I - (PO + C) \qquad \textbf{Eq. 7}$$

[19] This Equation was obtained from the following IPIP site: https://ipip.ori.org/newSingleConstructs.htm and confirmed in the work of Levenson (1981) and Eaton and Caltabiano (2006).

The LOC was also broken down to its different subscales and analyzed for the different foster parent groups, to determine whether differences existed that might help understand possible differences for the feeling of control over their circumstances or the lack thereof. Chapter 5 details these results.

Finally, characteristics of the sample population were also obtained. In addition to the normal demographics (e.g., gender, income, education level, marriage status, and ethnicity), which were measured according to standard nomenclature, other personal characteristics were also obtained that are specific to the foster care arena. For example, the key personal characteristic was whether they identified as a relative or non-relative foster parent. This key distinction was used to analyze the generalizability of the results of the barrier analysis and the logistic regression models of satisfaction and retention across the different parent groups. Respondents were also asked about their foster parent experience (i.e., length of time as a licensed foster parent in San Bernardino County), which provides insights into the results as those with less than 1 year of experience are more likely to stop fostering than others. (50% of foster parents stop fostering within 12 months of their first placement in San Bernardino County, according to county officials.)

The next section looks at the methods employed in analyzing these measures used to looked at the research questions.

DATA ANALYSIS

This section provides a broad overview of the analyses employed to study the research questions using the survey data collected. Chapters 4, 5, and 6 provide details and a closer inspection of each method and the strengths and weaknesses of each.

The analyses used in this research study for the initial survey results and barrier analyses consisted mainly of ANOVAs and cross-tabulations. Next, logistic regressions were used to analyze the relationships of the resource and support service models outlined above and hypothesized for predicting satisfaction and retention of foster parents. Finally, a key variable hypothesized and confirmed from the regression results was employed in exploratory spatial analyses; this was done to determine if further research into questions of spatial utility and spatial policy processes regarding decision making of resource and support allocations for foster parents, was justified. The following expands on the overview of these methods.

The data for the analyses came from 303 survey respondents. Of the 303 total responses, some did not complete all the parts of the survey or skipped significant questions, such as the key scales measuring the dependent variables or critical independent variables. Those responses were not used in the analyses, resulting in a total of 214 usable responses for the subsequent analyses. It should be noted that there were 107 usable responses by relative foster parents and 107 responses from non-relative foster parents. The fifty-fifty split between the foster parent groups provided response rates by each parent group that enabled their comparisons.

To analyze the first research question regarding barriers to retaining foster parents in San Bernardino County, simple crosstabs and ANOVAs were used to perform these analyses and comparisons. SPSS (Version 25) was the statistical program used to perform the ANOVAs and crosstabs. SPSS was also used to split the dataset and run the separate ANOVAs and crosstabs on the different foster parent groups. Crosstabs were used when the variables were categorical, and ANOVAs were used when variables consisted of continuous and categorical variables. While many variables were ordinal in nature, some continuous variables consisted of items that resulted from composite scores of multiple scales like the locus of control scores or scores for the

support of significant others (SOS). Moreover, for variables that combined multiple questions to obtain an index, the reliability of the answers was checked using Cronbach Alpha reliability in SPSS. In each case, scores of 0.70 or greater were deemed acceptable and scores of 0.60 are deemed usable (Howell 2013). None of the items scored below 0.60.

Logistic regressions were used to analyze the predictive relationships between variables and foster parents' satisfaction with their overall experience as well as the relationship with their desire to continue fostering. Binary logistic regressions were used because the data did not meet the assumptions of a linear regression (Kennedy 2008, and Gujarati & Porter 2009). An assumption of logistic regressions is that no significant multicollinearity exists between the variables. To ensure that the assumption of no multicollinearity was not violated, each model was tested for multicollinearity of the variables using a VIF of an OLS regression prior to running the logit regression. The separate OLS regression was only used to obtain and check the VIF value. But to run the OLS regression nominal variables were converted into dummy variables and binary variables were coded as 0 or 1 nomenclature. In each case, the VIF was well below the threshold (all VIFs were below 1.9) The other major assumption of logit regression is that no major outliers exist that would bias the results. This assumption was checked and confirmed for each regression as part of the results provided in the logit regression results of each model tested. SPSS Version 25 provides a "casewise list" to test for significant outliers. In each case the assumptions were not violated, and the models' results can be assumed to be valid.

For the exploratory spatial analytics, ESRI's ArcGIS online software was used as it provides the tools necessary for these analyses. Future spatial analyses that go more in-depth may benefit from the desktop version of ArcGIS (ArcGIS Pro) that provides more tools and increased functionality. But for this exploratory analysis, the online version fit the needs well.

Chapter 6 provides a lengthy and detailed discussion of the theories that support the methods, the data employed, and the tools used for the spatial analyses. Here a broad overview is provided.

The main spatial questions being addressed involve spatial access to a key resource identified by foster parents and supported by the regression results. The variable for this exploratory spatial analysis needed to be generalizable across the different foster parent groups to provide meaningful insights to practitioners and policymakers. The exploratory analyses started by looking at spatial patterns using tools like spatial density mapping and hot-spot analysis, which test if statistically significant spatial clustering exists using an optimized hot-spot analysis tool. The initial pattern analyses inform the next step of analyzing access by identifying starting points on where to focus the initial analysis of access, since (as far as I could tell) no prior research exists for foster parents' spatial access to resources and support services. Network analysis tools were used that look at drive distances between the demand locations (e.g., foster parent locations) and supply locations (e.g., the distribution location of mental health centers). These network analyses incorporate different catchment zones around distribution locations that are determined by travel distances, which function as the price, or cost, of accessing the needed resource or support service. The catchment zones commonly used in spatial literature are 10-, 20- and 30-minute drive-time zones. Chapter 6 provides more in-depth understanding of the choices of these catchment zones.

The culmination of the spatial analysis provides insights for policymakers, practitioners, and researchers to inform future decisions. The aim of the results is to provide valid findings that provide practical insights into specific levers that policymakers and practitioners can use to improve satisfaction and retention among their existing foster parents. The data collection,

variables, models, and results all attempt to focus on the levers policymakers and practitioners have agency over and can leverage directly.

CONCLUSION AND DESIGN WEAKNESSES

Before moving to the results chapters, it is important to note and understand some of the potential weaknesses of the research design. Since most research requires certain assumptions to be made and few projects have perfect data, weaknesses are not uncommon in most research. But they are important to understand when interpreting the results. One of the weaknesses for this study involves the sample size. Since part of the aim of this study is to compare groups, a large sample size is ideal to avoid Type II errors, especially when stratifying the data to compare groups. This is potential weakness is mitigated somewhat by San Bernardino County's relatively large and diverse population of foster parents. The limited access and data availability from many of the Foster Family Agencies (FFAs) who work with the County could impact the results as a large segment of the target population was not available to survey. Yet since most foster parents who use a private FFA are non-relative foster parents, this potential weakness is mitigated somewhat by the fact that almost half the useable sample are made up of non-relative foster parents. However, the non-relative foster parents who chose to use a Foster Family Agency (FFA) might have distinct characteristics that might show up if more of these foster parents were included.[20] Thus, a potential future research project might be to compare foster parents who previously licensed directly with the County and those who use an FFA.

[20] It should be noted that San Bernardino County along with LA County Child and Family Services (CFS) now (i.e., since about 2021) use Foster Family Agencies (FFA's) to license and work with almost all non-relative foster parents. Prior to this, potential foster parents could choose whether to license directly with the County or go through a County-approved FFA. Now, folks who go to the County seeking to become a foster parent are handed a list of FFAs to

Similarly, since the spatial analytics only had location data for foster parents who are with the County and not those licensed through an FFA, the results might change if a more complete dataset that had a higher portion of FFA non-relative foster parents was included. Future research might also benefit by expanding the spatial analyses in this research study with the full dataset that includes all the foster parents licensed with the County. In short, more data will help ensure the insights and results presented in this study are generalizable and valid.

Also, a shorter survey design might improve response rates and reduce potential measurement errors among respondents. Foster parents are often short on time because parenting children from hard places often means understanding complex trauma, requiring extra time with each child. Children from hard places often have other mental health challenges like PTSD and ADHD, which usually require therapy visits; these children also frequently have a lot of extra energy requring more time and energy by the foster parent to keep these behaviors from negatively impacting the child and the family as a whole. These and other time constraints (e.g., birth-parent visits, court dates, etc.) often mean that most foster parents have very limited time to sit and focus on a lengthy and cognitively dense survey. Thus, using 36-question scales to measure a single variable can lead to increased measurement error by participants losing interest in completing each response with focused attention and alertness (i.e., they get to a point and speed through the rest to simply get done) and an increased likelihood of not completing the survey. While every effort was made to reduce the length of the survey in this study, it was still much longer than the 9-minute survey length recommended by Qualtrics' best practices. (The survey used here took an estimated 16 minutes, on average, to complete.) Future research might

contact that will walk them through the process (i.e., they no longer have a choice). Thus, future research will need to access at least a representative sample of this foster parent group.

benefit from identifying and implementing more parsimonious measures like the net-promoter score (NPS) scale purposed in this research.

Finally, in the future, it might help responses rates, measurement, and data accessibility if the survey communications come from a County (i.e., a ".gov") email address. While County officials approved the research, foster family agencies and some foster parents questioned whether the survey was approved by the County or was potential spam.

The results chapters follow, providing additional potential weaknesses in each area as well as future research possibilities.

CHAPTER 4: SURVEY RESULTS

INTRODUCTION

"Foster care is not a free good, but it is a remarkable one" (Sinclair et al. 2004). Whether they are relative or non-relative foster parents, both foster parent groups make a choice to foster out of sense of duty and obligation to their family or community, thereby reducing the future economic, social, and political burdens of their family and community. It seems incumbent, then, that policymakers, practitioners, support professionals, researchers, and the like help provide resources and support services that are needed, accessible, and effective; and that they essentially help reduce the cost these foster parents pay for their "community altruism." With this mindset, the results presented in this chapter provide descriptive analysis of the survey results, and Chapter 5 will focus primarily on models that aim to predict what resources and support services can best reduce the costs associated with fostering and whether the results differ by parent group. Chapter 6 provides an exploratory spatial analysis of foster parents' access to a key resource that generalizes across the foster parent groups to determine if further spatial analysis is justified.

The results of the analysis will be presented in three parts. Part I (this chapter) will look at the general survey results and the characteristics of the total sample along with an initial analysis of how the sample breaks down between relative and non-relative foster parents, noting statistically significant differences. This chapter also provides the perceptions of respondents on the response and explanatory variables along with a key barrier analysis and bivariate analysis and comparisons of the responses of relative and non-relative foster parents on key variables. Part I, then, addresses the research questions on whether significant differences exist between relative and non-relative foster parent groups and the key barriers they perceive to retaining

foster parents in San Bernardino County. The second part (Chapter 5) will present the regression results and compare the different models: relative versus non-relative models, and overall models for predicting satisfaction and retention. Part II also looks at using the net-promoter score (NPS) tool (explained in the Chapters 2 and 3) as a more parsimonious predictor of satisfaction and retention than the typical psychological scales. Part III (Chapter 6) will provide an exploratory geospatial analysis based on survey and regression results and the key hypothesis that social worker access and communication is a significant barrier because social workers are the "gatekeepers" to other resources and support services, according to Sinclair et al. (2004).

Sample Characteristics and Relative and non-Relative Foster Parent Breakdown

In Table 1 (found later in the chapter), the overall characteristics of the sample are presented first, followed by a report on their specific foster and adoption characteristics. Each variable is also broken down for relative and non-relative foster parents. Significant differences between the two groups are noted with asterisks (**) by the variable name.

The results are based on 234 valid responses of the 303 total responses. Responses were eliminated for incompleteness and if the respondent had no foster care activity in the 3 years prior to the survey (i.e., no experience since 2017). Also, the sample originates from mostly (59%) county homes, as opposed to an even combination of county and foster-family agency (FFA) homes.[21] While all 72 Foster Family Agencies (FFA's) contracted with San Bernardino

[21] This footnote was originally included in chapter 3, but it is reiterated here for convenience and clarity of the different between a "county home" and an "FFA home." It should be noted that San Bernardino County along with LA County Child and Family Services (CFS) now (i.e., since about 2021) use Foster Family Agencies (FFA's) to license and work with almost all non-relative foster parents. Prior to this, potential foster parents could choose whether to license directly with the County or go through a County-approved FFA. Now, folks who go to the County seeking to become a foster parent are handed a list of private FFAs (who are approved by the County) to

County's Child and Family Services (CFS) were contacted for this study, only 3 agreed to participate in allowing their foster parents to be surveyed. Thus, out of the approximately 3000 licensed foster parents in San Bernardino County at the time of the survey, about 1400 were accessible to the researcher and able to participate in the survey. The survey then was distributed to approximately 1400 foster parents with 303 responses, giving the survey a response rate of almost 22%. It had a completion rate of 78%. It should also be noted that foster parent surveys typically have low response rates and are relatively difficult to administer due to the generally overwhelmed nature of the foster care system. For example, a similar survey for the Texas Department of Family and Protective Services completed during the same timeframe had a response rate of 13.7% (Texas DFPS, 2020). The response rate of 22% and sample size of 303, while low for surveys in general, are relatively good for surveys of this type and for the target group being surveyed. The results, then, provide deeper clarity into foster parents in San Bernardino County but may change if a larger group is accessible and provide feedback.

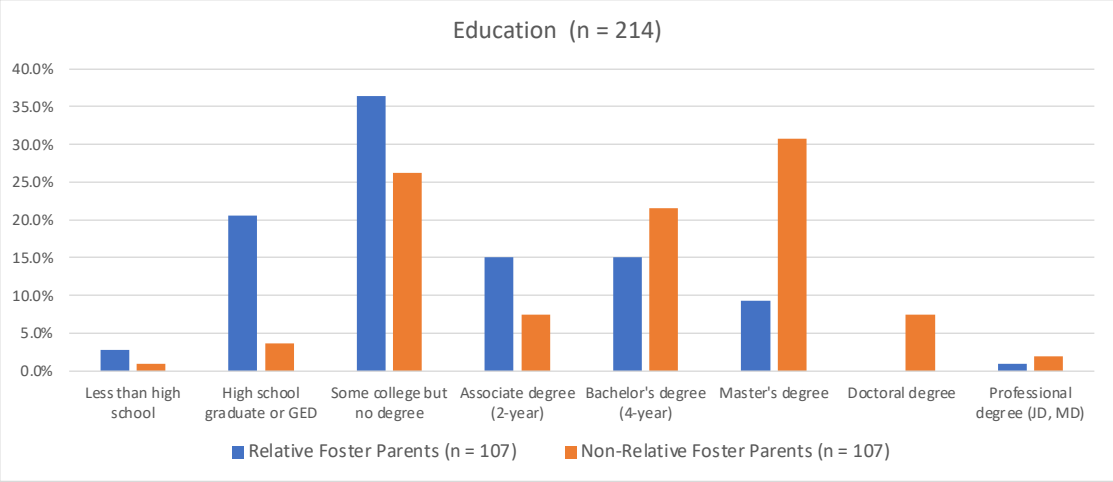
Looking at the demographic variables first, almost two-thirds (65%) of the sample were married and, while not statistically significant, non-relative foster parents were slightly more likely to be married (74% and 56%, respectively), which could impact some of the social-support (SOS) responses, which are provided in Part II. Over two-thirds (69%) of all respondents indicated a religious affiliation. A statistically significant (P=0.005, Cramer's V = 0.20) differences existed between relative and non-relative foster parents, with a 60/40 split among

contact, and it is the FFA who walks with the potential foster parent through the process (i.e., foster parents don't have a choice; they must work with an FFA). So a "county home" identifies foster parents who licensed directly through the County and an "FFA home" identifies foster parents who work through a County-approved FFA.

relative foster parents and 78% of non-relative indicating a religious affiliation. Religious affiliation could also impact the social-support networks of the two groups.

The overall sample consisted mostly of Gen-Xers (52%) between the ages of 40-55 with significant representation of Millennials (27%) ages 24-39 and Boomers (19%) ages 56-74. These generational representations were consistent for both relative and non-relative foster parents.

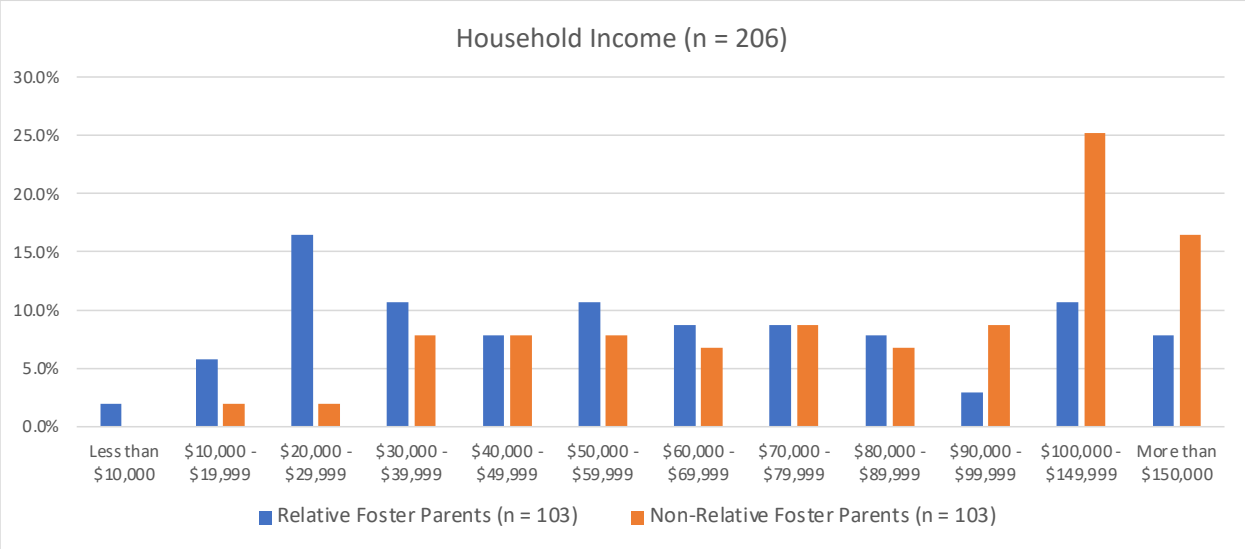
Figure 3: Education Breakdown for Relative and Non-Relative Foster Parents



Education and household income provided the most significant (both practically and statistically) differences between the two foster parent groups (Education: P = 0.000, Cramer's V = 0.4; Household Income: P = 0.002, Cramer's V = 0.4). Overall, respondents were generally well educated with 86% having at least some college and 52% were above the median household income, making $70K or more per year. Relative foster families had significantly less education and income levels that non-relative foster parents. Almost 60% of non-relative foster parents made more than $70K per year, while less than 30% of relative foster parents made $70K per year or more. Figures 3 and 4 compare the distributions of the two foster parent groups in

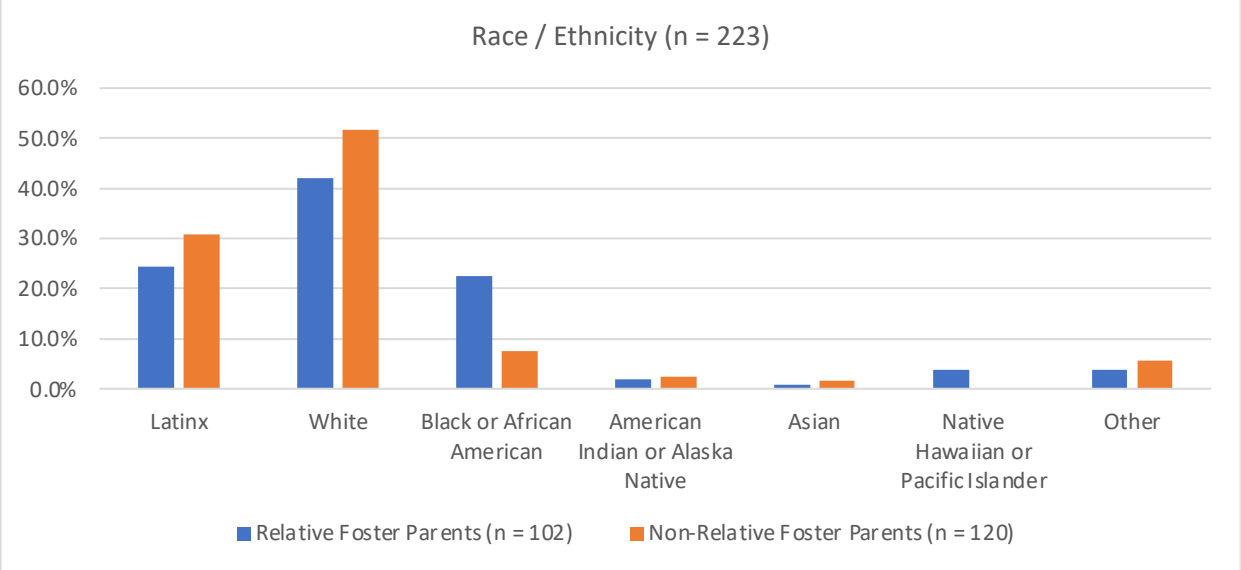
relation to their levels of education and income.

Figure 4: Income Comparison for Relative and Non-Relative Foster Parents



Regarding gender, over 89% of the sample chose female. This dominant characteristic is also very common in foster parent surveys. For example, a survey completed by the Texas Department of Family and Protective Services around the same timeframe had over 77% female (Texas DFPS, 2020), Cleary et al. (2017) had 76% females, and Cooley et al. (2015) had over 81% female respondents. It should also be noted that while the results are on the high side for female respondents, prior research focused on non-relative foster homes that have higher percentages of male/female households, whereas relative foster parents have more households comprised of single, divorced or never-married females (Geiger et al. 2013, Denby et al. 1999). Generally, the Courts also favor placing foster children with moms and sending reimbursement distributions to females rather than males. Therefore, while heavily biased in favor of the female perspective, responses and results provided here are consistent with prior results and of the foster care system in general.

Figure 5: Race and Ethnicity Breakdown of Relative and Non-Relative Foster Parents



The racial and ethnic makeup of the sample had a more diverse distribution than typical foster parent survey with 47% indicating white, 28% Latinx, 14% black or African American, and 5.4% other. Similar studies had much heavier biases toward white demographics (e.g., Texas DFPS 2020 had 68% white, 16% Latinx and 14% Black or African American; Roger et al. 2006 had 96% white; Geiger et al. 2013 had 79% white, 10% Latinx, and 4.7% Black or African American; and Cooley et al. 2015 had 79% white, 4.5% Latinx, and 5.2% Black or African American). The increased diversity of the sample is likely supported by the fact that the research intentionally includes relative foster parents who are less white than their non-relative counterparts. While the differences are not statistically significant, the practical differences provide more meaningful results.

Table 1: An Overall Sample Description and a Breakdown by Foster Parent Group

	Overall			Relative Foster Parents			Non-Relative Foster Parents		
	M (SD)	Count (n	Percent (%)	M (SD)	Count (n	Percent (%)	M (SD)	Count (n)	Percent (%)
Marital Status									
Single		30	14.1%		20	18.9%		10	9.3%
Married		139	65.3%		60	56.6%		79	73.8%
Widowed		7	3.3%		3	2.8%		4	3.7%
Divorced		22	10.3%		13	12.3%		9	8.4%
Separated		2	0.9%		2	1.9%		0	0.0%
Never Married		13	6.1%		8	7.5%		5	4.7%
Religious Affiliation**									
Yes		147	68.7%		64	59.8%		83	77.6%
No		67	31.3%		43	40.2%		24	22.4%
Age/Generation									
Gen-Z: Born 1997 - 2002		2	0.9%		2	1.9%		0	0.0%
Millennials: Born 1981 - 1996		59	27.4%		33	30.8%		26	24.3%
Gen-X: Born 1965 - 1980		111	51.6%		49	45.8%		61	57.0%
Boomers: Born 1946 - 1964		41	19.1%		23	21.5%		18	16.8%
WWII: Born 1945 or earlier		2	0.9%		0	0.0%		2	1.9%
Education**									
Less than high school		4	1.9%		3	2.8%		1	0.9%
High school graduate or GED		26	12.2%		22	20.6%		4	3.7%
Some college but no degree		67	31.3%		39	36.4%		28	26.2%
Associate degree (2-year)		24	11.2%		16	15.0%		8	7.5%
Bachelor's degree (4-year)		39	18.2%		16	15.0%		23	21.5%
Master's degree		43	20.1%		10	9.3%		33	30.8%
Doctoral degree		8	3.7%		0	0.0%		8	7.5%
Professional degree (JD, MD)		3	1.4%		1	0.9%		2	1.9%
Household Income**									
Less than $10,000		2	1.0%		2	1.9%		0	0.0%
$10,000 - $19,999		8	3.9%		6	5.8%		2	1.9%
$20,000 - $29,999		19	9.2%		17	16.5%		2	1.9%
$30,000 - $39,999		19	9.2%		11	10.7%		8	7.8%
$40,000 - $49,999		16	7.8%		8	7.8%		8	7.8%
$50,000 - $59,999		19	9.2%		11	10.7%		8	7.8%
$60,000 - $69,999		16	7.8%		9	8.7%		7	6.8%
$70,000 - $79,999		18	8.7%		9	8.7%		9	8.7%
$80,000 - $89,999		15	7.3%		8	7.8%		7	6.8%
$90,000 - $99,999		12	5.8%		3	2.9%		9	8.7%
$100,000 - $149,999		37	18.0%		11	10.7%		26	25.2%
More than $150,000		25	12.1%		8	7.8%		17	16.5%
Gender									
Female		192	89.7%		100	93.5%		92	86.0%
Male		22	10.3%		7	6.5%		15	14.0%
Other		0	0.0%		0	0.0%		0	0.0%
Race/Ethnicity									
Latinx		62	27.8%		25	24.5%		37	30.8%
White		105	47.1%		43	42.2%		62	51.7%
Black or African American		32	14.3%		23	22.5%		9	7.5%
American Indian or Alaska Native		5	2.2%		2	2.0%		3	2.5%
Asian		3	1.3%		1	1.0%		2	1.7%
Native Hawaiian or Pacific Islander		4	1.8%		4	3.9%		0	0.0%
Other		12	5.4%		4	3.9%		7	5.8%
Foster / Adoptive Characteristics									
Role									
Relative foster parent / kinship (R)		146	50.0%						
Non-relative foster parent (non-R)		127	43.5%						
other		19	6.5%						
Tenure as foster parent**	2.19 (0.83)								
Less than 1 year		71	26.5%		43	30.3%		28	22.2%
between 1 and 2 years		74	27.6%		47	33.1%		27	21.4%
More than 2 years		123	45.9%		52	36.6%		71	56.3%
Placement within 3 years									
Yes		239	87.6%		129	92.1%		110	82.7%
No		34	12.5%		11	7.9%		23	17.3%
Experience (total number of placements)**	3.97 (6.82)			2.03 (1.46)			6.25 (9.48)		
Adopted through CFS**									
Yes		75	27.7%		25	18.0%		50	37.9%
No		196	72.3%		114	82.0%		82	62.1%
Number adopted through CFS	1.7 (1.11)			1.4 (0.97)			1.8 (1.17)		
Foster Family Agency (FFA) licensed									
Yes		111	41.4%						
No		157	58.6%						

(**) Denotes a statistically significant (P-value ≤ 0.01) difference between parent groups

(*) Denotes a statistically significant (P-value ≤ 0.05) difference between parent groups

Foster Care Specific Characteristics of the Sample

Moving now to foster care characteristics of the sample, the total sample is evenly split between relative and non-relative foster parents with a 50% representation of each group. It should be noted that this even split is achieved, in part, by including the 19 respondents (10 respondents were used in the analysis[22]) who chose "other" into the non-relative foster parent group. Those who chose "other" were added to the non-relative foster group based on their qualitative responses to the open-ended questions. Many of their qualitative responses indicated that they were a non-relative foster parent and potentially part of the County's matching program,[23] but they likely did not understand the distinctions of the categories. As noted in the chapter 3 on methods, the intent was not to obtain an even 50/50 split but rather to simply obtain a large enough percentage of each group as part of the response rate to enable the statistical comparison of the different foster parent groups, which is a critical element of the analysis.

Experience of foster parents was measured via their tenure as foster parents and their number of placements within 3 years prior to the survey. Since 30-50% of foster parents quit within one year and almost 80% stop fostering within two years (CDSS, DHHS: Child Welfare

[22] A total of 9 of the responses were removed for not answering key questions like those of satisfaction and desire to continue.

[23] Matching is part of the foster care program and occurs later in the process when reunification appears unlikely, and the child is either in a short-term treatment facility without a long-term placement or the current foster parent(s) do not wish to pursue adoption if the parental rights of the biological parents are in-fact terminated. The matching process has less risk of the child(ren) returning to their biological parents, but the probability of reunifying is not eliminated. Thus, while some foster parents in the matching program may see themselves as somewhat different than other foster parents, they are still deemed non-relative foster parents in their need for support services for this analysis because they are not directly (or indirectly) related to the biological family of the child(ren) in foster care. But they still need resources and support as they care for a child(ren) in the foster care system.

Information Gateway, and The Chronicle of Social Change 2017), foster parent tenure is grouped into 3 categories—less than 1 year, between 1 and 2 years and more than 2 years—which follows the scale used by Eaton and Caltabiano (2009). Those with less than 2 years—about 54% of the sample—are at a higher risk to stop fostering than those with 2 years or more. Of those with less than 2 years, 26.5% had fostered for less than a year and 27.6% for less than 2 years. Non-relative foster parents followed a similar distribution as the overall sample with 22% less than year, 21% between 1 and 2 years, and 56% greater than 2 years. Relative foster parents were evenly distributed among the three groupings with nearly a one-third in each category. Thus, non-relative foster parents have slightly more tenure, but the differences are not statistically significant at the 0.05 level. Given the distribution of the responses, the results are weighted to the most at-risk group of foster parents—i.e., relative foster parents with less than 2 years of experience.

Of those who had placements in the last 3 years (n=239), they had an average of 4 placements (SD = 6.82). Relative foster parents had an average of 2 placements within the last 3 years (SD = 1.46) but non-relative foster parents had an average of 6 placements (SD = 9.48). The significant difference in the number of placements and the variance among non-relative foster parents highlights one obvious difference between the groups—how children come into

Table 2: One-way ANOVA for placements in last 3 years for relative and non-relative foster parents

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1042.731	1	1042.731	24.526	.000
Within Groups	9991.117	235	42.515		
Total	11033.848	236			

their care. Relative foster parents often are asked to care for a displaced family member, while non-relative foster parents often provide more temporary and emergency care until a relative

family member can be found. As a result, non-relative foster parents are significantly more likely to have more placements over time than their relative counterparts. This also plays into the differences between the two group regarding their level of commitment to a child in their home, which will be discussed in more detail later in Part II of this chapter. While the differences in tenure were not statistically significant, the differences in experience as measured by number of placements were statistically significant (see Table 2: One-way ANOVA for placements in last 3 years).

Finally, while adoption is not the goal of foster care (reunification is the primary objective), many foster parents end up adopting when the parental rights of the biological parents are terminated. Cleary et al. (2018) shows that foster parents who adopt are significantly more committed and satisfied than those who only foster. For this sample, most (72%) of the respondents have *not* adopted through Child and Family Services, which is likely due in part to an equal sampling of relative families. This bias in the sample results implies that the regression results involving levels of commitment and satisfaction are conservative in relation to typical foster parent results.

In summary then, the sample can be described as largely white married females who are Gen-Xers that are relatively affluent, educated, and religious. These are common sample characteristics of most foster parent surveys. For example, Denby et al. (1999), Sinclair et al. (2004), Geiger et al. (2013), Cooley et al. (2015), Cleary et al. (2018) and Texas Department of Family Protective Services (TX DFPS 2020) found similar sample characteristics. Therefore, the responses and results are typical of most surveys in this arena.

Key Variables, Barrier Analysis, and Foster Parent Group Comparisons

Retention and Satisfaction (Response Variables)

Looking at retention first, most foster parents (61%) said they were either extremely or somewhat likely to be fostering one year from the time of the survey. Non-relative foster parents were slightly more likely than relative foster parents to say that they will be fostering in 12 months (65% versus 57%, respectively). The differences (see Table 3 below) are slight across each response category for each parent group and not statistically significant. This result aligns with prior research (Cooley et al. 2015) that also found no statistically significant nor practically significant differences between relative and non-relative foster families in a national study. Thus, it seems reasonable to surmise that retaining foster families in San Bernardino County is not dependent on the parent grouping—i.e., being a relative, or non-relative foster parent.

Table 3: Cross tabulation of responses to retention item, separated by parent group

Retention	Relative foster parent *n = 117*	Non-relative foster parent *n = 117*	Total *n = 234*
Extremely Unlikely	12.0%	12.8%	12.4%
Somewhat Unlikely	14.5%	10.3%	12.4%
Neither Likely nor Unlikely	16.2%	12.0%	14.1%
Somewhat Likely	22.2%	27.4%	24.8%
Extremely Likely	35.0%	37.6%	36.3%

Being satisfied with fostering is analyzed with two different variables—the typical psychology-type question stem and a more economic-type question stem of the NPS tool. Part II (Chapter 5) of these findings will compare regression models using these different operationalizations of being satisfied. Here, we will look at the survey results and do some statistical comparison.

Looking first at the typical satisfaction variable stem, most of the respondents (72%) said they were either somewhat or extremely satisfied with their overall fostering experience. Relative foster parents indicated more satisfaction with their overall experience than their non-relative counterparts—76% versus 69% indicated somewhat or extremely satisfied (see Table 4). These differences are statistically significant with a (P = 0.019). But, with a correlation coefficient of just 0.224, the practical strength of the relationship is relatively weak. A unit variant analysis highlights this with a low significance (P=0.14) and R^2 of just 0.009. Thus, one can conclude that there is little difference between the two groups for this measure of satisfaction. These survey results highlight what was hypothesized in the prior chapters, namely, that satisfaction appears in these survey results to conform to the findings of Reichheld (2003, 2006) and Wilberforce et al. (2018) in that it appears to be driven largely by the "extremely satisfied" category, which informs the coding of the satisfaction variable in the regression models in Chapter 5. (As noted previously, sensitivity analyses also looked at different coding options when satisfaction is the dependent variable.)

Table 4: Cross tabulation of responses to satisfaction, separated by parent group

Satisfaction	Relative foster parent *n = 117*	Non-relative foster parent *n = 117*	Total *n = 234*
Extremely Dissatisfied	10.3%	7.8%	9.0%
Somewhat Dissatisfied	6.0%	9.5%	7.7%
Neither Satisfied nor Dissatisfied	7.7%	13.8%	10.7%
Somewhat Satisfied	22.2%	34.5%	28.6%
Extremely Satisfied	53.8%	34.5%	44.0%

When a NPS tool is used to operationalize satisfaction, the results are more consistent across groups and NPS categories (i.e., Detractor, Neutral, Promotor). The NPS tool (as noted in the literature review on the NPS tool in Chapter 2) asks respondents to rate their likelihood of recommending being a foster parent to a friend or colleague on a scale of 0-10, where 10 is

"extremely likely". As noted in the literature review on the NPS tool in Chapter 2, (included here for convenience), "Promoters" are classified as those who chose 9 or 10, "passives" are those who chose 7 or 8, and "detractors" are those who choose 0-6. Tables 5 and 6 provide the results separated by parent group. Table 5 shows the detailed breakdown and Table 6 provides a breakdown by NPS category and parent group as well as the total combined results for each response option.

Overall, less than half (43%) indicated they were net promotors of foster care and a little over a one-quarter (28%) indicated they were detractors, giving the foster care agency for San Bernardino County an overall NPS score of a positive 15. Among relative foster parents, the NPS score drops to a positive 12 as more of the relative parents are passive in their support of foster care. For non-relative foster parents, their NPS score was a positive 18, with more parents indicating promotion of being a foster parent. Interestingly, slightly more non-relative foster parents also indicated they were detractors, implying that non-relative foster parents are likely to be more polarized in their promotion or detraction and conform to Graff's (2022) "brag and moan" bias; meanwhile, relative foster parents are likely to be more passive than non-relative foster parents. The differences between relative and non-relative are slight and thus not statistically significant. But the results indicate that greater overall impact in the promotion of foster care could be realized by focusing efforts on moving relative and non-relative foster parents from a passive category to a promotor of being a foster parent in San Bernardino County (i.e., foster care evangelists).

A note on the methodological comparison of the different measures of satisfaction: The statistically significant difference among parent groups for the general operationalization of satisfaction (i.e., the psychology-based scale) could reflect a degree of measurement error in how

the different groups understand the term "satisfaction" when used in the question stem. This observation is evidenced by the statistical and practical consistency when an NPS tool is used as compared with the statistical variation when the typical psychology-type question stem is used to operationalize satisfaction—both the categorical and numeric scale for NPS were not significant, whereas the psychological scale took some more digging to flesh out the true lack of significance. In fact, the two groups answered similarly for the NPS scale. The limited variability in the NPS tool also helps justify the argument that an NPS tool provides a more consistent measurement of satisfaction as a dependent/response variable rather than the typical satisfaction scale. (The results section of Chapter 5 provides more detail on this comparison.)

Table 5: Cross tabulation of responses to an NPS item, separated by parent group

Score	Relative foster parent *n = 117*	Non-relative foster parent n = 117	Total n = 234
0	5.1%	5.1%	5.1%
1	0.9%	0.0%	0.4%
2	0.9%	2.6%	1.7%
3	0.9%	0.9%	0.9%
4	1.7%	3.4%	2.6%
5	14.5%	12.8%	13.7%
6	4.3%	4.3%	4.3%
7	17.9%	8.5%	13.2%
8	13.7%	15.4%	14.5%
9	5.1%	17.9%	11.5%
10	35.0%	29.1%	32.1%

Table 6: Cross Tabulation of responses to for the NPS tool categorizations, separated by parent group

NPS Group:	Relative foster parent n = 117	Non-relative foster parent n = 117	Total n = 234
Detractor	28.2%	29.1%	28.6%
Passive	31.6%	23.9%	27.8%
Promoter	40.2%	47.0%	43.6%

Key Explanatory Variables: The Barriers

The instruments used to measure and analyze the barriers associated with retaining foster parents focused on the common ones cited in past research—i.e., access to their social worker, health care, childcare, and mental health services, as well as support with regards to transportation, respite care and medical costs. Each respondent was first asked whether they needed the suggested support mechanism. If they answered "yes", they were then asked how well the available resources met their need. In addition to these quantitative metrics, qualitative data were also collected using an open-ended question that asked, "In your opinion, what type of support do foster parents need most?" The quantitative and qualitative descriptive results, as shown below, support the overall finding that foster parents' sentiment in San Bernardino County is that they feel access to social workers is the key barrier to their continuing and the formal support mechanism most needed to reduce the price of their altruism. This significant result is expanded upon below.

Social worker access was operationalized by asking respondents their need and level of communication with a child's county social worker(s) in the last two months. Overall, 60% of respondents indicated they needed to communicate with their child's social worker, which was almost 20 percentage points greater than the next closest resource needed, which was healthcare at 42%. (Table 7 below contains the results of the barrier analysis and provides a breakdown of the comparison of the results among the different foster parent groups.) Significant differences were observed between parent groups, with 67% of non-relative and 52% of relative foster parents indicating they needed communication with a child's social worker in the past 2 months ($P = 0.02$). Of those who needed to communicate, over one-third (33.6%) indicated communication with their social worker did not meet their expectations. Most respondents (50%)

were in the middle, implying that communication met their minimum bar of expectations but was still lacking. These results were consistent across parent groups with no statistically significant variation between them.

Qualitative responses to an open-ended question on foster parent resources also indicated that communication with social workers was a key barrier. For example, a respondent wrote, "…social worker availability and line of communication is vital." Another respondent noted, "Just being able to contact them [social workers] and having them [social workers] get back to you […] because mine takes forever and has not even handled disruption at hand." Of the 207 responses to the open-ended question, 93 referenced accessing their social worker, 60 involved mental health resources, and 18 referenced childcare. (The remaining topics had less than 10 comments.) As a side note, an interesting theme among the mental health references was a consistent pattern of the lack of support groups comprised of other foster parents. The qualitative analysis further strengthens the overall finding that access to social workers is the key variable for analyzing satisfaction and thus retention of foster care parents in San Bernardino County. The qualitative data also suggests a possible reordering of the quantitative results with mental health access as second (especially in relation to support groups), and childcare as third rather than healthcare as second. The fact that healthcare was not significantly mentioned likely indicates its accessibility, not its lack of demand as a resource for foster parents. Moreover, the open-ended responses also provide clarity on the resource gaps and how other resources pale in comparison to social worker access.

Healthcare came in as the second most needed formal resource with over 42% of all foster parents indicating they needed it for a child in their care in the last 2 months. There was a statistically significant difference between the parent groups (Cramer's $V = 0.254$ and $P = 0.001$).

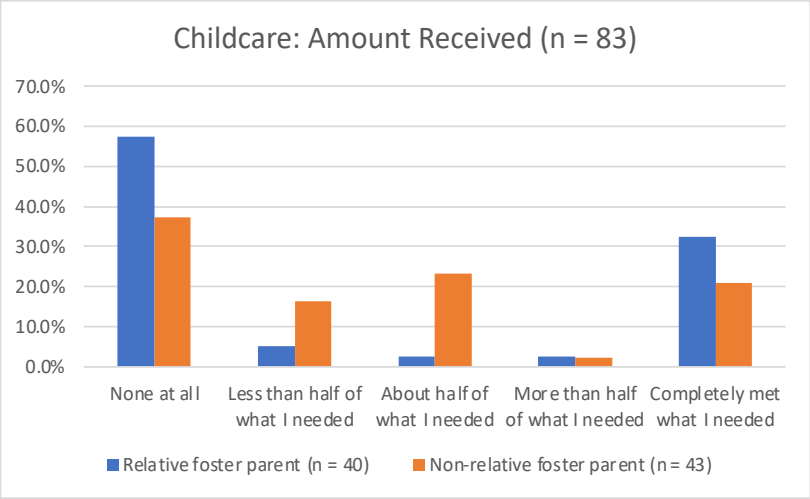
More specifically, non-relative parents were significantly more likely to need health care (52%) for their foster child than relative foster parents (32%; P=0.001). Of those who needed healthcare, one-third received half or less of the health care they needed for their child(ren), with one-third (32.6%) of the relative and 40% of the non-relative indicating they did not receive what they needed. But the difference between the parent groups regarding whether they received the health care their child(ren) needed was not statistically significant at the 0.05 level (Cramer's V = 0.268, P-value = 0.099), which could be due to a lack of power since 109 respondents indicated a health care need.

Mental health resources were second in the qualitative responses and third overall in the quantitative responses with about one-in-three respondents (or 32.3%) indicating mental health services for a child in their care as a needed resource in the 2 months prior to taking the survey. Since it is similar in nature to healthcare, it makes sense that non-relative foster parents were also significantly (P = 0.003) more likely to say they needed mental health services for a foster child in their care than relative foster parents (41% and 23% respectively). There was also a significant (P=0.045) difference between parent groups for the amount of mental health resources received, where 55% of the relative foster families who needed mental health services received half *or less* of what they needed, while 77% of non-relative families indicated they received half *or more* of what they needed for mental health services. These differences indicate that while relative foster parents say they need less mental health services for children in their care, when they need it, they may have more difficulty accessing the resources than non-relative foster parents. Another possible explanation is that foster parents often lack the ability to properly diagnose mental health disorders in children and do not realize that they need it, which indicates a potential latency and a knowledge barrier limiting access. These findings supports the notion that every

child (of a certain age) in the foster care system should receive an initial mental health evaluation to at least help identify whether the need exists or not.

It's important to note the socio-economic differences and its impact on the perceived needs among foster parent groups: The differences between parent groups in their perceptions of resources needed and their availability is also a function of their socio-economic differences, meaning that since most relative foster parents have lower socio-economic status (as seen in Part I above) than their non-relative counterparts, their perceptions of their needs and levels of availability are likely skewed in a negative direction (i.e., they perceive they need less non-relative foster parents) because their perceived need is relative to their lived experience, influencing their expectations (see Cole & Eamon 2007). It's not that lower income foster parents have less need, but rather their perceived threshold and tolerance is higher for behavioral difficulties and healthcare needs and also they typically have a higher cost associated with accessing these services (Cole & Eamon 2007). For example, taking public transportation to a visit has higher personal cost to the individual parent who lacks personal transportation than the parent who can jump into a reliable vehicle and simply drive to a visit. On the other end of the spectrum, non-relative foster parents who are relatively new to navigating public-service resources often have a higher perceived need and lower level of tolerance due to a norm of a more comfortable lifestyle.

Figure 5: Childcare amount received, separated by parent group



These differences in perceived need and access also underscore the potential of a geospatial analysis on access to resources—an exploratory geospatial analysis is provided in Chapter 6 of the results section.

Childcare is fourth on the quantitative list and consistently ranked—whether qualitative or quantitatively—behind social worker access and mental health resources. Childcare was only slightly less significant in both the quantitative and qualitative analyses with almost 1-in-3 (31.6%) indicating this as a significant need. Comparing relative and non-relative foster parents shows no statistically significant relationship and similar percentages (30% and 33%, respectively) said they needed childcare. But of those who said they needed childcare, relative foster parents were statistically more likely to receive none or their need was completely met—i.e., very few landed in the middle, causing their distribution to be slightly bimodal. Whereas with non-relative foster parents, those who indicated they needed childcare were also more likely to say they received less than half of what they needed. Figure 5 highlights these distribution differences. The differences between the parent groups for those who needed childcare were statistically significant (P=0.017, Cramer's V = 0.38).

Accessing information had low practical significance with only 20%, or 1-in-5, parents who indicated this was a potential barrier for them. When broken down by parent group, the results were like the other barriers in that non-relative foster parents indicated a greater need (24% versus 15%). But these differences were not statistically significant at the 0.05 level (P = 0.075), which may be due to the lack of power –i.e., a low sample size (n=49) for the subdomain (i.e., those who said "yes" they needed access to information). The power limitations may be further compounded by breaking down those 49 between parent groups. Thus, a larger sample may provide greater statistical significance. Another reason for the lack of significance is likely

that foster parents get their information from their social workers. Thus, this question stem may have caused some confusion among respondents due to the overlap with the role of the county social worker. But these results may justify removing this response option in future analyses, but it was included here for consistency with prior research. Moreover, if some confusion ensued between information and social worker access, it may mean that one can view the results of social worker access as a conservative estimate, thereby adding to the significance of it as the key barrier.

The other potential barriers—respite care, transportation, and medical costs—were all considered to be not significant by the foster parents in general as well as by each parent group. With 91%, 95% and 96%, respectively, of respondents indicating that these resources did not cause a barrier to them as foster parents. There were also no significant differences between parent groups.

Table 7 below provides a summary of the barrier analysis (based on the survey results) and detailed above. Overall, based on the survey results of 303 relative and non-relative foster families in San Bernardino County, it was found that barriers such as, childcare, mental health care, training, and navigating a complex system, did not have as much significance (both practically and statistically) in the minds of foster parents as access to social workers. Access is defined here as connecting and communicating with foster parents in the prior 2 months (as noted previously in Chapter 3). The finding of social worker access as the main barrier has important implications that are highlighted in greater detail in the discussion section (Chapter 7), but essentially amount to 3 important takeaways:

(1) Access to social workers is a leading policy lever, meaning the County has more direct influence over social worker access than over other explanatory variables like

access to childcare, mental health services and social support. The County's Child and Family Services (CFS) can pull this lever directly and increase satisfaction and, therefore, retention among both relative and non-relative foster families. This finding also aligns with practical understanding of social workers as "the gatekeepers" to many social services for foster families (Sinclair, et al. 2004).

(2) This single variable is statistically and practically significant for both relative and non-relative foster families, implying that increasing communication efforts between county social workers and foster parents will increase being satisfied with their overall fostering experience and facilitate word-of-mouth recruitment via individual promotion.

(3) It also provides a significant variable to use in an exploratory geospatial analysis to see if evidence justifies incorporating spatial elements in the analysis of foster parent retention ("place utility"). Chapter 6 of the results section provides an exploratory geospatial analysis using social worker access as the key explanatory variable.

Table 7: Summary table of perceived barriers, separated by parent group

Barriers	**% Yes** Relative *n = 130*	Non-Relative *n = 127*	Total *n = 257*
Social Worker Access*	52%	67%	59.6%
Healthcare*	32%	52%	42.3%
Mental Health*	23%	41%	32.3%
Childcare*	30%	33%	31.6%
Information	15%	24%	19.2%
Respite	N/A	N/A	9.4%
Medical Costs	N/A	N/A	4.7%
Transportation	N/A	N/A	4.1%

(*) Denotes a statistically significant (P-value ≤ 0.05) difference between parent groups
N/A indicates values were too low to report.

Key Variables: Commitment

Commitment to a foster child in a parent's care is seen by some researchers (Cleary et al., Cooley et al., and Eaton & Caltabiano 2009) as a key determinant of whether a foster parent continues or not. While the discussions by these researchers suggest strong views in this regard, their empirical results indicate a slightly more moderate, but significant, relationship with regards to commitment and retention of foster parents in general. Similarly, the results from the current survey indicated a strong sentiment of commitment by foster parents for the child(ren) in their care, with over 76% indicating they strongly agreed with the statement, "The child(ren) I have fostered will always be a part of my family." While both parent groups indicated strong commitment—89% of relative foster parents and 64% of non-relative parents strongly agreed—relative foster parents were significantly (P=0.000, Cramer's V correlation = 0.32) more committed to the children they fostered than their non-relative counterparts. It's also worth noting that 33% (or 1-in-3) non-relative parents were either neutral or somewhat agreeable versus just 7% of relative parents. The responses of "somewhat agree" and "neutral" are more likely to indicate a lack of commitment since social norms likely limit respondents from indicating strong or somewhat strong disagreement, which is supported by the response distribution where less than 3% indicated somewhat to strong disagreement. Therefore, the results indicate that non-relative foster parents appear more aloof in their commitment. The difference between parent groups is likely due to the direct, or indirect, family connection of relative foster families (the state of California has broadened the definition of "relative" to include groups like adoptive parents of other siblings). But before this lack of commitment is tied, causally, to worse outcomes for foster children in non-relative homes, more longitudinal research would need to show whether the level of commitment changes over time for both parent

groups. The results provided are weighted toward more short-term placements, since only 27% of respondents finalized an adoption through child and family services, implying that almost three-quarters of the respondents have not had a long-term committed relationship with the children they fostered.

Another implication of these results can be seen when these results are combined with those of Sinclair et al. (2004): If relative foster parents are more committed, as seen here, they will likely call their child's social worker(s) more often (ibid.), implying a desire for more access and connection. Yet the results provided here show that non-relative foster parents desire more access to their social workers than their relative counterparts, but the relative foster parents were more committed and both findings—i.e., differences between parent groups on social worker access and commitment—were statistically significant. Therefore, these results indicate a possible divergence from Sinclair et al.'s findings and imply that since Sinclair et al. (2004) focused mainly on non-relative foster parents, their findings may not apply as significantly to relative foster parents. Another, more plausible, possibility is that relative foster parents view their need for support differently than non-relative foster parents, which could be tied to their prior experiences with accessing publicly provided resources and the socio-economic differences between the two groups. Therefore, a virtuous cycle is still likely to exist between social worker access and commitment, but future research might help flesh out whether a relationship exists and, if so, whether increased social worker access leads to increased levels of commitment over time or if the relationship is reversed, where commitment leads to an increased desire for social worker access. Sinclair et al.'s results would imply the latter, but the results presented here in this research indicate the former may be more likely and that the results may differ significantly between parent groups.

Key Explanatory Variable: Challenging Events

The foster parent challenges and events presented here are similar to variables of strain used by Sinclair et al. (2004), Rodger et al. (2004), and Denby, et al. (1999) and taken from Cooley et al.'s (2015) scales. Thus, the challenges described here consist of common events relative and non-relative foster parents face as they navigate the foster care system. There is some overlap with the previously noted barriers, such as obtaining information from a child's social worker, finding childcare, accessing mental health services for a child, which will add to the robustness of earlier findings. Other scales for measuring foster parent challenges, such as allegations of abuse, losing a child, conflict with a child's biological parents, and dealing with a child's difficult behaviors, are not overlapped and help provide context to prior barriers and comparability with prior research (Denby et al. 1999, Roger et al. 2004, Sinclair et al. 2004, and Cooley et al. 2015).

Allegations of abuse can be shocking to outside audiences but not uncommon in foster care. However, most respondents in this survey (80%) indicated that they did "not at all" view allegations of abuse as a challenging aspect for them as foster parents. Non-relative foster parents were more likely than their relative counterparts to see allegations of abuse as a significant challenge (28% and 12% respectively, as seen in Table 8 below). But while the differences between these parent groups were statistically significant ($P = 0.04$), the correlation was relatively weak (Cramer's $V = 0.204$).

Losing a child implies that a child who was in the care of a foster parent was returned to a biological parent, placed with another family member, or removed for some other reason. It is often identified by would-be foster parents as the main reason they avoid becoming a foster parent. Yet most (57.6%) of the respondents in this survey—i.e., experienced foster parents who

have had children placed in their homes—indicate that this is "not at all" a significant challenge for them that might lead them to want to stop fostering, while 32% said it was a moderate to significant challenge for them. Similar to previous variables, non-relative foster parents saw this as a more significant challenge than relative foster parents, with over half the non-relative foster parents indicating it was a moderate to significant challenge, while only 35% of relative foster parents said it was a challenge for them as foster parents. The difference between parent groups was weakly significant ($P = 0.047$, Cramer's $V = 0.201$). These results imply that relative foster parents are less impacted by the threat of losing a child than their non-relative counterparts, which may be due to the fact that their ties to the biological parents' family will keep them involved in the child's life even if they are returned.

Conflict with birth parents is also not uncommon since the foster care system tends to place the two parties at odds with each other as it attempts to determine what is best for the child(ren). It often requires intentionality by both sides to avoid such a conflict. Yet, similar to the previous challenges, most (57.6%) foster parents indicated that conflict with the birth parents was "not at all" a challenge for them, while 33% indicated it was a moderate to significant challenge to their desire to continue. Segmenting the results by parent group showed that the results differed from previous challenge variables in that the responses were more moderate and evenly dispersed among the response options for both parent groups—34% of relative foster parents said it was "a little" or "moderate" challenge to them as foster parents, as compared with 43.5% of non-relative foster parents. Another difference is that twice as many relative foster parents as non-relative foster parents (13.6% versus only 5%, respectively) indicated challenges with the biological parents had "a great deal" of impact on their desire to continue fostering. This may be due to relative foster parents being in closer relational proximity to the biological parents

than non-relative foster parents who typically only interact with biological parents during court-mandated parental visits.

Dealing with difficult behaviors of foster children differed significantly from the prior challenges in that most respondents (65%) indicated it was a significant challenge for them as foster parents and impacted their desire to continue. Segmenting the results by parent group shows that while non-relative foster parents saw this as a greater challenge than their relative counter parts, a result that is both statistically and practically significant ($P = 0.000$ and Cramer's $V = 0.294$), the majority for both groups indicated dealing with difficult behaviors had at least some impact on their desire to foster. More specifically, 77% of non-relative foster parents said that their child(ren)'s difficult behaviors had an impact on their willingness to continue fostering, and 56% of relative foster parents said the same. The differences between the two groups are likely due to lower-income foster families, which make up the majority of the relative foster parents, may perceive fewer challenges and are more tolerant of disruptive behaviors, as noted in the research of Cole and Eamon (2007). These results help to reinforce the previous findings in the barrier analysis that showed behavioral health (i.e., mental health) was one of the top barriers for foster parents' willingness to continue.

Mental health access, when measured directly, was ironically less significant in impacting foster parents' desire to continue than the prior challenge of dealing with difficult behaviors. The difference in responses is likely due to the idea of being able to access the resource and the actual need for it in the home environment. This presumption is further supported by the qualitative responses to an open-ended question where the second leading category was mental health and references to the behavioral health of the child(ren) in their care.

While over 54% of all respondents said that accessing mental health services was "not at all" a challenge to them, the segmentation of parent groups shows a significant difference. Among non-relative foster parents 54% said accessing mental health services was a significant challenge to their willingness to continue, while only 36% of relative foster parents agreed with it as a significant challenge. These differences were statistically significant but the strength of the correlation was relatively weak (P = 0.037; Cramer's V = 0.201).

Finding childcare is often cited by policymakers and policy advocates as a key aspect to supporting foster parents. Yet over half of the respondents (55%) said finding childcare was not a significant enough challenge that it impacted their willingness to continue fostering. This result could be COVID-related since the survey was taken 5 months into the pandemic and families were forced to stay at home. But the COVID-related impact should be mitigated somewhat by the wording in the stem that asked them to consider their "overall foster care experience," which would span beyond the pandemic for most of the respondents since almost 75% of the respondents had more than 1 year of experience as a foster parent (See Table 1 in Part I of these results). It could also mean that the policies and advocacy for childcare resources for foster parents have had their intended impact. These results hold for both parent groups—finding childcare was only slightly more impactful on non-relative foster parents than relative foster parents, with 49% versus 40%, respectively, indicating that it was a significant challenge for them. But there were no statistically significant differences between the parent groups for this variable.

Social worker engagement, defined as obtaining information from a child's social worker, was a significant challenge and identified by 62.7% of foster parents as impacting their willingness to continue. This result adds to the overall findings that appear to indicate the

robustness of social worker connections being the key to foster parent satisfaction and retention (Chapter 5 and part III of these results will present the regression analyses for these apparent relationships.) When social worker engagement is segmented by parent group, over three-quarter (77%) of non-relative foster parents and well over half (56%) of relative foster parents indicated it had a "moderate" to "great" impact on their willingness to continue. These findings remain consistent with the previous results. The differences between parent groups statistically significant ($P = 0.047$) but weakly correlated in strength (Cramer's $V = 0.201$).

Overall, it appears that social worker engagement and dealing with difficult behaviors were by far the biggest and most significant challenges identified by foster parents that impacted their willingness to continue. These results add more support to the barrier analysis and the qualitative responses that indicated social worker access and mental health were the top barriers to fostering in San Bernardino County based on these survey results.

Table 8 below summarizes the results of the challenging events foster parents often endure, segments the results by parent group, and identifies items with the statistically significant differences between the parent groups. The table identifies the percentage of respondents who indicated the given event challenged them to a degree that it caused them to consider quitting fostering and ranges from some to great. For example, 77% of non-relative foster parents said dealing with difficult behaviors (denoted as "behaviors") challenged them to a degree that it impacted their desire to continue fostering, compared with 66% of all respondents and 56% of relative foster parents.

It should also be noted that while most of the challenging events, which are common in foster care, did not seem to nudge respondents in a significant manner to think about quitting, two-thirds of respondents rated obtaining information from their child's social worker on a

similar level as dealing with a child's difficult behaviors. This result would seem to further justify the hypothesis that social worker access and engagement are instrumental in retaining foster parents, whether relative or non-relative, and increasing their level of satisfaction that turns them into "brand evangelists" who promote the foster care to family and friends.

Table 8: Summary table of challenging events, separated by parent group

Challenging Events	Relative *n = 119*	Non-Relative *n = 120*	Overall *n = 238*
Difficult Behaviors**	56%	77%	66%
Social Worker Engagement*	56%	70%	63%
Birth-Parent Conflict	51%	53%	52%
Mental Health Access*	37%	54%	46%
Finding Childcare	41%	49%	45%
Losing a Child	51%	34%	42%
Allegations*	12%	28%	20%

(**) Denotes a statistically significant (P-value ≤ 0.01) difference between parent groups
(*) Denotes a statistically significant (P-value ≤ 0.05) difference between parent groups

Key Variables: Social Support (SOS)

Support for foster parents comes mainly in two forms—formal and informal (Sinclair, et al. 2004). Formal supports are noted above and are things like social worker communication, childcare, behavioral health, healthcare, etc. Informal supports tend to be harder to measure since they relate to an individual's social network of friends, family members and groups. Connection with these groups can vary dramatically from person to person depending on things like family dynamics, culture, environment, etc. While County agencies have little influence and minimal ability to leverage these social supports, they can impact foster parents' satisfaction and willingness to continue in significant ways (see Denby, et al. 1999, Sinclair, et al. 2004, Eaton, et al. 2009, and Cooley, et al. 2015). Social support was measured from 5 relational aspects—social worker support and connection, spousal support, connection with other foster families, best

friend support, and extended family members. Each relationship was measured using the same four questions with the most significant for each being the level of trust, which aligns with other behavioral research that shows trust as the key variable in relational equity (e.g., Zak's 2017 book *Trust Factor*). As noted in Chapter 3, the reliability of each social support measure was well within the acceptable range with the Cronbach Alpha scores ranging between 0.83 for best friend support to 0.96 for spouse/partner support. Each relationship is noted below along with the associated ANOVA analysis for comparing parent groups on each.

Social worker support and connection (denoted as "SOS_SW") is a way to operationalize the relational side of the support a foster parent feels from a social worker, which plays into more tangible support like communication between parents and social workers regarding the foster child(ren). Overall, about 42% the respondents indicated strong relational equity and a trusting relationship with their county social worker at least most of the time. But over half (51%) of all respondents indicated never or sometimes as the best way to describe whether they can lean on their social worker in times of difficulty, and 53% said they trust their social worker less than half the time. The histogram in Figure 6 of the combined variable for

Figure 6: Histogram of the composite variable for social worker support and connection (SOS_SW)

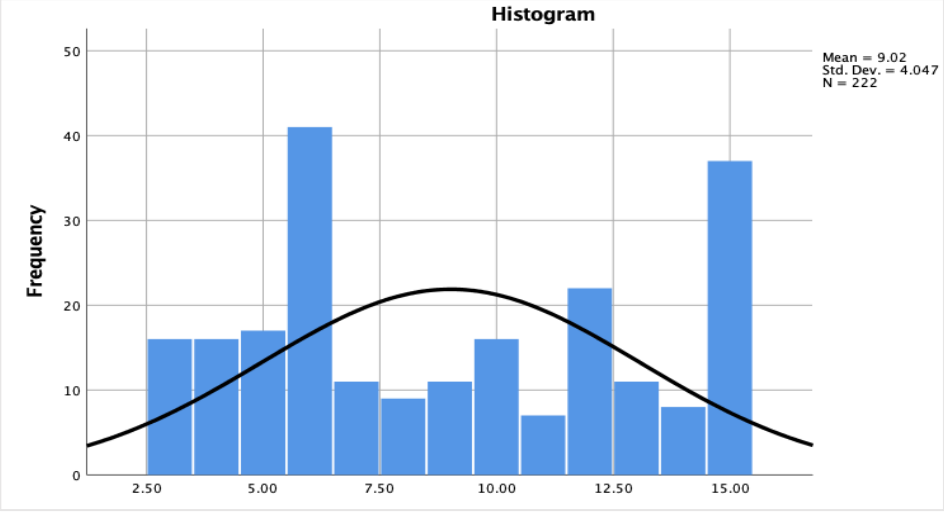
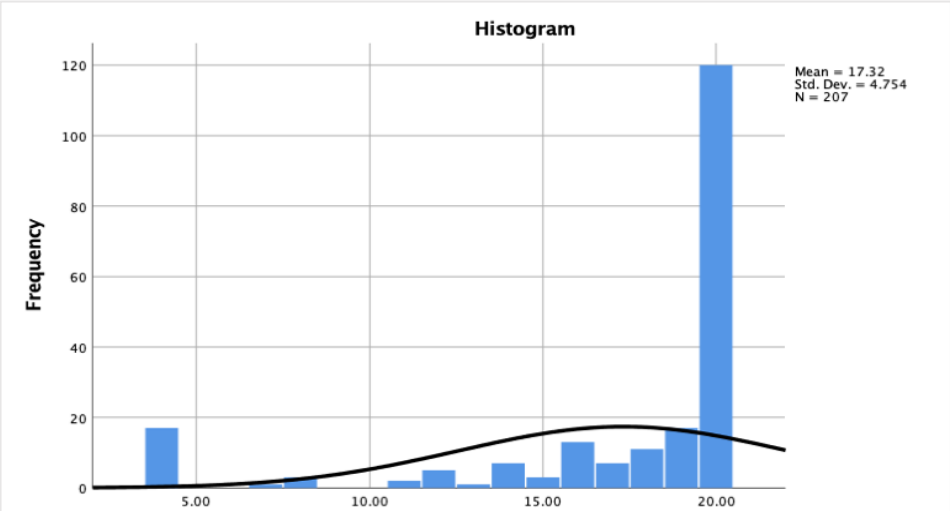


Figure 7: Histogram of the composite variable for spouse/partner social support (SOS_Sp)



social support of social workers shows a bimodal distribution across responses, indicating foster parents' connection with their social workers tended to be at one extreme or the other—they either have very strong connection or relatively weak connection with their social worker, which highlights a possible "brag and moan" bias (Graf 2022). But most landed on the weaker side.

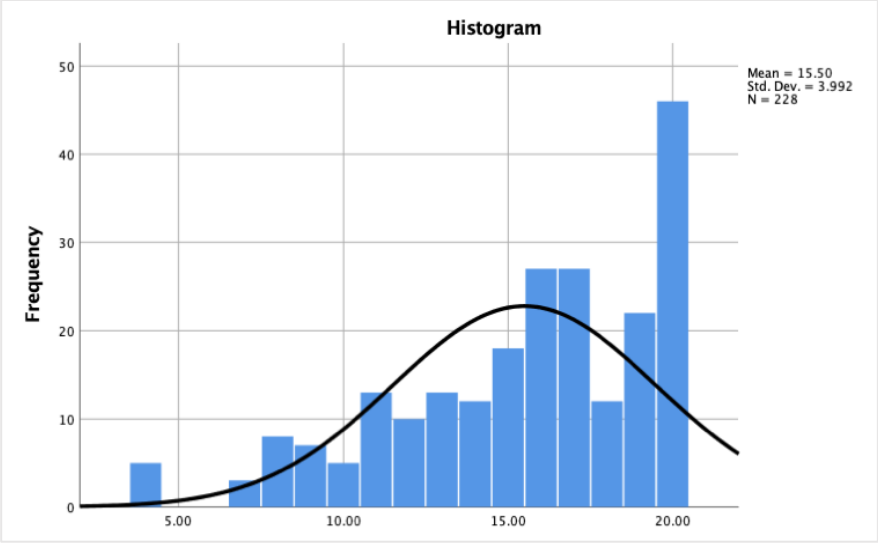
Breaking this composite variable down to the separate parent groups, an ANOVA shows that relative foster parents feel a higher degree of support and connection with their county social worker than their non-relative counterparts and differences are statistically significant (P = 0.013, n = 222). A cross-tabulation on the question stem for trust, which was consistently the most significant question stem of the composite variables (as seen in the reliability testing), showed that 48% of relative foster parents and 58% of non-relative foster parents trust their social worker less than half the time. These findings further support the prior results indicating social workers as the key support mechanism foster parents.

Social support of a spouse/partner (denoted "SOS_Sp") had a strong negative skew (-1.96), indicating a very high degree of support was found in the spouse/partner of respondents. An average of 70% indicated they always find social support in their spouse/partner. An

ANOVA showed very little difference between relative and non-relative foster parents and the differences were not statistically significant. The cross-tabulation on the trust question stem showed that 77% of relative and 71% of non-relative foster parents "always" trusted their spouse/partner with their feelings about foster care. These results for spouses are not surprising and in line with Sinclair et al.'s (2004) results that showed close family members provided the strongest social support.

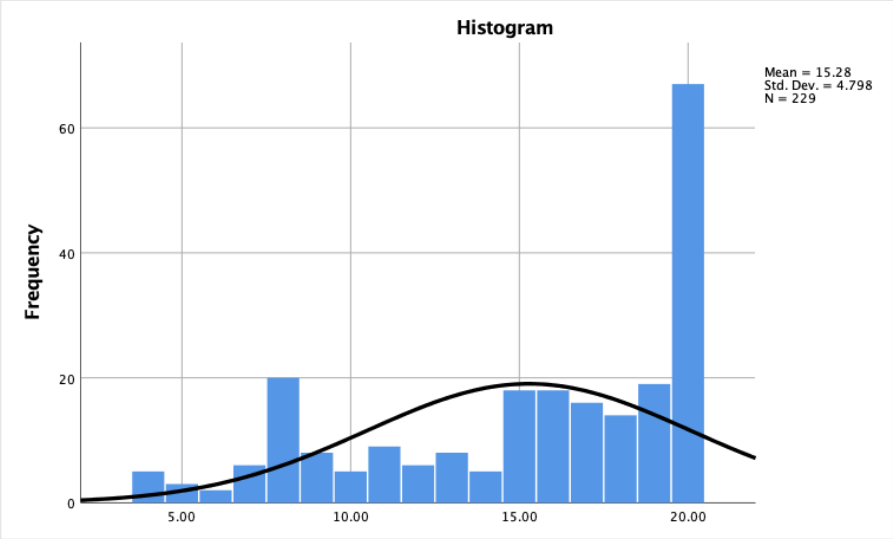
Social support of a best friend (denoted "SOS_BF") was also negatively skewed (-0.836), but not to the degree of social support of a spouse/partner. The negative skew indicates a high degree of general support from the best friends of foster parents, which is in line with expected findings and other research (Sinclair et al. 2004). Breaking down the results to the parent groups showed that while both groups indicated a high degree of support and trust in their best friends regarding their foster care journey, relative foster parents indicated a higher degree of support than non-relative foster parents. These differences are statistically significant (P = 0.027, n = 228). A cross-tabulation on the trust question stem showed that 70% of relative foster parents "always" trusted their best friend with their feelings about their foster care journey, while 54% of non-relative foster parents indicated "always".

Figure 8: Histogram of best friend social support (SOS_BF)



Social support of extended family members (denoted "SOS_EF) was also negatively skewed (-0.741) but not to the degree of social support from spouses or best friends, implying that foster parents, in general, find support and trust their extended family with regards to their foster care journey but not to the degree of their spouses/partners or best friends. The ANOVA comparing parent groups found statistically significant differences between relative and non-

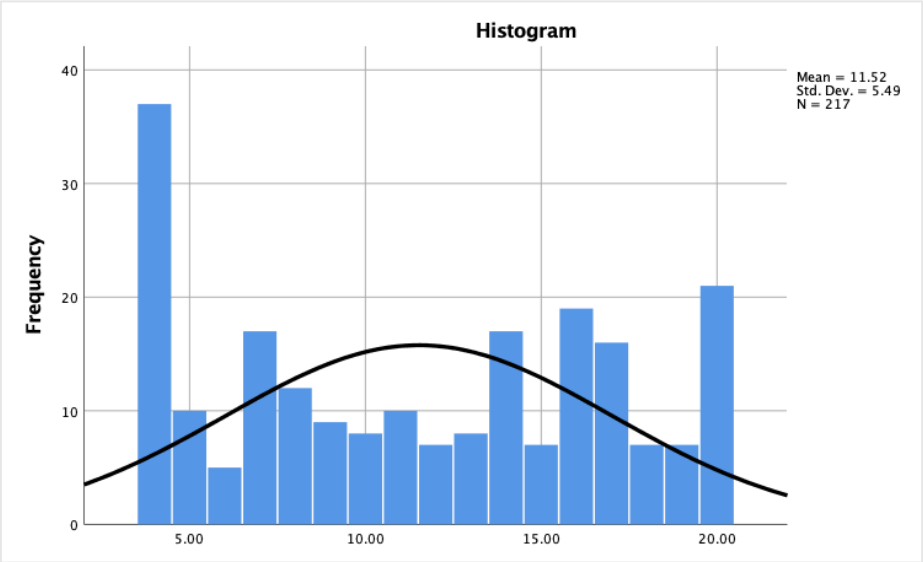
Figure 9: Histogram of social support from extended family (SOS_EF)



relative foster parents with regards to their level of support from extended family for their foster care journey (P = 0.000, n = 229), where relative foster parents had a mean of 16.6 and non-relative foster parents had a mean of 13.9. The crosstab on trust showed that non-relative foster parents were once again more moderate and cautious in their level of trust with extended family members with regards to foster care than relative foster parents (P = 0.013, Cramer's V = 0.235). Over 64% of relative foster parents said they "always" trust an extended family member with their feelings about foster care as compared with 41% of non-relative foster parents.

Other foster families (denoted "SOS_OFF") had a lower level of perceived social support among respondents. The distribution a somewhat negative skew, meaning that a

Figure 10: Histogram of social support from other foster families (SOS_OFF)



significant number of foster parents indicated that they never find support from other foster families for their foster care journey. The ANOVA analysis for differences between parent groups was not statistically significant (P = 0.303, n = 217). However, the crosstab on trust was statistically significant (P = 0.014, Cramer's V = 0.237). While well over half of each group indicated that they trust other foster parents who are not their spouse (53% of relative and 58% of non-relative foster parents), relative foster parents had more extreme tendencies, meaning that they tended to answer either never (26.8%) or always (36.6%) compared to non-relative foster parents (12.6% and 28.8% respectively). Thus, non-relative foster parents were more moderate in their trust of other foster parents.

It should be noted that these results regarding social support from other foster families may be due to the lack of available connection with other families rather a lack of actual support. This presumption is supported and fleshed out in qualitative analysis of the open-ended question. The content analysis of the responses to the open-ended question showed that a third of

respondents who noted mental/behavioral health as a support foster parents needed also referenced a desire to connect with other foster families, implying that a gap exists between the availability and the need.

Overall, the histograms of the composite social support (SOS) variables indicate that social workers are perceived as providing the lowest level of support and connection followed by other foster families. Lack of access could explain the lower level of felt support from both groups. The ANOVAs and cross tabs on trust showed that relative foster parents have a higher level of support and connection as well as trust in their social network, while non-relative foster parents were more moderate in their degree of support and connection with their respective social support networks. These differences between parent groups may be due to higher-income families, who comprise most of the non-relative group, having different levels of expectation (Cole and Eamon 2007).

Prior research indicated that family support was the most valuable social support followed by relatives and then friends (Sinclair et al. 2004). Here, we see a more specific breakdown, where the spouse, extended family and then best friends are seen as most supportive.

Other Variables: Locus of Control (LOC)

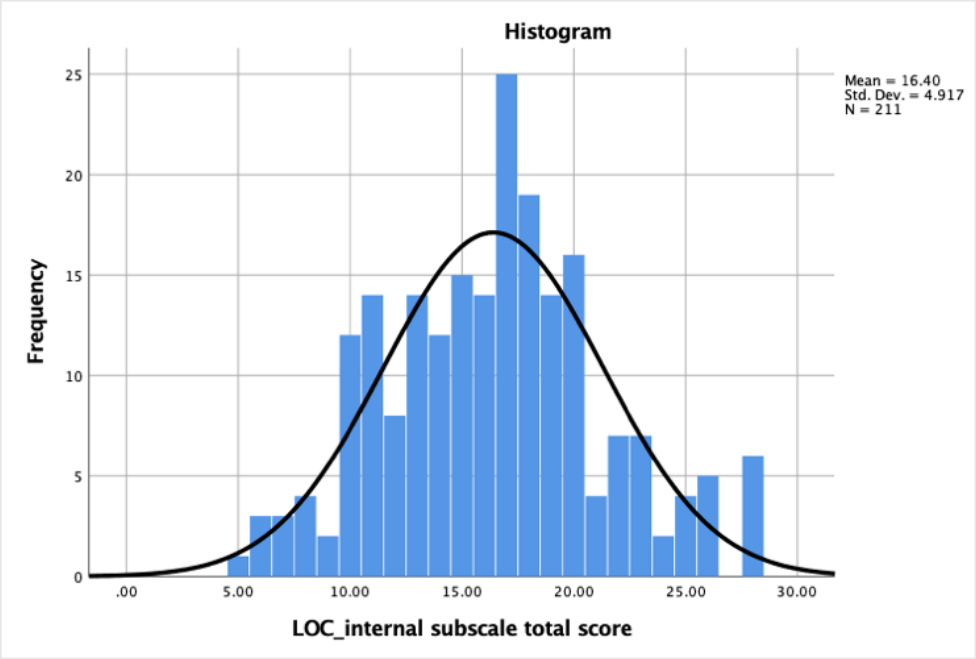
The locus of control variable (denoted "LoC") was included for consistency and comparison purposes with prior research. However, since part of California's CCR legislation involved standardized payments with 3 payment tiers (based on the child's needs), social workers have far less control over the monthly reimbursement amount for a foster parent, implying that the locus of control variable is less necessary especially with it only being moderately significant in past research (see Eaton & Caltabiano 2009, Geiger et al. 2013). This is

the implied conclusion from Sinclair et al.'s (2004) findings on feelings of control. The results below slightly undermine Sinclair et al.'s conclusion.

The locus of control variable consists of 3 subscales, namely: powerful others (PO), chance (C), and internal control (I), where the final variable is calculated by the formula of LoC = I – (PO + C). These subscales were derived from a panel of 12 questions, four questions for each subscale. As noted in Chapter 3, the reliability of the cumulative totals of the two sides of the Equation were in the lower but usable range (0.675 and 0.650, respectively). Each subscale was also analyzed using ANOVAs for differences between parent groups.

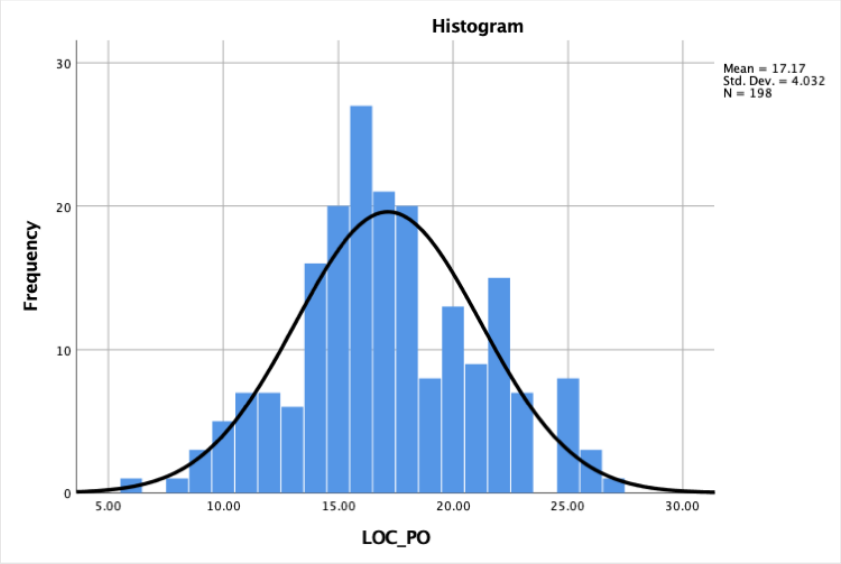
The **internal** subscale is visually represented by the histogram in Figure 11 below. The mean (16.4) in the histogram is slightly outside the median (17.0), indicating that, on average,

Figure 11: Histogram of internal (I) subscale for the locus of control (LOC) variable



most respondents disagreed with statements that indicated they had control over their foster care journey. But the disagreement is very slight and moderated by the fact that the mode is the same as the median. The ANOVA comparing parent groups on this subscale indicated some divergence between groups. Non-relative foster parents had a mean score of 15.7 whereas

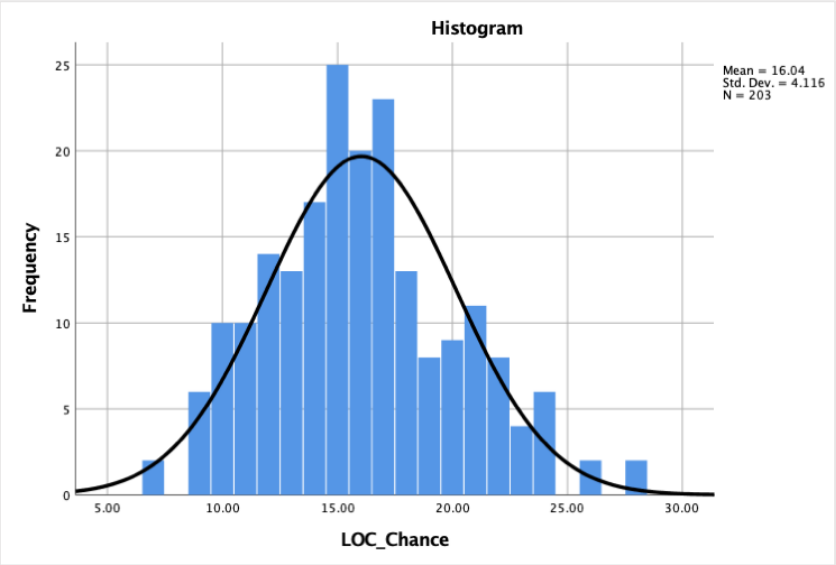
Figure 12: Histogram of the powerful others (PO) subscale for the Locus of Control (LoC) variable



relative foster parents had an average score of 17.0 across the 4 scales, indicating that non-relative foster parents felt like they had generally less control over their fostering circumstances than relative foster parents. These differences were not statistically significant at the 0.05 level (P = 0.064, n = 211).

The **powerful others** subscale and the **chance** subscale use 4 question stems each to generate their individual subscales that are then combined as different ways of measuring the degree a respondent feels a lack of control over a given environment in their life, such as foster

Figure 13: Histogram of the chance (C) subscale for the Locus of Control (LoC) variable



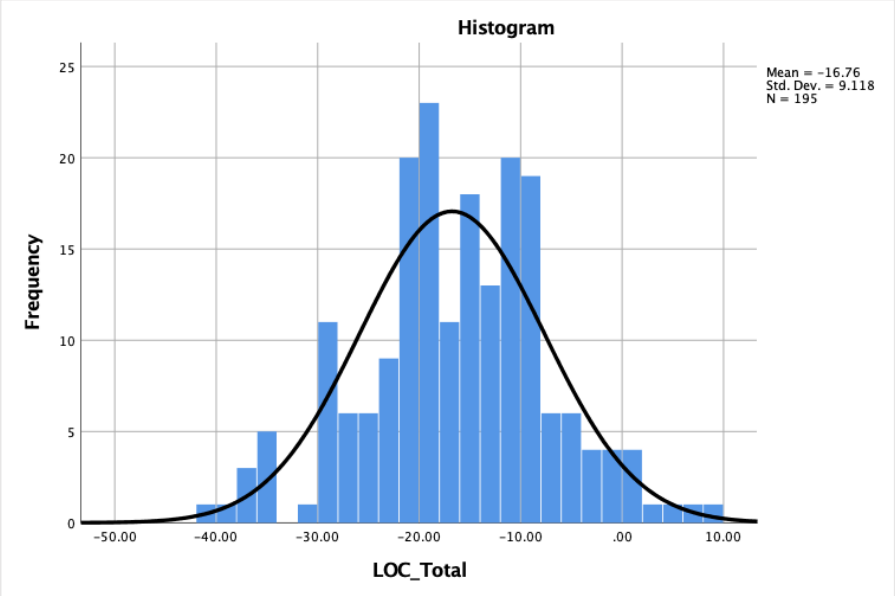
care in this case. The histogram for the powerful others and chance subscales are seen in Figures 12 and 13. These are examined together since they measure different aspects of the same concept. Starting with the powerful others subscale, the mean of 17.2 (compared to a median of 17.0) indicates that foster parents, on average, expressed slight agreement with statements that indicated their foster care journey was determined by powerful others (e.g., agency workers) rather than themselves. The ANOVA analysis of the parent groups showed that both had similar means (17.1 and 17.2) and indicated agreement with the general idea that powerful others controlled their foster care journey. (The difference between parent groups was not statistically significant.)

The subscale of chance showed similar results in that both parent groups had almost the similar means and generally disagreed that their foster care journey was left to chance. Relative foster parents had a mean of 15.5 and non-relative foster parents had a 16.5 mean, implying that relative foster parents felt more strongly than their non-relative counterparts that their foster care outcomes were not a result of chance or fate. Thus, the lack of control over their foster care outcomes seems to be more related to the impact of powerful others, which aligns with previous

findings that expressed a general need to have a greater connection with their child(ren)'s social worker, who would be one example of a powerful other. However, judges and the court system often come to mind when foster parents think of powerful others so these results cannot be completely applied to the impact of social workers on the views foster parents.

The overall Locus of Control (LoC) variable and the histogram of the total Equation is seen in Figure 14 below. It shows that foster parents expressed a general feeling of control over the outcomes impacting their foster care journey (mean = -16.8 and median = -16.0). These

Figure 14: Histogram of the total Locus of Control (LoC) composite variable



results differ, however, for relative and non-relative foster parents. Relative foster parents with a mean of 17.9 indicated they feel more in control of their fostering journey than non-relative foster parents who had a general mean of 15.6, implying that non-relative foster parents feel a lack of control. These differences between parent groups are weakly significant with a P-value = 0.07 (n = 194), which could be due to limited power when the sample is divided between groups. These results indicate that reimbursement payments may not be the main determinant for a locus of control (as Sinclair implied in their findings), especially when looking at different parent

groups—other things like the court system and social worker decisions on things like birth-parent visitation frequency and durations also likely play a factor, implying that locus of control variables should not be excluded from analyses regarding foster parent retention.

Summary of Results Regarding Social Worker Variables

Finally, a note summarizing the different variables regarding social workers seems useful here since social workers access, engagement and support have proven significant in each set of explanatory variables. Social workers were hypothesized to be the most significant barrier because they function essentially as the "gatekeepers" for other resources, information on accessing those resources and eligibility for support resources. Based on the initial results of the survey, it seems evident that the sentiment among this sample of relative and non-relative foster parents in San Bernardino County agree with the hypothesis, which is evidenced by the practical and statistical significance of social worker access as the main barrier to foster parent retention. The analysis of responses to challenging events added further emphasis to the impact of social workers on foster parents' general desire to continue because social worker engagement ranked second among challenging events—second to parents dealing with difficult behaviors, implying that social worker engagement is on the same level of significance as dealing with difficult behaviors. Finally, the connection of social worker with foster parents (i.e., SOS_SW) showed that foster parents have the least amount of trust and lowest level of social connection with social workers as compared to other common members of a foster parent's typical social network. While it makes sense that the spouse/partner and best friend connections would be more supportive, comparing the connection of social workers with foster parents to that of other foster families (SOS_OFF) is the best apples-to-apples comparison and shows that social workers have

lower levels of trust and support in the minds of foster parents—note though that access to both groups (social workers and other foster families) impacts these results.

The regression analyses in the next chapter will further examine the relationships between the social worker variables of social worker access, engagement, and support regarding the different models for predicting being satisfied and retention of foster parents. Chapter 6 will add an exploratory geospatial analysis regarding access to social workers to determine whether a geospatial element is worth further investigation.

CHAPTER 5: REGRESSION RESULTS AND MODEL COMPARISONS

INTRODUCTION

As noted in the beginning of Chapter 4, "foster care is not a free good" (Sinclair et al. 2004). It needs policymakers, practitioners, and researchers to facilitate the dynamic process of identifying, providing, and improving the resources and support services that are needed, accessible, and effectively reduce the cost foster parents pay for their "community altruism." It is through this lens that this chapter looks at the regression results of resource models used to predict being satisfied and retention of foster parents in San Bernardino County.

This chapter will use regression analyses to look at the hypothesized relationships of the resources and support services that are most significant in predicting the satisfaction and retention (defined as a desire to continue fostering) of foster parents in San Bernardino County. The generalizability of these results will also be analyzed for three different foster parent groups, namely: relative foster parents, non-relative foster parents, and the combined parent group. The combined parent group will be looked at first in each section. Then the findings will be broken down and compared for the two parent groups of relative and non-relative foster parents. The comparison of the results for foster parent groups is done by splitting the data and running the same models for each parent group.

The regression analyses in this chapter also provide exploratory research on the potential validity of using an individual net-promoter score (NPS) tool as a parsimonious way to predict being satisfied and retention, as well as providing a direct measure of the willingness of foster parents to promote being a foster parent to friends and family members. (Promotion of being a foster parent provides a direct measure of the degree that retention solves for recruitment because

foster parents who promote being a foster parent are the "brand evangelists" who do the recruiting with their friends and family who have a trust factor with them.) If significant and it functions in the foster care arena like it does in healthcare (as noted in Chapters 2 and 3), then the NPS tool could provide researchers, practitioners, and policymakers with more timely and consistent feedback on the utilization, effectiveness, and accessibility of available resources and supports for foster parents, which is what researchers (Krol et al. 2015, Wilberforce et al. 2018, and Alismail et al. 2020) found when the NPS tool was employed in the healthcare arena. Implementing the use of a NPS scale in relation to the utilization of foster parent support services would also provide those foster parents with a greater voice into what resources and supports are needed, where those resources are needed most, and for whom.

The resource and support models analyzed in this chapter focus on the variables related to measuring the resources and support services prior research and policies are most likely to prescribe (as described in Chapter 2). In addition to the typical resources and supports, access to social workers is viewed in this analysis as an informal support mechanism in the form of relational support as well as providing formal support in the form of access to information. The initial descriptive analyses of the survey results (presented in Chapter 4) also support the notion of social workers as both a formal and informal support service. While much of the prior research included support from social workers, the research presented here focuses on social workers since they are perceived as the "gatekeepers" to other resources, and since county agencies and policymakers have direct leverage on the access to social workers. Resources and support services such as childcare are more of an indirect lever for policymakers and county workers.

The next section starts the regression analyses by first looking at the results related to predicting the likelihood of being satisfied. It is worth noting as a reminder that satisfaction is a difficult variable to operationalize due to its complex and emotionally myopic nature (as detailed in Chapters 2 and 3 in relation to the need that led practitioners to use the NPS tool in health care). Thus, the analysis of satisfaction is also a bit messy and requires more methodological liberties and assumptions, which all serve to justify the need for a more parsimonious variable (like the NPS tool).

SATISFIED AS THE DEPENDENT VARIABLE

According to Cleary et al. (2018) and Fees at al. (1998), "satisfaction can be defined as the feeling that one's needs and/or expectations are being met." The changing nature of individual expectations can be difficult to quantify and even harder to predict (as noted in Chapter 2 in the NPS literature). For the purposes of this analysis, the factors used to analyze being satisfied are limited to the formal and informal resources and support services associated with helping meet the expectations of relative and non-relative foster parents.

A brief note on the terminology denoting when the dataset is split or not: The results presented in this section are the "combined" results, meaning that the dataset is not split based on relative and non-relative foster parents. The next section runs the same models but splits the dataset between relative and non-relative foster parents.

Satisfied: Combined results for relative and non-relative foster parents

Table 9 presents the results of the logistic regression for satisfaction of foster parents with their overall fostering experience. The explanatory variables consisted of a resource and support model, where resources and support services are segmented into two broad categories, namely,

formal supports like training, childcare, access to information (from their social worker), and access to mental health services. Informal supports, or social supports (these are the significant

Table 9: Regression results for satisfied for the combined foster parent group

Satisfied *n = 234*					***95% C.I. for EXP(B)***	
		Exp(B)	***S.E.***	***Wald***	**Lower**	**Upper**
Informal Social Supports:						
Social Worker Support		1.261***	0.052	20.207	1.140	1.395
Best Friend Support		0.912	0.068	1.814	0.799	1.043
Support of Other Foster Parents		0.926*	0.036	4.532	0.862	0.994
Support of Family Members		1.074	0.052	1.891	0.970	1.189
Spouse/Partner Support		1.107*	0.044	5.448	1.016	1.205
Formal Resources and Support Services:						
Childcare Resources		0.715	0.445	0.567	0.299	1.711
Respite Care Resources		1.083	0.740	0.012	0.254	4.620
Information on Accessing Resources		5.596**	0.568	9.178	1.837	17.051
Healthcare Services		0.402*	0.429	4.504	0.174	0.933
Mental Health Services		2.87*	0.447	5.576	1.196	6.887
Resources for Medical Costs Assistance		1.019	0.888	0.000	0.179	5.804
Parental Training Resources		1.337	0.168	2.975	0.961	1.860
Constant		0.030***	1.587	13.384		
Chi^2	75.3***					
Correctly Classified (%)	75.6%					
Pseudo-R^2	0.432					

* p < .05
** p < .01
*** p < .001

others scales) consist of explanatory variables for the social support of a spouse/partner, other foster parents, a best friend, a family member, and their county social worker. Each social support variable is a composite of 4 scales that are combined to create a single score for each significant other. The social support variables are treated and interpreted as numeric variables, while the formal support variables are categorical (dichotomous) variables that report a resource

or support service as either needed or not needed.[24] The dependent variable of overall satisfaction with fostering is recoded into a dichotomous dependent variable—where extremely satisfied was coded as 1 and somewhat satisfied to extremely dissatisfied responses were coded as zero (as explained and supported in Chapters 2, 3, and 4). The multicollinearity assumption is not violated in any of the models, which is checked using ordinary least squares (OLS) regression of the variables that provided Variance Inflation Factor (VIF) values that were less than 2.0 for all the variables in the model. The outlier assumption is also not violated as determined by the casewise list in the logistic regression results.

Looking at the results in Table 9, the odds ratios and standard errors are shown for each variable in columns labeled *S.E.* and the Wald test statistic is in the next column and its significance is indicated by asterisks (*) next to the odds ratios associated with each variable. The column denoted as *Exp(B)* provides the odds ratio, which is the antilog of the coefficient and the main measure used for interpreting the results of each explanatory variable on the dependent variable. The Wald statistic tests the null hypothesis that a regression coefficient equals zero (Tabachnick and Fidell, 2019). The goodness of fit for this model (and those that follow) is chi-square. This statistic is equivalent to the F test in multiple regressions and tests whether all the regression coefficients taken together equals zero. The chi-square value of 75.3 with 13 degrees of freedom is statistically significant ($p < 0.000$) and indicates the model fits the data well. The classification table for satisfaction also measures goodness of fit and indicates an overall percentage of 75.6% correctly classified. Finally, the pseudo-R^2 indicates that the overall model

[24] As noted in Chapters 3 and 4, these formal support variables (with exception for training) were two-part questions, where the first part simply asked whether they needed the resource or service. Then, if they answered "yes," a follow-up question asked how much of the resource they received.

explains approximately 43.2% of the variance in the dependent variable of satisfaction among foster parents in San Bernardino County. Stated differently, the resource and support model explain almost half the variance in the satisfaction among foster parents, which is a good level given the number of unobservable variables that also matter to the individual situation.

Moving to the explanatory variables and starting with the informal supports (also known as social supports), they are interpreted as numeric variables, where odds ratios above 1.0 indicate an increased likelihood of being satisfied with their overall fostering experience, while values less than 1.0 correspond with a likelihood of being less than satisfied, implying that some expectation or need is not met with regards to their fostering experience. (The social support variables are denoted with SOS.) The results indicate that higher levels of support from a foster parent's social worker and their spouse/partner are statistically significant at the 0.02 level and correspond with higher probabilities of satisfaction with their overall fostering experience when the other independent variables are taken into account.

More specifically, the estimated odds ratio for increased social support from their social worker is 1.261 ($p = 0.000$). This odds ratio indicates that the odds of a foster parent being satisfied with their overall fostering experience increases 1.261 times for each unit increase in the felt support from their social worker. This equates to a 55.7%[25] probability of being satisfied with their fostering experience when a foster parent feels supported by their social worker. The informal support of a social worker can be interpreted as a willingness to trust and rely on them for support in times of difficulty. Sinclair et al. (2004) notes that frequent touchpoints, such as semiweekly phone calls or text messages, can increase feelings of support, which increase trust

[25] Prob (satisfied) = $e^B / (1 + e^B)$ or Probability of success = Odds ratio / (1 + Odds Ratio) taken from Cohen, et al. 2003. That is, 1.261 / (1 + 1.261) = 55.7% probability of success, where success means being fully satisfied.

and reliability. According to Stephen Covey (2018), increasing trust and relational equity increases the speed and lowers the costs of relational transactions, thereby increasing access and perpetuating a virtuous cycle for foster parents. The social support of a spouse or partner has an odds ratio of 1.107 ($p = 0.02$) and can be interpreted in a similar fashion as the social worker variable. (The estimated odds ratio of a foster parent being satisfied with their fostering experience increases 1.107 times for every unit increase in felt support of a spouse/partner regarding their foster care experience.) While the support of a spouse or partner is significant, practitioners and policymakers do not have much agency in these domestic relationships. So, it is worth noting and understanding the impact of these relationships, but it is not an area of recommended focus since practitioners and policymakers have limited agency and leverage in increasing the support of a spouse/partner.

The significance of social support of other foster parents takes a little more context to understand its relationship to satisfaction. It has an odds ratio of 0.926 ($p = 0.03$) and can be seen as an indicator of needed support, meaning that when foster parents have increased levels of social support from other foster parents, the foster parent is likely experiencing some level of emotional distress and are less likely to be satisfied with their fostering experience. Stated differently, foster parents often reach out for support from other foster parents when they need social support from someone who understands the unique role of being a foster parent. The literal interpretation is that the odds of a foster parent being satisfied decrease by 0.926 times for every unit increase in the social support of another foster parent, which suggests that a more complex connection may be at work in this specific relationship and needs to be considered in future research involving similar variables.

Overall, the support of a social worker had the most significant impact, which is an important and actionable finding especially given the fact that social workers garnered more significance than family relationships and friendships. One would expect that family and friends have more significance; but in the context of foster care, social workers show up as a more significant relationship.

The variables representing the formal supports offered to foster parents consist of resources and services like training, childcare, respite care, health care services, mental health services, and access to information. Except for training, these are all categorical variables where respondents answered yes (=1) or no (=0) to whether they needed the stated resources or not. A follow-up question asked those who responded "yes" to estimate about how much of the given resource or service they received, which helps interpret the results (as noted in Chapters 3 and 4). Thus, these formal support variables will be interpreted as categorical variables. The reference category is 1 so the results will be interpreted for those who needed the stated resource or service. The variables healthcare, access to information, and mental health services are all statistically significant and indicate that those who have these resources are more likely to be satisfied with their overall fostering experience than those who lack these services and resources.

More specifically, foster parents who needed information from their social worker are 5.596 times more likely ($p = 0.002$) to be satisfied than those who did not. Since almost 93% of those who said they needed information from their social worker also said they received at least some (in a follow-up question), then the results indicate that there is about an 85%[26] probability of being satisfied with their fostering experience when a foster parent felt they could access at

[26] Prob (satisfied) = $e^B / (1 + e^B)$ or Probability of success = Odds ratio / (1 + Odds Ratio) taken from Cohen, et al. 2003. That is, 5.596 / (1 + 5.596) = 84.7% probability of success, where success means being fully satisfied.

least some information from their social worker. This variable for accessing information directly relates to the formal support a social worker provides—county social workers provide information on the child's case, updates on court decisions, birthparent updates, as well as how to access other support resources for a child, which is why Sinclair referred to social workers as "gatekeepers" to available resources and services.

Mental health services had an odds ratio of 2.870 ($p = 0.018$). This odds ratio can be interpreted the same way as access to information and indicates that foster parents who felt like they needed to access mental health services for a child in their care are 2.870 times more likely to be satisfied than those who felt like they did not need it, which may indicate a lack of access. While all foster parents can receive mental health services for the foster children in their care, many foster parents do not know how to identify mental health issues in children, indicating a potential latency and a knowledge barrier to accessing such services, which supports the notion that every child (of a certain age) in the foster care system should receive at least an initial mental health evaluation (as noted in Chapter 4). While those who do recognize the need for such services may have difficulty maneuvering the system to effectively access the right mental health services, and they may not obtain services at the time they are most needed, these parents at least recognize the need and have overcome the first barrier to access. It is also worth noting that in the follow-up question 82% of those who indicated they needed mental health services for a child in their care also said they received at least some services. So, while access to mental health services has opportunities for improvement, those who understand that their child(ren) needs these services are more likely to be satisfied.

Healthcare services require more context to understand its relationship with foster parent satisfaction. It has odds ratio of 0.402, meaning that those who needed healthcare services in the

2 months prior to taking the survey are much less likely to be satisfied with their fostering experience, which may be due to nearly 40% of those parents who needed healthcare for a child not receiving what they needed (as noted in Chapter 4). Unresolved medical issues impacting children in the care of a foster parent could be related to receiving a child's Medi-Cal card[27] to be able to access treatment or not being able to treat common symptoms (like a cold or cough) with over-the-counter medications without first seeing a doctor. These are not uncommon experiences for foster parents and can lead to limited access to health care services and dissatisfaction with their fostering experience.

In conclusion, then, for the average foster parent in San Bernardino County, informal support from their county social worker seems to be the most significant social support, while accessing information from their social worker along with accessing mental health services for a child in their care appear to be the most significant formal supports. It is important to note the significance of a social worker's impact on a foster parent's satisfaction: the results suggest that the support foster parents receive from their county social worker is most significant in predicting their level of satisfaction. Social workers have more practical significance on a foster parent's satisfaction than more long-term relationships, which indicates social workers have a significant level of influence on foster parents. The next section breaks down these results by parent group.

Satisfied: Results after splitting the data by parent group

This next two sections look at the same resource model used in the previous section to predict satisfaction of foster parents but breaks down the results into the different foster parent

[27] "Medi-Cal is California's Medicaid health care program. This program pays for a variety of medical services for children and adults" (dhcs.ca.gov).

groups. The analysis that follows is based on splitting the data according to relative and non-relative foster parent groups and compares the results of each with the other parent group as well as the combined results. The results in this section focus exclusively on relative foster parents, while the next section focuses on the results of non-relative foster parents. The purpose of splitting the data is to see whether significant differences exist between the parent groups and whether it is justified to split the two groups and look at them separately or continue to analyze the combined results of both foster parent groups. Most research regarding satisfaction assumes that the results generalize across parent groups. This section and the next analyze the assumption of generalizability across parent groups and looks at what variables do, and do not, generalizable for foster parents in San Bernardino County. Each parent group had 117 usable responses. (As noted in chapter 3, the even distribution between the groups was not necessarily planned outside of trying to ensure a large enough sample of each group to facilitate comparison.)

Satisfied: Results for the relative foster parent group

Table 10 provides the results of the logistic regression for satisfaction of relative foster parents with their overall fostering experience. The independent variables consisted of the same resource and support variables used previously with the combined parent group and with the same categorizes of informal and formal supports. In short, the only change is the segmentation of the data by parent group.

The resource model for satisfaction fits the data of relative foster parents relatively well as evidenced by the chi-square value of 32.7 with 13 degrees of freedom ($p < 0.001$). The classification table for satisfaction among relative foster parents also measures goodness of fit and indicates an overall percentage of 75% correctly classified. The pseudo-R^2 of 0.385 indicates

that this resource and support model explains approximately 38.5% of the variance in the dependent variable of satisfaction among relative foster parents in San Bernardino County. These

Table 10: Regression results of satisfied for relative foster parents

Satisfied for relative foster parents *n = 117*					***95% C.I. for EXP(B)***	
		Exp(B)	***S.E.***	***Wald***	**Lower**	**Upper**
Informal Social Supports:						
Social Worker Support		1.252***	0.071	10.144	1.090	1.438
Best Friend Support		0.876	0.109	1.464	0.708	1.085
Support of Other Foster Parents		0.933	0.053	1.688	0.841	1.036
Support of Family Members		1.107	0.088	1.347	0.932	1.316
Spouse/Partner Support		1.087	0.060	1.911	0.966	1.223
Formal Resources and Support Services:						
Childcare Resources		0.565	0.671	0.726	0.152	2.102
Respite Care Resources		2.846	1.060	0.973	0.356	12.736
Information on Accessing Resources		5.578**	0.801	4.610	1.162	26.785
Healthcare Services		0.425	0.652	1.725	0.119	1.524
Mental Health Services		1.065	0.627	0.010	0.312	3.638
Resources for Medical Costs Assistance		1.941	1.268	0.274	0.162	23.295
Parent Training Resources		1.098	0.213	0.194	0.723	1.668
Constant		0.050**	2.150	5.867		
Chi^2	32.7**					
Correctly Classified (%)	75.0%					
Pseudo-R^2	0.385					

* p < .05

** p < .01

*** p < .001

statistics of the model for relative foster parents are lower than those of the combined model and lower than those of non-relative foster parents (non-relative foster parent results are in the next section). As a result, resource and support variables are helpful for understanding the satisfaction of relative foster parents but the model fits the non-relative foster parent data better and has more predictive power, which will be fleshed out in greater detail in the next section.

The social support of social workers is the only statistically and practically significant variable for relative foster parents with regards to the social supports predicting satisfaction. The

estimated odds ratio of 1.252 ($p < 0.001$) for social worker support indicates that the odds of a relative foster parent being satisfied with their fostering experience increases 1.252 times for each unit of increase in the felt support of the child's social worker, which can be practically interpreted as the willingness of relative foster parents to trust and rely on their social worker for support during times of perceived difficulty. This odds ratio and its associated significance for the social support of a social worker on satisfaction is the same for relative foster parents, non-relative foster parents as well as the combined data, indicating that this variable is consistent and does not change significantly across the foster parent groups, which confirms its generalizability.

The social support of a spouse/partner and other foster parents, on the other hand, are not significant among relative foster parents but they are significant for the combined foster parent group, implying that these variables might have significant differences among the different foster parent groups and that it is possible they do not generalize. The social support of a spouse or partner and that of other foster parents, then, depends on the parent group type and needs further research that looks at these support variables separately for each foster parent group.

Moving to the formal support variables, the results show that the formal support of a social worker to provide access to information is the only significant variable for predicting the satisfaction of relative foster parents. As noted previously, the formal support variables are categorical and interpreted based on those who needed to access the stated resource or support service. The odds ratio of 5.578 ($p = 0.03$) indicates that relative foster parents who can access information from their county social worker are 5.578 times more likely to be satisfied than those who are felt like they did not need to access information from their social worker. Other formal supports such as mental health care services, healthcare access, and training are not significant in predicting satisfaction among relative foster parents, but they are for other foster parent groups,

implying that these variables also differ significantly between parent groups and should be researched furthered before generalizing among the parent groups. Thus, the informal and formal supports indicate that the support relative foster parents feel from their social worker is the single most significant factor impacting their level of satisfaction with their overall fostering experience. This means that Child and Family Services (CFS) has significant agency in the satisfaction of relative foster families, since CFS has direct control over the lever of social worker connections, as opposed to the social support of other foster families or the formal support of mental health services, over which CFS only has indirect leverage over. It gives practitioners and policymakers a significant lever that they have direct access to pull to increase satisfaction among relative foster parents.

Satisfaction: Results for the non-relative foster parent group

Table 11 provides the results of the logistic regression for satisfaction of foster parents with their overall fostering experience. The chi-square value of 49.6 with 13 degrees of freedom ($p < 0.001$) and the classification table results of 82.5% correctly classified indicate that the model fits these data the best compared to the other foster parent groups. This conclusion is further supported by pseudo-R^2 of 0.551, indicating that the results explain over 55% of the variance in satisfaction among non-relative foster parents.

Looking at the individual variables shows that some significant differences exist between the results for relative foster parents and those of the combined group. Since many of the variables have already been explained in detail, only the differences from the combined and relative foster parent results will be highlighted.

While the social support of social workers has the same odds ratio as the previous results (1.261) and is statistically significant (p = 0.01), it's standard error (0.093) is slightly higher than the results for relative foster families, indicating higher variance of the estimated coefficient for this variable among non-relative families. But the results are still generalizable across parent

Table 11: Regression results of satisfied for the non-relative foster parent group

Satisfied for non-relative foster parents *n = 117*					***95% C.I. for EXP(B)***	
		Exp(B)	***S.E.***	***Wald***	**Lower**	**Upper**
Informal Social Supports:						
Social Worker Support		1.267***	0.093	6.556	1.057	1.519
Best Friend Support		0.870	0.117	1.418	0.693	1.094
Support of Other Foster Parents		0.920	0.064	1.691	0.812	1.043
Support of Family Members		1.041	0.080	0.248	0.889	1.219
Spouse/Partner Support		1.116	0.087	1.600	0.942	1.322
Formal Resources and Support Services:						
Childcare Resources		0.600	0.732	0.488	0.143	2.519
Respite Care Resources		0.956	1.133	0.002	0.104	8.805
Information on Accessing Resources		12.550**	1.033	5.992	1.656	95.131
Healthcare Services		0.174*	0.785	4.980	0.037	0.808
Mental Health Services		9.572***	0.860	6.902	1.775	51.623
Resources for Medical Costs Assistance		0.707	1.636	0.045	0.029	17.445
Parent Training Resources		2.319**	0.356	5.577	1.154	4.660
Constant		0.010**	2.990	6.541		
Chi2	49.6***					
Correctly Classified (%)	82.5%					
Pseudo-R2	0.551					

* p < .05
** p < .01
*** p < .001

groups, making social support of social workers an obvious lever policymakers and practitioners can use to increase satisfaction (and retention and promotion; these latter two will be fleshed out later in this chapter). The social support of a spouse/partner and the social support of another foster parent are not statistically significant for non-relative foster parents. Since these last two social support groups are significant for the overall result but not significant for either parent

group, it's likely that a lack of statistical power may be impacting the results of one or both foster parent subgroups (as noted in chapter 4). Thus, future research will need to intentionally collect larger sample sizes for each parent group to flesh out whether these more border-line variables suffer from type II error or significant differences actually do exist for these relationships. But since the primary focus of the research presented here is on levers policymakers and practitioners can pull directly, the variables representing social support from a spouse and that of other foster parents are less important because policymakers have little agency and leverage to increase the levels of these social supports like they can a county social worker.

Moving to the formal supports, Table 11 indicates that like the overall model and the relative foster parent model results, the formal support of a social worker to provide access to information regarding such things as available services and updates on their foster child's case, is also statistically significant for non-relative foster parents. The odds ratio of 12.55 ($p = 0.014$) is much larger than the odds ratios for the overall model (5.596) or that of relative foster parents (5.578). The odds that a non-relative foster parent who feels like they need to access information from the social worker are twelve-and-half times more likely to be satisfied than those who felt like they did not need to access to this information. Moreover, mental health services, healthcare services, and training are also significant predictors of satisfaction among non-relative foster parents. For mental health services, the odds ratio of 9.572 ($p = 0.009$), which can be interpreted in the same fashion as the odds ratio for information access, is also much larger for non-relative foster parents than it is for the overall model or for relative foster parents, implying that it benefits both parent groups but disproportionally benefits non-relative foster parents. Healthcare access had an odds ratio of 0.174, which as previously noted (for the combined parent group results), indicates that those who needed access to healthcare are less likely to be satisfied. In this

instance, non-relative foster parents are even less likely to be satisfied than the overall group, which highlights the notion (stated under the combined results) that those who needed healthcare resources had difficulty accessing it since nearly 40% of the non-relative foster parents who said they needed healthcare services indicated they did not receive enough services to meet their needs (as noted in Chapter 4). Thus, access to healthcare services might be a topic for future research and it appears that results do not generalize among the foster parent groups. (A larger sample size (as noted earlier) would be helpful to further validate these findings.) Finally, training for non-relative foster parents significantly impacted their satisfaction and had an odds ratio of 2.319 ($p = 0.018$), indicating that the odds of a non-relative foster parent being highly satisfied with their overall fostering experiences increases 2.3 times for each unit increase in their level of training. (As noted previously, training is a numeric variable, while the other formal support variables are categorical.) Training is not significant among relative foster parents or for the combined parent group, implying that a larger sample size and further research is needed with regards to training. But it is another direct lever the county can pull to increase satisfaction and promotion. But it primarily impacts non-relative foster parents.

In short, formal supports are more significant among non-relative foster parents than they are for relative foster parents with regards to their overall satisfaction. While the formal and informal (social) supports of social workers are significant for both parent groups, social workers are the key to increasing satisfaction among relative foster parents and they disproportionately help non-relative foster parents with regards to their formal support (i.e., access to information). Therefore, if policymakers, practitioners, and researchers focused their collective efforts on lowering one barrier, the results indicate that the support of a social worker seems like the obvious lever to pull to increase satisfaction of foster parents. It is also worth noting that access

to health care services and parent training might also be worthy candidates for policymakers, practitioners, and researchers to look into since the County has agency in facilitating access to both of these resources. However, they both primarily benefit non-relative foster parents.

The next two sections look at the locus of control (LOC) and an individual net promotor score (NPS) scale variables separately. They are analyzed separately from the full model due to philosophical and methodological issues (as noted below and in Chapters 2 and 3).

Satisfied: Locus of Control (LOC) and the net-promoter score (NPS) tool

They are taken separately because neither the locus of control (LOC) nor the net promoter score (NPS) tool are resources or services for foster parents. They are also not levers that policymakers and practitioners could directly or indirectly apply or impact—i.e. they have no agency in these areas. Beyond these theoretical arguments, they each present methodological issues. As noted in Chapter 3, including the locus of control variable in the satisfaction model (i.e., Equation 2 in Chapter 3) would cause issues of multicollinearity due to social workers functioning as "powerful others" in the LOC subgroup. Thus, the likelihood of type II error would increase, especially when this multicollinearity is combined with an already small sample size.[28] The NPS tool, as noted in Chapters 2 and 3, has been used extensively in the healthcare arena as a possible replacement for satisfaction, and while some researchers (Reichheld 2006 and Wilberforce et al. 2018) found the two measures of being satisfied and the NPS tool "evaluate

[28] Sensitivity analysis included the LOC variable in the overall model and the results indicated increased standard errors and limited significance at the 0.05 level, which highlighted the increased potential of type II error when the LOC is included in the full model. Moreover, the split models for the separate foster parent groups that have smaller samples sizes had larger standard errors and no significant variables at the 0.05 level, supporting the notion that it should not be included in the overall model in combination with the variables for social workers.

related but distinct constructs," including the NPS tool in the overall model for being satisfied (eq. 2) would introduce simultaneity bias in the standard errors as many of the same variables that predict being satisfied would also predict the NPS score (at the individual level), assuming the results of Reichheld (2006), Krol et al. (2015) and Wilberforce et al. (2018) hold true for foster parents. It is analyzed here as part of the exploratory analysis to determine if it could be used to predict both being satisfied and retention and provide a more parsimonious substitute for satisfaction. If so, then the NPS tool could be a lever that policy advocates and practitioners could consider incorporating in the administration and evaluation of resources and services aimed at helping foster parents. As noted in Chapters 2 and 3, the idea of including the NPS tool in this analysis is to see whether it is predictive of both satisfaction and retention, which would allow policy advocates and practitioners to consider incorporating it in the administration and evaluation of resources and services meant to help foster parents. But both variables have practical implications for understanding being satisfied as a foster so they are included here in separate analyses.

Locus of Control (LOC) with satisfied as the dependent variable

Locus of control (LOC) is looked at separately. It is not a direct resource or support element, but research suggests that it may be predictive of satisfaction (Geiger et al. 2013 and Eaton and Caltabiano 2009) and relates to the resources and supports impacting foster parents. It seems logical that the feeling of control over one's circumstances (operationalized by the locus of control variable) is connected to the satisfaction of one's expectations, since the more control one feels in the ability to access resources when the need arises, the more likely they are to ensure their expectations are met. Since social workers are the "gatekeepers" and have the most

influence over each case, feelings of control over their fostering experience correspond to the foster parent's relationship with their social worker (Sinclair et al. 2004). The feeling of control over their fostering experience, then, tie to a resource and service model through their ability, or lack thereof, to access needed resources, which are controlled by social workers as the "gatekeepers." When segmented by parent group and broken down to its different subscales, locus of control provides some practical insights for policymakers, practitioners, and researchers.

The locus of control variable consisted of a panel of 12 questions (4 questions for each subscale of the LOC Equation noted below). The responses are combined to create the 3 subscales outlined by Lefcourt (1981) as powerful others (PO), internal control (I), and chance (C). These variables are combined according to the following formula[29] (which was noted in chapter 3 as Equation 7.0 but reiterated here for convenience).

$$\text{Locus of Control}_i = [\text{Internal Control}_i - (\text{Powerful Others}_i + \text{Chance}_i)] \qquad \textbf{Eq. 7}$$

The total locus of control (LOC) score is analyzed first and then the subscales of internal control (I), powerful others (PO), and chance (C) are analyzed separately to see if significant differences exist among the different parent groups regarding their perception of internal control versus powerful others and chance. As in the previous resource and support models, locus of control is also analyzed for the combined parent group (Equations 8.0 to 8.2) and then separately for relative and non-relative foster parent groups (Equations 9.0 to 9.2). The following is a summary of the different regression models reported in Table 12 below:

LOC_i + Constant	→ $Satisfied_{Combined}$	**Eq. 8.0**
LOC_{Ri} + Constant	→ $Satisfied_{Relative}$	Eq. 8.1
LOC_{nonRi} + Constant	→ $Satisfied_{Non\text{-}Relative}$	Eq. 8.2

[29] The formula is taken from ed. Lefcourt (1981), Eaton and Caltabiano (2009) and International Personality Item Pool (https://ipip.ori.org/ and https://ipip.ori.org/newSingleConstructsKey.htm#LocusOfControl).

$I_i - PO_i - C_i + Constant \rightarrow Satisfied_{Combined}$ **Eq. 9.0**

$I_{Ri} - PO_{Ri} - C_{Ri} + Constant \rightarrow Satisfied_{Relative}$ Eq. 9.1

$I_{nonRi} - PO_{nonRi} - C_{nonRi} + Constant \rightarrow Satisfied_{Non\text{-}Relative}$ Eq. 9.2

Table 12: Summary Table for Locus of Control (LOC) and its subscales regressed on being satisfied

Satisfied	**Combined** *n = 234*	**Combined** *n = 234*	**Relative** *n = 117*	**Relative** *n = 117*	**Non-Relative** *n = 117*	**Non-Relative** *n = 117*
LOC Score	1.146***		1.127***		1.177***	
Internal (I)		1.208***		1.203***		1.232**
Powerful Others (PO)		0.891*		0.812**		0.946
Chance (C)		0.901*		1.011		0.804**
pseudo-R^2	0.294	0.311	0.280	0.337	0.295	0.327
Correctly Classified	70.8%	70.3%	71.1%	69.1%	73.5%	73.5%
Chi^2	48.3	51.5	22.9	28.3	23.6	26.6

*** $p < 0.001$

** $p < 0.01$

* $p < 0.05$

Table 12 indicates that the LOC variable (denoted LOC Score) is statistically significant ($p < 0.001$) with a pseudo-R^2 of 0.294, indicating that by itself the combined LOC score explains 29.4% of the variance in satisfaction among foster parents. The odds ratio of 1.146 indicates that the odds of a foster parent being satisfied increases 1.146 times for each unit increase in their perceived sense of control over their fostering experience. The breakdown by subscale shows that the odds ratios of both powerful others and chance are below one (0.891 and 0.901, $p = 0.020$ and $p = 0.026$, respectively), meaning that the odds of a foster parent being satisfied with their fostering experience decreases 0.891 times for each unit of increase in the perceived control of powerful others (powerful others could be judges, social workers, etc.) over their fostering circumstances.

When the results are broken down by the individual subscales of internal control (I), powerful others (PO), and chance (C) and the data are split by parent group (Equation 9.0 above), the results indicate that both relative and non-relative parent groups have increased

satisfaction as they feel increasing levels of internal control over their fostering circumstances. The role of powerful others is significant for relative foster parents but not for non-relative foster parents, while chance is significant for non-relative foster parents but not for relative foster parents, implying that relative foster parents view powerful others, such as social workers, as significantly reducing their overall feeling of control and their general satisfaction with their fostering experience. Non-relative foster parents, on the other hand, are less sensitive to the role of powerful others and instead identified chance as playing a significant role in reducing their feelings of control and reducing their level of satisfaction with their fostering experience.

Thus, these results indicate that the feeling of control over their fostering circumstances (e.g., their ability to access resources when needed) seems to be another lever for policymakers and practitioners to consider as they aim to support foster parents. The results indicate that giving foster parents more say (i.e., control) in the decisions that impact their family will likely increase the odds of being satisfied and thus increase their likelihood of retention (as seen in the retention section of this chapter, where satisfaction predicts retention). More specifically, based on the results in Table 12, relative foster parents might have increased feelings of control if, for example, they see that their opinion influences the specific decisions of powerful others, such as those of social workers. Non-relative foster parents will seem to have higher feelings of control over their fostering experience if their circumstances feel less open to chance, which would lead to an increased likelihood of being satisfied.

Increasing the control foster parents have over their fostering journey is essentially giving increased credence to their collective voice, which not only benefits the foster parents, but also the children in their care and the biological family as foster children have better outcomes. The next section is an exploratory analysis on the predictive power of using a net promoter score

(NPS) tool in relation to satisfaction and provides a possible method that policy advocates and practitioners can use to increase the collective voice of foster parents.

Exploratory analysis of using a net-promoter score (NPS) tool to predict satisfied

The individual net promoter score (NPS) tool is hypothesized to be a significant and parsimonious predictor of both satisfaction and retention, as well as a direct measure of the willingness of foster parents to promote being a foster parent to their friends and family. This hypothesis (as noted in Chapters 2 and 3) is based on research from the health care industry where the NPS tool is often used in mandated patient satisfaction surveys. If significant, policymakers, practitioners, and agency workers could look at using the NPS tool to obtain more robust and dynamic feedback on the coverage and bias of resource utilization by foster parents and better understand and predict changes in their satisfaction and desire to continue fostering, which is similar to how the health care practitioners use the tool. It's analyzed here with regards to its predictive power for satisfaction. In the next section it will be looked at with regards to retention.

The net-promoter score (NPS) tool (as noted in Chapters 2 and 3) is sometimes referred to as a "one-question survey" because it allows private, non-profit, and public sector organizations to measure the strength of their customer relationships with a single question (Reichheld 2006, 2011; Fitzgerald 2019, and Alismail et al. 2020). It has been analyzed and used extensively in arenas of private sector economics and marketing (Reichheld 2003) as well as public sector social services like healthcare services (Krol et al. 2015, Alismail et al. 2020) and community mental health services (Wilberforce et al. 2018). This is the first time that it has been analyzed with regards to foster care, making this an exploratory in nature, implying that this

analysis is "geared toward demonstrating the potential value of the NPS tool rather than for reaching firm policy decisions" (Wilberforce et al. 2018). For this analysis, the net promoter score (NPS) tool is analyzed at the individual level (as noted in Chapter 2 and 3), meaning that a foster parent's likelihood of promoting foster care is looked at as to whether it predicts their likelihood of satisfaction. (Later in this chapter, the NPS tool will be analyzed in relation to predicting retention.) If significant, the individual-level net-promoter score (NPS) tool could provide faster quantitative feedback on programs and services to agency workers and policymakers, enabling greater agility in the application and execution of adjusting accessibility and resource utilization to advance the goals of legislation like the Continuum of Care Reform (CCR).

Table 13: Summary Table of the individual net-promoter score (NPS) tool regressed on satisfied as the dependent variable

Satisfied	**Combined** *n = 234*	**Relative** *n = 117*	**Non-Relative** *n = 117*
$NPS_{ndividual}$	1.446***	1.387***	1.674***
pseudo-R^2	0.203	0.186	0.262
Correctly Classified	65.4%	64.1%	72.6%
Chi^2	38.4***	17.5***	24.6***

*** $p < 0.001$

Like the analysis of the locus of control, the net-promoter score variable is looked at for the combined parent group and then separately for relative and non-relative foster parent groups. The analysis summarized in Table 13 shows that the NPS tool is a significant predictor of satisfaction for each parent group.[30] The odds ratio of 1.446 ($p < 0.001$) for the combined parent

[30] Note that it could be argued that this relationship is simultaneous, where willingness to promote being a foster parent predicts satisfaction and satisfaction could predict willingness to promote being a foster parent (a feedback loop). But it is also possible to be willing to promote being a foster parent and not be satisfied with their current fostering circumstances. For example, a foster parent might be frustrated with accessing healthcare for a child in their care because they cannot obtain the child's Medi-Cal card, but they could still be willing to promote being a foster

group indicates that the odds of a foster parent being satisfied with their fostering experience increases 1.446 times for each unit increase in the willingness to promote being a foster parent to their friends and family. The other odds ratios can be interpreted in a similar fashion for the relative and non-relative odds ratios.

The individual net promoter score (NPS) tool has a stronger statistical relationship and greater explanatory power among non-relative foster parents than relative foster parents (odds ratios of 1.674 and 1.387; pseudo-R^2 = 26.2% and 18.6%, respectively). The difference between relative and non-relative foster parents is due, in part, to the fundamental differences in how the two groups become foster parents. Relative foster parents are usually somewhat conscripted into fostering out of a sense of duty to a family member, while many non-relative foster parents are likely to become foster parents out of a sense of duty to their community to help children and families from hard places (Sinclair et al. 2004).

Logically, it makes sense that the NPS tool is a correlated with satisfaction because promotion is essentially a measure of word-of-mouth advocacy (Reichheld 2006, 2011). The individual net-promoter score (NPS) tool, then, helps measure the reality and impact of the County's relational equity with the foster parents they utilize and support. It also provides a

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parent because so many children need good homes and, while the system is not perfect, more good foster parents could facilitate systematic improvements, which supports Wilberforce et al.'s (2018) findings that the two concepts (satisfaction and willingness to promote) are "related but distinct." Thus, while more research is needed, the purposes of this exploratory analysis is simply to determine if there is a significant predictive relationship that exists between the NPS tool and satisfaction among foster parents in addition to the presumed relationship between promotion and retention (outlined in the next section). That is, this analysis simply looks to see whether this one variable (the NPS tool) could be used by policymakers and practitioners as a predictive lever for evaluating the resources and support services offered to foster parents and simultaneously predict their likelihood of being satisfied and their desire to continue fostering. This idea is similar to how the NPS tool is used in healthcare patient feedback surveys. The findings presented here support further research in this regard.

parsimonious measure of the foster parent experience that can be easily administered, making for a relatively rapid feedback loop. It is more parsimonious than measuring satisfaction because the NPS tool is one question, and most people understand "promotion" more concretely than satisfaction (Reichheld 2003). Measuring satisfaction requires more scales and more context to understand and interpret the responses. For example, promotion requires one to account for the totality of their experience, whereas satisfaction is based on meeting current expectations, which change depending on timeframe, their most recent experience, and their current emotional state. Since NPS is correlated with satisfaction and it provides a parsimonious operationalization, it is also likely to reduce measurement error and provide more reliable results over time. Therefore, it is recommended that an individual level net promoter score (NPS) scale be tested further as a means of collecting actionable, timely, and quantitative feedback from foster parents, thereby giving greater weight to their collective voice.

The next section will analyze the net-promoter scale (NPS) tool in relation to predicting retention of foster parents. If it's highly predictive of both satisfaction and retention, then it could be a measurement tool that policy advocates and practitioners consider incorporating in the administration and evaluation of resources and services geared toward foster parents.

Conclusion for Being Satisfied

The nature of the issue of analyzing satisfaction is important to reiterate and understand: Improving foster parent satisfaction, through the means suggested above, has the potential to improve the long-term outcomes for foster children and subsequently their biological parents—i.e., children and families from hard places. Overall, it is important to note that the main lever to be pulled for improving the satisfaction and meeting the expectation of foster parents is directly

accessible to policy advocates and practitioners, namely: increased access to social workers. The support of social workers is seen as the key predictor for improving satisfaction among relative foster families, and they disproportionately help non-relative foster parents with regards to formal supports by unlocking access to information. This result is particularly significant when one considers how social workers are compared to traditionally more intimate relationships like family and friends and more formal resources like childcare and mental health services. This finding is also generalizable across foster parent groups.

Secondarily, formal support mechanisms like accessing mental health services and ongoing training are more significant for non-relative foster families, while informal social supports are more significant in predicting the satisfaction of relative foster parents. Moreover, it is worth noting that some support mechanisms like the social support of other foster families, the social support of spouses/partners, and access to healthcare are indicators of needed support(s) and seem to be justified topics for future research. Table 14 provides a summary of the results for the resources and support model predicting satisfaction across the different foster parent groups.

Moreover, the locus of control results indicate that giving foster parents more say in the decisions that impact their family will likely increase the odds of satisfaction and, therefore, increase the likelihood of retention. One way to increase the voice of foster parents is by using a net-promoter score (NPS) tool in online questionnaires after they receive services and supports. As the initial analysis indicated, this one-question survey could provide consistent and timely feedback that is also predictive of satisfaction and a direct measure of their willingness to promote foster care to friends and family. In essence, the potential use of the NPS tool benefits both sides—that is, it gives foster parents a greater voice into what is and is not working, and

policy advocates and practitioners are able to use it to provide better on-demand services and supports to increase the promotion, satisfaction, and retention of foster parents.

Table 14: Combined regression results for Satisfied

Satisfied	***Combined*** *n = 234*	**Relative Foster-parent** *n = 117*	**Non-Relative Foster parent** *n = 117*
Informal Social Supports:			
Social Worker Support	1.261***	1.252***	1.267***
Best Friend Support	0.912	0.876	0.870
Other Foster Parents' Support	0.926*	0.933	0.920
Family Member Support	1.074	1.107	1.041
Spouse/Partner Support	1.107*	1.087	1.116
Formal Resources and Support Services:			
Childcare Resources	0.715	0.565	0.600
Respite Care Resources	1.083	2.846	0.956
Information Resources	5.596**	5.578**	12.550**
Healthcare Services	0.402*	0.425	0.174*
Mental Health Services	2.870*	1.065	9.572***
Medical Costs Assistance Resources	1.019	1.941	0.707
Parent Training Resources	1.337	1.098	2.319**
Constant	0.030***	0.050**	0.010**
Chi2	75.3***	32.7**	49.6***
Correctly Classified (%)	75.6%	75%	82.50%
Pseudo-R2	0.432	0.385	0.551

* p < .05
** p < .01
*** p < .001

INTENT TO CONTINUE (RETENTION) AS THE DEPENDENT VARIABLE

If it is true that retaining current foster parents is more effective and less costly (in terms of dollars and time) than recruiting new foster parents (Pasztor & Wynee 1995), then reducing the cost of their community altruism by investing in the support they identify as most needed will pay increasing social and economic returns for the County agency, the local community, and,

most importantly, the children in foster care. What follows is an analysis to help policymakers, researchers, and practitioners identify a few specific variables that they have agency over and can advance to reduce the personal costs associated with fostering and lead to increased retention of foster parents. Along the way, we will also look at word-of-mouth promotion (i.e., the net-promoter score (NPS) tool) and its relation to predicting increased levels of foster parent retention. It should also be noted that word-of-mouth promotion helps solve for recruitment by creating what the private sector calls "brand evangelists" (Reichheld 2006). In short, these findings can be viewed as helping identify ways to foster "brand evangelists," or in this case foster-parent evangelists.

While the research and analysis presented here focuses on foster parents, the ultimate goal of the foster care system is to improve the long-term outcomes of children from hard places who end up in the foster care system. So, it is important to note that children in foster care benefit when their foster parents are more satisfied and intend to continue fostering. Higher levels of satisfaction and increased retention lead to fewer placements for children in foster care, improved mental health, and generally better outcomes for the children from hard places who end up in the foster care system. It is hard to quantify what does *not* happen, so the best way to see the benefits is to understand the typical outcomes of children who "graduate" from the foster care system without a supportive family, be it a foster, adoptive, or biological family: For example, foster "alumni" (i.e., those who "graduate" from the system without a supportive family) are shown to be 25% more likely to experience homelessness within 4 years of leaving the system (as compared to the general population), ten times more likely to commit a crime, five times more likely to develop PTSD, and seven times more likely to develop drug dependence. They are also more likely to be unemployed (in 2014, 52% were unemployed at age 24) and 75%

of female foster youth require government services to meet basic needs.[31] Thus, increasing foster parent satisfaction and their retention not only reduces the costs of their personal altruism, but it also reduces undue burden on the children in foster care as well as the future costs to the community.

Retention is defined here as a foster parent's intent to continue fostering for at least the next 12 months. Retention and intent to continue fostering are often used interchangeably in the literature and in this analysis. The 12-month timeframe is used because more than half of the foster parents stop fostering within 12 months of their first placement (CDSS 2020).

The support model for predicting a foster parent's intent to continue fostering includes different variables than those used for predicting satisfaction. The variables used here follow the literature (Denby et al. 1999; Eaton and Caltabiano 2009; Geiger et al., 2013; and Cooley et al. 2015) that consistently include commitment, satisfaction, social supports, and challenges unique to foster care as predictors of retention. Challenges are part of a support model since they identify areas where foster parents need support services. Moreover, while satisfaction and promotion of fostering are not support resources, they are indicators of an overall perception of felt support.

Each of the explanatory variables is operationalized in the following manner (which was detailed in Chapter 3 and summarized here): Commitment is operationalized by using the question stem of Denby et al. (1999) and Cooley et al. (2015) who asked respondents to indicate their level of agreement or disagreement with the phrase, "No matter what, the child(ren) I have fostered will always be a part of my family." Challenging events, or what Greiger et al. (2013)

[31] Statistics obtained from the Foster Care Analysis and Reporting System for FY 2014 (AFCARS) and FosterClub.com/statistics. These are just a sampling of some of the adverse outcomes.

refers to as “family stress,” are operationalized using a series of questions that identify challenges that are somewhat unique to the foster parent experience, namely: conflict with birth parents, dealing with allegations, reunification of children with their biological parents, accessing mental health services, parenting difficult behaviors (e.g., PTSD), and interacting with social workers. These questions asked respondents to indicate how much impact these challenges had on their desire to continue fostering. Satisfaction is an independent variable used on the righthand side of Equation 5 and, as explained in Chapter 3, it is different than the satisfied variable used as the binary dependent variable in Equations 2, 3, and 4. (This argument is evidenced when the NPS tool is substituted for satisfaction as an independent variable (see Equation 6). The results for Equation 6 compared to those from Equation 5 show that the standard errors are unchanged for the other independent variables as compared to the standard errors of the results of Equation 5 when satisfaction is included.) The variables for social support are composite variables and the same as those used previously. The explanatory variables are all ordinal in nature and will be interpreted as such.

As explained in Chapter 3, the dependent variable of retention is recoded to become a dichotomous variable, which follows the logic used to recode satisfaction and focuses on predicting those who are extremely likely to want to continue fostering within the next 12 month, where “extremely likely” is recoded as one and all other responses are recoded as zero. The transformation of the retention variable in this way facilitates the comparison of the results from the satisfaction Equations (Equation 2) with those presented here (Eq. 5) by keeping a consistent

focus on predicting those who are extremely likely to continue. [32] It also provides a good fit for the data given the distribution of responses (as seen in survey resulted presented in Chapter 4).

As with the prior models, the results for the combined outcome—i.e., the combined responses of relative and non-relative foster parents (Equations 5.1)—will be presented first followed by the results for each parent group when the data is split by relative and non-relative foster parents (Equations 5.2 and 5.3). Splitting the data by parent group tests the generalizability of results across foster parent groups and highlights what variables are significant for each group and what variables are generalizable across groups. Additionally, the individual net-promoter score (NPS) tool is also tested for each segment of the model to determine the validity of using the NPS tool as a reliable and more parsimonious alternative to satisfaction in predicting retention (see Equations 6.1, 6.2, and 6.3). The comparison of using an NPS in place of satisfaction for predicting intent to continue (retention) is included as part of the interpretation of each response group (i.e., combined, relative, and non-relative) rather than providing a separate interpretation and comparison.[33] Table 15 below presents a summary of the results (showing the odds ratios) of the different models.

[32] As noted in Chapter 3, sensitivity analysis was done on the different recoding options for retention as a dichotomous dependent variable and the results showed insignificant results for the independent variables at the 0.05 level. Thus, the scoring system employed seems to fit this application. However, more research is needed to generalize this operationalization to a broader audience of foster parents.

[33] A separate analysis of NPS is provided for predicting satisfaction because the NPS did not fit the theoretical underpinnings of including it as an independent variable of a resource model. For retention, however, an NPS does fit the theory and could be a possible substitute for satisfaction in the case of predicting retention.

Table 15: Summary of regression results of the odds ratios for predicting retention (intent to continue fostering) as the dependent variable for the different models

Retention	Combined *n = 234*	Combined *n = 234*	Relative *n = 117*	Relative *n = 117*	Non-Relative *n = 117*	Non-Relative *n = 117*
Commitment	0.948	1.049	0.393*	0.478*	1.284	1.324
Accusations	1.103	1.153	0.801	0.983	1.281	1.259
Losing a Child (Reunification)	1.084	1.017	1.294	1.123	0.962	0.926
Birth-Parent Conflict	1.053	1.147	2.081**	2.059**	0.694	0.818
Difficult Behaviors	0.754*	0.723*	0.404*	0.481*	0.769	0.731
Accessing Mental Health Services	1.112	1.073	1.282	1.130	0.859	0.890
Social Worker Engagement	0.944	0.958	0.579*	0.561*	1.591*	1.520*
Finding Childcare	1.181	1.253	0.890	1.014	1.436	1.414
NPS (promotion)		1.429***		1.441**		1.351*
Satisfaction	1.743**		2.054*		1.698*	
Social Worker Support	1.086*	1.102*	1.203*	1.204*	1.100*	1.108*
Best Friend Support	0.970	0.943	0.807*	0.751*	1.073	1.040
Support of Other Foster Parents	1.088*	1.058*	1.135*	1.141*	1.095*	1.043*
Support of Family Members	0.994	1.009	1.041	1.106	0.933	0.955
Spouse/Partner Support	0.925*	0.914*	0.858*	0.879*	0.914	0.905
Constant	0.074*	0.046*	13.377	8.937	0.011*	0.018*
Chi2	34.6**	43.4***	39.6***	41.6***	25.5*	25.9*
Classification %	71.9%	68.8%	77.7%	78.7%	72.4%	71.4%
Pseudo-R2	0.226	0.277	0.479	0.497	0.311	0.315

* $p < .05$

** $p < .01$

*** $p < .001$

Retention: The combined results of relative and non-relative foster parents

Table 15 presents the results of the logistic regression for retention (intent to continue fostering). Looking at the overall model for the combined parent group, the chi-squared value of 34.6 with 14 degrees of freedom ($p < 0.01$) indicates that the model fits the data relatively well. But when compared with the chi-squared of the same model using the NPS tool instead of satisfaction, the chi-squared value increases to 43.4 and is significant at the 0.001 level, implying that it fits the data almost as well as when satisfaction is used (it is "almost as good" because the

classification percentage is slightly better when satisfaction is used versus the NPS tool). Moreover, the pseudo-R^2 value of 0.226 suggests that the model explains 22.6% of the variance in retention when satisfaction is used as an explanatory variable. When the NPS tool is used, the pseudo-R^2 value increases slightly to 27.7%, which is interpreted in the same manner. Thus, both models fit the data well, but the model using the NPS tool seems to suggest that is could provide slightly better predictive powers.

The interpretation of the odds ratios will follow the same method as previous interpretations of numeric explanatory variables, where odds ratios above 1.0 indicate a higher likelihood of continuing to foster, while values less than 1.0 correspond to higher likelihood of stopping or not continuing.

Starting with the variables for informal supports —the social support variables—the results in Table 15 for the combined parent group show that the social support of social workers (1.086), other foster families (1.088), and one's spouse/partner (0.925) are somewhat significant in predicting whether a foster parent is likely to continue fostering. Looking at social worker support, the odds of a foster parent continuing to foster over the next 12 months increases 1.086 times for each unit of increase in the felt social support of the social worker. The same interpretation can be applied for other foster families (1.088). The odds ratio for the support of a spouse/partner is below 1.0 and implies that as their support increases, the odds of a foster parent continuing to foster decreases slightly (by 0.925). While this result for spouses/partners may seem counterintuitive at first glance, it could be argued that those with stronger marital relationships prioritize their spouse over foster care, which can be very stressful on marriages. Thus, as the stress of foster care increases, it's likely that those who decide to stop fostering also desire to maintain strong relational bonds with their spouse/partner and will therefore seek to

eliminate things that cause potential division in the relationship. When the NPS tool is used instead of satisfaction, the same social support variables of social workers, other foster families, and spouses/partners are significant and the odds ratios are relatively the same (1.102, 1.058, and 0.914, respectively). These odds ratios can be interpreted the same way and further support the hypothesis that the NPS tool could be used instead of satisfaction.

The variable for parenting difficult behaviors is the only significant variable among those measuring challenging events. The odds ratio of 0.754 can be interpretated as indicating that the odds of foster parents continuing to foster decreases 0.754 times for every unit of increase in the perception of having to parent difficult behaviors in their foster child(ren). Stated differently, as foster parents deal with difficult behaviors from their foster children, their likelihood of wanting to continue fostering decreases, implying that increasing support for parenting difficult child behaviors could impact their likelihood of wanting to continue. Similar results are found when the NPS tool is used in the model instead of satisfaction, where the odds ratio of 0.723 for difficult behaviors is almost same.

Finally, satisfaction with their fostering experience is the most significant predictor of retention among foster parents in general. Satisfaction had an odds ratio of 1.743 ($p < 0.01$) and indicates that odds of a foster parent asserting a desire to continue fostering in 12 months increases 1.743 times for each unit increase in the level of their satisfaction. Based on the earlier analysis, these results imply that when foster parents perceive that their needs and expectations of fostering are likely to be met, then there is a 64% probability that they will likely seek to continue fostering for the next 12 months. When the NPS tool is used in the Equation instead of satisfaction, the NPS tool is also the strongest and most significant predictor of retention and slightly more significant than satisfaction. The NPS tool had a odds ratio of 1.429 ($p < 0.001$),

indicating that odds of a foster parent wanting to continue fostering for the next 12 months increases 1.429 times for each unit of increase in a foster parent's willingness to promote being a foster parent to their friends and family. Promoting being a foster parent provides a more tangible and practical level of satisfaction because it goes beyond just having one's basic needs and expectations met and includes an advocacy for others to join them. While the odds ratio for the NPS tool is slightly lower, its Wald statistic (15.016) is almost twice that of satisfaction (8.606), implying that using the NPS tool in the Equation provides better reliability for the associated results.

Commitment is not statistically significant at the 0.05 level for the combined parent group. So, it is not interpreted here. (It is significant for relative foster parents. Thus, an interpretation and explanation of commitment is provided in the next section.)

In general, then, to increase retention among foster parents in San Bernardino County, it appears that increasing support from their social worker and from other foster families along with providing support services for parenting difficult behaviors would be likely to increase foster parent's desire to continue fostering for the next 12 months. But the most significant way to increase the likelihood of retention of foster parents is to increase their level of satisfaction and willingness to promote being a foster parent. Comparing the practical nature of increasing these two variables—satisfaction and NPS tool—promotion seems like a more tangible lever than satisfaction. To increase satisfaction, agency workers would need to connect with foster parents to understand their expectations. But understanding their willingness to promote foster parenting to their friends and family (i.e., as measured by the NPS tool) is more parsimonious and likely to be more reliable metric over time since promotion is based less on momentary expectations than satisfaction (noted in Chapter 2). Therefore, practitioners and policymakers

might consider asking the NPS tool of foster parents after using different resources and support services to provide more real-time and up-to-date understanding of the effectiveness of a given services and service providers. (Note that while satisfaction and promotion of fostering are not support resources, they are indicators of an overall perception of felt support.)

The next two sections look at whether these results hold up for relative and non-relative foster parents and what differences can be seen in the factors that lead to retention for each parent group. The results of using an individual NPS tool are also analyzed for each parent group.

Retaining Relative Foster Parents

The results for retaining relative foster parents are seen in the middle two columns of Table 15 above. The chi-squared value of 39.6 with 14 degrees of freedom ($p < 0.001$) and the correct classification of almost 78% indicates that the model fits the data well. The pseudo-R^2 value of almost 48% suggests that the model explains almost half the variance in the retention of relative foster parents. When an individual NPS tool is incorporated in the model instead of satisfaction, each of the previous statistics improve. The chi-squared value increases to 41.6 ($p < 0.001$). The classification table percentage increases slightly to almost 79% and the pseudo-R^2 value improves to nearly 50%. These increases imply that the NPS tool helps strengthen the overall results of the model and supports the argument that the NPS tool could be used quickly and easily to predict retention. Another takeaway is that the overall model fits the data better for the relative foster parents than it does for the overall combined parent group, suggesting that this model for retention might be best suited for analyzing the intentions of relative foster parents.

Moving to the interpretation of the individual variables, the same informal support variables are significant for relative foster parents as were for the combined group with one exception, that being the social support of best friends. The odds ratio of 0.807 indicates that the odds of a relative foster parent wanting to continue to foster for the next 12 months decreases 0.807 times for each unit of increase in the felt support of their best friend. More research is needed into this relationship to determine if these results generalize to a broader population. The other significant social support variables—namely, social workers (1.203), other foster families (1.135), and spouses/partners (0.858)—follow the same interpretation as that of the combined parent group results with their respective odds ratios (in paratheses) being slightly higher for relative foster parents than the combined group, which further highlights the significance of this model for predicting the likelihood of the future intentions of relative foster parents. When best friends and spouses/partners provide support, relative foster families are more likely to desire to stop fostering, which is also likely due to the desire to help loved ones avoid difficulty. But the support of social workers and other foster families increases their likelihood of wanting to continue among relative foster families. The explanation for social workers and other foster families is that relative foster parents likely turn to these groups for support during difficult times so they can continue, while the advice and support of spouses/partners and best friends is likely unsolicited but well intended. More research is needed with regards to these supportive relationships to determine their generalizability.

Commitment is another area of difference between the combined foster parent group results and those of relative foster parents. Commitment had a odds ratio of 0.393 and indicates that as commitment for a child placed in their home increases, the likelihood of a relative foster parent wanting to continue fostering in 12 months decreases by 0.393 times. While one might

assume that commitment would lead to increased retention, these results indicate that commitment does not generalize among the different foster parent groups and that more research is needed to understand the differences each group presents regarding the relationship between commitment and retention.

The results for challenging events highlight areas where potential support resources could be beneficial, especially for relative foster parents. The results indicate significant differences exist for relative foster parents when compared to the results of the combined group of foster parents and non-relative foster parents. Three challenging events are significant predictors of the likelihood for relative foster parents to continue. First, parenting difficult behaviors had an odds ratio of 0.404, which is the lowest of the odds ratios, and indicates the most significant area of need among relative foster parents. The odds ratio can be interpreted as indicating that as the perceived difficulty of a child's behaviors increase, the odds of a relative foster parent continuing to foster decrease 0.404 times. Stated differently, it is 71% likely that a relative foster parent will want to stop fostering within 12 months when they perceive that their child(ren)'s difficult behaviors are getting worse.[34]

The impact of conflict with birthparents is another significant challenging event that impacts their desire to continue. Birthparent conflict is at the other extreme with the largest odds ratio of 2.081, which can be interpretated as indicating that retention of relative foster parents increases 2.081 times for every unit of increase in conflict with birth parents. Birth-parent conflict, however, relates differently to relative foster parents than they do for other foster parent

[34] Side note: Children in foster care often give their foster parents an increasing harder time as the child begins to determine whether this parent can be trusted or if they will behave in a similar fashion to what they experienced from other adults. Building trust with children from hard places requires consistency over a long period of time (The Karen Purvis Institute of Child Development at Texas Christian University: https://child.tcu.edu/).

groups, which can be seen in the results table above and likely biases the combined results, implying that this variable should not be generalized across parent groups. Relative foster parents have a naturally closer relationship with the biological parents than other foster parents. (This difference is further highlighted in the next section on non-relative foster parents, where birth-parent conflict has an odds ratio below 1.0 and is not statistically significant for non-relative foster parents.) Thus, the challenges of dealing with conflict with the biological parents would lead relative foster parents to be more likely to continue, especially if they thought that their foster child(ren) are likely to be reunified with the biological parents. Children often return to the foster care system multiple times, causing biological families to keep their home open for potential future placements from family members.

Finally, the challenge of getting information from their county social workers leads relative foster parents to have a lower likelihood of wanting to continue. The odds ratio of 0.579 indicates that relative foster parents are 63% likely to want to stop fostering in 12 months when they perceive interactions with county social workers are unsatisfactory. This continues the trend found earlier and indicates the direct impact social workers have on being satisfied and retention of foster parents. While social workers significantly impact the foster care journey of both relative and non-relative foster parents, these results highlight that social workers have greater significance and impact on the foster care journey of relative foster parents—regarding their desire to continue fostering—than they do for non-relative foster parents, which the next section further emphasizes. As a result, a focus on accessing social workers continues to be a significant theme among foster parents, but particularly relative foster parents. This variable is generalizable across the groups, but it is particularly impactful for relative foster parents.

Satisfaction and the NPS tool for relative foster parents had similar results as the combined group. The odds ratios of 2.054 and 1.441, respectively, for satisfaction and the NPS tool for relative foster parents can be interpreted the same way as with the combined parent group and is statistically significant and slightly higher for relative foster parents than for their non-relative counterparts (non-relative foster parents had odds ratios of 1.698 and 1.341 for satisfaction and the NPS tool). The odds ratios for satisfaction, however, showed the greatest fluctuations between groups with satisfaction of relative foster parents being 2.054, while the odds ratio of satisfaction for the combined parent group and the non-relative parent group are 1.743 and 1.698, respectively. So, the odds of a relative foster parent wanting to continue increases 2.054 times as their satisfaction increases, while the odds of retention for non-relative foster parents and foster parents in general increase about 1.7 times for each unit increase in their satisfaction. The odds ratio for the NPS tool, on the other hand, shows little variation among the different parent groups and remains consistently around 1.4 (NPS also had lower and more consistent standard errors across the parent groups). Thus, focusing on the willingness to promote foster care to friends and family (as measured by the NPS tool) may provide more consistent and generalizable results across subgroups. Using the one-question survey of a net-promoter score (NPS) tool to predict retention and being satisfied could be a simple assessment for practitioners and policymakers to use when looking for timely feedback on the utilization and impact of support resources and services.

Many unique variables stand out for relative foster parents when one analyzes their likelihood of continuing to foster. Most significantly, variables for commitment, birthparent conflict, and the support of their social worker stand out as phenomena uniquely different to the

relative foster parent experience and should be analyzed as such. Further research is needed to confirm whether this notion generalizes or not.

The other items such as satisfaction, promotion of foster parenting (NPS), and parenting difficult child behaviors are more generalizable across foster parent groups and not unique to the relative foster parent experience.

Next, the results of analyzing the non-relative foster parent experience in relation to their retention are provided.

Retaining Non-Relative Foster Parents

Since many of the variables that are significant in predicting whether a foster parent desires to continue fostering have already been discussed in detail, this section will focus primarily on highlighting significant differences for non-relative foster parents compared to the combined parent group and the relative foster parent groups.

The major overall difference when looking at the results of the non-relative foster parents is the reduced number significant variables and the significantly lower Chi-squared value (25.5, $p < 0.05$) and the lower pseudo-R^2 of 31% compared with the relative foster parents (48%). The overall model, then, seems to fit the relative foster parent data slightly better than the non-relative foster parent. This finding leads to the possible conclusion that a resource and support model is less meaningful (but still helpful) for predicting the willingness of non-relative foster parents to continue that it is for their relative counterparts.

Commitment is not significant for non-relative or the combined parent group, which supports Sinclair's et al. (2004) hypothesis that relative foster parents show higher levels of commitment to children placed in their care than non-relative foster parents. Commitment, then,

is a unique variable and not generalizable. But this conclusion needs further research to determine its generalizability.

Obtaining information from their social worker is the only significant variable under the challenging event category for non-relative foster parents. The different odds ratios—being well below 1.0 for relative foster parents (0.579) and well above 1.0 for non-relative foster parents (1.591)—helps explain why the same variable is significant for both subgroups but not the overall group, thereby further highlighting the need to examine the groups separately with different models and variables that align with their specific needs rather than combining them and over-generalizing and assuming they have similar needs, motives, and expectations. Interpreting the odds ratios for the different groups indicates that when relative foster parents perceive increasing difficulty in obtaining information from their social worker, they are 0.579 times less likely to continue, while non-relative foster parents are 1.591 times more likely to continue, which holds true when the NPS tool is used in place of satisfaction as an explanatory variable. The response of relative foster parents seems intuitive since their expectations and satisfaction is more dependent on access to their social worker (as seen in the satisfaction models above), but the response of non-relative foster parents takes a little more context and interpretation. Non-relative foster parents are 1.591 times more likely to continue when they perceive difficulties in obtaining information from their social worker. Yet, as is seen in the satisfaction model, the likelihood of the expectations of non-relative foster parents being met increases over 12 times when they can access information on tangible resources. While more research is needed to help explain these differences, it is hypothesized (based on lived experience and personal interactions with hundreds of foster parents) that non-relative foster parents need access to information, but when they do not get it from their social worker, they begin to

leverage their personal networks and resources (e.g., private social media pages and more formal groups like the California Alliance of Caregivers, which is a lobbying arm for foster parents in Sacramento), which leads them to more long-term, personalized support that increases their likelihood to continue. While the prior argument is anecdotal and needs research to support it, one thing that is clear is that the variable of obtaining information from a social worker and its impact on retention of foster parents has unique implications to different foster parent groups and is therefore not generalizable across groups. Further research is needed to confirm this conclusion.

The significant predictors among the social support variables and their associated odds ratios are virtually identical to those of the combined parent group. Social support from social workers (1.100), other foster families (1.095), and a spouse/partner (0.914) predicted the likelihood of a non-relative foster parent desiring to continue or not. These variables can be interpreted the same way as those of the combined parent group. Thus, there is little difference between the combined group and those of the non-relative foster parent group, implying the combined results generalize to non-relative foster parents, but not necessarily to relative foster parents. These results further highlight that relative foster parents are more reliant on both the formal and informal support and services facilitated or encouraged by the foster care system than their non-relative counterparts. The results are consistent when the NPS tool is used as an independant variable in place of satisfaction, which provides further support for the generalizability and predictive power of using the NPS tool as an instrumental variable to predict the likelihood of retention and satisfaction.

Finally, a non-relative foster parent's satisfaction is also significant, and the odds ratio (1.698) can be interpreted as indicating that the likelihood of a relative foster parent wanting to

continue to foster for the next 12 months increases 1.698 times as their level of satisfaction increases. The NPS tool provides similar results and, like the other models, has a slightly lower but more consistent odds ratio across the different foster parent groups.

In conclusion, then, differences between relative and non-relative foster parents are apparent and underscore the notion that relative foster parents rely more heavily on the social supports offered from the system, such as the support and information from social workers, whereas the likely retention of non-relative foster families appeared to be somewhat less sensitive to the access of social workers and resources offered through the system. The sensitivity or lack thereof is explained, in part, by the significant differences in personal resources of non-relative foster parents. The general affluence of non-relative foster parents provides access to alternatives that many relative foster parents lack. Yet, relative foster parents, who generally have lower income than their non-relative counterparts, perceive fewer challenges and are more tolerant of disruptive behaviors and a bureaucratic system, which aligns with the findings of Cole and Eamon (2007) and Cooley et al. (2015). Relative foster parents tend to have more experience maneuvering within a system since they have fewer options and means of circumventing it.

Finally, the NPS tool proved to be a more consistent and parsimonious variable for predicting a foster parent's desire to continue fostering than satisfaction. While both the NPS tool and satisfaction are significant predictors, using NPS in place of satisfaction provided more consistent results across groups and did not appear to impact the significance of other variables in the model. Satisfaction seems to be a broader concept than promotion and thus could lead to increase variance and higher standard errors that may produce more inconsistent results. More research is needed on using NPS, but this study indicates that future research is warranted.

CONCLUSION

In conclusion, the resources and support services most significant in predicting the likelihood of being satisfied and wanting to continue fostering consists primarily of supports offered through increased access to their social workers and information from social workers. Mental health services are the most significant resource in the formal support category. Healthcare and social supports from other foster families and spouses/partners are more moderate in their predictive significance but could benefit from further research. These results are consistent across the different foster parent groups.

Policymakers and practitioners could focus on increasing access to social workers and equipping social workers to engage foster parents more regularly with needed information. Relative foster parents are more likely to also seek social support from their social worker through increased levels of trust and relational equity. To increase access and availability of social workers implies more resources are needed for equipping and retaining existing social workers while also recruiting and equipping new ones. Future research may use this same process to look at retention and engagement of social workers to help improve being satisfied and retention of foster parents.

In short, the findings outlined here point to the need for similar research to be done on the resources and supports most needed to increase satisfaction and retention of social workers, which would presumably lead to increased access to social workers, improved retention of foster parents, and ultimately better outcomes for children in foster care.

The results also indicate that significant differences exist between foster parent groups and justify developing different models for each. That is, many of the resources and support

services do not generalize across foster parent groups, which Sinclair et al. (2004) argued in their discussion and is supported in the findings presented here. The differences among the groups lend themselves to different levels of access to various resources and support services, requiring more formal and informal supports to relative foster parents, while non-relative foster parents are more likely to benefit from primarily formal supports such as increased access to mental health care services for their foster child(ren).

However, both foster parent groups are responsive to higher levels of engagement by their county social worker(s), with relative foster parents being more sensitive to the response or lack thereof of their social workers. Relative foster parents are also more sensitive to perceived challenges of disruptive child behaviors and finding formal support in a bureaucratic system. Therefore, the key takeaway from these results is that the lever policymakers, practitioners, and researchers can focus on to have the biggest impact on satisfaction, promotion, and retention of foster parents is to increase access and availability to social workers for foster parents.

Finally, the results show that using an individual NPS tool could be employed by practitioners and policy advocates as a relatively quick one-question survey to increase the feedback on the services and resources being offered as well as predict the level of satisfaction and desire to continue fostering. Using the NPS tool also incorporates the element of promotion of foster care to friends and family (i.e., brand ambassadors) in addition to predicting satisfaction and retention. (Promoting the notion of foster care provides a more tangible and practical level of satisfaction because it goes beyond just having one's basic needs and expectations met and includes an advocacy for others to join them.) The NPS tool is used by many private, non-profit, and public-sector organizations, in part, because it provides more consistent results and more parsimonious operationalization than trying to measure satisfaction itself (Reichheld 2006). The

apparent methodological cost of using the NPS tool is a slight decrease in the magnitude of the odds ratios, which could be due in part to limitations of this study. Future research is needed to flesh out the validity, consistency, and generalizability of using the NPS tool for being satisfied and retention, but the findings presented here lay the initial groundwork that help justify further investigation.

The next chapter uses the survey results from Chapter 4 along with the results from this chapter to provide an exploratory geospatial analysis of foster parents' access to their County social workers based on geographic distribution and geospatial clustering. The results will help determine whether further research is justified in analyzing the geospatial characteristics of access to this key resource as identified by foster parents.

CHAPTER 6: EXPLORING THE SPATIAL UTILITY OF FOSTER PARENTS' ACCESS TO SOCIAL WORKERS IN SAN BERNARDINO COUNTY

INTRODUCTION AND THEORETICAL BACKGROUND

Why is spatial analysis of access to social workers important and why should policymakers, practitioners, and researchers care? Not only are social workers gatekeepers to other resources and support services, but foster parents identify social workers themselves as a key resource and support service. Improving access often implies spatial considerations, such as equitable distribution and effective utilization of resources, which identify and reduce social and economic barriers to spatial access. Since social services are like other goods and services that have a limited supply, provision is often tied to issues of resource allocation, distribution, and priority status (Martin 2016). In essence, the survey results (Chapter 4) shows that foster parents indicated that to improve the foster system and move toward greater efficiency[35], access to social workers is a key concern.

Access to social workers is the spatial variable used in this exploratory spatial analysis, but other resources and support services could be substituted and analyzed in a similar fashion (e.g., healthcare access). Thus, the spatial analysis presented in this chapter serves as a case to explore whether more research is justified in the analysis of spatial utility and whether these insights would facilitate a spatial decision-making process for foster parent support services.

[35] Efficiency is understood as relating to the idea of Pareto optimality, which is defined as a theoretical state where it is not possible to make any individual better off without simultaneously making someone else worse off (Cullis & Jones 2009, *Public Finance and Public Choice).*

Connecting Spatial Economic Theory to Support Services for Foster Parents

Decisions regarding the nature and range of support services rely on economic and political phenomena, but they also have an inherent geographical element to them. Research suggests that children in foster care have fewer adverse outcomes and incur less emotional trauma when they are removed from their family if their environmental changes are limited, and they are geographically closer to their school, friends, and ethnic community (Davis et al. 1996 and Casey 2016). Thus, the overall objective of foster care highlights the need for a spatial policy process.

Spatial policy is a process that guides spatial decision-making and helps account for spatial utility considerations and moves the system closer to spatial efficiency of the distribution of social services, which minimizes geographic variation between the provision and utilization of a social service or resource. Spatial policy combines economic theory and location theory to form spatial economics, which employ classic economic assumptions about consumers and "producers" (or providers in this case) who are assumed to behave in ways that are spatially rational, which means that individuals are assumed to consume more of a social service the closer they are to it, all else being equal (Allard 2009 and Martin 2016). Incorporating space in economic theory means that access for consumers (foster parents in this case) include spatial considerations like travel costs as well as unique social circumstances of different locations, such as ethnic disparities and institutional racism that may limit access for certain individuals who live in the same area (Weber & Kwan 2003 and Cummins et al. 2007).[36]

[36] Please note that since the research presented in this chapter is exploratory in nature, individual characteristics mentioned by Weber and Kwan (2003) were not included due to limitations in access to data and ability to track individual geographic movement over time.

The range of a resource or support service describes the size of the potential demand area, defined by the maximum distance the provider or recipient is willing or able to travel. Location impacts individual decisions and access, especially for low-income foster parents, whose options are more limited than their wealthier counterparts, which is highlighted in the response differences noted in chapter 4. Spatial welfare theory argues that different geographic locations supply different combinations of resources and supports, and foster parents (consumers) will display different needs due to differences in preferences, culture, and incomes at different locations (Allard 2009 and Martin 2016). Thus, spatial utility, like economic utility, is limited by imperfect information and income constraints, which show up as key differences between relative and non-relative foster parents and impacts what resources and supports best predict their respective satisfaction and retention as foster parents (as seen in Chapter 5). Economic theory, then, supports the notion that social workers lower the barrier of imperfect information for both relative and non-relative foster parents, but are most significant for relative foster parents due to their tendency to have lower income and social networks of support and influence. That is, economic theory helps shed light on the differences between relative and non-relative foster parents: non-relative foster parents have more personal resources (education, income, and influential social networks) that help reduce the information and resource gap than their relative counterparts. Thus, improving access will help both parent groups but it is expected to have increased benefit for relative foster parents due to their sensitivity and reliance on the system due to a lack of the resources to work around barriers to access. In short, improving access reduces the cost of the community altruism of foster parents.

While spatial welfare theory has broad applications to social supports like health care (Higgs 2004) and "neighborhood amenities" (Hewko et al. 2002), the research provided in this

analysis limits the scope to whether spatial access to social workers should be a consideration of a larger spatial policy for foster parent support and whether these initial findings provide enough support to justify further research and access to relevant data. If significant, policymakers and practitioners could have better tools for allocating social supports that increase coverage effectiveness and minimize utilization biases.

METHODOLOGY AND DATA SELECTION

There are many tools available to analyze spatial accessibility, but the accessibility measure chosen for this research has been used in the health care arena to analyze patients' access to health care providers (Higgs 2004) and the arena of social services to measure access to shelters by victims of domestic violence (Martin 2016). Although spatial access, spatial welfare theory, and other geospatial tools have not been applied to research on foster parents' access to social services, these spatial tools can provide insights into whether spatial utility and spatial policy considerations would facilitate utilization (bias and coverage) of the resources that best predict foster parent satisfaction and retention.

For this spatial analysis, access is defined as the level of difficulty foster parents of a given area have in reaching a resource or support service they have identified as a need for a child in their care. Foster parents' ability to access their county social worker is the resource analyzed in this chapter and it is chosen based on the feedback of foster parents and its generalizability across the different foster parent groups, which can be seen in Chapters 4 and 5. The techniques and spatial tools could be used for other resources and support services like childcare, mental health services, health care access, etc. as well.

Spatial access requires a researcher to choose a method of measuring distance. For this initial spatial analysis, it is most appropriate to use the minimum travel distance between a foster parent's residence and the closest facility for Child and Family Services (CFS). Other methods like travel cost, coverage, and gravity were considered but did not fit the research question or the available data of this initial analysis. If this exploratory research proves fruitful, future research might benefit from using a coverage approach—i.e., where the number of facilities within a given distance are analyzed based on points of origin—assuming the necessary data can be accessed.

Catchment zones are a method of measuring spatial accessibility and must be chosen based on the available data and the nature of the spatial analysis. Given the data limitations and the exploratory nature of the analysis, simple travel-time catchment areas are used around each Child and Family Services (CFS) office, which function in this analysis as the supply locations. The number of social workers for each location was not available for this research. So, each CFS office is assumed to be relatively equivalent in terms of the number of social workers at that location who support foster parents. While this assumption oversimplifies the reality, more complex methods and access to more data will be justified if the results using a limited dataset and simple methodology provide meaningful insights.

As is usually the case, the simpler the tool, the more assumptions that are made. Thus, it is important to note these assumptions upfront to help inform future research. The following provides the most noteworthy assumptions and a brief justification: The most basic assumption underlying the research presented in this chapter is that the closer a foster parent is to a social service, the more likely they are to use it. The previous section on spatial utility provided the theoretical justification for this assumption. The measure of minimum geographic distance, in

this case, assumes that social workers provide the same resources regardless of their location, which is generally a safe assumption. Unlike health care and mental health services, where a number of different types of services are available and access depends on the specialist that best aligns with the prescribed treatment, social workers for foster parents provide general support for things like information on the case itself, licensing requirements, training, updates on the status of the biological parents, and information on navigating the process for identifying and accessing available support services for the child and the foster parent(s). Thus, it is valid to assume that social workers provide relatively similar resources and support and therefore each CFS location supplies approximately the same resource—access to social workers. Using minimum distance also assumes that the demand side—i.e., foster parents—are similar. While the previous chapters revealed similarities and differences among the primary foster parent groups, focusing on a single resource helps justify the initial application of the assumption of generalizability across parent groups. Cross-boundary flows is another assumption of this access analysis. In almost all geospatial analysis, boundaries must be reasonably identified and set. These boundaries often are determined by geopolitical lines like county and city boundaries. Many foster parents licensed in San Bernardino County reside inside the limits of the county, but many parents do not. Therefore, it is assumed that the foster parents residing outside the county also need resources and support from their San Bernardino County social worker even though they live in another county. Care for children from other counties is not uncommon and occurs often, especially for foster parents licensed through a foster family agency (FFA), which can license a foster parent in multiple counties. Another aspect to cross-boundary flows involves foster parents accessing CFS offices in different access zones. The reality of foster care is that foster parents often travel to different offices based on proximity of the closest office to the biological family of the child in

their care to facilitate birth-parent visits, and not the office closest to the foster parent. Data limitations and privacy concerns limit the ability to access such data. As a result, it is assumed for this analysis that foster parents access the CFS office closest to their residence. The results, then, will provide somewhat conservative estimates of spatial barriers to access since the results are based on the best-case scenario for the foster parent.[37] The limits on cross-boundary flows, then, is an assumption that matches the reality of the phenomena being analyzed. Other assumptions are present, but the previous assumptions are the key to understanding the results presented in this chapter and informing future research that may build on these results.

While the measurement choice for access is the most important metric of this spatial analysis, other metrics also need to be considered. The following are common parameters that facilitate analyzing spatial access: a spatial unit of reference for the population (e.g., a census block), a measure of accessibility (previously noted as minimum distance), and a type of distance for computing the accessibility measure(s) chosen (Hewko et al. 2002). Choosing a valid measure of accessibility is arguably the most critical of these measures, but the others are worth noting because they also can alter results and possibly introduce measurement error. For the spatial unit of reference, Hewko et al. (2002) recommends using smaller units of measure because they minimize aggregation errors. But available data often limits one's choice. In this case, individual-level data (physical addresses) are used for a few reasons: (rather than aggregating up to the census tract level) First, individual level provides the most detail and avoids aggregation errors. Second, the resulting maps do not show any personal identifying of the foster parents (e.g., people cannot tell that Chuck V. is a foster parent and where he lives).

[37] For example, it is not uncommon for a foster parent to have to travel twice a week 30-40 minutes one-way (e.g., Upland to the Victorville Office or Chino to San Bernardino's Central Office) to supervise a 2-hour birth-parent visit.

And finally, attribute data for the individual foster parents was not made available (e.g., the number of children) that would facilitate analyses like hot spot analysis at the tract level. The parameter for the type of distance has four typical options: Euclidean, Manhattan, shortest network path, and shortest network time distances (Allen 2013). Euclidean distance is a straight-line segment between the points, which is helpful in determining general levels of demand per location (ArcGIS.com). Manhattan distance, in simple terms, is the city block distance between two phenomena. Shortest network path, or geodesic path, is path with the least number of edges. Shortest network time is simply the path that takes the least amount of time, where time can be assumed to measure the cost associated with a person's spatial utility. Euclidean and shortest network path are used in this spatial access analysis presented in this chapter. The Euclidean distance in the form of a spider graph provides a general overview of the demand associated with each location. Then, the shortest network time analysis evaluates distances by car or public transportation to each CFS office using the shortest minimum distance (noted previously) between foster parent locations and the nearest CFS office.

Pattern analysis tools, such as spatial density and hot-spot analysis, are also useful in exploring the distribution of access to a given resource. Spatial density helps visually determine the spatial distribution of social worker access to foster parent locations when overlaid with CFS office locations. These density maps go beyond count displays and "allow for comparisons between dissimilar areas" by showing concentrations of foster parent locations (Allen 2009). For the spatial density maps (Maps 1 and 2) below the standard settings were used. The search distance is the distance "used to find input features within the same neighborhood" (ArcGIS.com/online). For this analysis, since no search distance was specified, the density tool in ArcGIS calculates a default distance (in miles) based on the location of foster parent locations

(since no count features were available, only foster parent location is used). The output uses the classification method of equal intervals with 10 classes and an output density that is in square miles. The equal interval classification method means that the range of density values is equal for each area. The density values are created using the algorithm from the Kernel Density tool, which calculates the density of point features around each output raster cell (ArcGIS.com/Pro). Future analysis would benefit from accessing count data on the number of children per location, which would presumably alter the results. However, since these count data were not available for this analysis, the results assume one child per location, which is a conservative estimate.

Hot spot analysis takes the density analysis a step further and provides statistically significant clusters of foster parent locations. The hot-spot analysis for this project uses the optimized hot-spot analysis tool in ArcGIS online since the analyses only looks at point data (foster parent locations) with no associated attribute (due to limitations in access to data). Future analysis might include measured attributes like the number of children currently in the home, which, as previously noted, would likely alter the results provided below. (However, these results may be used to help justify accessing additional data.)

Since hot-spot analysis is less intuitive than other spatial tools, and to help better understand the results, it is worth noting how the optimized hot-spot analysis tool works in the ArcGIS-online software. The optimized hot-spot analysis tool calculates the "Getis-Ord Gi* statistic" (denoted Gi* and defined below) for each feature and identifies statistically significant clusters of foster parents by using a z-score and p-value (ArcGIS.com). The Gi* tool works by analyzing "each feature within the context of neighboring features" and determines if the local pattern of foster parent locations is statistically different from the global pattern of the entire dataset, which can then be compared with resource locations to help identify possible areas of

risk where gaps in services are more likely. The z-scores and p-values for each feature determine if the difference is statistically significant or not (ArcGIS.com/Pro). For example, a feature might have a high value, but it may not be a statistically significant hot spot. “To be a statistically significant hot spot, a feature will have a high value and be surrounded by other features with high values” (ArcGIS.com/online). A statistically significant z-score results when the local sum for a feature and its neighbors is very different from the expected local sum, and “when that difference is too large to be the result of random chance” (ArcGIS.com/Pro). This approach creates issues of multiple testing and dependency, but the “results of the Gi* statistic are automatically corrected for both multiple testing and spatial dependence, using the False Discovery Rate (FDR) correction method” for the Gi_Bin field (ArcGIS.com/Pro). The output is a grid map of hot and cold spots, where the hot spots visually identify clusters of high z-score values and cold spots identify areas of low z-score values in comparison to the global pattern of z-scores (all features in the dataset).

Finally, since San Bernardino County is the geographically largest county in the country with many pockets of high and low population densities like deserts and mountains, the county was segmented into four regions to facilitate spatial analyses like the hot-spot analysis above. These regions were chosen based on a combination of geographic features like mountains and population dense areas. These four regions consist of the following:

- Region 1: the densely populated southwest section of SBC, including cities like Chino and Rancho and extending out to Yucaipa and Highland. This is the most populated region of the county and thus the primary focus of this spatial analysis.
- Region 2 consisted of the High Desert area surrounding the Victorville vicinity
- Region 3 consisted of the areas surrounding Yucca Valley & Twentynine Palms
- Region 4: A small area around Barstow

Data Collection and Selection

San Bernardino County, as noted previously in Chapter 1, has an increasing need for foster parents as the number of children per 1000 in foster care outpaces surrounding counties. Yet, the geography of San Bernardino County itself makes some spatial analysis somewhat difficult relative to other counties. For example, San Bernardino County covers roughly 20,000 square miles and has a population of about 2 million, whereas LA County covers 4,000 square miles and has a population of over 10 million, making San Bernardino County's population density somewhat spotty—i.e., it is densely populated in spots and sparsely populated in other areas. While other counties may provide cleaner geospatial analysis of access, the spatial diversity of the population and the geographic anomalies provide context for understanding the unique circumstances of using San Bernardino County as a case study for this exploratory analysis. It should be noted that these same spatial difficulties also impact recruitment and retention efforts of Child and Family Services as well as resource and service allocation, according to County officials. All these spatial phenomena emphasize the role spatial decision making has on the daily interactions within the foster care arena.

Data sources for this exploratory spatial analysis consist of the following: U.S. Census Bureau Data on socio-economic variables (American Community Survey (ACS) from ESRI's Living Atlas), ESRI's Living Atlas for ACS and National Land Cover Database, and San Bernardino County Child and Family Services (CFS) with point data on administrative office locations and point data on RFA (resource family approval) homes licensed for San Bernardino County. The County foster homes consist of about 50% of the total foster parents licensed in San Bernardino County. (As noted in Chapter 3, the other foster parents work with privately held Foster Family Agencies, which are known as "FFA homes"). The geographic data for the foster

parents with the 72 FFAs that work with San Bernardino County could not be accessed for this spatial analysis. As a result, the results would likely change if this significant population of foster parents could be included. This exploratory research regarding spatial analysis of foster parents might provide justification for accessing the larger population.

Obtaining data on foster parents is noteworthy for this research analysis. Child and Family Services of San Bernardino County graciously approved of this research and provided data on the County RFA foster homes. Since the practitioners of San Bernardino County are increasingly overwhelmed with an ever-expanding case load, it took many months to gain approval to obtain this dataset. However, after gaining approval from the County, they indicated that to obtain data on families working with Foster Family Agencies[38] (FFA's), each of the 72 FFAs approved to work with the County would need to be contacted separately and provide their own individual approval. Only 1 of the 72 FFA's provided spatial data. As a result, the findings provided below are based on about 50% of the total number of licensed foster homes for San Bernardino County. While the data limitations significantly impacted both the supply-side and the demand-side of the Equation regarding resource allocation and thus the ability to fully analyze social worker access, the results and comments below can be considered conservative estimates of the total potential need, since it is assumed due to limited data that each location has only one child in foster care in their household, which is likely not the case for many of these foster parents. Moreover, the findings from this exploratory analysis are significant enough to

[38] Foster Family Agencies (FFA's) work with the County to facilitate the licensing and day-to-day needs of foster parents. FFA's work with foster parents but the County approves each license for the foster parent. The County now (2020) refers all new non-relative foster parents to an FFA for licensing.

warrant further research and justify obtaining full datasets for a given County to understand the total demand.

RESULTS AND DISCUSSION

The results presented here essentially test whether spatial utility should be considered when looking at access of foster parents to support services. Access to social workers is the test case based on responses from foster parents (see Chapter 4 and 5), but other resources and support services could be analyzed in a similar manner. As noted in Chapter 5, social worker access is used here because it appears to generalize across the foster parent groups.

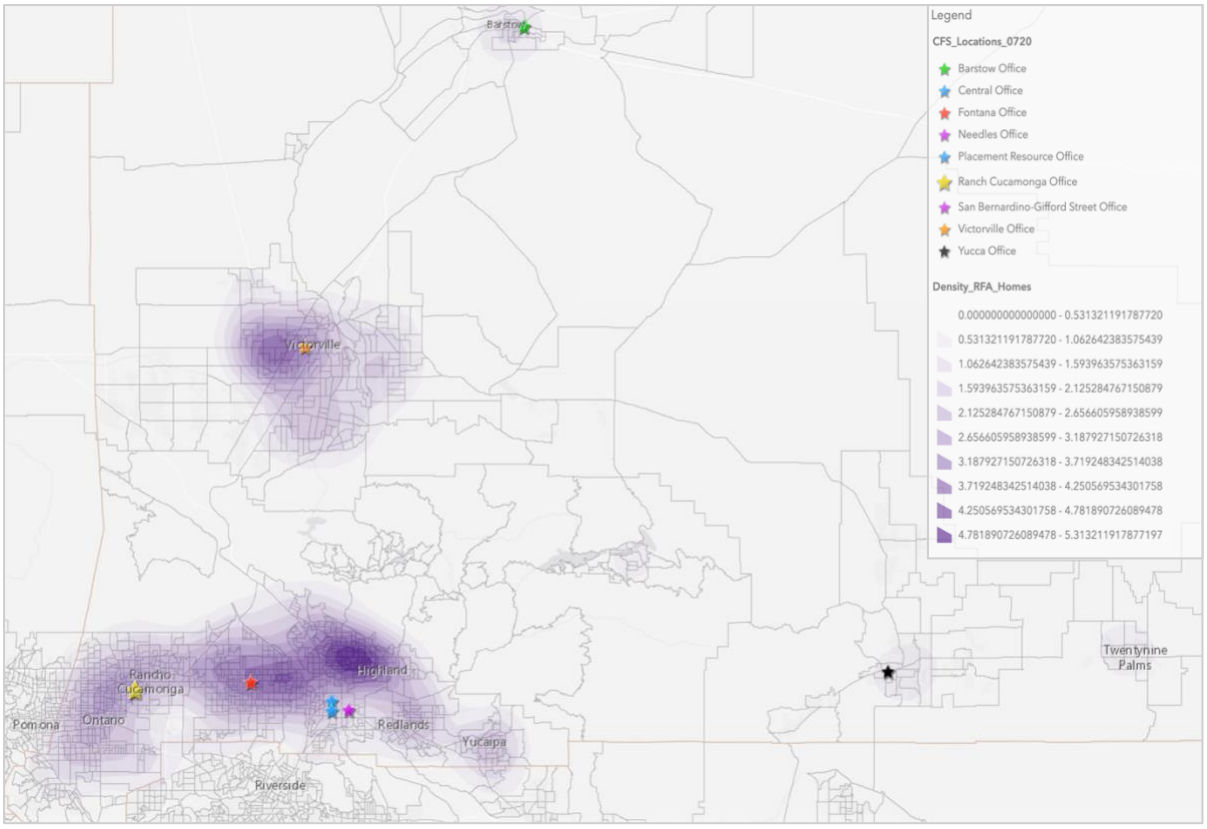
The results of this exploratory analysis are presented in two categories: first, the general spatial patterns of foster parents will be analyzed and discussed in relation to the physical locations of Child and Family Service (CFS) offices for social workers. This first set of maps look at spatial density, spatial distribution (spider graphs), and spatial clustering (hot spot analysis). These maps allow for comparisons to be made of dissimilar locations that can be used to identify areas of high demand for resources and services as well as potential at-risk areas where families could face additional spatial hurdles to accessing resources and services. Then, access will be analyzed in the form of proximity of foster parents to social worker locations. Maps are included that calculate nearness using drive-time distance. Then those maps are overlaid with spatial patterns of foster parent clusters (i.e., hot spot analysis maps and the spider graph) to identify potential gaps in access and distribution. Since this is exploratory in nature, other variables like median income by census tract are also analyzed in relation to the drive-time

distances from CFS locations. (The drive time distances around CFS office locations are also referred to as catchment zones.)

Analyzing Patterns and What They Tell Us

The maps and discussion in this section provide a preliminary understanding of the general spatial patterns of foster parent locations in relation to the closest Child and Family

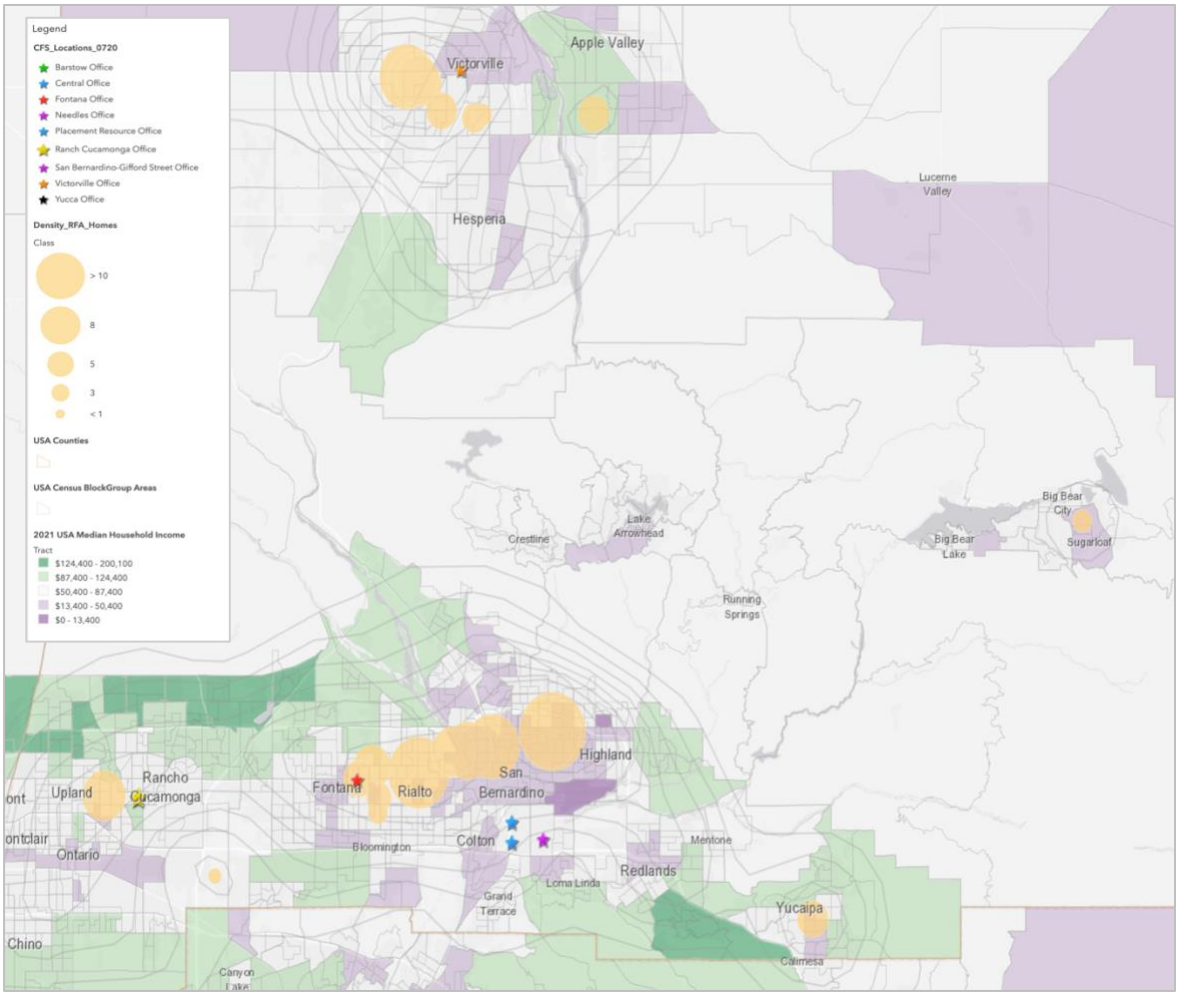
Map 1: Density map of foster parent locations



Service (CFS) office, which helps identify where to focus initially for analyzing access. Map 1 is a density map that shows the general spatial concentrations of foster parents across San Bernardino County. The Highland area has the highest concentration of foster parent locations and no CFS office within this high-density area, while the area around Barstow in the northern part of the county shows a sparse density of foster parents but a CFS location there. When the

density map of foster parent locations is overlaid with median income data and CFS office locations (Map 2), it shows that foster parents tend to reside in more densely populated areas of the County and that denser pockets of foster parents seem to overlap with the lower income brackets (i.e., census tracts below $50,400). It also indicates that CFS offices are not located within the denser pockets of foster parent locations, but they are in moderate ($50,400 - $67,400) to lower income areas ($13,400 - $50,400).

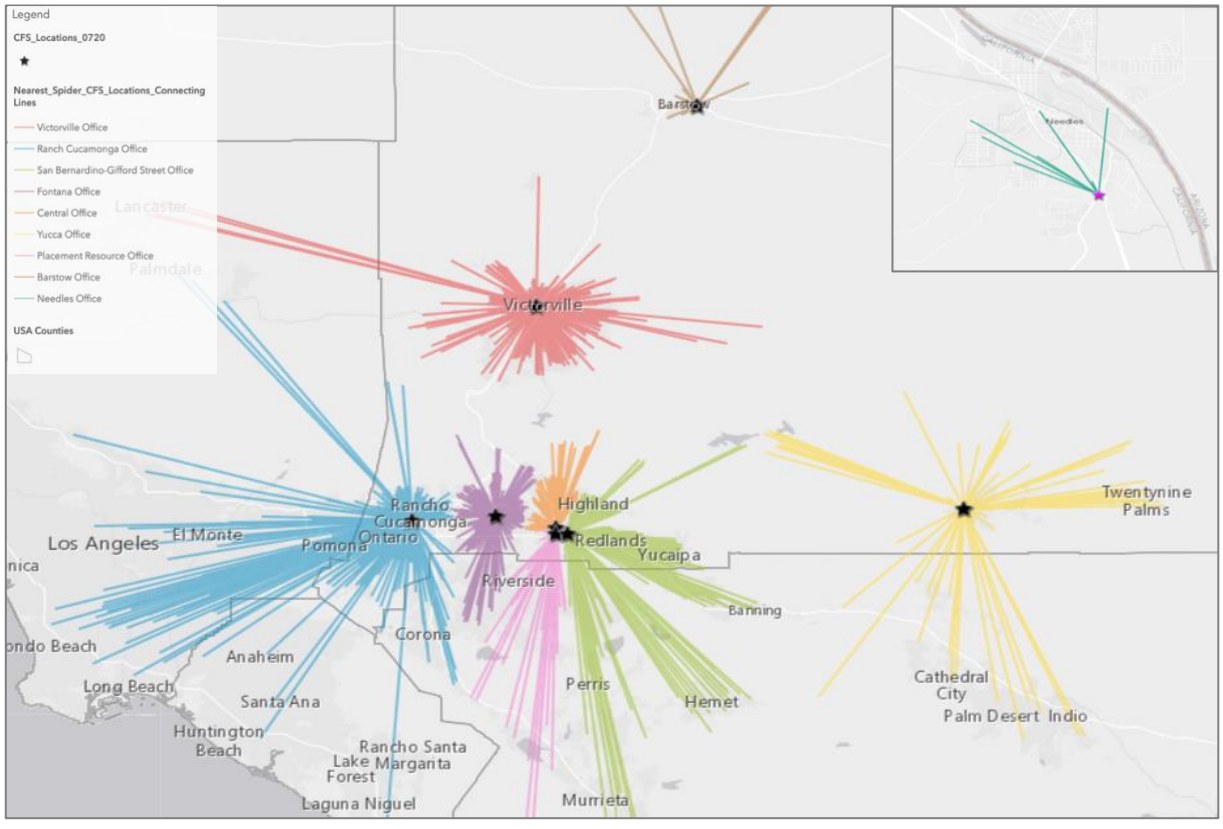
Map 2: Density map of foster parents overlaid on median income by census tract



Map 3 below provides a spider graph that uses straight-line distances from each CFS office location to each foster parent location to show the distribution of foster parents by closest CFS office location, which assumes that the family's social worker is located at the closest office

and that the closest CFS office is where they would do birth-parent visits. (These assumptions are necessary due to data limitations described earlier.) The distribution provides a general visual representation of the pattens of supply and demand for the support services of accessing social workers by foster parents licensed in San Bernardino County. Along these lines, it also shows the likelihood of cross-boundary flows of foster parents across county lines and likely between offices. One can see that many clusters of foster parents live in surrounding counties like LA County and Riverside County, which highlights the necessity for practitioners and policymakers to understand how to provide support services to foster parents who reside in counties other than their licensing county.

Map 3: Spider graph of foster parent distribution by CFS office location[39]



[39] Note that Needles, CA is inset in the map in order to include that area with the rest of the County in a single view that fits on a page.

Whereas density mapping (e.g., Map 1) displays concentrations of point data summarized by location, optimized hot spot analysis uses the Gi* statistic (introduced above) to show statistically significant spatial clusters of foster parents. The hot spots are shown in Map 4 and are identified by the red block areas. These hot spots indicate areas where there are higher clusters of foster parents than what would normally be expected given the dataset. The cold spots are identified by the blue areas, and they indicate areas where there are fewer clusters of foster parent locations than would be expected given the entire dataset. Map 4 below provides the results of the hot spot analysis of foster parent locations by region.

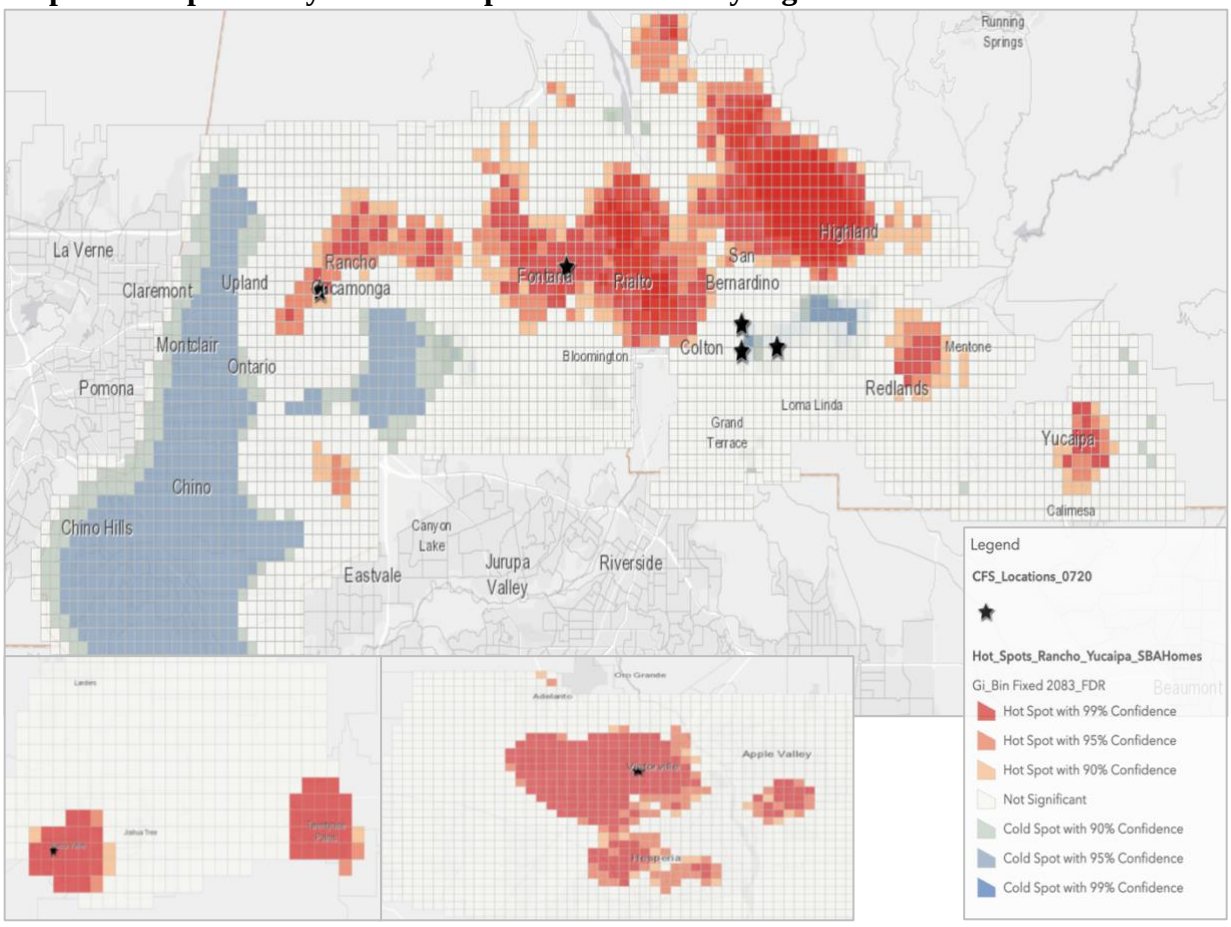
Map 4 shows the results of the most densely populated area of the southwest corner of the County, covering Chino Hills out to Yucaipa and up to northern Fontana. Interestingly, it shows that 4 of the 9 CFS offices (Fontana, Rancho Cucamonga, Victorville, and Yucca Valley) are located within foster parent hot spots. However, the most significant hot spot areas—Rialto, Highland, the city of San Bernardino, Hesperia, Apple Valley, Yucaipa, and Twenty-Nine Palms—do not have office locations within the hot spot cluster, implying potential access and retention issues for these areas of unusually high number of foster parents. (Note that network analysis overlaid with this hot spot analysis will be provided below to analyze access for these families.) These hot spots provide initial understanding on where to focus for analyzing access to social workers.

The most significant cold spot is a large area covering Chino and running up to northern sections of Upland.[40] While the analysis presented here focuses on retention of foster parents, these cold spots could indicate areas of potential recruitment, since there are fewer foster parents

[40] Note that the map shows the edge of LA County, but the hot-spot analysis is limited by the boundaries of San Bernardino County. So while Claremont is shown on the map, it is only because it is at the edge of the county lines between San Bernardino and LA County.

in the cold spots than one would normally expect. If the recruitment potential is significant and increases, the area would need spatial considerations of resource distribution as the number of foster parents increase in the cold spot area. Future analysis that includes all the licensed foster parents for San Bernardino County is needed to confirm whether these cold spots are indeed potential recruitment areas. But the initial analysis outlined in this chapter provides the groundwork that seems to justify further analysis and access to data on the foster family agency (FFA) homes and locations.

Map 4: Hot Spot Analysis of foster parent locations by region[41]



[41] The maps for Region 3 (Twentynine Palms/Yucca Valley) and Region 2 (Victorville area) are attached at the bottom of the map for Region 1 (the densely populated southwest section of San Bernardino County (SBC) to be able to show the county results on one page. The hot spot analysis for Region 4 (Barstow) had less than 30 features (i.e., foster parent locations) and could not be run because the tool requires a minimum of 30 features once it is complete, which means there needs to be at least 30 at the start.

Analyzing Access

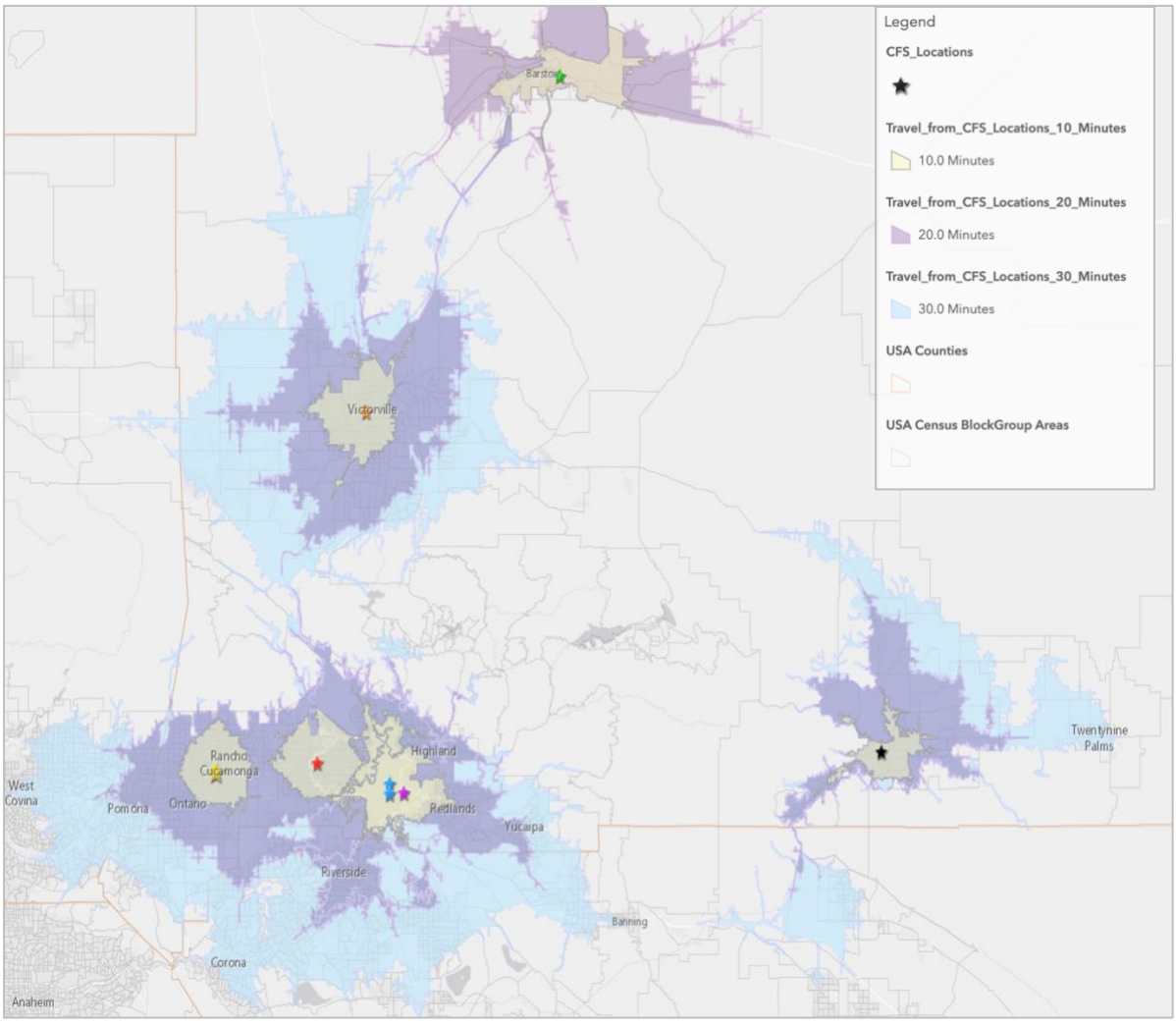
The previous spatial patterns provide a starting point on where to focus an initial analysis on social worker access. The maps below look at network analyses of different catchment zones overlaid with different spatial variables to produce some spatial insights on access to social workers. The first set of maps looks at the network analysis based on drive-time distances. Then the network analyses are overlaid with the previous hot-spot analyses to help identify potential areas where foster parents have increased barriers to access based on their geographic location. The analysis is taken a step further and the median income tracts are overlaid with the network analyses of social worker access, which is an initial attempt to identify potential predictive variables measuring access barriers.

Based on the exploratory nature of these results—i.e., looking at whether further research is justified—each CFS office is treated the same, which assumes each office offers similar resources and access to a similar number of social workers who work with foster parents. While the assumption oversimplifies reality, future research can incorporate various nuances of the resources and services supplied at each location. Thus, the results presented here are first-cut estimates of access to social services for foster parents. Actual access could be worse if a foster parent's social worker is located at an office that is not the closest.

Map 5 provides the initial network analysis of the different drive time catchment zones for each Child and Family Service (CFS) office. There is no recommended travel distance for measuring access to social workers, but other research on accessing social services have used 10-, 20-, and 30-minute catchment zones (Higgs 2004 and Martin 2016). For Southern California, travel time distances can vary widely based on traffic, time of day, and the personal resources of a foster parent. The catchment zones are set up based on typical traffic conditions for a time of

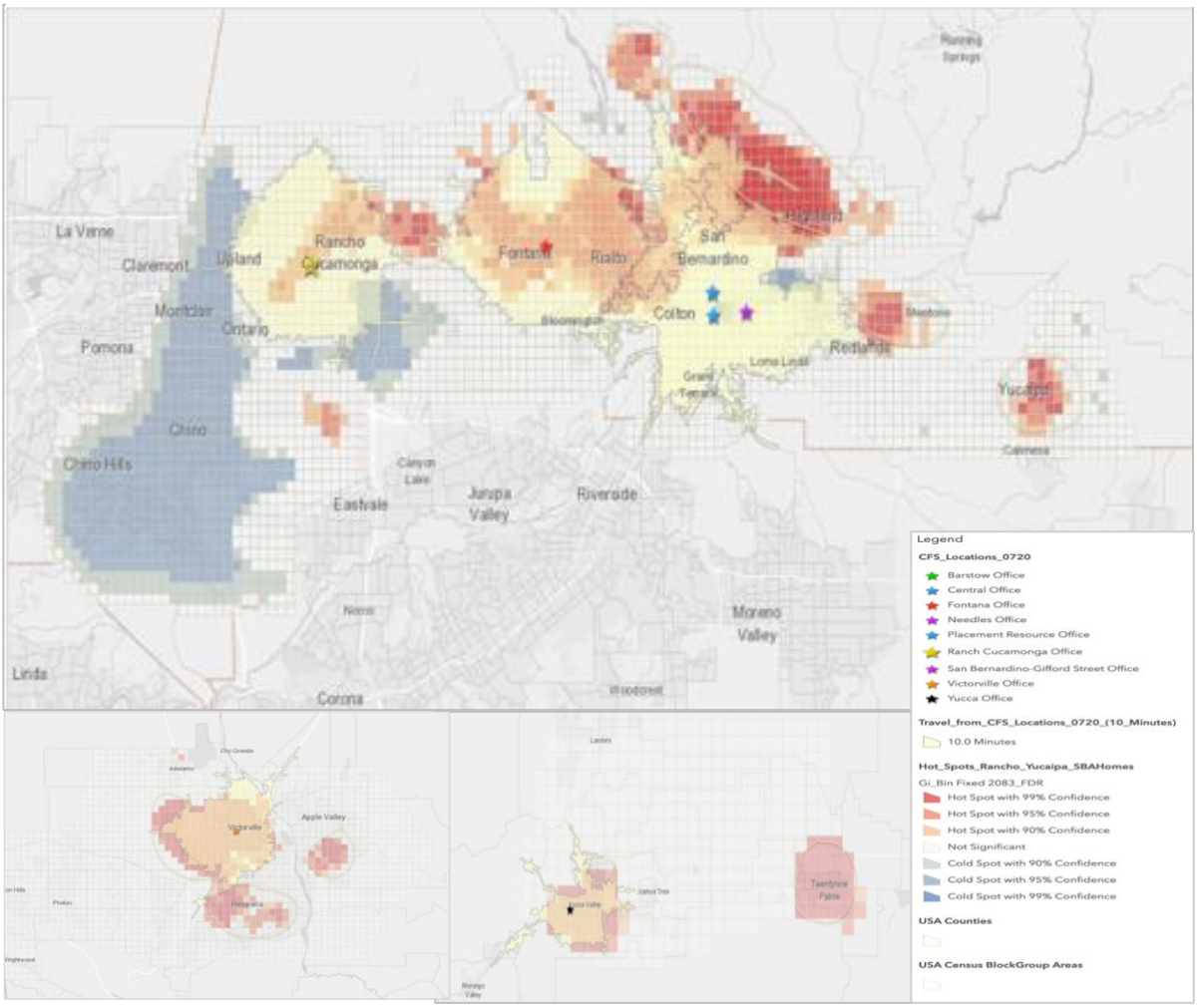
day around 11:00am to avoid rush-hour delays and using a car rather than walking or public transportation. Moreover, as the previous results indicated, those most in need of accessing a social worker will likely have lower incomes, less influential social networks, and rely more heavily on the services provided by a social worker for their family. Therefore, all three catchment zones are shown, but the 10-minute catchment zone is considered the most appropriate for analyzing holes in access.

Map 5: Network Analysis of Drive-time Catchment Zones Around Each CFS Office Location



By itself the drive-time network results provide limited insights; but when the network results are combined with other variables, potential actionable insights become more visible. Map 6 above overlays the 10-minute catchment zone with the previous hot-spot analysis of foster parent locations to identify areas where limited access could be adversely impacting the satisfaction of foster parents and their desire to continue fostering. The hot spot areas outside of the 10-minute drive-time catchment zone could be considered high risk of limited access possibly predicting a desire to stop fostering. These potential high-risk areas consist of the red (hot-spot locations) located outside the catchment zone. These locations are in proximity to the

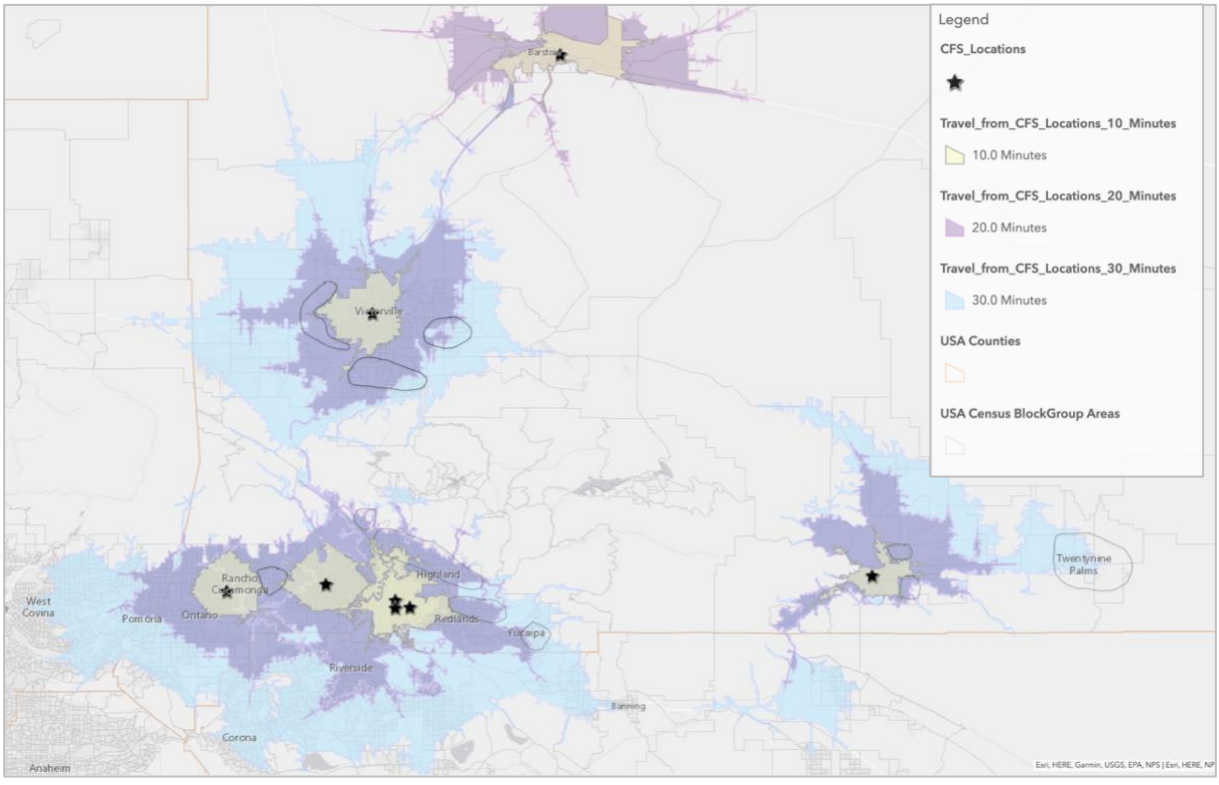
Map 6: Hot Spot Analysis Overlaid with 10-minute drive-time catchment zone around each CFS Office



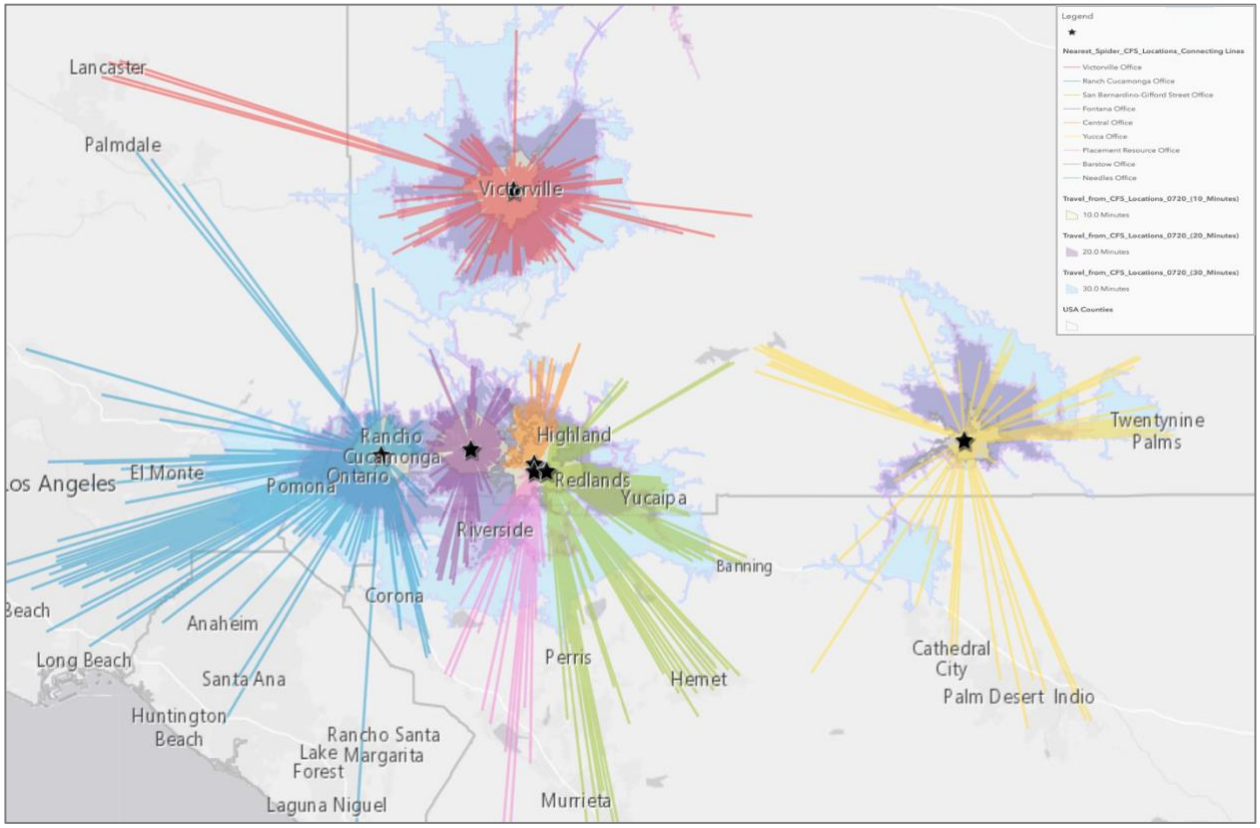
cities of Highland, northern Rialto, northern San Bernardino, Mentone (northeast Redlands), Yucaipa, central area between Fontana and Rancho Cucamonga, as well as Hesperia, Apple Valley, and western parts of Victorville in the high desert, and Twentynine Palms and the eastern areas of Yucca Valley.

Map 7 below provides the same network results with the 10-, 20-, and 30-minute drive time catchment zones but with the areas of high risk circled in black. One can see that while many of these high-risk areas are within the 20-minute catchment zone, a few of the risk areas are in the 30-minute drive-time zone and slightly beyond the outer zone in the case of Twentynine Palms. These areas might be considered as the greatest risk of lower satisfaction and an increased desire to stop fostering, since costs of accessing a social service increase as the drive-time distance increases.

Map 7: Network Analysis with Drive-Time Zones Around Each CFS Office Location and Potential High-Risk Access Areas Circled



Map 8: Spider Graph of Foster Parent Distribution by CFS Office Location Overlaid on the Network Analysis and the 3 Drive-Time Distances



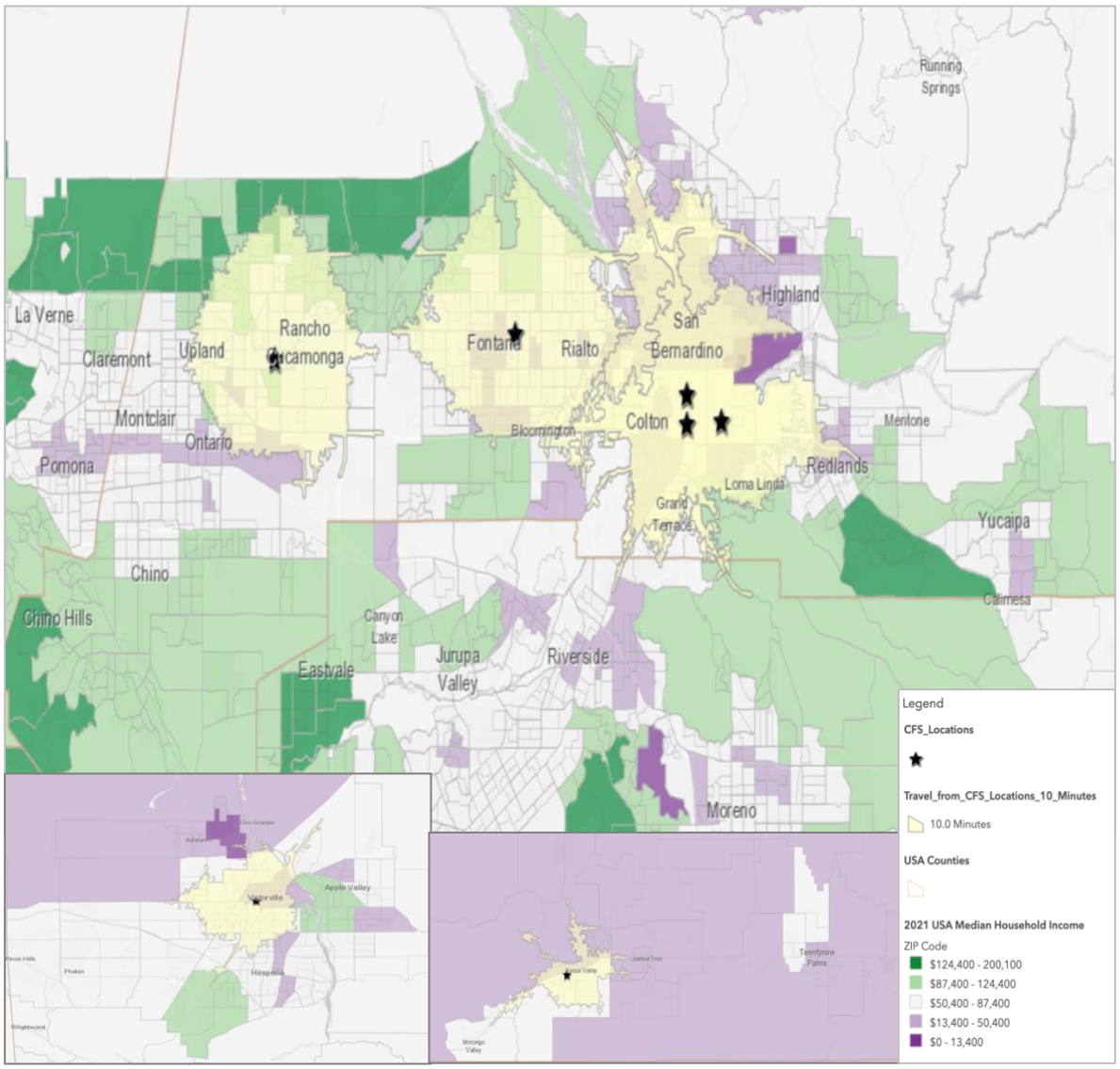
Map 8 above looks at the foster parent distribution by office location and overlays that distribution with network analysis of drive-time distances to help identify spatial access limitations by office location. When the previous spider graph is overlaid with the drive-time network analysis, policymakers and practitioners can get a sense of the distribution and general distance foster parents (or social works) must travel for in-person meetings and visitations. Based on the available data, each office location has some unique distribution characteristics. For example, the Fontana office location has most of the foster parent clusters closest to the CFS office location—i.e., within the 10-minute and 20-minute drive time zones. The other office locations like the Rancho Cucamonga office and the Central offices have many families located outside of the 10-minute drive time zone but within the 30-minute zone. However, a significant

number of foster parents are well outside of even the 30-minute zone for these locations. The Victorville location has most of its foster parents located in the 20-minute catchment zone and more densely populated to the southeast area, towards the cities of Hesperia and Apple Valley. For the Yucca Valley office, most of the foster parents are at best in the 30-minute drive time zone with many outside of even that. The Barstow and Needles offices have most of its foster parents located within the 10-minute zone. While these distributions do not reflect the full dataset of all foster parents licensed in San Bernardino County, it gives an idea of where to focus initially on lowering barriers to access and improving retention and outcomes.

Finally, as noted previously, part of the reason for using 10-minute drive-time catchment area around each office location is because foster parents who have lower incomes will have greater sensitivity to accessing their social workers. In the survey results (see Chapter 4), relative foster parents were seen as more likely to have lower levels of income than non-relative foster parents and indicated greater sensitivity to access to social worker(s). Therefore, having a relatively low-income level adds another potential barrier to a foster parent's access. Map 9 below incorporates Census data on average median household income and overlays it with the 10-minute drive-time zones of each CFS office location. The results indicate that when compared to median household income by census tract, one can see that many of the high-risk areas (noted in the previous spatial results) are also in the lower income brackets. The areas of most notable overlap consist of the following: central and northern Highland, Yucaipa, Hesperia, Apple Valley, Twentynine Palms, and the areas around Yucca Valley. The implication is that policymakers and practitioners could focus on foster parents in lower-income areas as the cohort most likely to respond to increases in access to social workers. Further research is needed to confirm this conclusion.

Additionally, when one looks at the cold spot areas noted in the previous analysis—i.e., the areas surrounding the cities of Chino, Ontario, and Montclair—one sees that the areas of northern Chino, Ontario, and Montclair will also be areas of high risk if the County pursues increased recruitment in these prime locations.

Map 9: Median Income by Census Tract Overlaid with the 10-minute Drive-Time Zones



Although many variables and dynamics play into assigning cases to different social workers, the results presented here suggest emphasizing spatial proximity as part of the criteria

for allotting resources and support services and for assigning cases to various social workers. While these insights need additional data and further evaluation, the initial findings suggest spatial policy considerations and more research are warranted and could dramatically improve retention, recruitment, and positive outcomes for children in the foster care system. The next section talks more about the different avenues future research could take to build upon this initial spatial analysis.

SUMMARY, IMPLICATIONS, AND FUTURE RESEARCH CONSIDERATIONS

In summary, the exploratory analysis presented in this chapter seems to justify further investigation into incorporating spatial utility and spatial policy considerations in the decision-making process for allocating resources that support foster parents and predict their satisfaction and retention. Spatial utility considerations facilitate access to social support services like social workers, and increased access facilitates resource utilization, improving coverage and reducing bias, which makes the policy more effective, efficient, and equitable. Data limitations in the current project prevented a more in-depth investigation but provide a useful proof of concept. But future research would benefit from including additional spatial variables and spatial analysis. In short, the findings suggest that a spatial mismatches between social workers and foster parent locations place those foster parents at risk of wanting to stop fostering, given the previous finding in Chapter 5, and highlights the necessity for a spatial decision-making process for social services.

Future research can extend the findings presented in this chapter in several ways. The most logical first step would be to obtain a full dataset—i.e., all the foster parents licensed in the County (the results here did not include foster parents working with private foster family

agencies FFA's) along with the number of children in their care who are in foster care—then rerun the analyses (e.g., the optimized hot spot analysis) and identify how at-risk zones change. Those results could then be compared to the spatial analysis of the foster parents who stopped fostering or gave a 7-day notice[42] in the last 12 months to help test the validity of the findings. The results of this research project seem to justify providing future researchers with access to more data that is needed to do this additional research while staying within County and State guidelines. The full dataset will further highlight the extent of the resources and access needed. It will also help identify possible surrogate access locations, such as the offices of Foster Family Agencies (FFA's), that the County could use to improve access to social services most needed for each at-risk area.

Future research could also incorporate individual characteristics of foster parents in the hot spot areas and rerun the regressions based on these results to better predict specific barriers by location. The spatial clustering of the hot spot analysis could be weighted by individual attributes like whether they are relative or non-relative foster parents, the median income level, and other significant predictors of utilization. These same results could be rerun over time to see how and where gaps in access move in relation to changes in these characteristics and identify if those changes can be predicted by variables such as changes in median incomes.

Future research would also benefit from comparing spatial analyses of foster parents to analysis on where children are entering the foster care system. Comparing the two groups spatially over time using tools like hot spot analysis may help match foster parents and children and improve long-term outcomes, because children in foster care have better outcomes when

[42] A 7-day notice is an official request by a foster parent to the County for them remove a child in their care from their home within seven days.

environmental changes are limited, meaning that they stay in proximity to school, friends, siblings, etc. when removed from their home (Davis, et al. 1996; Doyle 2007; Doyle 2008; Vanderfaeillie, et al. 2013; Lindquist and Santavirta 2014; and NCCPR 2015).

Other foster care cohorts may also benefit from doing a similar analysis. For example, biological parents could be analyzed in a similar manner as foster parents to identify barriers to accessing resources and support services they need in order to facilitate reunification. The results of analyzing access of biological parents could be compared to analyses of foster parents for the same County. Social workers are another foster care cohort that could benefit from analyzing barriers to their satisfaction and retention. Retention and satisfaction research of social workers would seem to have a significant downstream effect. As indicated in this research project, social workers have a significant impact on foster parent satisfaction and retention. Children in foster care will ultimately benefit when foster parents and social workers have improved satisfaction and retention.

While the list of possible research paths could continue indefinitely, the list included here provides just a sample of the potential research pathways that incorporate spatial utility. As noted in the beginning, spatial considerations are inherent part of foster care and up to this point, have had only minimal consideration.

Analyzing questions of "where" facilitates a more equitable distribution of social services and helps policymakers and practitioners better understand how and where to prioritize limited resources to those who need them most. The notions of spatial welfare and utility better reflect the reality that barriers to access can be significantly influenced by the environmental and socioeconomic conditions of a person's community (Martin 2016). Spatial decision-making processes help policymakers and practitioners better understand that different locations offer

different levels of access and foster parents will have different spatial behaviors and utilization patterns, which will presumably reduce allocation biases and improve coverage. Considering spatial components, which are often under emphasized in the foster care arena, helps move the foster care system for the County toward Pareto[43] optimization by improving spatial distribution of resources and support services.

[43] Pareto optimality is defined as a theoretical state where it is not possible to make any individual better off without simultaneously making someone else worse off (Cullis and Jones 2009, *Public Finance and Public Choice).*

CHAPTER 7: DISCUSSION AND CONCLUSION

INTRODUCTION AND BACKGROUND

Foster care is a complex and multifaceted social issue that impacts nearly every local community economically, politically, and socially. The long-term outcomes of children in foster care are linked to poverty, homelessness, mental health issues, drug addiction, human trafficking, and violent crime rates (AFCARS Report of DHHS 2014 as cited in FosterClub.com[44]). As the United States, California, and local counties like San Bernardino struggle to keep up with increasing number of children entering the foster care system, the State of California passed the Continuum of Care Reform (CCR) with the overall vision that "all children will live with a committed, permanent, and nurturing family" (CDSS 2018). The dissertation presented here aims to help make CCR's vision a reality by focusing on the linchpin of the foster care system—foster parents—a key piece of the CCR legislation. This research project uses survey methods and regression models to identify the significant predictors of being satisfied and retention of foster parents licensed in San Bernardino County. It then takes a significant and generally applicable (i.e., generalizes across the foster parent groups) predictor of their satisfaction and retention—access to social workers—and uses spatial analytics to show how incorporating a spatial-policy process might help distribute resources in a way that improves spatial utility among foster parents, thereby justifying further spatial research for other foster care resources and cohorts.

Foster parents not only care for the children in the system but also function as the primary link between children, their biological family, social workers, and other practitioners and support services. Policymakers, practitioners, and researchers would serve their communities and

[44] The full link is provided here to the Foster Club statistics blog: https://www.fosterclub.com/blog/statistics-and-research/current-state-foster-care

constituents well by helping increase access and utilization of foster parents to the resources and support services that they have identified as the most needed and effective, which essentially reduces the cost these foster parents pay for their community altruism. As Sinclair et al. (2004, p. 171) states, “Foster care is not a free good, but it is a remarkable one.” But it needs continuous investment.

This chapter summarizes some key areas of needed investment by bringing cumulative results into focus and providing a few policy implications and possible next steps for future research. It also highlights some of the unforeseen difficulties encountered along the way that impacted the research and the results.

KEY FINDINGS AND POLICY IMPLICATIONS

Based on the survey results of 303 relative and non-relative foster families in San Bernardino County, the findings indicate that barriers, such as childcare, mental health care, training, and navigating a complex system, did not have as much significance (both practically and statistically) in the minds of foster parents as access to social workers (access defined as connecting and communicating). Moreover, foster parents indicated that the informal support of their social worker (i.e., trusting their social worker with foster-related issues) is as significant to foster parents as support of their friends and close family members (e.g., a spouse/partner) in predicting being satisfied with their foster care experience and their desire to continue fostering. The fact that the support of social workers ranks in the same category as a spouse/partner highlights the significant role of social workers play in the emotional life of a foster parent as more than just “gatekeepers”; they often function more as a primary lifeline of support for foster parents. While significant for both relative and non-relative foster parents, the support of social

workers is even more significant for relative foster parents who often lack the personal resources of non-relative foster parents.

The results from the survey and the regression models support the general conclusion that access to social workers is key to improving satisfaction, promotion, and retention of both relative and non-relative foster parents. This primary conclusion is the one support variable that is generalizable across foster parent groups. It also has a few important implications for policymakers, practitioners, and researchers:

- Practitioners and policymakers have more direct influence over social worker access than other significant variables like access to childcare, mental health services and social support. Policymakers and practitioners can pull this lever and increase satisfaction, promotion, and retention among both relative and non-relative foster families. It should also be noted that while both parent groups are positively impacted, relative foster parents are more reliant on access to social workers than non-relative foster parents.
- The single variable of access to social workers is statistically and practically significant for foster parents, implying that increasing communication efforts between county social workers and foster parents will not only improve satisfaction and retention but also facilitate word-of-mouth recruitment via individual promotion. That is, by improving satisfaction and retention in this area, policymakers and practitioners can also help solve for recruitment of new foster parents, which is also supported by the work of Rhodes (2001) and Pasztor and Wynne (1995).
- The notion that foster parents see social workers as a key to their satisfaction and retention implies that research is needed on social workers to understand the variables

that predict their satisfaction and retention and whether their retention and satisfaction are tied to those of foster parents. Many of the current and future research questions presented in this project could be adapted and applied to social workers instead of foster parents. Research on social workers may also provide downstream benefits to the rest of the foster care system. In essence, both sides of this critical linkage—social workers and foster parents—need to be strengthened to bolster the overall system.

- Finally, identifying a single variable that generalizes across foster parent groups provides a mechanism to use in the development of a spatial policy decision-making process for improving the spatial utility of foster parents, especially relative foster parents. Initial results herein suggest that spatial proximity is strongly correlated with access to social workers and highlights the necessity for a spatial decision-making process for the social services related to foster care. These exploratory spatial results lead to larger questions of whether spatial utility and a spatial policy process should be incorporated in the allocation and distribution of other resources and support services for foster parents, biological parents, and children in the foster care system. Spatial analytics were also shown to have the added benefit of helping identify potential recruitment areas and predicting where resources will be most effective in the future if these recruitment efforts prove successful.

Beyond access to social workers, the findings also indicate that significant differences exist between relative and non-relative foster parents to the degree that the two parent groups would benefit from the development of different predictive models. Though social workers are important overall, each parent group has some significant differences in the type of resources and support services needed to improve their satisfaction and retention. These differences highlight

the idea that variations in the level of access exist between the foster parent groups, where relative foster parents are more likely to respond to more formal and informal supports and non-relative foster parents are more likely to benefit from formal supports like increased access to mental health care services for their foster child(ren).

Significant differences exist for services like accessing childcare, mental health access, and training. It was found that while relative foster families tend to have a lower socio-economic status, they indicated less desire for these formal social services than the higher-income non-relative foster families. This finding likely reflects a lack of trust in the system rather than a lack of impact or need from the social services. It also highlights the relative sensitivity of non-relative foster parents to difficult behaviors and a complex system that relative foster parents are more accustomed to navigating because they generally utilize social services more often due to lower income.

In addition to the prior findings, by taking more of an economic perspective (rather than the typical psychological approach) the results help fill in some methodological gaps. Most studies measure satisfaction either with a lengthy panel of numerous questions or with a single nebulous question, both of which inject some level of measurement error and may result in inconsistent and ungeneralizable results. Such approaches also provide an inconsistent connection between satisfaction and retention, which some have questioned (e.g., Cooley et al. 2015). But I found that using an individual net-promoter score (NPS) tool is highly predictive of the likelihood of both being satisfied and wanting to continue fostering for both parent groups in this study. The NPS tool could also serve as a surrogate measure of satisfaction when predicting retention of foster parents and it is significant for both relative and non-relative foster parent groups. When compared to satisfaction, the NPS tool has less variability and provides a more

internally valid and generalizable measure, leading to more reliable prediction of retention than prior research. It also implies a direct connection between retention and word-of-mouth recruitment. Promoting foster care to others is a more parsimonious definition and operationalization than the typical psychological panel of questions, meaning that the average foster parent understands "promotion" of foster care to friends and associates more concretely than they can determine their level of "satisfaction." Satisfaction often implies different things to different people, even among researchers, because it relates to whether one feels their needs and expectations are being met (Cleary et al. 2018, Fees et al. 1998) and expectations often change with changes in one's mood or a recent interaction, which are more emotionally driven. Promotion, on other hand, is more consistent over time and asks a person to take a more holistic view of the subject (Reichheld 2006). As a result, using the NPS tool to predict foster parent satisfaction and retention provides a standard measure with a well-documented body of research (in other areas like economics and health care). It also provides an opportunity for future research to begin to speak the same language and more readily compare findings.

More practically, this key finding enables practitioners to use a common "one-question" survey to obtain foster parent feedback quickly and more frequently, thereby enabling policymakers and practitioners to be more agile and responsive to the needs of foster parents, while giving foster parents a greater voice into resources that best support their changing needs and circumstances. It could also be applied to biological parents and give them a greater voice in the support services offered to them and improve responsiveness to their needs, assuming future research supports similar conclusions among biological parents as were found in the research presented here.

In summary, the key takeaway from these results is that, to have the biggest impact on being satisfied, promotion, and retention of foster parents, the lever policymakers, practitioners, and researchers can focus on is to increase access and availability to social workers for foster parents. Beyond access to social workers, treating the two groups separately and understanding their unique circumstances via distinct models is expected to increase satisfaction, retention, and word-of-mouth promotion of being a foster parent. Spatial decision-making tools may help organizations understand how to improve access to social services like social worker access. Moreover, including spatial utility and spatial policy considerations as part of future levers may be an area of untapped potential for improving resource allocation, distribution, and utilization, which serve to improve outcomes for children in foster care.

UNFORESEEN CHALLENGES AND THE RESEARCH PROCESS

The data collection process included a lengthy approval procedure that required County approval and individual approval from each of 72 separate foster family agencies. (FFAs), which contract with the County to help with day-to-day responsibilities of child welfare system.) While almost of those surveyed were “county homes” and only a relative few were FFA homes, survey responses remained almost evenly split between relative and non-relative foster homes, which enabled a direct comparison of the two groups. Communication and distribution of the survey focused on facilitating at least a representative distribution of responses of each group. The response rate of 21% is generally considered low for a typical survey, but it is above average when compared to other foster parent surveys. For example, the Texas’s Department of Family and Protective Services commissioned a statewide survey of foster families (a Foster Family

Resource Study 2020[45]) that was conducted at the same time as this survey and the Texas survey had a 13.7% response rate.

The geospatial analysis process consisted of obtaining geospatial data from the County along with the 72 foster family agencies on their homes licensed in San Bernardino County. The data limitations imply that the results would be strengthened with the inclusion of more data and could change significantly. For example, if data were provided on the number of children at each location along with all the foster parents licensed for San Bernardino County, then the density and distribution maps may start to look significantly different. Moreover, data on locations where children enter the system when compared with foster parent data might also provide significant and practical insights.

Two major unforeseen hurdles were encountered during the data collection process: The first unforeseen delay consisted of working with 72 separate FFAs. Since the County ultimately licenses and approves foster parents whether the parent works with a FFA or they work directly with the County, it was initially suggested that the County would be able to provide contact and geospatial information for both county and FFA homes. This turned out to not be the case. But it gave a whole new appreciation for the County workers and the daily difficulty of managing 72 somewhat squirrelly FFAs.

COVID-19 provided another significant unforeseen challenge. As result of COVID, the survey distribution was delayed by four months in an effort to allow foster parents to normalize a little to a very different environment. Even with these efforts, obtaining access to social services during COVID impacted the results and suggests that access issues that remain significant in the

[45] Link to report to the full report is found here as well as the references: https://www.dfps.state.tx.us/About_DFPS/Reports_and_Presentations/CPS/documents/2020/2020-09-01-Foster_Parent_Resources_Study.pdf.

wake of COVID-19 are conservative in nature (meaning that access is likely to be more of an issue than noted in this survey when foster parents return to doing visits in-person rather than virtually) and would likely be more significant in non-COVID conditions. This is because COVID increased digital access to things like social workers, court hearings, and mental health services, which was not the case before COVID.

CONCLUSION

Foster care is a wide-ranging social issue with significant short- and long-term consequences for local communities. Given the unfortunate effects for foster children, strengthening the foster care system will likely have the downstream effect of improving social structures and moving the system closer to being effective and efficient. One the best ways to do that, according to foster parents, is for policymakers and practitioners to focus on increasing access to social workers and equipping social workers to engage foster parents more regularly with needed information.

Future research could take many avenues. Future policymakers, practitioners, and researchers could reap much fruit by focusing on the many spatial utility questions (outlined previously in Chapter 6) regarding the allocation and distribution of social services and resources. Future research could also look at other foster care cohorts such as social workers, biological parents, and transitional-aged youth to identify barriers to access to the resources and support services they need most. Finally, the research presented here suggests that using an NPS tool could greatly improve the feedback and response rate on services and supports for foster parents as well as other foster care cohorts, thereby increasing the collective voice of each cohort.

The focus of this dissertation is to highlight practical resources and support services that policymakers and practitioners could leverage to significantly impact satisfaction and retention for foster parents licensed in San Bernardino County, which in turn improves the overall outcome of children in foster care. The foster care system often receives limited focus from policymakers and researchers probably due, in part, to the target populations having lower social constructs and very limited political power (Schneider and Ingram 1997). The findings from this analysis seem to justify further research and indicate that the connection between social workers and foster parents is a key linkage and a critical starting point that needs to be bolstered for the full system to be strengthened. Like any link, it is best to strengthen the connection from both ends—i.e., the foster parent side and the social worker side. It seems incumbent, then, that policymakers, practitioners, and researchers focus on providing resources and support services that are needed, accessible, effective, and essentially help reduce the burden foster parents bear on behalf of their communities.

APPENDIX: THE SURVEY USED IN THIS RESEARCH

Claremont Graduate University

English

INFORMED CONSENT BLOCK

WELCOME TO THE STUDY!

AGREEMENT TO PARTICIPATE IN A FOSTER FAMILY SURVEY

STUDY LEADERSHIP

You are being asked to take part in a research project that is led by Chuck Varadin, a PhD candidate at Claremont Graduate University. He is supervised by Professor Jean Schroedel.

PURPOSE

The purpose of this study is to explore the opinions of relative and non-relative foster families (resource families) in San Bernardino County (SBC). This information will be used to inform and shape future policy decisions.

ELIGIBILITY

To be in this study, you must be 18 years or older and approved, licensed, or certified relative or non-relative foster family in San Bernardino County, or in the process of becoming licensed.

PARTICIPATION

During the study, you will be asked to provide answers to questions about your opinions and experiences as a foster parent as well as support services you needed and whether you received those resources. For example, a question might ask, "Over the past 2 months, did you need childcare?"

RISKS OF PARTICIPATION

The risks that you run by taking part in this study are minimal. You will not be exposed to any risks beyond what you would face during a typical day as a relative or non-relative foster parent.

BENEFITS OF PARTICIPATION

We do not expect the study to benefit you personally. The study intends to help advance understanding of the difficulties that relative and non-relative foster families face in San Bernardino County, which can lead some foster parents to exit the program and/or licensing process. Thus, the study intends to benefit future policy decisions and provide departmental administrators with actionable information for retaining relative and non-relative foster parents.

The study will benefit the researcher by providing some information about the opinions among relative and non-relative foster parents in San Bernardino County.

COMPENSATION

For completing the survey, a $5 Amazon.com gift card will be sent to the email address you provide at the end of the survey. Gift cards will be distributed to email addresses approximately 2-4 weeks after you have completed the survey.

VOLUNTARY PARTICIPATION

Your participation in this study is completely voluntary. You may stop or withdraw from the study at any time or refuse to answer any particular question for any reason without it being held against you.

CONFIDENTIALITY

Your responses will be kept confidential. Your individual privacy will be protected in all papers, books, talks, posts, stories, etc. resulting from this study. General data may be shared with other researchers, but your identity will NOT be shared with it. In order to protect the confidentiality of your responses, we will assign a random number to your survey responses and delete any email addresses or personal identifying information obtained during correspondence connected with this study.

FURTHER INFORMATION

If you have any questions or would like additional information about this study, please contact Chuck Varadin at Charles.Varadin@CGU.edu and in the subject line please put "Foster Family Survey"

The CGU Institutional Review Board (IRB) has approved this project. You may contact the CGU Board with any questions or issues at (909) 607-9406 or at irb@cgu.edu. You may print and keep a copy of this consent form.

CONSENT

Clicking the box below that says,"Yes, I'm 18 years of age or older and I consent" means that you understand the information on the consent form, that someone has answered any and all questions you may have about this study, and you voluntarily agree to participate in it.

- ○ Yes, I'm 18 years of age or older and I consent.
- ○ No, I do not consent. I do not wish to participate

INTRO BLOCK

Please choose the option that best describes your current relationship with Child and Family Services (CFS).

- ○ Non-relative foster parent
- ○ Relative foster parent (includes kinship care and non-relative family members or NREFM's)
- ○ Group Home (STRTP)
- ○ Other

How long have you served as a relative or non-relative foster parent?

- ○ Less than 1 year
- ○ More than 1 year but less than 2 years
- ○ More than two years

Are you currently with a Foster Family Agency (FFA)?

- ○ Yes
- ○ No

Please provide the name of your FFA in the box below.

CHILD DESCRIPTION BLOCK

Have you had a relative or non-relative foster child living in your home anytime in the last 3 years?

- ○ Yes
- ○ No

About **how many** children has Child and Family Services (CFS) placed in your care since you began fostering? (Please include respite care placements.)

Have you finalized the adoption of a child through Child and Family Services (CFS)?

- ○ Yes
- ○ No

About **how many** children have you adopted through Child and Family Services (CFS)?

SUPPORT and COMMITMENT BLOCK

Next we will ask you some questions about the **support services** foster parents often need when caring for a foster child.

Have you **needed child care** services in the past 2 months?

- ○ Yes
- ○ No

About **how much child care** have you **received** in the past 2 months?

- ○ None at all
- ○ Less than half of what I needed
- ○ About half of what I needed
- ○ More than half of what I needed
- ○ Completely met what I needed

Have you **needed respite care** services in the past 2 months?

- ○ Yes
- ○ No

About **how much respite care** have you **received** in the past 2 months?

- ○ None at all
- ○ Less than half of what I needed
- ○ About half of what I needed
- ○ More than half of what I needed
- ○ Completely met what I needed

Have you **needed transportation** services for a foster child in the past 2 months?

- ○ Yes
- ○ No

About **how much transportation** have you **received** in the past 2 months?

- ○ None at all
- ○ Less than half of what was needed
- ○ About half of what was needed
- ○ More than half of what was needed
- ○ Completely met what was needed

Have you **needed** to **communicate** with a child's **social worker(s)** in the past 2 months?

- ○ Yes
- ○ No

About **how much communication** have you **received** in the past 2 months from the **social worker(s)?**

- ○ None at all
- ○ Short of my expectations
- ○ Met my expectations
- ○ Exceeded my expectations
- ○ Far exceeded my expectations

Have you **needed health care** for a foster child in the past 2 months?

- ○ Yes
- ○ No

About **how much health care** have you **received** for your foster child(ren) in the past 2 months?

- ○ None at all
- ○ Less than half of what was needed
- ○ About half of what was needed
- ○ More than half of what was needed
- ○ Completely met what was needed

Have you **needed mental health** services for a foster child in the past 2 months?

- ○ Yes
- ○ No

About **how much mental health** services have you **received** for your foster child(ren) in the past 2 months?

- ○ None at all
- ○ Less than half of what was needed

- ○ About half of what was needed
- ○ More than half of what was needed
- ○ Completely met what was needed

Have you **needed assistance with medical costs** (not covered by Medi-Cal) for a foster child in the past 2 months?

- ○ Yes
- ○ No

About **how much assistance with medical costs** (not covered by Medi-Cal) have you **received** for your foster child(ren) in the past 2 months?

- ○ None at all
- ○ Less than half of what was needed
- ○ About half of what was needed
- ○ More than half of what was needed
- ○ Completely met what was needed

Have you **needed information on accessing** support services for foster parents in the past 2 months?

- ○ Yes
- ○ No

About **how much information on support services** have you **received** in the past 2 months?

- ○ None at all
- ○ Less than half of what I needed
- ○ About half of what I needed
- ○ More than half of what I needed
- ○ Completely met what I needed

ENCOURAGEMENT BLOCK - TEXT

YOU ARE DOING EXCELLENT!

THANK YOU FOR YOUR HONEST RESPONSES!

WE VALUE YOUR OPINION AND EXPERIENCES!

CHALLENGES

NEXT, WE WILL ASK YOU ABOUT **CHALLENGES** YOU MAY OR MAY NOT HAVE FACED AS A FOSTER PARENT. SOME OF THE CHALLENGES ARE COMMON AND SOME ARE UNCOMMON.

Thinking about your **overall** foster care experience, to what extent have **EACH** of the following impacted your **desire to continue** fostering as a relative or non-relative foster parent?

	Not at all	A Little	A moderate amount	A Lot	A great deal
Being named in an accusation of potential abuse/neglect	○	○	○	○	○
Losing a child(ren) I was fond of	○	○	○	○	○
Accessing mental health services for a foster child	○	○	○	○	○
Conflict with the foster child's biological parents	○	○	○	○	○

	Not at all	A Little	A moderate amount	A Lot	A great deal
Finding child care	○	○	○	○	○

	Not at all	A Little	A moderate amount	A Lot	A great deal
Obtaining information from the child's social worker	○	○	○	○	○
Dealing with the difficult behaviors of a foster child	○	○	○	○	○

Please tell us the extent to which you **disagree or agree** with each of the following statements:

	Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree
I felt competent to handle the type(s) of children placed in my home.	○	○	○	○	○
The child(ren) I have fostered will always be a part of my family.	○	○	○	○	○

SATISFACTION BLOCK

YOU ARE DOING AWESOME!

NEXT, WE WILL ASK YOU ABOUT YOUR OVERALL **SATISFACTION** AND **FUTURE PLANS** AS A FOSTER PARENT.

How satisfied do you **currently feel** with your experience as a foster parent?

- ○ Extremely Dissatisfied
- ○ Somewhat Dissatisfied
- ○ Neither Satisfied nor Dissatisfied
- ○ Somewhat Satisfied
- ○ Extremely Satisfied

How unlikely or likely is it that you will be **fostering 1 year from now**?

- ○ Extremely Unlikely
- ○ Somewhat Unlikely
- ○ Neither Likely nor Unlikely
- ○ Somewhat Likely
- ○ Extremely Likely

On a scale of 0-10 ("0" being "not at all likely" and "10" being "extremely likely"), how likely are you to **recommend becoming a foster parent** to a friend or colleague?

Not At All Likely										Extremely Likely
0 ○	1 ○	2 ○	3 ○	4 ○	5 ○	6 ○	7 ○	8 ○	9 ○	10 ○

SOCIAL SUPPORT - INFORMAL (SOS) BLOCK

YOUR ARE DOING GREAT!

NEXT WE WILL ASK YOU ABOUT THE ROLE DIFFERENT PEOPLE HAVE PLAYED IN **SUPPORTING YOU** AS A FOSTER PARENT.

FOR EACH PERSON PLEASE INDICATE HOW WELL, IN YOUR OPINION, THE PERSON **CURRENTLY** PROVIDES THE TYPE OF SUPPORT LISTED.

IF **NO SUCH PERSON** EXISTS IN YOUR LIFE, PLEASE LEAVE THAT QUESTION BLANK AND GO TO THE NEXT QUESTION.

THANK YOU!

Best Friend

	Never	Sometimes	About half the time	Most of the time	Always
Can you **share your feelings about fostering** with your best friend?	○	○	○	○	○
Can you **lean on** your best friend in times of difficulty?	○	○	○	○	○
Does s/he give you **practical help**?	○	○	○	○	○
Do you **spend time** with him/her socially?	○	○	○	○	○

Another Foster Parent

	Never	Sometimes	About half the time	Most of the time	Always
Can you **share your feelings about fostering** with a foster care parent other than your spouse / partner?	○	○	○	○	○
Can you **lean on** another foster parent in times of difficulty?	○	○	○	○	○
Does s/he give you **practical help**?	○	○	○	○	○
Do you **spend time** with him/her socially?	○	○	○	○	○

Extended Family Member

	Never	Sometimes	About half the time	Most of the time	Always
Can you **share your feelings about fostering** with a family member?	○	○	○	○	○
Can you **lean on** the family member in times of difficulty?	○	○	○	○	○
Does s/he give you **practical help**?	○	○	○	○	○
Do you **spend time** with him/her socially?	○	○	○	○	○

Spouse / Partner

	Never	Sometimes	About half the time	Most of the time	Always
Can you **share your feelings about fostering** with your spouse / partner?	○	○	○	○	○
Can you **lean on** your spouse/partner in times of difficulty?	○	○	○	○	○
Does s/he give you **practical help**?	○	○	○	○	○
Do you **spend time** with him/her socially?	○	○	○	○	○

County Social Worker

	Never	Sometimes	About half the time	Most of the time	Always
Can you **share your feelings about fostering** with your county social worker?	○	○	○	○	○
Can you **lean on** your county social worker in times of difficulty?	○	○	○	○	○
Does s/he provide **practical help**?	○	○	○	○	○

In your opinion, what type of support do foster parents **need most**? (Limit 150 characters)

LOCUS OF CONTROL BLOCK

YOU ARE **ALMOST DONE!**

NEXT, WE WILL ASK QUESTIONS ABOUT THE **LEVEL OF CONTROL YOU FEEL** THAT YOU HAVE OVER YOUR FOSTER EXPERIENCE.

Please tell us the extent to which you **DISAGREE OR AGREE** with **EACH** of the following statements:

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderate Agree
No matter how good foster parents are in their role of caring for young people, they can be subject to allegations of abuse.	○	○	○	○	○
Getting the placements that you want is mostly a matter of luck.	○	○	○	○	○
Most foster parents are capable of doing their jobs well if they make the effort.	○	○	○	○	○
It takes a lot of luck to be a successful foster parent.	○	○	○	○	○
Better support is given to foster parents who are in contact with influential county workers.	○	○	○	○	○
Foster care is what you make of it.	○	○	○	○	○

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderate Agree
If you know what you want out of fostering, you can put yourself into a position that gives it to you.	○	○	○	○	○
Most foster parents have more influence on county social workers than they think they do.	○	○	○	○	○

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderate Agree
If foster parents are unhappy with decisions made by the county, they can do something about it.	○	○	○	○	○
Recognition is given to foster parents who are successful in caring for children.	○	○	○	○	○
Powerful county administrators chiefly control a foster parent's ability to access support services.	○	○	○	○	○
Foster parents have little chance of protecting their personal interests when they conflict with the agenda of strong interest groups.	○	○	○	○	○

DEMOGRAPHICS BLOCK

YOUR ARE DOING FANTASTIC!!!

ONLY A FEW MORE QUESTIONS!

Are you now single, married, widowed, divorced, separated or never married?

- ○ Married
- ○ Widowed
- ○ Never Married
- ○ Single
- ○ Separated
- ○ Divorced

Do you belong to a church community or regular place of worship?

- ○ Yes
- ○ No

What year were you born?

- ○ Born 1997 - 2002
- ○ Born 1981 - 1996
- ○ Born 1965 - 1980
- ○ Born 1946 - 1964
- ○ Born 1945 or earlier

What is the highest level of school you have completed or the highest degree you have received?

- ○ Less than high school degree
- ○ High school graduate (high school diploma or equivalent including GED)
- ○ Some college but no degree
- ○ Associate degree in college (2-year)
- ○ Bachelor's degree in college (4-year)
- ○ Master's degree
- ○ Doctoral degree
- ○ Professional degree (JD, MD)

Please indicate the most approximate annual income range for your household based on the following categories (in US dollars).

What is your sex?

- ○ Male
- ○ Female

Are you Spanish, Hispanic, or Latino or none of these?

- ○ Yes
- ○ None of these

Please choose one or more races that you consider yourself to be:

- ☐ White
- ☐ Black or African American
- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Native Hawaiian or Pacific Islander
- ☐ Other

If you could let San Bernardino County's Child and Family Services **(CFS) know one thing**, what would you tell them? (Limit 150 characters)

ENDING

TO RECEIVE THE **$5 AMAZON.COM e-GIFT CARD**, PLEASE **PROVIDE** THE **EMAIL** ADDRESS WHERE YOU WANT THE e-GIFT CARD SENT. (GIFT CARDS WILL BE **SENT TO THE EMAIL ADDRESS PROVIDED BELOW**.)

CONGRATULATIONS! YOU HAVE COMPLETED THE SURVEY!

IF YOU HAVE ANY **COMMENTS OR SUGGESTIONS**, PLEASE INCLUDE THEM IN THE SPACE BELOW. (Limit 150 characters)

THANK YOU FOR YOUR TIME AND IDEAS!

THANK YOU FOR COMPLETING THE SURVEY!

If you have any further comments or questions regarding the purpose of the research or the intended use of the findings, please send them to Charles.Varadin@CGU.edu.

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