Birth Through Eight Strategy for Tulsa (BEST) Phase II Evaluation

2022 Annual Report

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Contents

Exhibits

Section I: BEST Phase II Evaluation Overview—The BEST Study

The American Institutes for Research (AIR) is conducting the Birth through Eight Strategy for Tulsa (BEST) Phase II Evaluation—the BEST Study (best.airprojects.org). BEST provides coordinated supports in the earliest years of children's lives to help make Tulsa a good place for all children and families to live, grow, and thrive. By convening a diverse network of over 50 partners, consisting of public agencies, health care and women's health organizations, childcare providers, education institutions, and other local nonprofit organizations, BEST aims to develop a seamless multisector continuum of high-quality programs and services for children from birth through age 8 and their families.

The purpose of this report is to summarize Birth Through Eight Strategy for Tulsa (BEST) Study activities, challenges, findings, and expected next steps for the forthcoming year 2023. The report covers the BEST Study from January 1 to December 31, 2022, and is based on the original BEST Evaluation Plan.[1] In this section, we summarize the purpose of the BEST Study, including the three study components, research questions, and timeline. In Section II, we provide an update of the process study. Section III summarizes the outcome/impact study component, and Section IV summarizes the ethnography study. For each study component, we provide an update of activities, findings, lessons learned, and next steps.[2]

The BEST Study occurs throughout a 7-year period to learn how and in what ways a comprehensive, continuous, and integrated system-change approach can build greater opportunities that will improve the lives of young children and their families in Tulsa. The central purpose of the BEST Study is to determine whether BEST creates change that leads toward four goals: (1) more children being born healthy, (2) more children on a positive developmental trajectory in the first 3 years of life, (3) more children prepared to enter kindergarten, and (4) more children achieving success by third grade. In measuring the impact of BEST at the child level, it also is valuable to track BEST processes, activities, and impact at the system level and understand how the impact of BEST is actualized in the daily lives of children and families. As such, the evaluation has three study components:

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[1] Howard, E., Bos, J., Caverly, S., Fain, G., & Dahlke, K. (2019). *Birth Through Eight Strategy for Tulsa (BEST) Phase II evaluation plan*. American Institutes for Research.

[2] The authors of this report want to acknowledge the entire BEST Evaluation team that supports all the study activities: Hans Bos, Joanne Carminucci, Sami Kitmitto, Vivian Le, Karen Manship, Stephanie McCarthy, Patrick Rich, Emily Weinberg, Cecilia Zhang, and our subcontractor team at Decision Information Resources (DIR).

1. A **process study** that provides information about how the BEST initiative engages with, supports, and interacts with the preconception-to-age-8 service infrastructure in Tulsa.

2. An **outcome/impact study** that provides information about what it is like to be born and grow up in Tulsa or to be a parent to a child aged 0–8 from a representative Tulsa sample. It will include four cohorts of children, two cohorts followed from birth and two cohorts followed from the start of kindergarten. The outcome/impact study also includes collecting and analyzing extant administrative data to study trends over time, before and after the BEST initiative, across the Tulsa community, and compared with other cities.

3. An **ethnography study** that describes the routines and experiences of a small subset of families participating in the outcome/impact study.

These three study components work together to answer all the BEST evaluation research questions.

A technical working group (TWG) has been advising us on the components of the study and the activities summarized in this report. TWG members include Dr. Greg Duncan (Distinguished Professor, University of California at Irvine), Dr. Iheoma Iruka (Research Professor of Public Policy and Director of the Equity Research Action Coalition, Frank Porter Graham Child Development Institute at the University of North Carolina-Chapel Hill), Dr. Marta Tienda (Maurice P. During '22 Professor in Demographic Studies, Professor of Sociology and Public Affairs, Princeton University) and Robert Goerge (Senior Research Fellow, Chapin Hall Center for Children at the University of Chicago[3]). The TWG convened as a whole group on August 15, 2022, to provide feedback on extant data analysis, the implications of the size of the final Cohort 1 sample, and highlights from the workforce study.

Guiding Evaluation Research Questions

Five overarching research questions guide the BEST Study. The first four questions capture the effects of BEST on service infrastructure, service reach, parental outcomes, and child outcomes. The fifth question captures facilitators and barriers to BEST implementation, service delivery, and the initiative's capacity to positively change the trajectory of child and family outcomes. For all research questions, it is important to explicitly probe the impact of BEST on equity in Tulsa, specifically equity as it relates to the implicit and explicit biases that differentially affect communities and people of color.

1. **How does BEST impact the implementing partners and the larger prenatal-to-age-8 service infrastructure in Tulsa?**

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[3] Dr. Goerge became a new member of the TWG as of December 2022.

a. **Engagement.** To what extent, and in what ways, does BEST engage with prenatal-to-age-8 service providers in Tulsa?

b. **Structural Changes.** To what extent, and in what ways, does BEST structurally change the prenatal-to-age-8 service system infrastructure in Tulsa?

c. **Collaboration.** To what extent, and in what ways, does BEST change the communication, coordination, and collaboration across providers in the prenatal-to-age-8 service infrastructure in Tulsa?

d. **Equity.** To what extent, and in what ways, does BEST change diversity, inclusion, and equity of prenatal-to-age-8 service provision in Tulsa, including engaging parents and community stakeholders as partners in service design and delivery?

2. **How does BEST impact participation in services among Tulsa's children and families?**

a. **Service Reach.** To what extent, and in what ways, does BEST increase access to prenatal-to-age-8 services in Tulsa?

b. **Service Awareness.** To what extent, and in what ways, does BEST change the awareness of parents and caregivers of the services available to them and the benefits those services could have for them?

c. **Service Participation.** To what extent, and in what ways, does BEST increase the use of services available to parents, caregivers, and children in Tulsa?

d. **Equity.** To what extent, and in what ways, has BEST changed the level of diversity, inclusion, and equity in service access to children and families in Tulsa?

3. **How does BEST impact multiple dimensions of parent well-being, child-rearing practices, family functioning, and the home environments of children birth to age 8?**

a. **Parent Well-Being.** To what extent, and in what ways, does BEST change parent well-being, including parenting self-efficacy, role satisfaction, and psychosocial well-being?

b. **Child-Rearing Practices.** To what extent, and in what ways, does BEST change child-rearing practices, including the nature of parent–child interactions, behaviors to support children's learning and health development (including home learning activities, well-child visits, and preconception and prenatal care), and parent beliefs and attitudes about parenting and early learning experiences?

c. **Family Functioning.** To what extent, and in what ways, does BEST change family functioning, including resilience, mobilizing resources, and social supports?

    d. **Home Environment.** To what extent, and in what ways, does BEST change the quality of the child's home environment, including the safety, stability, and supportiveness of their household and neighborhood?

    e. **Equity.** To what extent does BEST change the level of equity in these parent, family, and home outcomes across racial/ethnic groups, income groups, and neighborhoods?

4. **How does BEST impact the multiple domains of children's health and development?**

    a. **Health.** To what extent, and in what ways, does BEST change the birth outcomes and health of children in Tulsa?

    b. **Development.** To what extent, and in what ways, does BEST change the developmental outcomes (e.g., cognitive/academic, language and literacy, and social-emotional skills) of Tulsa's children?

    c. **Equity.** To what extent does BEST change the level of equity in children's outcomes across racial/ethnic groups, income groups, and neighborhoods?

5. **What are the most important facilitators for and challenges to the success and long-term potential of BEST? What changes to BEST are needed to increase its success?**

    a. What made the biggest difference in establishing and strengthening the relationships between BEST and its partners and among the partners themselves? What barriers remain, and how could they be addressed?

    b. What made the biggest difference in changing the trajectory on parents and the home environment? What aspects of children's lives are more difficult to improve? What areas are ripe for additional investment and intervention?

    c. What made the biggest difference in changing the trajectory on child outcomes? Which child outcomes are most difficult to change and why? In what child and family developmental and functional areas do family background and neighborhood characteristics influence child outcomes?

Study Timeline Updates and Summary of 2022 Findings

The BEST Evaluation started in January 2020 and is scheduled to be completed in December 2027. Due to the COVID-19 pandemic that started in February/March of 2020, many of the study activities, such as sample recruitment, were delayed until 2021. Exhibit 1 provides an overview of key project milestones to date, as well as key evaluation activities planned for 2023.

Exhibit 1. Project Timeline and Key Milestones (2020-2023)

Project Start — With Approved Design Plan — January 2020

Workforce Survey Process Study — Partner Interviews and Reorganized Sample Recruitment — July – December 2020

02

Extant Data Partnerships — Baseline Trend and Conducting Comparison City Analysis; Workforce Survey 2 — July – December 2021

04

Cohort 1 Sample Recruitment Completed — Baseline Trends and Conducting Comparison City Analysis; Workforce Survey 3 — July – December 2022

06

Cohort 2 Sample Recruitment — Preparation to Recruit Next Cohort — July 2023

08

2020 Jan Apr Jul Sep 2021 Jan Apr Jul Sep 2022 Jan Apr Jul Sep 2023 Jan Apr Jul Sep

01 **Pandemic** — COVID-19 — March 2020

03 **Cohort 1 Sample Recruitment** — Began Sample Recruitment; First Family Surveys Begin — June 2021

05 **Ethnography Study Started** — Cohort 1 Sample Recruitment Completed — January – March 2022

07 **Second Family Surveys Begin** — 18-Month Follow-Up Surveys — February 2023

What We Have Accomplished

Completed **sample recruitment** of Cohort 1 children and families into the study

Completed the **first family survey**; for the Birth Cohort, 222 families completed surveys; for the Kindergarten Cohort, 255 families completed surveys

Recruited 20 families for **the ethnography study**; 106 total interviews with these 20 families have been completed

Developed data collection **instruments and training** materials

Created partnerships with Tulsa organizations and state agencies

Conducted annual workforce survey twice

Analyzed baseline trends using administrative data and conducting comparison city analysis

Conducted Listening Sessions with representatives from BEST partners

What We Have Learned

1. The Birth (Cohort 1) and Kindergarten (Cohort 1) samples are demographically different. The birth sample has a fairly equal distribution of Hispanic, White, and Black families. Hispanic families are overrepresented in the kindergarten sample. There also are differences in marital status and language spoken.

2. Nearly all families participating in the ethnography study use social services in their daily family lives. Generally, it does not take a lot of effort for families to get services.

3. While it was available, 13 of the 18 families with data in the ethnography sample used the federal child tax credit.

4. The BEST workforce sample is ethnically and racially diverse and highly educated and experienced.

5. BEST partner staff's knowledge about other service providers in Tulsa increased notably from 2020 to 2021.

6. Service referrals and the use of warm handoffs of clients to other services also increased notably from 2020 to 2021.

7. Individualized supports have been provided by BEST to partners to maximize their reach and/or effectiveness. Partners described their relationship with GKFF-BEST as highly collaborative.

⑧ Close to half of the BEST partner staff regularly communicate about shared clients, a significant increase from 2020 (from 38% in 2020 to 47% in 2021).

⑨ Baseline trend data across several indicators, including rates of abuse and neglect, preschool enrollment, and use of public assistance benefits, are comparable between Tulsa and Oklahoma City.

Section II: Process Study Key Activities and Findings

Activities of the process study address Research Question 1. This evaluation component describes how the BEST initiative engages with, supports, and interacts with the preconception-to-age-8 service infrastructure in Tulsa. It describes how the initiative continues to evolve in response to feedback from partners and stakeholders, as well as changing priorities and needs on the ground. The most important informants for the process study are the BEST partners and the George Kaiser Family Foundation (GKFF)-BEST team. The process study also is a source of formative feedback to GKFF-BEST. Key process study activities include the following:

- Organizing listening sessions with BEST partners

- Conducting interviews with BEST stakeholders

- Developing and administering an annual workforce survey and analyzing data from these surveys over time

- Developing, updating, and piloting a system assessment tool

We summarize our work for each in the subsequent sections, concluding with lessons learned and next steps for the evaluation in 2023.

Organizing Listening Sessions with BEST Partners and Interviews with BEST Community Members

We organized two rounds listening sessions and a set of interviews in 2022:

- The first round of listening sessions occurred in February 2022. Twenty-three partners were invited to participate to provide input about the BEST initiative; a total of 13 partners joined these discussions. The purpose of these all-partner listening sessions was to gather feedback from BEST partners about the current implementation status of the BEST initiative.

- Another round of listening sessions was conducted in June 2022 with leaders from the BEST Advisory Fund (BAF) organizations. All 13 of the BAF organizations were invited to participate in a listening session, and representatives from 10 organizations joined these

discussions. The listening sessions focused on the BAF application process, the impact of BAF support, successes and challenges, communication with GKFF-BEST, and other related topics.

- We conducted interviews in November and December 2022 with five members of the GKFF-BEST leadership team. The purpose of these interviews was to learn about partner-level system change efforts and identify potential partners for future listening sessions.

Findings: February Listening Sessions

The purpose of the February 2022 all-partner listening sessions was to gather feedback from BEST partners about the current implementation status of the BEST initiative. During these listening sessions, partners described their organizations' continued efforts to deliver services amidst the COVID-19 crisis. Although a few partners described a slow return to "normal" for their respective agencies, most other partners were still providing virtual services or a mix of in-person and virtual services. Partners applauded GKFF-BEST for their response to the COVID-19 pandemic, describing them as responsive, flexible, and generous.

Partners described workforce shortages resulting from the pandemic. For many partners, staff turnover is high in general, and recruiting qualified staff is a challenge. Partners described using a variety of strategies, including retention bonuses, individualized meetings with staff to provide in-person support (given the limits on larger group gatherings), and virtual wellness activities (e.g., guided meetings to focus on meditation and stretching to reduce stress), to support staff and boost morale. Staff strongly appreciated the support of GKFF-BEST regarding staffing issues. For example, GKFF-BEST convened a forum for organizations to discuss workforce issues and have supported staff bonuses.

Key Findings

1. The transition back to "normal" service delivery for BEST partners is slow as they respond to shifts in COVID-19 case rates in the community.
2. GKFF-BEST continues to provide critical support to partners, helping them respond to the COVID-19 crisis.
3. The COVID-19 pandemic continues to create significant challenges for BEST partners, particularly in regard to recruiting and retaining staff.
4. GKFF-BEST has provided a variety of individualized supports to partners to maximize their reach and/or effectiveness.
5. Most partners are expanding services, supported by GKFF-BEST and other sources.
6. GKFF-BEST continues to foster collaboration among BEST partners.
7. Partners are satisfied with communication from GKFF-BEST, particularly through their midyear and end-of-year meetings with GKFF-BEST staff.
8. Partners described their relationship with GKFF-BEST as highly collaborative.

Despite workforce shortages, at least 10 of the 13 partners who participated in the listening sessions described a recent expansion of services (or active planning to expand) by their respective organizations. In most cases, partners attributed growth to GKFF-BEST support, but a few partners described receiving grants from other sources. Partners referenced service expansion into new settings and populations, including family, friend, and neighbor providers.

> I really have been so appreciative of the way that the collaboration [with GKFF-BEST] has evolved. . . . The relationship has evolved to being more of [thought] partners and supporters instead of before where it might have felt like we're trying to figure out the dynamics of who calls the shots.
>
> *—BEST partner*

As they had in previous listening sessions, BEST partners emphasized the important role GKFF-BEST plays in connecting and supporting partners in collaborative efforts. In addition, partners characterized the level and focus of communication with GKFF-BEST as positive and appropriate, although a few partners suggested a need to continue to improve coordination between GKFF-BEST staff and GKFF program officers. These partners said they had to keep staff from both groups updated on their work separately and expressed some concern about the potential for miscommunication or misunderstanding.

In general, partners applauded GKFF-BEST staff for their collaborative approach to engagement. According to partners, GKFF-BEST is respectful of their experiences and opinions; one partner pointed out, "They're not wanting to be the big, heavy-handed [group] that kind of directs who and where we go. They really want to learn from us."

Findings: June Listening Sessions

We held three listening sessions with organizations funded by the BEST Advisory Fund (BAF), and 10 of the 13 BAF organizations participated. The BEST Advisory Group oversees the BAF, which was created in 2020 to respond to community needs, leverage emerging opportunities, and support innovative services. The BEST Advisory Group nominates organizations for funding and makes funding decisions for 1-year grants (which can be renewed). In 2022, the BAF supported 13 organizations that provide a range of services and, in some cases, provided newly formed organizations with operational funding to launch programming. Services supported by organizations receiving BAF funding include, but are not limited to, outreach to communities to facilitate service access; immunizations and preventative health, dental, and vision screenings; art education; behavior and academic intervention programming; supports to men in their role as fathers; nutrition services; and afterschool programming.

Key Findings

1. The BAF funding application is simple and straightforward.
2. Organization leaders have a general understanding of the BAF.
3. The BAF has provided critical seed funding to many organizations.
4. The BAF has facilitated outreach and support to underserved communities.
5. GKFF-BEST fosters collaboration between BAF organizations and other partners in the community.
6. GKFF-BEST has articulated clear expectations for the BAF grant through a collaborative, relationship-based approach.
7. GKFF-BEST is strengthening the data capacity of many BAF organizations.

The BAF organizational leaders discussed the impact of receiving funding from the BAF grant program. One of the two most common comments (noted by six of the 10 BAF leaders) was the importance of the BAF in providing core funding to help formally launch organizations or specific programming. Several BAF leaders said they felt validated by the funding and the importance of their work in the community. When asked if the BAF grant had created any unexpected challenges for them, such as blunting interest or support from other funding partners, their answer was a strong "no." In contrast, several BAF leaders emphasized that GKFF-BEST funding has strengthened their reputation in the eyes of other funding partners and has opened the door to discussions and interest from donors.

> [The BAF has] made all the difference because a lot of times in the funding world and in the nonprofit space, . . . it's hard sometimes to get that first "yes" . . . for somebody to believe in your mission and vision and take a chance on what you foresee and how you impact the community. . . . So it made all the difference and gave us the start that we needed.
>
> *—BAF leader*

Many BAF leaders emphasized that the grant, in addition to providing core funding, has helped them engage and serve underserved children or families in Tulsa (seven of the BAF leaders focused their comments in this area). According to BAF leaders, the grants are being used to offer new services and supports to clients, expand their client base, facilitate referrals for families to services, and enhance adult-focused services to include resources for children. Several organization leaders talked specifically about how the BAF grant is supporting outreach to improve engagement with communities with limited or low access to important services—work that can be difficult to fund.

Many of the BAF leaders (noted by eight of the 10 organization leaders) emphasized that GKFF-BEST has played an important role in connecting them to other organizations in the community. BAF leaders discussed the value of linking with other agencies to understand how they could use their services to bolster their programming, as well as raise awareness about their own organizations. GKFF-BEST's support in fostering networks among service providers appeared to be particularly important for those organizations that are small or newly formed, according to several leaders.

According to BAF leaders, GKFF-BEST staff have been flexible and willing to problem solve and plan with them, particularly during the context of the COVID-19 pandemic. When asked if and how the BAF funding approach differed from other funding experiences, BAF leaders reiterated the value of GKFF-BEST's focus on partnership and collaboration.

Findings: GKFF BEST Leadership Staff Interviews

AIR also conducted interviews with BEST leadership staff in the fall of 2022. These interviews were designed to gather feedback from those staff regarding efforts among BEST partners to improve child- and family-serving systems. The purpose of these discussions was to better understand system-change efforts among partners and solicit recommendations for specific partners to invite to subsequent follow-up interviews or listening sessions. We gathered feedback about partners' efforts to enroll eligible individuals into public benefits, strengthen the early childhood education workforce pipeline, strengthen partnerships between early childhood education and Tulsa Public Schools and support children's entries into kindergarten, and improve referral processes between agencies, among other topics. The GKFF-BEST interviews were completed in October 2022. The next step will be to work with the GKFF-BEST team to finalize the selection of one to three topic areas of interest to the study and conduct interviews with relevant partners to explore their work in these areas. Outreach for these partner interviews will begin in 2023.

Lessons Learned and Next Steps

The 2022 partner listening sessions and BEST leadership staff interviews generated rich information from partners, ranging from organizations that have been involved in the initiative from its early stages to those that are new to BEST, including the BAF organizations. We have learned that alternating all-partner listening sessions, in which we invite all partners to provide input about a range of topics, with more focused discussions with selected partners is effective. This approach helps us track the experiences of BEST partners across the board, as well as dive deeply into emerging issues. In 2023, AIR will continue to work with GKFF-BEST to identify key areas of interest to explore through the process study to support continuous improvement of the initiative.

BEST Partner Workforce Survey

The purpose of the BEST partner workforce survey is to gather information from staff at BEST partner organizations about a range of topics, including staff knowledge of BEST partner services, referral practices, service access barriers and facilitators, communication and coordination among service providers, the role of families in BEST partner agencies, staff professional development needs, and staff perceptions regarding racial equity issues. We conducted the first survey in 2020. The survey was repeated in 2021 and 2022, with only a few year-over-year changes (e.g., dropping a small number of open-ended items because they did not yield useful data).

The 2022 survey also includes a small number of new items for *two-time repeat responders*— those individuals who participated in the survey in 2020, 2021, and 2022. This group represents the most experienced frontline staff in the survey sample. These repeat respondents form a Tulsa early childhood workforce panel for the BEST initiative, whose perspectives will help us capture BEST's impact at the institutional and workforce levels. In the 2022 survey, we posed a set of big-picture questions for this group, including the extent to which they believe conditions for children and families in Tulsa are improving. Findings from the 2022 workforce survey will be available in early 2023. We will continue to repeat the survey annually until the end of the evaluation.

### *Analysis and Findings From the 2021 Workforce Survey*

In 2021, the annual survey was sent to 348 BEST frontline staff and their managers within 26 BEST partner organizations. The survey response rate was 72% (n = 250). More than half of these respondents completed the survey in both 2020 and 2021; 133 respondents (53%) to the 2021 survey were repeat responders.

Highlights from the 2021 workforce survey findings include the following:

- **Staff knowledge of the BEST initiative increased from 2020 to 2021.** Eighty percent of respondents reported that they had heard of the BEST initiative, a significant increase from the percentage in 2020 (63%).

- **Staff knowledge of individual BEST partners increased from 2020 to 2021.** Knowledge of BEST partners increased across the board. Staff were especially more likely to be knowledgeable about CAP Tulsa (a 14-percentage-point increase from 2020 to 2021); Educare (15% increase); and the Women, Infants and Children program (16% increase). Similarly, staff reported an increased level of knowledge of other services in the community, such as SoonerCare and the Supplemental Nutrition Assistance Program (SNAP).

- **Staff are making more referrals.** Compared with 2020, the percentage of staff who reported making referrals increased between 3 percentage points and 10 percentage points across all

service sectors (see Exhibit 2). Reported referrals to health services and family support services increased by 10% each, followed by job assistance (9%), mental health (8%), domestic violence (8%), nutrition (8%), and legal supports (8%).

Exhibit 2. Percentage of Staff Making Referrals, by Service Sector and Year
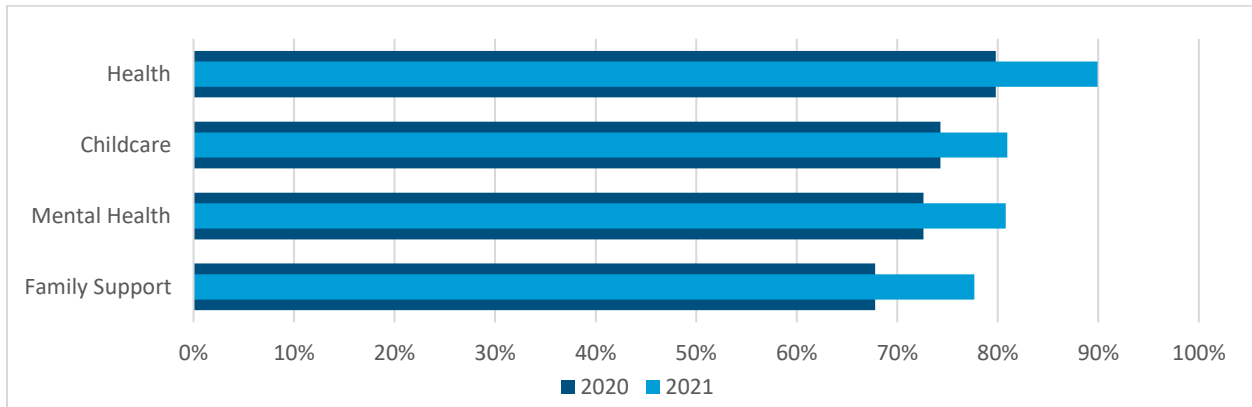
- **More staff use warm handoffs and are doing so more frequently.** Compared with 2020, there was a 5-percentage-point increase in staff who reported helping clients contact providers directly (from 53% in 2020 to 58% in 2021). In addition, staff who use warm handoffs are doing so more frequently. Although these findings likely reflect improvements in the referral systems and practices for these important services, they also may reflect a greater need for these services due to the COVID-19 pandemic.

- **Staff reported that the most difficult sectors for clients to access are housing assistance, legal services, and mental health services for adults.** Staff mentioned challenges in each of these sectors more frequently in 2021 than in 2020, as opposed to childcare, which was mentioned less often. However, survey responses indicate that barriers to service access, overall, have not changed. Like the previous year (2020), the most common challenges for clients identified by staff include a lack of transportation, a lack of childcare, long wait times for services, client concerns about their immigration status, and clients' lack of knowledge about available services.

- **More than half of the BEST partner staff in different programs communicate regularly about shared clients, an increase from 2020.** In addition to more cross-agency communication, the proportion of staff reporting satisfaction with communication with staff in other organizations increased by 9 percentage points compared with 2020 (from 38% in 2020 to 47% in 2021). A lack of permission to discuss clients with other organizations is still the most common barrier to coordination, but this challenge seems to be improving. In 2020, 43% of survey respondents identified this as a challenge, compared with 21% in 2021.

- **Engaging families in decision making and leadership roles continues to be a challenge for some BEST partners.** Rates of family engagement remained fairly constant from 2020 to 2021—

a finding that may not be surprising as the pandemic continued to impact the service delivery system for a second year. In 2021, most staff (64%) reported that it was "completely true" that the opinions of families are heard regardless of their race, culture, or language spoken. However, fewer staff (42%) indicated that it was "completely true" that staff regularly try to get ideas from families on how to improve services. Fewer staff also mentioned that opportunities exist for family members to serve in leadership roles (25%) or that families are included in decision-making meetings about improving services (24%).

- **Staff continue to report strong levels of satisfaction with their jobs.** As in 2020, most staff reported that their work makes a meaningful contribution, they have the support and resources they need from their respective workplaces, and it would take a lot for them to leave their jobs. Yet, at the same time, slightly more than half of the respondents indicated that their job was very stressful.

- **Slightly more than half of the respondents reported that they talk with their adult clients about challenges or advantages they may face because of their race or ethnicity.** Staff also described how frequently their adult clients told them that their race/ethnicity was the reason they faced various challenges in their lives. The most common of these challenges (rated as a challenge occasionally or a great deal) was receiving poor- or low-quality services, followed by experiencing challenges in their job and being stopped by the police or another official. These responses changed little compared with the 2020 survey. Staff suggested a need for more training related to racial equity issues, support for increased public dialogue, and general investment in underserved communities.

Update on the 2022 Workforce Survey

AIR launched the third BEST workforce survey on November 14, 2022, and will keep it open until early January 2023. The survey was administered to a total of 407 frontline staff and their managers within 40 BEST partner organizations (only BEST partners that directly deliver services to children, parents, or other adults are included in these surveys). As of this writing, the overall response rate for the 2022 survey is 50% (*N* = 202).[4] As of this writing, 45% of the 2022 respondents are repeat respondents, meaning they also completed the survey in 2020 and/or 2021, and 55% are new respondents, meaning they never completed a survey in a previous year or they began working in a BEST partner organization in 2022.

Lessons Learned and Next Steps for the Workforce Survey

To minimize burden on repeat respondents and produce more insightful survey data, AIR programmed the 2022 workforce survey to incorporate responses from the 2021 survey. In

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[4] The overall survey response rate is 50% as of December 19, 2022. The survey will be kept open until early January 2023 to reach a higher response rate. For context, the 2020 survey response rate was 67% (*N* = 206), and the 2021 survey response rate was 70% (*N* = 250).

other words, a repeat respondent (a staff member who completed the survey in 2021) is given differently worded questions in the 2022 survey and is asked to comment on changes to their 2021 responses instead of answering the previous year's questions again. Although this approach reduces the length of the survey for repeat respondents and will likely produce more interesting responses, the programming was more complex.

In addition, we continue to recognize the importance of our relationships with partner leads. These leads play a critical role in encouraging their staff to complete the survey. In 2022, we provided each participating partner lead with the survey response rate for their organization during its administration, as well as e-mail language they could adapt as needed and share with their staff to encourage their participation in the survey.

AIR will present the 2022 workforce survey findings early in 2023, and planning for the next workforce survey will begin in late spring of 2023.

System Assessment Tool

To help the GKFF-BEST team track the progress of BEST over time for continuous improvement purposes, AIR developed a system assessment tool. This tool will provide a mechanism to document BEST's progress in creating a network of coordinated agencies working together to promote positive outcomes for children and families in Tulsa. To use the tool, GKFF-BEST and AIR assign ratings to a set of indicators. First, each team will assign a rating to each indicator independently, and then the teams will come together to review and finalize the ratings, as described in more detail in the paragraphs that follow. The tool is intended to be flexible and will evolve to reflect changes in the BEST initiative over time.

The system assessment tool is organized around four related domains (detailed in Exhibit 3). The domains—Components, Infrastructure, Coordination, and Context—were selected based on (a) a review of the research on systems change initiatives and (b) existing rubrics and assessment tools used in early childhood efforts similar to BEST. Racial equity topics are woven throughout each of these components; together, the four domains and the interwoven aspects of racial equity contribute to a well-functioning early childhood system. In other words, these domains and racial equity topics represent the broad strategy to improve the service infrastructure and outcomes for children. It is important to note that BEST may not address all four components or may not address them all at the same time or with equal measure or success.

Exhibit 3. BEST Draft System Assessment Tool: System Domains

Components	Infrastructure	Coordination	Context
BEST helps young children and families access high-quality services that meet their needs and preferences.	BEST includes structures and supports to enhance the capacity of partners to provide high-quality services to young children and families.	BEST includes structures and supports that promote collaboration among system partners to provide high-quality services to young children and families.	BEST takes actions to improve the political context that surrounds it to create policy and funding changes to improve conditions for young children and families.
Equity: BEST promotes equity and antiracism in Tulsa's child- and family-serving systems.			

In the tool, each of the four domains is broken down into a set of constructs. For example, the Components domain includes three draft *constructs*:

1. **Service Reach.** BEST offers new and expanded services to help reach the initiative's annual and overall goals related to increasing healthy births, promoting a positive trajectory by age 3, ensuring kindergarten readiness, and achieving success by third grade.

2. **Service Access.** With reasonable effort, families, especially those most in need, can access free or low-cost services that they need and want.

3. **Service Fit.** BEST partners offer culturally and linguistically responsive services that are designed to address the needs and preferences of all families.

For each construct, the tool includes a set of sample *indicators* and *data sources* that could be used to rate progress. A general rating scale (e.g., from 0 [not developed/not met] to 3 [well developed/advanced]) can be used to rate each indicator and provide a snapshot of where the initiative stands from a big-picture perspective.

In 2022, AIR and GKFF-BEST reviewed and discussed the development and use of the tool, including the findings from AIR's pilot test of one of the domains of the tool: Coordination. To test the tool, AIR reviewed each indicator in the Coordination domain, noting if data are available (or not available) to assign a rating. Because of the scope of the tool, we found that more than half of the indicators in the Coordination domain rely entirely or partly on data and other information maintained by the GKFF-BEST team. Ratings for other indicators can draw on findings from the process study listening sessions and workforce survey or, in the future, from other components of the BEST Study. In a meeting with the GKFF-BEST leadership team, AIR provided an overview of the pilot test, including the questions that the process raised (e.g., Is the rating scale appropriate? Are there topics or areas that are missing from the tool?).

Lessons Learned and Next Steps

The system assessment tool is intended to be comprehensive to reflect the complexity of the BEST initiative as well as broader systems change efforts in support of young children and families. As such, the tool includes indicators of progress that fall within BEST's sphere of influence, as well as factors beyond the immediate scope of BEST. In this way, the tool can be used to document where and how BEST is (and is not) placing its attention and resources and what else may be needed.

In terms of next steps, in 2023 GKFF-BEST will conduct their own pilot test of the tool (or domains of the tool, such as the Coordination domain) independently, assigning ratings where they each have access to relevant data. Next, the AIR and GKFF-BEST teams will meet to jointly discuss and share their ratings and respective rationale, with the goal of coming to consensus about the rating. The value of the tool may come from these discussions—rather than the specific ratings—to improve AIR's understanding of the BEST initiative, provide context for future findings from the outcome/impact study component, and support GKFF-BEST's internal planning efforts for the initiative.

Section III: Outcome/Impact Study Key Activities and Findings

The outcome/impact study activities address Research Questions 2, 3, and 4 (see pp. 2–4). A multicohort study design will be used to estimate the impact of the BEST initiative on families and children. AIR will collect relevant outcome data directly from parents and children through representative surveys. Eventually, the survey sample will include two Birth Cohorts and two Kindergarten Cohorts, with surveys conducted about 1 month, 18 months, and 30 months after recruitment. The differences in the outcomes and experiences between the two sets of cohorts are a primary source of inference about the efficacy of the BEST initiative. The key activities for the outcome/impact study in 2022 included the following:

- Completing sample recruitment

- Developing the 18-month measures and survey protocols

- Collecting primary data for the 1-month survey

- Continuing extant data collection and analysis

We summarize our work for each activity in the subsequent sections, concluding with lessons learned and next steps for 2023.

Sample Recruitment

We planned to recruit 630 children and their families from each of two Birth Cohorts (total of 1,260 children and their families for the combined cohorts) and a sample of 550 children and their families from each of two Kindergarten Cohorts (total of 1,100 children and their families for the combined cohorts). The sampling frame included representative samples of English-speaking and Spanish-speaking mothers who are residents of Tulsa, whose babies are born in Tulsa city hospitals (Birth Cohorts) or whose children enter Tulsa Public Schools (Kindergarten Cohorts). The COVID-19 pandemic upended our recruitment efforts for the first Birth and Kindergarten Cohorts, first by postponing recruitment start from 2020 to 2021 and then by curtailing our recruitment activities in 2021. As a result, the first Birth and Kindergarten Cohorts are smaller than anticipated and are not as representative of the full population of Tulsa as originally planned.

Recruitment of the first cohort of children and families into the outcome/impact study concluded in June 2022. The final sample included 253 families in the Kindergarten Cohort and 298 families in the Birth Cohort. Exhibit 4 summarizes recruitment and 1-month survey completion rates.

Exhibit 4. Recruitment Update and Strategies

	Recruitment numbers and 1-month survey
Birth Cohort 1	At the conclusion of data collection for the 1-month survey in September 2022: 253 families consented to participate in the study. 10 families consented but later refused to participate. 222 families completed the 1-month survey.
Kindergarten Cohort 1	At the conclusion of data collection for the 1-month survey in September 2022: 298 families agreed to participate in the study and are ready to be surveyed. 10 families consented but later refused to participate. 255 families completed the 1-month survey.

Primary Data Collection: Initial 1-Month Survey

There will be three rounds of data collection for each of the Birth and Kindergarten Cohorts. We will survey each cohort at 1–2 months, 18–20 months, and 29–31 months after recruitment. The goal of the initial 1-month follow-up is to gather demographic background information about the study sample. We completed data collection by phone for the 1-month survey for the first Birth and Kindergarten Cohorts in September 2022.

We conducted routine quality checks on the data collected from the 1-month surveys. These quality checks included monitoring patterns in item-level missing data and creating composite

variables for analysis. Upon completion of data collection, AIR developed a coding scheme to analyze the open-ended survey responses from both cohorts' surveys.

Birth Cohort 1 Sample

The Birth Cohort 1 and Kindergarten Cohort 1 samples are demographically different (see Exhibits 5 and 6). The birth sample has a fairly equal distribution of Hispanic, White, and multi-race children. Hispanic families are overrepresented in the kindergarten sample. There are also differences in household composition and mother's primary language. Other key findings for the Birth Cohort 1 sample include the following:

- 83% of families are in two-parent or cohabiting households.

- 17% of mothers speak Spanish as their primary language.

- 15 years is the average number of years the mother has lived in Tulsa.

- 1.3 is the average number of other children in the household (range 0–5).

- 26% of mothers are worried about their baby's overall health.

Exhibit 5. Birth Cohort 1 Demographics


N = 217
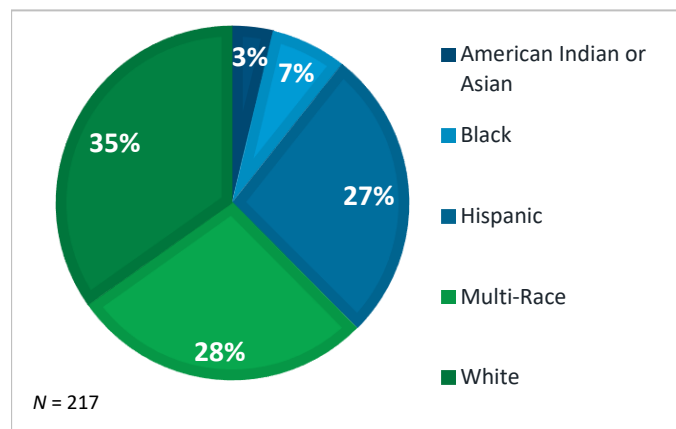
Kindergarten Cohort 1 Sample

Key descriptive findings for the Kindergarten Cohort 1 sample include the following:

- 55% of families are Hispanic.

- 68% of families are in two-parent or cohabiting households.

- 47% of mothers speak Spanish as their primary language.

- 17 years is the average number of years the mother has lived in Tulsa.

Exhibit 6. Kindergarten Cohort 1 Demographics

N = 254

- 1.9 is the average number of other children in the household (range 0–7).

- 59% of children attended a prekindergarten program the year before kindergarten.
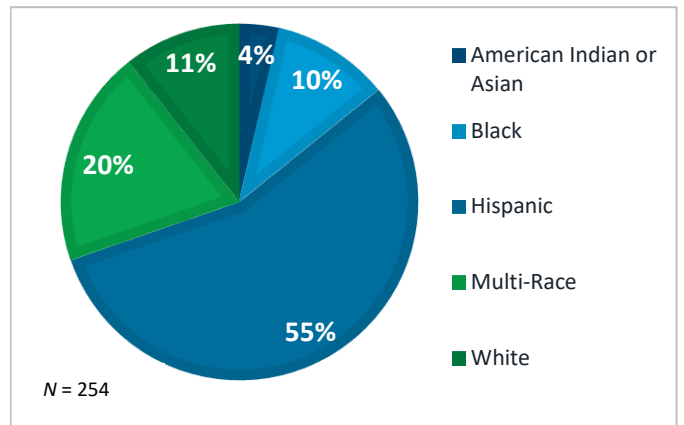
Developing Measures and Survey Protocols

Data Collection Protocols and Procedures

After our TWG members, GKFF staff, and the study leadership team reviewed the 18-month parent surveys, we finalized and programmed the surveys for use in a pilot test in early December 2022. The goal of the pilot test is to check the feasibility of the survey in terms of its overall length and item clarity and to make sure there are no errors. The 18-month parent surveys will gather data on the following key constructs: service use and access; parent perspectives on racism, child health, and well-being; child development; parent health and well-being; parenting and protective factors; home environment; family and household characteristics; and childcare. These constructs represent child and family outcomes, as well as targeted protective factors that BEST aims to improve during implementation of the initiative.

AIR and Decision Information Resources, Inc. (DIR) received training on the Brigance Early Childhood Screen III for the Birth Cohort, and AIR conducted additional training sessions on the Brigance and the Parenting Interactions with Children Checklist of Observations Linked to Outcomes (PICCOLO) with DIR staff ahead of the pilot test. DIR conducted additional training on the parent interview with data collectors for the pilot data collection. Pilot data collection occurred in December. Data collector training for the birth cohort home visit will occur in early February 2023. The 18-month birth cohort data collection will begin in February.

We also finalized and programmed the first-grade teacher survey of participating Kindergarten Cohort children's social-emotional and early learning skills. We pilot tested the first-grade teacher survey protocol in December. After the pilot test, AIR reviewed the pilot data and revised the surveys and our procedures. Data collector training for the Kindergarten Cohort's telephone survey is scheduled to occur in January 2023. The 18-month Kindergarten Cohort data collection, including the parent telephone survey and the first-grade teacher survey of participating Kindergarten Cohort children, will begin in February.

Next Steps for Sample Recruitment and Data Collection

It was a good decision to postpone Cohort 1 recruitment and initial data collection until after the worst of the COVID-19 pandemic had passed. Aside from the logistical difficulties and the burden of data collection on partners and families, starting the Cohort 1 survey during the pandemic would have resulted in significant history bias for the impact analyses, which postponing helped to avoid. However, the continuing recruitment challenges have compromised the Cohort 1 data collection. First, there will be a significantly smaller sample of families from Cohort 1 for the impact analyses, resulting in a reduction in statistical power to detect effects of the BEST initiative. Second, both the birth and the kindergarten samples are less representative of the Tulsa population than originally intended because (a) we recruited

the sample from a less representative sampling frame, and (b) families who opted to participate are a more self-selected subsample of this sampling frame. Despite these challenges and consequences, we can still meet the outcome/impact study's analytical objectives going forward with careful planning, which will include a very strong recruitment effort for Cohort 2 and strategies to statistically address potential nonresponse bias and/or unobserved sample heterogeneity. The three other components of the BEST Study can help make up for possible data limitations associated with the survey and Cohort 1 sample size limitations, especially the use of extant data.

Extant Data Collection and Analysis

During the past year, we have maintained and established new relationships with local- and state-level organizations and agencies that can provide data to inform the study's research questions. The support from these partners has been critical to early-stage analyses for the evaluation because the administrative data they have provided enable us to understand baseline citywide trends in Tulsa, as well as to document inequalities and disparities in the city prior to the launch of the BEST initiative. For this report, we analyzed administrative data provided by the Oklahoma Department of Human Services (OKDHS) and data publicly available through the American Community Survey (ACS). We are also processing data-sharing agreements with many other agencies, including the Oklahoma State Department of Health, the Oklahoma Health Care Authority, Tulsa Public Schools, and the Oklahoma State Department of Education, to obtain data on trends in outcomes such as childhood immunizations, access to medical care, and early education outcomes.

In this section, we present baseline trends in indicators of family well-being in Tulsa, as well as in Oklahoma City as a comparison city.[5] In future reports, we will compare changes in trends for Tulsa following the launch of the BEST initiative to changes in trends for comparison cities, such as Oklahoma City. This is known as a comparative interrupted times series (CITS) design, and analyses will account for observable differences between the cities (e.g., differences in overall poverty rates). Before analyzing data for years after the start of BEST, we have been examining baseline trends for several health, education, and family well-being indicators to understand how well Tulsa children and families were doing prior to the launch of BEST and the extent of racial/ethnic, economic, and geographic disparities.

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[5] Analyses conducted correspond to city boundaries for Tulsa and Oklahoma City. Our approach to defining city boundaries is consistent with the Oklahoma City-County Health Department (see D'Souza, Bos, and Howard, 2022 "BEST Study Geographies Memo" for more information). One of the main challenges in defining geographies concerns zip codes that straddle borders and whose population represent a relatively small share of the city or county population. We excluded zip codes that straddle borders with less than 3% of the city population from analyses.

The baseline analyses in this report focus on public assistance benefit receipt. We present analyses that examine the following:

- Supplemental Nutrition Assistance Program (SNAP) benefits receipt

- Child Care Subsidy program participation

- Low-Income Home Energy Assistance Program benefits receipt

We calculated the rate of receipt of each of these benefits by dividing the number of households receiving the benefit by the estimated number of eligible households, determined through analysis of ACS data.

We present rates of receipt for public assistance benefits for Tulsa and Oklahoma City at the city level and maps of Tulsa to show variation in rates of benefit receipt by neighborhood. Appendix A provides technical notes and additional information about the data indicators included in this year's report. Appendix B presents graphs that disaggregate rates of receipt by neighborhood characteristics.

Initial Extant Data Analysis Findings

Baseline Trends Over Time in Public Assistance Benefits

Estimated SNAP receipt among eligible households with children declined in both Tulsa and Oklahoma City during the period 2015–20 (see Exhibit 7). This decline is consistent with reported nationwide trends and attributed to improvements in economic conditions throughout the period.[6] Estimated SNAP receipt was higher in Tulsa than in Oklahoma City, but by 2020 this difference was only 2 percentage points. These unused SNAP benefits represent an important lost opportunity for families in both cities.

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[6] Rosenbaum, D., & Keith-Jennings, B. (2019). *SNAP caseload and spending declines have accelerated in recent years*. Center on Budget and Policy Priorities. https://www.cbpp.org/research/food-assistance/snap-caseload-and-spending-declines-have-accelerated-in-recent-years

Exhibit 7. Approximate SNAP Benefit Receipt Rates Among Eligible Households With Children in Tulsa and Oklahoma City, 2015–20
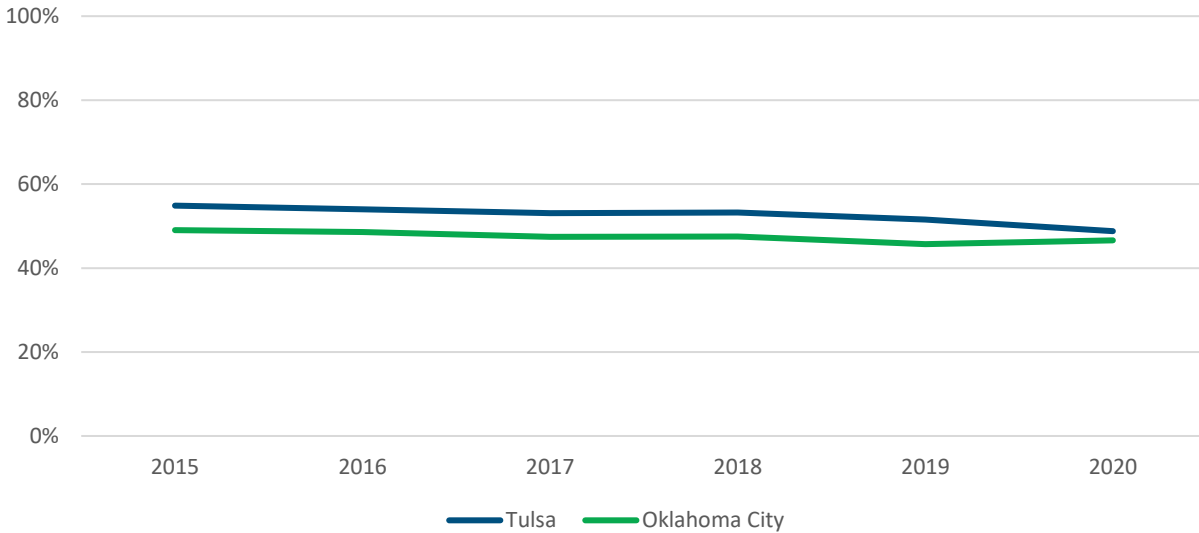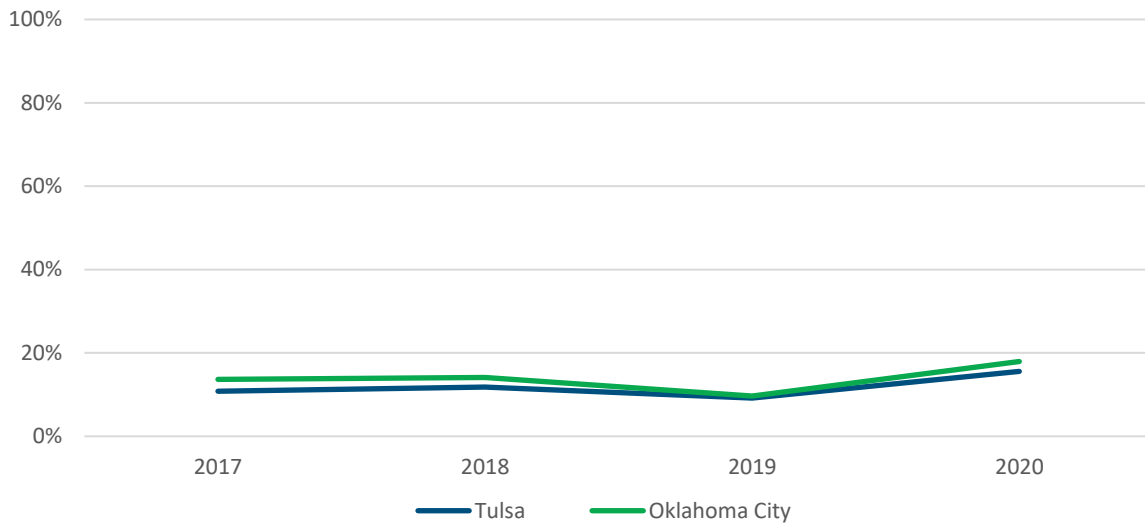

Source: ACS data

Note. Rate of SNAP benefit was calculated as follows: (Number of households receiving SNAP benefits / Number of households below 100% Federal Poverty Line) x 100.

Although childcare subsidy receipt dipped in 2019, receipt rates were otherwise increasing annually from 2017 to 2020, for a total of a 4-percentage-point increase in Tulsa during the period. A higher percentage of eligible families in Oklahoma City used these childcare subsidies than did eligible families in Tulsa (see Exhibit 8). For context, a report by the U.S. Government Accountability Office indicates that rates of childcare subsidy receipt across states ranged from 5% to 32% of eligible children, varying, in part, due to state requirements.[7] Childcare subsidy usage is often related to factors such as access and transportation. Tulsa County is one of 34 counties in Oklahoma considered a childcare desert.[8] In response to these challenges, OKDHS has launched a new start-up grant program to address childcare shortages across the state.

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[7] U.S. Government Accountability Office. (2021, February 18). *Child care: Subsidy eligibility and receipt, and wait lists*. https://www.gao.gov/products/gao-21-245r#:~:text=Under%20federal%20requirements%2C%20the%20CCDF,percent%20of%20federally%20eligible%20children.
[8] Oklahoma Department of Human Services. (2022, September 13). *Expanding the business community and growing capacity: Oklahoma Human Services announces Child Care Desert Startup Grants*. https://oklahoma.gov/okdhs/newsroom/2022/september/comm09132022.html#:~:text=Child%20care%20deserts%20are%20defined,located%20in%20child%20care%20deserts.

Exhibit 8. Approximate Childcare Subsidy Receipt Rates Among Eligible Households With Children in Tulsa and Oklahoma City, 2017–20

Source: OKDHS public assistance data and ACS data

Note. Rate of childcare subsidy receipt was calculated as follows: (Number of households receiving childcare subsidy / Number of households below 200% Federal Poverty Line) x 100.

Trends across three types of energy assistance—cooling, heating, and Energy Crisis Assistance Program (ECAP)—are not uniform. It is important to note that the administrative systems tracking energy benefits in Oklahoma present challenges for the use of these data for research purposes. These challenges include duplicate records caused by changes in payments made to utility vendors, as well as inconsistent IDs used across records. As a result, variability in trends may reflect data issues rather than actual changes in benefit use. Local reporting on ECAP benefits suggests that the volume of applications also fluctuates year to year based on the weather.[9] In addition, although households receiving public assistance through OKDHS are supposed to be automatically authorized for energy assistance, limited statewide funds appropriated for each program may affect whether benefits are available and received.[10]

The trend for cooling benefits was stable from 2015 to 2019, but a much larger percentage of eligible families received the benefit in 2020, consistent with increased federal funding for the Low Income Home Energy Assistance Program (LIHEAP) due to the pandemic (Exhibit 9). We observed greatest year-to-year fluctuations in receipt of the heating benefit (Exhibit 10), and the trend for receipt of the ECAP benefit (Exhibit 11), which helps with households with a

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[9] Muskogee Phoenix (2012). "Energy assistance available". https://www.muskogeephoenix.com/archives/energy-assistance-available/article_e7ab4e07-f180-562c-990f-c6e9dd75e6b8.html

[10] Wagoner County American-Tribune (2020, August 31). "Apply for help with winter heating costs." https://tulsaworld.com/community/wagoner/news/apply-for-help-with-winter-heating-costs/article_aa8bd6a5-2a6f-5f40-b872-891c7dc08a59.html

verifiable crisis, including loss of heating or cooling, remained relatively flat across the time period.

For context, these three benefits—cooling, heating, and ECAP—are federally funded through LIHEAP and are thus dependent on the availability of federal funding.[11] Funding for LIHEAP declined from 2009 to 2019.[12] By 2019 the percentage of eligible households served hovered about 15% nationally, with wide variation by state (e.g., for southeast states, ranging from 6% in Florida to 22% in Arkansas).[13] Appropriations for LIHEAP increased during the pandemic from Fiscal Year 2020 onward.[14, 15] In 2022, the American Rescue Plan and the Infrastructure Investment and Jobs Act significantly increased LIHEAP funding.[16] In response to the COVID-19 pandemic, OKDHS also loosened eligibility requirements for ECAP.[17]

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[11] Oklahoma Welcome. (2020, November 17). *OKDHS invites public comment on Low Income Home Energy Assistance Program*. https://okwnews.com/news/whatzup/state/okdhs-invites-public-comment-on-low-income-home-energy-assistance-program

[12] Brown, M. (2019). Using pay for success to address appropriations gaps. https://pfs.urban.org/pay-success/pfs-perspectives/using-pay-success-address-appropriations-gaps

[13] Duke Nicholas Institute for Environmental Policy Solutions. (2021, April). *How a decades-old federal energy assistance program functions in practice: A deep dive into LIHEAP*. https://nicholasinstitute.duke.edu/sites/default/files/publications/How-a-Decades-Old-Federal-Energy-Assistance-Program-Functions-in-Practice-A-Deep-Dive-into-LIHEAP.pdf

[14] American Public Power Association. (2021, March 15). *New $1.9 trillion COVID relief plan includes additional $4.5 billion for LIHEAP*. https://www.publicpower.org/periodical/article/new-19-trillion-covid-relief-plan-includes-additional-45-billion-liheap;

[15] Michigan Department of Health and Human Services. (2020, May 18). *Michigan receives additional $35.1 million to help struggling households pay energy costs*. https://www.michigan.gov/coronavirus/news/2020/05/18/michigan-receives-additional-35-1-million-to-help-struggling-households-pay-energy-costs

[16] The White House. (2022, April 21). *FACT SHEET: White House announces additional $385 million to lower home energy bills for American families*. https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/21/fact-sheet-white-house-announces-additional-385-million-to-lower-home-energy-bills-for-american-families/

[17] Oklahoma Department of Human Services. (2020, April 21). *Energy Crisis Assistance maximum benefit funds available*. https://oklahoma.gov/okdhs/newsroom/2020/april/comm04212020.html
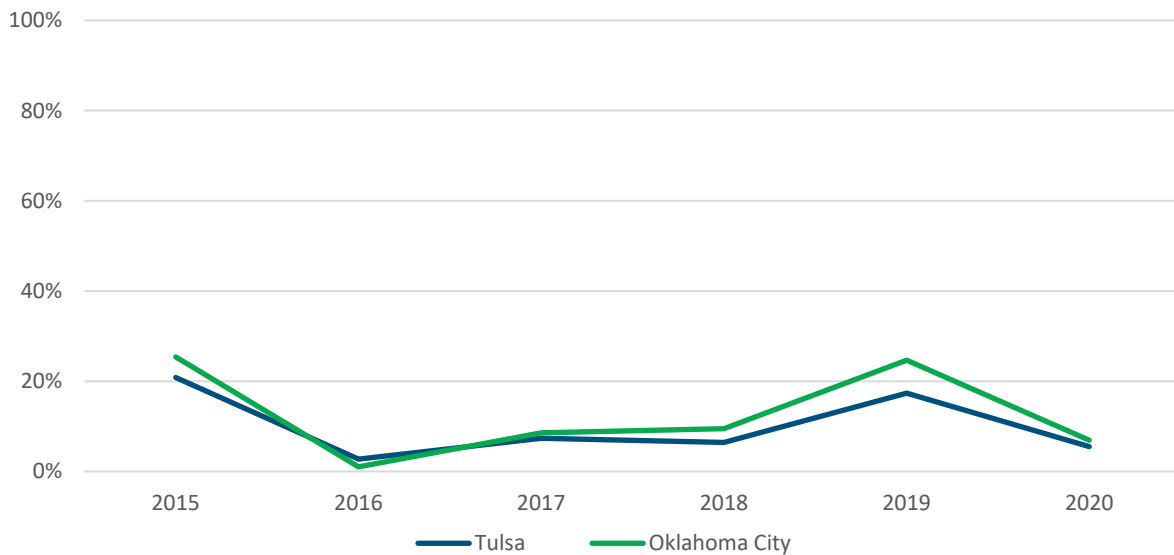
Exhibit 9. Approximate Cooling Benefit Receipt Rates Among Eligible Households With Children in Tulsa and Oklahoma City, 2015–20
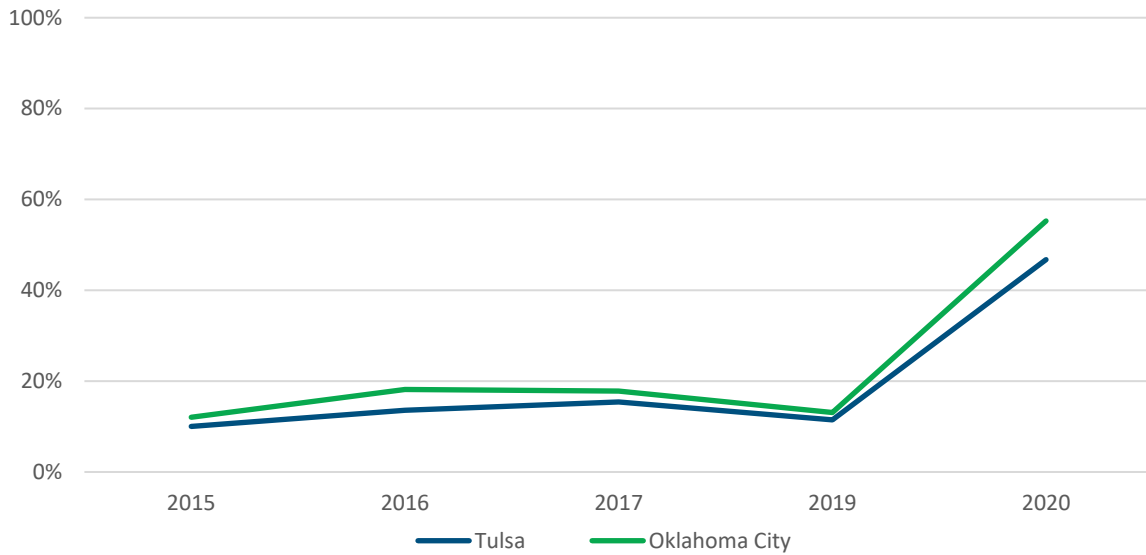
Source: OKDHS public assistance data and ACS data
Note. Rate of cooling benefit receipt was calculated as follows: (Number of households receiving cooling benefits / Number of households with children below 130% Federal Poverty Line) x 100.
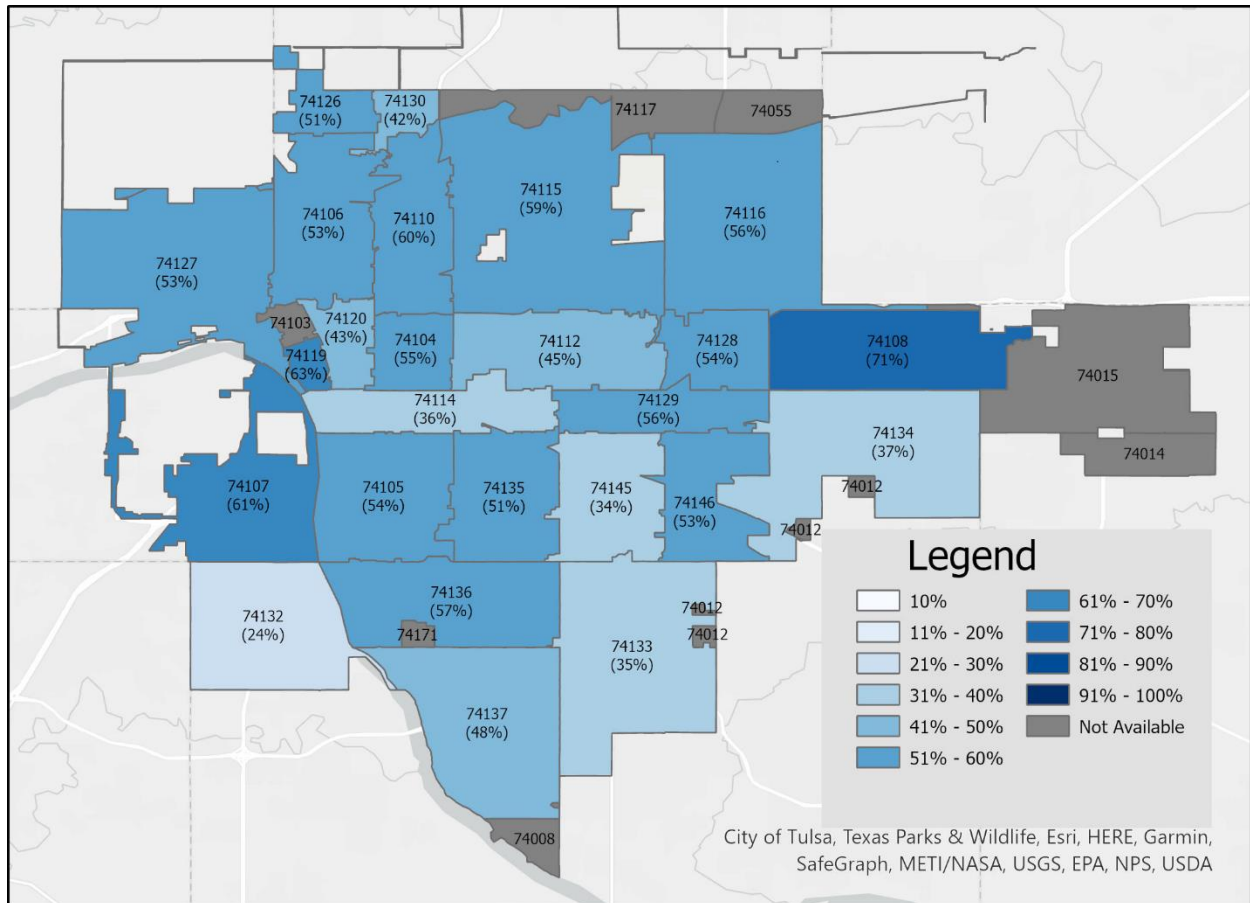
Exhibit 10. Approximate Heating Benefit Receipt Rates Among Eligible Households With Children in Tulsa and Oklahoma City, 2015–20

Source: OKDHS public assistance data and ACS data
Note. Rate of heating benefit receipt was calculated as follows: (Number of households receiving heating benefits / Number of households with children below 130% Federal Poverty Line) x 100.

Exhibit 11. Approximate ECAP Benefit Receipt Rates Among Eligible Households With Children in Tulsa and Oklahoma City, 2015–20
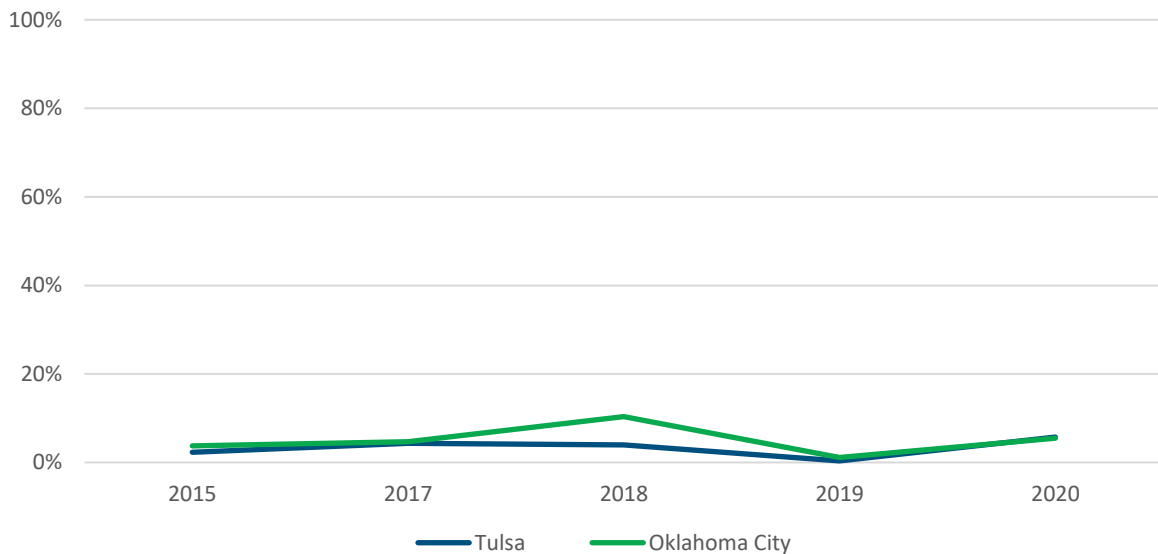
Source: OKDHS public assistance data and ACS data

Note. Rate of cooling benefit receipt was calculated as follows: (Number of households receiving cooling benefits / Number of households with children below 130% Federal Poverty Line) x 100.

Geographic Variation in Public Assistance Receipt, by Tulsa Neighborhood

We examined how receipt of these three benefits varies across Tulsa ZIP codes, given we know variation can be correlated with race/ethnicity and income. Neighborhoods reflect historical manifestations of systemic racism (e.g., redlining) and subsequent segregation by race and class. Hence, neighborhood boundaries are useful delimiters for understanding the extent of disparities in the city that BEST is attempting to address. In Exhibits 12–16, we present maps that show rates in benefit receipt in 2020, the latest year of data available, by Tulsa neighborhood.

Wide variation exists across neighborhoods in rates of benefits among eligible households. This variation is concerning because it means that eligible households in certain neighborhoods are not well served with information and connections to those benefits. Conversely, ZIP code 74106 in Northwest Tulsa stands out as having some success in connecting more eligible families to multiple benefits—rates of receipt there are consistently higher than in other neighborhoods. In contrast, eligible families in more economically advantaged areas of Tulsa have lower take-up rates.
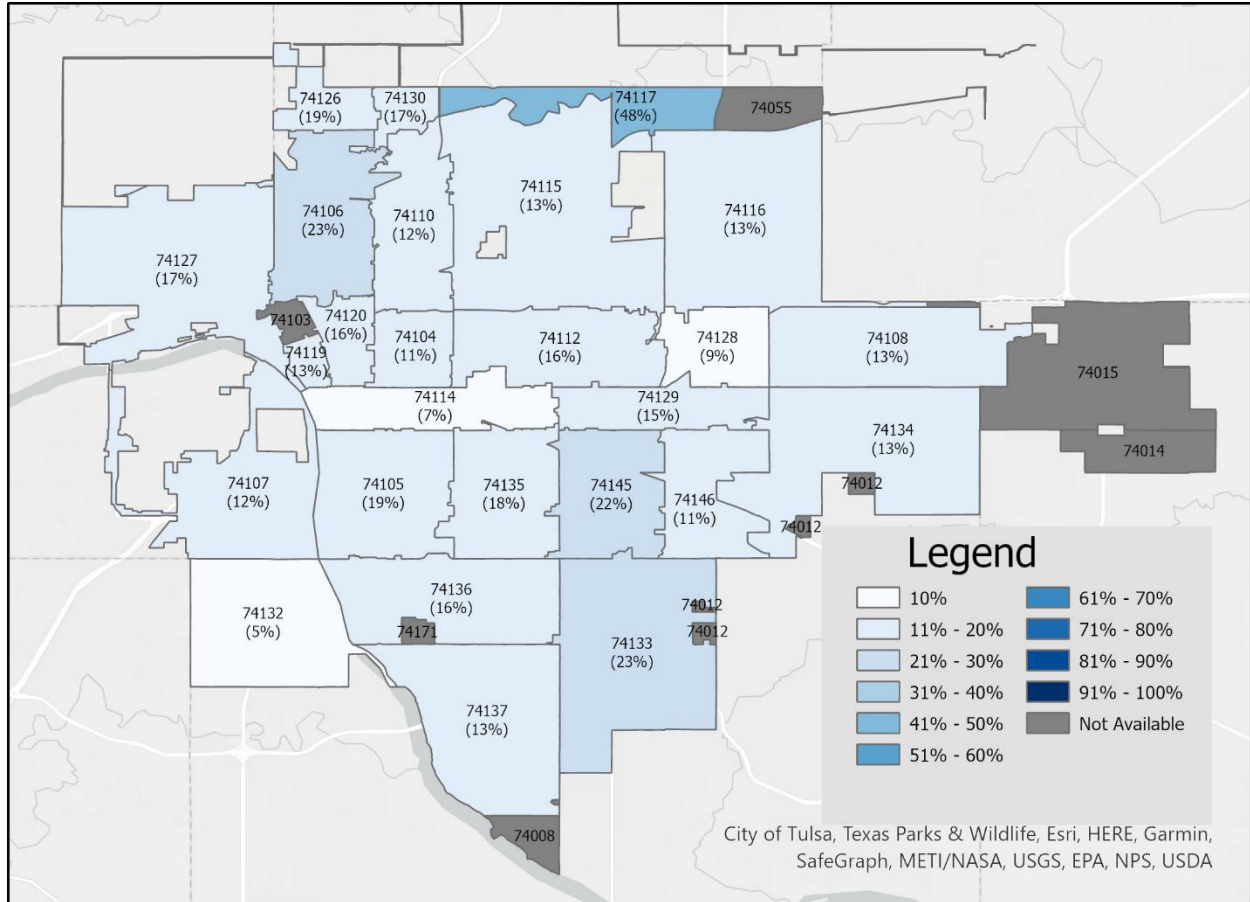
Exhibit 12. Approximate SNAP Benefit Receipt Rates Among Eligible Households With Children, by Tulsa Neighborhood, 2020

Source: ACS (ACS) data

Note. Rate of SNAP benefit was calculated as follows: (Number of households receiving SNAP benefits / Number of households below 100% Federal Poverty Line) x 100.
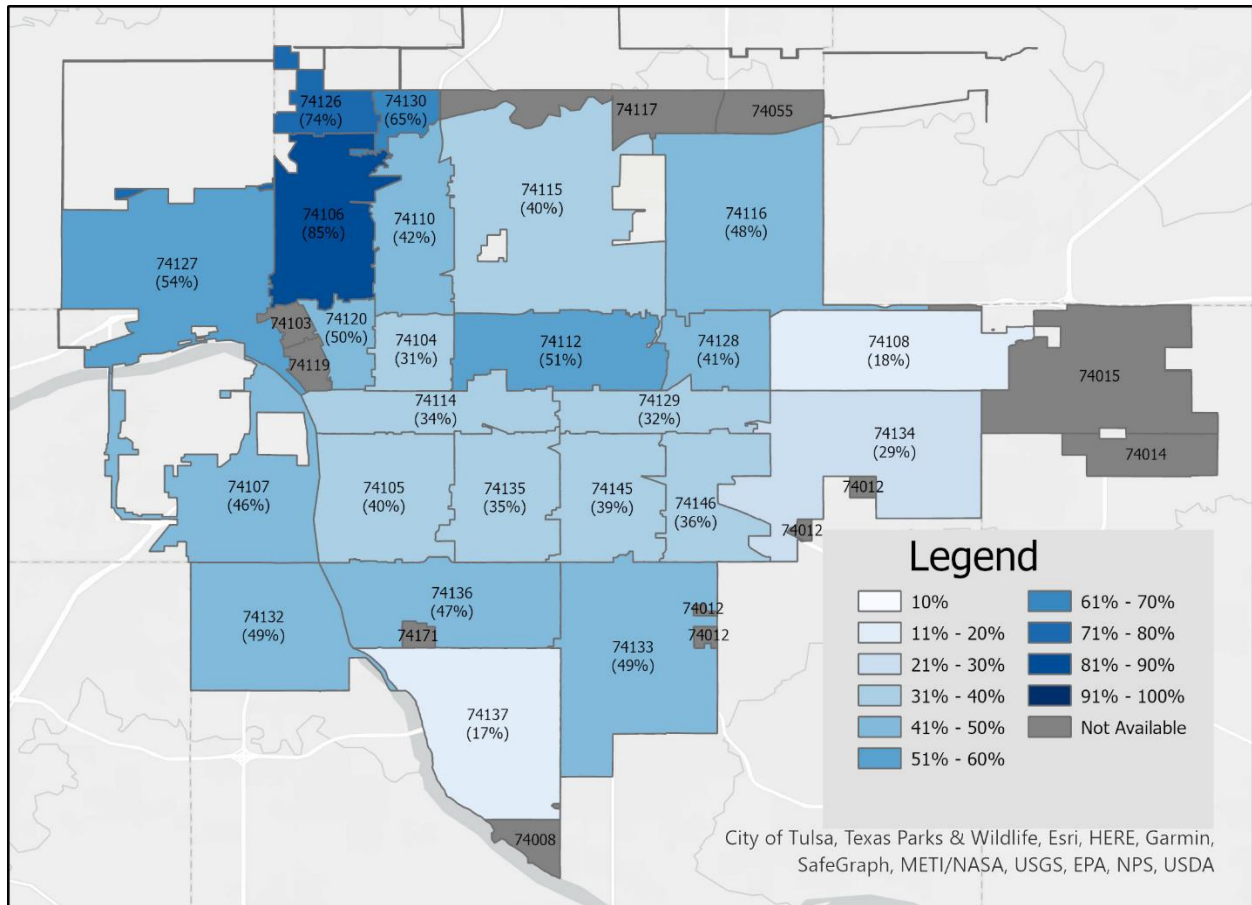
Exhibit 13. Approximate Childcare Subsidy Receipt Rates Among Eligible Households With Children, by Tulsa Neighborhood, 2020

Source: OKDHS public assistance data and ACS data

Note. Rate of childcare subsidy receipt was calculated as follows: (Number of households receiving childcare subsidy / Number of households below 200% Federal Poverty Line) x 100.
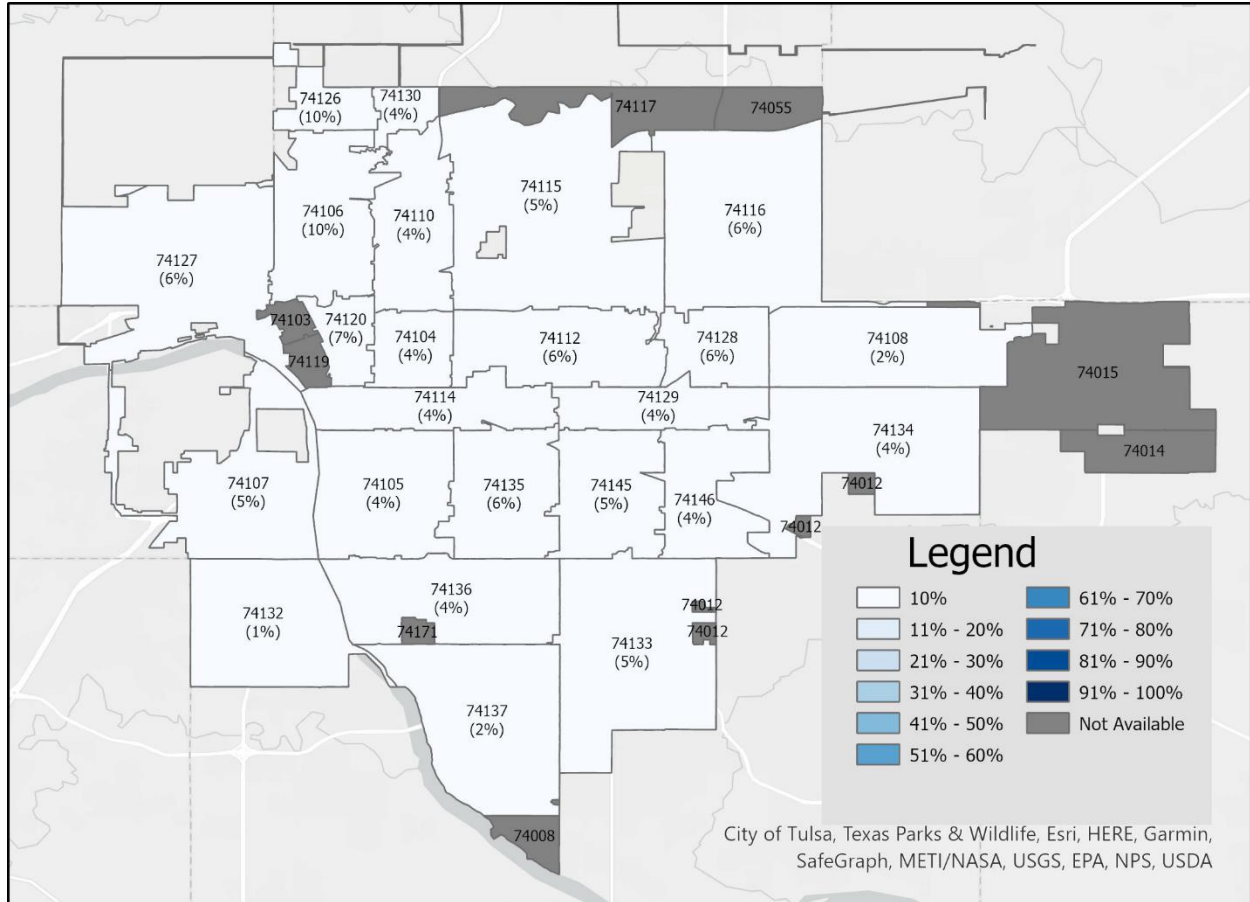
Exhibit 14. Approximate Cooling Benefit Receipt Rates Among Eligible Households With Children, by Tulsa Neighborhood, 2020

Source: OKDHS public assistance data and ACS data

Note. Rate of cooling benefit receipt was calculated as follows: (Number of households receiving cooling benefits / Number of households with children below 130% Federal Poverty Line) x 100.

Exhibit 15. Approximate Heating Benefit Receipt Rates Among Eligible Households With Children, by Tulsa Neighborhood, 2020

Source: OKDHS public assistance data and ACS data

Note. Rate of heating benefit receipt was calculated as follows: (Number of households receiving heating benefits / Number of households with children below 130% Federal Poverty Line) x 100.

Exhibit 16. Approximate ECAP Benefit Receipt Rates Among Eligible Households With Children, by Tulsa Neighborhood, 2020
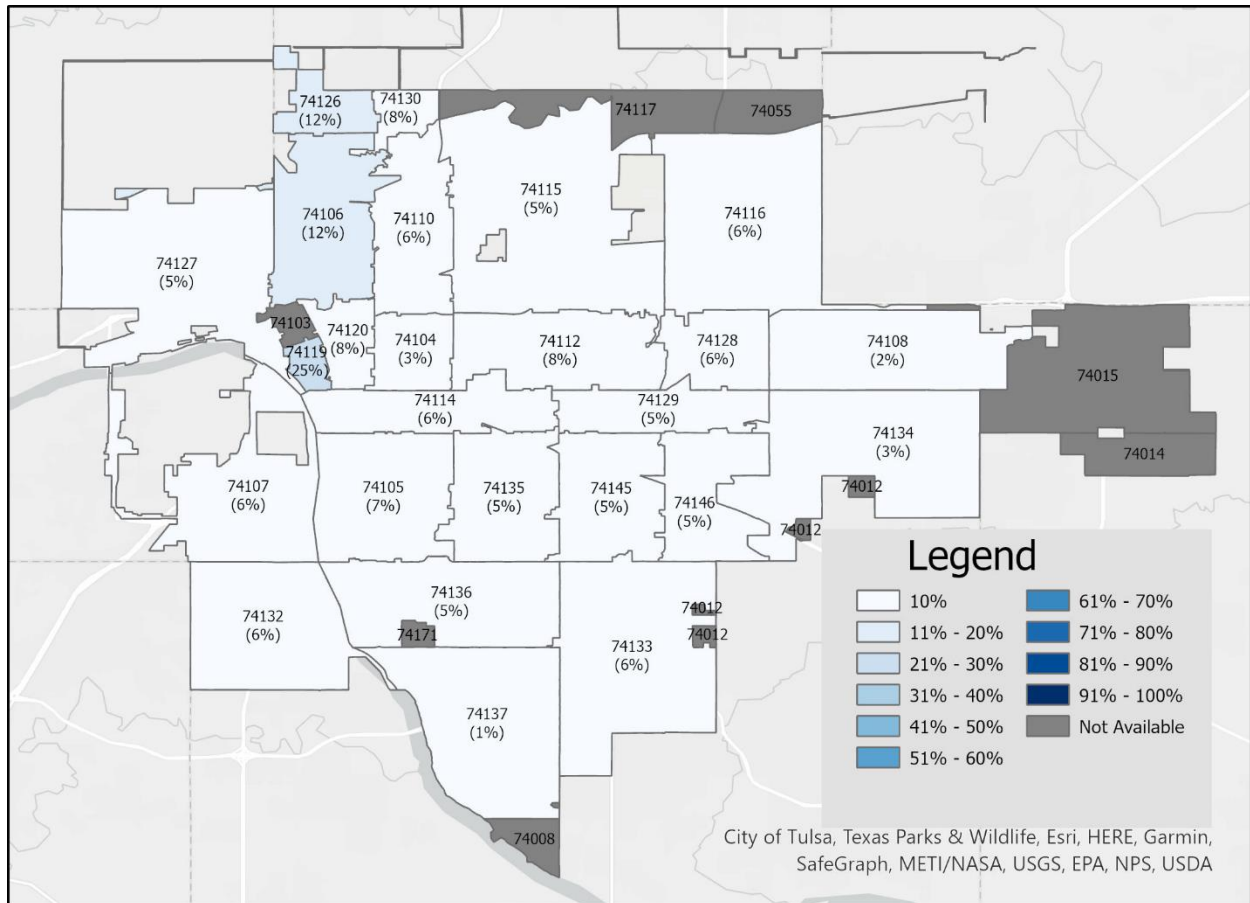
Source: OKDHS public assistance data and ACS data

Note. Rate of cooling benefit receipt was calculated as follows: (Number of households receiving cooling benefits / Number of households with children below 130% Federal Poverty Line) x 100.

Lessons Learned and Next Steps

The analyses presented in this memo are part of a broader set of analyses that aim to establish baseline trends in Tulsa and understand patterns of inequality prior to conducting the CITS analyses that will estimate the impact of the BEST initiative. Establishing baseline trends prior to implementation is an important precursor to these CITS analyses. The baseline trends help us understand child and family well-being in Tulsa prior to the launch of the BEST initiative and determine appropriate counterfactuals or comparisons for the study, whether those should be neighborhoods or other cities.

These analyses serve as launching points for additional discussion and interpretation. Many contextual factors, including availability of information, ease of the application process, availability of services and providers, and state- and federal-funding sources, among others, are affecting whether eligible families receive public assistance benefits. Through these analyses, we have learned that consistent with previous baseline analyses of other indicators, Tulsa and Oklahoma City have similar city-level trends, reinforcing that Oklahoma City will serve as a suitable comparison city for the CITS analyses. We have also found that rates of benefit receipt vary widely across Tulsa ZIP codes and that income-eligible households in more economically advantaged areas of Tulsa may need greater support in accessing benefits.

We will continue building on our understanding of baseline trends in Tulsa and comparison cities in future analyses. We have several planned or underway data requests and analyses that will contribute more to this understanding of baseline trends. For next year, our two main analysis priorities include additional analysis of trends in education and birth outcomes in Tulsa.

Section IV: Ethnography Key Activities

The ethnography activities address Research Questions 2, 3, and 4 (see pp. 2–4). The purpose of the ethnography study is to provide an in-depth description from families' points of view about the day-to-day experiences raising young children in Tulsa, including their interactions with systems and service providers. Key ethnography study activities include the following:

- Recruiting a sample

- Collecting data through regular ethnographic interviews

- Analyzing data

We summarize our work in each of these activities in the subsequent sections, concluding with lessons learned and next steps for the work in 2023.

Sample Recruitment

The sample for the ethnography study is a subsample of families drawn from the birth and kindergarten samples recruited for the outcome/impact study. At the conclusion of the 1-month survey, we asked families if they would be interested in participating in the ethnography study. In total, 166 families in the Birth Cohort and 172 families in the Kindergarten Cohort expressed interest in participating in this additional study.

For the ethnography study sample, we used data from the 1-month survey to identify families as possible candidates for the ethnography study, with the goal of recruiting a diverse sample of parents based on their neighborhood, economic status, number of children, and preferred home language.

We recruited the target sample of 20 families (10 Birth Cohort families and 10 Kindergarten Cohort families) for the ethnography study. Exhibit 17 provides a summary of the demographics of these families.

Exhibit 17. Ethnography Sample—Family Demographics

	Birth Cohort	Kindergarten Cohort
	10	10
Race*		
White	7	6
Black or African American	2	2
Black or African American, mixed race**	1	2
Ethnicity		
Not of Hispanic, Latino, Spanish origin	6	5

Mexican, Mexican American, Chicano	4	5
Primary language		
English	6	6
Spanish	4	4
Marital status*		
Single	1	4
Partnered or married	9	5
Separated	0	1
Number of children in household ***		
1	0	1
2	4	3
3	4	3
4	1	2
5	1	1
Mother employment status*		
Full-time	4	3
Part-time	1	4
School	0	3
Stay-at-home mother	5	2

* Respondents may choose or qualify for multiple options.

**Mixed race includes American Indian, Scottish Creole, and/or German.

***Based on information obtained at the initial interview.

Ethnographic Data Collection

The ethnography study uses the Ecocultural Family Interview (EFI). The EFI is an approach to ethnography research that uses a conversation with parents about how they organize their everyday routines. The approach focuses on learning how families plan, create, change, and sustain their everyday activities. Organizing a daily routine is something all families must do. Parents share their experiences about things that go right or wrong in their family routines and how they adapt with the skills, resources, supports, and beliefs they have to make a routine meaningful for themselves and their children. The format of the open-ended interview is a mixture of conversation, probing questions, and preplanned structured questions to hear about the family routine and circumstances from the parent's perspective, using their own words. Interviewers are trained to guide the conversation to be sure that they have a clear understanding of the parent's meaning and the family's circumstances. All interviews are audio recorded with permission. The nine themes that we expect will guide the ethnographic data collection are listed in Exhibit 18. Each theme also comprises subthemes and examples that help the interviewer score a family in that area.

Exhibit 18. EFI Key Themes

1.	Family Subsistence and Work
2.	Services
3.	Information
4.	Cultural Beliefs and Influences
5.	Home–Community Environment
6.	Networks and Supports
7.	Connectedness
8.	Domestic Workload and Child Care Tasks
9.	Sustainability of Daily Routine

Our data collection approach is a conversational style interview with the parent/caregiver. The interviewer creates summary notes and documents the circumstances of the family using the EFI codebook. Due to the pandemic, interviews are occurring using Zoom or telephone. During the past year, AIR trained five field staff to administer the EFI with the ethnography study families.

Primary Data Collection and Analysis

As of December 21, 2022, 155 ethnography interviews have been completed with the 20 families. We complete about 18 interviews a month on average. Each family participating in the ethnography study since December 2021 completed 8 interviews on average over the year. We have completed 33 Ecocultural Family Interview (EFI) quarterly scoring protocols.

As an initial look into the interview data, AIR conducted preliminary data analysis on the EFI themes of Services and Information to better understand how BEST Study ethnography families engage with social services in their communities. Exhibit 19 illustrates that 19 of the 20 families use or have used publicly supported social services at some point during their child's life. The top three types of services used by families are food and nutrition, health care, and financial assistance, (such as Supplemental Nutrition Assistance Program (SNAP; food stamps) and tax credits). One mother of two children, ages 3 months and 2 years, who is single and unemployed, said,

> I was appreciative of it all [child tax credit and stimulus checks]. It really helped because at that time, [the cost of] food went up too…That money coming in helped with your food stamps running out in the middle of the month. Then you have money to fall back on.
>
> *— Mother of two children (ages 3 months and 2 years), single, unemployed, Birth Cohort*

Ethnography Sample—Service Use

- Nineteen of the 20 families in the ethnography study used publicly supported social services.

- Fifteen of the 20 families shared how they receive information about services. Ten families reported they tend to first ask current /education, health care, and/or service providers for information about services. Eight families also noted they independently conduct searches online via Google or YouTube. Other sources of information include word of mouth, social media or ads, and personal experience. When asked about the difficulty in finding information about services, a working mother of three children, ages 12, 7, 6, in the Kindergarten Cohort, living with her working husband, explained,

> I don't think it's hard at all especially when Google is a thing. But I can see where in the past I didn't know where to start. I can understand someone who hasn't experienced it [receiving social services] before not really understanding where to go.

Exhibit 19. Type of Social Services Used by Families in the Ethnography Sample
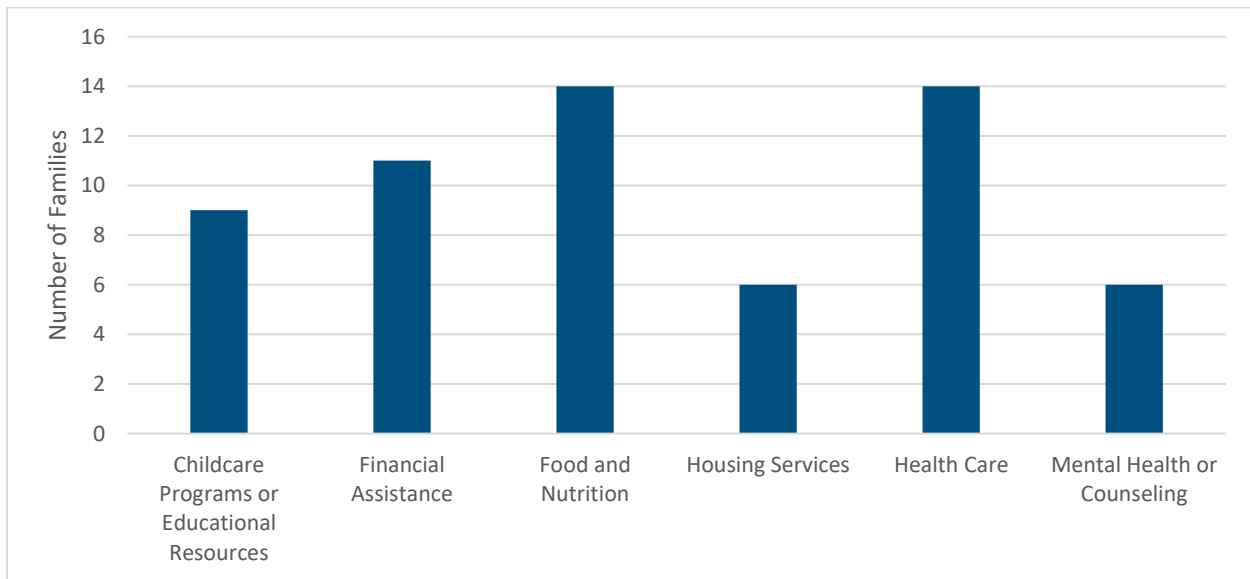
Lessons Learned and Next Steps

In 2023, AIR will continue to collect ethnography data for the Birth and Kindergarten Cohort 1 to better understand how these families sustain their daily routines as they raise their children in Tulsa. The EFI is originally designed to be an in-person interview, so we were not sure how the ethnographic-style interview process would translate using Zoom video calls. We have learned that using video calls has worked well to connect and learn with families. We also learned that scheduling monthly interviews can be challenging but consider it an acceptable response rate if we are able to accomplish between 60-70% of the interviews over a year,

which we have done thus far. We will continue to implement new strategies for scheduling and maintaining contact with families.

Conclusion

We designed the BEST Study to be responsive to the requirements of a participatory and equity-focused evaluation; therefore, we will continue to actively seek out feedback and suggestions for improvement from BEST partners, community members, and the GKFF-BEST leadership team. Due to the COVID-19 pandemic, a key study activity—recruitment for the outcome/impact study—was slow and resulted in a smaller than planned survey sample. Three other components of the BEST Study are helping to make up for possible data limitations associated with the survey:

- The workforce survey in the **process study** has yielded useful annual data on institutional and workforce changes among the BEST partners and in the larger Tulsa early childhood sector. The workforce survey is a great source of evidence on proximal system-level outcomes, which are an important part of the logic model underlying the BEST initiative. Since the first administration of the workforce survey in 2020, the study team has purposely adapted this survey to capture change across time, from a panel of individuals in the Tulsa early childhood workforce (repeated observations) and cross-sectionally from a representative sample of staff members at agencies across Tulsa. The perspectives of these staff members will be a useful complement to the experiences and outcomes measured directly from families.

- The **outcome/impact study's** extant data collection efforts have been quite fruitful. The study team now has de-identified individual-level data for a wide range of relevant outcomes, including public assistance benefits and child welfare outcomes, and many of these data sources include data for Oklahoma City as well, for comparison. If we continue to regularly receive these extant data through 2025, the data will significantly enhance our ability to model BEST's impact on many relevant outcomes, thus reducing our dependency on survey outcomes and helping the study team validate findings from those survey analyses.

- The **ethnography study** is now underway. Although the ethnography study does not have the numbers to produce statistically reliable estimates of the impacts of BEST, it will provide in-depth longitudinal information about the experiences and outcomes of participating families, selected to broadly represent the Tulsa child/parent population. Thus, the ethnography study will provide an important complement to the survey effort. It covers the same overall constructs as the survey but does so with more detail.

In short, although AIR has experienced sample recruitment challenges for the first cohort of birth and kindergarten families, the survey can still play a central role in the overall impact evaluation of BEST. Despite the straining circumstances of the pandemic, we learned that there

continued to be a great deal of support from Tulsa organizations for the BEST Study. The level of cooperation, research approvals, and executed data-sharing agreements, along with numerous positive conversations from a range of organizations and stakeholders in Tulsa, reinforce the support and excitement for the BEST Study in 2022.

Appendix A. Extant Data Indicators

For the indicators in Exhibit A1, we examined baseline trends between 2015 and 2020 for Tulsa and Oklahoma City. The exhibit provides details for each benefit.

Exhibit A1. Focal Extant Data Outcome Indicators

Indicators	Description
Supplemental Nutrition Assistance Program (SNAP)	SNAP enables families with low incomes to buy nutritious food with electronic benefits transfer (EBT) cards. Eligibility is based on U.S. citizenship, work requirements, income standards, and social security number. In 2019, the average monthly SNAP benefit per household member in Oklahoma was $128, and the average benefit per meal was $1.30 (Source: Center on Budget and Policy Priorities factsheet).
Child Care Subsidy Program	This program provides subsidized child care benefits for working parents and guardians with children from ages birth through 12 and up to age 18 for children with disabilities. Subsidies are paid directly to the child care provider on the family's behalf. Eligibility is based on income and household size.
Low Income Home Energy Assistance Program	This program is a federally funded program that provides financial assistance to low-income households to subsidize the cost of home energy. Two types of benefits are available. The Regular Energy Assistance Program (REAP) provides non-crisis benefit for one payment for heating bills during winter months and/or one payment for cooling bills during summer months. The Energy Crisis Assistance Program (ECAP) is a crisis program available only between March and May to assist with establishing new service, restore or prevent service interruption, or initiate fuel delivery. Eligibility is based on citizenship, income, household size, available resources, and responsibility for payment of home energy costs.

Data for these analyses come from Oklahoma Department of Human Services (OKDHS) administrative sources, as well as from publicly available data from the American Community Survey (ACS). In general, rates reflect ratios of the number of households receiving benefit per the number of eligible households. Exhibit A2 provides additional detail regarding the calculation of each benefit, as well as data source.

Exhibit A2. Calculation of Rate of Receipt, by Indicator

Indicator	Numerator Used in Calculation	Denominator Used in Calculation
SNAP	Number of households with children receiving SNAP benefit (Data source: ACS)	Number of households with children within 100% Federal Poverty Level (FPL; Data source: ACS)
Childcare subsidies	Number of households with children receiving childcare subsidies (Data source: OKDHS)	Number of households with children within 200% FPL (Data source: ACS)
Energy assistance	Number of households with children receiving energy assistance (Data source: OKDHS)	Number of households with children within 130% FPL (Data source: ACS)

Note, analyses of SNAP benefits relied on ACS data only. Future analyses of SNAP benefits will use administrative data from OKDHS and individual-level data from the ACS, consistent with the rate calculation of other benefits in this analysis. The methodology required to calculate accurate SNAP benefit estimates using administrative data is more rigorous compared to the other benefits and requires us to shift from using aggregated ACS data, which we have typically relied on, to using individual-level data from the ACS Public Use Microdata Sample.

Somewhere, we need to add an explanation of what's meant by Tulsa (city) and Oklahoma City and how it's defined in the analyses in this report. Not sure if it's this text we used in our November 2021 memo, but something like this to provide clarity (because of the inevitable "city vs. county" question):

Note on defining "Tulsa" and "OKC" for baseline analyses:

One of the main challenges in defining geographies concerns zip codes that straddle borders and whose population represent a relatively small share of the city or county population (Howard et al., March 11 2022 GKFF-BEST Study Geographies memo). Guided by the Oklahoma City-County Health Department rule for exclusion criteria for zip codes that straddle, we excluded zip codes in Tulsa and OKC from analyses for which less than 3% of the population lived within the city or county.

Appendix B. Supplemental Extant Data Analyses

The following analyses (Exhibits B1–B10) present public assistance receipt for each benefit, by neighborhood characteristics. These analyses provide an indication of differences in disparities between the two cities. Overall, there is little difference in how rates vary by neighborhood poverty level or neighborhood race/ethnic composition across the two cities. The results demonstrate that baseline conditions in Tulsa and Oklahoma City are comparable, an important criterion for a comparison group in a comparative interrupted time series analysis.

Analyses by neighborhood poverty level were based on ZIP code–level data that were aggregated to the city level. For the analyses in Appendix B, we grouped neighborhoods into higher or lower poverty neighborhoods, depending on whether they fell above or below the median poverty rate of neighborhoods in Tulsa and Oklahoma City in 2015, which corresponds to conditions prior to the launch of the Birth through Eight Strategy for Tulsa initiative. The median poverty rate was 17%. The threshold used to categorize neighborhoods into high and low proportions of Black and Latino residents was 27%.

Public Assistance Receipt, by Neighborhood Poverty Level

Exhibit B1. Approximate Supplemental Nutrition Assistance Program (SNAP) Benefit Receipt Rates in Tulsa and Oklahoma City, by Neighborhood Poverty Level, 2015–20
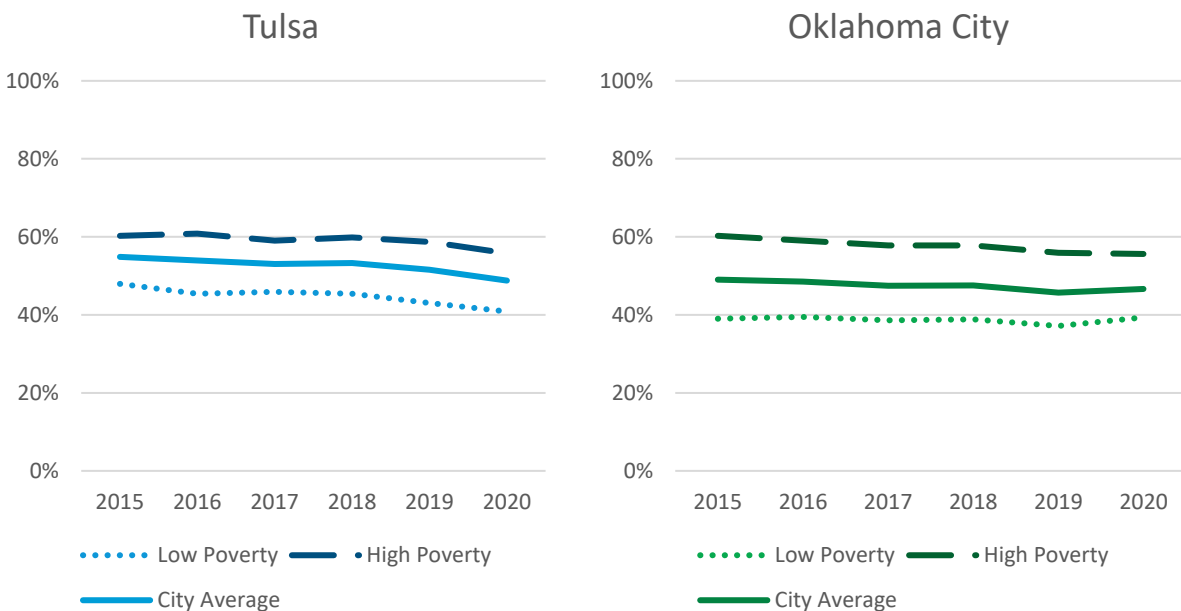
Source: American Community Survey (ACS) data
Note. Rate of SNAP benefit was calculated as follows: (Number of households receiving SNAP benefits / Number of households below 100% Federal Poverty Line) x 100. Neighborhood poverty threshold is defined based on median poverty rate for Tulsa and Oklahoma ZIP codes. Low-poverty neighborhood < 17% below Federal Poverty Line; High-poverty neighborhood >= 17% Federal Poverty Line.
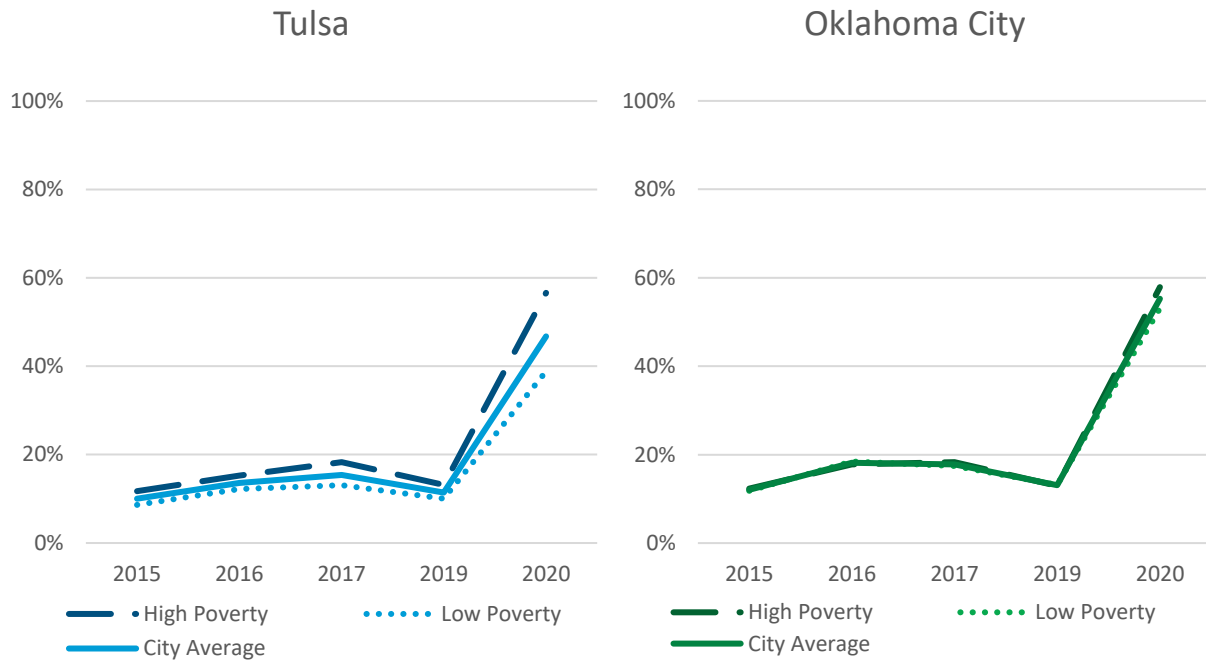
Exhibit B2. Approximate Childcare Subsidy Receipt Rate in Tulsa and Oklahoma City, by Neighborhood Poverty Level, 2017–20
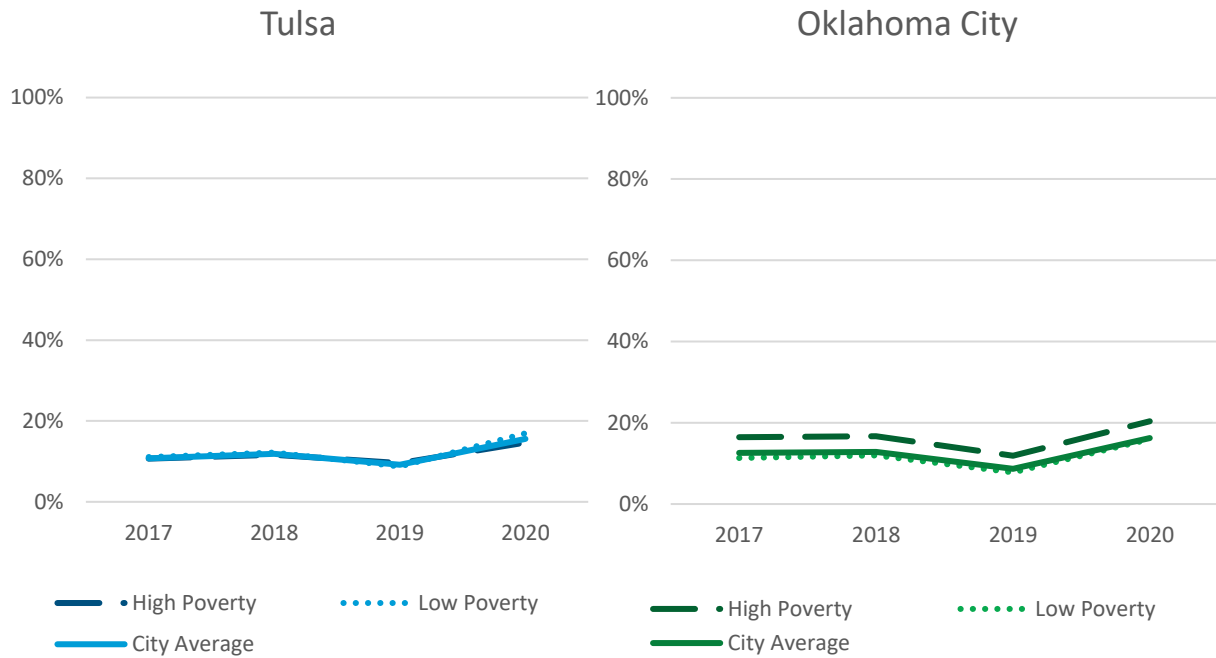
Source: Oklahoma Department of Human Services (OKDHS) public assistance data and ACS data

Note. Rate of childcare subsidy receipt was calculated as follows: (Number of households receiving childcare subsidy / Number of households below 200% Federal Poverty Line) x 100. Neighborhood poverty threshold is defined based on median poverty rate for Tulsa and Oklahoma ZIP codes. Low-poverty neighborhood < 17% below Federal Poverty Line; High-poverty neighborhood >= 17% Federal Poverty Line.

Exhibit B3. Approximate Cooling Benefit Receipt Rates in Tulsa and Oklahoma City, by Neighborhood Poverty Level, 2015–20
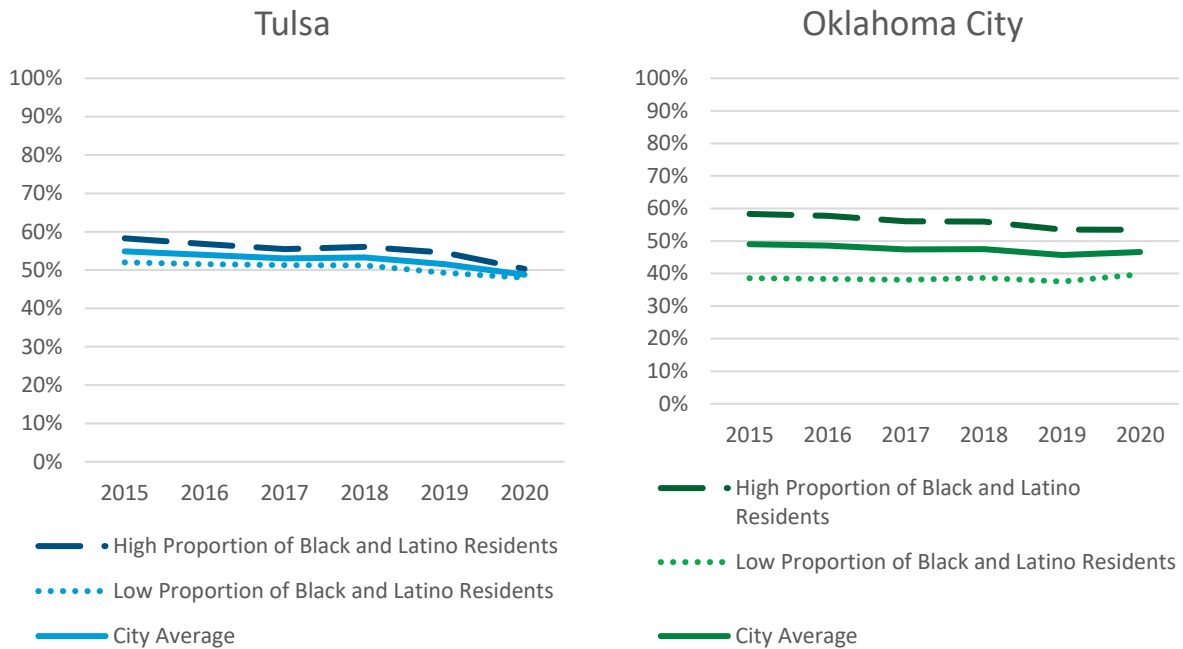

Source: OKDHS public assistance data and ACS data

Note: Rate of childcare subsidy receipt was calculated as follows: (Number of households receiving childcare subsidy / Number of households below 200% Federal Poverty Line) x 100. Neighborhood poverty threshold is defined based on median poverty rate for Tulsa and Oklahoma ZIP codes. Low-poverty neighborhood < 17% below Federal Poverty Line; High-poverty neighborhood >= 17% Federal Poverty Line.

Exhibit B4. Approximate Heating Benefit Receipt Rates in Tulsa and Oklahoma City, by Neighborhood Poverty Level, 2015–2020
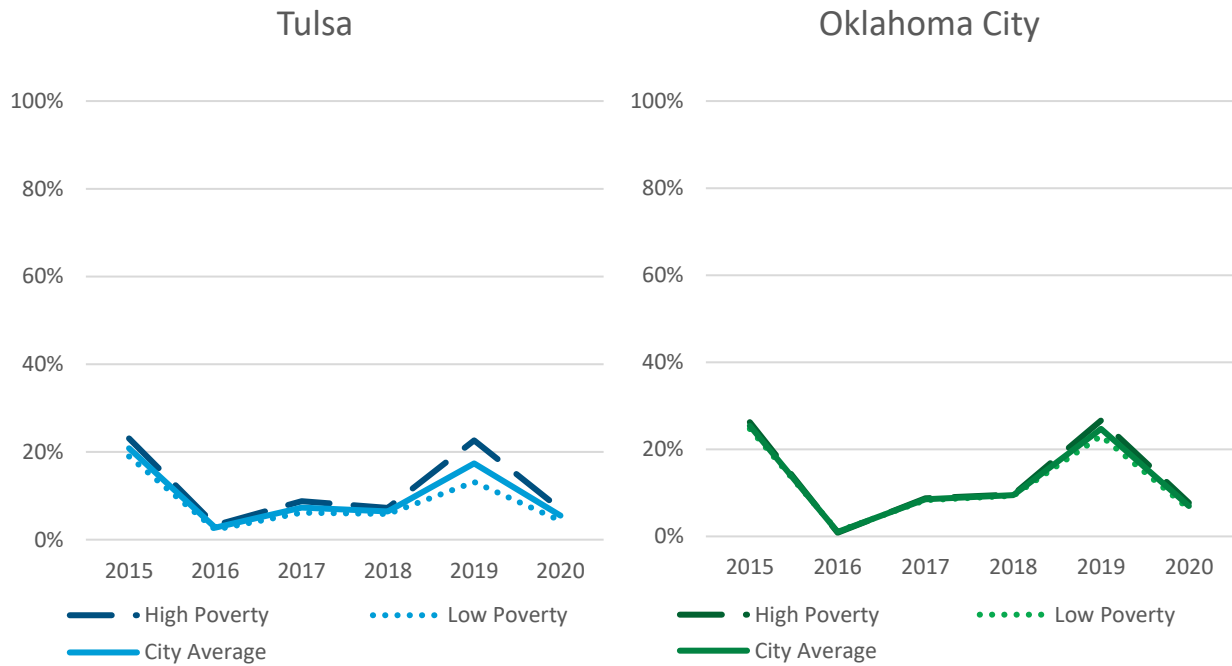
Source: OKDHS public assistance data and ACS data

Note. Rate of heating benefit receipt was calculated as follows: (Number of households receiving heating benefits / Number of households with children below 130% Federal Poverty Line) x 100. Neighborhood poverty threshold is defined based on median poverty rate for Tulsa and Oklahoma ZIP codes. Low-poverty neighborhood < 17% below Federal Poverty Line; High-poverty neighborhood >= 17% Federal Poverty Line.

Exhibit B5. Approximate Energy Crisis Assistance Program (ECAP) Receipt Rates in Tulsa and Oklahoma City, by Neighborhood Poverty Level, 2015–20
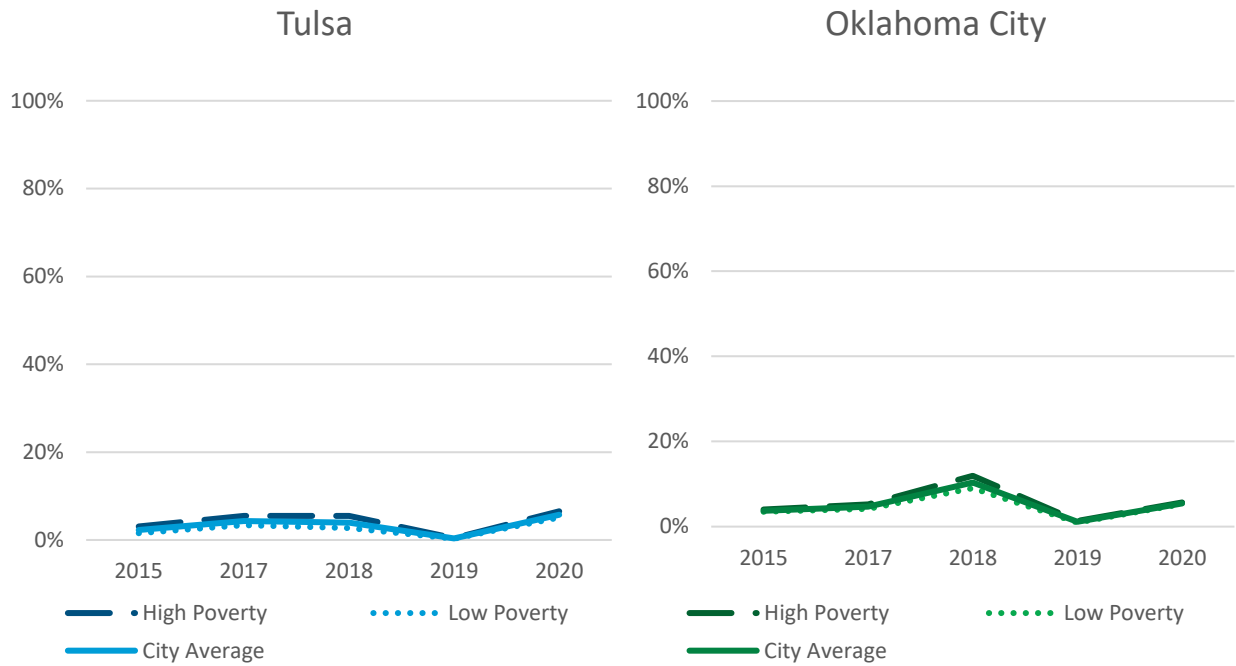
Source: OKDHS public assistance data and ACS data

Note. Rate of ECAP benefit receipt was calculated as follows: (Number of households receiving ECAP benefits / Number of households with children below 130% Federal Poverty Line) x 100. Neighborhood poverty threshold is defined based on median poverty rate for Tulsa and Oklahoma ZIP codes. Low-poverty neighborhood < 17% below Federal Poverty Line; High-poverty neighborhood >= 17% Federal Poverty Line.

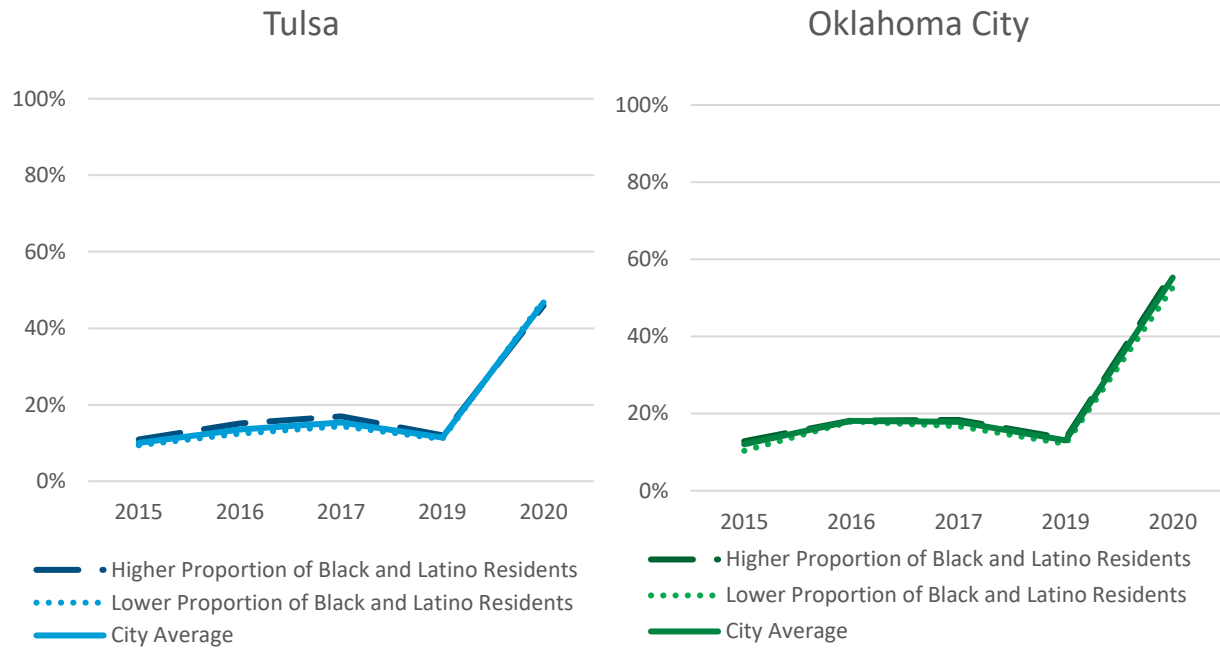## Public Assistance Receipt, by Race/Ethnicity Composition of Neighborhood

Exhibit B6. Approximate SNAP Benefit Receipt Rates in Tulsa and Oklahoma City, by Race/Ethnicity Composition of Neighborhood, 2015–20

Source: ACS data

Note. Rate of SNAP benefit was calculated as follows: (Number of households receiving SNAP benefits / Number of households below 100% Federal Poverty Line) x 100. Threshold for race/ethnic composition of the neighborhood is defined using the median percentage of Black and Latino residents in Tulsa and Oklahoma City residents. Low proportion of Black and Latino residents < 27%; High proportion of Black and Latino residents >= 27%.
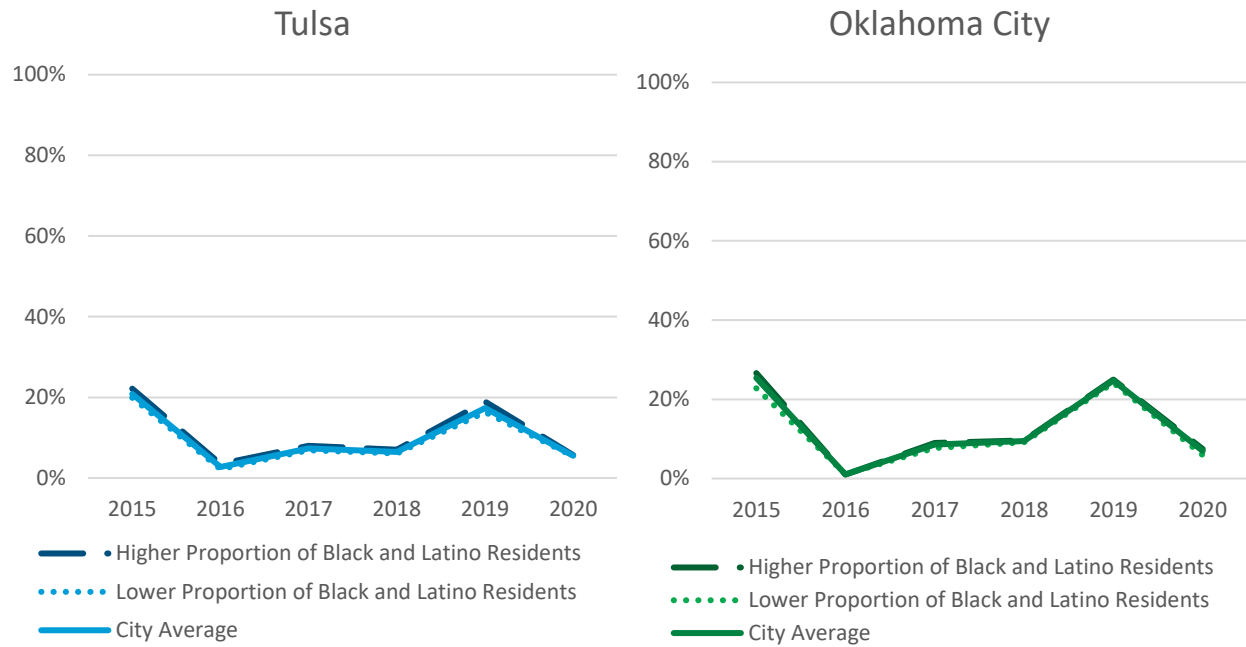
Exhibit B7. Approximate Childcare Subsidy Receipt Rates in Tulsa and Oklahoma City, by Race/Ethnicity Composition of Neighborhood, 2017–20
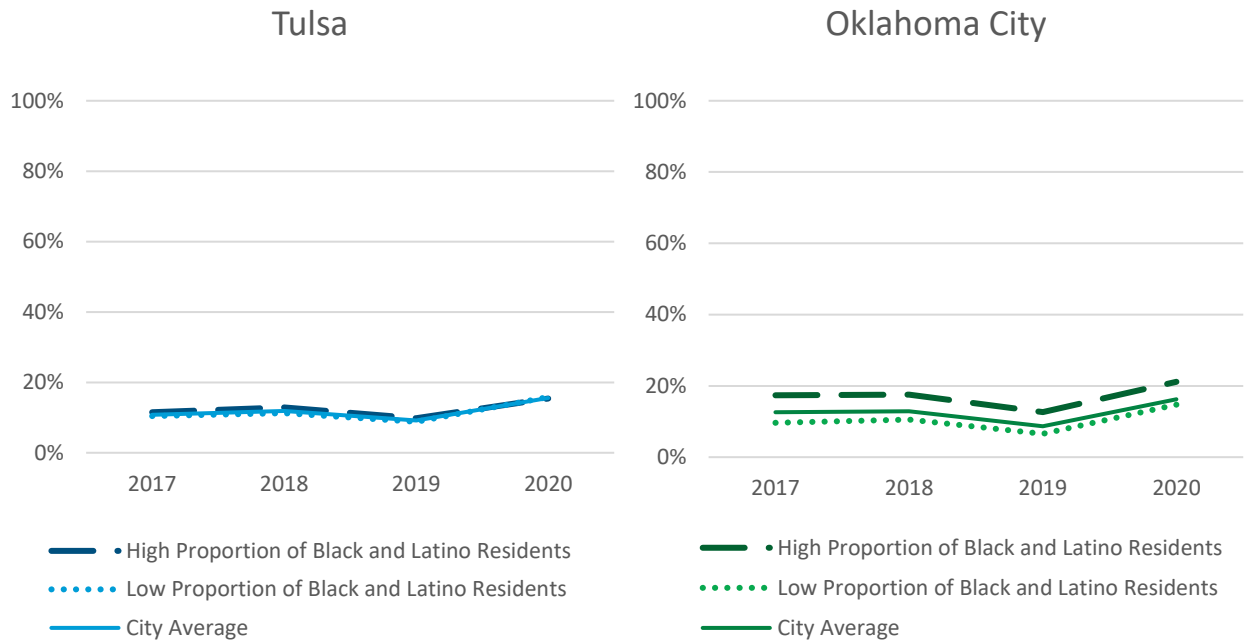
Source: OKDHS public assistance data and ACS data

Note. Rate of childcare subsidy receipt was calculated as follows: (Number of households receiving childcare subsidy / Number of households below 200% Federal Poverty Line) x 100. Threshold for race/ethnic composition of the neighborhood is defined using the median percentage of Black and Latino residents in Tulsa and Oklahoma City residents. Low proportion of Black and Latino residents < 27%; High proportion of Black and Latino residents >= 27%.
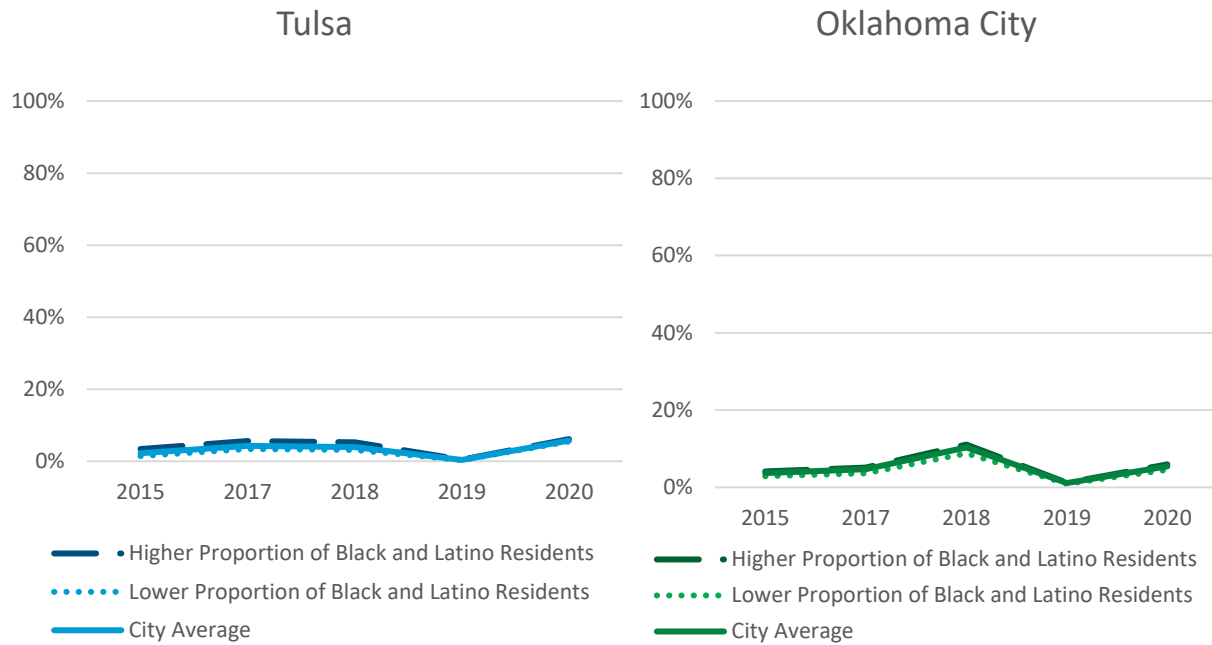
Exhibit B8. Approximate Cooling Benefit Receipt Rates in Tulsa and Oklahoma City, by Race/Ethnicity Composition of Neighborhood, 2015–20

Source: OKDHS public assistance data and ACS data

Note. Rate of cooling benefit receipt was calculated as follows: (Number of households receiving cooling benefits / Number of households with children below 130% Federal Poverty Line) x 100. Threshold for race/ethnic composition of the neighborhood is defined using the median percentage of Black and Latino residents in Tulsa and Oklahoma City residents. Low proportion of Black and Latino residents < 27%; High proportion of Black and Latino residents >= 27%.

Exhibit B9. Approximate Heating Benefit Receipt Rates in Tulsa and Oklahoma City, by Race/Ethnicity Composition of Neighborhood, 2015–20

Source: OKDHS public assistance data and ACS data

Note. Rate of heating benefit receipt was calculated as follows: (Number of households receiving heating benefits / Number of households with children below 130% Federal Poverty Line) x 100. Threshold for race/ethnic composition of the neighborhood is defined using the median percentage of Black and Latino residents in Tulsa and Oklahoma City residents. Low proportion of Black and Latino residents < 27%; High proportion of Black and Latino residents >= 27%.

Exhibit B10. Approximate ECAP Benefit Receipt Rates in Tulsa and Oklahoma City, by Race/Ethnicity Composition of Neighborhood, 2015–20

Source: OKDHS public assistance data and ACS data

Note. Rate of ECAP benefit receipt was calculated as follows: (Number of households receiving ECAP benefits / Number of households with children below 130% Federal Poverty Line) x 100. Threshold for race/ethnic composition of the neighborhood is defined using the median percentage of Black and Latino residents in Tulsa and Oklahoma City residents. Low proportion of Black and Latino residents < 27%; High proportion of Black and Latino residents >= 27%.

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