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DISCUSSION PAPER SERIES

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ABSTRACT

Equitable Use of Subsidized Child Care in Georgia*

High-quality childcare services are vital to children's development and family wellbeing but are not equitably accessed by all children. Programs supported by the Child Care Development Fund (CCDF) have the potential to reduce these inequities. Economically eligible Black children use CCDF-supported services at higher rates than other children, but less is known about disparities in the characteristics of those services. This study uses weekly subsidy records from Georgia's Childcare and Parent Services (CAPS) program to examine racial, ethnic, and geographic differences in the types, modes, quality, proximity, and stability of care and in subsidy payments, co-payments, and subsidy use. The study distinguishes between unconditional differences that it observes in children's experiences and conditional disparities that it estimates after accounting for children's needs and other characteristics. It interprets the conditional disparities as evidence of inequity. The analysis uncovers many unconditional racial and ethnic differences in subsidized care outcomes and several geographic differences. However, the study finds fewer (and mostly smaller) conditional differences, including very few conditional differences between non-Hispanic Black and White children. The results suggest that there is substantial equity in participating children's use of CAPS services.

JEL Classification: J13, I38

Keywords: equity, childcare arrangements, subsidized child care, race and ethnicity, geography, administrative data, Georgia

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Equitable Use of Subsidized Child Care in Georgia

1. Introduction

Children's enrollment in high-quality early care and education (ECE) differs markedly by race, ethnicity, and geography (Harding & Paulsell, 2018; National Academy of Sciences, Engineering, and Medicine [NAS], 2023). Differential access to ECE services can, in turn, widen gaps in children's school achievement, socio-emotional development, health, and adult economic outcomes, perpetuating inequities (NAS, 2023). Childcare subsidies offered through programs supported by the Child Care and Development Fund (CCDF) have the potential to close opportunity gaps, but only if they lead to equitable high-quality ECE experiences for participating children and families.

Our understanding of the equitable use of subsidized child care is incomplete, with some elements of use appearing to reduce racial, ethnic, and geographic disparities but others possibly increasing them. Unfortunately, studies have not examined different elements of children's subsidized childcare use comprehensively (Thomson et al., 2020) and have seldom centered equity in their analyses (McDaniel et al., 2017).

This study examines how numerous program and childcare outcomes—including care schedules, care settings, quality ratings, proximity, subsidy payments, co-payments, subsidy receipt durations, subsidy spells, and provider changes—vary by race, ethnicity, and geography, using weekly subsidy records from Georgia's Childcare and Parent Services (CAPS) program. The study distinguishes between (a) unconditional, or gross, differences that it observes in children's experiences by race, ethnicity, and geography and (b) conditional disparities that it estimates after accounting for children's ages, bases for eligibility, local contexts, and other

characteristics through multivariate models. The study interprets the conditional disparities as evidence of inequity. The study additionally uses the Blinder (1973)-Oaxaca (1973) counterfactual method to decompose the gross differences in outcomes into portions that are attributable to observed and unobserved differences in characteristics between children.

1.1. Previous Research

Children's take-up of CCDF-supported subsidies has been extensively researched. National studies by Herbst (2008) and Ullrich et al. (2019) have found that economically eligible Black children receive subsidies at higher rates than other eligible children, while eligible Hispanic children receive subsidies at lower rates. Johnson et al. (2011) have also found that eligible children in urban areas receive subsidies at higher rates. Aranda and Ribar (2021) documented similar racial, ethnic, and geographic differences in program take-up in Georgia, and Aranda et al. (2024) found that conditional on receiving CAPS subsidies, Black, Hispanic, and urban children were more likely to use them each week.

Many studies have also examined differences in the stability of children's subsidy participation spells and subsidized care arrangements. The research indicates that Black children have shorter participation spells and more churning in subsidy receipt (Davis et al., 2017a, 2017b; Morrissey et al., 2023) and more changes and shorter spells with providers (Aranda et al., 2024; Ha et al., 2012; Pilarz et al., 2016). Aranda et al. (2024), Ha et al. (2012), and Morrissey et al. (2023) additionally find that rural children's program and provider experiences are less stable.

There has been less research on other characteristics of subsidized care, but the evidence also points to racial, ethnic, and geographic disparities. Hollett and Frankenberg

(2022) found that Black and Hispanic children's care providers receive less tiered quality funding than White children's providers and that providers in minority communities receive less quality funding than those in White communities. Jenkins et al. (2021) found that participation in state quality rating and improvement systems is lower among providers in Black communities. Morrissey et al. (2023) found that Black children and rural children receive lower subsidy payments than other children.

1.2. This Study's Contributions

This study advances our knowledge of equitable access to ECE in several ways. First, it takes an equity-focused approach. Many studies have estimated racial, ethnic, and geographic differences in subsidized ECE outcomes in models that condition on other observed characteristics of children, families, and communities. However, with only a few exceptions (e.g., Hollett & Frankenberg, 2023), they include race, ethnicity, and geography as conditioning variables and do not carefully explore the differences they find (McDaniel et al., 2017). Through its multivariate and decomposition analyses, the present study examines how individual, programmatic, and other characteristics contribute to racial, ethnic, and geographic differences in outcomes. The study addresses calls (e.g., Adams & Pratt, 2021; Harding & Paulsell, 2018; McDaniel et al., 2017; and the NAS, 2023) to explicitly investigate equity.

Second, this study expands the set of ECE outcomes that have been researched. Quantitative studies of racial, ethnic, and geographic differences in subsidized ECE experiences have mainly considered families' take-up of subsidies, the stability of subsidy receipt, or the stability of care arrangements. Studies of differences in other outcomes, including care quality (Hollett & Frankenberg, 2023), subsidy amounts (Morrissey et al., 2022), co-payments, and

proximity, are rarer.

Third, the study examines subsidized childcare outcomes that occurred after the 2014 federal reauthorization of the Child Care and Development Block Grant and the adoption of the 2016 Final Rule. Reauthorization, the Final Rule, and the resulting state CCDF program changes may have contributed to more equitable ECE outcomes by improving the safety and quality of care, reducing administrative barriers, increasing consumer information, and increasing access, especially among subpopulations of children (Lin et al., 2020). Much of the existing research evidence is based on outcomes that occurred prior to reauthorization and may no longer apply.

Fourth, the study analyzes outcomes before and after the start of the COVID-19 pandemic. The pandemic jolted the context for child care and other outcomes, reducing the comparability of the pre- and post-COVID periods. Moreover, accommodations in Georgia's CAPS program, including relaxed work requirements, expanded eligibility criteria, and an initiative that eliminated families' co-payments and other out-of-pocket tuition costs, increased access and reduced structural barriers, with possible implications for program equity.

2. Materials and Methods

2.1. Georgia's CAPS Program

Georgia's CAPS program is operated and administered by the Georgia Department of Early Care and Learning (DECAL) with funding from the state and the CCDF. Federal rules limit eligibility to children ages 12 or younger (or 17 or younger if the child has a disability) in families with incomes below 85 percent of the state median income (SMI) with parents who work or participate in education and training activities.

To keep within the program budget, Georgia further restricts eligibility for new CAPS

subsidies, called scholarships, to children in "priority groups" such as children with disabilities, in foster care, in families participating in or leaving the Temporary Assistance for Needy Families (TANF) program, and in families with "very low income." Before November 2021 (and except for children in foster care), Georgia also restricted initial eligibility to families with incomes below 50 percent of the SMI. Once children start receiving scholarships, they do not have to maintain their priority group status to stay eligible. They can continue receiving scholarships if their family incomes stay below 85 percent of the SMI. Parents who lose jobs can temporarily meet the continuing eligibility work requirements through job search. The state sets standard 12-month eligibility periods.

The CAPS program provides families with a weekly scholarship for a specific child and care provider. It sets a maximum reimbursement rate that differs with the provider's location, the child's age, the type of care, and the type of provider, and it provides a bonus for care from Quality Rated providers. Before May 2021, the program required most families with incomes above a given threshold to pay a co-payment, called a family fee, that ranged from three to seven percent of weekly income and was discounted if care was obtained from a Quality Rated provider. Before May 2021, providers could also charge families the difference between their published rate and the maximum reimbursement rate.

Elements of the CAPS program have changed over time. DECAL revised the family fee formula in September 2018 and raised the reimbursement rate for children aged three years and over in September 2019. Shortly after the state declared its COVID-19 emergency in March 2020, DECAL implemented waivers that paid providers based on enrollments rather than attendance and allowed children to keep their eligibility if their parents lost work or had to stop

attending school or training because of the pandemic. In April 2020, the agency established a new priority group and added 1,000 program slots for workers in essential services. In May 2021, DECAL began its Awarding Child Care Education Scholarship Supplements (ACCESS) initiative, which waived the family fee for all families in the CAPS program and paid providers the difference between their published rate and the state's maximum reimbursement rate. In November 2021, the agency added 10,000 slots to the program and raised the income eligibility threshold.[1] In January 2022, DECAL required that all care come from providers who were Quality Rated or in the process of obtaining a rating. Because of the disruptions and policy changes from the pandemic, our analyses distinguish between the periods before and after Georgia declared its COVID-19 emergency.

2.2. Data

The primary data for the study are weekly records on Georgia children's use of CAPS scholarships from January 2017 to December 2022. For each week that a child holds a scholarship, the records indicate whether and how much Georgia paid the provider, the family's assessed co-payments, the type of provider facility, the mode of care, the Quality Rating of the provider, and other characteristics of the child, family, and provider.

Most children hold one scholarship each week, but some hold several. Multiple scholarships are sometimes issued for different modes of care with the same provider, such as full-week care and before-/after-school care. However, they are occasionally issued to multiple providers. We form a single weekly observation for each child by adding the payments to each

[1] DECAL undertook many other initiatives during the pandemic; for more information see https://decal.ga.gov/documents/attachments/DECALCRRSAandARPSpendingPlan.pdf.

provider and selecting the record for the provider and care mode with the largest payment.

We use the data to form measures of the following weekly care and program outcomes:

- Whether care is provided on a full-week, before- or after-school, or other basis;
- Whether the care setting is a center or other arrangement;
- Whether the provider has a 1-Star, 2-Star, 3-Star, or no Quality Rating;[2]
- Whether the provider is in the same ZIP Code, a neighboring ZIP Code, or a non-neighboring ZIP Code as the child's home;
- The amount of the assessed co-payment (family fee);
- Whether a CAPS scholarship payment is made to a provider; and
- The amounts of the actual and potential scholarship payments.

We also form summative measures, including

- The total weeks that the child holds scholarships,
- The duration of each continuous spell of a child holding CAPS scholarships,
- The number of scholarship-holding spells the child experiences, and
- The number of unique providers that the child experiences through the program.

The data on children's races and ethnicities come from program applications. For race, the forms ask whether a child is American Indian or Alaskan Native, Asian, Black/African American, Native Hawaiian or other Pacific Islander, White, or "other," with multiple indications possible. The forms separately ask whether the child is Hispanic. We use the data to create four mutually exclusive categories: Hispanic of any race, non-Hispanic Black (no other race), non-

[2] Quality Rated is Georgia's quality rating and improvement system for childcare providers. Providers are inspected and are rated between 1 and 3 stars with more stars indicating higher quality.

Hispanic White (no other race), and non-Hispanic with another race or multiple races. For geography, we map children's residential ZIP Codes to data from the National Center for Education Statistics (https://nces.ed.gov/programs/edge/Geographic/LocaleBoundaries) to form three categories: cities in urban areas, suburbs (other parts of urban areas), and non-metropolitan (rural) areas.

The study's multivariate analyses include controls for the child's sex and age (less than one year old, one to two years old, three to five years old, six to nine years old, or 10 years old or older). They also include indicators for the child's initial eligibility priority group (family received or left TANF, child was in foster care or protective services, child was in Georgia's universal Pre-Kindergarten program, child had special needs, family had "very low income," or other). Additionally, the study links the child's county of residence to county-level measures for the number of childcare providers per 1,000 residents, the unemployment rate, and the percentages of residents who were Black and Hispanic.

For its analyses of trends in the number of children served by the CAPS program, the study uses records for all the children with scholarships. For the analyses of CAPS utilization outcomes, the study considers children who are age 12 or younger and drops records for children with missing data on the outcomes and covariates (1.1 percent of the available weekly observations). The final data set for the analyses of utilization outcomes has 17,192,785 weekly records that describe 199,699 unique children.

2.3. Methods

The study conducts three types of empirical analyses. To describe the unconditional differences across racial, ethnic, and geographic groups the study uses cross-tabulations.

To examine conditional differences across groups, the study estimates multivariate models of CAPS utilization outcomes that account for characteristics of children, families, and communities, including the children's ages, genders, and priority group at initial eligibility; the number of care providers per 1,000 residents, the percentages of Black and Hispanic people, and the unemployment rate in the child's county of residence; and dummy indicators for the calendar month and year of the service.

For its analyses of the provider type, Quality Rating, and proximity to care, the study estimates multinomial logit models and calculates marginal effect estimates of the differences between racial/ethnic groups and geographic groups.

To examine the duration of scholarship-holding spells, the study estimates discrete-time hazard models (see Allison, 1982) of the form

$$h(d) = \frac{\exp(\boldsymbol{\alpha}'\boldsymbol{D}_d + \boldsymbol{\beta}'\boldsymbol{R} + \boldsymbol{\gamma}'\boldsymbol{G_d} + \boldsymbol{\delta}'\boldsymbol{X}_d)}{1 + \exp(\boldsymbol{\alpha}'\boldsymbol{D}_d + \boldsymbol{\beta}'\boldsymbol{R} + \boldsymbol{\gamma}'\boldsymbol{G_d} + \boldsymbol{\delta}'\boldsymbol{X}_d)}, \quad (1)$$

where $h(d)$ is the hazard probability of the child's spell ending in duration week d, $\boldsymbol{D_d}$ is a vector of spell duration controls, $\boldsymbol{R}$ is a vector of racial and ethnic indicators, $\boldsymbol{G_d}$ is a vector of geographic controls, and $\boldsymbol{X_d}$ is a vector of the other personal, family, community, and calendar time controls. The study uses the model results to estimate marginal effects of the differences between groups for the hazard probability evaluated in the first week of children's spells.

For all the other CAPS utilization outcomes, the study estimates ordinary least squares models and reports coefficient estimates of group differences (which can be interpreted as marginal effects). All the study's models are estimated separately for observations before and after the start of the COVID-19 pandemic. The models that use weekly data also adjust the estimates of standard errors for clustering from the repeated observations for children.

In general, the specifications of the multivariate models are similar to those used in previous research. The coefficients on the race, ethnicity, and geography indicators provide estimates of differences that condition on other characteristics and restrict the associations of the other characteristics to be the same across racial, ethnic, and geographic groups.

Lastly, the study uses the Blinder (1973)-Oaxaca (1973) two-fold counterfactual method as implemented in Stata by Jann (2008) to decompose the unconditional racial, ethnic, and geographic differences in CAPS utilization outcomes into portions that are attributable to observed and unobserved differences between children. Consider two groups, *A* and *B* (for example, non-Hispanic Black children and Hispanic children), a CAPS utilization outcome, *y*, and explanatory variables, $\boldsymbol{X}$. The decompositions estimate linear regression models separately for each group and for the pooled observations from both groups, such that

$$\begin{aligned} y_A &= \boldsymbol{X_A}'\boldsymbol{\beta}_A + \varepsilon_A && \text{for group } A, \\ y_B &= \boldsymbol{X_B}'\boldsymbol{\beta}_B + \varepsilon_B && \text{for group } B, \text{ and} \\ y &= \boldsymbol{X}'\boldsymbol{\beta}^* + \varepsilon && \text{for both groups.} \end{aligned} \tag{2}$$

The method uses the coefficient estimates from these models to decompose the unconditional difference in the outcomes as

$$\bar{y}_A - \bar{y}_B = (\overline{\boldsymbol{X}}_A - \overline{\boldsymbol{X}}_B)'\widehat{\boldsymbol{\beta}}^* + \left[\overline{\boldsymbol{X}}_A'\left(\widehat{\boldsymbol{\beta}}_A - \widehat{\boldsymbol{\beta}}^*\right) + \overline{\boldsymbol{X}}_A'\left(\widehat{\boldsymbol{\beta}}^* - \widehat{\boldsymbol{\beta}}_B\right)\right]. \tag{3}$$

The first term on the right side of equation (3) is interpreted as the portion attributable to (explained) differences in the groups' observed characteristics, and the second term is the portion attributable to (unexplained) differences in their unobserved characteristics.

The study implements the method using pairwise comparisons between (a) non-Hispanic Black children and each of the other racial/ethnic groups and (b) children from cities

and children from the other two geographies. The application to the study's continuous and binary outcomes is straightforward. For the multinomial categorical outcomes, the study forms binary indicators of each potential outcome (e.g., full-week care and not full-week care) and estimates linear probability models for each outcome. For spell durations, the study estimates logit models for the week-by-week hazard outcomes.

Like the multivariate model results, the unexplained differences from the Blinder-Oaxaca decompositions are conditional differences. However, unlike the model results, the unexplained differences allow the associations of the observed characteristics to vary across groups, so they condition on the observed characteristics in a more flexible and general way.

3. Results

3.1. Unconditional differences by race, ethnicity, and geography

Figure 1 shows the numbers of unique children who received CAPS scholarships each week from 2017 to 2022. The top panel shows the numbers in each racial and ethnic group, and the bottom panel shows numbers in each geographic group. Just over 64,000 children held CAPS scholarships in the first week of 2017. The number of participating children initially fell, reaching a low of approximately 42,000 in May 2018. Participation subsequently rose, peaking at just over 63,000 in early 2020. From the start of the COVID-19 emergency until the middle of 2021, participation again fell. However, it began rising in autumn 2021, near the time when DECAL expanded eligibility and program slots.

The trends for children in each race, ethnicity, and geographic group followed the same general patterns, though with changes in the composition. In early 2017, 78.4 percent of children with scholarships were non-Hispanic Black; 13.0 percent were non-Hispanic White; 4.3

percent were Hispanic; and 4.3 percent were non-Hispanic with another race or multiple races. By December 2022, the proportion of non-Hispanic Black children had fallen to 59.3 percent, and the proportion of Hispanic children had grown to 21.7 percent. The geographic composition changed more modestly. The proportion of children in cities declined from 20.6 to 17.3 percent, and the proportion in rural areas grew from 37.5 to 40.0 percent. Overall, the figures indicate that the CAPS program serves large proportions of non-Hispanic Black children, suburban children, and rural children.

Table 1 reports average outcomes and characteristics for all children aged 12 years and younger in the CAPS program and separately by race and ethnicity before and after the start of the COVID-19 pandemic. Because of the very large number of observations, Table 1 does not report significance statistics for differences between groups or periods.

The results indicate that non-Hispanic Black children are less likely than other children to use full-week care and more likely to use before-/after-school care, while Hispanic children are more likely than other children to use full-week care and less likely to use before-/after-school care. The use of full-week care decreased for non-Hispanic Black and White children after the start of the COVID-19 pandemic but increased for other children. In contrast to these results, there are few differences in the use of center-based care across groups or periods.

There are moderate differences in the use of Quality Rated care across groups, with non-Hispanic Black children being less likely to receive care from providers with 2- or 3-Star ratings. Before the pandemic, non-Hispanic Black children were also more likely to receive care from providers with no rating. Consistent with the increased proportion of Quality-Rated providers over time and with the requirement in January 2022 that all CAPS providers be

Quality Rated or in the process of obtaining a rating, the percentages of children in Quality-Rated settings are higher after the start of the COVID-19 pandemic.

Non-Hispanic White children are somewhat more likely to use a provider in the same ZIP Code as their residence. The use of providers in the same ZIP Code decreased after the start of the COVID-19 pandemic, while the use of providers in non-neighboring ZIP Codes increased.

Average assessed family fees were modestly lower for non-Hispanic White children than for other children and slightly lower for Hispanic children than for non-Hispanic Black children. We only calculate statistics for fees after the change in the family fee formula in September 2018 and before fees were waived during the ACCESS initiative in May 2021.

Hispanic children had the highest average weekly scholarship payments from the CAPS program and the highest available scholarship amounts. Non-Hispanic Black children had the lowest available scholarship amounts. Before the pandemic, just over a sixth of scholarships went unused each week. Families of non-Hispanic Black children were more likely than other families to use scholarships, and families of non-Hispanic White children were less likely to use them. After the start of the pandemic, DECAL implemented a waiver that paid providers based on enrollments rather than attendance, so the study does not examine the no-payment indicator during this period.

There are virtually no differences across groups in their median durations of scholarship-holding spells, the numbers of spells, or the numbers of providers that children experience. Before the COVID-19 pandemic, non-Hispanic White children had fewer total weeks with scholarships than other children, while after the start of the pandemic they had more weeks.

The subsequent rows of Table 1 provide evidence of important differences across racial

and ethnic groups in several characteristics that are relevant to children's care needs and use. A key difference is that non-Hispanic Black children in the CAPS program tend to be older than other children, while Hispanic children tend to be younger. Another profound difference across groups is the priority-group basis for eligibility at the start of CAPS participation spells. Non-Hispanic White children are much more likely to participate because they are in foster care or protective care. Before the pandemic, nearly half of the non-Hispanic White children in the CAPS program were initially eligible because they were in foster care or protective care, and after the start of the pandemic, just over a third were initially eligible for this reason. Non-Hispanic White children are also much less likely to participate because their families have very low incomes or are receiving or leaving TANF. In contrast, Hispanic children are more likely than other children to become eligible because of very low incomes or TANF receipt.

Children's geographic contexts also differ. Non-Hispanic White children in the CAPS program are much more likely than other children to live in rural areas. Their counties of residence have fewer childcare providers per capita. Non-Hispanic Black children in the CAPS program are more likely to live in cities and in counties with high unemployment rates, but also in counties with more childcare providers per capita. Hispanic children in the CAPS program are more likely than other children to live in suburban areas.

Table 2 reports the unconditional geographic differences in children's care utilization outcomes and other characteristics. Most of the geographic differences are modest. Children from rural areas are slightly more likely than children in other areas to use full-week care. They are also more likely to use care with a 2- or 3-Star Quality Rating and to use care in the same ZIP Code as their residence. Children in rural areas also have lower average scholarship payments.

Children in the CAPS program from rural areas are less likely to have become eligible because of TANF participation and more likely to have become eligible because of foster care or protective services. The children from rural areas live in counties with fewer Black residents. Before the pandemic, they lived in counties with higher unemployment rates, but after the start of the pandemic, unemployment increased more for children in other areas.

3.2. Conditional and unexplained differences by race, ethnicity, and geography

Table 3 reports the estimated unconditional differences, conditional differences from multivariate models, and unexplained differences from Blinder-Oaxaca decompositions in CAPS utilization outcomes by race, ethnicity, and geography before the COVID-19 pandemic. The first six columns report differences and standard errors for non-Hispanic White children, Hispanic children, and non-Hispanic children of another race relative to non-Hispanic Black children. The final four columns report differences and standard errors for children in suburban and rural areas relative to children in cities. CAPS utilization outcomes are listed in the rows. For each outcome, the table lists the unconditional difference in the top position, the model-based conditional difference in the middle position, and the unexplained Blinder-Oaxaca difference in the bottom position. Table 4 reports the same sets of differences after the start of the pandemic. Figures 2-4 graph results from Tables 3 and 4 for selected outcomes.

Overall, there are few substantive conditional or unexplained differences in outcomes once children's personal, family, and community characteristics are accounted for. Among the outcomes with no unconditional differences or small unconditional differences, there are no conditional or unexplained differences in children's use of center-based care, scholarship-holding spell durations, numbers of scholarship spells, and numbers of unique providers.

For several other outcomes, moderate or large unconditional differences mostly or entirely vanish once the study accounts for other observed characteristics. Figure 2 graphs the results for the care mode outcomes. In contrast to the large unconditional differences in the use of full-week care, the conditional estimates indicate that non-Hispanic White children were only about a percentage point more likely than non-Hispanic Black children to use full-week care before the pandemic and as likely to use full-week care after the start of the pandemic. The conditional results also show that Hispanic children were as likely to use full-week care as non-Hispanic Black children before the pandemic and about four percentage points more likely to use full-week care after the start of the pandemic.

Figure 3 graphs the unconditional, conditional, and unexplained differences in the use of Quality Rated providers. The differences between Hispanic children's and non-Hispanic Black children's use of Quality Rated care before the pandemic are attenuated in the conditional analyses. However, the modest differences for non-Hispanic White children and non-Hispanic children of another race largely remain. Most of the geographic differences also either remain or increase with suburban children being moderately more likely than other children to use care with a 1-Star rating and less likely to use care with a 3-Star rating. Children in rural areas are more likely than children in other areas to use care with a 2- or 3-Star rating and less likely to use care without a rating.

Many of the unconditional differences in assessed fees and scholarship payments are also reduced in the multivariate and decomposition analyses; Figure 4 graphs the results. The modest unconditional differences in average assessed family fees are entirely eliminated. The larger unconditional racial and ethnic differences in scholarship payments and amounts are also

mostly eliminated, except for $4.19-$4.56 higher weekly payments and $5.68-$5.75 higher subsidy amounts for Hispanic children after the start of the pandemic and $5.31-$5.51 lower weekly payments and $3.14-$3.55 lower subsidy amounts for non-Hispanic White children.

More noticeable differences in subsidy payments and amounts appear across the geographic groups. In the multivariate and decomposition analyses, suburban children have moderately higher subsidy payments and amounts before the pandemic and substantially higher payments and amounts after the start of the pandemic. Rural children have lower subsidy payments and subsidy amounts before and after the start of the pandemic. Estimates from Table 3 also indicate that most of the unconditional racial and ethnic differences in the incidence of unpaid scholarships are reduced but not eliminated in the multivariate and decomposition analyses. Similarly, the substantial unconditional racial and ethnic differences in weeks of scholarship holding before the pandemic are reduced but not eliminated in the multivariate and decomposition analyses.

A very different pattern of results appears for care proximity, where several conditional and unexplained differences have larger magnitudes or different signs from the unconditional differences. Figure 5 graphs the results. The multivariate and decomposition analyses indicate that non-Hispanic White children are moderately less likely than other children to attend care in the same ZIP Code as their home and moderately more likely to attend care in a neighboring ZIP Code. Conversely, rural children are substantially more likely to attend care in the same ZIP Code as their home and less likely to attend care in other ZIP Codes.

4. Discussion

The study's descriptive cross-tabulation analyses of weekly subsidy records from

Georgia's CAPS program uncover many unconditional racial and ethnic differences in subsidized care outcomes. Hispanic children and non-Hispanic White children are more likely to use full-week care and care with higher Quality Ratings. They also have smaller average co-payments, higher subsidy amounts, and use their subsidies less frequently. Additionally, non-Hispanic White children are unconditionally more likely to use care in the same ZIP Code as their home. There are fewer unconditional differences by geography, with rural children being more likely to use care with higher Quality Ratings, being more likely to use care in the same ZIP Code, having smaller average subsidies, and being less likely to use their subsidies each week.

The study's multivariate and decomposition analyses, however, indicate that many of the unconditional differences in outcomes are explained by differences in the children's characteristics. Three characteristics—children's ages, their initial basis for eligibility, and the geographic distribution of different racial and ethnic groups—play particularly prominent roles. With respect to age, Hispanic and non-Hispanic White children in the CAPS program are more likely than non-Hispanic Black children to be infants and toddlers. Because of this, they have a greater need for full-week care and qualify for more generous subsidies for infant/toddler care.

Non-Hispanic White children are also much more likely than other children to initially become eligible for the CAPS program because of involvement in foster care. Families of foster children have different initial income eligibility requirements, are generally not assessed a family fee, and are eligible for scholarships up to the provider's published rate, which are sometimes higher than the program's maximum reimbursement rate.

Hispanic children are more likely than other children to live in suburban areas, and non-Hispanic White children are more likely than other children to live in rural areas. This affects

their scholarship amounts, because reimbursement rates vary with geography, and affects other conditions, such as the number of care providers.

When the study accounts for these characteristics in its multivariate and Oaxaca-Blinder decomposition analyses, it finds fewer and mostly smaller conditional differences. Most notably, it finds no conditional differences between non-Hispanic Black and White children other than White children traveling farther to care, being slightly more likely to enroll in top-rated care settings, being less likely to use subsidies they hold, and receiving smaller subsidies. The study interprets the lack of conditional differences from the multivariate models and the unexplained differences from the decomposition analyses as evidence of equitable access for the relevant outcomes.

A few conditional racial, ethnic, and geographic differences remain after accounting for differences in children's characteristics. Among the conditional differences, Hispanic children receive modestly higher scholarship amounts than non-Hispanic Black children, but before the pandemic, they used their subsidies less frequently (were more likely to have unpaid weeks). Because of the lower rates of subsidy use, average weekly scholarship payments for Hispanic children were similar to those for other children before the pandemic.

In addition to receiving modestly higher scholarship amounts, Hispanic children are conditionally more likely to use care with high Quality Ratings than non-Hispanic Black children. They are also slightly more likely to use care in a neighboring ZIP Code and slightly less likely to use care in a non-neighboring ZIP Code. Other outcomes for Hispanic children, including care mode and the assessed family fee, are similar to non-Hispanic Black children. The pattern of results for non-Hispanic children of another race largely mirrors the findings for Hispanic

children relative to non-Hispanic Black children.

The multivariate and decomposition analyses also indicate several geographic differences in utilization outcomes. Rural children are slightly more likely to obtain care from providers with high Quality Ratings, and suburban children are less likely to use this type of care, especially after the start of the pandemic. Rural children are also less likely to travel outside their ZIP Code for care. The differences in care proximity could be a result of ZIP Codes in rural areas being geographically larger or being surrounded by agricultural or undeveloped areas. Subsidy amounts and payments are also higher for suburban children and lower for rural children. The lower amounts and payments for rural children are consistent with lower reimbursement rates for rural areas. The large differences for suburban children after the start of the pandemic may be attributable to the ACCESS initiative paying the difference between providers' published rates and the CAPS program maximum reimbursement rates.

4.1. Limitations

There are several limitations that necessitate careful interpretation of the study's findings. First, the study measures many characteristics for children, families, and providers. However, there are other relevant variables, such as parents' work schedules (Han, 2004), parent's attitudes and valuations (Cryer & Burchinal, 1997), and the availability of unpaid providers (Ribar, 1992), that are not available in the data. The study's conditional associations might be influenced by these omitted variables. Second, there are limitations with the measures available in the administrative data. For example, the initial eligibility variable only records membership in one priority group but a child could have characteristics that place them in multiple groups (e.g., being in foster care and having special needs).

Third, the study's evidence of equity comes from multivariate and decomposition analyses that condition on racial, ethnic, and geographic differences in children's characteristics. However, the analyses do not explain why those differences, such as non-Hispanic Black children in the CAPS program being older than other children in the program, appear in the first place. The differences in participating children's observed characteristics could arise from other inequities.

Fourth, the study is limited to a single state and childcare program. The focus on the CAPS program allows us to carefully consider many of its policy features, such as the use of priority groups to establish initial eligibility. However, additional research is needed to determine whether the findings apply to other states and programs.

4.2. Conclusion

The limitations above notwithstanding, the results provide evidence of substantial racial, ethnic, and geographic equity in participating children's use of Georgia's subsidized ECE program. Most notably, non-Hispanic Black and White children have few substantial differences across most care utilization outcomes. The findings demonstrate the importance of moving beyond comparisons of unconditional averages in outcomes, and taking into consideration how differences in children's underlying characteristics can mask similar outcomes. The differences that remain after accounting for children's characteristics, including higher payments for children outside of cities in urban areas, can inform the creation of a more equitable subsidized childcare system for children and their families.

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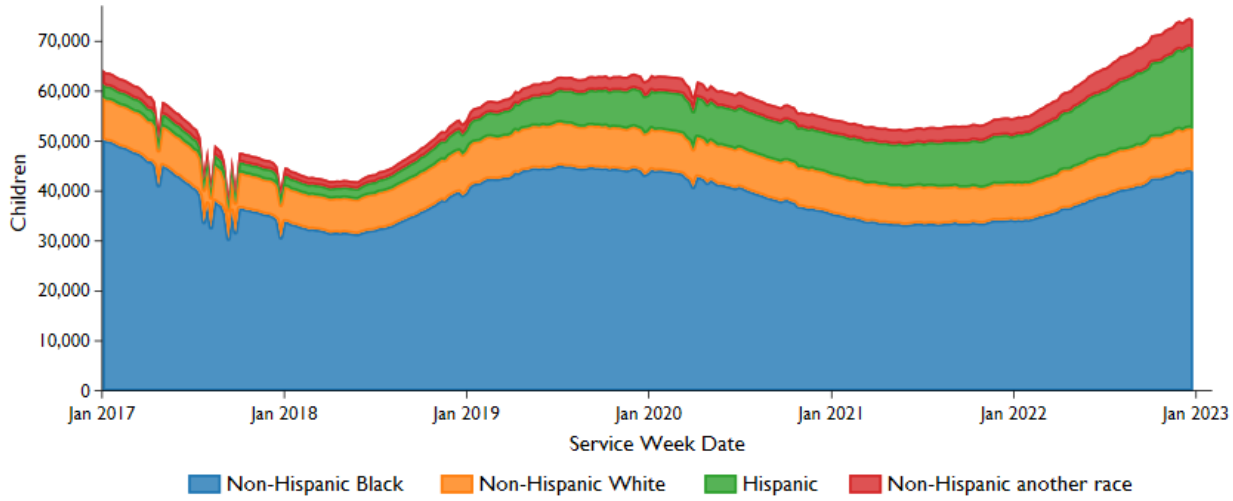
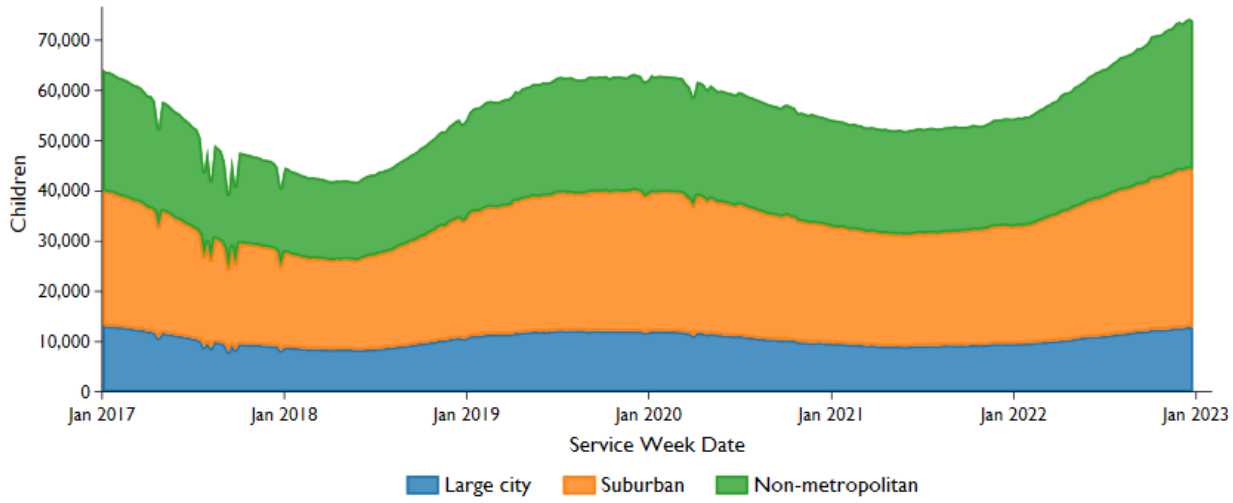
Figure 1. Numbers of Children Each Week with CAPS Scholarships 2017-2022

a. By race and ethnicity

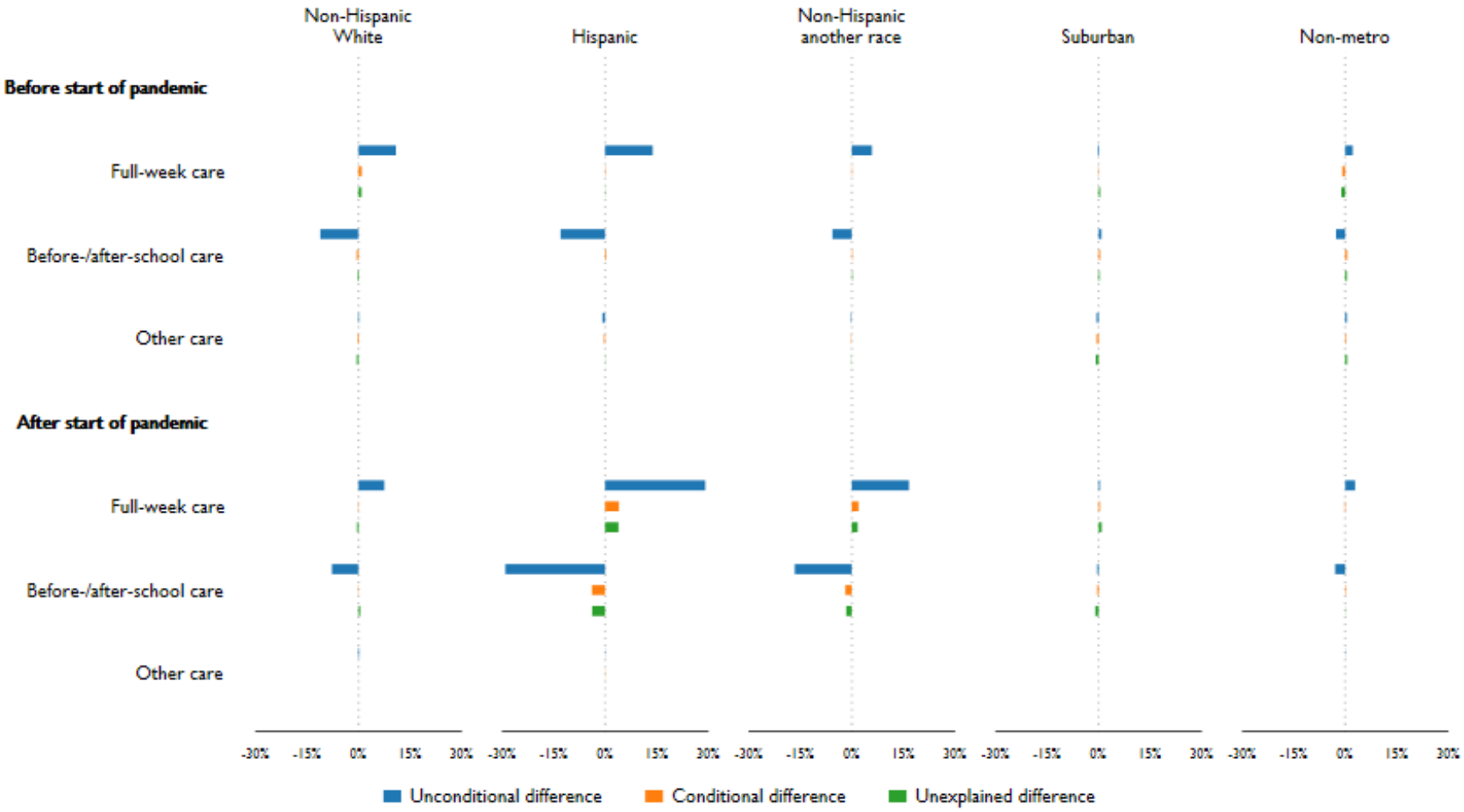


b. By geography



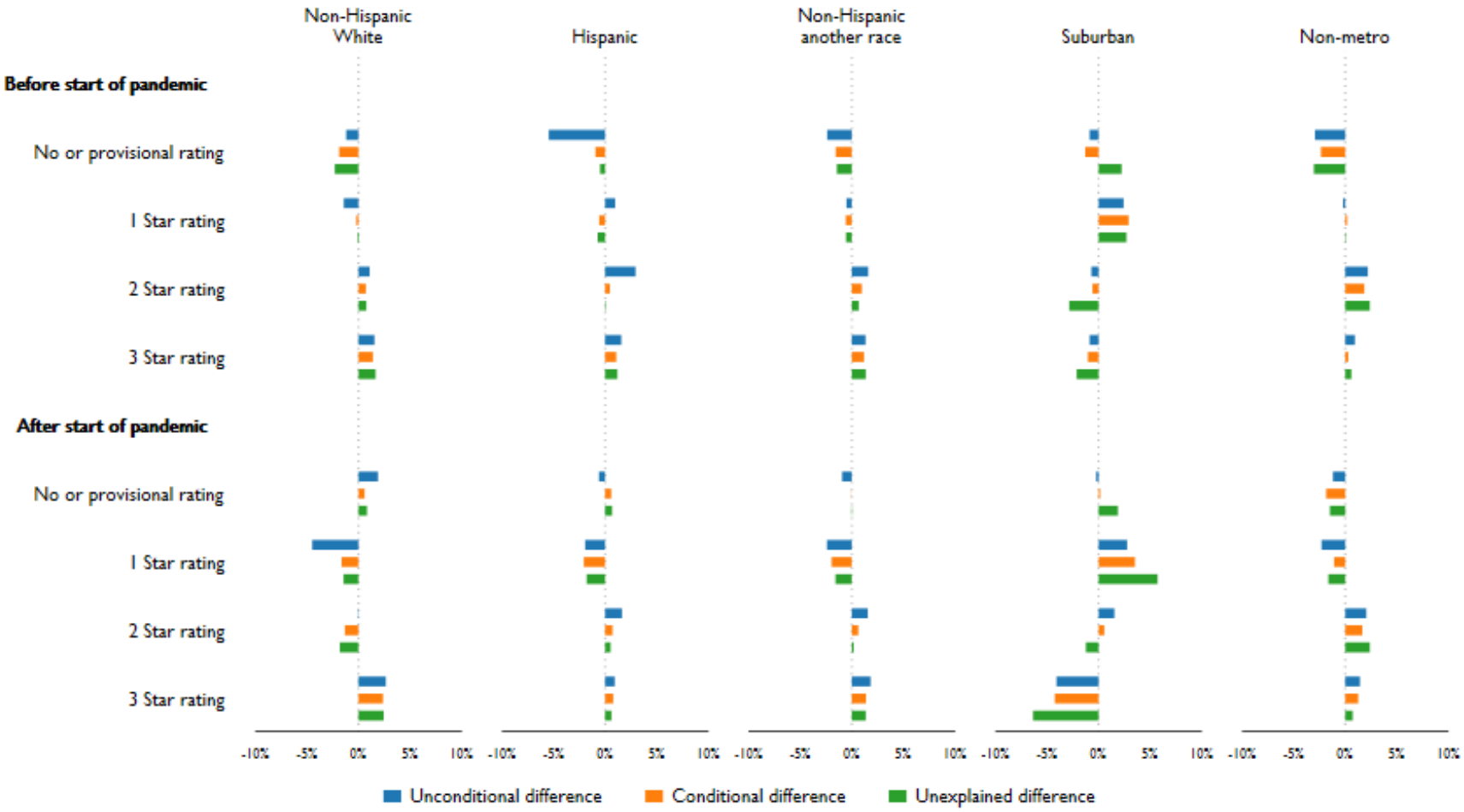
Notes: Authors' calculations of total numbers of unique children receiving CAPS scholarships each week using administrative records.

Figure 2. Unconditional, Conditional, and Unexplained Differences in Care Mode before and after the Start of the COVID-19 Pandemic



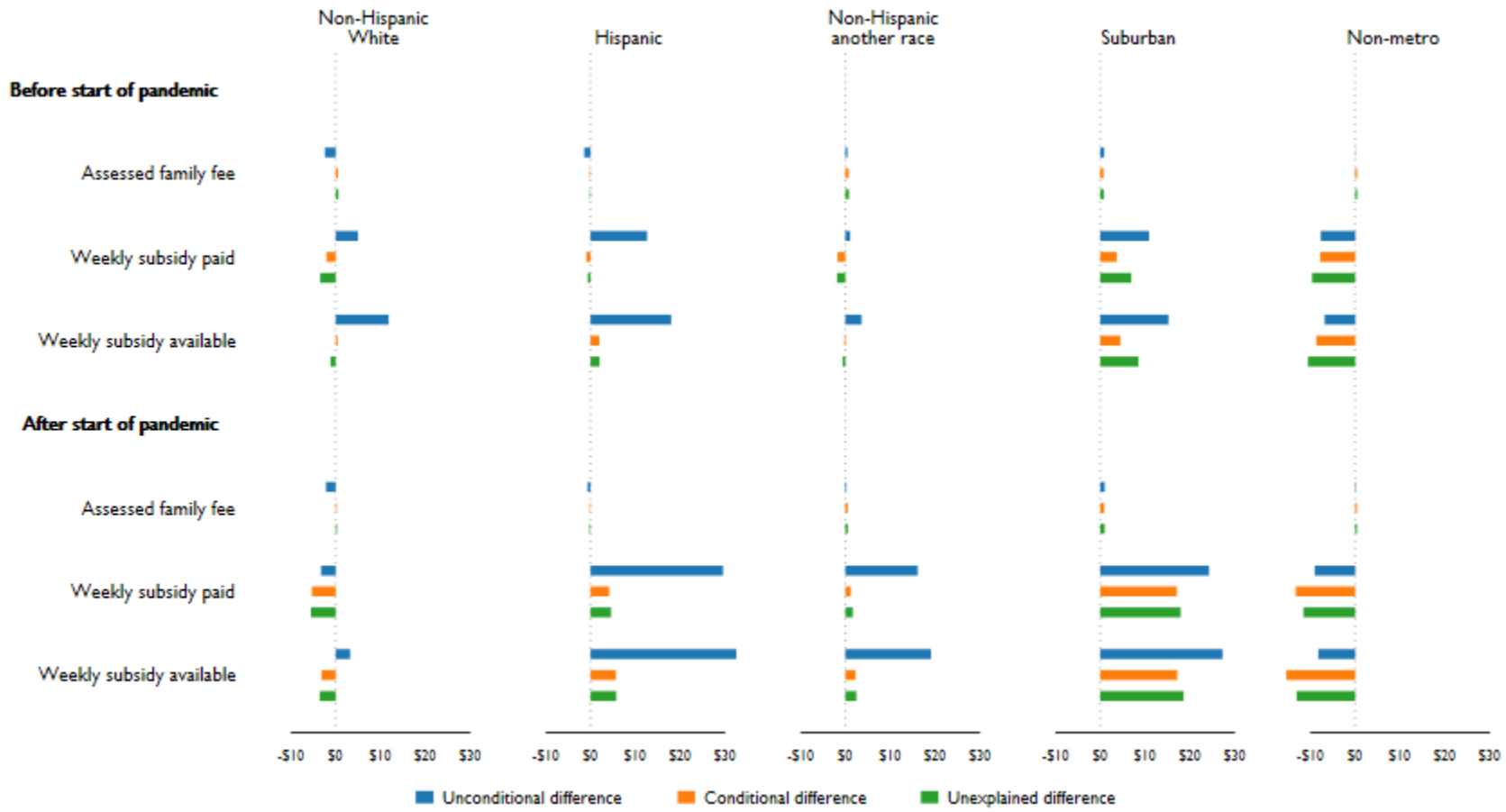
Notes: Authors' estimates of unconditional differences, conditional marginal differences from multivariate models, and unexplained differences from Blinder-Oaxaca decompositions using weekly administrative records for children aged 12 years or younger receiving CAPS scholarships. Race and ethnicity results are differences from non-Hispanic Black children; geographic results are differences from children living in cities.

Figure 3. Unconditional, Conditional, and Unexplained Differences in Care Quality before and after the Start of the COVID-19 Pandemic



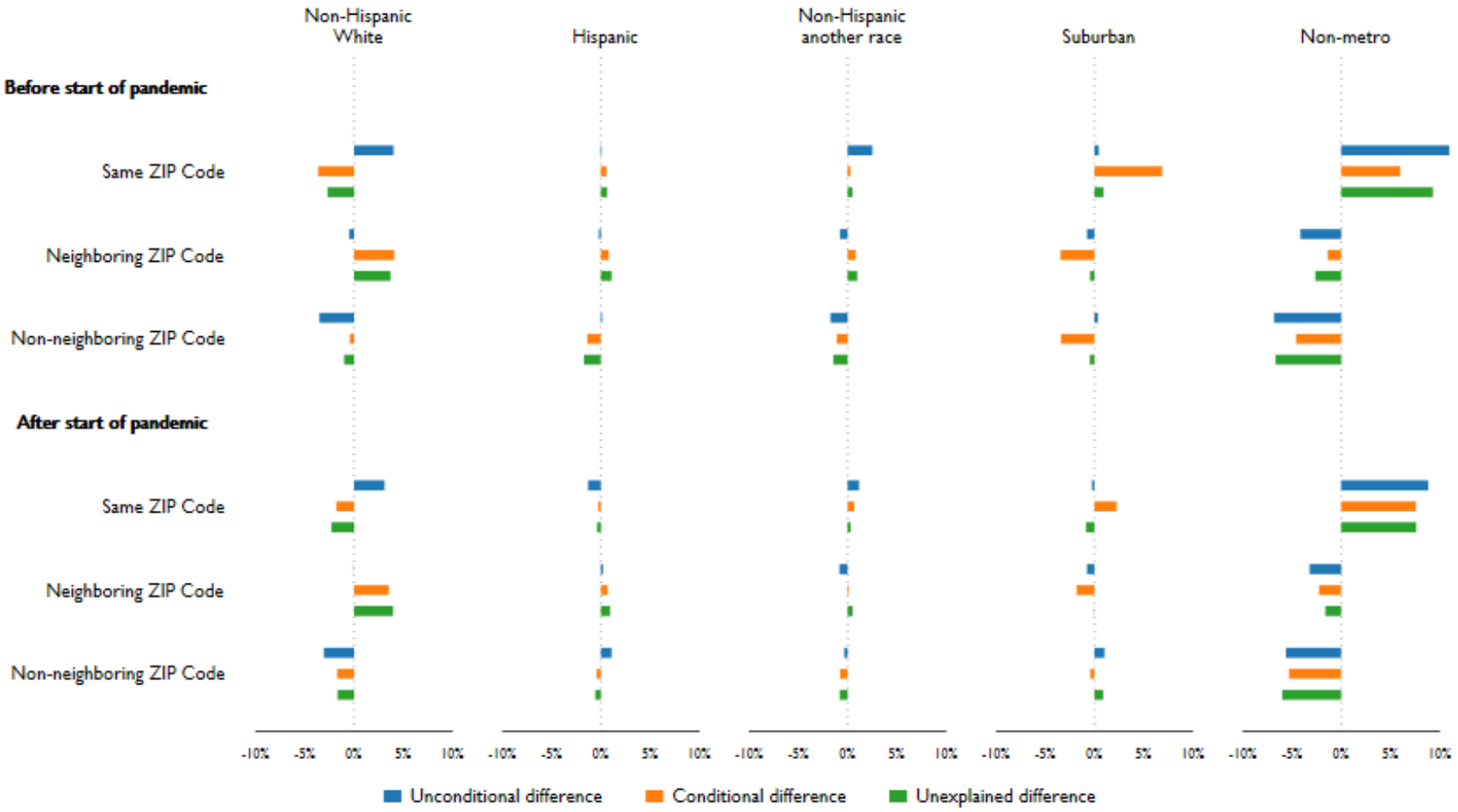
Notes: Authors' estimates of unconditional differences, conditional marginal differences from multivariate models, and unexplained differences from Blinder-Oaxaca decompositions using weekly administrative records for children aged 12 years or younger receiving CAPS scholarships. Race and ethnicity results are differences from non-Hispanic Black children; geographic results are differences from children living in cities.

Figure 4. Unconditional, Conditional, and Unexplained Differences in Care Fees and Payments before and after the Start of the COVID-19 Pandemic



Notes: Authors' estimates of unconditional differences, conditional marginal differences from multivariate models, and unexplained differences from Blinder-Oaxaca decompositions using weekly administrative records for children aged 12 years or younger receiving CAPS scholarships. Race and ethnicity results are differences from non-Hispanic Black children; geographic results are differences from children living in cities. Assessed family fees are only calculated after the adoption of the current fee structure in September 2018 and before the start of the ACCESS initiative on May 17, 2021.

Figure 5. Unconditional, Conditional, and Unexplained Differences in Care Proximity before and after the Start of the COVID-19 Pandemic



Notes: Authors' estimates of unconditional differences, conditional marginal differences from multivariate models, and unexplained differences from Blinder-Oaxaca decompositions using weekly administrative records for children aged 12 years or younger receiving CAPS scholarships. Race and ethnicity results are differences from non-Hispanic Black children; geographic results are differences from children living in cities.

Table 1. Average Outcomes and Characteristics of CAPS Children by Race and Ethnicity Before and After the Start of the COVID-19 Pandemic

Outcome or characteristic	Before COVID-19 pandemic					After start of COVID-19 pandemic				
	All	Non-Hispanic Black	Non-Hispanic White	Hispanic	Non-Hispanic another race	All	Non-Hispanic Black	Non-Hispanic White	Hispanic	Non-Hispanic another race
Mode of care										
Full-week care (%)	54.0	51.2	62.0	65.0	57.1	53.3	46.3	53.8	75.3	62.9
Before-/after-school care (%)	44.5	47.3	36.2	34.3	41.7	46.6	53.6	45.9	24.7	37.0
Other mode (%)	1.5	1.5	1.8	0.7	1.3	0.1	0.1	0.3	0.0	0.1
Type of provider										
Center (%)	96.8	96.6	97.7	97.1	97.2	97.1	96.8	98.4	97.2	97.5
Quality Rating										
No or provisional rating (%)	54.3	54.9	53.8	49.5	52.5	15.4	15.3	17.2	14.7	14.4
1 Star (%)	18.9	19.1	17.7	20.1	18.6	32.3	33.3	28.8	31.4	30.9
2 Stars (%)	22.4	22.0	23.1	24.9	23.6	40.9	40.5	40.5	42.1	42.1
3 Stars (%)	4.4	4.0	5.5	5.5	5.3	11.4	10.8	13.5	11.7	12.6
Distance from home										
Same ZIP Code (%)	45.2	44.5	48.5	44.6	47.1	42.7	42.5	45.5	41.2	43.6
Neighboring ZIP Code (%)	37.6	37.8	37.3	37.5	37.0	37.8	37.8	37.8	38.0	37.0
Non-neighboring ZIP Code (%)	17.1	17.7	14.2	17.8	16.0	19.5	19.7	16.7	20.8	19.4
Assessed fees and payments										
Assessed family fee ($) [A]	7.88	8.33	5.93	6.96	8.75	7.70	8.07	5.94	7.44	8.31
No payment / unused (%) [B]	17.2	16.3	21.0	18.5	18.4	-	-	-	-	-
Weekly subsidy paid ($)	80.04	78.34	83.30	90.95	79.39	130.48	124.81	121.58	154.32	140.90
Weekly subsidy available ($)	96.72	93.63	105.44	111.61	97.26	146.98	139.72	142.96	172.21	158.79
Spells and provider outcomes										
Median schol.-holding surv. dur.	51	50	51	52	51	52	52	52	52	52
Number of scholarship weeks	108.3	112.3	97.5	106.4	105.2	46.1	46.0	50.6	44.5	44.5

Number of scholarship spells	1.8	1.8	1.7	1.7	1.7	1.2	1.2	1.3	1.2	1.2
Count of unique providers	1.8	1.8	1.7	1.8	1.7	1.2	1.2	1.3	1.2	1.2
Personal characteristics										
Girl (%)	49.1	49.4	47.4	48.9	49.3	48.9	49.1	47.6	49.1	49.0
Age (years)	4.9	5.1	4.5	3.8	4.5	4.9	5.4	5.0	3.4	4.2
Initial priority group eligibility										
Very low income (%)	10.7	10.8	7.6	15.4	11.8	21.0	22.0	15.1	21.8	20.4
TANF (%)	7.4	8.0	1.6	13.8	5.1	3.6	3.9	0.7	5.1	2.3
Foster or protective care (%)	14.6	8.7	47.3	10.0	13.4	11.7	6.7	36.1	11.0	12.5
Pre-K (%)	2.9	2.9	2.6	3.1	3.8	3.6	3.8	3.7	2.5	3.5
Special needs (%)	3.7	3.8	3.2	2.6	4.4	5.5	5.9	5.5	4.0	5.8
Other priority group	13.1	13.4	7.5	20.3	15.1	26.6	25.7	20.4	33.6	30.2
Geographic characteristics										
City (%)	19.9	23.2	6.4	15.9	14.3	17.7	21.2	6.7	14.7	14.3
Suburb (%)	43.0	45.5	25.3	52.9	43.3	43.1	45.2	23.5	50.1	43.5
Non-metropolitan area (%)	37.1	31.3	68.4	31.2	42.4	39.2	33.6	69.8	35.3	42.2
Percent Black in county (%)	41.1	44.7	25.3	38.3	36.9	40.7	44.7	25.4	39.0	37.6
Percent Hispanic in county (%)	8.8	8.5	9.0	10.5	9.4	9.4	9.0	9.4	10.5	9.8
County unemployment rate (%)	4.3	4.4	4.1	4.0	4.2	5.0	5.2	4.3	4.5	4.6
Providers per 1,000 residents	0.61	0.64	0.50	0.56	0.57	0.55	0.58	0.46	0.52	0.52
Weekly observations	8845257	6548240	1275039	656453	365525	8347528	5288138	1099682	1443087	516621
Children	138443	98127	21342	12758	6216	131520	79469	17620	25923	8508

Notes: Authors' calculations using weekly administrative records for children aged 12 years or younger receiving CAPS scholarships.
[A] Assessed family fees are only calculated after the adoption of the current fee structure in September 2018 and before the start of the ACCESS initiative on May 17, 2021.
[B] DECAL waived the attendance requirement for subsidy payment shortly after the start of the COVID-19 pandemic.

Table 2. Average Outcomes and Characteristics of CAPS Children by Geography Before and After the Start of the COVID-19 Pandemic

Outcome or characteristic	Before COVID-19 pandemic				During and after COVID-19 pandemic			
	All	City	Suburb	Non-metro	All	City	Suburb	Non-metro
Mode of care								
Full-week care (%)	54.0	53.4	53.1	55.5	53.3	52.0	52.4	54.9
Before-/after-school care (%)	44.5	45.1	46.0	42.4	46.6	47.9	47.5	45.0
Other mode (%)	1.5	1.5	1.0	2.0	0.1	0.1	0.1	0.2
Type of provider								
Center (%)	96.8	97.2	96.9	96.4	97.1	97.1	97.4	96.9
Quality Rating								
No or provisional rating (%)	54.3	55.7	54.9	52.8	15.4	16.0	15.8	14.8
1 Star (%)	18.9	18.0	20.4	17.8	32.3	32.0	34.7	29.7
2 Stars (%)	22.4	21.9	21.2	24.1	40.9	39.4	41.0	41.5
3 Stars (%)	4.4	4.4	3.5	5.3	11.4	12.6	8.5	14.0
Distance from home								
Same ZIP Code (%)	45.2	41.0	41.4	51.9	42.7	39.4	39.1	48.2
Neighboring ZIP Code (%)	37.6	39.5	38.7	35.4	37.8	39.4	38.6	36.2
Non-neighboring ZIP Code (%)	17.1	19.5	19.8	12.7	19.5	21.3	22.3	15.7
Assessed fees and payments								
Assessed family fee ($) [A]	7.88	7.50	8.40	7.46	7.70	7.31	8.31	7.20
No payment / unused (%) [B]	17.2	15.7	17.4	17.9	-	-	-	-
Weekly subsidy paid ($)	80.04	78.18	89.07	70.55	130.48	123.58	147.81	114.55
Weekly subsidy available ($)	96.72	92.70	107.89	85.89	146.98	138.36	165.58	130.18
Spells and provider outcomes								
Median schol.-holding surv. dur.	51	51	49	51	52	52	52	52
Number of scholarship weeks	108.3	109.8	109.7	106.1	46.1	45.2	45.8	46.7
Number of scholarship spells	1.8	1.8	1.8	1.7	1.2	1.2	1.2	1.2
Count of unique providers	1.8	1.8	1.9	1.7	1.2	1.2	1.3	1.2

Personal characteristics								
Non-Hispanic Black (%)	74.0	86.5	78.3	62.5	63.3	75.7	66.5	54.3
Non-Hispanic White (%)	14.4	4.6	8.5	26.6	13.2	5.0	7.2	23.5
Hispanic (%)	7.4	6.0	9.1	6.2	17.3	14.3	20.1	15.6
Non-Hispanic another race (%)	4.1	3.0	4.2	4.7	6.2	5.0	6.2	6.7
Girl (%)	49.1	49.2	49.5	48.5	48.9	48.9	49.3	48.4
Age (years)	4.9	4.9	4.9	4.8	4.9	5.0	5.0	4.8
Initial priority group eligibility								
Very low income (%)	10.7	11.2	9.9	11.4	21.0	21.9	19.7	22.0
TANF (%)	7.4	12.2	8.6	3.5	3.6	6.8	3.9	1.7
Foster or protective care (%)	14.6	8.3	10.8	22.2	11.7	7.0	8.1	17.6
Pre-K (%)	2.9	2.4	3.1	2.9	3.6	3.1	3.7	3.6
Special needs (%)	3.7	2.8	4.1	3.6	5.5	4.7	5.5	5.9
Other priority group	13.1	12.9	16.5	9.2	26.6	26.1	30.6	22.5
Geographic characteristics								
Percent Black in county (%)	41.1	44.8	44.8	34.8	40.7	44.8	44.8	34.5
Percent Hispanic in county (%)	8.8	6.8	11.6	6.6	9.4	7.1	12.3	7.2
County unemployment rate (%)	4.3	4.4	4.1	4.5	5.0	5.3	5.1	4.6
Providers per 1,000 residents	0.61	0.68	0.58	0.61	0.55	0.62	0.52	0.55
Weekly observations	8845257	1755785	3807343	3282129	8347528	1480322	3596244	3270962
Children	138443	26936	58941	52566	131520	23376	56202	51942

Notes: Authors' calculations using weekly administrative records for children aged 12 years or younger receiving CAPS scholarships.
[A] Assessed family fees are only calculated after the adoption of the current fee structure in September 2018 and before the start of the ACCESS initiative on May 17, 2021.
[B] DECAL waived the attendance requirement for subsidy payment shortly after the start of the COVID-19 pandemic.

Table 3. Unconditional, Conditional, and Unexplained Differences in Care Usage Outcomes before the Start of the COVID-19 Pandemic

		Non-Hispanic White		Hispanic		Non-Hispanic another race		Suburban		Non-metro	
Outcome		Diff.	(S.E.)	Diff.	(S.E.)	Diff.	(S.E.)	Diff.	(S.E.)	Diff.	(S.E.)
Mode of care											
Full-week care (%)	U:	10.84	(0.35)	13.78	(0.46)	5.85	(0.61)	-0.30	(0.37)	2.15	(0.37)
	C:	0.93	(0.21)	0.11	(0.25)	0.08	(0.30)	0.13	(0.19)	-0.84	(0.19)
	O:	0.89	(0.22)	0.00	(0.22)	-0.05	(0.31)	0.48	(0.20)	-1.10	(0.19)
Before-/after-school care (%)	U:	-11.09	(0.35)	-12.98	(0.46)	-5.61	(0.61)	0.86	(0.37)	-2.65	(0.37)
	C:	-0.55	(0.21)	0.26	(0.27)	0.12	(0.31)	0.44	(0.20)	0.59	(0.20)
	O:	-0.34	(0.23)	-0.04	(0.22)	0.18	(0.32)	0.35	(0.21)	0.55	(0.21)
Other mode (%)	U:	0.25	(0.07)	-0.80	(0.08)	-0.24	(0.11)	-0.56	(0.07)	0.50	(0.08)
	C:	-0.37	(0.06)	-0.37	(0.13)	-0.20	(0.12)	-0.57	(0.08)	0.26	(0.09)
	O:	-0.55	(0.08)	0.04	(0.08)	-0.13	(0.11)	-0.83	(0.08)	0.55	(0.09)
Type of provider											
Center (%)	U:	1.19	(0.13)	0.53	(0.18)	0.60	(0.22)	-0.22	(0.14)	-0.74	(0.14)
	C:	1.04	(0.16)	0.37	(0.18)	0.51	(0.22)	-1.12	(0.15)	-1.27	(0.15)
	O:	1.16	(0.16)	0.39	(0.18)	0.55	(0.22)	-1.29	(0.16)	-1.06	(0.16)
Quality Rating											
No or provisional rating (%)	U:	-1.19	(0.37)	-5.46	(0.45)	-2.40	(0.61)	-0.87	(0.35)	-2.92	(0.36)
	C:	-1.87	(0.43)	-0.94	(0.45)	-1.56	(0.60)	-1.29	(0.39)	-2.36	(0.38)
	O:	-2.30	(0.44)	-0.50	(0.46)	-1.46	(0.60)	2.23	(0.40)	-3.03	(0.38)
1 Star (%)	U:	-1.42	(0.28)	0.96	(0.36)	-0.52	(0.47)	2.43	(0.28)	-0.20	(0.29)
	C:	-0.22	(0.34)	-0.59	(0.35)	-0.58	(0.47)	2.92	(0.32)	0.19	(0.29)
	O:	-0.11	(0.34)	-0.73	(0.37)	-0.55	(0.48)	2.70	(0.32)	0.07	(0.30)
2 Stars (%)	U:	1.06	(0.31)	2.93	(0.39)	1.58	(0.51)	-0.70	(0.29)	2.18	(0.30)
	C:	0.70	(0.36)	0.45	(0.37)	0.96	(0.51)	-0.59	(0.32)	1.86	(0.33)
	O:	0.76	(0.37)	0.06	(0.40)	0.66	(0.51)	-2.83	(0.34)	2.37	(0.33)

3 Stars (%)	U:	1.54	(0.16)	1.56	(0.20)	1.33	(0.27)	-0.86	(0.13)	0.93	(0.15)
	C:	1.39	(0.19)	1.08	(0.19)	1.18	(0.26)	-1.03	(0.16)	0.31	(0.16)
	O:	1.65	(0.19)	1.18	(0.20)	1.35	(0.27)	-2.10	(0.16)	0.59	(0.16)
Distance from home											
Same ZIP Code (%)	U:	3.99	(0.40)	0.08	(0.49)	2.51	(0.66)	0.44	(0.39)	10.95	(0.40)
	C:	-3.64	(0.46)	0.58	(0.50)	0.28	(0.66)	6.87	(0.44)	5.98	(0.43)
	O:	-2.69	(0.48)	0.65	(0.51)	0.49	(0.66)	0.94	(0.46)	9.27	(0.44)
Neighboring ZIP Code (%)	U:	-0.48	(0.39)	-0.21	(0.48)	-0.77	(0.64)	-0.77	(0.38)	-4.15	(0.39)
	C:	4.07	(0.46)	0.79	(0.49)	0.82	(0.64)	-3.46	(0.43)	-1.40	(0.43)
	O:	3.69	(0.46)	1.07	(0.49)	0.97	(0.64)	-0.46	(0.45)	-2.63	(0.43)
Non-neighboring ZIP Code (%)	U:	-3.51	(0.27)	0.13	(0.36)	-1.74	(0.45)	0.34	(0.30)	-6.80	(0.29)
	C:	-0.42	(0.35)	-1.38	(0.34)	-1.09	(0.46)	-3.41	(0.35)	-4.58	(0.33)
	O:	-1.00	(0.33)	-1.72	(0.37)	-1.45	(0.46)	-0.47	(0.36)	-6.65	(0.31)
Assessed fees and payments											
Assessed family fee ($) [A]	U:	-2.41	(0.09)	-1.38	(0.09)	0.42	(0.14)	0.90	(0.08)	-0.04	(0.08)
	C:	0.51	(0.08)	-0.12	(0.09)	0.76	(0.13)	0.72	(0.08)	0.50	(0.08)
	O:	0.62	(0.09)	-0.13	(0.09)	0.77	(0.13)	0.76	(0.08)	0.46	(0.08)
Unpaid week (%)	U:	4.67	(0.21)	2.18	(0.25)	2.04	(0.34)	1.78	(0.18)	2.21	(0.19)
	C:	2.86	(0.23)	2.75	(0.25)	1.78	(0.33)	0.20	(0.20)	0.83	(0.20)
	O:	2.92	(0.24)	2.42	(0.26)	1.56	(0.33)	0.44	(0.21)	0.97	(0.20)
Weekly subsidy paid ($)	U:	4.96	(0.42)	12.61	(0.47)	1.05	(0.58)	10.89	(0.32)	-7.63	(0.31)
	C:	-2.04	(0.36)	-0.96	(0.38)	-1.78	(0.46)	3.69	(0.29)	-7.78	(0.27)
	O:	-3.43	(0.37)	-0.60	(0.38)	-1.86	(0.46)	6.92	(0.32)	-9.63	(0.27)
Weekly subsidy available ($)	U:	11.82	(0.46)	17.98	(0.47)	3.63	(0.60)	15.20	(0.31)	-6.81	(0.31)
	C:	0.42	(0.35)	1.98	(0.33)	-0.25	(0.41)	4.52	(0.26)	-8.66	(0.24)
	O:	-1.16	(0.36)	2.03	(0.34)	-0.63	(0.42)	8.52	(0.28)	-10.54	(0.24)
Spells and provider outcomes											
Median scholarship-holding	U:	0.13	(0.01)	-0.03	(0.02)	0.04	(0.03)	0.06	(0.01)	0.00	(0.01)
survival duration	C:	0.08	(0.06)	0.08	(0.07)	0.03	(0.09)	0.11	(0.06)	-0.07	(0.06)
	O:	0.07	(0.02)	0.04	(0.02)	0.04	(0.02)	0.05	(0.02)	-0.03	(0.01)

Number of scholarship weeks	U:	-14.83	(0.69)	-5.87	(0.76)	-7.14	(1.27)	-0.10	(0.79)	-3.72	(0.80)
	C:	-5.62	(0.79)	-5.98	(0.75)	-4.67	(1.22)	3.57	(0.82)	3.11	(0.79)
	O:	-5.13	(0.82)	-5.61	(0.74)	-4.38	(1.21)	2.73	(0.86)	1.93	(0.82)
Number of scholarship spells	U:	-0.14	(0.01)	-0.10	(0.01)	-0.08	(0.02)	0.06	(0.01)	-0.05	(0.01)
	C:	-0.09	(0.01)	-0.05	(0.01)	-0.05	(0.02)	0.04	(0.02)	0.02	(0.01)
	O:	-0.09	(0.02)	-0.04	(0.01)	-0.05	(0.02)	0.08	(0.02)	-0.01	(0.01)
Count of unique providers	U:	-0.16	(0.01)	-0.08	(0.01)	-0.10	(0.02)	0.13	(0.01)	-0.11	(0.01)
	C:	-0.12	(0.01)	-0.09	(0.01)	-0.08	(0.02)	0.13	(0.02)	-0.01	(0.01)
	O:	-0.13	(0.02)	-0.09	(0.01)	-0.08	(0.02)	0.17	(0.02)	-0.06	(0.01)

Notes: Authors' estimates of unconditional differences (U), conditional marginal differences from multivariate models (C), unexplained differences from Blinder-Oaxaca decompositions (O), and standard errors using weekly administrative records for children aged 12 years or younger receiving CAPS scholarships. Race and ethnicity results are estimated differences from non-Hispanic Black children; geographic results are estimated as differences from children living in cities.

[A] Assessed family fees are only calculated after the adoption of the current fee structure in September 2018.

Table 4. Unconditional, Conditional, and Unexplained Differences in Care Usage Outcomes after the Start of the COVID-19 Pandemic

		Non-Hispanic White		Hispanic		Non-Hispanic another race		Suburban		Non-metro	
Outcome		Diff.	(S.E.)	Diff.	(S.E.)	Diff.	(S.E.)	Diff.	(S.E.)	Diff.	(S.E.)
Mode of care											
Full-week care (%)	U:	7.51	(0.41)	29.04	(0.34)	16.60	(0.57)	0.42	(0.39)	2.87	(0.40)
	C:	0.12	(0.23)	3.97	(0.18)	1.92	(0.28)	0.40	(0.20)	-0.19	(0.19)
	O:	-0.45	(0.25)	3.86	(0.17)	1.70	(0.27)	0.92	(0.22)	0.02	(0.20)
Before-/after-school care (%)	U:	-7.76	(0.41)	-28.97	(0.34)	-16.58	(0.57)	-0.45	(0.39)	-2.95	(0.40)
	C:	-0.12	(0.23)	-3.88	(0.18)	-1.90	(0.28)	-0.42	(0.20)	0.18	(0.19)
	O:	0.48	(0.25)	-3.79	(0.17)	-1.66	(0.28)	-0.94	(0.22)	-0.03	(0.20)
Other mode (%)	U:	0.24	(0.03)	-0.07	(0.01)	-0.02	(0.02)	0.03	(0.01)	0.08	(0.01)
	C:	0.00	(0.01)	-0.08	(0.01)	-0.02	(0.02)	0.02	(0.02)	0.01	(0.02)
	O:	-0.03	(0.03)	-0.06	(0.01)	-0.04	(0.02)	0.02	(0.01)	0.01	(0.01)
Type of provider											
Center (%)	U:	1.60	(0.13)	0.36	(0.14)	0.71	(0.20)	0.29	(0.15)	-0.17	(0.15)
	C:	1.33	(0.15)	0.30	(0.14)	0.62	(0.21)	-0.68	(0.15)	-0.58	(0.16)
	O:	1.45	(0.16)	0.35	(0.15)	0.66	(0.21)	-0.88	(0.16)	-0.52	(0.17)
Quality Rating											
No or provisional rating (%)	U:	1.88	(0.27)	-0.60	(0.22)	-0.94	(0.33)	-0.22	(0.24)	-1.18	(0.24)
	C:	0.59	(0.28)	0.59	(0.24)	-0.03	(0.34)	0.15	(0.26)	-1.83	(0.25)
	O:	0.83	(0.30)	0.67	(0.23)	0.03	(0.33)	1.86	(0.27)	-1.49	(0.25)
1 Star (%)	U:	-4.49	(0.38)	-1.94	(0.33)	-2.41	(0.51)	2.76	(0.36)	-2.30	(0.36)
	C:	-1.64	(0.43)	-2.07	(0.34)	-1.97	(0.52)	3.54	(0.39)	-1.08	(0.37)
	O:	-1.46	(0.44)	-1.80	(0.35)	-1.57	(0.52)	5.71	(0.41)	-1.64	(0.38)
2 Stars (%)	U:	-0.05	(0.42)	1.62	(0.36)	1.53	(0.56)	1.54	(0.38)	2.05	(0.39)
	C:	-1.33	(0.47)	0.71	(0.38)	0.63	(0.56)	0.55	(0.42)	1.66	(0.40)
	O:	-1.81	(0.49)	0.52	(0.38)	0.19	(0.57)	-1.23	(0.45)	2.39	(0.41)

3 Stars (%)	U:	2.66	(0.29)	0.92	(0.24)	1.82	(0.39)	-4.07	(0.25)	1.43	(0.27)
	C:	2.37	(0.32)	0.77	(0.25)	1.37	(0.38)	-4.24	(0.28)	1.26	(0.29)
	O:	2.44	(0.33)	0.61	(0.25)	1.35	(0.39)	-6.34	(0.30)	0.74	(0.30)
Distance from home											
Same ZIP Code (%)	U:	3.09	(0.45)	-1.30	(0.39)	1.15	(0.60)	-0.26	(0.41)	8.82	(0.43)
	C:	-1.79	(0.49)	-0.27	(0.41)	0.65	(0.61)	2.25	(0.46)	7.58	(0.44)
	O:	-2.28	(0.53)	-0.39	(0.41)	0.30	(0.61)	-0.86	(0.49)	7.59	(0.46)
Neighboring ZIP Code (%)	U:	-0.02	(0.43)	0.22	(0.38)	-0.82	(0.58)	-0.76	(0.41)	-3.20	(0.42)
	C:	3.51	(0.49)	0.69	(0.40)	0.11	(0.59)	-1.82	(0.45)	-2.26	(0.44)
	O:	3.95	(0.51)	0.94	(0.40)	0.51	(0.59)	-0.03	(0.48)	-1.60	(0.45)
Non-neighboring ZIP Code (%)	U:	-3.07	(0.32)	1.09	(0.31)	-0.33	(0.46)	1.02	(0.34)	-5.62	(0.33)
	C:	-1.72	(0.37)	-0.42	(0.31)	-0.76	(0.46)	-0.44	(0.38)	-5.31	(0.35)
	O:	-1.67	(0.37)	-0.55	(0.33)	-0.81	(0.46)	0.88	(0.39)	-6.00	(0.35)
Assessed fees and payments											
Assessed family fee ($) [A]	U:	-2.14	(0.09)	-0.64	(0.09)	0.24	(0.15)	1.00	(0.09)	-0.11	(0.09)
	C:	0.20	(0.09)	-0.17	(0.09)	0.53	(0.14)	0.91	(0.09)	0.43	(0.09)
	O:	0.25	(0.10)	-0.21	(0.09)	0.53	(0.14)	1.00	(0.10)	0.44	(0.09)
Weekly subsidy paid ($)	U:	-3.23	(0.55)	29.51	(0.49)	16.10	(0.78)	24.23	(0.46)	-9.03	(0.43)
	C:	-5.31	(0.48)	4.19	(0.40)	1.19	(0.60)	17.04	(0.41)	-13.25	(0.37)
	O:	-5.51	(0.50)	4.56	(0.41)	1.65	(0.61)	17.90	(0.45)	-11.52	(0.38)
Weekly subsidy available ($)	U:	3.24	(0.54)	32.49	(0.47)	19.07	(0.76)	27.21	(0.44)	-8.18	(0.41)
	C:	-3.14	(0.44)	5.68	(0.36)	2.26	(0.53)	17.16	(0.37)	-15.35	(0.33)
	O:	-3.55	(0.46)	5.75	(0.36)	2.46	(0.54)	18.56	(0.40)	-13.03	(0.34)
Spells and provider outcomes											
Median scholarship-holding	U:	0.15	(0.01)	-0.15	(0.01)	-0.06	(0.02)	0.00	(0.01)	-0.02	(0.01)
survival duration	C:	0.10	(0.08)	-0.11	(0.07)	-0.05	(0.10)	0.08	(0.07)	-0.07	(0.07)
	O:	0.05	(0.02)	-0.02	(0.01)	0.01	(0.02)	0.05	(0.01)	-0.07	(0.01)
Number of scholarship weeks	U:	4.58	(0.43)	-1.51	(0.32)	-1.57	(0.51)	0.67	(0.41)	1.54	(0.40)
	C:	-0.20	(0.28)	-0.31	(0.21)	0.34	(0.32)	0.38	(0.27)	0.17	(0.26)
	O:	-0.14	(0.34)	-0.30	(0.20)	0.37	(0.30)	0.89	(0.29)	0.25	(0.27)

Number of scholarship spells	U:	0.05	(0.01)	-0.05	(0.01)	-0.04	(0.01)	0.01	(0.01)	0.02	(0.01)
	C:	-0.01	(0.01)	-0.01	(0.01)	-0.01	(0.01)	0.01	(0.01)	0.00	(0.01)
	O:	-0.01	(0.01)	-0.01	(0.01)	-0.01	(0.01)	0.02	(0.01)	0.00	(0.01)
Count of unique providers	U:	0.03	(0.01)	-0.01	(0.01)	0.00	(0.01)	0.06	(0.01)	0.00	(0.01)
	C:	-0.03	(0.01)	-0.02	(0.01)	-0.01	(0.01)	0.08	(0.01)	-0.02	(0.01)
	O:	-0.03	(0.01)	-0.02	(0.01)	-0.01	(0.01)	0.09	(0.01)	-0.01	(0.01)

Notes: Authors' estimates of unconditional differences (U), conditional marginal differences from multivariate models (C), unexplained differences from Blinder-Oaxaca decompositions (O), and standard errors using weekly administrative records for children aged 12 years or younger receiving CAPS scholarships. Race and ethnicity results are differences from non-Hispanic Black children; geographic results are differences from children living in cities.

[A] Assessed family fees are only calculated before the start of the ACCESS initiative on May 17, 2021.