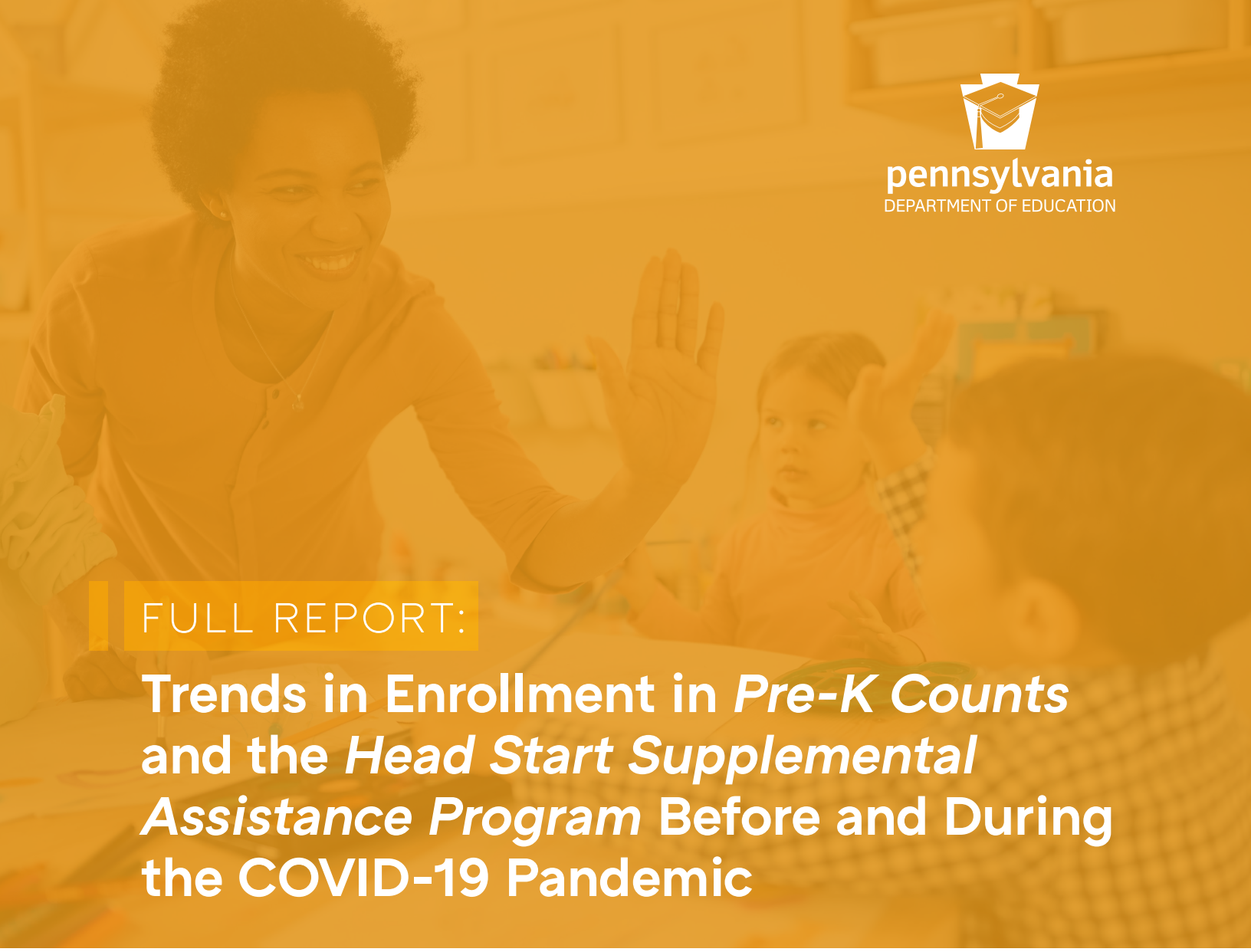

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FULL REPORT:

Trends in Enrollment in *Pre-K Counts* and the *Head Start Supplemental Assistance Program* Before and During the COVID-19 Pandemic

Karen Babbs Hollett and Erica Frankenberg

Pennsylvania State University

RECIPIENT OF THE
Education Research and Evaluation Scholar Award
from the Pennsylvania Department of Education (PDE)

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Research and Evaluation

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Abstract

Enrollment in in high-quality preschool programs is linked to a range of positive academic and social outcomes for children. However, the Covid-19 pandemic caused substantial disruptions in preschool education for many children. While some disruptions may have been necessary to protect public health, they are nonetheless concerning given the negative association between instability in early education and children's healthy development. To better understand the extent to which preschool enrollment in Pennsylvania changed during the pandemic, we examine Pre-K Counts (PKC) and the Head Start Supplemental Assistance Program (HSSAP), two publicly-funded programs designed to expand access to quality preschool education. We found that enrollment in both programs declined substantially during the pandemic, though the magnitude of declines varied by child, community, and provider characteristics. In both programs, enrollment declines were greatest for Black and Hispanic children, children in cities, and children living in high-poverty communities and communities with lower percentages of White residents. These trends are likely a result of government policies, provider constraints, and varied decision-making by families of young children. We recommend additional research to determine if and how the enrollment trends observed in this study persisted during the second and third years of the pandemic. We further recommend that state agencies target resources to support the recruitment, enrollment, and retention of children from the communities most affected by enrollment declines, in coordination with other publicly-funded preschool programs.

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Julie Patton | Director of Compliance
Phone: 717.346.1085 | jupatton@pa.gov

Candy M. Miller | Research and Evaluation Manager
Phone: 717.705.6499 | c-candmill@pa.gov

Pennsylvania Department of Education | Office of Administration
607 South Drive | Harrisburg, PA 17120
Phone: 717.705.6499 | Fax: 717.787.3148

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About the Authors

Karen Babbs Hollett is a former elementary school teacher, instructional leader, and director at a state department of education. She is currently a doctoral candidate in Educational Leadership at Pennsylvania State University. She studies issues of equity in early care and education, with a focus on state and federal ECE policy.

Erica Frankenberg is a professor of education and demography in the College of Education at Pennsylvania State University. She is the director of the University's Center for Education and Civil Rights and a fellow of the National Education Policy Center. Her research interests focus on racial desegregation and inequality in K-12 schools, and the connections between school segregation and other metropolitan policies.

About the Center for Education and Civil Rights at Pennsylvania State University

The Center for Education and Civil Rights is a hub for the generation of knowledge and coalition-building among the education and civil rights communities. The center promotes research-based actions that address the complicated nature of racial and ethnic inequality in the 21st century. The center's collective work is intended to promote equity across the educational pipeline through an interdisciplinary approach that bridges research and practice.

Corresponding Author Contact Information

Karen Babbs Hollett
200 Rackley Building
University Park, PA, 16802
kah305@psu.edu

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Executive Summary

Enrollment in high-quality preschool programs is associated with a range of positive academic and social outcomes for children. However, the COVID-19 pandemic caused substantial disruptions in preschool education for many children. While some disruptions may have been necessary to protect public health, they are nonetheless concerning, given the negative effect of instability in early education on children's healthy development.

Pre-K Counts (PKC) and the Head Start Supplemental Assistance Program (HSSAP) are high-quality, publicly-funded preschool programs in Pennsylvania designed to expand access to early education to children from families with low incomes.[1] Prior to the pandemic in 2019, PKC served over 22,000 children, and HSSAP served over 6,000. This study examines PKC and HSSAP enrollment trends during the COVID-19 pandemic, focusing on differences by child, community, and provider characteristics.

Key findings for PKC:

- **During the pandemic, enrollment in PKC declined substantially.** The magnitude of enrollment declines varied by children's individual and community characteristics.
  - Relative declines in enrollment were smallest for White children, children in rural communities, children in low-poverty communities, and children in communities with high percentages of White residents.
  - Black children, children in cities, children in high-poverty communities, and children in communities with the lowest percentages of White residents experienced the greatest relative declines in PKC enrollment. Enrollment declines were especially high among children with more than one of these characteristics (e.g., Black children in cities).
  - Year-over-year enrollment declines were greater for Mar. 2021 than for Oct. 2020.
- **Overall, children in school district-based PKC programs experienced the greatest relative declines in enrollment**, and those in Head Start-based PKC programs the least. PKC enrollment declined substantially for children living in high-poverty communities and communities with the lowest percentages of White residents regardless of provider type.

Key findings for HSSAP:

- **Rates of enrollment decline were greatest** for Hispanic children and children living in cities, high-poverty communities, and communities of color.
- **White children, and especially White children in the suburbs, experienced relatively small changes in HSSAP enrollment**. While Black children overall experienced large decreases in program enrollment, Black children in low-poverty communities and Black children in communities with high percentages of White residents had some of the lowest rates of enrollment decline of any subgroup examined.

1 PKC enrolls children from families with incomes of up to 300% of the federal poverty level (FPL). HSSAP, which follows federal Head Start eligibility guidelines, enrolls children from families with incomes of up to 100% FPL. Child Care Works (CCW) is another publicly-funded early care and education program in Pennsylvania that provides child care subsidies to families with low incomes. We analyze CCW enrollment trends during the pandemic in a separate report.

- **For many groups and subgroups, the magnitude of enrollment declines varied considerably by time period**. For example, relative enrollment declines were greater during the second time period examined (i.e., Mar. 2021) compared to the first (i.e., Oct. 2020) for Black children and children in high-poverty communities, but for White children and children in suburban areas, rates of enrollment decline were smaller during the second time period.

Key Similarities and Differences between Programs:

- **In both PKC and HSSAP, relative enrollment declines were smallest** among White children and children living in communities with the highest percentages of White residents.
- **In both PKC and HSSAP, relative enrollment declines were greatest** among children living in cities, high-poverty communities, and communities with the lowest percentages of White residents.
- **In PKC, Black children experienced the greatest rates of enrollment decline of any racial group,** while in HSSAP, Hispanic children consistently experienced the greatest relative decreases in program enrollment.
- **In PKC, rates of enrollment decline were consistently greater** during the second time period examined (i.e., Mar. 2021) across groups of children. But in HSSAP, some groups experienced smaller enrollment declines in the second time period compared to the first.
- **Differences in the magnitude of enrollment changes between groups** (e.g., between White children and Black children) tended to be smaller in HSSAP than in PKC.

These trends are likely a result of government policies, differences in the timing of reopening phases at the state and local level, provider constraints, and varied decision-making by families of young children. In response, we recommend that state agencies support additional research to determine if and how the enrollment trends observed in this study persisted during the second and third years of the pandemic, which factors most affected program enrollment and retention, and which resources families and providers most need in order to rebuild enrollment across communities. Resources should be targeted to the families, communities, and providers most affected by program enrollment declines, in coordination with other publicly-funded preschool programs.

Background and Study Purpose

Participation in high-quality preschool programs is associated with a range of positive academic and social outcomes for children.[2] Benefits are particularly pronounced for Black and Hispanic children and for children from low-income families.[3] However, these groups of children are less likely to be enrolled in quality preschool programs.[4] Disparities in preschool enrollment have likely been exacerbated by the COVID-19 pandemic, with initial evidence showing significant gaps in preschool participation by children's race and economic status.[5] These gaps are concerning because disruptions in preschool education can harm children's healthy development. Instability in preschool participation is associated with fewer gains in pre-academic skills,[6] higher levels of externalizing behavior problems,[7] and poorer social adjustment at school,[8] risks that may be especially acute for Black children.[9] Understanding the extent to which preschool enrollment varied during the pandemic — particularly along lines of race and class — is essential for identifying and remedying potential inequalities.

This study examines Pre-K Counts (PKC) and the Head Start Supplemental Assistance Program (HSSAP), two high-quality, publicly-funded programs in Pennsylvania designed to expand access to preschool education.[10] We explore trends in enrollment in PKC and HSSAP before and during the COVID-19 pandemic, focusing on differences by child, community, and provider characteristics.

Participation in high-quality preschool programs is associated with a range of positive academic and social outcomes for children.

2 Gray-Lobe, G., Pathak, P. A., & Walters, C. R. (2021). *The long-term effects of universal preschool in Boston.* SEII Discussion Paper #2021.05; Meloy, B., Gardner, M., & Darling-Hammond, L. (2019). *Untangling the evidence on preschool effectiveness: Insights for policymakers.* Learning Policy Institute.

3 Amadon, S., Gormley, W. T., Claessens, A., Magnuson, K., Hummel-Price, D., & Romm, K. (2022). Does early childhood education help to improve high school outcomes? Results from Tulsa. *Child Development.* Advance online publication; Bassok, D. (2010). Do Black and Hispanic children benefit more from preschool? Understanding differences in preschool effects across racial groups. *Child Development, 81*(6), 1828–1845.

4 Latham, S., Corcoran, S. P., Sattin-Bajaj, C., & Jennings, J. L. (2020). Racial disparities in pre-K quality: Evidence from New York City's universal pre-K program. *Educational Researcher, 50*(9), 607–617; Valentino, R. (2018). Will public pre-K really close achievement gaps? Gaps in prekindergarten quality between students and across states. *American Educational Research Journal, 55*(1), 79–116.

5 Barnett, W.S. & Jung, K. (Feb 2021). *Seven impacts of the pandemic on young children and their parents: Initial findings from NIEER's December 2020 preschool learning activities survey.* National Institute for Early Education Research; Bassok, D. & Shapiro, A. (2021). *Understanding COVID-19-era enrollment drops among early-grade public school students.* Brookings; Bassok, D., Miller-Bains, K., & Michie, M. (2021). *Virtual and in-person preschool during the pandemic: Findings on preferences from a large survey of Virginia families.*

6 Ansari, A., & Winsler, A. (2013). Stability and sequence of center-based and family childcare: Links with low-income children's school readiness. *Children and Youth Services Review, 35*(2), 358–366.

7 Pilarz, A. R., & Hill, H. D. (2014). Unstable and multiple child care arrangements and young children's behavior. *Early Childhood Research Quarterly, 29*(4), 471–483.

8 Bratsch-Hines, M. E., Mokrova, I., Vernon-Feagans, L., & Family Life Project Key Investigators. (2015). Child care instability from 6 to 36 months and the social adjustment of children in prekindergarten. *Early Childhood Research Quarterly, 30,* 106–116.

9 Tran, H., & Winsler, A. (2011). Teacher and center stability and school readiness among low-income, ethnically diverse children in subsidized, center-based child care. *Children and Youth Services Review, 33*(11), 2241–2252.

10 Child Care Works (CCW) is another publicly-funded program operating in Pennsylvania. Unlike PKC and HSSAP, which serve preschoolers, CCW provides subsidized child care to children ages birth-13. We analyze changes in CCW enrollment trends in a separate report.

Overview of Pre-K Counts and the Head Start Supplemental Assistance Program

Pre-K Counts

Pre-K Counts (PKC) is Pennsylvania's state-funded pre-kindergarten program. Stated goals of PKC include providing high-quality pre-kindergarten education, getting kids excited about school, promoting kindergarten and grade school readiness, and achieving long-term positive outcomes associated with quality early education, like higher rates of college attendance.[11] Children ages three, four, and five who are not yet enrolled in kindergarten and whose families earn up to 300% of the federal poverty level are eligible. PKC also serves eligible families with children who are English language learners and/or who have special needs.[12] PKC provides both half-day and full-day programs, and participation is free for eligible families.

Preschool providers apply for PKC funding from the state through a competitive grant process. Only child care providers with a high-quality designation from the state's quality rating and improvement system (i.e., STAR 3 or 4) are eligible to apply for PKC funding, along with school districts, licensed nursery schools, and Head Start grantees. PKC's emphasis on providing high-quality pre-kindergarten education includes the requirement that lead teachers in PKC classrooms hold an early childhood education or PK-4 instructional certification.

A recent evaluation of the impact of Pre-K Counts found promising associations with children's academic performance in kindergarten. Children who participated in PKC had significantly higher levels of language and math skills compared to children who did not participate in the program.[13] These differences were equivalent to an additional 4–5 months of learning for PKC participants, a substantial advantage over non-PKC peers, especially considering the relative magnitude of such a difference for young children just beginning formal academic instruction.

11 Pennsylvania Department of Education. (nd). Preschool programs: Pennsylvania Pre-K Counts. https://www.education.pa.gov/Early%20Learning/OCDEL%20Preschool%20Programs/Pages/default.aspx

12 Pennsylvania Department of Education. (nd). Preschool programs: Pennsylvania Pre-K Counts. https://www.education.pa.gov/Early%20Learning/OCDEL%20Preschool%20Programs/Pages/default.aspx

13 Peisner-Feinberg, E., Soliday Hong, S., Yazejian, N., Zadrozny, S., & Burchinal, M. (2020). *Kindergarten impacts of the Pennsylvania Pre-K Counts Program: A statewide evaluation. Executive summary.* Chapel Hill, NC: The University of North Carolina, School of Education and the Frank Porter Graham Child Development Institute.

Head Start Supplemental Assistance Program

The Head Start Supplemental Assistance Program (HSSAP) is a grant program that provides state funds to Head Start grantees to supplement federal allocations, allowing providers to expand program enrollment to communities unserved by their primary federal grant.[14] The federal Head Start program, enacted in 1965, aims to promote the school readiness of young children from families with low incomes while also supporting children's physical and mental health and overall family well-being. Head Start serves children from families with incomes below the federal poverty level. While the program serves children ages birth-5, most participants are preschoolers. Children from families experiencing homelessness and those who receive public assistance, like TANF, are also eligible.

Head Start and Early Head Start grantees are eligible to apply for HSSAP funding. HSSAP funding can be used to enroll additional three- or four-year-olds, increase the number of hours children are served daily, or increase the number of days each year children experience Head Start. While Head Start grantees are funded directly by the federal government, HSSAP provides additional funding over and above federal allocations, and is funded through state appropriations determined annually by the Pennsylvania legislature and governor.

Participation in Head Start is linked to a range of positive outcomes for children and families.

Participation in Head Start is linked to a range of positive outcomes for children and families, including greater kindergarten readiness,[15] improved educational outcomes later in life (e.g., high school graduation) and more positive parenting practices.[16] Research has also found that the quality of care and instruction is generally higher in Head Start classrooms compared to other types of preschool providers.[17]

14 The Pennsylvania Key. (nd). Head Start (HSSAP). https://www.pakeys.org/getting-started/ocdel-programs/head-start/hssap-how-to-apply/

15 Puma, M., Bell, S., Cook, R., Heid, C., Shapiro, G., Broene, P., Jenkins, F., Fletcher, P., Quinn, L., Friedman, J., Ciarico, J., Rohacek, M., Adams, G., & Spier, E. (2010). Head Start impact study. Final report. *Administration for Children & Families.*

16 Bauer, L., & Schanzenbach, D. W. (2016). *The long-term impact of the Head Start program.* The Hamilton Project.

17 Hillemeier, M. M., Morgan, P. L., Farkas, G., & Maczuga, S. A. (2013). Quality disparities in child care for at-risk children: Comparing Head Start and non-Head Start settings. *Maternal and Child Health Journal, 17,* 180–188.

Pennsylvania's Response to the Pandemic

The COVID-19 pandemic hit Pennsylvania in March 2020. On March 13, Governor Wolf temporarily suspended in-person operations at all Pre-K Counts and Head Start Supplemental Assistance Program sites. K-12 schools were also required to close. County-level stay-at-home orders began on March 23, and by April 1 all 67 counties in the state were under such orders. The state adopted a phased reopening approach, where counties transitioned through three phases – red, yellow, and green – based on infection counts and the presence of key safety mitigation tools, such as testing and contact tracing. Child care facilities were permitted to reopen when counties moved from "red" to "yellow". A group of 24 counties, including many central and northwestern counties, such as Centre and Erie, were the first to enter the "yellow" phase on May 8. The state's second-most populous county, Allegheny, along with 12 other counties, transitioned to "yellow" on May 15. Some counties, including the populous urban and suburban counties of Bucks, Lancaster, Montgomery, and Philadelphia, did not transition to "yellow" until June 5.

State agencies in Pennsylvania responded swiftly during the early weeks and months of the pandemic to support PKC and HSSAP providers and the children they served. Payments from the state to PKC and HSSAP programs continued during closures, and providers were expected to pay staff, provide meals, and offer continuity of learning opportunities to children (when feasible, and in accordance with state and local safety restrictions).[18] Governing agencies allowed flexibility in how PKC and HSSAP providers delivered instruction, permitting them to use a blend of in-person, hybrid, and remote learning options, depending on county-level virus transmission levels, family needs, and staffing availability. The state also granted flexibility on certain fiscal spending policies to permit expenditures that supported virtual and remote learning and other pandemic-related expenses. The requirement that programs operate for at least 180 days annually was waived in 2020. PKC and HSSAP programs that served children of employees of life-sustaining businesses and other essential services were able to apply for waivers that permitted them to continue operation during stay-at-home orders. (Programs physically located inside school district buildings were not eligible for these waivers.[19])

Despite these supportive policies, many PKC and HSSAP providers experienced difficulty in maintaining full enrollment after reopening. A survey of providers found that several factors contributed to program under-enrollments, including: families prioritizing the virtual learning of older school-age students; families questioning the appropriateness of virtual learning for preschoolers; families feeling uncomfortable with in-person instruction; families feeling uncomfortable with required safety procedures (e.g., masking); staffing shortages; and policies that limited class sizes.[20]

18 Pennsylvania Department of Education. (2021). *Pennsylvania Pre-K Counts and Head Start Supplemental Assistance Program report on program operations. Fiscal Year 2020–2021.*

19 Public K-12 schools in Pennsylvania did not reopen in spring or summer 2020.

20 Pennsylvania Department of Education. (2021). *Pennsylvania Pre-K Counts and Head Start Supplemental Assistance Program report on program operations. Fiscal Year 2020–2021.*

Data, Methods, and Limitations

We analyzed de-identified child-level and provider-level data from Pennsylvania's Office of Child Development and Early Learning, along with demographic data from the 2019 American Community Survey (ACS) 5-year estimates and the National Center for Education Statistics. Child-level data included race and ethnicity, family income, and zip code of residence. We linked children's individual zip codes to zip code-level demographic data to create our community characteristic variables. Our provider-level analysis for PKC focused on provider type (e.g., child care provider, school district).

We compare trends within and between groups and subgroups, and consider how demographic characteristics may overlap. Subgroup analysis is particularly important for parsing out these trends. For example, in Pennsylvania, Black families are more likely than White families to be concentrated in cities. It is therefore important to understand whether the trends observed among Black children are because they live in mostly urban communities, or if these trends hold for Black children in all geographic locales. Likewise, by comparing trends among children of different races within cities, we understand better how urban Black children may have similar or different experiences than their other-race peers living in similarly urban settings.

Our analyses included data from 2019, 2020, and 2021, permitting us to explore patterns in enrollment at different points in time before and during the pandemic. We primarily compare the same time period before and during the pandemic (e.g., October 2019 vs. October 2020). In certain instances, we compare chronologically consecutive time periods (e.g., October 2019 vs. March 2021) in order to understand how trends may have varied as a result of changes in policy and public health knowledge.

We report PKC and HSSAP program enrollment counts, and the rates at which those counts changed during the pandemic. Focusing on the number of enrollments best illustrated the extent to which PKC and HSSAP served different groups of children at different points in time. We also examined the share of each group as a percentage of total program enrollment (e.g., White children were 46.4% of PKC enrollees in Oct. 2019 and 50.4% in Oct. 2020). Overall, enrollment patterns held whether we looked at raw counts or percentages, with the former measure magnifying changes to some degree.

While we include enrollment analyses for both PKC and HSSAP, and at points identify similarities and differences in enrollment trends between programs, significant differences between programs exist that should preclude direct comparison. First, income eligibility thresholds vary, with PKC permitting children from families with incomes up to 300% of the federal poverty line (FPL) to enroll, while Head Start enrolls families with incomes up to 100% FPL. As a result, there is greater income variability among families enrolled in PKC than in HSSAP.[21] Second, PKC programs generally focus on supporting school readiness through academic instruction and socioemotional development, while Head Start programs also provide comprehensive services (e.g., nutrition, home visits, health and wellness visits). These additional services provided by Head Start help to strengthen connections between families and programs, a factor that may have been salient to program retention during the pandemic. Lastly — and particularly relevant given the focus of this study — approaches to reopening varied considerably between programs. PKC grantees were directed to follow guidance from OCDEL when making decisions about reopening. In contrast, while the federal government issued guidelines for the reopening of Head Start programs in July 2020,

21 Pennsylvania's Early Learning Resource Centers (ELRC) support families in finding available preschool programs, among other services. According to correspondence with OCDEL, ELRCs tend to direct families with incomes below 100% FPL to Head Start programs first, and then to PKC programs only if Head Start programs are full. This approach may help to optimize preschool enrollment across available program slots. This approach may also affect the family income distribution of PKC. That is, while PKC programs can enroll families with very low relative incomes, in practice they primarily serve families with incomes of 100–300% FPL.

the decision to reopen rested with local program leaders and administrators. Some Head Start providers chose to reopen for in-person learning, while others continued to offer virtual learning options or a hybrid approach. This greater local variability among Head Start programs could make generalizing HSSAP enrollment trends by community characteristics more tenuous. For example, we examine enrollment trends among children enrolled in HSSAP in high-poverty communities; however, Head Start grantees in high-poverty urban communities may have approached reopening in substantively different ways than Head Start grantees in high-poverty rural communities, given cultural and political differences between locales that were strongly associated with pandemic responses.[22]

Our analysis does not take into account the available supply of PKC programs in communities with varying geographic, demographic, and economic characteristics. That is, certain communities may have more preschool providers with PKC grants than others, thereby allowing more children from those communities to enroll. More research may be needed to better understand the distribution of PKC grantees in Pennsylvania, and the diverse factors that may influence providers' abilities to meet program eligibility criteria in different community contexts. Likewise, we do not consider the distribution of HSSAP funding across communities with varying characteristics.

Our data do not permit us to understand the extent to which children in different communities may be enrolled in other quality public preschool programs, such as the federal Head Start program or local pre-k initiatives (e.g., PHLpreK). Differences in PKC enrollment, in particular, are influenced by the availability of these alternatives. That is, communities where PKC may be the only option for quality publicly-funded preschool for low-income families may have higher program enrollment counts, while those with other options may have less demand for PKC.[23]

This study is descriptive. Descriptive analyses are important for several aims; they help to provide "basic understanding of a phenomenon" while "identifying hidden patterns in large datasets".[24] However, descriptive analysis cannot explain why the numbers are the way they are. While we document changes in enrollment counts during the pandemic, our study design does not make it possible to isolate the unique effect of the pandemic on these changes. That is, while the pandemic was a seismic event that undoubtedly influenced families' preschool options, other confounding events and factors may have too.[25]

Our analysis of PKC and HSSAP enrollment is also limited by the cross-sectional nature of the data, as the specific months from which the data were drawn (i.e., March and October) may not reflect the same trends that occurred in surrounding months. This concern is particularly salient for our March 2020 sample, as that time period includes both pre-pandemic and during-pandemic dates. Additionally,

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22 For example, see: Callaghan, T., Lueck, J. A., Trujillo, K. L., & Ferdinand, A. O. (2021). Rural and urban differences in COVID-19 prevention behaviors. *The Journal of Rural Health, 37*(2), 287–295.

23 According to correspondence with OCDEL, urban communities in Pennsylvania are more likely to fund local preschool initiatives, such as PHLpreK, and also have higher proportional enrollments of children in federally-funded preschool programs (i.e., Head Start) as well as private initiatives (i.e., the Educational Improvement Tax Credit program). These alternatives may partly explain why PKC enrollments are lower in urban areas compared to suburban and rural areas.

24 Loeb, S., Dynarski, S., McFarland, D., Morris, P., Reardon, S., & Reber, S. (2017). *Descriptive analysis in education: A guide for researchers.* (NCEE 2017-4023). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance.

25 Some recent studies have leveraged advanced statistical techniques to estimate the unique influence of the pandemic on child care and preschool enrollment. For example, Zhang, Sauval, and Jenkins (2023) employed a quasi-experimental difference-in-difference design using panel data from the state of North Carolina to isolate the effects of the pandemic from unobservable seasonal trends in child care enrollments and closures, finding the pandemic reduced county-level enrollments by 40% through December 2020.

seasonal fluctuations in preschool participation may introduce some natural variation between time periods, and is statistically unaccounted for in our analysis. Relatedly, any waves or surges in virus case counts that may have temporarily influenced family and/or provider behavior — and the variation in the timing of these surges across locales — are not considered in our research design.

Our analysis by family income, in particular, is subject to limitations. We categorize families by income quartile; however, this measure groups families by reported income only, regardless of household size. (We did not initially request data on family size, precluding us from using more accurate measures, such as federal poverty level or state median income.) Additionally, because inflation rates were volatile during the pandemic, standard methods for adjusting incomes year to year proved unreliable.[26] Accordingly, we used the same income thresholds for each sample period, which are based on the 2019 family income distribution. We created different family income quartile thresholds for PKC and HSSAP, as the two programs have different income eligibility criteria. Put together, these limitations indicate a need to interpret any findings related to family income cautiously, and to avoid comparisons between programs using this measure.

26 Ball, L. M., Leigh, D., Mishra, P., & Spilimbergo, A. (2021). *Measuring US Core Inflation: The Stress Test of COVID-19*. No. w29609. National Bureau of Economic Research.

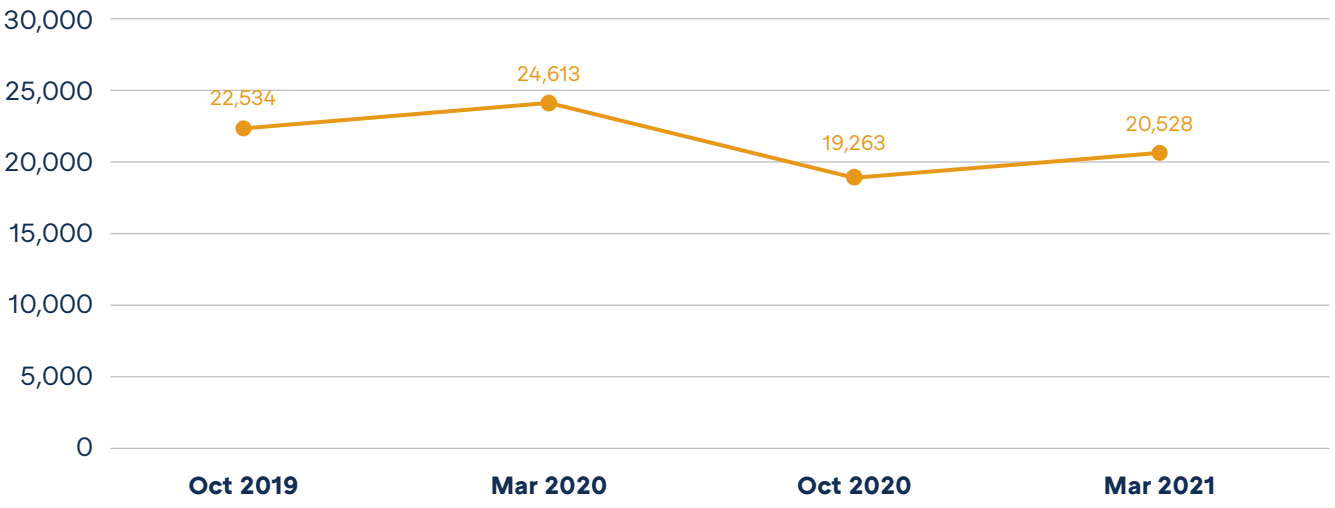
Findings

Trends in PKC Enrollment by Child Characteristics

Enrollment in PKC declined during the pandemic. From Oct. 2019 to Oct. 2020, total program enrollment dropped from 22,534 to 19,263, a decrease of 14.5% (Figure 1 and Table A-1). From Mar. 2020 to Mar. 2021, PKC enrollment declined by 16.6%, from 24,613 to 20,528.

Program enrollment increased by 6.6% from Oct. 2020 to Mar. 2021. This increase may suggest that low-income families felt more comfortable re-enrolling their children in publicly-funded preschool, and/or that providers were able to offer seats to more children, as the pandemic moved into its second year. At the same time, this increase may also reflect a natural seasonal fluctuation in enrollment, as PKC enrollment counts also jumped from fall to spring prior to the pandemic (i.e., 22,534 in Oct. 2019 to 24,613 in Mar. 2020). Indeed, the fall-to-spring enrollment increase of 8.4% that occurred from Oct. 2019 to Mar. 2020 was actually greater than the growth rate observed from Oct. 2020 to Mar. 2021.

FIGURE 1. Pre-K Counts enrollment, October 2019–March 2021



We organize the rest of our PKC enrollment findings into two sections. First, we report enrollment trends by children's individual and community characteristics (e.g., race, geographic locale). Second, we report enrollment trends by provider type and enrollment schedule (i.e., full-day and part-day). We include summaries of findings after each of these sections, along with our interpretations of them.

Trends in PKC Enrollment by Child Race

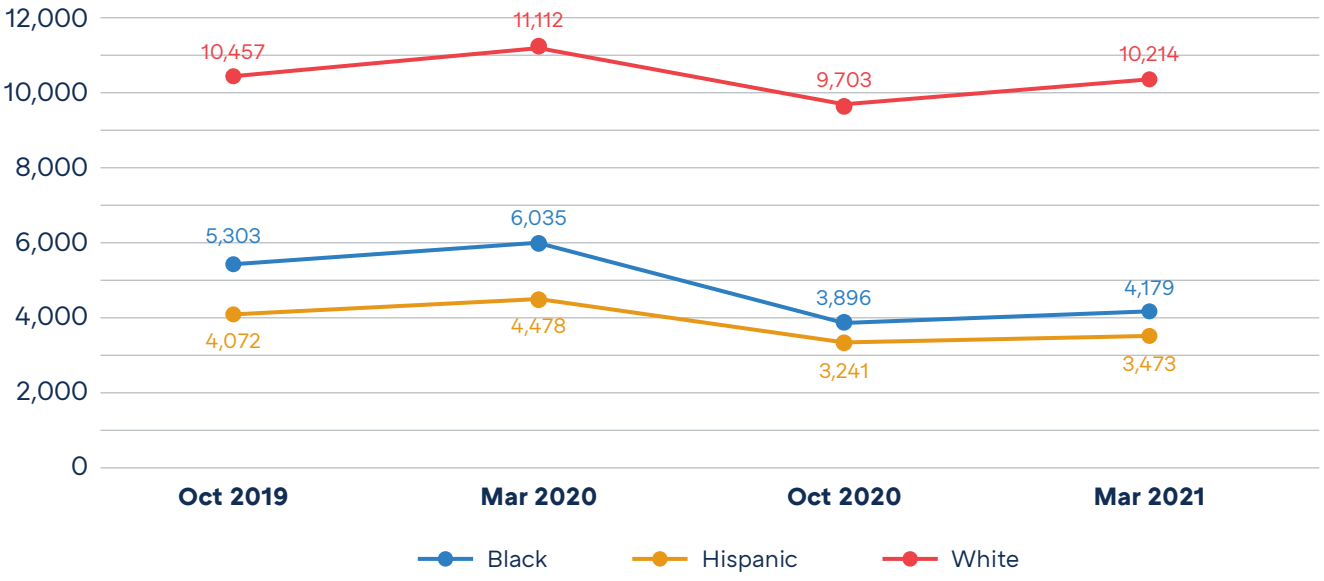
The magnitude of declines in PKC enrollment varied by race, with Black children experiencing the greatest declines and White children the least. From Oct. 2019 to Oct. 2020, PKC enrollment counts decreased from 5,303 to 3,896 among Black children, a decline of 26.5% (Figure 2 and Table A-1). Enrollment dropped from 4,072 to 3,241, or 20.4%, among Hispanic children. For White children — who had by far the highest enrollment counts of any racial group[27] — enrollment decreased at a much lower rate of 7.2%, from 10,457 to 9,703.

The magnitude of declines in PKC enrollment varied by race, with Black children experiencing the greatest declines and White children the least.

The same pattern persisted when comparing Mar. 2020 and Mar. 2021 enrollment counts. Black children's PKC enrollment decreased by 30.8%, from 6,035 to 4,179. Among Hispanic children, enrollment counts declined by 22.4%, from 4,478 to 3,473. By comparison, White children's enrollment dropped by 8.1%, from 11,112 to 10,214.

These differing rates of enrollment decline resulted in a wider enrollment gap between White children and their Black and Hispanic peers. For example, the difference in PKC enrollment counts between White and Black children in Mar. 2020 was 5,077 (i.e., 11,112 vs. 6,035). In Mar. 2021, that gap grew to 6,035 (i.e., 10,214 vs. 4,179).

FIGURE 2. Pre-K Counts enrollment, by child race, October 2019–March 2021



27 Data on the number of children by race who were income eligible for PKC during the time periods examined were not readily available. Accordingly, we are unable to determine if the enrollment counts shown here are proportionate across racial groups. Data from the U.S. Census indicate Black and Hispanic children ages 0–5 living in Pennsylvania are more likely to live in families with lower incomes — and thus be eligible for PKC — compared to their same-age White peers (see, for example, the Annie E. Casey Foundation Kids Count Data Center). This fact suggests Black and Hispanic children may be underrepresented in PKC enrollment counts, though more research is needed to determine the extent to which children of different races are equitably enrolled in the program.

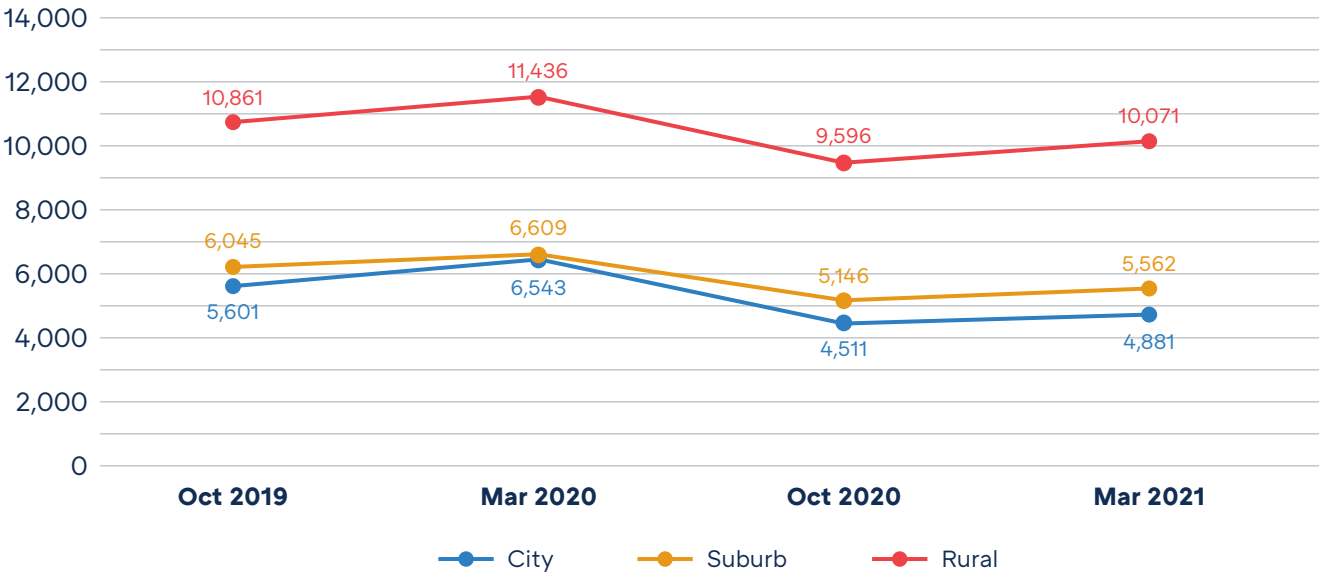
Trends in PKC Enrollment by Geographic Locale

PKC enrollment declined at varying rates by geographic locale. From Oct. 2019 to Oct. 2020, enrollment counts decreased from 5,601 to 4,511 among children in cities, a drop of 19.5% and the greatest relative decline of any geographic locale group (Figure 3 and Table A-1). Among children in the suburbs, PKC enrollment dropped by 14.9%, from 6,045 to 5,146. Children in rural areas had substantially higher enrollment counts compared to urban and suburban children,[28] and also experienced the lowest rate of enrollment decline during the pandemic. From Oct. 2019 to Oct. 2020, enrollment among rural children fell from 10,861 to 9,596, or 11.6%.

That trend held when comparing Mar. 2020 to Mar. 2021, with urban children again experiencing the greatest relative declines in PKC enrollment and rural children the least. Across those time periods, enrollment decreased from 6,543 to 4,881 for urban children (25.4%); from 6,609 to 5,562 for suburban children (15.8%); and from 11,436 to 10,071 for rural children (11.9%).

Children in rural areas had substantially higher enrollment counts compared to urban and suburban children, and also experienced the lowest rate of enrollment decline during the pandemic.

FIGURE 3. Pre-K Counts enrollment, by geographic locale, October 2019–March 2021



28 Data on the number of children by geographic locale who were income eligible for PKC during the time periods examined were not readily available. Accordingly, we are unable to determine if the enrollment counts shown here are proportionate across locale groups. Data from the U.S. Census suggest urban children may be underrepresented in PKC, as the percentage of families with incomes below 300% of the federal poverty line is generally higher in urban areas, especially compared to suburban ones (see, for example, the Annie E. Casey Foundation Kids Count Data Center). More research is needed on the extent to which PKC equitably enrolls children across geographic locale groups.

Trends in PKC Enrollment by Child Race and Geographic Locale

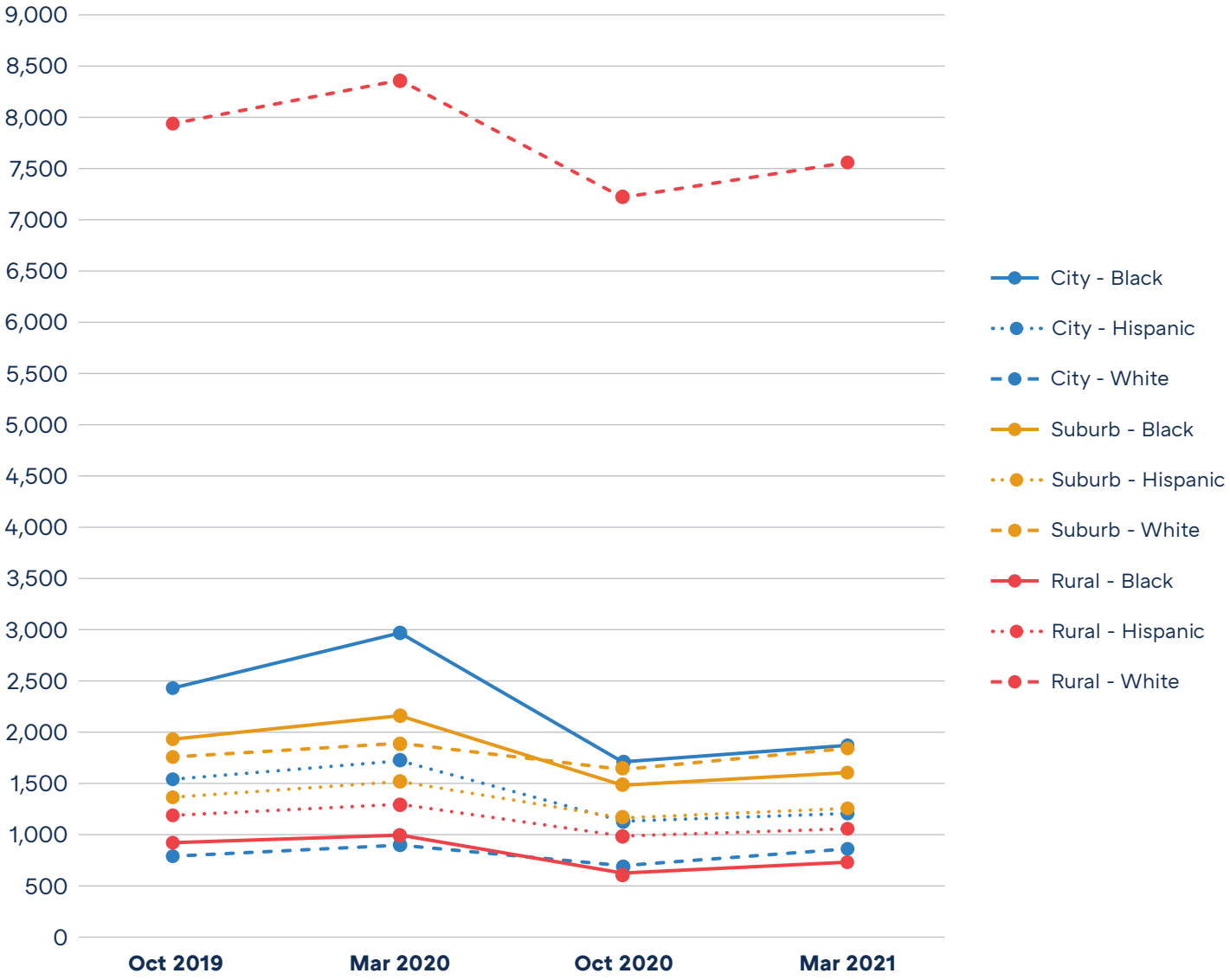
Within each geographic locale, relative declines in PKC enrollment were greatest for Black children and smallest for White children. Among Black children in cities, enrollment declined by 28.5% from Oct. 2019 to Oct. 2020 (i.e., 2,448 to 1,751; Figure 4 and Table A-2). Hispanic children in cities experienced a similar decline in enrollment of 27.9% across those time periods. By contrast, White children in cities saw their PKC enrollment decline by just 4.0%, though their enrollment counts were the lowest of any group (e.g., 806 in Oct. 2019). Trends were similar from Mar. 2020 to Mar. 2021, where enrollment counts dropped by 36.9% for urban Black children, by 30.3% for urban Hispanic children, and by just 7.6% for urban White children.

Among children living in suburban communities, White children experienced the smallest declines in PKC enrollment during the pandemic. Indeed, from Oct. 2019 to Oct. 2020, their enrollment decreased by just 1.5%, from 1,705 to 1,679. Similarly, from Mar. 2020 to Mar. 2021, suburban White children's enrollment dropped by only 2.0%, from 1,875 to 1,837. Relative enrollment declines were much starker for Black and Hispanic children, and especially Black children. From Oct. 2019 to Oct. 2020, PKC enrollment among Black children in the suburbs dropped from 1,919 to 1,479, or 22.9%. Suburban Black children's enrollment declined by a similar rate of 24.8% from Mar. 2020 to Mar. 2021. Enrollment among suburban Hispanic children decreased from 1,361 to 1,158 (14.9%) from Oct. 2019 to Oct. 2020, and from 1,512 to 1,241 (17.9%) from Mar. 2020 to Mar. 2021.

White children in rural communities had the highest enrollment counts by far of any race-by-locale subgroup — and they had the lowest rates of enrollment decline. Their enrollment decreased from 7,927 in Oct. 2019 to 7,243 in Oct. 2020, a drop of 8.6%. From Mar. 2020 to Mar. 2021, rural White children's PKC enrollment dipped by 9.4%, from 8,316 to 7,532. By comparison, PKC enrollment among rural Hispanic children decreased from 1,190 in Oct. 2019 to 989 in Oct. 2020 (16.9%), and from 1,264 in Mar. 2020 to 1,047 in Mar. 2021 (17.2%). There were far fewer rural Black children than rural White or Hispanic children enrolled in PKC, yet they experienced the greatest relative declines in PKC enrollment. From Oct. 2019 to Oct. 2020, enrollment among rural Black children dropped by 28.8%, and from Mar. 2020 to Mar. 2021 it declined by 25.5%.

Among Black and Hispanic children, those living in cities experienced the greatest relative declines in PKC enrollment during the pandemic (though rates of decline were similar for Black children in urban and rural areas from Oct. 2019 to Oct. 2020). While rates of enrollment decline were low for White children in all locales, they were smallest for those in the suburbs and greatest for those in rural areas.

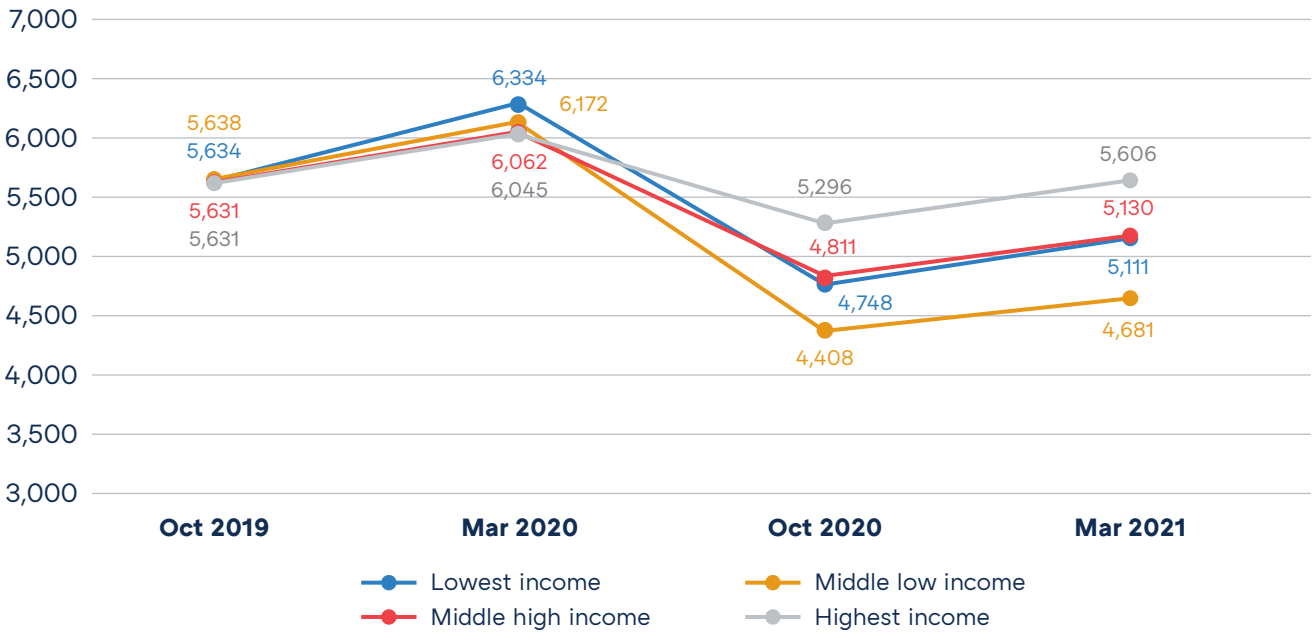
FIGURE 4. Pre-K Counts enrollment, by child race and geographic locale, October 2019–March 2021



Trends in PKC Enrollment by Family Income Quartile

We constructed family income groups based on the Oct. 2019 income distribution, making approximately equal quartiles. Yet during the pandemic, stark differences in enrollment counts between these previously-equal groups emerged. (We reiterate the limitations inherent to our family income measure, and results should be interpreted with caution. For details, see p. 9.) Notably, children with family incomes in the top quartile[29] experienced relatively small declines in PKC enrollment. From Oct. 2019 to Oct. 2020, their enrollment decreased by just 5.9%, from 5,631 to 5,296 (Figure 5 and Table A-1). From Mar. 2020 to Mar. 2021, enrollment among children from the bottom income quartile declined by a similarly low rate of 7.3%, from 6,045 to 5,606. By comparison, relative declines among children from lower income quartiles were greater. For example, from Oct. 2019 to Oct. 2020, children in the middle low income quartile experienced a 21.8% enrollment decrease, from 5,638 to 4,408. And among children from the bottom income quartile, PKC enrollment dropped from 6,334 in Mar. 2020 to 5,111 in Mar. 2021, a decrease of 19.3%.

FIGURE 5. Pre-K Counts enrollment, by family income quartile, October 2019–March 2021



Note: Income quartiles are: Lowest = $0–$17,739; Middle low = $17,740–$31,720; Middle high = $31,721–$49,920; and Highest = >$49,921. Quartiles are based on families' reported income only; they do not consider family size.

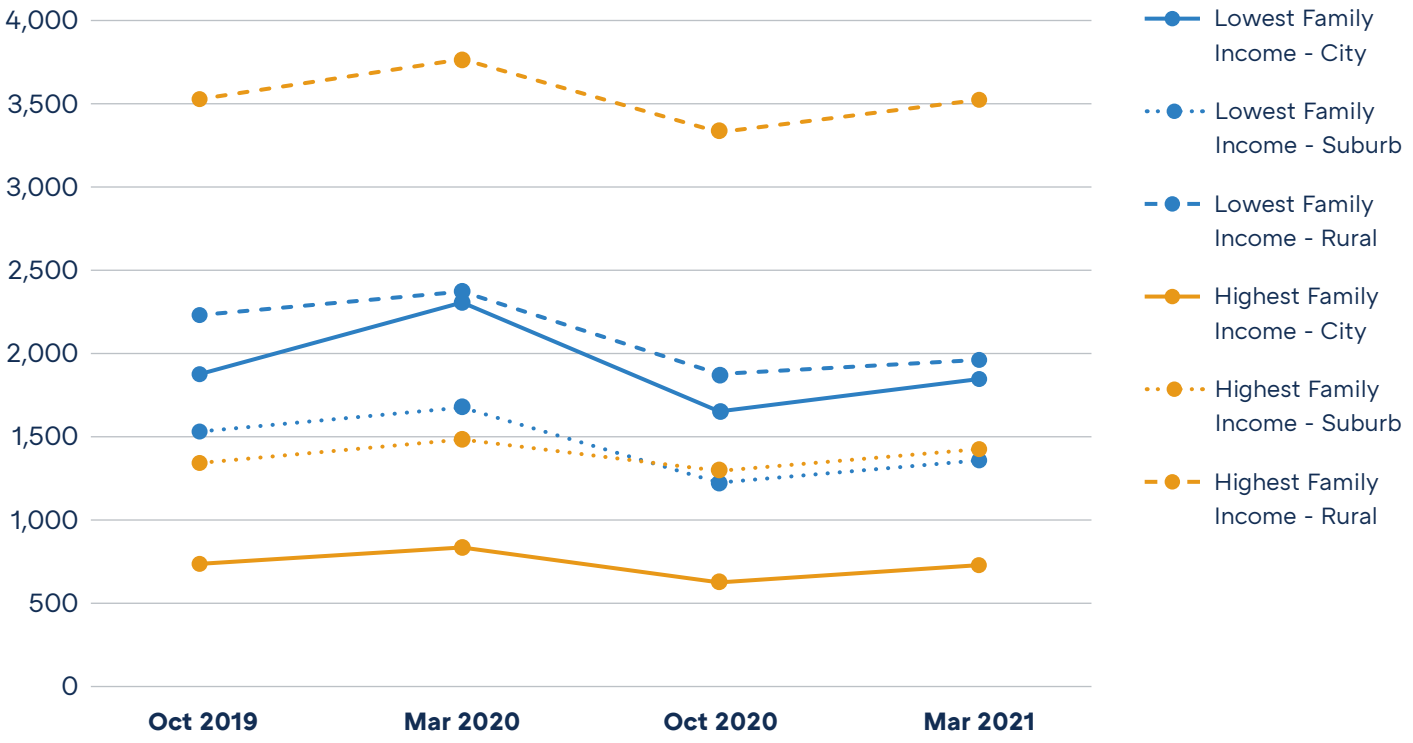
29 Children with family incomes in the top quartile have the highest incomes relative to other children in the sample. Compared to the entire population of Pennsylvania, however, their incomes are relatively low, as the income eligibility threshold for PKC is 300% FPL.

Trends in PKC Enrollment by Family Income Quartile and Geographic Locale

Within geographic locales, the magnitude of declines in PKC enrollment were generally greater among children from the bottom income quartile, especially in suburban and rural communities. For example, among children in the suburbs, those in the bottom income quartile experienced a 20.8% decline in PKC enrollment from Oct. 2019 to Oct. 2020. By comparison, enrollment among children in the top income quartile in the suburbs dropped by just 2.1% across those times periods (Figure 6 and Table A-3). Rural children from the top income quartile had the highest enrollment counts of any income-by-locale subgroup, and also experienced low rates of enrollment decline. From Mar. 2020 to Mar. 2021, their PKC enrollment decreased from 3,742 to 3,521, a decline of just 5.9%. In contrast, enrollment among rural children from the bottom income quartile decreased by 16.7%, from 2,350 to 1,957.

Among children from the bottom income quartile, rates of decline in PKC enrollment were greatest for those living in the suburbs. For children from the top income quartile, relative declines in enrollment were highest in cities.

FIGURE 6. Pre-K Counts enrollment, by family income quartile and geographic locale, October 2019–March 2021



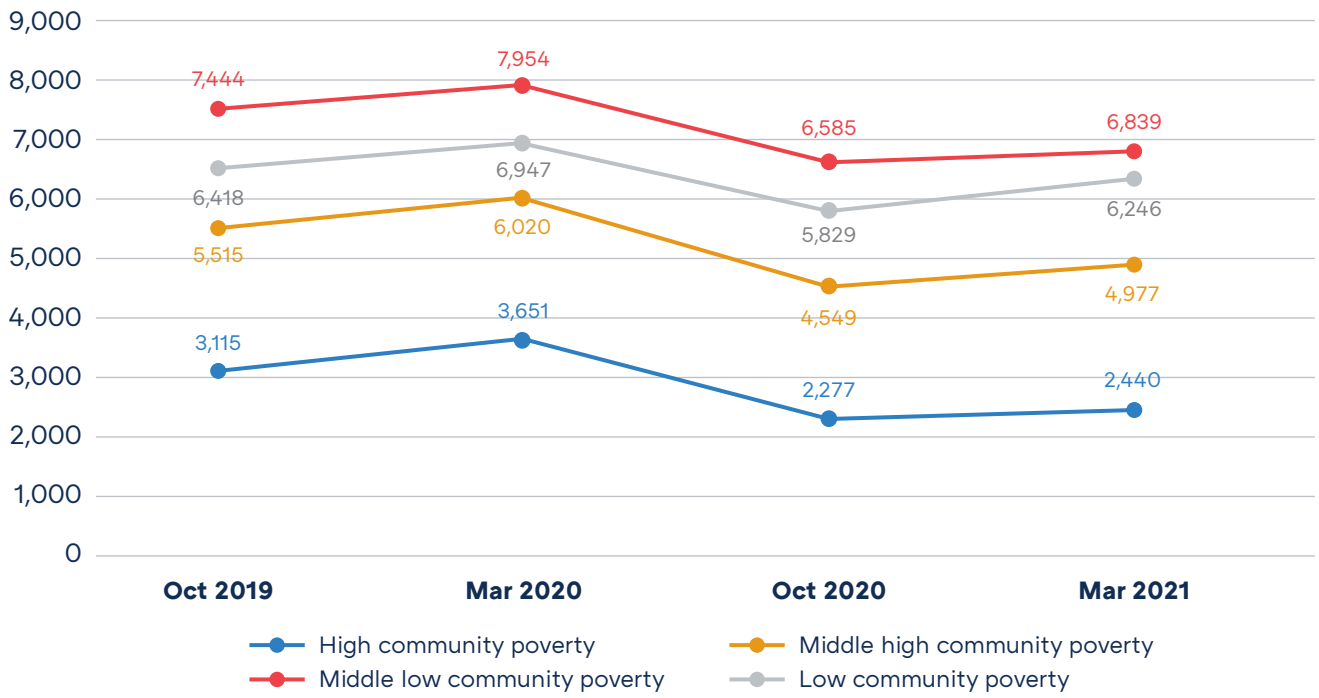
Trends in PKC Enrollment by Community Poverty Level

Relative declines in PKC enrollment were greatest for children from high-poverty communities and smallest for children in low-poverty communities. From Oct. 2019 to Oct. 2020, enrollment dropped from 3,115 to 2,277 among children from high-poverty communities, a decline of 26.9%. In contrast, enrollment decreased from 6,418 to 5,829 among children from low-poverty communities, a much smaller rate of decline of 9.2% (Figure 7 and Table A-1). The same trend persisted when comparing Mar. 2020 and Mar. 2021. Among children from high-poverty communities, enrollment counts dropped by 33.2%, from 3,651 to 2,440. By comparison, enrollment decreased from 6,947 to 6,246, or 10.1%, for children from low-poverty communities. Rates of decline in PKC enrollment for children from communities with middle high and middle low levels of poverty were greater compared to children in low-poverty communities but smaller compared to children from high-poverty communities.

Relative declines in PKC enrollment were greatest for children from high-poverty communities and smallest for children in low-poverty communities.

Children from high-poverty communities had the lowest PKC enrollment counts of any community group prior to the pandemic, and also experienced the highest rates of enrollment decline during the pandemic. Targeting funding and recruitment efforts to families and providers in these communities may be necessary to equalize enrollment in PKC. Such efforts may be especially important if other high-quality preschool options, like Head Start, lack the capacity to serve all eligible children in these high-need areas.

FIGURE 7. Pre-K Counts enrollment, by community poverty level, October 2019–March 2021



Note: "Community" is defined as zip code. Community poverty is measured by the percentage of residents within the community with incomes below 200% of the federal poverty level. Quartiles are: Low, 0–26.6%; Middle Low, 26.7–37.1%; Middle High, 37.2–53.3%; High, 53.4%+.

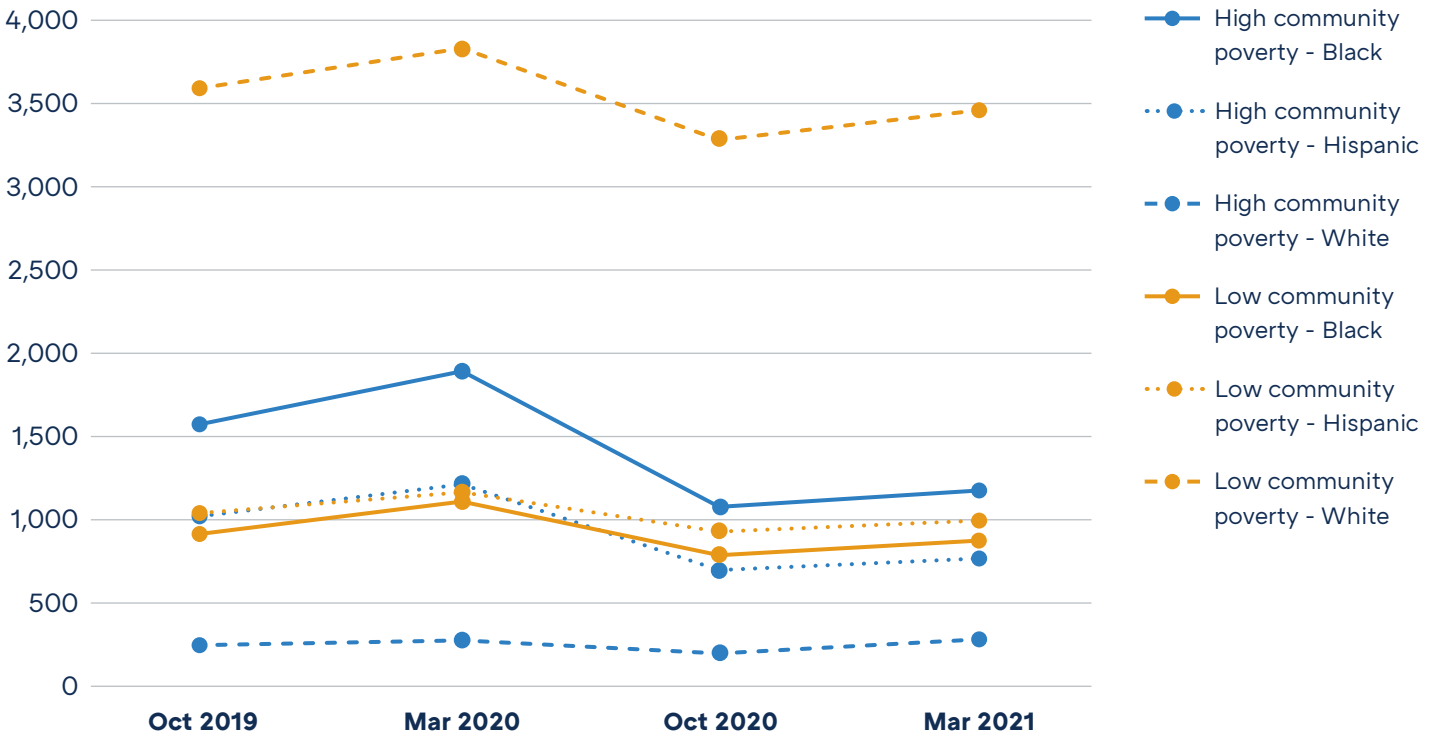
Trends in PKC Enrollment by Child Race and Community Poverty Level

Within all community poverty groups, relative declines in PKC enrollment were greatest for Black children and smallest for White children. In high-poverty communities, Black children's enrollment dropped from 1,559 in Oct. 2019 to 1,053 in Oct. 2020, a decrease of 32.5% (Figure 8 and Table A-4). Hispanic children's enrollment decreased from 1,011 to 702 (30.6%), while White children's enrollment, though low, barely dropped, from 263 to 259 (1.5%). From Mar. 2020 to Mar. 2021, enrollment among Black and Hispanic children in high-poverty communities declined by 40.6% and 35.5%, respectively. White children's enrollment, in contrast, increased by 2.8%.

The same trend persisted among children living in low-poverty communities, though differences between racial groups were smaller. Among Black children, PKC enrollment decreased from 944 in Oct. 2019 to 785 in Oct. 2020, a drop of 16.8%. From Mar. 2020 to Mar. 2021, Black children in low-poverty communities experienced a similar decline in PKC enrollment of 17.7%. Among Hispanic children in low-poverty communities, enrollment counts declined from 1,023 in Oct. 2019 to 913 in Oct. 2020 (10.8%), and from 1,118 in Mar. 2020 to 980 in Mar. 2021 (12.3%). White children in low-poverty communities were by far the largest race-by-community poverty subgroup, and experienced the smallest relative declines in PKC enrollment. From Oct. 2019 to Oct. 2020, their enrollment dropped from 3,577 to 3,287 (8.1%), and from Mar. 2020 to Mar. 2021 it dropped from 3,820 to 3,467 (9.2%).

Among Black and Hispanic children, relative declines in PKC enrollment were far greater for those in high-poverty communities. White children experienced low rates of enrollment decline compared to their Black and Hispanic peers across community types; declines were lowest in high-poverty communities, though enrollment counts for this subgroup were very small.

FIGURE 8. Pre-K Counts enrollment, by child race and community poverty level, October 2019–March 2021

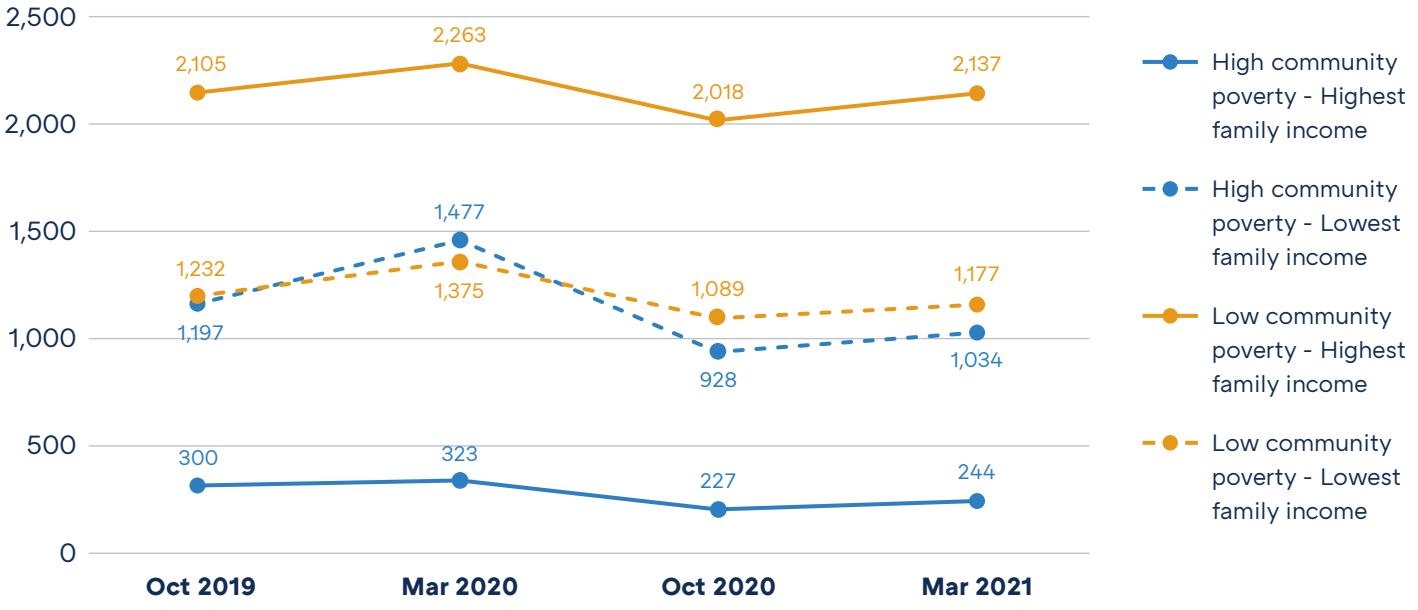


Trends in PKC Enrollment by Family Income Quartile and Community Poverty Level

The magnitude of declines in PKC enrollment was greater among children living in low-poverty communities, regardless of their family income quartile. For example, from Oct. 2019 to Oct. 2020, children in high-poverty communities from the bottom income quartile experienced an enrollment decline of 22.5%. By comparison, children in the same family income quartile, but in low-poverty communities, had their enrollment decline by 11.6%. This trend held even for children in the top family income quartile. From Mar. 2020 to Mar. 2021, enrollment among children in the top income quartile and living in high-poverty communities declined by 24.5% (though enrollment counts were low). But among children in the top income quartile living in low-poverty communities, the decline was just 5.6% (Figure 9 and Table A-5).

Within all communities, children in higher income quartiles experienced smaller declines in PKC enrollment. For example, among children in low-poverty communities, enrollment for those from the bottom income quartile dropped by 11.6% from Oct. 2019 to Oct. 2020, while it dropped by just 4.1% for children from the top income quartile. From Mar. 2020 to Mar. 2021, PKC enrollment decreased by 30.0% for children in the bottom family income quartile in high-poverty communities. Among children in the top family income quartile also living in high-poverty communities, the decline was 24.5%.

FIGURE 9. Pre-K Counts enrollment, by family income quartile and community poverty level, October 2019–March 2021

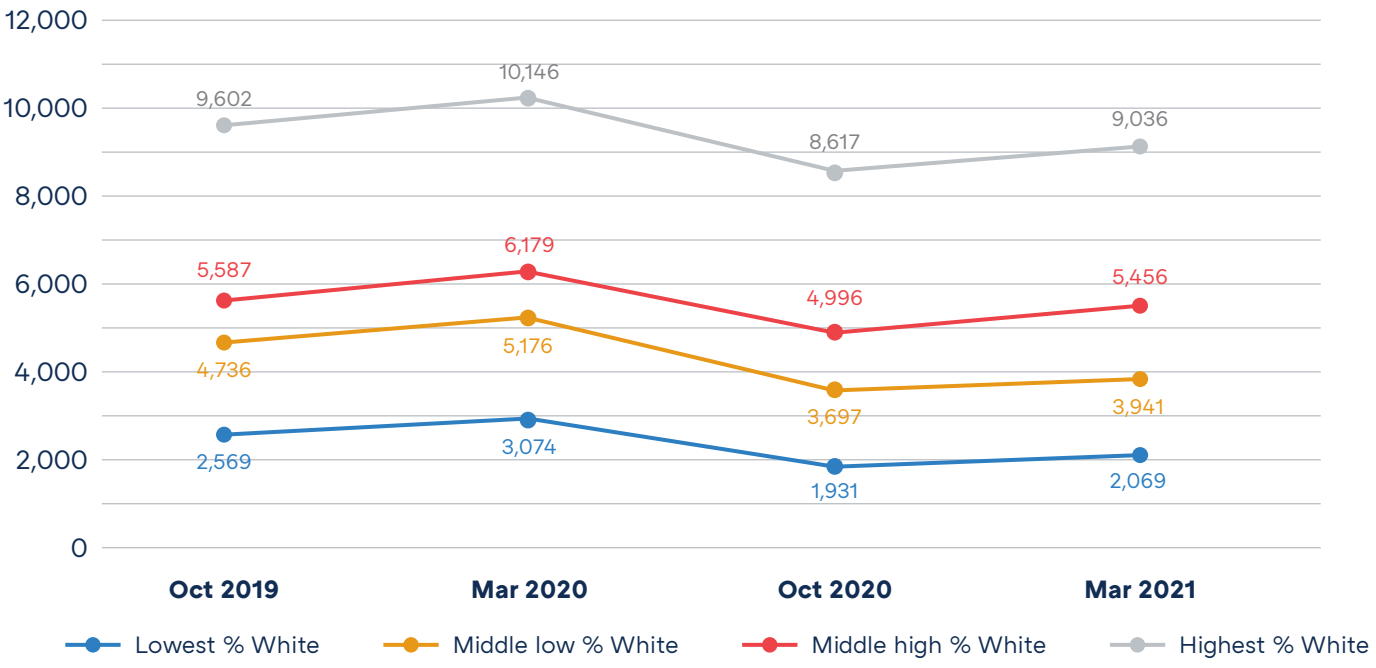


Trends in PKC Enrollment by Community Racial Composition

Rates of decline in PKC enrollment varied by the racial composition of children's communities, where relative decreases were greatest in communities of color (i.e., communities with the lowest percentages of White residents) and smallest in predominantly White communities (i.e., communities with the highest percentages of White residents). From Oct. 2019 to Oct. 2020, enrollment among children in communities of color declined from 2,569 to 1,931, a drop of 24.8%. In predominantly White communities — where enrollment counts were notably higher compared to other community groups — enrollment dropped from 9,602 to 8,617, a decrease of 10.3% (Figure 10 and Table A-1). The difference in rates of enrollment decline between community groups was wider when comparing Mar. 2020 to Mar. 2021. Over those time periods, PKC enrollments in communities of color decreased by 32.7%, while in predominantly White communities they declined by 10.9%. The combination of low enrollment counts prior to the pandemic and greater decreases in enrollment during the pandemic among children in communities of color are concerning, and suggest a need to target resources to families and providers in these communities in order to improve, and ultimately equalize, program participation across community types.

Children in communities with middle high percentages of White residents experienced enrollment declines that were slightly higher, yet comparable, to children in predominantly White communities. Children in communities with middle low percentages of White residents had enrollment declines that were greater than children in communities with more White residents, yet smaller than those in communities of color.

FIGURE 10. Pre-K Counts enrollment, by community racial composition, October 2019–March 2021



Note: "Community" is defined as zip code. Community racial composition is measured by the percentage of residents within the community who are White. Quartiles are: Lowest, 0–34.7%; Middle low, 34.8–71.6%; Middle high, 71.7–89.0%; Highest, 89.1%+.

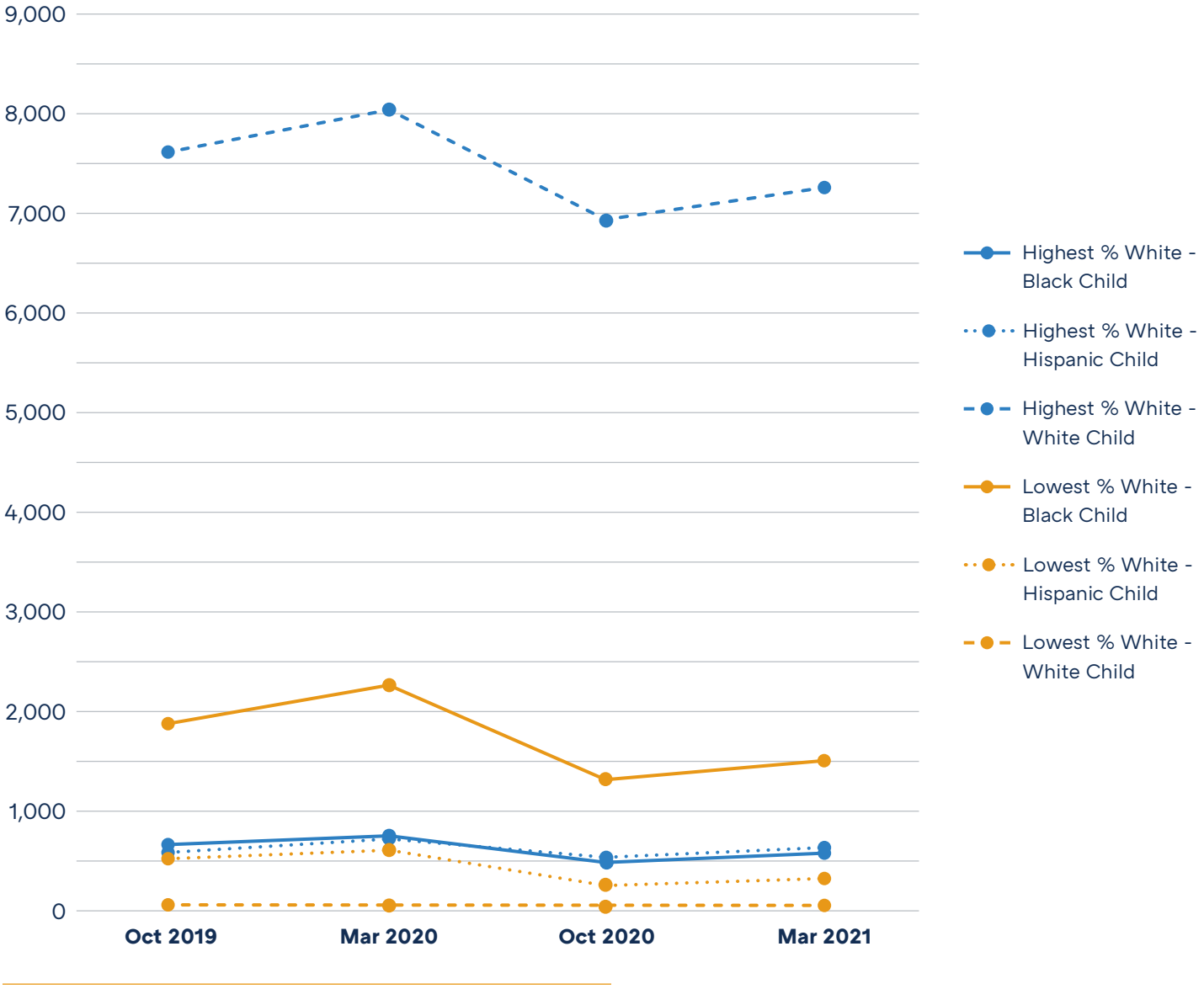
Trends in PKC Enrollment by Child Race and Community Racial Composition

Within communities with like racial composition, Black and Hispanic children experienced substantially greater declines in PKC enrollment compared to their White peers. In predominantly White communities, White children's enrollment counts dropped from 7,604 in Oct. 2019 to 6,923 in Oct. 2020, a decline of 9.0%. By comparison, in similarly largely-White communities, Black children's enrollment declined by 25.1%, from 668 to 500, and Hispanic children's enrollment dropped by 12.5%, from 624 to 546 (Figure 11 and Table A-6). Differences between racial groups were similar when comparing Mar. 2020 and Mar. 2021 enrollment counts in predominantly White communities. Enrollment among White children decreased by 10.2%, while among Black and Hispanic children it declined by 23.4% and 13.7%, respectively.

In communities of color, enrollment in PKC dropped from 1,856 to 1,366 (26.4%) among Black children from Oct. 2019 to Oct. 2020. The relative decline among Hispanic children was even greater over those time periods, with enrollment decreasing from 508 to 305 (40.0%). While very few White children living in communities of color were enrolled in PKC, they experienced the smallest relative decline in enrollment, from 57 to 47 (17.5%). The same trend persisted from Mar. 2020 to Mar. 2021 time periods, with Hispanic children experiencing the greatest rate of enrollment decline (43.5%), Black children experiencing a smaller yet still substantial drop (34.9%), and White children experiencing the smallest relative decline in PKC participation (23.1%).

We also examined differences in PKC enrollment by race among children living in communities with middle low and middle high percentages of White residents (Tables A-6). Notably, White children in communities with middle high shares of White residents experienced minimal declines in PKC enrollment during the pandemic. From Oct. 2019 to Oct. 2020, their enrollment dipped from 2,150 to 2,132 (0.8%), and from Mar. 2020 to Mar. 2021 it fell just slightly from 2,332 to 2,315 (0.7%). Black children in communities with middle low and middle high shares of White residents had the greatest relative declines in enrollment compared to their White and Hispanic peers living in communities with like racial composition. These differences were particularly stark in communities with middle low shares of White residents (e.g., from Mar. 2020 to Mar. 2021, a 33.9% decline among Black children, with declines of 20.5% and 6.7% for Hispanic and White children, respectively).

FIGURE 11. Pre-K Counts enrollment, by child race and community racial composition, October 2019–March 2021

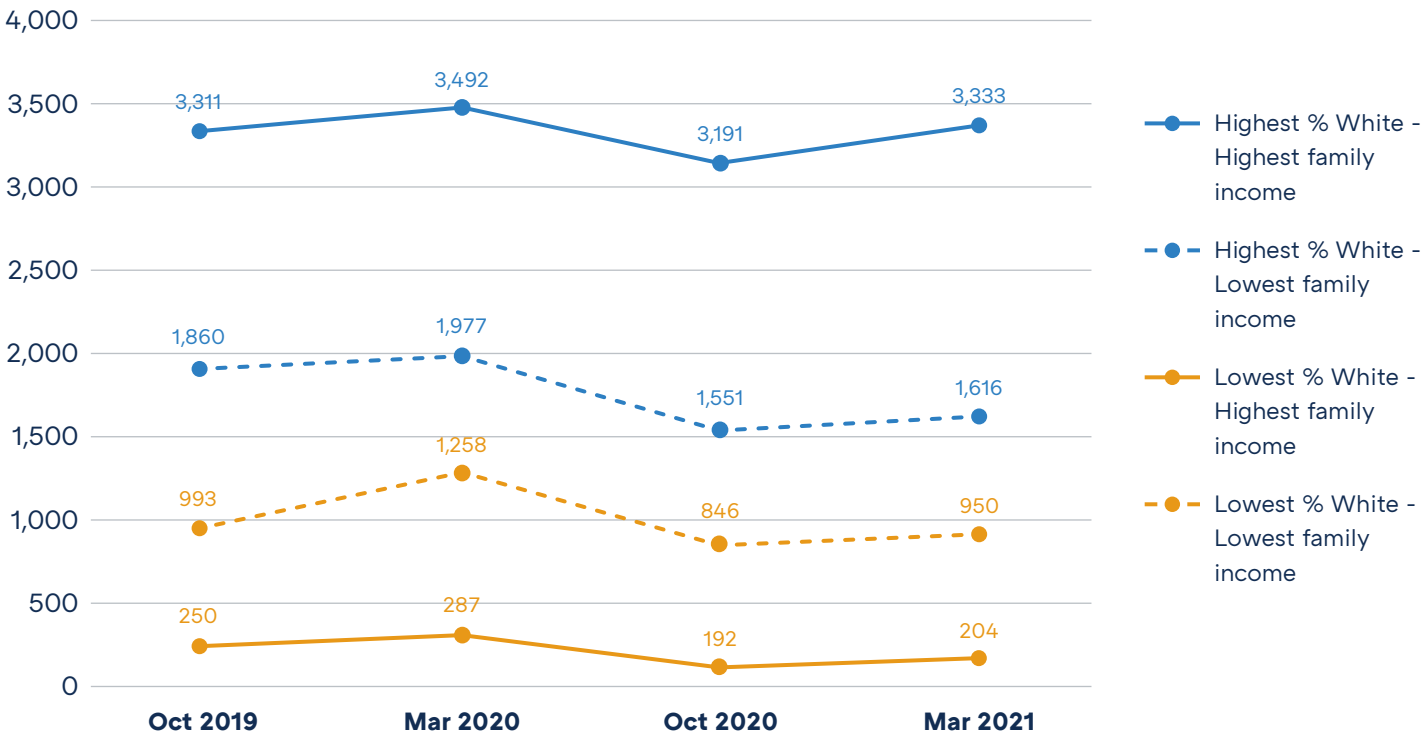


Trends in PKC Enrollment by Family Income Quartile and Community Racial Composition

Within communities with like racial composition, relative declines in PKC enrollment varied, yet trends were not consistent across community types. In communities of color, children from the bottom income quartile actually experienced the smallest rates of decline in PKC participation, with their enrollment counts decreasing from 993 to 846 in Oct. 2019 and Oct. 2020 (14.8%), and from 1,258 to 950 in Mar. 2020 and Mar. 2021 (24.5%; Figure 12 and Table A-7). By comparison, relative enrollment declines were higher for children in communities of color in the top income quartile, at 23.2% and 28.9%, though their actual enrollment counts were low (e.g., 250 in Oct. 2019 and 192 in Oct. 2020). Within communities of color, relative enrollment declines were particularly steep for children from the middle low income quartile (i.e., 36.3% from Oct. 2019 to Oct. 2020 and 43.2% from Mar. 2020 to Mar. 2021; see Table A-7).

Children in the top income quartile living in predominantly White communities had the highest PKC enrollment counts of any income-by-community racial composition subgroup. They also experienced very low rates of enrollment decline during the pandemic. Their enrollment counts dipped from 3,311 in Oct. 2019 to 3,191 in Oct. 2020 (3.6%), and from 3,492 to 3,333 in Mar. 2020 and Mar. 2021 (4.6%). Enrollment declines among children in the top income quartile were also strikingly low in communities with middle high shares of White residents (Table A-7). Children in the bottom income quartile living in predominantly White communities experienced steeper rates of enrollment decline, at 16.6% and 18.3%.

FIGURE 12. Pre-K Counts enrollment, by family income quartile and community racial composition, October 2019–March 2021



Enrollment in PKC declined substantially during the COVID-19 pandemic. However, the magnitude of enrollment declines varied by children's individual and community characteristics.

Summary of Trends in PKC Enrollment by Child Characteristics

Enrollment in PKC declined substantially during the COVID-19 pandemic. However, the magnitude of enrollment declines varied by children's individual and community characteristics. Relative declines in enrollment were smallest for White children, children in rural communities, children in low-poverty communities, and children in communities with high percentages of White residents. In Pennsylvania, these demographic groups often overlap (e.g., rural communities are predominantly White). In contrast, Black children, children in cities, children in high-poverty communities, and children in communities with the lowest percentages of White residents experienced the greatest declines. Enrollment declines were especially high among children with more than one of these characteristics. Because these demographic characteristics also tend to overlap (e.g., Black families are more concentrated in cities and high-poverty communities), we examined enrollment trends within and between groups and subgroups. Notably, we found that PKC enrollment declined at greater rates among Black children regardless of community characteristics. For example, Black children in rural communities and Black children in low-poverty communities had higher rates of enrollment decline compared to White children living in those same communities. Simultaneously, White children living in cities and high-poverty communities experienced some of the lowest rates of enrollment decline of any subgroup, even as Black and Hispanic children in those same communities experienced some of the greatest declines. Put together, these findings suggest that changes in PKC enrollment differentially impacted children by race. Racial differences in levels of concern and cautiousness around COVID-19 may have influenced this trend. Research shows Black and Hispanic adults were more likely than White adults to worry about infection and to favor safety initiatives (e.g., masking).[30] These concerns may have led more Black and Hispanic families to withdraw their children from group care settings, such as PKC, or to seek out alternative preschool arrangements that offered greater perceived safety. Additionally, research shows the pandemic had a greater negative economic impact on Black and Hispanic families (e.g., higher rates of job loss),[31] which may have affected their ability to sustain

30 Hearne, B. N., & Niño, M. D. (2021). Understanding how race, ethnicity, and gender shape mask-wearing adherence during the COVID-19 pandemic: evidence from the COVID impact survey. *Journal of racial and ethnic health disparities,* 1–8; PBS. (2022, April 29). Racial split on COVID-19 endures as restrictions ease in U.S. Retrieved from https://www.pbs.org/newshour/health/racial-split-on-covid-19-endures-as-restrictions-ease-in-us

31 Gould, E., & Kassa, M. (2021, May). Low-wage, low-hours workers were hit

enrollment in PKC during the pandemic (e.g., ability to afford the cost of transportation to and from preschool).

Relative enrollment declines were particularly steep among children living in high-poverty communities and communities of color. These groups of children also had lower enrollment counts prior to the pandemic. More research is needed to determine whether children in these communities are being served by other high-quality and publicly-funded preschool programs (e.g., Head Start, local programs like PHLprek) or whether more PKC programs are needed to equalize preschool participation across community types, especially as communities continue to recover from the longer-term effects of the pandemic.[32]

We observed consistently greater rates of enrollment decline during our latter pandemic time period (i.e., Mar. 2020 to Mar. 2021). This trend suggests that policies implemented in the first few months of the pandemic were effective in helping to sustain PKC participation, and is consistent with other research showing the state's policy response was crucial in avoiding mass closures of child care and preschool providers.[33] This trend may also indicate that some families and providers experienced ongoing difficulty under pandemic conditions (e.g., financial losses, fear of infection).

Children in the top family income quartile in our sample experienced the smallest relative declines in PKC enrollment, while declines were greater among children from lower income quartiles. This trend generally persisted across geographic locale and community poverty groups. While we interpret this finding cautiously due to limitations related to our income measure (see p. 9), it raises questions around the role that family income played in preschool enrollment during the pandemic, and suggests a need for additional research on the topic. In particular, because PKC-eligible families with relatively lower incomes would have been more likely than those with relatively higher incomes to be eligible for other publicly-funded preschool programs (e.g., Head Start), more research is needed on the extent to which children who withdrew from PKC did or did not subsequently enroll in alternative preschool programs.

PKC enrollment counts were particularly low among certain groups and subgroups of children, such as children in the top income quartile living in cities and Black children in rural areas. Resources to support providers in advertising to and recruiting these groups may help improve PKC enrollment parity for all of Pennsylvania's program-eligible children.

hardest in the COVID-19 recession: The state of Working America 2020 employment report. Economic Policy Institute.

32 Children who are enrolled in PKC are unable to be dual-enrolled in other publicly-funded preschool programs (which the exception of Child Care Works). PKC grantees who also receive funding from other sources (e.g., Head Start, PHLprek) may fill their enrollment slots through those other programs first. While such a case would result in lower PKC enrollment counts, it would not reflect a lack of access to quality, publicly-funded preschool.

33 Sirinides, P. (2020). *The impact of COVID-19 on Pennsylvania child care.* Institute of State and Regional Affairs.

Trends in PKC Enrollment by Provider Characteristics

In this section, we examine trends in PKC enrollment by provider type. There are four provider type groups: child care providers, which include both centers and homes; school districts; Head Start grantees; and nursery schools licensed by Pennsylvania Department of Education. Child care providers enroll by far the greatest number of children in PKC programs, and licensed nursery schools the fewest. PKC enrollment counts among school districts and Head Start grantees were comparable prior to the pandemic.

Enrollment in PKC declined across all provider types during the pandemic, though the magnitude of those declines varied. Children enrolled in PKC programs operated by school districts experienced the greatest declines, a trend that may in part be explained by school closures.[34] From Oct. 2019 to Oct. 2020, enrollment counts among children served by school districts decreased from 5,349 to 3,948, a drop of 26.2%. The rate of decline was even greater from Mar. 2020 to Mar. 2021, where PKC enrollment among children in school districts fell from 6,062 to 4,013, or 33.8% (Figure 13 and Table A-8). These substantial declines may be linked to mode of instruction. Research suggests families whose preschoolers received remote instruction were more concerned about their children's learning, and less satisfied with providers, compared to families whose children remained in in-person preschool settings,[35] factors which may have influenced program attrition. Many school districts in Pennsylvania chose to provide instruction virtually during certain periods of the 2020-21 school year as a strategy to suppress virus transmission. While we do not have mode of instruction data on school district-based PKC programs specifically, research on school districts generally found that those serving greater shares of students of color were disproportionately likely to deliver instruction virtually.[36]

Enrollment among children served by child care providers declined from 10,450 to 8,996 in Oct. 2019 and Oct. 2020 (13.9%), and from 11,396 to 9,724 in Mar. 2020 and Mar. 2021. Children in PKC programs operated by licensed nursery schools experienced smaller declines. From Oct. 2019 to Oct. 2020, their enrollment decreased from 1,147 to 1,065 (7.1%), and from Mar. 2020 to Mar. 2021 it declined from 1,283 to 1,133 (11.7%).

Children in PKC programs operated by Head Start grantees experienced the smallest relative enrollment declines. From Oct. 2019 to Oct. 2020, their enrollment dropped from 5,555 to 5,208, a decrease of 6.2%. From Mar. 2020 to Mar. 2021, their rate of enrollment decline was even smaller, at just 3.8% (i.e., 5,858 to 5,637). The federal Head Start program received $750 million from the CARES Act, passed in the summer of 2020, which supported grantees in maintaining services during the first year of the pandemic.[37] It is possible that the resources this additional funding provided had a positive spillover effect on grantees in Pennsylvania that also operated PKC programs. That is, children served in Head Start-based PKC programs may have benefitted from resources directed to Head Start programs.

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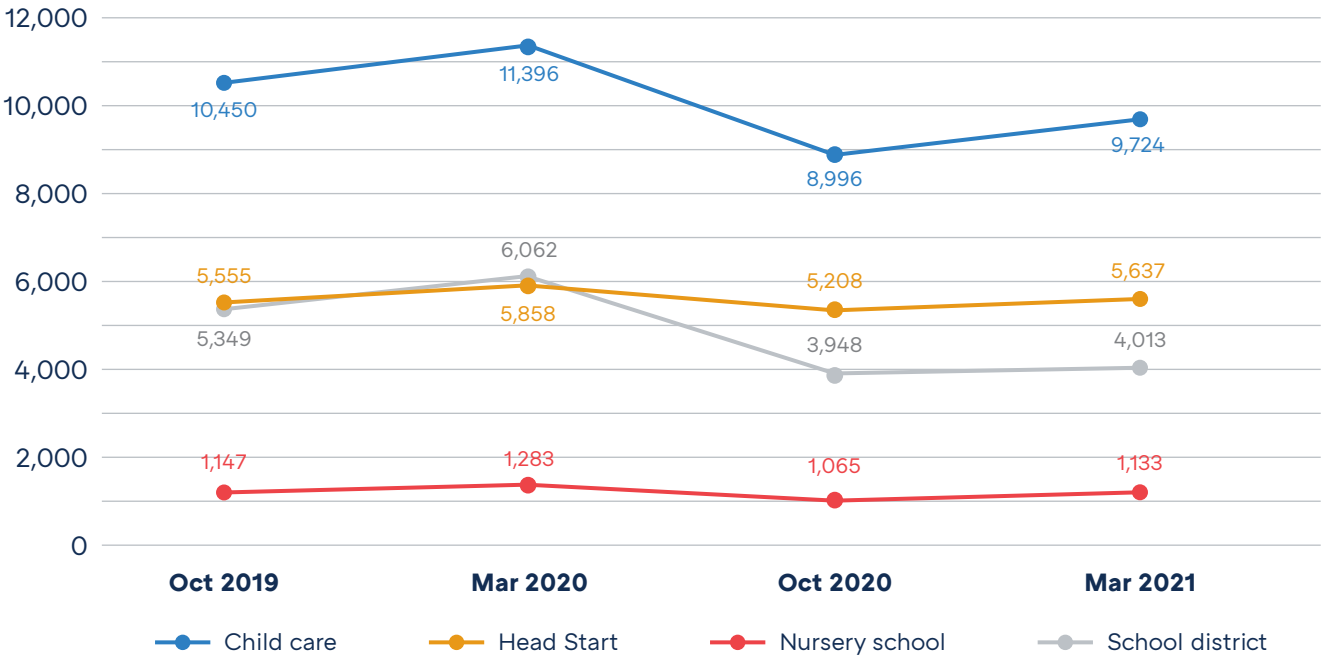
34 On April 9, 2020, Governor Wolf announced that K-12 schools would close for the remainder of the 2019–20 school year, a decision that also affected school district-based PKC programs. In contrast, other PKC provider types, such as child care providers, had the potential to reopen as part of the state's phased reopening approach (see p. 8 for more information).

35 Bassok, D., Clancy, M., Michi, M., Doromal, J., & Schoppa, I. (2021). *The impact of the Coronavirus pandemic on preschoolers in virtual and in-person classrooms: Lessons from a large survey of Virginia families.*

36 Dulaney, K., & Frankenberg, E. (2020). Inequity in Pennsylvania school district reopening decisions: How districts' mode of delivery varies by region and student/community characteristics. Penn State College of Education Center for Education and Civil Rights.

37 Administration for Children & Families. (2020, June 4). CARES Act gives extra $750 million for Head Start program. https://www.acf.hhs.gov/media/press/2020/cares-act-gives-extra-750-million-head-start-program

FIGURE 13. Pre-K Counts enrollment, by provider type, October 2019–March 2021



Trends in PKC Enrollment by Child Race and Provider Type

Within all provider type groups, relative declines in PKC enrollment were greatest for Black and Hispanic children. Aside from those in school district-based programs, White children experienced very small declines – and in some cases, even increases – in PKC enrollment during the pandemic. Among children in child care settings, White children's PKC enrollment counts dropped from 4,128 in Oct. 2019 to 3,924 in Oct. 2020, a decrease of 4.9% (Figure 14 and Table A-9). By comparison, Black children's enrollment with child care providers declined from 2,975 to 2,201, a drop of 26.0%, and Hispanic children's enrollment decreased from 1,839 to 1,559, a decline of 15.2%. The same trend persisted across Mar. 2020 and Mar. 2021 time periods. Then, enrollment among White children with child care providers decreased by an even smaller rate of 3.7%, from 4,403 to 4,242. Enrollment among Black children dropped from 3,314 to 2,369 (28.5%) while among Hispanic children it declined from 2,050 to 1,679 (18.1%).

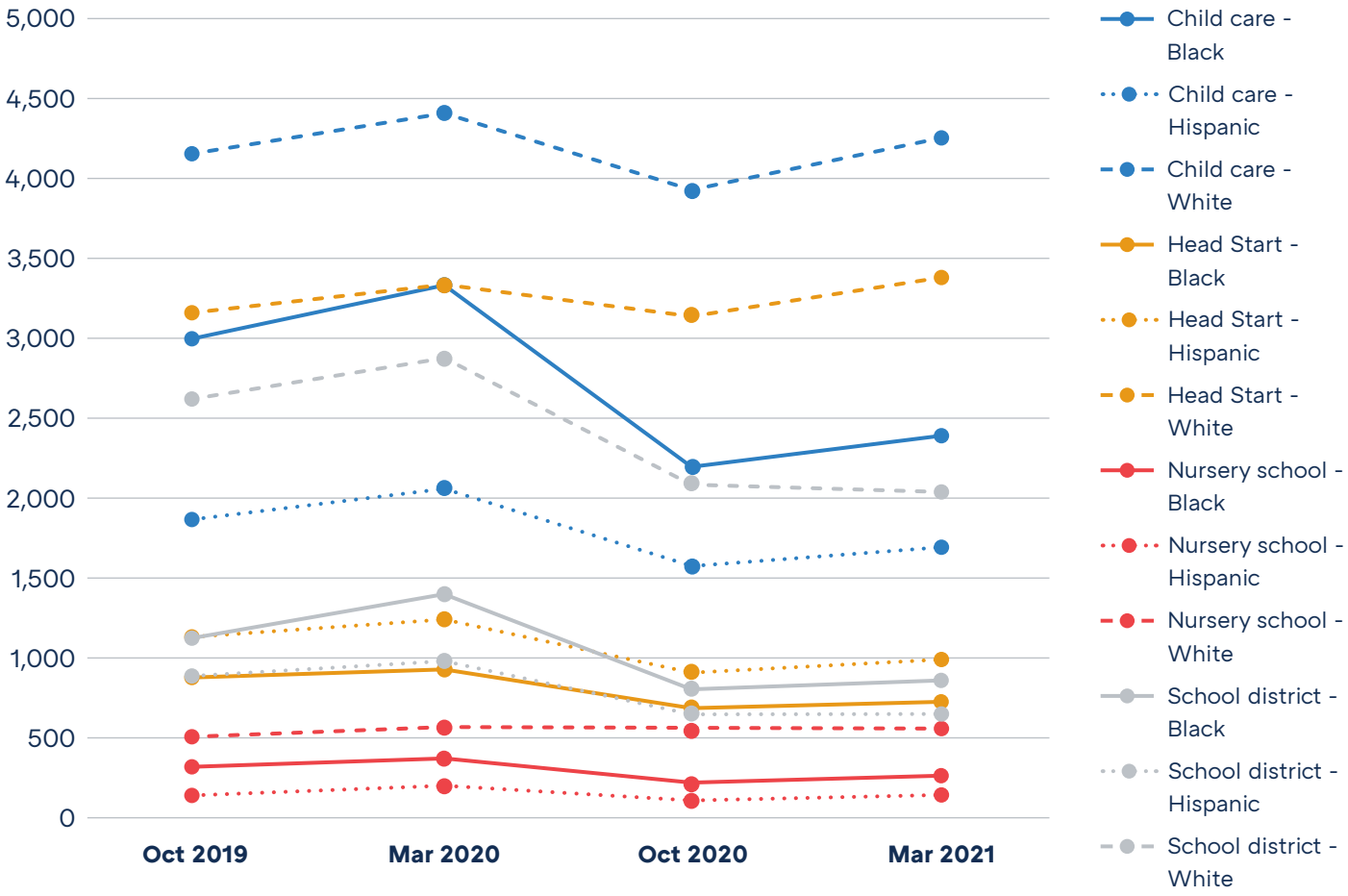
White children in PKC programs operated by Head Start grantees experienced minimal enrollment changes. From Oct. 2019 to Oct. 2020, their enrollment counts dipped from 3,181 to 3,136, a slight decrease of only 1.4%. From Mar. 2020 to Mar. 2021, White children's enrollment with Head Start providers actually increased, from 3,309 to 3,370 (1.8%). In contrast, enrollment among Black children with Head Start providers declined from 878 to 666 in Oct. 2019 and Oct. 2020, a sharp decrease of 24.2%. Black children experienced a similar enrollment decline of 25.2% from Mar. 2020 to Mar. 2021, with enrollment counts dropping from 949 to 710. Among Hispanic children in Head Start-based programs, enrollment decreased from 1,137 to 906 in Oct. 2019 and Oct. 2020 (20.3%), and from 1,215 to 987 in Mar. 2020 and Mar. 2021 (18.8%).

In nearly all cases across racial groups, enrollment declines were greatest among children in PKC programs operated by school districts. The magnitude of these declines was greatest for Black children. Among Black children, PKC enrollment dropped from 1,127 in Oct. 2019 to 769 in Oct. 2020 (31.8%), and from 1,415 in Mar. 2020 to 832 in Mar. 2021 (41.2%). Hispanic children in school districts also experienced steep decreases in PKC enrollment, with counts dropping from 891 in Oct. 2019 to 635 in Oct. 2020 (28.7%), and from 990 in Mar. 2020 to 646 in Mar. 2021 (34.7%). While much greater than the declines experienced by their same-race peers enrolled with child care or Head Start providers, White children in school districts saw smaller relative enrollment declines than their Black and Hispanic peers in school districts. From Oct. 2019 to Oct. 2020, their enrollment decreased from 2,632 to 2,075 (21.2%), and from Mar. 2020 to Mar. 2021 it declined from 2,833 to 2,041 (28.0%).

While PKC enrollment counts were low among children in nursery schools, they varied notably between racial groups. From Oct. 2019 to Oct. 2020, enrollment actually increased among White children, from 493 to 544. Declines were particularly stark among Hispanic children; for example, from Oct. 2019 to Oct. 2020, their enrollment decreased from 201 to 138 (31.3%).

Among Black children, a plurality were enrolled in child care-based PKC programs, followed by school districts, with Head Start grantees enrolling a smaller percentage of Black children. In contrast, more White and Hispanic children were enrolled with Head Start grantees than with school districts. For example, in Oct. 2019, 30.4% and 27.9% of White and Hispanic children enrolled in PKC, respectively, were with Head Start grantees. In contrast, only 16.6% of Black children in PKC were with Head Start providers.

FIGURE 14. Pre-K Counts enrollment, by child race and provider type, October 2019–March 2021



Trends in PKC Enrollment by Family Income Quartile and Provider Type

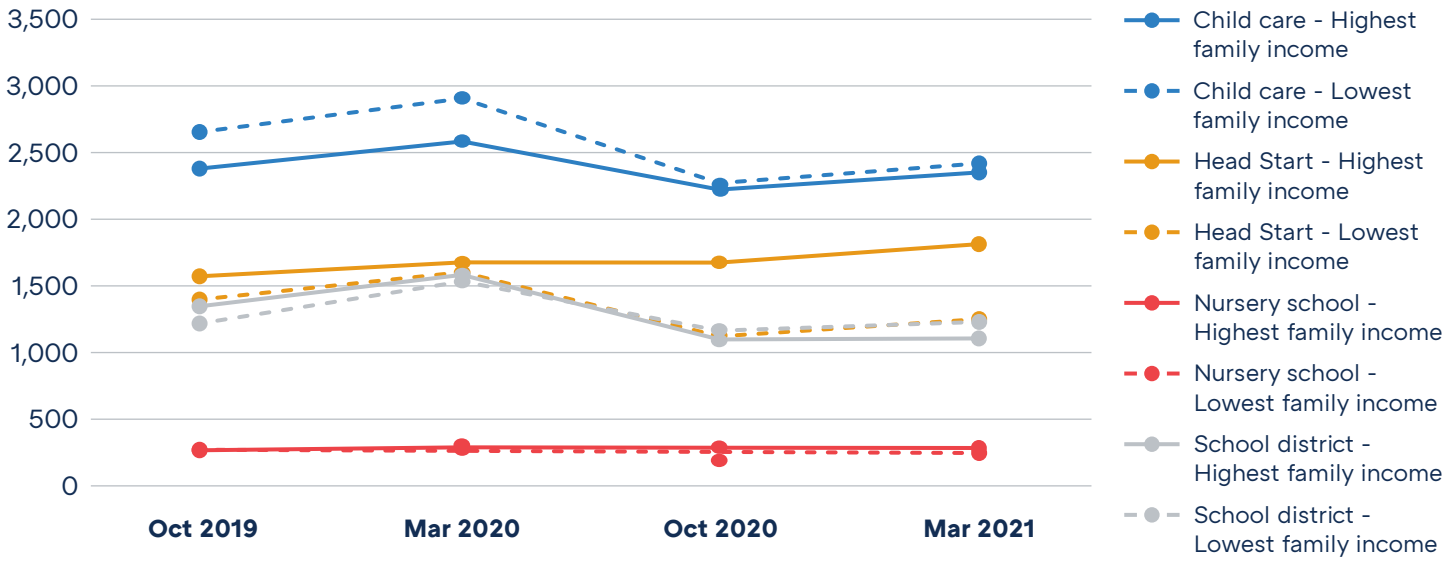
Within most provider type groups, children from the top income quartile experienced lower rates of PKC enrollment decline than children from the bottom income quartile. In some cases, enrollment among children from the top income quartile actually increased. For children in PKC programs operated by child care providers, enrollment among those in the top income quartile dropped from 2,412 in Oct. 2019 to 2,219 in Oct. 2020, a decrease of 8.0%. From Mar. 2020 to Mar. 2021, their enrollment declined from 2,556 to 2,386 (6.7%). By comparison, enrollment among children in the bottom income quartile served by child care providers dropped from 2,608 to 2,261 in Oct. 2019 and Oct. 2020 (13.3%), and from 2,944 to 2,443 in Mar. 2020 and Mar. 2021 (17.0%; Figure 15 and Table A-10).

Differences between the highest and lowest income quartiles were starker among children served by Head Start providers. For children from the top income quartile, enrollment counts actually grew, from 1,522 in Oct. 2019 to 1,665 in Oct. 2020 (9.4%), and from 1,596 in Mar. 2020 to 1,805 in Mar. 2021 (13.1%). In sharp contrast, PKC enrollment counts among children from the bottom income quartile declined, from 1,450 to 1,111 across October time periods (23.4%), and from 1,554 to 1,213 across March time periods (21.9%). Trends among children served in licensed nursery schools were similar, with those in the top income quartile experiencing either increases or very small declines in PKC enrollment, while children in the bottom income quartile experienced decreases that were far more substantial.

Trends shifted when examining enrollment in school district-based PKC programs. Within this provider type group, relative enrollment declines were actually greater among children from the top income quartile, where enrollment counts fell from 1,398 to 1,079 in Oct. 2019 and Oct. 2020 (22.8%), and from 1,553 to 1,080 in Mar. 2020 and Mar. 2021 (30.5%). For children from the bottom income quartile served by school districts, enrollment counts decreased by 12.4% and 21.8%, respectively, across the October and March time periods.

For children in the middle high income quartile, enrollment declines were greatest among those in school district-based programs, while their enrollment with Head Start providers increased slightly (Table A-10). Notably, children from the middle low income quartile had the highest rates of enrollment decline among those served by Head Start and nursery school providers.

FIGURE 15. Pre-K Counts enrollment, by family income quartile and provider type, October 2019–March 2021



Trends in PKC Enrollment by Geographic Locale and Provider Type

Within geographic locales, rates of decline in PKC enrollment varied by provider type. In cities, relative decreases in enrollment were greatest among children served by Head Start providers, with enrollment counts dropping by 42.3% and 43.7%, respectively, across October and March time periods (Figure 16 and Table A-11). Rather surprisingly, the decline in PKC enrollment among urban children in school districts was minimal from Oct. 2019 to Oct. 2020 (i.e., 1,005 to 997). Though from Mar. 2020 to Mar. 2021, it decreased by much more, from 1,469 to 1,037 (29.4%). Enrollment declines were more consistent, and relatively high, in child care-based programs, who served by far the highest numbers of urban children. From Oct. 2019 to Oct. 2020, their enrollment counts dropped from 3,823 to 3,012 (21.2%), and from Mar. 2020 to Mar. 2021 they declined from 4,184 to 3,270 (21.8%). Nursery schools served very few urban children in PKC (i.e., fewer than 150), and their enrollment counts decreased by 10.4% and 8.7%, respectively, over the October and March time periods.

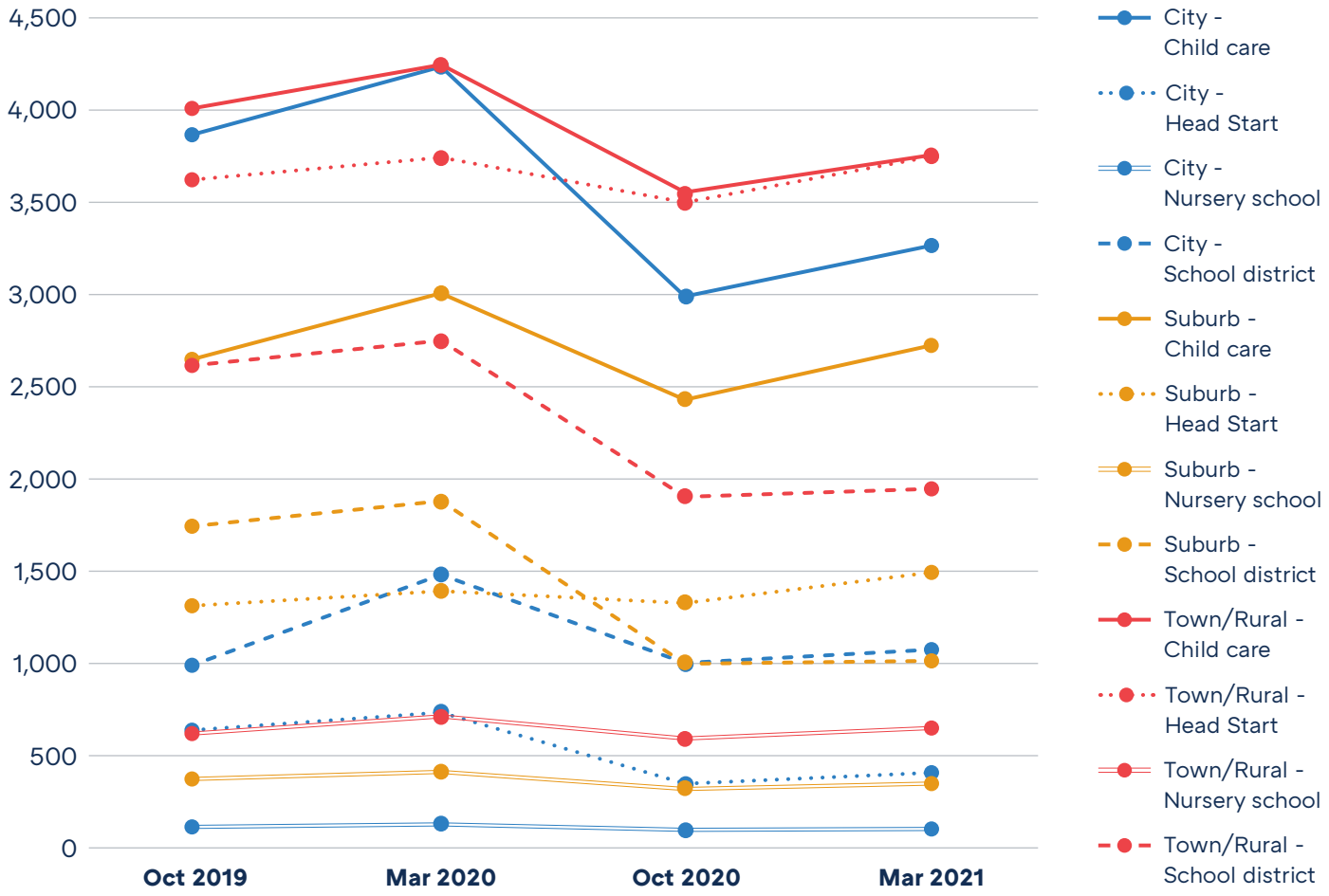
In the suburbs, PKC enrollment declined substantially among children served in school districts.[38] From Oct. 2019 to Oct. 2020, their enrollment dropped from 1,730 to 1,002 (42.1%), and from Mar. 2020 to Mar. 2021 it declined from 1,829 to 1,009 (44.8%). In sharp contrast, enrollment among suburban children in Head Start-based PKC programs increased, from 1,294 to 1,337 in Oct. 2019 and Oct. 2020, and from 1,369 to 1,482 in Mar. 2020 and Mar. 2021. Child care providers served the highest counts of suburban children, where their enrollment decreased from 2,635 to 2,440 (7.4%) and from 2,988 to 2,706 (9.4%) across the October and March time periods, respectively. Rates of enrollment decline among suburban children served by nursery schools were fairly similar to those served by child care providers.

In rural communities, child care and Head Start providers served comparable numbers of children in PKC, unlike in other locales where child care providers were the primary setting of PKC programs. Rural children served by Head Start providers experienced very small declines in enrollment, from 3,614 to 3,501 in Oct. 2019 and Oct. 2020 (3.1%), and 3,740 to 3,735 (0.1%) in Mar. 2020 and Mar. 2021. Declines were greater among rural children served by child care providers, where counts dropped from 3,977 in Oct. 2019 to 3,536 in Oct. 2020 (11.1%), and from 4,210 in Mar. 2020 to 3,738 in Mar. 2021 (11.2%). Relative enrollment declines were greatest among rural children in school district-based PKC programs. From Oct. 2019 to Oct. 2020, their enrollment decreased from 2,612 to 1,949 (25.4%), and from Mar. 2020 to Mar. 2021 it fell from 2,762 to 1,966 (28.8%). Rates of enrollment decline among rural children served in nursery schools were similar to, though slightly lower than, child care providers.

Among all children served by child care providers, those in cities experienced the greatest relative declines in PKC enrollment, and suburban children the least. The same pattern persisted among children in Head Start-based programs, where urban children faced steep declines in enrollment while counts actually increased for children in the suburbs. Notably, the opposite trend occurred among children served by school districts, where suburban children experienced dramatic declines in PKC enrollment and urban children experienced hardly any decline from Oct. 2019 to Oct. 2020. Nursery schools served far higher counts of children in rural areas compared to urban and suburban areas, and relative enrollment declines among children served by nursery schools were also smallest in rural communities.

38 Children enrolled in PKC programs operated by school districts would likely have been affected by K–12 school closures.

FIGURE 16. Pre-K Counts enrollment, by geographic locale and provider type, October 2019–March 2021



Trends in PKC Enrollment by Community Poverty Level and Provider Type

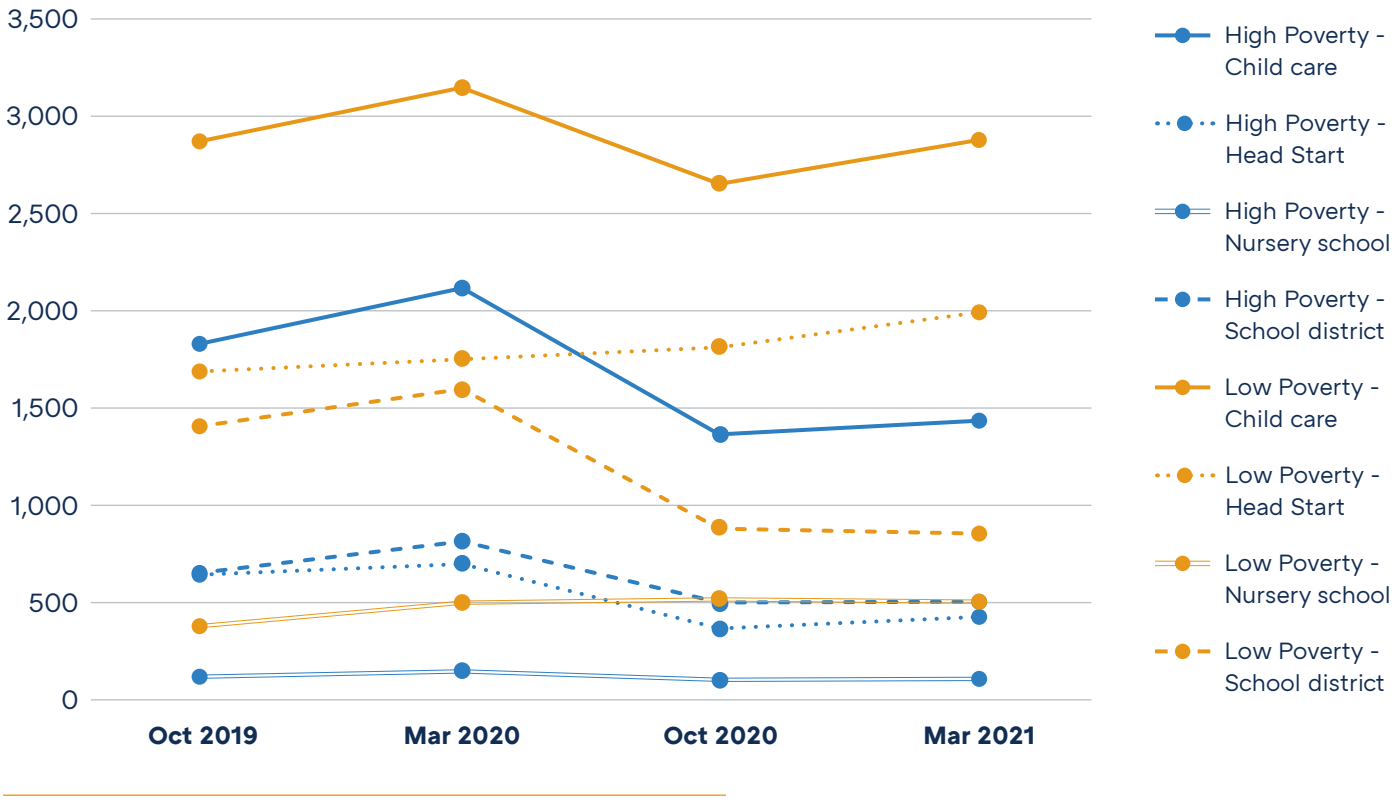
Within high-poverty communities, PKC enrollment declined substantially across all provider type groups. Child care providers served by far the largest numbers of children from high-poverty communities. Their enrollment counts fell from 1,794 in Oct. 2019 to 1,350 in Oct. 2020 (24.7%), and from 2,071 in Mar. 2020 to 1,446 in Mar. 2021 (30.2%; Figure 17 and Table A-12). Head Start and school district providers served fairly comparable numbers of children through their PKC programs, and both also experienced steep declines in enrollment. From Oct. 2019 to Oct. 2020, Head Start and school district enrollments in high-poverty communities fell by 38.2% and 22.8%, respectively, and by 38.7% and 37.9% from Mar. 2020 to Mar. 2021. Children in high-poverty communities served by nursery schools had the lowest enrollment counts of any community poverty-by-provider type subgroup (e.g., only 97 children in Oct. 2019). Their enrollment in PKC declined by 22.8% and 37.9%, respectively, across the October and March time periods.

Within low-poverty communities, the magnitude of relative changes in enrollment — and even the direction of changes — varied widely across provider type groups. Enrollment among children in child care-based programs decreased from 2,850 to 2,607 in Oct. 2019 and Oct.2020, a drop of 8.5%. Their enrollment counts decreased by a similar rate of 8.1% from Mar. 2020 to Mar. 2021, from 3,124 to 2,872. PKC enrollment declined by a far greater rate among children in low-poverty communities

served by school districts, where counts fell from 1,424 to 904 in Oct. 2019 and Oct. 2020 (36.5%), and from 1,555 to 896 in Mar. 2020 and Mar. 2021 (42.4%). In stark contrast, enrollment counts among children in PKC programs operated by Head Start providers and nursery schools increased. In Head Start-based PKC programs, which served more children than school districts, enrollment grew from 1,685 in Oct. 2019 to 1,824 in Oct. 2020 (8.2%), and from 1,770 in Mar. 2020 to 1,988 in Mar. 2021 (12.3%).

Trends varied between children enrolled with the same type of provider but living in communities with different poverty levels. Declines in enrollment among children served in school district-based PKC programs were substantial in both high- and low-poverty communities, but were greater in low-poverty communities. That trend flipped for children in Head Start-based programs. While children in high-poverty communities served by Head Start providers experienced substantial declines in enrollment during the pandemic, those in low-poverty communities had their enrollment counts increase. Within all provider type groups, enrollment counts were higher for children in low-poverty communities compared to children in high-poverty communities, before and during the pandemic. This finding suggests families in low-poverty communities had far more choices when searching for local PKC programs than families in high-poverty communities.

FIGURE 17. Pre-K Counts enrollment, by community poverty level and provider type, October 2019–March 2021



Trends in PKC Enrollment by Community Racial Composition and Provider Type

Within predominantly White communities, relative declines in PKC enrollment were greatest among children served by school districts. Children in these communities enrolled with Head Start and nursery school providers experienced either small declines or even increases in their PKC enrollment. From Oct. 2019 to Oct. 2020, enrollment counts for children in school district-based PKC programs decreased from 2,280 to 1,748 (23.3%), and from Mar. 2020 to Mar. 2021 they fell from 2,421 to 1,725 (28.7%). In contrast, enrollment among children with Head Start providers dipped slightly from 3,071 to 3,021 in Oct. 2019 and Oct. 2020 (1.6%), and increased from 3,203 to 3,231 in Mar. 2020 and Mar. 2021 (0.9%; Figure 18 and Table A-13). Nursery schools served the fewest number of children in predominantly White communities, though their enrollment grew slightly from 477 to 486 in Oct. 2019 and Oct. 2020 (1.9%) before decreasing from 543 to 504 in Mar. 2020 and Mar. 2021 (7.2%). Children served by child care-based PKC programs had the highest enrollment counts in predominantly White communities, and experienced moderate enrollment declines during the pandemic. Their enrollment fell from 3,742 to 3,342 (10.7%) and from 3,967 to 3,575 (9.9%) across October and March time periods, respectively. Trends in enrollment among children in communities with middle high percentages of White residents were similar to those living in predominantly White communities across provider types, though enrollment declines were steeper for children in school-district based PKC programs.

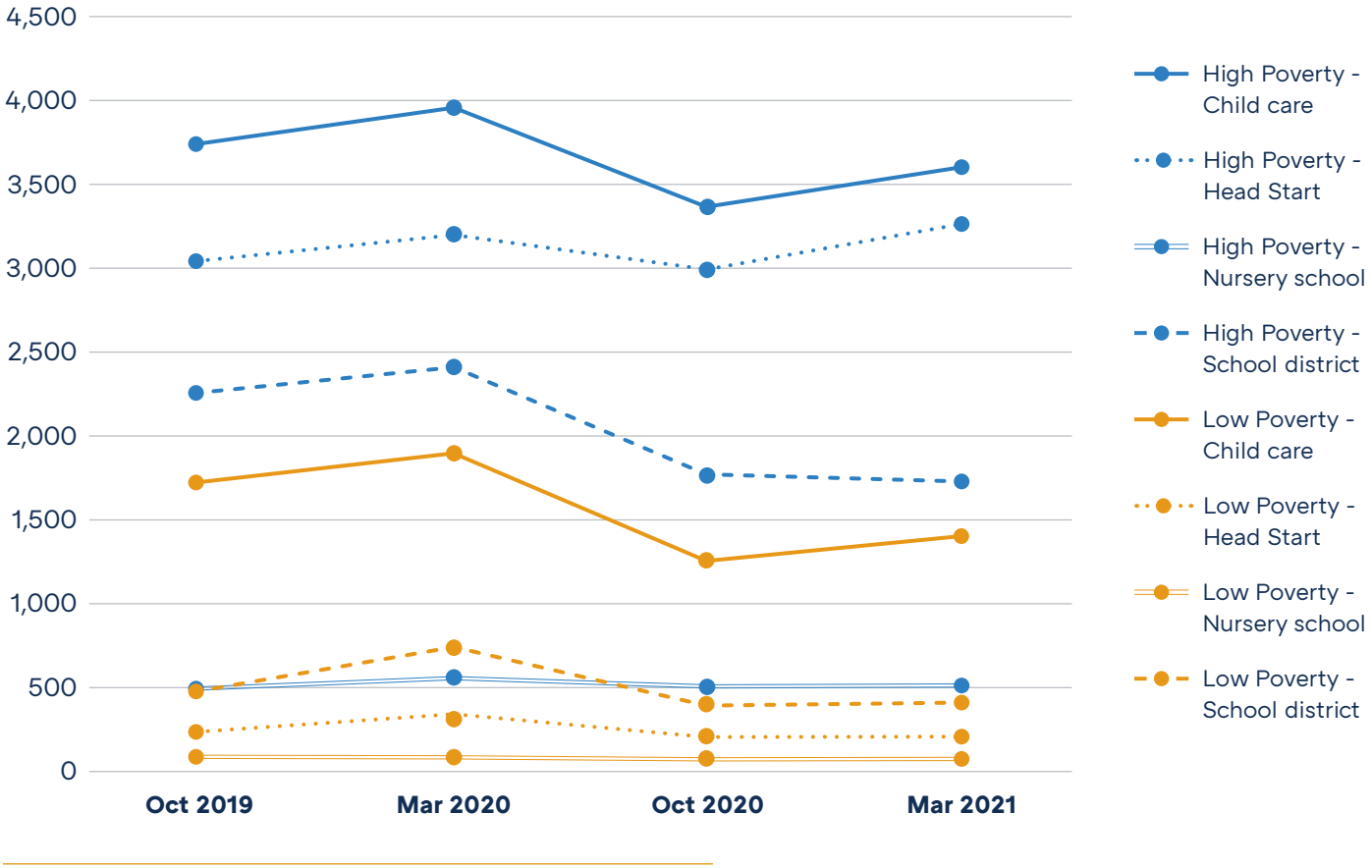
Within communities of color, rates of decline in PKC enrollment were consistently high across provider types, unlike in predominantly White communities where the magnitude of changes varied between provider types. Enrollment declines were particularly large among children served by Head Start and school district providers, especially from Mar. 2020 to Mar. 2021. For children in school districts, PKC enrollment fell from 467 to 371 in Oct. 2019 and Oct. 2020 (20.6%), and from 756 to 398 in Mar. 2020 and Mar. 2021 (47.4%). Enrollment among children served by Head Start providers decreased from 260 to 195 (25.0%) and from 319 to 198 (37.9%), respectively, across the October and March times periods. Children in nursery schools had the lowest enrollment counts, and experienced declines of 18.6% and 23.4%. Children served by child care providers had by far the highest enrollment counts of any provider type group in communities of color. From Oct. 2019 to Oct. 2020, their enrollment dropped from 1,740 to 1,281 (26.4%), and from Mar. 2020 to Mar. 2021 it decreased from 1,888 to 1,388 (26.5%). Across provider types, trends in enrollment among children in communities with middle low percentages of White residents were similar to those living in communities of color, though enrollment declines were greater in communities of color from Mar. 2020 to Mar. 2021.

Among children in the same provider type group, differences between community groups were stark. Namely, relative enrollment declines were more substantial in communities of color compared to predominantly White communities. For example, from Mar. 2020 to Mar. 2021, enrollment dropped by 9.9% among children in predominantly White communities served by child care providers, but among children enrolled with child care providers living in communities of color, the decline was far greater, at 26.5%. And while Head Start-based enrollment grew by 0.9% for children in predominantly White communities, it declined by 37.9% for children in communities of color.

Notably, in nearly all cases, PKC enrollment counts for children in communities of color served by Head Start, nursery school, and school district providers were lower than the enrollment counts of children in predominantly White communities served by nursery schools. Put another way, the provider group

in predominantly White communities with the lowest enrollment counts still served more children than most provider groups in communities of color. This finding indicates families in predominantly White communities have not only more options, but also a greater variety of options, when searching for local PKC programs compared to families in communities of color.

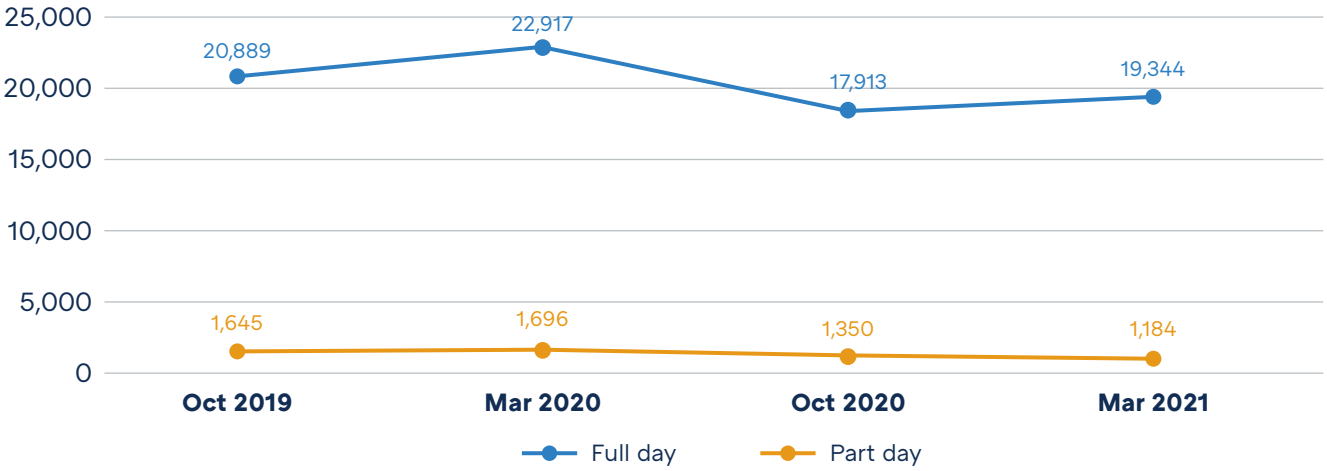
FIGURE 18. Pre-K Counts enrollment, by community racial composition and provider type, October 2019–March 2021



Trends in PKC Enrollment by Enrollment Schedule

Changes in PKC enrollment were similar between children enrolled in full-day and part-day programs from Oct. 2019 to Oct. 2020. Over those time periods, enrollment counts dropped by 14.2% for children in full-day programs and by 17.9% for children in part-day programs (Figure 19 and Table A-14). Differences were more pronounced, however, from Mar. 2020 to Mar. 2021, where full-day enrollment decreased by 15.6% while half-day enrollment dropped by a notably greater rate of 30.2%. Moreover, from Oct. 2020 to Mar. 2021, full-day enrollment ticked up from 17,913 to 19,344 (8.0%), but half-day enrollment continued to decline.

FIGURE 19. Pre-K Counts enrollment, by enrollment schedule, October 2019-March 2021



While not shown in Figure 19, we also examined changes by enrollment schedule and child, community, and provider characteristics. Black children enrolled in part-day programs experienced much steeper declines in enrollment compared to White and Hispanic children in part-day programs, particularly from Mar. 2020 to Mar. 2021 (Table A-15). Half-day enrollment declined during both pandemic time periods for children across locales, and drops were particularly steep for urban and suburban children from Mar. 2020 to Mar. 2021 (Table A-16). For all family income quartiles, relative declines in enrollment were greater for children in part-day programs across time periods, even as full-day enrollment increased for all income quartiles from Oct. 2020 to Mar. 2021 (Table A-17). Declines in part-day enrollment were especially steep for children in high-poverty communities and communities of color, both from Mar. 2020 to Mar 2021 and from Oct. 2020 to Mar. 2021 (Tables A-18 and A-19). Relative declines in full-day enrollment were greatest among programs operating in school districts, compared to other provider types. From Mar. 2020 to Mar. 2021, decreases in part-day PKC enrollment were greatest in school districts, though from Mar. 2020 to Mar. 2021 part-day declines were nearly identical between school districts and child care providers. Notably, part-day enrollment in Head Start programs did not decline across either pandemic time period (Table A-20).

Summary of Trends in PKC Enrollment by Provider Characteristics

While enrollment in PKC declined across all provider types during the pandemic, the magnitude of these declines varied. Overall, children in PKC programs operated by school districts experienced the greatest relative declines in enrollment, while children in Head Start-based PKC programs experienced the smallest declines. However, this trend did not hold across all subgroups. For example, within cities, children in school districts experienced low rates of enrollment decline while those in Head-Start based PKC programs experienced far more substantial enrollment declines.

Within all provider type groups, relative declines in PKC enrollment were greatest for Black and Hispanic children. And within most provider type groups, children from the top family income quartile experienced lower rates of PKC enrollment decline than children from the bottom income quartile. These trends suggest a relationship between children's individual characteristics and PKC enrollment regardless of provider type. Policy efforts designed to boost enrollment among these child groups should therefore extend to all types of PKC providers.

Overall, children in PKC programs operated by school districts experienced the greatest relative declines in enrollment, while children in Head Start-based PKC programs experienced the smallest declines.

Among children in high-poverty communities, PKC enrollment declined substantially regardless of provider type, while in low-poverty communities, the magnitude of relative changes in enrollment – and even their direction – varied widely across provider groups. Similarly, rates of decline in PKC enrollment were consistently high across provider types for children in communities of color, unlike in predominantly White communities where the magnitude of changes varied between provider groups. This finding suggests that providers serving children from historically-marginalized communities universally lacked access to resources to support sustained enrollment, while providers serving children from historically-privileged communities may have collectively benefitted from enhanced resources. Moreover, this finding underscores the potential effect of stark cultural differences in approaches to pandemic safety on PKC participation. PKC providers located in communities where residents were generally more concerned about the safety risks associated with in-person instruction (i.e., communities of color) would likely have had greater difficulty sustaining enrollment, regardless of their type.

Notably, enrollment changes varied by provider type and geographic locale, unlike with our community poverty and racial composition measures where trends tended to persist across provider types. Among children in PKC programs operated by child care providers and Head Start grantees, enrollment declined substantially for children in cities, while it declined minimally – or even increased – among those in the suburbs. But the opposite trend held among children in school district-based PKC programs, where suburban children experienced dramatic declines in enrollment and urban children experienced hardly any decline from Oct. 2019 to Oct. 2020. These findings indicate that policy responses targeting PKC programs in specific geographic areas (e.g., counties, ELRC regions) may need to be tailored by provider type.

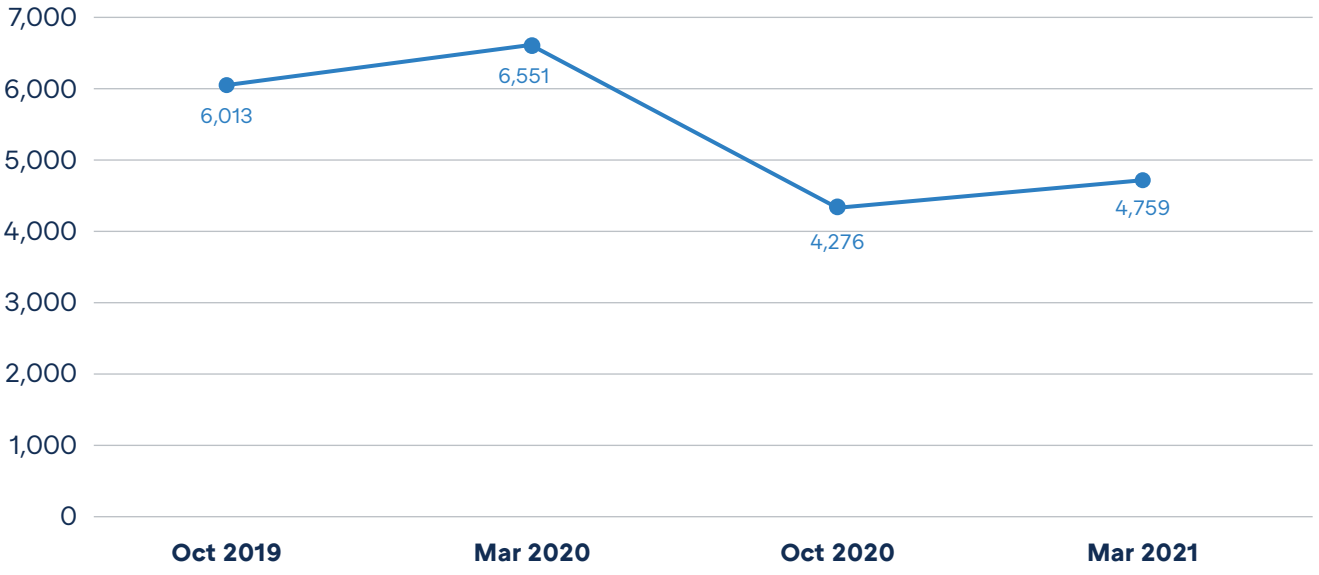
Most children enrolled in full-day PKC programs, and children in both full-day and half-day programs experienced decreases in enrollment. Relative declines were more substantial among children in half-day programs.

Trends in HSSAP Enrollment

Total enrollment in HSSAP dropped substantially during the pandemic, and rates of decline were similar across the year-over-year time periods examined. From Oct. 2019 to Oct. 2020, total enrollment fell from 6,013 to 4,276, a decrease of 28.9% (Figure 20 and Table B-1). From Mar. 2020 to Mar. 2021, enrollment counts declined from 6,551 to 4,759, a drop of 27.4%.

From Oct. 2020 to Mar. 2021, HSSAP enrollment increased by 11.3%. That growth rate was greater than the enrollment increase that occurred from Oct. 2019 to Mar. 2020 (8.2%). That additional growth may suggest that the Mar. 2021 rebound represents not just seasonal fluctuation in program participation, but also families and providers regaining the resources and sense of comfort needed to enroll in public preschool.

FIGURE 20. HSSAP enrollment, October 2019–March 2021



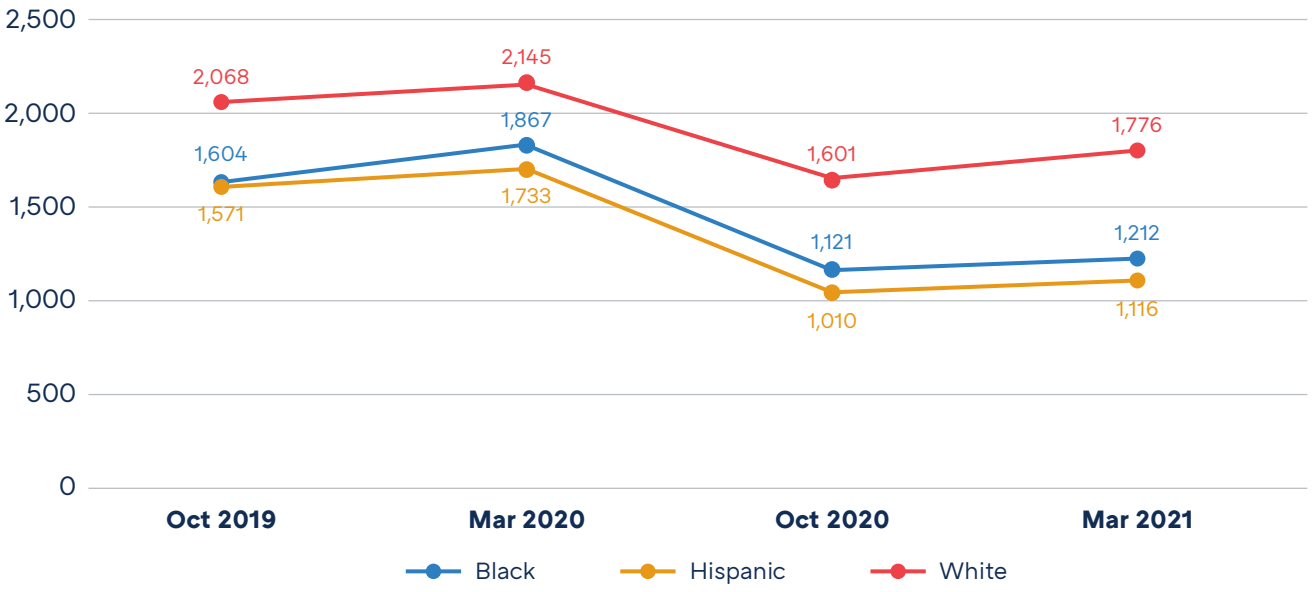
The following analyses include HSSAP enrollment trends by child and community characteristics (e.g., race, geographic locale), similar to the above analysis provided for PKC. We also examine trends in enrollment by provider type and enrollment schedule, though we do not disaggregate these counts by child or community characteristics due to limited variation in provider type (i.e., the vast majority of children enrolled in HSSAP are with Head Start providers) and small sample sizes. We include a summary of all HSSAP enrollment findings at the end of this section.

Trends in HSSAP Enrollment by Child Race

HSSAP enrollment counts declined at greater rates among Black and Hispanic children than among White children. From Oct. 2019 to Oct. 2020, enrollment among Black children decreased by 30.1% (1,604 to 1,121), and among Hispanic children it declined by 35.7% (1,571 to 1,010). By comparison, White children — who had the highest enrollment counts of any racial group — experienced an enrollment decline of 22.6%, from 2,068 to 1,601 (Figure 21 and Table B-1). From Mar. 2020 to Mar. 2021, the relative decrease in enrollment was even lower for White children, at 17.2%. But among Black children, enrollment declined at a greater rate (35.1%), as enrollment counts fell from 1,867 to 1,212. Hispanic children's HSSAP enrollment dropped by 35.6% (1,733 to 1,116), a rate nearly identical to their October-to-October decline.

HSSAP enrollment counts declined at greater rates among Black and Hispanic children than among White children.

FIGURE 21. HSSAP enrollment, by child race, October 2019–March 2021



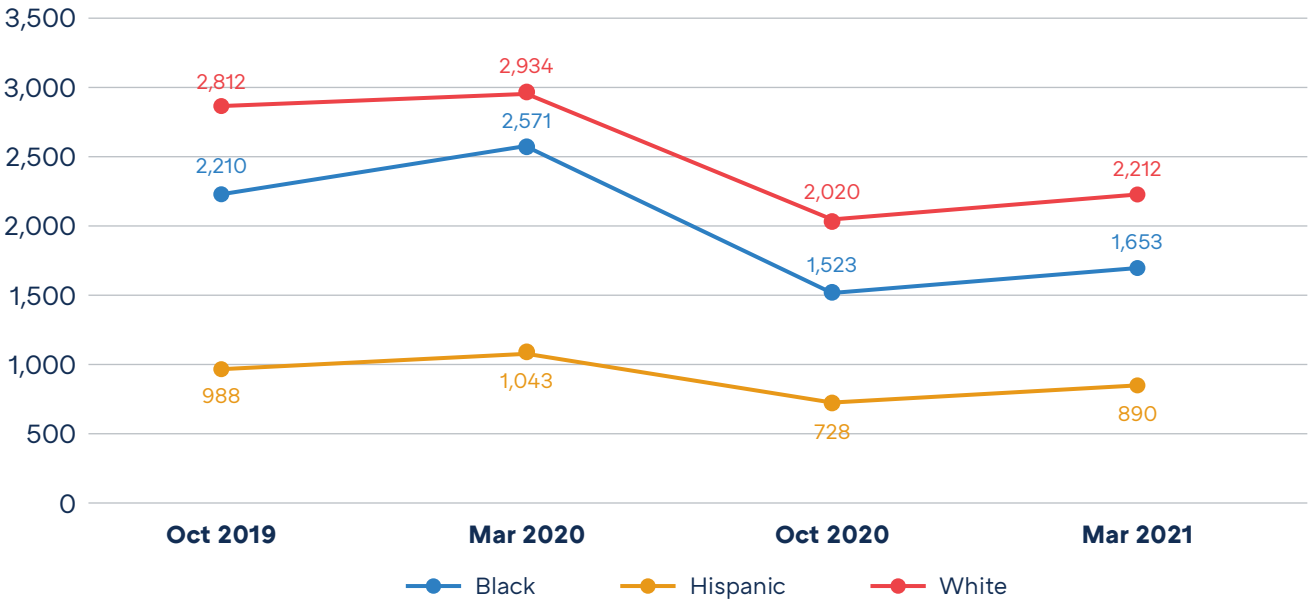
Trends in HSSAP Enrollment by Geographic Locale

HSSAP enrollments declined at the greatest rates among children living in cities and at the smallest rates among children in the suburbs. From Oct. 2019 to Oct. 2020, urban children's enrollment counts dropped from 2,210 to 1,523, a decline of 31.1% (Figure 22 and Table B-1). For suburban children — who had the lowest enrollment counts of any geographic group — enrollment decreased from 988 to 728 over October time periods, for a decline of 26.3%. HSSAP enrollment among rural children declined from 2,812 to 2,020 (28.2%).

Differences in the magnitude of enrollment declines widened between groups from Mar. 2020 to Mar. 2021. For urban children, enrollment counts decreased from 2,571 to 1,653, a substantial drop of 35.7%. In contrast, suburban children's enrollment declined by a much smaller rate of 14.7%, from 1,043 to 890. Rural children's enrollment decreased from 2,934 to 2,212 over March time periods, a decline of 24.6%

HSSAP enrollments declined at the greatest rates among children living in cities and at the smallest rates among children in the suburbs.

FIGURE 22. HSSAP enrollment, by geographic locale, October 2019–March 2021



Trends in HSSAP Enrollment by Child Race and Geographic Locale

Within all geographic locale groups, HSSAP enrollment declined at the smallest rates among White children and the greatest rates among Hispanic children. Black children across locales also experienced substantial declines in HSSAP enrollment relative to White children.

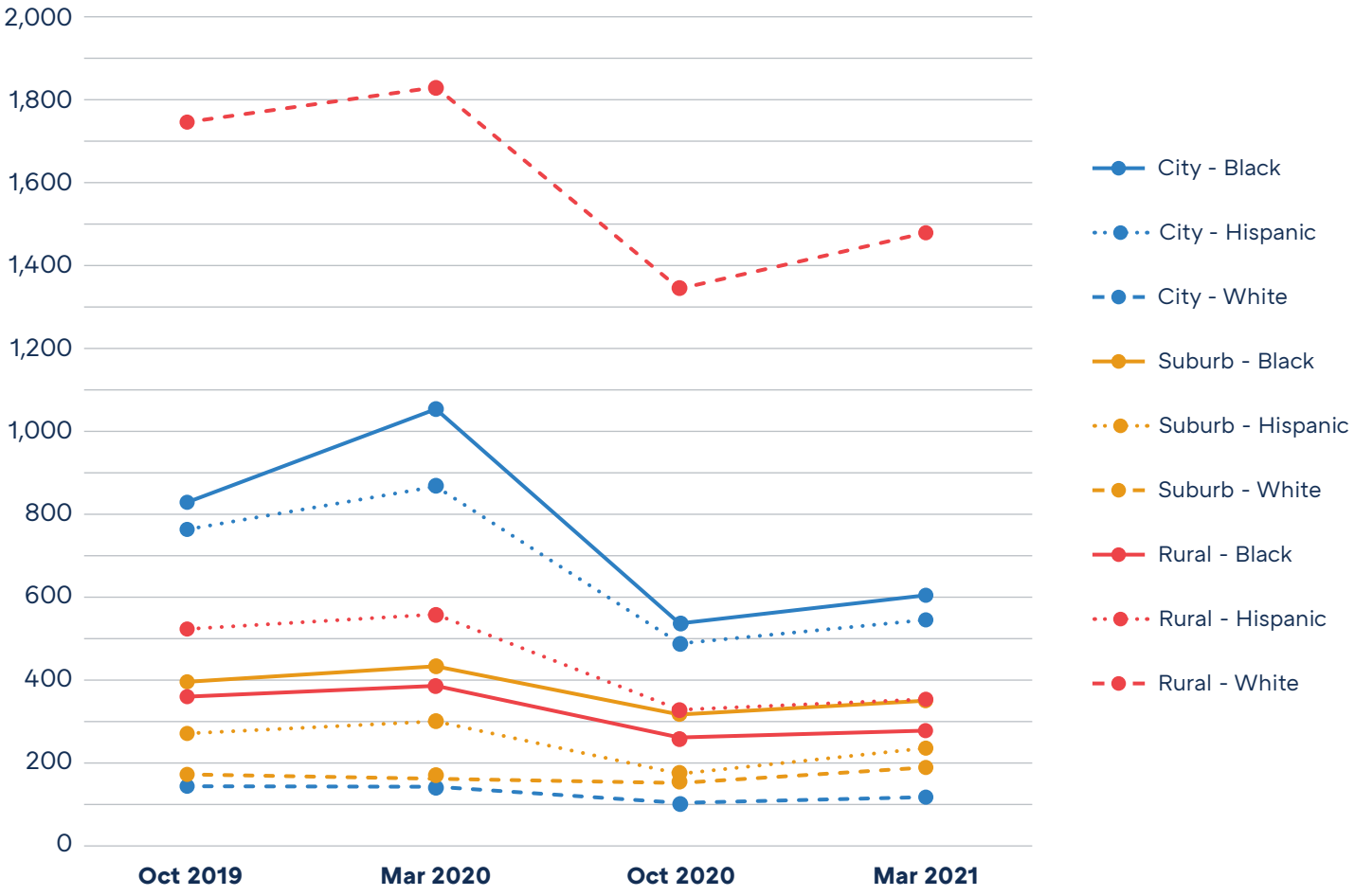
Within cities, enrollment counts were much higher for Black and Hispanic children, and relative rates of enrollment decline were greater, compared to White children. From Oct. 2019 to Oct. 2020, urban Black children's HSSAP enrollment dropped from 837 to 555, a decrease of 33.7% (Figure 23 and Table B-2). Urban Hispanic children's enrollment declined at a similarly high rate of 35.2%, from 772 to 500. By comparison, enrollment among White children living in cities decreased from 141 to 103, a drop of 27.0%. Trends were similar when comparing Mar. 2020 and Mar. 2021, though urban Black children's enrollment dropped by a much greater rate of 43.0%, from 1,053 to 600. The rate of enrollment decline also grew slightly for Hispanic children, to 38.6%. In contrast, urban White children's enrollment decreased at a slightly lower rate compared to its October decline (26.5%).

Among suburban children, variation in the magnitude of enrollment declines was much starker. From Oct. 2019 to Oct. 2020, suburban White children's HSSAP enrollment dropped from 179 to 156, a decrease of 12.8%. Among suburban Black children, enrollment fell from 395 to 316, a relatively greater decline of 20.0%. The enrollment decline rate was even more substantial for suburban Hispanic children, with counts falling by 36.1%, from 280 to 179. From Mar. 2020 to Mar. 2021, suburban Black and Hispanic children experienced similar rates of enrollment decline of 20.4% and 22.4%, respectively. In sharp contrast, HSSAP enrollment among suburban White children actually increased, from 179 to 184 (2.8%).

In rural communities, White children had the highest HSSAP enrollment counts by far, and also experienced the lowest rates of enrollment decline during the pandemic. From Oct. 2019 to Oct. 2020, enrollment among rural White children dropped from 1,746 to 1,338, a decrease of 23.4%. By comparison, rural Black children's HSSAP enrollment fell by 32.6%, from 371 to 250. And rural Hispanic children's enrollment decreased by an even greater rate of 36.4%, from 519 to 330. Trends were similar when examining March time periods, though the gap between rural White and rural Hispanic children widened. From Mar. 2020 to Mar. 2021, rural White children's HSSAP enrollment declined by 18.4% (1,817 to 1,482), while among rural Hispanic children it declined by 38.1% (559 to 346). Rural Black children's HSSAP enrollment fell from 55 to 346 (38.1%) across March time periods.

Among all White children, HSSAP enrollment declined at the greatest rates for those living in cities and at the lowest rates for those in the suburbs. For Black children, those in cities experienced the greatest rates of enrollment decline and those in the suburbs the smallest. Relative enrollment declines were very similar for Hispanic children across locales from Oct. 2019 to Oct. 2020, though from Mar. 2020 to Mar. 2021 declines were smaller in magnitude for those living in the suburbs. Overall, while HSSAP enrollment counts were generally low in suburban communities, rates of enrollment decline were also low, suggesting those communities held resources that supported families of all racial groups in adjusting to pandemic conditions in ways that supported preschool participation.

FIGURE 23. HSSAP enrollment, by child race and geographic locale, October 2019–March 2021



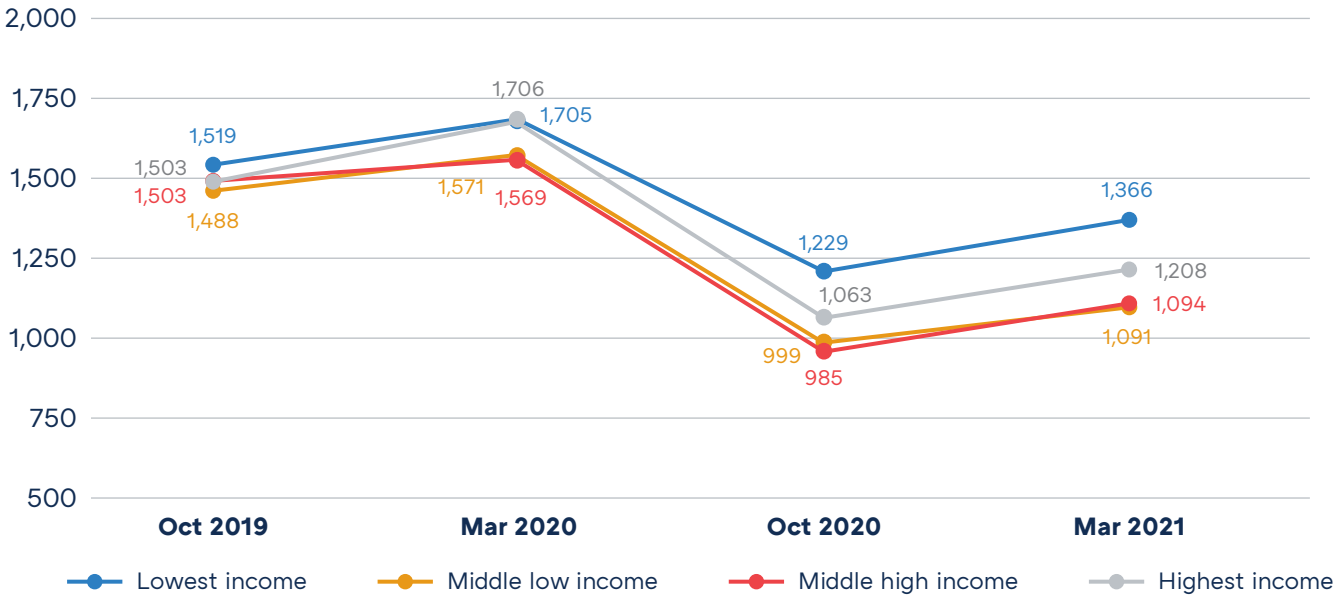
Trends in HSSAP Enrollment by Family Income Quartile

We constructed family income groups based on the Oct. 2019 income distribution of HSSAP enrollees, making approximately equal quartiles. Yet during the pandemic, differences in enrollment counts between these groups emerged. Notably, children in the bottom income quartile experienced smaller declines in HSSAP enrollment. From Oct. 2019 to Oct. 2020, enrollment among children in the bottom income quartile decreased from 1,519 to 1,229, a decline of 19.1% (Figure 24 and Table B-1). By comparison, enrollment declines among children from the middle low and middle high income quartiles were 32.9% and 34.5%, respectively, over October time periods. Among children from the top income quartile, enrollment dropped by 29.23%, from 1,503 to 1,063.

When comparing Mar. 2020 and Mar. 2021, relative enrollment declines were similar to their October levels for children from all income quartiles. Among children from the bottom income quartile, counts fell from 1,705 to 1,366, a decrease of 19.9%. Among children from the middle low and middle high income quartiles, enrollments declined by 30.6% and 30.3%, respectively, and for children from the top income quartile the decline was 29.2%.

We reiterate the limitations inherent to our income measure (see p. 12) and the different income eligibility thresholds for HSSAP as compared to PKC (see p. 10). Notably, the income eligibility criteria for Head Start create a narrow income distribution (i.e., only families with incomes up to 100% FPL), reducing variation within the sample. That is, relative differences between income quartiles are small and may not be substantive.[39]

FIGURE 24. HSSAP enrollment, by family income quartile, October 2019–March 2021



Note: Income quartiles are: Income quartiles are: Lowest = 0–$4,836; Middle low = $4,837–$13,577; Middle high = $13,578–$22,635; and Highest = >$22,636. Quartiles are based on families' reported income only; they do not consider family size.

39 Some empirical evidence supports this concern. For example, Currie and Thomas (1999) examined differences in outcomes by income level within a sample of Hispanic children enrolled in Head Start, and found no significant interaction for children in families with incomes above the sample's median income. At the same time, studies of other means-tested preschool programs have found significant differences for children from families with the very lowest incomes, suggesting subgroup distinctions by relative income may be a meaningful measure in some cases (see, for example, Ansari, Pianta, Whittaker, Vitiello, & Ruzek, 2020).

Trends in HSSAP Enrollment by Family Income Quartile and Geographic Locale

The magnitude of differences in enrollment decline between family income quartiles varied by geographic locale. In cities, enrollment declines were smaller for children from the bottom income quartile compared to those in the top income quartile. From Oct. 2019 to Oct. 2020, urban children in the bottom income quartile experienced a minimal enrollment decline of 3.9%, from 484 to 465 (Figure 25 and Table B-3). In contrast, among urban children from the top income quartile, enrollment decreased by a much greater rate of 29.7%, from 485 to 341. From Mar. 2020 to Mar. 2021, rates of enrollment decline increased substantially for both income quartiles. For urban children in the bottom income quartile, enrollment dropped by 18.7%, and for urban children in the top income quartile it dropped by 37.3%. Notably, among children in cities, those in the middle low and middle high income quartiles experienced the greatest relative declines in HSSAP enrollment (Table B-3).

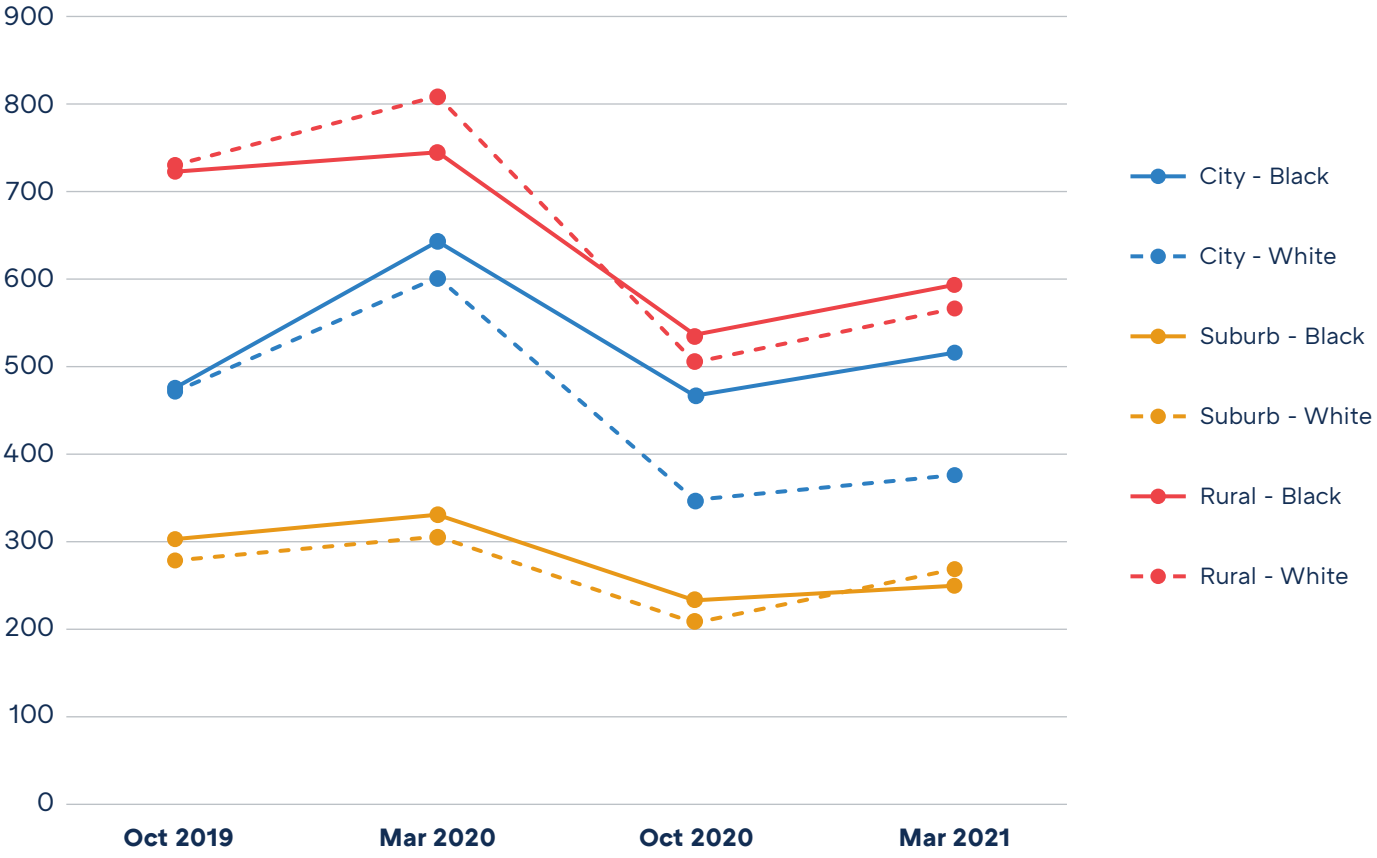
In the suburbs, HSSAP enrollment declined at similar rates between children from the bottom and top income quartiles from Oct. 2019 to Oct 2020. Over those time periods, enrollment counts dropped from 307 to 223 for children in the bottom income quartile (27.4%), and from 282 to 210 for children in the top income quartile (25.5%). But from Mar. 2020 to Mar. 2021, that difference grew, with suburban children from the bottom income quartile experiencing a greater relative decline in enrollment (i.e., 20.9% vs. 10.6%). Unlike in cities where children in the middle low income quartile experienced substantial declines in enrollment, suburban children in the same income quartile had the lowest relative enrollment declines for both time periods (Table B-3).

Trends in rural communities were similar to those in suburban communities, with the difference in the magnitude of enrollment declines between income quartiles widening over time. From Oct. 2019 to Oct. 2020, enrollment declined from 727 to 537 for rural children from the bottom income quartile (26.1%), and from 736 to 511 for children from the top income quartile (30.6%). From Mar. 2020 to Mar. 2021, enrollment counts dropped from 325 to 257 for rural children from the bottom income quartile (20.9%), and from 303 to 271 for rural children from the top income quartile (10.6%).

HSSAP enrollment declined at greater rates over the October time periods compared to the March time periods for children in suburban and rural communities, regardless of income quartile. But for children in cities, relative declines in enrollment were greater for children from both the top and bottom income quartiles from Mar. 2020 to Mar. 2021, compared to the October period.

Among children in the bottom income quartile, relative enrollment declines were greatest for those living in the suburbs and smallest for those in cities for both time periods examined. In contrast, among children in the top income quartile, relative enrollment declines were smallest in the suburbs and greater in cities.

FIGURE 25. HSSAP enrollment, by family income quartile and geographic locale, October 2019–March 2021

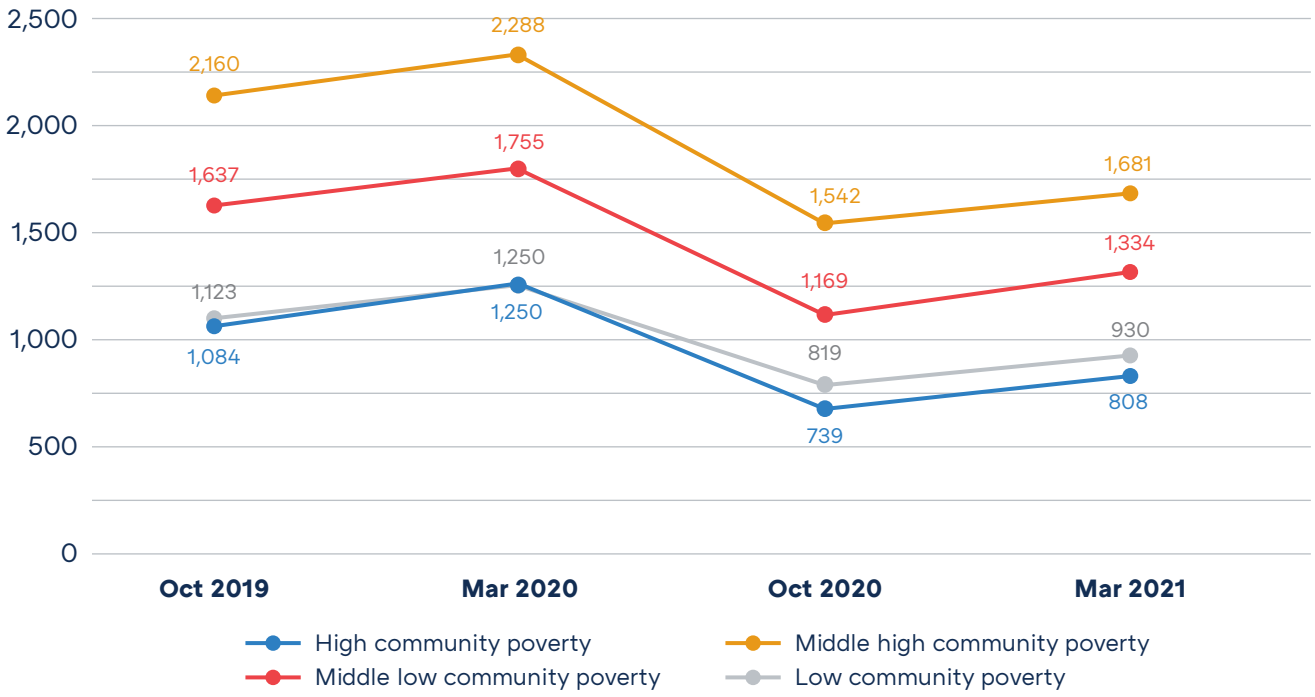


Trends in HSSAP Enrollment by Community Poverty Level

Relative declines in HSSAP enrollment varied minimally by community poverty level from Oct. 2019 to Oct. 2020, but differences were more substantial from Mar. 2020 to Mar. 2021. Over October time periods, enrollment fell from 1,084 to 739 among children from high-poverty communities, a decrease of 31.8% (Figure 26 and Table B-1). Among children from low-poverty communities, enrollment counts dropped by 27.1%, from 1,123 to 819. In both communities with middle high and middle low levels of poverty, where enrollment counts were higher, children's HSSAP enrollment declined by 28.6%.

From Mar. 2020 to Mar. 2021, HSSAP enrollment decreased from 1,250 to 808 for children from high-poverty communities, a drop of 35.4% and the greatest relative decline of any community poverty group. In contrast, the rate of enrollment decline was smaller over March time periods compared to October time periods for children in low-poverty communities, at 25.6% (i.e., 1,250 to 930). Among children in communities with middle high and middle low levels of poverty, the Mar. 2020 to Mar. 2021 enrollment drop was also relatively smaller than the one they experienced from Oct. 2019 to Oct. 2020.

FIGURE 26. HSSAP enrollment, by community poverty level, October 2019–March 2021



Trends in HSSAP Enrollment by Child Race and Community Poverty Level

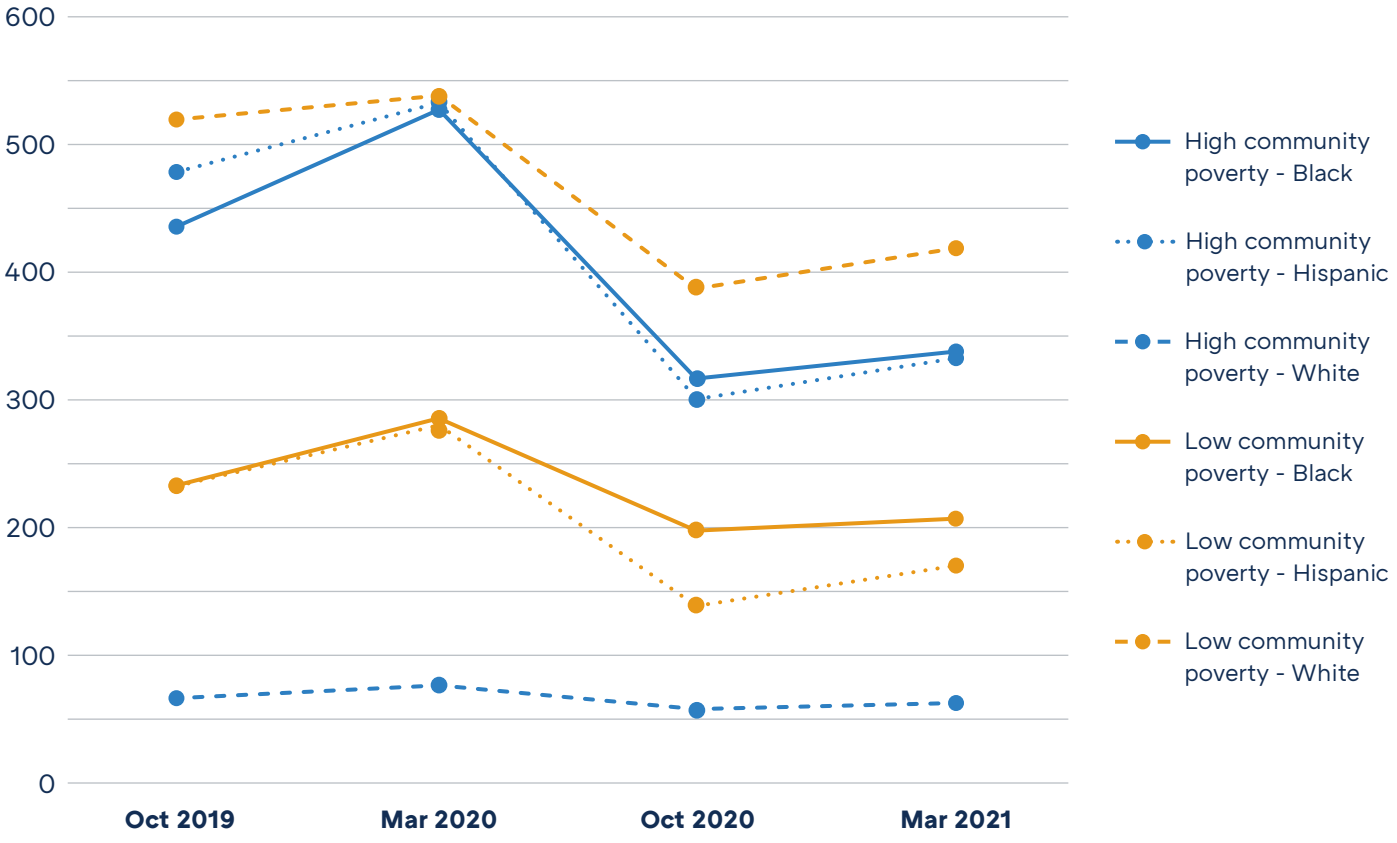
Within high-poverty communities, HSSAP enrollment declined at the greatest rates for Hispanic children and the lowest rates for White children. From Oct. 2019 to Oct. 2020, enrollment counts dropped from 479 to 299 for Hispanic children, a decrease of 37.6% (Figure 27 and Table B-4). Black children also experienced a substantial drop in HSSAP enrollment, from 442 to 308 (30.3%). White children's HSSAP enrollment counts were very low in high-poverty communities. Over October time periods, their enrollment decreased from 65 to 53, a rate of 18.5%. Those trends persisted from Mar. 2020 to Mar. 2021, where enrollment declines remained high for Hispanic and Black children but lower for White children. Over those time periods, enrollment counts fell from 536 to 332 for Hispanic children (38.1%), and from 531 to 335 for Black children (36.9%). Among White children in high-poverty communities, enrollment decreased by 19.2% over the March time periods, from 73 to 59.

Within low-poverty communities, Hispanic children again experienced significant declines in HSSAP enrollment, though trends among Black and White children varied. From Oct. 2019 to Oct. 2020, Hispanic children's enrollment dropped from 236 to 140, a substantial decline of 40.7%. And from Mar. 2020 to Mar. 2021, their enrollment fell by 38.7%, from 279 to 171. From Oct. 2019 to Oct. 2020, Black children in low-poverty communities experienced the smallest decline in enrollment, at 15.3% (i.e., 236 to 200). But from Mar. 2020 to Mar. 2021, Black children's enrollment decreased from 284 to 205, a greater rate of 27.8%. Over the October time periods, White children's enrollment dropped by 24.2%, from 516 to 391, a rate that was greater compared to Black children but smaller compared to Hispanic children. From Mar. 2020 to Mar. 2021, White children's enrollment declined at the smallest rate of any racial group, at 23.2% (i.e., 544 to 418).

In communities with middle high levels of poverty, enrollment decreased at the greatest rates among Black children and the smallest rates among White children (see Table B-4). In communities with middle low levels of poverty, relative enrollment declines were again smallest for White children, and greatest for Hispanic children.

Among Black children, HSSAP enrollment declined at greater rates for those living in communities with more poverty, compared to their same-race peers in low-poverty communities. White children experienced relatively low rates of enrollment decline across community types, but decreases were somewhat smaller in communities with higher poverty levels. In contrast, rates of enrollment decline were consistently high among Hispanic children across community types, but were highest in low-poverty communities.

FIGURE 27. HSSAP enrollment, by child race and community poverty level, October 2019–March 2021

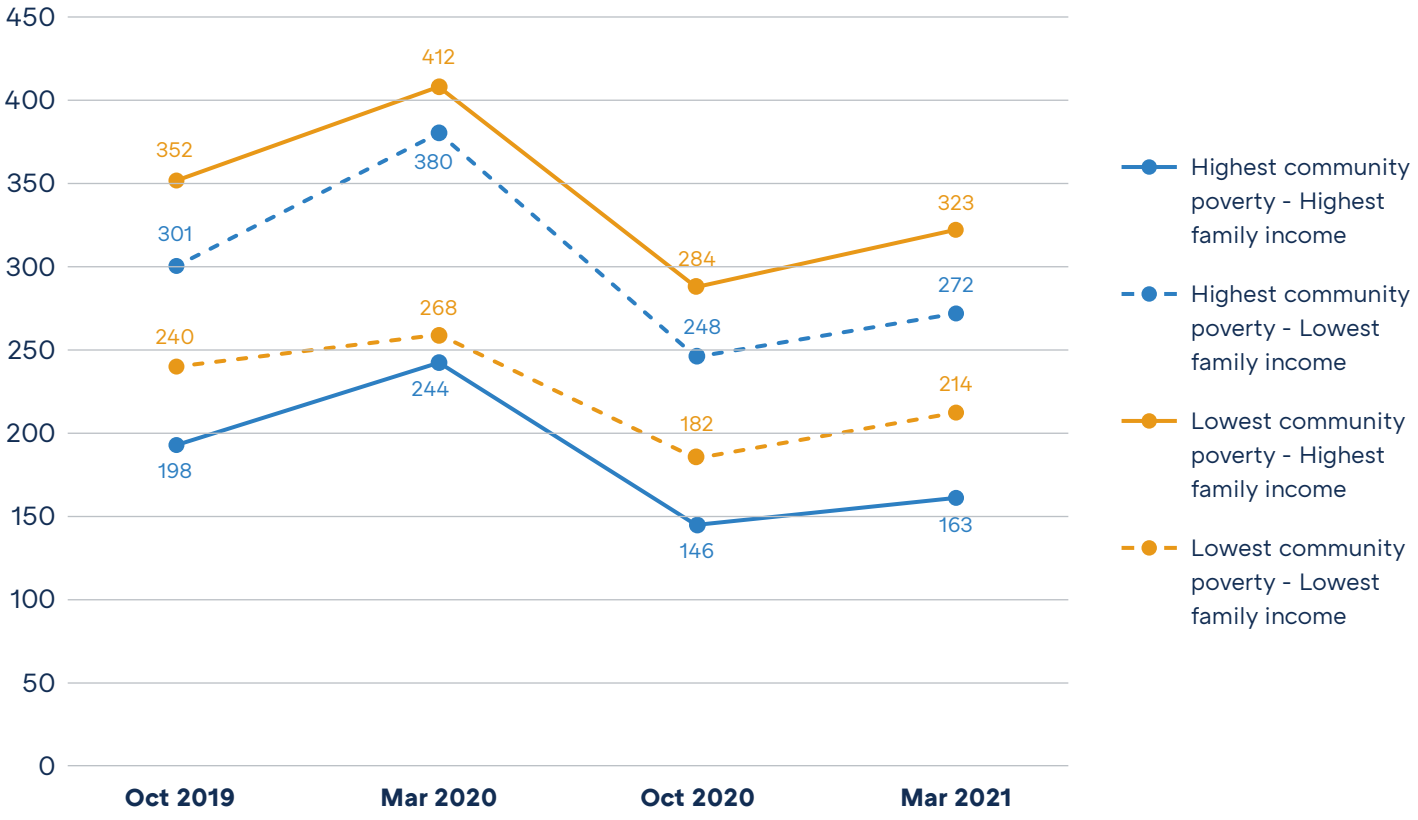


Trends in HSSAP Enrollment by Family Income Quartile and Community Poverty Level

Within high-poverty communities, HSSAP enrollment declined at greater rates among children from the top family income quartile. Their enrollment fell from 198 to 146 over October time periods (26.3%), and from 244 to 163 over March time periods (33.2%; Figure 28 and Table B-5). By comparison, among children from the bottom family income quartile, HSSAP enrollment decreased from 301 to 248 in Oct. 2019 and Oct. 2020 (17.6%), and from 380 to 272 in Mar. 2020 and Mar. 2021 (28.4%). Notably, children in the middle low and middle high family income quartiles experienced the greatest relative declines in HSSAP enrollment during the pandemic (Table B-5).

Within low-poverty communities, children in the top income quartile experienced the smallest enrollment declines from Oct. 2019 to Oct. 2020. For them, enrollment counts decreased from 352 to 284, or 19.3%. By comparison, enrollment declined by 24.2% among children from the bottom income quartile, from 240 to 182. From Mar. 2020 to Mar. 2021, rates of enrollment decline were similar between family income quartiles. HSSAP enrollment decreased by 20.1% among children from the bottom income quartile, and by 21.6% among children from the top income quartile. In low-poverty communities, relative enrollment declines among children from the middle low income quartile were similar to those in the bottom income quartile. Children from the middle high income quartile experienced substantially higher rates of enrollment decline compared to children in other income quartiles also living in low-poverty communities (Table B-5).

FIGURE 28. HSSAP enrollment, by family income quartile and community poverty level, October 2019–March 2021



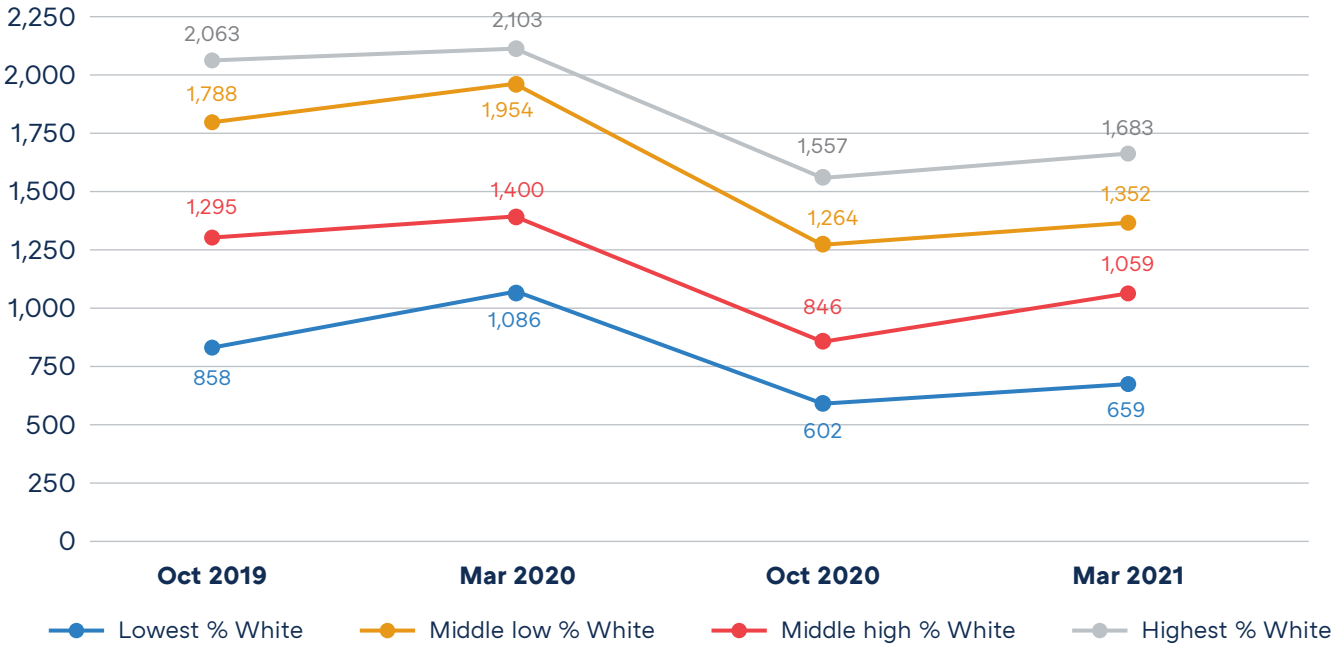
Trends in HSSAP Enrollment by Community Racial Composition

Children in predominantly White communities (i.e., communities with the highest percentages of White residents) had the highest HSSAP enrollment counts by far, and experienced the smallest declines in HSSAP enrollment during the pandemic. Enrollment declines were greater among children living in communities with fewer White residents, especially from Mar. 2020 to Mar. 2021.

From Oct. 2019 to Oct. 2020, enrollment among children in predominantly White communities decreased from 2,063 to 1,557, a decline of 24.5% (Figure 29 and Table B-1). By comparison, enrollment counts were the lowest in communities of color (i.e., communities with the lowest percentages of White residents), where children's HSSAP enrollment fell from 858 to 602 across October time periods (29.8%). Among children in communities with middle low percentages of White residents, enrollment fell by 29.3%, while among children in communities with middle high percentages of White residents it fell by 34.7%, the greatest relative decline of any community group from Oct. 2019 to Oct. 2020 (Table B-1).

Differences in the magnitude of HSSAP enrollment declines were starker when comparing Mar. 2020 and Mar. 2021 time periods. There, enrollment counts dropped from 2,103 to 1,557 for children in predominantly White communities (20.0%), the lowest relative decline of any community group. In contrast, enrollment fell from 1,086 to 659 among children in communities of color (39.2%), the highest relative decline of any community group. Children in communities with middle low and middle high percentages of White residents experienced enrollment declines of 30.8% and 24.4%, respectively.

FIGURE 29. HSSAP enrollment, by community racial composition, October 2019–March 2021



Trends in HSSAP Enrollment by Child Race and Community Racial Composition

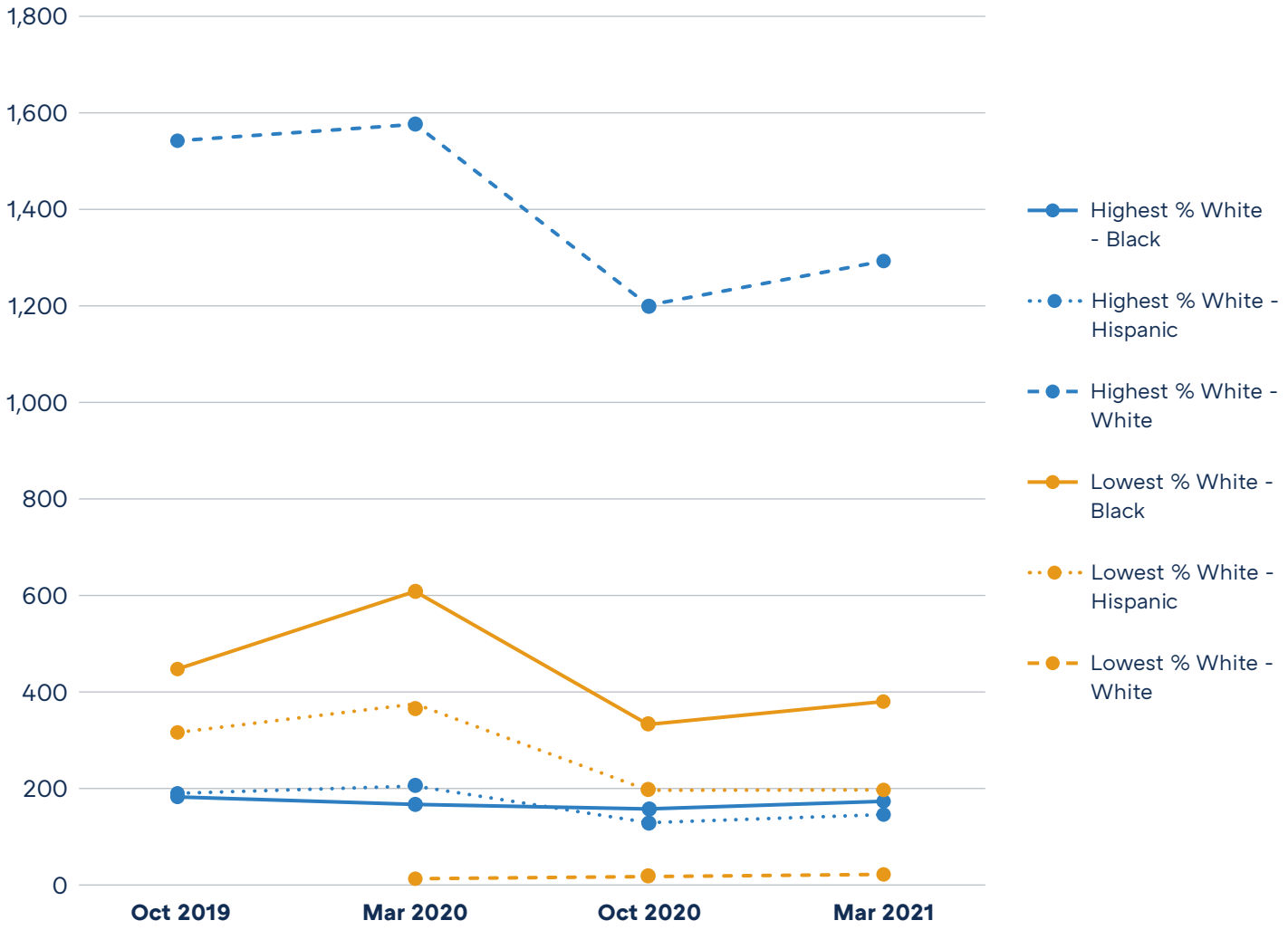
Within communities of color, Black and Hispanic children experienced substantial declines in HSSAP enrollment. From Oct. 2019 to Oct. 2020, Black children's enrollment dropped from 452 to 325 (28.1%), and Hispanic children's enrollment fell from 315 to 191 (39.4%; Figure 30 and Table B-6). The numbers of White children in communities of color enrolled in HSSAP were extremely low. From Mar. 2020 to Mar. 2021, enrollment declined at even greater rates for Black and Hispanic children, at 37.6% and 46.4%, respectively, while White children's enrollment continued to tick up (i.e., from 11 to 15 children).

Within predominantly White communities, Hispanic children again experienced the greatest relative declines in HSSAP enrollment. From Oct. 2019 to Oct. 2020, their enrollment declined from 195 to 125 (35.9%), and from Mar. 2020 to Mar. 2021 it fell from 212 to 137 (35.4%). By comparison, White children's enrollment decreased from 1,544 to 1,202 over the October periods (22.2%), and from 1,576 to 1,295 over the March time periods (17.8%). Notably, Black children — who in other instances experienced the greatest enrollment declines relative to their other-race peers — experienced relatively small declines. From Oct. 2019 to Oct. 2020, their enrollment counts dropped by 17.2%, from 186 to 154. From Mar. 2020 to Mar. 2021, the rate of enrollment decline among Black children in predominantly White communities was even smaller, at 9.4%.

Among children living in communities with middle low percentages of White residents, enrollment declines were greatest for Black children, though Hispanic children also experienced substantial decreases in HSSAP participation (Table B-6). Among children in communities with middle high percentages of White residents, enrollment declined substantially for Black and Hispanic children alike, though rates of decline were slightly greater for Hispanic children.

For Black children, HSSAP enrollment decreased at the greatest rates for those in communities with middle low percentages of White residents, and at the smallest rates for those in predominantly White communities. Among Hispanic children, relative enrollment declines were consistently high across community types, though they were greatest in communities of color. White children experienced comparatively low rates of enrollment declines across communities.

FIGURE 30. HSSAP enrollment, by child race and community racial composition, October 2019–March 2021



Note: Because enrollment counts of 10 or less are suppressed, we do not include data for the subgroup of White children living in communities of color enrolled in HSSAP in Oct. 2019.

Trends in HSSAP Enrollment by Family Income Quartile and Community Racial Composition

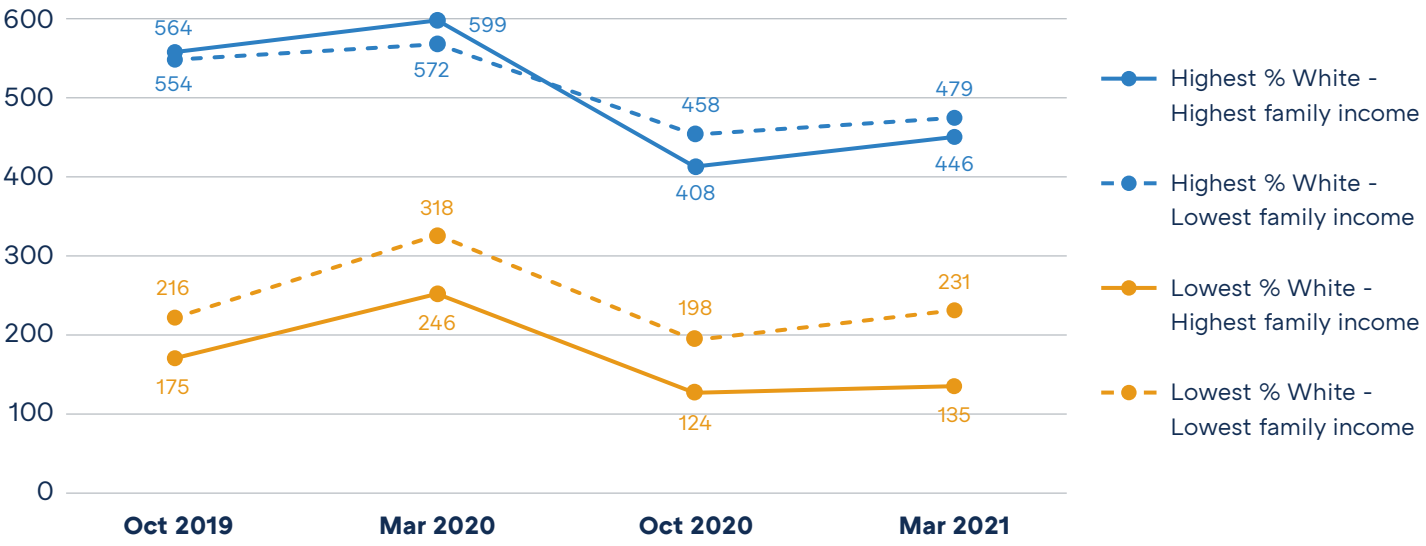
Within communities of color, HSSAP enrollment declined at greater rates among children in the top family income quartile compared to those in the bottom income quartile. From Oct. 2019 to Oct. 2020, enrollments fell from 175 to 124 for children in the top income quartile (29.1%), and from 216 to 198 for those in the bottom income quartile (8.3%; Figure 31 and Table B-7). The same trend persisted from Mar. 2020 to Mar. 2021, as relative enrollment declines grew. Among children in the top income quartile, enrollment counts dropped from 246 to 135 (45.1%), and for children in the bottom income quartile they decreased from 318 to 231 (27.4%). In communities of color, children in the middle low income quartile experienced by far the greatest relative declines in HSSAP enrollment (Table B-7).

Within predominantly White communities, HSSAP enrollment declined at greater rates for children in the top income quartile, just as they did in communities of color. Among children in the top income quartile, enrollment declined from 564 to 408 in Oct. 2019 and Oct. 2020 (27.7%), and from 599 to 446 in Mar. 2020 and Mar. 2021 (25.5%). By comparison, among children in the bottom income quartile, enrollment fell from 554 to 459 over the October time periods (17.3%), and from 572 to 479 over the March time periods (16.3%).

In communities of color, rates of enrollment decline increased as the pandemic wore on for children in both the top and bottom income quartiles (i.e., declines were greater across March time periods than across October time periods). The opposite trend occurred in predominantly White communities, where HSSAP enrollment declined at greater rates during the earlier part of the pandemic for children from all income quartiles.

In communities with middle low percentages of White residents, children in the bottom income quartile experienced the smallest relative declines in HSSAP enrollment, and those in the middle low income quartile experienced the greatest declines. In communities with middle high percentages of White residents, enrollment declines were greatest for children in the middle high income quartile, and smallest for those in the top and middle low income quartiles (Table B-7).

FIGURE 31. HSSAP enrollment, by family income quartile and community racial composition, October 2019–March 2021



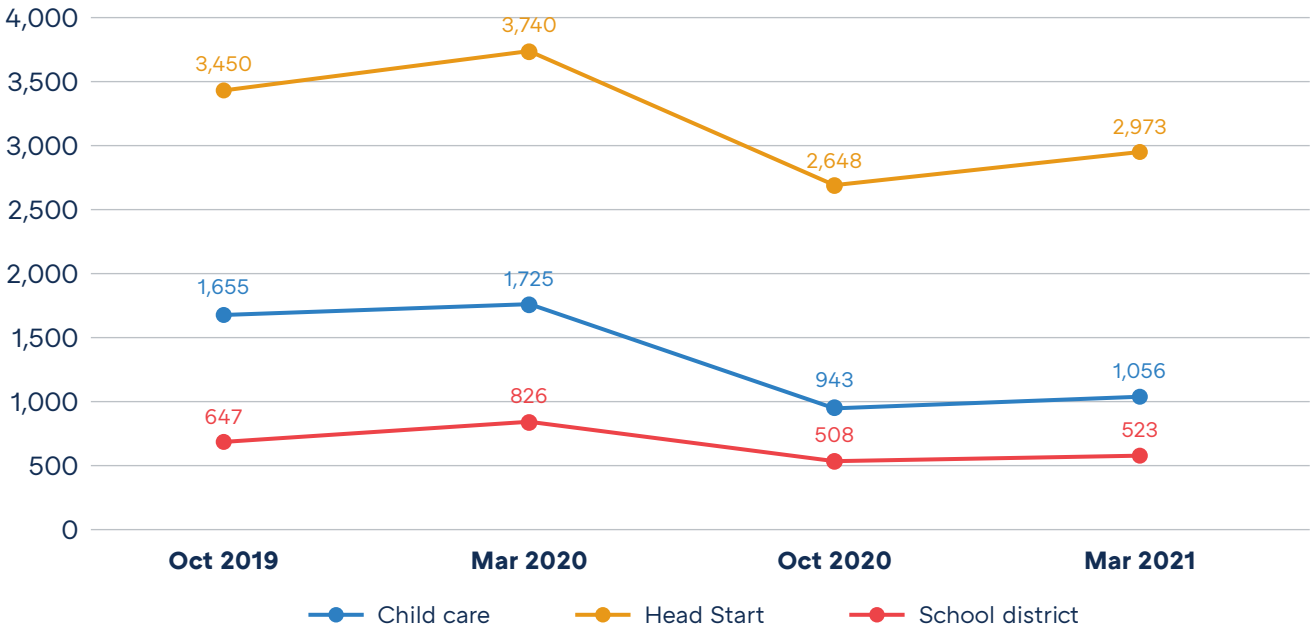
Trends in HSSAP Enrollment by Provider Type

The magnitude of changes in HSSAP enrollment varied by provider type. Relative enrollment declines were greatest among children served by child care providers. From Oct. 2019 to Oct. 2020, enrollment among children with child care providers fell from 1,655 to 943, a decrease of 43.0% (Figure 32 and Table B-8). By comparison, enrollment dropped by 23.2% among children served by Head Start providers, and by 21.5% among those in school district-based HSSAP programs. From Mar. 2020 to Mar. 2021, the rate of enrollment decline remained high among children served by child care providers (38.8%), while it increased for children served by school districts (36.7%). Over March time periods, enrollment decreased by 20.5% for children with Head Start providers.

The magnitude of changes in HSSAP enrollment varied by provider type. Relative enrollment declines were greatest among children served by child care providers.

Enrollment counts for nursery schools and non-profits are excluded from the figure below because of low sample sizes, but are listed in Table B-8 in the appendix.

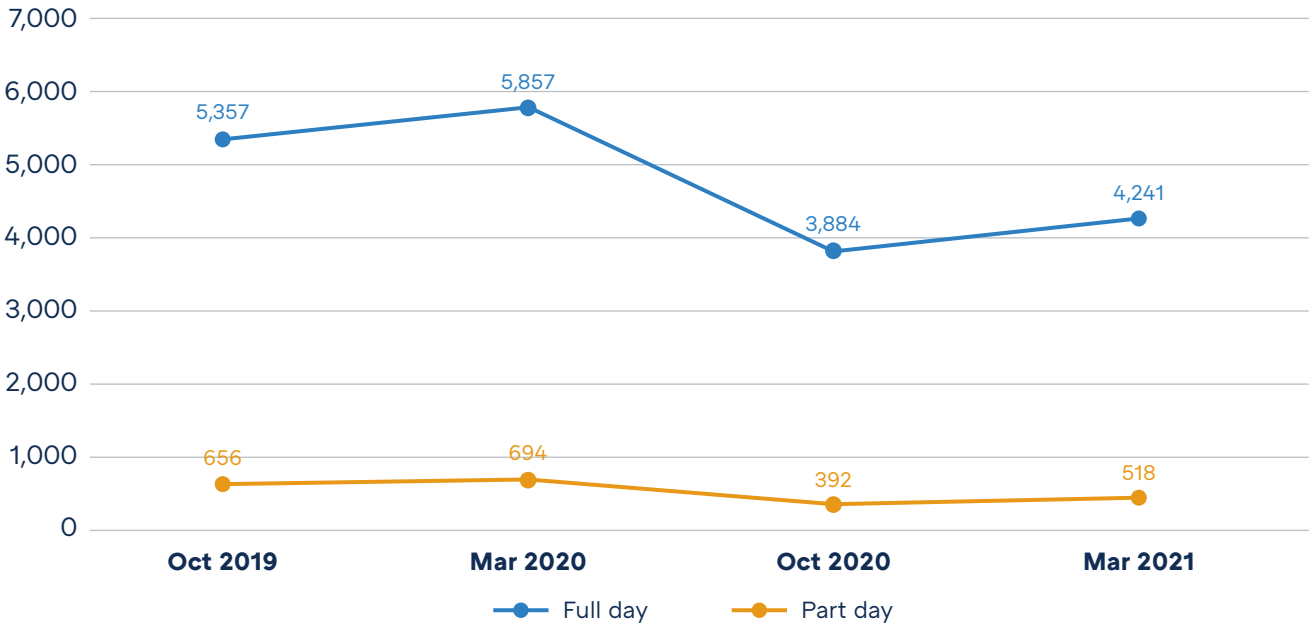
FIGURE 32. HSSAP enrollment, by provider type, October 2019–March 2021



Trends in HSSAP Enrollment by Enrollment Schedule

From Oct. 2019 to Oct. 2020, HSSAP enrollment declined at a greater rate among children in part-day programs, though from Mar. 2020 to Mar. 2021 enrollment declines were relatively similar by enrollment schedule. Over October time periods, enrollment fell from 5,357 to 3,884 among children in full-day HSSAP programs (27.5%), and from 656 to 392 among those in part-day programs (40.2%). Over March time periods, enrollment decreased from 5,857 to 4,241 for children in full-day programs (27.6%), and from 694 to 518 for those in part-day programs (25.4%).

FIGURE 33. HSSAP enrollment, by enrollment schedule, October 2019–March 2021



Summary of Trends in HSSAP Enrollment

Total HSSAP enrollment dropped substantially during the pandemic, though rates of enrollment decline varied by child and community characteristics. Black and especially Hispanic children experienced greater relative declines in HSSAP enrollment compared to White children. For Hispanic children, this trend persisted regardless of community characteristics. While Black children also experienced significant decreases in HSSAP enrollment, their rates of enrollment decline were similar to White children in some cases (e.g., in low-poverty communities and predominantly White communities). More research is needed to understand why Hispanic children were particularly vulnerable to HSSAP enrollment losses during the pandemic.

Total HSSAP enrollment dropped substantially during the pandemic, though rates of enrollment decline varied by child and community characteristics.

Enrollment trends for family income quartiles varied by child and community characteristics, with children from both the top and bottom income quartiles experiencing greater rates of enrollment decline in different instances. That inconsistency suggests that differences in family income quartile within this sample are not consequential in terms of program enrollment, or at least not durably so across contexts. The fact that children in the bottom family income quartile experienced the smallest relative declines in program enrollment in many instances may also indicate an effort on the part of providers to support the most economically-disadvantaged children during the pandemic.

Changes in HSSAP enrollment trends varied substantially by community characteristics. Enrollment declined at the greatest rates among children living in cities, compared to children in suburban and rural areas. Additionally, children in low-poverty communities and predominantly White communities experienced lower rates of enrollment decline compared to children in high-poverty communities and communities of color. These results strongly suggest that community resources played a role in families' and providers' abilities to maintain HSSAP enrollment during the pandemic. Notably, children in high-poverty communities and communities of color had the lowest HSSAP enrollment counts prior to the pandemic, compared to children in communities with less poverty and higher shares of White residents, meaning the pandemic may have exacerbated pre-existing disparities in program participation.

For many groups of children, the magnitude of enrollment declines varied considerably by time period. For example, among Black children and children in high-poverty communities, year-over-year enrollment declines were greater for Mar. 2021 compared to Oct. 2020. In contrast, for White children and children in rural and suburban areas, rates of enrollment decline were smaller in Mar. 2021 than in Oct. 2020. These differences suggest that sustained HSSAP participation got easier for some groups of children, but harder for others, as the pandemic wore on. More research may be needed to determine whether HSSAP enrollment has stabilized across child groups following three years of pandemic conditions, and, if not, what resources may be necessary to do so.

Summary of Similarities and Differences in Enrollment Trends between PKC and HSSAP

As noted previously (see p. 7-8 and 10-11), substantive programmatic differences between PKC and HSSAP exist that preclude direct comparison. These differences include varying income eligibility criteria, program structure, service provision, and pandemic reopening approaches. At the same time, summarizing enrollment trends across publicly-funded preschool programs is helpful in assessing the early education landscape in Pennsylvania, and recognizing similarities and differences between PKC and HSSAP may help state agencies in identifying strengths and needs across programs and coordinating policy responses. Accordingly, the purpose of this section is not to compare programs per se, but rather to highlight areas where enrollment trends were comparable or divergent.

Overall, trends in enrollment in HSSAP and PKC were strikingly similar during the pandemic despite differences in program design and eligibility. Across both programs, relative decreases in enrollment were lowest among White children and children living in communities with the highest percentages of White residents. And in both PKC and HSSAP, rates of enrollment decline were greatest among children living in cities, high-poverty communities, and communities with the lowest percentages of White residents. Moreover, relative enrollment decline were greater from Mar 2020-Mar 2021 than from Oct 2019-Oct 2020 for Black children, children in high-poverty communities, and children in communities with the fewest White residents. In both PKC and HSSAP, children in Head Start-based programs experienced lower rates of enrollment decline compared to children enrolled with other types of provider (e.g., school districts, child care providers). Likewise, children in part-day programs experienced greater relative declines in enrollment than children in full-day programs in both PKC and HSSAP.

We observed some notable differences in enrollment trends between programs. In PKC, children in the bottom family income quartile experienced consistently greater rates of enrollment decline compared to children in the top income quartile. In contrast, trends by family income quartile among children in HSSAP were inconsistent, with children in the bottom income quartile often experiencing lower rates of enrollment decline compared to those in upper income quartiles. This divergence may be explained by differences in income eligibility criteria between the two programs. Additionally, in PKC, Black children experienced

Overall, trends in enrollment in HSSAP and PKC were strikingly similar during the pandemic despite differences in program design and eligibility.

the greatest rates of enrollment decline of any racial group, while in HSSAP, Hispanic children consistently experienced the greatest relative decreases in program enrollment.

The magnitude of changes in program enrollment by time period also varied between programs. In PKC, rates of enrollment decline were consistently greater during the second pandemic time period examined (i.e., Mar. 2021). But in HSSAP, some groups, such as White children and children in rural and suburban areas, experienced smaller enrollment declines in the second time period compared to the first.

Lastly, differences in the magnitude of enrollment changes between groups tended to be wider in PKC than in HSSAP. Put another way, in PKC, more groups and subgroups of children experienced either very large or very small changes in enrollment. For example, in PKC, several groups and subgroups of children experienced rates of enrollment change that were less than ten percent (e.g., White children, children in the top family income quartile, children in low-poverty communities, White children in cities, etc.). But in HSSAP, only two subgroups experienced single-digit percent changes in enrollment. Likewise, in PKC, several groups and subgroups of children experienced enrollment declines that were greater than thirty percent, while far fewer did in HSSAP.

Conclusion and Recommendations

Enrollment counts declined substantially in both PKC and HSSAP during the pandemic, with the magnitude of declines varying by children's individual, community, and provider characteristics. In many cases, trends were consistent across both programs. Black and Hispanic children, children living in cities, and those in high-poverty communities and communities with lower percentages of White residents experienced particularly steep declines in PKC and HSSAP enrollment. Given the proven benefits of both programs, action is needed to better understand the root causes of enrollment disparities and to achieve greater enrollment parity across families and communities.

Research Recommendations:

- **Conduct further quantitative research** to determine if and how the enrollment trends observed in this study persisted during the second and third years of the pandemic.
- **Conduct qualitative research** to better understand the factors that influenced families' and providers' abilities to sustain PKC and HSSAP enrollment during the pandemic, and the extent to which such factors remain relevant today. Learn more about the kinds of resources that families and providers need to improve program recruitment, enrollment, and retention as communities continue to recover from the pandemic.
- **Study how Head Start providers approach program enrollment and retention**, as children in Head Start-based PKC and HSSAP programs experienced relatively lower rates of enrollment decline during the pandemic compared to other types of providers. While present-day conditions differ from the conditions providers experienced during the first year of the pandemic, Head Start's approaches to enrollment may still be relevant and informative.

Policy Recommendations:

- **Target additional resources** to the families, communities, and providers most affected by enrollment declines to support increased participation in PKC and HSSAP. Resources to support providers' efforts to advertise to and recruit the subgroups of children with the greatest enrollment declines may be especially valuable.
- **Identify ways to support** the coordination of recruitment and enrollment efforts across publicly-funded preschool programs (i.e., local, state, and federal programs). Identify and prioritize communities with fewer alternative publicly-funded options for PKC and HSSAP expansion, especially those that were also hardest hit by the pandemic.
- **Given the recent ruling** that Pennsylvania's approach to K-12 school funding is unconstitutional, greater investments in PKC and HSSAP in higher poverty communities could be part of a remedy to increase educational equity, including to mitigate the uneven effects of preschool disruptions for children now in elementary school.

Appendix A: PKC

TABLE A-1. Number of children enrolled in PKC, by children's individual and community characteristics

						% CHANGE		
		Oct 2019	Mar 2020	Oct 2020	Mar 2021	Oct–Oct	Mar–Mar	Oct 20 – Mar 21
Total		22,534	24,613	19,263	20,528	-14.5%	-16.6%	6.6%
Race	White	10,457	11,112	9,703	10,214	-7.2%	-8.1%	5.3%
	Black	5,303	6,035	3,896	4,179	-26.5%	-30.8%	7.3%
	Hispanic	4,072	4,478	3,241	3,473	-20.4%	-22.4%	7.2%
Family Income	Lowest	5,634	6,334	4,748	5,111	-15.7%	-19.3%	7.6%
	Middle low	5,638	6,172	4,408	4,681	-21.8%	-24.2%	6.2%
	Middle high	5,631	6,062	4,811	5,130	-14.6%	-15.4%	6.6%
	Highest	5,631	6,045	5,296	5,606	-5.9%	-7.3%	5.9%
Geographic Locale	City	5,601	6,543	4,511	4,881	-19.5%	-25.4%	8.2%
	Suburb	6,045	6,609	5,146	5,562	-14.9%	-15.8%	8.1%
	Town/Rural	10,861	11,436	9,596	10,071	-11.6%	-11.9%	4.9%
Community Poverty	Highest	3,115	3,651	2,277	2,440	-26.9%	-33.2%	7.2%
	Middle high	5,515	6,020	4,549	4,977	-17.5%	-17.3%	9.4%
	Middle low	7,444	7,954	6,585	6,839	-11.5%	-14.0%	3.9%
	Lowest	6,418	6,947	5,829	6,246	-9.2%	-10.1%	7.2%
Community Racial Composition (% White)	Lowest	2,569	3,074	1,931	2,069	-24.8%	-32.7%	7.1%
	Middle low	4,736	5,176	3,697	3,941	-21.9%	-23.9%	6.6%
	Middle high	5,587	6,179	4,996	5,456	-10.6%	-11.7%	9.2%
	Highest	9,602	10,146	8,617	9,036	-10.3%	-10.9%	4.9%

Note: White, Black, and Hispanic children comprise the vast majority of PKC participants (e.g., 88.0% in Oct. 2019). Children of other races (e.g., Asian, mixed race) who participated in PKC were excluded from this analysis, both for the sake of parsimony and because their small sample sizes did not permit meaningful subgroup analysis; a description of aggregate-level application trends for these racial groups are available from the authors by request. Income quartiles are: Lowest = $0–$17,739; Middle low = $17,740–$31,720; Middle high = $31,721–$49,920; and Highest = >$49,921. "Community" is defined as zip code. Community poverty is measured by the percentage of residents within the community with incomes below 200% of the federal poverty level, based on data from the 2019 American Community Survey 5-year estimates. Quartiles are: Low, 0–26.6%; Middle Low, 26.7–37.1%; Middle High, 37.2–53.3%; High, 53.4+. Community racial composition is measured by the percentage of residents within the community who are White, using data from the 2019 American Community Survey 5-year estimates. Quartiles are: Lowest, 0–34.7%; Middle low, 34.8–71.6%; Middle high, 71.7–89.0%; Highest, 89.1+. To construct quartiles for community poverty and community racial composition, we used the combined distribution of children enrolled in Pre-K Counts and Child Care Works in 2020, as this sample is representative of families who wanted and were eligible for state-subsidized preschool during the pandemic.

TABLE A-2. Number of children enrolled in PKC, by race and geographic locale

						% CHANGE		
Locale	**Racial/ Ethnic Group**	**Oct 2019**	**Mar 2020**	**Oct 2020**	**Mar 2021**	**Oct – Oct**	**Mar – Mar**	**Oct 20 – Mar 21**
City	White	806	905	774	836	-4.0%	-7.6%	8.0%
	Black	2,448	2,936	1,751	1,852	-28.5%	-36.9%	5.8%
	Hispanic	1,517	1,698	1,093	1,184	-27.9%	-30.3%	8.3%
Suburb	White	1,705	1,875	1,679	1,837	-1.5%	-2.0%	9.4%
	Black	1,919	2,119	1,479	1,594	-22.9%	-24.8%	7.8%
	Hispanic	1,361	1,512	1,158	1,241	-14.9%	-17.9%	7.2%
Town/ Rural	White	7,927	8,316	7,243	7,532	-8.6%	-9.4%	4.0%
	Black	933	978	664	729	-28.8%	-25.5%	9.8%
	Hispanic	1,190	1,264	989	1,047	-16.9%	-17.2%	5.9%

TABLE A-3. Number of children enrolled in PKC, by children's geographic locale and family income

						% CHANGE		
Geographic Locale	**Income Quartile**	**Oct 2019**	**Mar 2020**	**Oct 2020**	**Mar 2021**	**Oct – Oct**	**Mar – Mar**	**Oct 20 – Mar 21**
City	Lowest	1,856	2,278	1,651	1,824	-11.0%	-19.9%	10.5%
	Middle low	1,678	1,924	1,200	1,250	-28.5%	-35.0%	4.2%
	Middle high	1,328	1,521	1,026	1,112	-22.7%	-26.9%	8.4%
	Highest	739	820	634	695	-14.2%	-15.2%	9.6%
Suburb	Lowest	1,540	1,697	1,219	1,324	-20.8%	-22.0%	8.6%
	Middle low	1,679	1,808	1,317	1,431	-21.6%	-20.9%	8.7%
	Middle high	1,497	1,631	1,309	1,422	-12.6%	-12.8%	8.6%
	Highest	1,329	1,473	1,301	1,385	-2.1%	-6.0%	6.5%
Town/ Rural	Lowest	2,230	2,350	1,874	1,957	-16.0%	-16.7%	4.4%
	Middle low	2,275	2,435	1,889	1,998	-17.0%	-17.9%	5.8%
	Middle high	2,802	2,908	2,476	2,595	-11.6%	-10.8%	4.8%
	Highest	3,554	3,743	3,357	3,521	-5.5%	-5.9%	4.9%

Note: Income quartiles are: Lowest = $0–$15,118; Middle low = $15,119–$23,217; Middle high = $23,218–$32,297; and Highest = >$32,298.

TABLE A-4. Number of children enrolled in PKC, by children's race and the poverty level of their communities

						% CHANGE		
Community Poverty	**Racial/ Ethnic Group**	**Oct 2019**	**Mar 2020**	**Oct 2020**	**Mar 2021**	**Oct – Oct**	**Mar – Mar**	**Oct 20 – Mar 21**
Highest	White	263	283	259	291	-1.5%	2.8%	12.4%
	Black	1,559	1,874	1,053	1,114	-32.5%	-40.6%	5.8%
	Hispanic	1,011	1,153	702	744	-30.6%	-35.5%	6.0%
Middle High	White	2,189	2,348	2,002	2,202	-8.5%	-6.2%	10.0%
	Black	1,415	1,604	1,055	1,134	-25.4%	-29.3%	7.5%
	Hispanic	1,138	1,234	909	979	-20.1%	-20.7%	7.7%
Middle Low	White	4,402	4,637	4,140	4,237	-6.0%	-8.6%	2.3%
	Black	1,379	1,487	1,000	1,048	-27.5%	-29.5%	4.8%
	Hispanic	892	964	713	767	-20.1%	-20.4%	7.6%
Lowest	White	3,577	3,820	3,287	3,467	-8.1%	-9.2%	5.5%
	Black	944	1,067	785	878	-16.8%	-17.7%	11.8%
	Hispanic	1,023	1,118	913	980	-10.8%	-12.3%	7.3%

Note: "Community" is defined as zip code. Community poverty is measured by the percentage of residents within the community with incomes below 200% of the federal poverty level, based on data from the 2019 American Community Survey 5-year estimates. Quartiles are: Lowest, 0–26.6%; Middle Low, 26.7–37.1%; Middle High, 37.2–53.3%; Highest, 53.4+.

TABLE A-5. Number of children enrolled in PKC, by children's family income quartile and the poverty level of their communities

						% CHANGE		
Community Poverty	**Family Income Quartile**	**Oct 2019**	**Mar 2020**	**Oct 2020**	**Mar 2021**	**Oct – Oct**	**Mar – Mar**	**Oct 20 – Mar 21**
Highest	Lowest	1,197	1,477	928	1,034	-22.5%	-30.0%	11.4%
	Middle low	932	1,079	627	634	-32.7%	-41.2%	1.1%
	Middle high	686	772	495	528	-27.8%	-31.6%	6.7%
	Highest	300	323	227	244	-24.3%	-24.5%	7.5%
Middle High	Lowest	1,492	1,641	1,249	1,390	-16.3%	-15.3%	11.3%
	Middle low	1,572	1,714	1,215	1,313	-22.7%	-23.4%	8.1%
	Middle high	1,392	1,507	1,107	1,209	-20.5%	-19.8%	9.2%
	Highest	1,059	1,158	978	1,065	-7.6%	-8.0%	8.9%
Middle Low	Lowest	1,699	1,826	1,477	1,502	-13.1%	-17.7%	1.7%
	Middle low	1,728	1,849	1,361	1,432	-21.2%	-22.6%	5.2%
	Middle high	1,861	1,989	1,679	1,751	-9.8%	-12.0%	4.3%
	Highest	2,156	2,290	2,068	2,154	-4.1%	-5.9%	4.2%
Lowest	Lowest	1,232	1,375	1,089	1,177	-11.6%	-14.4%	8.1%
	Middle low	1,397	1,522	1,200	1,297	-14.1%	-14.8%	8.1%
	Middle high	1,684	1,787	1,522	1,635	-9.6%	-8.5%	7.4%
	Highest	2,105	2,263	2,018	2,137	-4.1%	-5.6%	5.9%

Note: Income quartiles are: Lowest = $0–$15,118; Middle low = $15,119–$23,217; Middle high = $23,218–$32,297; and Highest = >$32,298. "Community" is defined as zip code. Community poverty is measured by the percentage of residents within the community with incomes below 200% of the federal poverty level, based on data from the 2019 American Community Survey 5-year estimates. Quartiles are: Lowest, 0–26.6%; Middle Low, 26.7–37.1%; Middle High, 37.2–53.3%; Highest, 53.4+.

TABLE A-6. Number of children enrolled in PKC, by children's race and the racial composition of their communities

						% CHANGE		
% White Residents	Racial/ Ethnic Group	Oct 2019	Mar 2020	Oct 2020	Mar 2021	Oct – Oct	Mar – Mar	Oct 20 – Mar 21
Lowest	White	57	65	47	50	-17.5%	-23.1%	6.4%
	Black	1,856	2,230	1,366	1,451	-26.4%	-34.9%	6.2%
	Hispanic	508	573	305	324	-40.0%	-43.5%	6.2%
Middle Low	White	620	684	586	638	-5.5%	-6.7%	8.9%
	Black	1,512	1,686	1,072	1,114	-29.1%	-33.9%	3.9%
	Hispanic	1,556	1,687	1,264	1,341	-18.8%	-20.5%	6.1%
Middle High	White	2,150	2,332	2,132	2,315	-0.8%	-0.7%	8.6%
	Black	1,261	1,408	955	1,067	-24.3%	-24.2%	11.7%
	Hispanic	1,378	1,526	1,123	1,214	-18.5%	-20.4%	8.1%
Highest	White	7,604	8,007	6,923	7,194	-9.0%	-10.2%	3.9%
	Black	668	708	500	542	-25.1%	-23.4%	8.4%
	Hispanic	624	685	546	591	-12.5%	-13.7%	8.2%

Note: "Community" is defined as zip code. Community racial composition is measured by the percentage of residents within the community who are White, using data from the 2019 American Community Survey 5-year estimates. Quartiles are: Lowest, 0–34.7%; Middle low, 34.8–71.6%; Middle high, 71.7–89.0%; Highest, 89.1+.

TABLE A-7. Number of children enrolled in PKC, by children's family income quartile and the racial composition of their communities

						% CHANGE		
% White Residents	Family Income Quartile	Oct 2019	Mar 2020	Oct 2020	Mar 2021	Oct – Oct	Mar – Mar	Oct 20 – Mar 21
Lowest	Lowest	993	1,258	846	950	-14.8%	-24.5%	12.3%
	Middle low	721	824	459	468	-36.3%	-43.2%	2.0%
	Middle high	605	705	434	447	-28.3%	-36.6%	3.0%
	Highest	250	287	192	204	-23.2%	-28.9%	6.3%
Middle Low	Lowest	1,455	1,604	1,164	1,277	-20.0%	-20.4%	9.7%
	Middle low	1,526	1,683	1,093	1,137	-28.4%	-32.4%	4.0%
	Middle high	1,100	1,186	898	948	-18.4%	-20.1%	5.6%
	Highest	655	703	542	579	-17.3%	-17.6%	6.8%
Middle High	Lowest	1,313	1,482	1,182	1,260	-10.0%	-15.0%	6.6%
	Middle low	1,441	1,584	1,212	1,332	-15.9%	-15.9%	9.9%
	Middle high	1,429	1,561	1,236	1,380	-13.5%	-11.6%	11.7%
	Highest	1,404	1,552	1,366	1,484	-2.7%	-4.4%	8.6%
Highest	Lowest	1,860	1,977	1,551	1,616	-16.6%	-18.3%	4.2%
	Middle low	1,942	2,074	1,640	1,739	-15.6%	-16.2%	6.0%
	Middle high	2,489	2,603	2,235	2,348	-10.2%	-9.8%	5.1%
	Highest	3,311	3,492	3,191	3,333	-3.6%	-4.6%	4.5%

Note: Income quartiles are: Lowest = $0–$15,118; Middle low = $15,119–$23,217; Middle high = $23,218–$32,297; and Highest = >$32,298. "Community" is defined as zip code. Community racial composition is measured by the percentage of residents within the community who are White, using data from the 2019 American Community Survey 5-year estimates. Quartiles are: Lowest, 0–34.7%; Middle low, 34.8–71.6%; Middle high, 71.7–89.0%; Highest, 89.1+.

TABLE A-8. Number of children enrolled in PKC, by provider type

Provider Type	Oct 2019	Mar 2020	Oct 2020	Mar 2021	% CHANGE		
					Oct – Oct	Mar – Mar	Oct 20 – Mar 21
Child care	10,450	11,396	8,996	9,724	-13.9%	-14.7%	8.1%
Head Start	5,555	5,858	5,208	5,637	-6.2%	-3.8%	8.2%
Licensed nursery school	1,147	1,283	1,065	1,133	-7.1%	-11.7%	6.4%
School district	5,349	6,062	3,948	4,013	-26.2%	-33.8%	1.6%

TABLE A-9. Number of children enrolled in PKC, by children's race and provider type

Provider Type	Racial/ Ethnic Group	Oct 2019	Mar 2020	Oct 2020	Mar 2021	% CHANGE		
						Oct – Oct	Mar – Mar	Oct 20 – Mar 21
Child care	White Black Hispanic	4,128 2,975 1,839	4,403 3,314 2,050	3,924 2,201 1,559	4,242 2,369 1,679	-4.9% -26.0% -15.2%	-3.7% -28.5% -18.1%	8.1% 7.6% 7.7%
Head Start	White Black Hispanic	3,181 878 1,137	3,309 949 1,215	3,136 666 906	3,370 710 987	-1.4% -24.1% -20.3%	1.8% -25.2% -18.8%	7.5% 6.6% 8.9%
Licensed nursery school	White Black Hispanic	493 318 201	561 355 218	544 246 138	559 265 155	10.3% -22.6% -31.3%	-0.4% -25.4% -28.9%	2.8% 7.7% 12.3%
School district	White Black Hispanic	2,632 1,127 891	2,833 1,415 990	2,075 769 635	2,041 832 646	-21.2% -31.8% -28.7%	-28.0% -41.2% -34.7%	-1.6% 8.2% 1.7%

TABLE A-10. Number of children enrolled in PKC, by family income quartile and provider type

Provider Type	Family Income Quartile	Oct 2019	Mar 2020	Oct 2020	Mar 2021	% CHANGE		
						Oct – Oct	Mar – Mar	Oct 20 – Mar 21
Child care	Highest	2,412	2,556	2,219	2,386	-8.0%	-6.7%	7.5%
	Middle high	2,542	2,720	2,173	2,378	-14.5%	-12.6%	9.4%
	Middle low	2,888	3,176	2,343	2,517	-18.9%	-20.7%	7.4%
	Lowest	2,608	2,944	2,261	2,443	-13.3%	-17.0%	8.0%
Head Start	Highest	1,522	1,596	1,665	1,805	9.4%	13.1%	8.4%
	Middle high	1,416	1,475	1,423	1,523	0.5%	3.3%	7.0%
	Middle low	1,167	1,233	1,009	1,096	-13.5%	-11.1%	8.6%
	Lowest	1,450	1,554	1,111	1,213	-23.4%	-21.9%	9.2%
Licensed nursery school	Highest	281	331	325	329	15.7%	-0.6%	1.2%
	Middle high	271	313	276	285	1.8%	-8.9%	3.3%
	Middle low	305	321	230	252	-24.6%	-21.5%	9.6%
	Lowest	290	318	234	267	-19.3%	-16.0%	14.1%
School district	Highest	1,398	1,553	1,079	1,080	-22.8%	-30.5%	0.1%
	Middle high	1,395	1,552	930	935	-33.3%	-39.8%	0.5%
	Middle low	1,274	1,339	816	811	-35.9%	-39.4%	-0.6%
	Lowest	1,282	1,518	1,123	1,187	-12.4%	-21.8%	5.7%

TABLE A-11. Number of children enrolled in PKC, by children's geographic locale and provider type

Geographic Locale	Provider Type	Oct 2019	Mar 2020	Oct 2020	Mar 2021	% CHANGE		
						Oct – Oct	Mar – Mar	Oct 20 – Mar 21
City	Child care	3,823	4,184	3,012	3,270	-21.2%	-21.8%	8.6%
	Head Start	638	741	368	417	-42.3%	-43.7%	13.3%
	Nursery school	134	149	120	136	-10.4%	-8.7%	13.3%
	School district	1,005	1,469	997	1,037	-0.8%	-29.4%	4.0%
Suburb	Child care	2,635	2,988	2,440	2,706	-7.4%	-9.4%	10.9%
	Head Start	1,294	1,369	1,337	1,482	3.3%	8.3%	10.8%
	Nursery school	383	419	353	365	-7.8%	-12.9%	3.4%
	School district	1,730	1,829	1,002	1,009	-42.1%	-44.8%	0.7%
Town/ Rural	Child care	3,977	4,210	3,536	3,738	-11.1%	-11.2%	5.7%
	Head Start	3,614	3,740	3,501	3,735	-3.1%	-0.1%	6.7%
	Nursery school	629	714	592	632	-5.9%	-11.5%	6.8%
	School district	2,612	2,762	1,949	1,966	-25.4%	-28.8%	0.9%

TABLE A-13. Number of children enrolled in PKC, by the racial composition of children's communities and provider type

Community White %	Provider Type	Oct 2019	Mar 2020	Oct 2020	Mar 2021	% CHANGE Oct – Oct	% CHANGE Mar – Mar	% CHANGE Oct 20 – Mar 21
Highest	Child care	3,742	3,967	3,342	3,575	-10.7%	-9.9%	7.0%
	Head Start	3,071	3,203	3,021	3,231	-1.6%	0.9%	7.0%
	Nursery school	477	543	486	504	1.9%	-7.2%	3.7%
	School district	2,280	2,421	1,748	1,725	-23.3%	-28.7%	-1.3%
Middle High	Child care	2,486	2,831	2,387	2,642	-4.0%	-6.7%	10.7%
	Head Start	1,415	1,471	1,396	1,561	-1.3%	6.1%	11.8%
	Nursery school	299	364	300	333	0.3%	-8.5%	11.0%
	School district	1,386	1,511	901	920	-35.0%	-39.1%	2.1%
Middle Low	Child care	2,462	2,692	1,975	2,106	-19.8%	-21.8%	6.6%
	Head Start	793	850	588	637	-25.9%	-25.1%	8.3%
	Nursery school	268	264	196	211	-26.9%	-20.1%	7.7%
	School district	1,212	1,370	925	967	-23.7%	-29.4%	4.5%
Lowest	Child care	1,740	1,888	1,281	1,388	-26.4%	-26.5%	8.4%
	Head Start	260	319	195	198	-25.0%	-37.9%	1.5%
	Nursery school	102	111	83	85	-18.6%	-23.4%	2.4%
	School district	467	756	371	398	-20.6%	-47.4%	7.3%

TABLE A-14. Number of children enrolled in PKC, by enrollment schedule

Enrollment Schedule	Oct 2019	Mar 2020	Oct 2020	Mar 2021	% CHANGE Oct – Oct	% CHANGE Mar – Mar	% CHANGE Oct 20 – Mar 21
Full day	20,889	22,917	17,913	19,344	-14.2%	-15.6%	8.0%
Part day	1,645	1,696	1,350	1,184	-17.9%	-30.2%	-12.3%

TABLE A-15. Number of children enrolled in PKC, by children's race and enrollment schedule

Enrollment Schedule	Racial/ Ethnic Group	Oct 2019	Mar 2020	Oct 2020	Mar 2021	% CHANGE Oct – Oct	% CHANGE Mar – Mar	% CHANGE Oct 20 – Mar 21
Full day	White	9,480	10,128	8,863	9,400	-6.5%	-7.2%	6.1%
	Black	4,989	5,705	3,680	4,086	-26.2%	-28.4%	11.0%
	Hispanic	3,944	4,348	3,156	3,399	-20.0%	-21.8%	7.7%
Part day	White	977	984	840	814	-14.0%	-17.3%	-3.1%
	Black	314	330	216	93	-31.2%	-71.8%	-56.9%
	Hispanic	128	130	85	74	-33.6%	-43.1%	-12.9%

TABLE A-16. Number of children enrolled in PKC, by children's geographic locale and enrollment schedule

						% CHANGE		
Geographic Locale	**Enrollment Schedule**	**Oct 2019**	**Mar 2020**	**Oct 2020**	**Mar 2021**	**Oct – Oct**	**Mar – Mar**	**Oct 20 – Mar 21**
City	Full day Half day	5,296 305	6,189 354	4,141 370	4,676 205	-21.8% 21.3%	-24.4% -42.1%	12.9% -44.6%
Suburb	Full day Half day	5,787 258	6,340 269	4,986 160	5,414 148	-13.8% -38.0%	-14.6% -45.0%	8.6% -7.5%
Town/Rural	Full day Half day	9,781 1,080	10,364 1,072	8,776 820	9,240 831	-10.3% -24.1%	-10.8% -22.5%	5.3% 1.3%

TABLE A-17. Number of children enrolled in PKC, by children's family income quartile and enrollment schedule

						% CHANGE		
Family income	**Enrollment Schedule**	**Oct 2019**	**Mar 2020**	**Oct 2020**	**Mar 2021**	**Oct – Oct**	**Mar – Mar**	**Oct 20 – Mar 21**
Highest	Full day Half Day	5,152 479	5,564 481	4,929 367	5,259 347	-4.3% -23.4%	-5.5% -27.9%	6.7% -5.4%
Middle High	Full day Half Day	5,246 385	5,675 387	4,492 319	4,874 256	-14.4% -17.1%	-14.1% -33.9%	8.5% -19.7%
Middle Low	Full day Half Day	5,283 355	5,795 377	4,075 333	4,378 303	-22.9% -6.2%	-24.5% -19.6%	7.4% -9.0%
Lowest	Full day Half Day	5,208 426	5,883 451	4,417 331	4,833 278	-15.2% -22.3%	-17.8% -38.4%	9.4% -16.0%

Note: Oct 2020 figures are not statistically significant different.

TABLE A-18. Number of children enrolled in PKC, by the poverty level of children's communities and enrollment schedule

						% CHANGE		
Community Poverty	**Enrollment Schedule**	**Oct 2019**	**Mar 2020**	**Oct 2020**	**Mar 2021**	**Oct – Oct**	**Mar – Mar**	**Oct 20 – Mar 21**
High	Full day	2,900	3,418	2,131	2,393	-26.5%	-30.0%	12.3%
	Half Day	215	233	146	47	-32.1%	-79.8%	-67.8%
Middle High	Full day	5,147	5,644	4,186	4,649	-18.7%	-17.6%	11.1%
	Half Day	368	376	363	328	-1.4%	-12.8%	-9.6%
Middle Low	Full day	6,944	7,448	6,098	6,385	-12.2%	-14.3%	4.7%
	Half Day	500	506	487	454	-2.6%	-10.3%	-6.8%
Low	Full day	5,858	6,368	5,476	5,892	-6.5%	-7.5%	7.6%
	Half Day	560	579	353	354	-37.0%	-38.9%	0.3%

TABLE A-19. Number of children enrolled in PKC, by the racial composition of children's communities and enrollment schedule

						% CHANGE		
Community White %	**Enrollment Schedule**	**Oct 2019**	**Mar 2020**	**Oct 2020**	**Mar 2021**	**Oct – Oct**	**Mar – Mar**	**Oct 20 – Mar 21**
Highest	Full day	8,518	9,055	7,763	8,191	-8.9%	-9.5%	5.5%
	Half Day	1084	1091	854	845	-21.2%	-22.5%	-1.1%
Middle High	Full day	5,319	5,904	4,822	5,285	-9.3%	-10.5%	9.6%
	Half Day	268	275	174	171	-35.1%	-37.8%	-1.7%
Middle Low	Full day	4,574	4,983	3,511	3,790	-23.2%	-23.9%	7.9%
	Half Day	162	193	186	151	14.8%	-21.8%	-18.8%
Lowest	Full day	2,440	2,939	1,796	2,053	-26.4%	-30.1%	14.3%
	Half Day	129	135	135	16	4.7%	-88.1%	-88.1%

TABLE A-15. Number of children enrolled in PKC, by children's race and enrollment schedule

						% CHANGE		
Enrollment Schedule	**Provider Type**	**Oct 2019**	**Mar 2020**	**Oct 2020**	**Mar 2021**	**Oct – Oct**	**Mar – Mar**	**Oct 20 – Mar 21**
Full day	Child care	9,667	10,581	8,308	9,202	-14.1%	-13.0%	10.8%
	Head Start	5,369	5,664	5,016	5,418	-6.6%	-4.3%	8.0%
	Nursery school	1,123	1,260	1,051	1,119	-6.4%	-11.2%	6.5%
	School district	4,697	5,398	3,492	3,584	-25.7%	-33.6%	2.6%
Part day	Child care	783	815	688	522	-12.1%	-36.0%	-24.1%
	Head Start	186	194	192	219	3.2%	12.9%	14.1%
	Nursery school	24	23	14	14	-41.7%	-39.1%	0.0%
	School district	652	664	456	429	-30.1%	-35.4%	-5.9%

Appendix B: HSSAP

TABLE B-1. Number of children enrolled in HSSAP, by children's individual and community characteristics

						% CHANGE		
		Oct 2019	Mar 2020	Oct 2020	Mar 2021	Oct – Oct	Mar – Mar	Oct 20 – Mar 21
Total		6,013	6,551	4,276	4,759	-28.9%	-27.4%	11.3%
Race	White	2,068	2,145	1,601	1,776	-22.6%	-17.2%	10.9%
	Black	1,604	1,867	1,121	1,212	-30.1%	-35.1%	8.1%
	Hispanic	1,571	1,733	1,010	1,116	-35.7%	-35.6%	10.5%
Family Income	Lowest	1,519	1,705	1,229	1,366	-19.1%	-19.9%	11.1%
	Middle low	1,488	1,571	999	1,091	-32.9%	-30.6%	9.2%
	Middle high	1,503	1,569	985	1,094	-34.5%	-30.3%	11.1%
	Highest	1,503	1,706	1,063	1,208	-29.3%	-29.2%	13.6%
Geographic Locale	City	2,210	2,571	1,523	1,653	-31.1%	-35.7%	8.5%
	Suburb	988	1,043	728	890	-26.3%	-14.7%	22.3%
	Town/Rural	2,812	2,934	2,020	2,212	-28.2%	-24.6%	9.5%
Community Poverty	High	1,084	1,250	739	808	-31.8%	-35.4%	9.3%
	Middle high	2,160	2,288	1,542	1,681	-28.6%	-26.5%	9.0%
	Middle low	1,637	1,755	1,169	1,334	-28.6%	-24.0%	14.1%
	Low	1,123	1,250	819	930	-27.1%	-25.6%	13.6%
Community Racial Composition (% White)	Lowest	858	1,086	602	659	-29.8%	-39.3%	9.5%
	Middle low	1,788	1,954	1,264	1,352	-29.3%	-30.8%	7.0%
	Middle high	1,295	1,400	846	1,059	-34.7%	-24.4%	25.2%
	Highest	2,063	2,103	1,557	1,683	-24.5%	-20.0%	8.1%

Note: White, Black, and Hispanic children comprise the vast majority of HSSAP participants (e.g., 87.2% in Oct. 2019); enrollment data for children of other races (e.g., Asian, multiple races) is available from the authors by request. Income quartiles are: Lowest = 0–$4,836; Middle low = $4,837–$13,577; Middle high = $13,578–$22,635; and Highest = >$22,636. "Community" is defined as zip code. Community poverty is measured by the percentage of residents within the community with incomes below 200% of the federal poverty level, based on data from the 2019 American Community Survey 5-year estimates. Quartiles are: Lowest, 0–26.6%; Middle Low, 26.7–37.1%; Middle High, 37.2–53.3%; Highest, 53.4+. Community racial composition is measured by the percentage of residents within the community who are White, using data from the 2019 American Community Survey 5-year estimates. Quartiles are: Lowest, 0–34.7%; Middle low, 34.8–71.6%; Middle high, 71.7–89.0%; Highest, 89.1+.

TABLE B-2. Number of children enrolled in HSSAP, by race and geographic locale

						% CHANGE		
Geographic Locale	Racial/ Ethnic Group	Oct 2019	Mar 2020	Oct 2020	Mar 2021	Oct – Oct	Mar – Mar	Oct 20 – Mar 21
City	White	141	147	103	108	-27.0%	-26.5%	4.9%
	Black	837	1,053	555	600	-33.7%	-43.0%	8.1%
	Hispanic	772	880	500	540	-35.2%	-38.6%	8.0%
Suburb	White	179	179	156	184	-12.8%	2.8%	17.9%
	Black	395	431	316	343	-20.0%	-20.4%	8.5%
	Hispanic	280	294	179	228	-36.1%	-22.4%	27.4%
Town/Rural	White	1,746	1,817	1,338	1,482	-23.4%	-18.4%	10.8%
	Black	371	383	250	269	-32.6%	-29.8%	7.6%
	Hispanic	519	559	330	346	-36.4%	-38.1%	4.8%

TABLE B-3. Number of children enrolled in HSSAP, by children's geographic locale and family income

						% CHANGE		
Geographic Locale	Income Quartile	Oct 2019	Mar 2020	Oct 2020	Mar 2021	Oct – Oct	Mar – Mar	Oct 20 – Mar 21
City	Lowest	484	637	465	518	-3.9%	-18.7%	11.4%
	Middle low	590	654	329	338	-44.2%	-48.3%	2.7%
	Middle high	651	682	388	422	-40.4%	-38.1%	8.8%
	Highest	485	598	341	375	-29.7%	-37.3%	10.0%
Suburb	Lowest	307	325	223	257	-27.4%	-20.9%	15.2%
	Middle low	182	179	148	169	-18.7%	-5.6%	14.2%
	Middle high	217	236	147	193	-32.3%	-18.2%	31.3%
	Highest	282	303	210	271	-25.5%	-10.6%	29.0%
Town/Rural	Lowest	727	742	537	589	-26.1%	-20.6%	9.7%
	Middle low	716	738	522	583	-27.1%	-21.0%	11.7%
	Middle high	633	650	450	479	-28.9%	-26.3%	6.4%
	Highest	736	804	511	561	-30.6%	-30.2%	9.8%

TABLE B-4. Number of children enrolled in HSSAP, by children's race and the poverty level of their communities

						% CHANGE		
Community Poverty	**Racial/ Ethnic Group**	**Oct 2019**	**Mar 2020**	**Oct 2020**	**Mar 2021**	**Oct – Oct**	**Mar – Mar**	**Oct 20 – Mar 21**
Highest	White	65	73	53	59	-18.5%	-19.2%	11.3%
	Black	442	531	308	335	-30.3%	-36.9%	8.8%
	Hispanic	479	536	299	332	-37.6%	-38.1%	11.0%
Middle High	White	662	640	515	575	-22.2%	-10.2%	11.7%
	Black	578	674	377	416	-34.8%	-38.3%	10.3%
	Hispanic	542	586	366	393	-32.5%	-32.9%	7.4%
Middle Low	White	818	882	637	721	-22.1%	-18.3%	13.2%
	Black	346	377	236	256	-31.8%	-32.1%	8.5%
	Hispanic	314	332	203	217	-35.4%	-34.6%	6.9%
Lowest	White	516	544	391	418	-24.2%	-23.2%	6.9%
	Black	236	284	200	205	-15.3%	-27.8%	2.5%
	Hispanic	236	279	140	171	-40.7%	-38.7%	22.1%

Note: "Community" is defined as zip code. Community poverty is measured by the percentage of residents within the community with incomes below 200% of the federal poverty level, based on data from the 2019 American Community Survey 5-year estimates. Quartiles are: Lowest, 0–26.6%; Middle Low, 26.7–37.1%; Middle High, 37.2–53.3%; Highest, 53.4+.

TABLE B-5. Number of children enrolled in HSSAP, by children's family income quartile and the poverty level of their communities

						% CHANGE		
Community Poverty	**Family Income Quartile**	**Oct 2019**	**Mar 2020**	**Oct 2020**	**Mar 2021**	**Oct – Oct**	**Mar – Mar**	**Oct 20 – Mar 21**
Highest	Lowest	301	380	248	272	-17.6%	-28.4%	9.7%
	Middle low	312	336	173	178	-44.6%	-47.0%	2.9%
	Middle high	273	290	172	195	-37.0%	-32.8%	13.4%
	Highest	198	244	146	163	-26.3%	-33.2%	11.6%
Middle High	Lowest	513	557	449	487	-12.5%	-12.6%	8.5%
	Middle low	543	573	345	388	-36.5%	-32.3%	12.5%
	Middle high	593	599	411	423	-30.7%	-29.4%	2.9%
	Highest	511	559	337	383	-34.1%	-31.5%	13.6%
Middle Low	Lowest	461	496	346	391	-24.9%	-21.2%	13.0%
	Middle low	382	400	288	315	-24.6%	-21.3%	9.4%
	Middle high	354	370	240	290	-32.2%	-21.6%	20.8%
	Highest	440	489	295	338	-33.0%	-30.9%	14.6%
Lowest	Lowest	240	268	182	214	-24.2%	-20.1%	17.6%
	Middle low	250	261	192	208	-23.2%	-20.3%	8.3%
	Middle high	281	309	161	185	-42.7%	-40.1%	14.9%
	Highest	352	412	284	323	-19.3%	-21.6%	13.7%

Note: Income quartiles are: Lowest = $0–$15,118; Middle low = $15,119–$23,217; Middle high = $23,218–$32,297; and Highest = >$32,298. "Community" is defined as zip code. Community poverty is measured by the percentage of residents within the community with incomes below 200% of the federal poverty level, based on data from the 2019 American Community Survey 5-year estimates. Quartiles are: Lowest, 0–26.6%; Middle Low, 26.7–37.1%; Middle High, 37.2–53.3%; Highest, 53.4+.

TABLE B-6. Number of children enrolled in HSSAP, by children's race and the racial composition of their communities

						% CHANGE		
% White Residents	Racial/ Ethnic Group	Oct 2019	Mar 2020	Oct 2020	Mar 2021	Oct – Oct	Mar – Mar	Oct 20 – Mar 21
Lowest	White	–	11	14	15	55.6%	36.4%	7.1%
	Black	452	606	325	378	-28.1%	-37.6%	16.3%
	Hispanic	315	362	191	194	-39.4%	-46.4%	1.6%
Middle Low	White	164	179	130	141	-20.7%	-21.2%	8.5%
	Black	580	673	382	383	-34.1%	-43.1%	0.3%
	Hispanic	666	718	440	473	-33.9%	-34.1%	7.5%
Middle High	White	344	373	250	322	-27.3%	-13.7%	28.8%
	Black	384	406	260	287	-32.3%	-29.3%	10.4%
	Hispanic	395	441	252	309	-36.2%	-29.9%	22.6%
Highest	White	1,544	1,576	1,202	1,295	-22.2%	-17.8%	7.7%
	Black	186	181	154	164	-17.2%	-9.4%	6.5%
	Hispanic	195	212	125	137	-35.9%	-35.4%	9.6%

Note: "Community" is defined as zip code. Community racial composition is measured by the percentage of residents within the community who are White, using data from the 2019 American Community Survey 5-year estimates. Quartiles are: Lowest, 0–34.7%; Middle low, 34.8–71.6%; Middle high, 71.7–89.0%; Highest, 89.1+. Because enrollment counts of 10 or less are suppressed, we do not include data for the subgroup of White children living in communities of color enrolled in HSSAP in Oct. 2019.

TABLE B-7. Number of children enrolled in HSSAP, by children's family income quartile and the racial composition of their communities

						% CHANGE		
% White Residents	Family Income Quartile	Oct 2019	Mar 2020	Oct 2020	Mar 2021	Oct – Oct	Mar – Mar	Oct 20 – Mar 21
Lowest	Lowest	216	318	198	231	-8.3%	-27.4%	16.7%
	Middle low	246	280	143	140	-41.9%	-50.0%	-2.1%
	Middle high	221	242	137	153	-38.0%	-36.8%	11.7%
	Highest	175	246	124	135	-29.1%	-45.1%	8.9%
Middle Low	Lowest	411	463	370	385	-10.0%	-16.8%	4.1%
	Middle low	414	454	259	264	-37.4%	-41.9%	1.9%
	Middle high	515	539	332	358	-35.5%	-33.6%	7.8%
	Highest	448	498	303	345	-32.4%	-30.7%	13.9%
Middle High	Lowest	334	348	199	269	-40.4%	-22.7%	35.2%
	Middle low	319	340	226	271	-29.2%	-20.3%	19.9%
	Middle high	328	351	194	238	-40.9%	-32.2%	22.7%
	Highest	314	361	227	281	-27.7%	-22.2%	23.8%
Highest	Lowest	554	572	458	479	-17.3%	-16.3%	4.6%
	Middle low	508	496	370	414	-27.2%	-16.5%	11.9%
	Middle high	437	436	321	344	-26.5%	-21.1%	7.2%
	Highest	564	599	408	446	-27.7%	-25.5%	9.3%

Note: Income quartiles are: Lowest = $0–$15,118; Middle low = $15,119–$23,217; Middle high = $23,218–$32,297; and Highest = >$32,298. "Community" is defined as zip code. Community racial composition is measured by the percentage of residents within the community who are White, using data from the 2019 American Community Survey 5-year estimates. Quartiles are: Lowest, 0–34.7%; Middle low, 34.8–71.6%; Middle high, 71.7–89.0%; Highest, 89.1+.

TABLE B-8. Number of children enrolled in HSSAP, by provider type

Provider Type	Oct 2019	Mar 2020	Oct 2020	Mar 2021	% CHANGE		
					Oct – Oct	Mar – Mar	Oct 20 – Mar 21
Child Care Provider	1,655	1,725	943	1,056	-43.0%	-38.8%	12.0%
Head Start	3,450	3,740	2,648	2,973	-23.2%	-20.5%	12.3%
Licensed Nursery School	16	16	20	20	25.0%	25.0%	0.0%
Non-profit	47	47	0	0	-100.0%	-100.0%	–
School District	647	826	508	523	-21.5%	-36.7%	3.0%

TABLE B-9. Number of children enrolled in HSSAP, by enrollment schedule

Enrollment Schedule	Oct 2019	Mar 2020	Oct 2020	Mar 2021	% CHANGE		
					Oct – Oct	Mar – Mar	Oct 20 – Mar 21
Full day	5,357	5,857	3,884	4,241	-27.5%	-27.6%	9.2%
Part day	656	694	392	518	-40.2%	-25.4%	32.1%

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