

Spotlight on Denver's Use of the STEP Forward with Data Framework to Map Supply and Demand for Key Neighborhoods

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About the Denver Preschool Program (DPP)

Denver, Colorado's preschool program has been operating since 2006, providing early childhood education support across the city. The [Denver Preschool Program](#) (DPP) provides income-based tuition credits directly to a family's child care provider of choice to help any Denver family (regardless of their income) afford high-quality preschool for their 3- and 4-year-old children. DPP also seeks to improve program quality, conduct community outreach, and advocate for early childhood education policy.

When DPP became interested in better understanding the supply of and demand for care in their program, they brought a working understanding of the supply and demand challenges facing families and providers across the city. DPP leaders then drew on the System Transformation for Equitable Preschools (STEP Forward with Data) Framework to examine supply and demand issues systematically by identifying guiding questions to understand their system; defining the focal population(s) they wanted to support; determining the appropriate data collection and analysis approach; and presenting findings through public-facing modes.

DPP's objective

What DPP knew: About 40 percent of Denver 4-year-olds were not receiving their tuition credits.¹

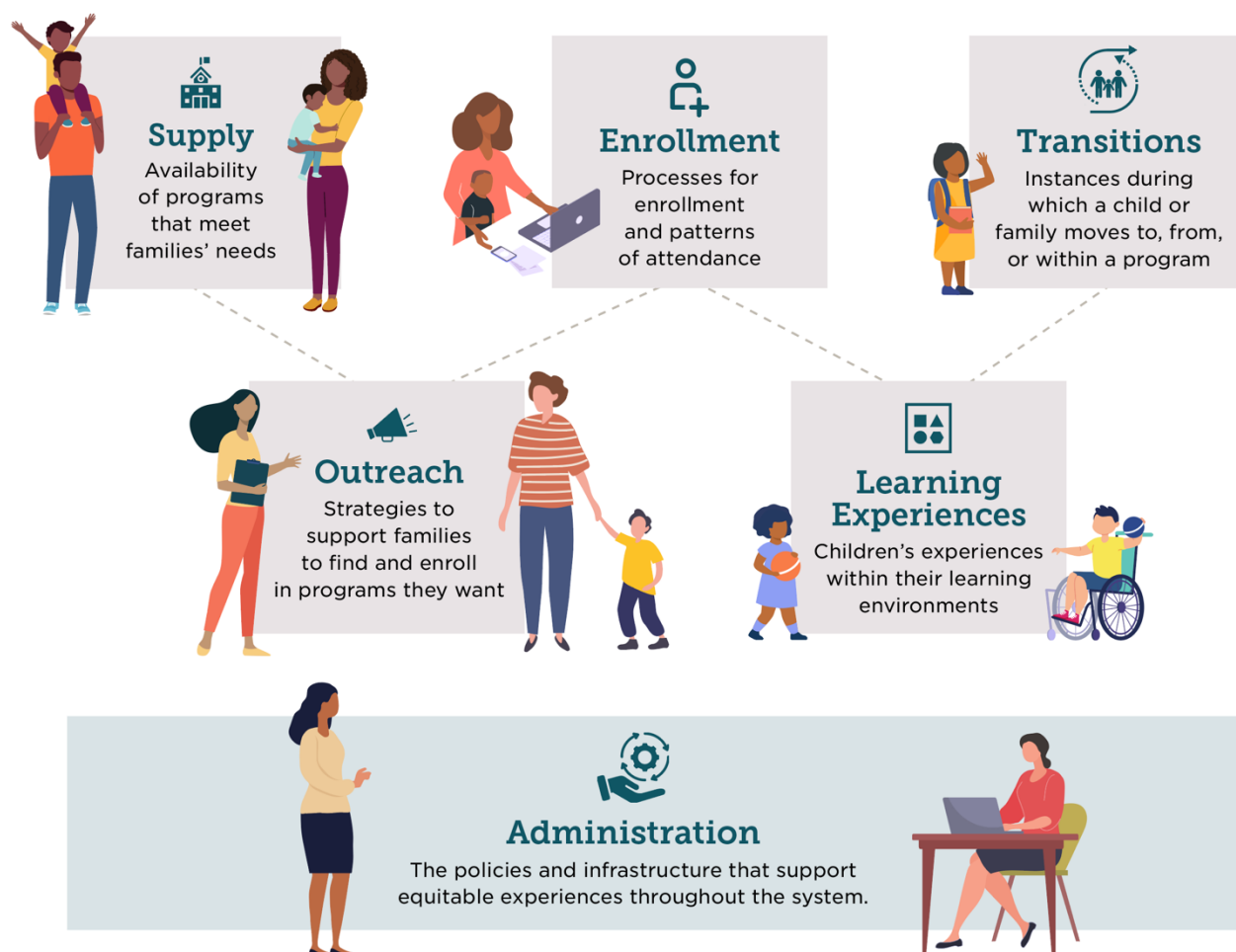
DPP's central objective: Identify and address the barriers that have kept these children's families from accessing high-quality preschool. While DPP had long sensed where these gaps existed, the Framework helped the team isolate answerable questions and examine the findings through an equity lens.

About the STEP Forward with Data Framework

The [STEP Forward with Data Framework](#) is designed to help early childhood leaders use data to support the experiences of *focal populations*—defined as populations that have been shown to experience inequities or that are of specific interest to communities. In using this Framework, leaders can support *equity for focal populations* by identifying and addressing barriers that may affect their experiences. The Framework offers 20 essential questions across six system steps, which align with points at which focal populations may face barriers and at which a leader could make actionable changes to improve quality and access to equitable early learning experiences (Figure 1). For each step, the Framework provides a description, a high-level look at the relevant questions and metrics, and a deeper dive into how to measure those metrics—including suggested measurement approaches, the level at which data could be collected (from individual children and families up to the system as a whole), and example data sources.

¹ Denver Preschool Program. ([2025]). *Calculation of the percentage of Denver 4-year-olds receiving DPP funding, based on U.S. Census Bureau population estimates and DPP administrative data* [Unpublished data].

Figure 1. Six System Steps of the STEP Forward with Data Framework



DPP's Approach

DPP wanted to understand why some Denver families were not accessing their tuition credits. The program leveraged the STEP Forward with Data Framework at critical points to identify and address focal populations' barriers to accessing high-quality preschool. The approach outlined below illustrates how DPP applied the Framework based on their specific goals and local context. Other communities may follow this same approach or adapt it to their own priorities and context.

Step 1. Identify guiding questions.

DPP could have approached its objective from different angles. For example, the program could have examined whether supply was limited or whether families faced barriers at the outreach or enrollment stage. Because the Framework's questions already consider differences in focal populations' experiences and needs, DPP could use them to examine access to preschool through an equity lens.

DPP reviewed the Framework's questions, narrowing its scope to questions about supply and demand. The Framework's overarching supply question encourages leaders to answer: "Does existing supply meet the needs of families from focal populations?" DPP took this question and defined two specific questions that met their needs:

- What barriers prevent the 40 percent of Denver families who are not served by DPP from accessing high-quality preschool that meets their needs?
- How can DPP better measure, track, and address inequities in preschool access to ensure equitable investment and support across Denver communities?

Step 2. Define the focal population.

DPP used the Framework's [Implementation Guide](#), which walks leaders through various exercises and tools that help apply the Framework to their specific context. Through Activity 3, DPP considered several ways to define its focal population (e.g., race, ethnicity, gender, age, geographic location, income) before selecting geography as its focus for analysis. In seeking to understand supply and demand challenges for the top five neighborhoods in Denver where preschool access was limited, DPP first determined specific neighborhoods through a layered approach:

1. The team looked at neighborhoods that were historically redlined, had high or low participation in DPP, and had gaps in licensed child care. In these areas, families relied more heavily on informal family, friend, and neighbor care.
2. DPP then paired Census demographic data, including income and education levels, to understand the level of economic need within each neighborhood.
3. Finally, DPP engaged stakeholders to narrow down the roughly 20 neighborhoods identified in these initial searches to five neighborhoods where the community felt that families were disproportionately affected by barriers to accessing preschool.

Step 3. Determine data collection and analysis.

DPP needed to understand what types of data they would need to answer their questions. The Deep Dive sections of the Framework provide leaders with multiple options for how they might answer each essential question. Further, the Deep Dive provides details for calculating these metrics, along with suggested details on the data that are necessary to answer the questions. Data can be a mix of quantitative and qualitative data, and can leverage either existing data that are already collected by programs (i.e., administrative data) or newly collected data for the purpose of answering questions (i.e., data from primary data collection).

To meet its objective, DPP selected a mixed methods approach to answer its guiding questions. DPP identified five focal neighborhoods using city data maps to target communities that had historically experienced disenfranchisement and build equity into its approach. Because DPP's focal population was families with children in five specific neighborhoods, the program overlaid findings onto maps of the city. On the quantitative side, the team analyzed administrative data about preschool enrollment across Colorado's Universal Preschool (UPK), DPP, dual UPK/DPP, and Head Start programs, alongside child and family demographics by neighborhood, kindergarten readiness, and third grade reading outcomes. The team also examined provider locations and funding sources and ran statistical analysis to identify factors linked to DPP participation. On the qualitative

Practice Tip

Data sharing and data cleaning can be time-consuming processes, so leaders should account for the time they may need to conduct analyses. DPP had to navigate a lack of unique identifier, personally identifiable information (PII) protections and conduct a legal review across every source. To match children across data, records were matched by birthday and name. Data cleaning required that DPP understand how to collect the data well and the amount of time it would take to clean the data.

DPP engaged methodological experts to streamline its work. For example, a data expert with evaluation expertise at DPP supported the analysis. For the mapping, DPP contracted a Geographic Information System (GIS) expert.

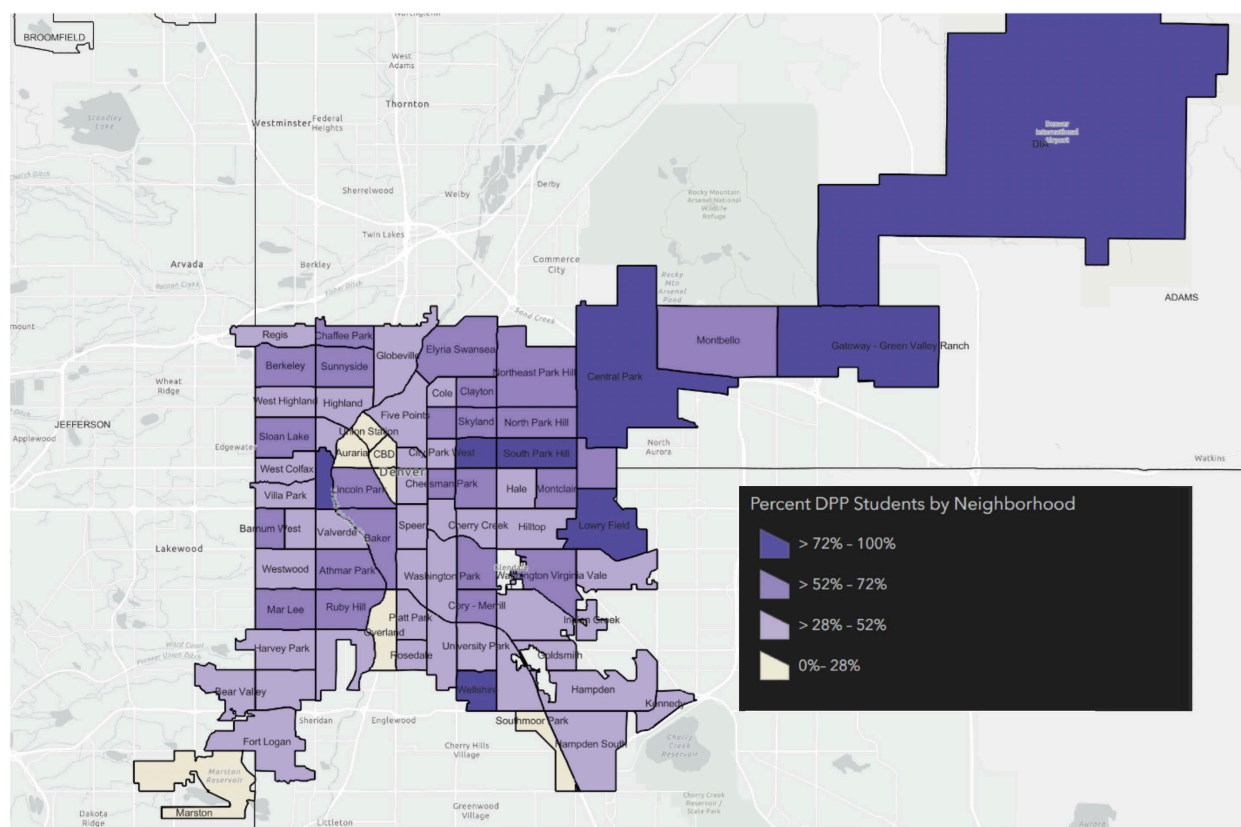
side, DPP conducted seven focus groups with families in the five target neighborhoods, both in-person and online (37 total participants), to add depth to its findings.

Step 4. Display findings in public-facing formats.

Through its analyses, DPP found that families who were not receiving tuition credits were engaged in early care outside the formal systems DPP typically supports. The data allowed DPP to see blind spots around equity in how the program understood families' access to care. More specifically, the quantitative data helped DPP identify where families were not accessing tuition credits, while the qualitative data helped explain why. Additionally, the quantitative data showed DPP that maintaining maps could help it monitor the neighborhoods where inequities in preschool access might occur. In turn, the qualitative efforts surfaced that families' barriers included affordability gaps, complex enrollment processes, misaligned care options, and trust or language challenges.

To communicate these findings to the broader community, DPP developed a set of [public interactive maps](#) to display supply and demand findings across Denver's neighborhoods. This visual tool could be used by stakeholders to guide their decisions related to care, presented at conferences, and used to convey findings to other organizations.

Figure 2. Percentage of DPP Students by Neighborhood



Source: <https://ldsquared.maps.arcgis.com/apps/instant/sidebar/index.html?appid=df4d8af2eb9045e9b1bf87e1e1c122e2>

Next Steps for DPP

Using its findings, DPP identified ways to close the gap in access to tuition credits around three system-level priorities:

- **Simplify and integrate access.** DPP plans to develop a universal, multilingual, one-stop enrollment system that brings DPP, UPK, Colorado Child Care Assistance Program, and Denver Public Schools Choice together in one place. The team will also invest in community navigators and trusted messengers, such as providers and cultural liaisons, to help guide families through enrollment.
- **Expand supply where families need it most.** DPP will target resources toward specific child care deserts, or to neighborhoods with a limited supply of high-quality preschool. The team also plans to advocate for stronger workforce supports—such as living wages, facilities assistance, and licensing pathways for family, friend, and neighbor (FFN) caregivers—to strengthen the provider base in these areas.
- **Design for equity.** DPP will work to address the “missing middle” by ensuring that its targeted universal approach provides meaningful support across income levels, including for middle-income families. Going forward, the team will continue using disaggregated data—broken out by race, income, geography, and language—to drive ongoing improvement.

DPP expects that its work will create impact at multiple levels. Legislators will gain access to a Denver-specific, data-driven pre-K dashboard that shows supply and demand for child care, along with information on how housing costs, gentrification, and migration shape families' access to care. These data are already informing broader city efforts, including Mayor Mike Johnston's Haynes-Gary Childcare Task Force, which is working to identify solutions to expand access to affordable, high-quality child care across Denver. Additionally, DPP will use these insights to find and reduce barriers for families in focal neighborhoods, including those with lower household incomes; high populations of residents who are Black, Indigenous, and people of color (BIPOC); high populations of immigrants; and disproportionate shares of other underserved families. DPP's ultimate goal is to help these families access affordable, high-quality care that fits their schedules, languages, and financial needs.

Lessons Learned for Other Communities

Throughout the process described in this spotlight, DPP shared lessons for other communities to consider when embarking on a similar effort.

- **Engage someone with decision-making authority.** Progress moves faster when someone with the authority to act on findings stays engaged with the work, either by leading the effort or by receiving regular updates. This relationship can prevent teams from getting stuck weighing options they can't implement and helps ensure that findings lead to improvement.
- **If equity work is new to your organization, begin by identifying who faces barriers to accessing high-quality early learning experiences.** For DPP, centering equity is a core organizational value that guides its work, both internally and externally, including efforts to reduce barriers to early childhood education and support equitable opportunities for children and the early care and education workforce. Until equitable access is fully achieved, however, some populations may face barriers to accessing high-quality early learning experiences. At its core, equity work includes identifying these focal populations and finding practical ways to improve their experiences. Communities that haven't focused on equity before—or that find the topic sensitive to discuss—can still engage meaningfully with the Framework. Choosing a focal population that's already a priority for your state or organization is a natural entry point, and the Framework is flexible enough to meet communities wherever they're starting from.
- **Match roles on your team to the work needed.** Answering questions about the early learning experience takes the right expertise at the right time. For example, program administrators can first

identify areas that need improvement to then define the right questions. Data and evaluation experts can weigh in on which questions can be answered using available data. Outside consultants can then handle specific tasks, like mapping. Finally, choosing the right audience to consult depends on the specific question: Frontline providers may have the best insights into enrollment processes, while families will be best positioned to identify potential solutions to the barriers they face. Thinking through these roles early can help teams build the right expertise into each stage of the work.

The STEP Forward with Data Framework

The Framework is designed to help leaders use data to promote greater equity at every step of the early childhood system. Leaders will better understand the experiences of children, families, or workforce members within their systems through 20 essential questions across six system steps. For more information, visit our [website](#).

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