Even as the availability of data on K-12 education programs has exploded over the past decade, the American education system suffers from an acute lack of some of the most basic information about publicly funded programs for young children.

Take pre-K, for example. Increasingly recognized as an integral part of the American education system, pre-K programs can represent significant investments by state and federal governments.[1] Yet in many localities it is difficult to determine with any confidence how many children receive publicly funded pre-K services or make fair comparisons between local programs. Kindergarten is not much better. Though accepted as part of public schooling to a much greater degree than pre-K, it is also plagued by a lack of information and data that are incomparable across states and districts. Many states across the country only fund half of the school day, forcing districts that choose to support full-day classes to draw funding from sources outside the main funding streams for public schools. This leaves kindergarten more vulnerable to budget cuts than the first through twelfth grades.[2] Yet data on kindergarten is so sparse that we do not know how many districts around the country operate under these conditions.[3]

Within both of these segments of children’s education – pre-K and kindergarten – poor data can lead to poor policies. The implications are serious. City leaders, school board members, superintendents, and elementary school principals often have no idea how many three- and four-year-old children in their districts’ borders are enrolled in publicly funded pre-K programs, let alone whether these children are prepared for kindergarten. State policymakers cannot make sound comparisons between districts or shine light on disparities in access in low-income areas. Nor can they easily determine how many schools in their states offer only a half-day of kindergarten – a critical question as teachers across dozens of states will soon be held accountable for whether their students meet new benchmarks in kindergarten, such as those in the Common Core State Standards.

Researchers and policy analysts have documented the challenges in collecting pre-K and other early childhood data, and reports on disparities in full-day kindergarten from the Education Commission of the States and the
Children’s Defense Fund place the disorganized state of kindergarten data on full display.[4,5] But in both cases, organizations have focused on data at the state level.

In this issue brief, we turn to an arguably knottier problem: the dearth of reliable, complete, and comparable data on pre-K and kindergarten in school districts and local communities. As the Federal Education Budget Project expands to include data on publicly funded pre-K, the extent of the problem has come into greater focus (see “Including Pre-K Data in FEBP”). New questions about kindergarten data have surfaced as well. This brief pinpoints problems of incomplete data at the local level and explains why, in many cases, the data that do exist cannot be accurately compared to data in other districts or states. It ends with a discussion of steps that states, districts, and policymakers should take to repair these holes and ensure that PreK-12 policymakers and the public have a well-informed view of the state of pre-K and kindergarten in their states and localities.

The Basics of Public Pre-K Funding and Enrollment

Public funds for education at ages three, four, and in some cases age five, derive from multiple sources depending on a child’s eligibility and the state in which he or she lives. Often, pre-K programs are encouraged to “blend and braid” funding to cover their costs.[6] While blending funds can help create more comprehensive pre-K programs for greater numbers of children, the diversity of funding sources increases the difficulty of collecting data on these programs, especially compared to other public school data.

Public funding for pre-K programs comes from at least three sources: states; special education funds for pre-K (funded by the federal Individuals with Disabilities Education Act Part B, Sec. 619); and Head Start, the federal pre-K program for children from families living in poverty.

Some programs also depend on funding from local governments and federal social-services funds, such as the Child Care and Development Fund and Temporary

Including Pre-K Data in FEBP

The New America Foundation’s Federal Education Budget Project (FEBP) has collected and displayed information on federal education funding since 2007. The project’s website, www.edbudgetproject.org, houses an interactive database with more than 65 data points on annual education funding, demographics, and student achievement at the state and school district levels over several years. More recently, FEBP has added data on every higher education institution in the country, including federal grant aid and graduation rates.

Until now, data on publicly funded pre-K programs were not among those data points. This month, FEBP expanded to include data on funding and enrollment for state-funded pre-K programs, Head Start programs, and pre-K services authorized under the federal Individuals with Disabilities in Education Act (IDEA), Part B, Section 619. These programs are major funding sources for public pre-K, but they are not the only ones. For example, pre-K classes might be supported by federal Child Care and Development Fund dollars but take place in a private child care center. Data are unavailable on how many child care centers meet those criteria. FEBP draws upon published data from the National Institute for Early Education Research (NIEER) as well as from data gathered from state agencies in the 50 states and the District of Columbia, the U.S. Department of Education, and the federal Office of Head Start in the Department of Health & Human Services.

At the state level, FEBP displays funding and enrollment data from all 50 states and the District of Columbia on Head Start and IDEA Section 619 preschool grants. For state-funded programs at the state level, FEBP displays data that include pre-K programs run by community-based organizations and school districts.

At the district level, FEBP displays what it could collect from state education and social services agencies that gather information on publicly funded pre-K by school district. Not all states have this capability. So far, FEBP has
obtained state-funded pre-K enrollment data from 24 states, state-funded pre-K funding data from 17 states, IDEA 619 enrollment data from 33 states, and IDEA 619 funding data from 36 states. Data on district-run Head Start programs come from the federal Office of Head Start and cover programs in all 50 states and Washington, D.C.

FEBP provides education data by school district, the common unit of measure for education at the local level, and not by city or county. This structure means that the vast majority of FEBP data can only reflect district-run state-funded pre-K programs, district-run Head Start programs, and IDEA services provided by school districts. (For the same reason, FEBP is unable to include K-12 data on publicly funded charter schools.) One exception is Florida, which distributes its state pre-K dollars to county-based entities, which serve jurisdictions that mirror school-district boundaries. This enables FEBP to display comprehensive data on funding and enrollment for all Florida children within a district's borders, regardless of whether those children are in classrooms operated by the school district or programs run by a community-based organization (CBO).

Unfortunately, FEBP has not found other states that distribute pre-K funds to entities whose boundaries match those of the local school districts. Therefore, with the exception of Florida, FEBP does not include data on programs operated by CBOs unless they receive funding from local school districts or use teachers paid by the districts. This is a large omission, as many CBOs receive public funds to operate Head Start centers and state-funded pre-K programs and are a critical part of pre-K delivery in the United States.

FEBP’s pre-K expansion lays bare the need to design data systems that incorporate and correctly reflect information on all local pre-K providers, not just school districts. Until a structure is created that would enable databases to display pre-K data from district-run programs and local CBOs, databases like FEBP cannot provide users with a full picture of pre-K enrollment and funding within the boundaries of a school district. This brief features a discussion of how to rectify the problem, not only for FEBP but also for other data-gathering efforts on early education across the country.

The data are available at www.edbudgetproject.org.

FEBP’s pre-K expansion was made possible by grants from the Foundation for Child Development.

Assistance for Needy Families (the federal welfare program). Another potential source of funding is Title I of the No Child Left Behind Act, a U.S. Department of Education program that is intended to support economically disadvantaged children from birth through twelfth grade.

Eligibility requirements, program hours, and the ages of children each pre-K program serves vary widely across states, localities, and school districts. Consider state-funded pre-K. A few states fund full-day programs, many others fund half-day programs, and in some cases local organizations that run the programs – whether they are school districts or community-based organizations (CBOs) – may supplement state funds to provide services for a full day. (Some examples of CBOs are private child care centers or community action agencies that run child care and afterschool programs.) Age of eligibility varies too. In the 2010-11 school year, 24 state-funded programs enrolled three- and four-year-olds, while 15 states offered programs that enrolled only four-year-olds. Eleven states did not fund pre-K at all. In many states and districts, only children living below a certain income level may enroll in publicly funded pre-K programs. In others, any child can attend if space is available. Still in others, only children living within the geographic boundaries of a school that qualifies for federal Title I funds (funds for disadvantaged students) may enroll.

For Head Start and pre-K classes funded with IDEA dollars, eligibility and age requirements are the same across states and districts. Head Start and IDEA preschool grants
support children at ages three, four, and five.\[7\] To be eligible to enroll their children in Head Start, families must have income levels at or below the poverty line or face other risk factors. To be eligible for services under IDEA, children must have an Individualized Education Program (IEP) that qualifies them for special education services.

**Defining Pre-K**

FEBP defines pre-K as a program that employs trained teachers to lead daily educational experiences in a classroom or learning center for children who are a year or two away from kindergarten. In many cases, these are programs for children at age four, but some programs also enroll children at age three. For more information on pre-K programs and public sources of funding, see the Background & Analysis pages on the FEBP site at www.edbudgetproject.org.

**The Basics of Kindergarten Funding and Enrollment**

One might think that obtaining data on kindergarten enrollment should be less complicated than that for pre-K because kindergarten is embedded in public school systems that already maintain data on enrollment. But some school districts run morning and afternoon kindergarten programs that complicate enrollment counts. In such cases, it is not unusual for teachers to teach two classrooms of children in one day, each for half a day (20 children in the morning and a different 20 children in the afternoon, for example). At the same time, their colleagues in other grades teach only one class for a full day. In other cases, parents may pay fees to the school district allowing their children access to afternoon sessions in addition to morning ones. These variations can make it difficult to collect enrollment data and calculate pupil-to-teacher ratios. (See “A Deeper Look at Kindergarten.”)

Kindergarten funding is also complicated and even less transparent than pre-K funding in many states. While it is generally assumed that states fund kindergarten through state “K-12” funding formulas, the majority of states do not include funding for full-day kindergarten in statute alongside funding requirements for first through 12th grade. For example, 350 of Pennsylvania’s approximately 500 school districts support kindergarten using the state’s Accountability Block Grants for early childhood programs. The state’s traditional K-12 education funding stream does not provide funding specifically for kindergarten. In 2011, after Pennsylvania Gov. Tom Corbett proposed to eliminate the block grants, the state’s legislature voted to keep the program but cut its funding from nearly $250 million to $100 million, leading many districts to propose cutting kindergarten to a half-day.\[8\]

States are not required to collect data from districts on the length of the kindergarten day or the number of days kindergarten is offered each week. Ten states and Washington, D.C. mandate that districts provide a full-day kindergarten option, but only seven require all students to attend full-day kindergarten.\[9\]

**Problems with Available Data at the Local Level**

The challenges of including community-based organizations in PreK-12

It is rare to find education data that include the complete array of publicly funded pre-K programs in a jurisdiction. The Federal Education Budget Project, for example, is structured to only display enrollment and funding data for pre-K programs run by, or with boundaries that mirror, school districts. With the exception of Florida, this leaves out community-based organizations (CBOs) that receive public funding either directly from the state through state-funded pre-K grants or from the federal government through Head Start (see “Including Pre-K Data in FEBP”). By the same token, other data collection projects may rely on data from state-funded CBOs and Head Start programs without recognizing IDEA pre-K programs and other pre-K classrooms operating within school districts.
At the state level, incomplete data are less of a problem. The National Institute for Early Education Research (NIEER) has provided a valuable service by collecting and publishing pre-K data at the state level since 2003. Through NIEER’s meticulous data collection in its State of Preschool yearbooks, policymakers have gained a clearer picture of how state-funded programs and Head Start programs co-exist in the pre-K landscape and the extent of the inequities between states. By virtue of collecting data at the state level, NIEER’s data on state-funded programs include both school districts and community-based organizations (CBOs) that operate pre-K programs.

At the local level, however, it is difficult to get a full picture of how many children within a school district’s boundaries are enrolled in publicly funded pre-K programs run by CBOs. Depending on the characteristics of the area, children enrolled in CBO-based programs might hail from a variety of school districts, making it difficult to determine which CBOs are linked to which school districts. Florida is an exception. It distributes funds for state-funded pre-K to entities defined by county boundaries, which are contiguous with school district boundaries. Those entities – known as Early Learning Coalitions – are responsible for distributing dollars to both the school district and the CBOs within each county.[10]

The problem of jurisdictional data collection is exacerbated by a fragmented system of funding. Localities and school districts typically do not collect pre-K data because CBOs that run pre-K programs normally report to the federal government through the Office of Head Start or to the state government through state-funded pre-K programs, not to local school districts or counties.

**Missing information on dosage**
Incomplete information on the length of the school day and school week – whether in pre-K or kindergarten – is another glaring issue. In some pre-K programs, children may enroll in a half-day program that runs three days a week, while other programs offer a full-day program five days a week. Raw data on enrollment and funding do not often reflect these variables, known by researchers as “dosage.”

The dosage problem exists at the kindergarten level, as well. As mentioned earlier, many states have no solid data on how many children throughout the state attend half-day versus full-day kindergarten programs, nor do they track how many school districts ask parents to pay tuition to cover the cost of the second half of the day. Data showing whether children in poor communities have access to a full-day of kindergarten do not typically exist.

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**FEBP’s pre-K expansion lays bare the need to design data systems that incorporate and correctly reflect information on all local pre-K providers, not just school districts.**

Policymakers are likely in the dark about inequities in the teacher workforce as well. When districts provide half-days of kindergarten, they may be requiring their teachers to teach two different classes of children each day – one in the morning and one in the afternoon. Not only does this confuse enrollment counts, it means that teachers are expected to monitor the progress of twice as many children as teachers in traditional full-day classrooms. As states and districts implement new systems for evaluating teachers, it will be important to recognize these differences at the kindergarten level. And as teachers begin to alter their instruction to match the Common Core State Standards for kindergarten, their instruction may differ greatly depending on whether their students are attending a half or a full day of school.

**Non-comparable district data**
The movement toward better public early education in the United States is predicated on issues of equity. Policymakers and the public recognize the unfairness inherent in a system that provides some children access to
full-day pre-K and full-day kindergarten programs and other children with no such opportunities. Making comparisons between school districts and localities is critical to understanding which children are excluded.

A Deeper Look at Kindergarten

Data on public schools are usually labeled as “K-12” data, leading the public and policymakers to assume that funding levels or per-pupil allocations are relatively similar across all grades. They may also assume all students across the K-12 spectrum are enrolled for a full school day. But as it has become clear in reports from the Education Commission of the States, the Foundation for Child Development, and the Children’s Defense Fund, this is not the case for kindergarten.\[11\] There is wide variability in the provision of full- or half-day programs, even within a single state. Additionally, some states and districts rely on funding streams for kindergarten that are separate from public education funds for the first through twelfth grades.

Many K-12 databases (FEBP’s included) may unwittingly mask serious problems with kindergarten data, leading policymakers and the public to be less informed about disparities in access to kindergarten across their school districts and states. The U.S. Department of Education recently revised its definition of kindergarten so that states can report whether kindergarten is provided for a full- or half-day (though, unfortunately, school districts are not required to use the new definitions when reporting to their states).\[12\] These additional state-level data may prompt education agencies and non-profit organizations to revamp their K-12 databases to display separate funding and dosage numbers for kindergarten students.

Because of standards set by the federal government for IDEA, data on special education for pre-K students are fairly comparable across districts. For other publicly funded pre-K programs, however, comparing data across school districts can lead to misinformation and poor decision-making. Because districts operate pre-K programs that rely on multiple funding sources, vary widely in dosage and age-eligibility, and may or may not include CBOs, the services they provide may not be equal.

For instance, according to NIEER’s annual State of Preschool report, Texas’s state-funded pre-K program is designed to operate for three hours a day, whereas North Carolina’s pre-K school day is six hours long. Therefore, at the local level, the San Antonio school district may have the same number of children enrolled in state-funded pre-K as Charlotte-Mecklenburg in North Carolina, but provide half the number of hours of instruction. This problem exists even when comparing districts within the same state if some districts expand half-day programs to full-day ones by supplementing state funds with money from other sources. These differences complicate policymakers’ efforts to determine which districts are offering adequate pre-K services.

Another hazard is the temptation to calculate per-pupil expenditures with existing funding and enrollment data. A superintendent or school board member, for example, could erroneously assume that her district expends a similar amount per child as a nearby district, when in fact her district runs a full-day, full-week program and the other provides pre-K for three hours a day, three times a week. This might lead her to assume that her district could cut costs in pre-K and remain comparable to her neighboring district without recognizing that those cuts would require a reduction in hours or children served. Accurate per-pupil calculations are also difficult to determine when available data does not account for supplementary sources of funding. Head Start programs, for example, are required to match federal dollars with contributions from other sources. Data on federal funding for Head Start, therefore, does not tell the whole story about the cost of pre-K for a Head Start child.
Improving the System: Next Steps

Pre-K and kindergarten data at the local level are labyrinthine and disorganized, hampering any ability to craft policies for equitable access and funding. States must collect more complete and comparable data from school districts and CBOs if policymakers and the public are to understand the state of education for young children in their communities and states.

We recommend convening a national group of experts on data in the early childhood and PreK-12 years to examine what states and the federal government should do to create a more logical, systematized approach to early education data at the district level. This group should include experts in public school data as well as experts from the Early Childhood Data Collaborative, an organization that is already advocating for better early childhood data at the state level. This group could be part of the national task force recommended by Don Hernandez in "PreK-3rd: Next Steps for State Longitudinal Data Systems," a 2012 policy brief from the Foundation for Child Development. This group should examine how to overcome two critical challenges:

1) Incorporating pre-K data from both CBOs and school districts into existing education data systems; and
2) Capturing better data on enrollment, funding, and dosage for both pre-K and kindergarten at the school, school district, and state levels.

For pre-K data collection, the group should explore how states could help the National Center for Education Statistics create unique identifiers for CBOs that align with the existing Agency ID labeling system used for school districts.

The task force should also examine the feasibility of replicating Florida’s system for distributing pre-K data through Early Learning Coalitions that serve providers within school district boundaries. While Florida has been criticized for its meager funding of pre-K (a troubling barrier to improving programs’ quality), the structure of the state’s pre-K data system has merit.[13] The structure has an advantage in that its county borders are contiguous with school-district borders, enabling the state to gather comprehensive information on how many children are enrolled and funded within school district boundaries, including both CBOs and school districts. But even in states that do not have such cleanly-defined borders for school districts, there may be possibilities for distributing pre-K dollars through agencies based on district lines, thereby enabling education policymakers to better understand how many children in their districts are attending pre-K in specific school districts.

For kindergarten data collection, the task force should push the National Center for Education Statistics to ensure that states collect reliable data on dosage. The task force should also include expertise from the Children’s Defense Fund, which is interviewing state leaders each year to determine how kindergarten is typically funded, whether data exists on districts or schools requiring parents to pay tuition for a full day of schooling, and how many states require districts to offer full-day kindergarten.

Another charge for the task force should include working with the U.S. Census Bureau to improve the American Community Survey questionnaire. It currently asks whether children in the household attend “nursery school,” “preschool,” or “kindergarten” but does not ask whether that experience is for half or full day, in a publicly funded or private program, or whether parents are paying fees or tuition for these services. Without these data, it is impossible to get a good picture of how many families enroll their children in publicly funded early childhood programs.

Conclusion

To close achievement gaps between economically disadvantaged and advantaged students, policymakers and educators desperately need access to the most basic data on enrollment and public funding for all young children.
These data will increase understanding of how public dollars are spent, expose disparities in access to early learning programs, and have the potential to increase educational opportunities for young children. Ultimately, better data should foster better instruction. As principals and superintendents obtain reliable information on the educational backgrounds of the children coming into their kindergarten and first-grade classrooms, they will gain a better understanding of the support teachers need to teach them. Getting the data right is a critical step toward providing better learning experiences for all young children, laying the groundwork for alignment across the PreK-3rd grade years, and building a strong foundation for their success in school.
Notes

[1] Dozens of scientific and peer-reviewed studies over several decades have shown that high-quality pre-kindergarten programs have a significant positive impact on children’s success in school and life (see the National Institute for Early Education Research at www.nieter.org for a full accounting of the research). Recognizing pre-K’s importance to children’s educational outcomes, national advocacy organizations – such as Ed Trust, the Center for American Progress, and the American Federation of Teachers – use the term PreK-12, instead of K-12, when describing American public schools. The U.S. Department of Education increasingly refers to PreK-12 education in its regulations and multiple federal grant programs are specifically written to include pre-K teachers and pre-K programs. The Department includes an Office of Early Learning within the Office of Elementary and Secondary Education that focuses on early education initiatives for children birth to age five, including pre-K programs.


[3] The Children’s Defense Fund has contacted officials in all 50 states and Washington, D.C., to produce an interactive map on the status of full-day kindergarten at the state level (http://www.childrensdefense.org/child-research-data-publications/data/state-data-repository/full-day-k/full-day-kindergarten-states-2012.html), but the organization is not set up to examine the status of kindergarten in the United States’ nearly 15,000 school districts. The U.S. Department of Education does not require state agencies to collect or report data on accessibility to full-day kindergarten in their districts.


[7] Though pre-K programs are typically for three- and four-year-old children, some children attend at age five because their birthdays fall in the last few months of the calendar year, causing them to miss the cut-off dates for registration in kindergarten. In other cases, parents choose to hold their five-year-olds back from attending kindergarten, preferring to send them to pre-K programs for a second or third year.