

Federal Expenditures on Pre-Kindergartners and Kindergartners in 2008

(Ages 3 through 5)

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The Urban Institute

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The Urban Institute and The Brookings Institution

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EXECUTIVE SUMMARY

Investments in high-quality programs during the formative years of pre-kindergarten and kindergarten are critical to both the development and future economic success of children. But how much does a nation seeking to improve future health, education, and economic outcomes of children invest in pre-kindergartners and kindergartners? This report provides a first-time analysis of the nation's current spending on pre-kindergartners and kindergartners by examining 2008 federal expenditures from more than 100 federal programs on children ages 3 through 5. Findings provide a foundation for gauging the priority the nation places on investing in children ages 3 through 5; provide a useful tool for conversations focusing on state-federal collaborations and financing; and present a glimpse into what the future holds for federal investments in pre-kindergartners and kindergartners.

This report, focusing on children ages 3 to 5, is one of a series of reports issued in the past few years on expenditures on children, looking at children overall (birth to age 18), infants and toddlers (birth to age 2), and elementary-age children (ages 6 to 11). In addition to baseline federal spending estimates, we also present state and local spending comparison estimates, along with projections on federal pre-kindergarten and kindergarten spending. The effects of the American Recovery and Reinvestment Act of 2009 do not appear in the 2008 expenditures but are captured in the expenditure projections included in the final section of the report.

Pre-kindergartners and kindergartners are a particularly vulnerable group, as one in five children ages 3 through 5 lives in poverty (U.S. Census Bureau 2009). Moreover, the pre-kindergarten and kindergarten years are critical to a child's development and future success. Given this, what are experts saying about the role public investment can play in improving the lives of children ages 3 through 5? Researchers across different disciplines highlight a number of com-

elling points surrounding the importance of the pre-kindergarten and kindergarten years:

- Development during the pre-kindergarten years is important to children's readiness to enter the K-12 education system.
- Pre-kindergartners and kindergartners disproportionately live in vulnerable families.
- Children from low-income families are more likely to lag behind developmentally when they enter kindergarten, creating disparities that can set the stage for long-term disadvantage.
- High-quality care and education during the pre-kindergarten years is associated with better developmental outcomes yet remains unaffordable for many families.
- Scientifically rigorous evaluations of several model pre-kindergarten and early intervention programs document positive and often lasting effects.
- Research documents the long-term economic benefits of investing in interventions for pre-kindergarten children.
- The transition from pre-kindergarten to kindergarten and the early elementary grades



is a crucial developmental time for young children and is important to their future success.

- Childhood obesity, a social problem that has increased in magnitude over the past 20 years, is associated with many adverse health outcomes and affects a significant portion of pre-kindergartners and kindergartners.

Given the importance of these early years, how much does the federal government invest in pre-kindergartners and kindergartners? Where and how is the money spent? And in what direction does federal investment in children ages 3 through 5 seem to be headed? This report provides first-time estimates to answer these questions and reveals the following:

- Six programs accounted for approximately two-thirds of all federal expenditures on pre-kindergartners and kindergartners in 2008: Head Start, Medicaid, the Supplemental Nutrition Assistance Program (formerly Food Stamps), and three tax programs (the child tax credit, the earned income tax credit, and the dependent exemption). Head Start and Medicaid directed a similar amount of money to pre-kindergartners and kindergartners—roughly \$6 billion each—but that amount represents 90 percent of Head Start funding compared with 3 percent of Medicaid spending. Notably, despite being a primary source of investment for this age group, Head Start serves only about half of eligible pre-kindergartners and fewer 3- and 4-year-olds than state pre-kindergarten programs (Early Ed Watch 2009; Matthews and Ewen 2008).
- A first-ever estimate of the federal and state shares of funding for children in this age group finds that the federal government and the state and local governments play approximately equal fiscal roles in the lives of pre-kindergartners and kindergartners. A little less than half (47 percent) of total public investment in children ages 3 to 5 is federal, while state and local governments spend just

over half (2004 state and local data). The majority of federal funding is spent on tax programs, income security programs, and nutrition programs, while a large share (84 percent) of state and local government spending is on education programs. In total, the federal government spent \$3,179 on the average pre-kindergartner and kindergartner, while state and local governments spent \$3,523 in 2004.¹

- Programs that specifically focus on the care and education of children ages 3 through 5 represent 23 percent of total federal expenditures. The largest spending program in this category is Head Start, which makes up 10 percent of all federal expenditures on pre-kindergartners and kindergartners. The Child Care and Development Block Grant (CCDBG) spent \$1.9 billion on children ages 3 through 5, and the two biggest education programs, Education for the Handicapped and Education for the Disadvantaged, spent \$1.9 billion and \$1.7 billion, respectively.
- When spending is analyzed by budget function, social services emerges as an area of high spending on children ages 3 to 5 (15 percent of total expenditures)—higher than for children as a whole—primarily because of Head Start and CCDBG. One could argue that Head Start should be classified as an education program rather than a social services program, and indeed it plays an important role in school readiness. However, we classify Head Start as a social services program, following standard budget categories and reflecting the comprehensiveness of services provided (e.g., health, dental, developmental services), as well as the program's administration by the U.S. Department of Health and Human Services. Health, nutrition, and education programs spend relatively less on pre-kindergartners and kindergartners when compared to all children (birth to age 18). Tax programs make up more than 40 percent of total



federal expenditures on pre-kindergartners and kindergartners, a share similar to spending on all children.

- In 2008, federal expenditures on pre-kindergartners and kindergartners totaled \$60.5 billion, \$48.2 billion of which were outlays and \$12.3 billion of which came via tax reductions. Since these numbers are baselines, it is not possible to know if federal spending on this age group increased or decreased from prior years.
- Almost two-thirds of federal expenditures on pre-kindergartners and kindergartners are through programs targeted toward low-income children, which is slightly higher than the portion of targeted expenditures for all children.
- Short-term projections based on a continuation of current policy suggest that spending on children ages 3 to 5 will increase as a percentage of GDP in 2009 and 2010 due to the American Recovery and Reinvestment Act of 2009. After 2010, however, expenditures on pre-kindergartners and kindergartners as a

percentage of GDP are expected to decrease. By 2012, federal expenditures are projected to actually be lower than 2008 levels as a percentage of GDP.

While this report presents detailed information covering more than 100 federal programs that affect children ages 3 through 5, it does not reach conclusions on the efficiency, success, or worth of a particular type of program or level of spending. We also are not able to assess how expenditures necessarily address need. Going forward, however, this report provides a useful tool to juxtapose current expenditures against expected need and to compare expenditure patterns against researchers' findings about high-return public investments. Ultimately, the findings establish a baseline from which one may gauge the priority the nation places on investing in pre-kindergartners and kindergartners—an increasingly important issue, given the critical role of development during these years and the disadvantages so many young children experience.



INTRODUCTION

Investment in quality programs that center on the formative years of pre-kindergarten and kindergarten is critical to both the development and the future economic success of children. But how much does a nation seeking to improve future health, education, and economic outcomes of children invest in pre-kindergartners and kindergartners? What are the most pressing needs and the relevant policies targeting this age group? What federal programs in which departments make up our existing investments? And what priority should we place on this type of investment during these troubling economic times? To have an informed conversation, it is important to understand current expenditures.

This report provides a first-time baseline analysis of the nation's current investments in pre-kindergartners and kindergartners by examining 2008 federal expenditures on children ages 3 through 5.² We consider more than 100 federal programs through which the federal government devotes money to children, and subsequently estimate the amount spent on pre-kindergartners and kindergartners. We cannot, however, draw conclusions regarding the efficiency, success, or worth of a particular type of spending or program. Nor does the level of spending indicate how much investment is needed for children ages 3 through 5. Nevertheless, our estimates establish a baseline from which one may gauge the priority the nation places on investing in pre-kindergartners and kindergartners. Further, we provide first-ever comparisons between federal versus state and local shares of spending on children ages 3 to 5. Such results provide useful context for conversations focusing on state-federal collaborations and financing. Additionally, results allow for comparisons between expenditure patterns and provide context to discussions that center on researchers' findings about high-return public investments. We also project future investments in this age group, an important exercise given recent invest-

ments to stimulate the economy, as well as future budget constraints facing state and local governments.

Developmentally, researchers and experts typically define the pre-kindergarten years as falling between the ages of 3 and 5. We use a similar definition, since we seek to identify programs and funding streams that specifically target this stage in a child's development. While a large portion of children ages 3 through 5 enroll in pre-kindergarten programs, a significant share also enroll in kindergarten. In fact, as of October 2007, 28 percent of children ages 3 through 5 were enrolled in kindergarten and 37 percent in pre-kindergarten (U.S. Census Bureau 2007). It is important to keep this in mind when considering specific programs, along with state/local comparisons, as programs and resources may differ between the ages.

Other reports in this series examine expenditures on all children (birth to age 18), infants and toddlers (birth to age 2), and elementary-age children (ages 6 to 11).³ This and other reports on specific age groups focus primarily on 2008 expenditures and do not contain the historical data found in the reports that analyze expenditures on all children (which track federal expenditures



on children back to 1960). We do include, however, some examination of federal and state/local patterns for various age groups in 2004, the last year for which we have state/local data. Such an analysis allows for comparisons of total public investment across children in different age groups. (See our companion brief, *Public Investment in Children's Early and Elementary Years* [Macomber et al. 2010], for these comparisons, a few of which are summarized in this report.)

Focusing on children ages 3 through 5, researchers across multiple disciplines highlight a number of key points relevant to the pre-kindergarten and kindergarten years:

- *Development during the pre-kindergarten years is important to children's readiness to enter the K–12 education system.* In these formative years, children build on the cognitive, social, communication, and emotional skills that they began acquiring at birth (Shonkoff and Phillips 2000). Between the ages of 3 and 5, children develop complex social and emotional capabilities, as well as problem-solving and pre-literacy skills that serve as the foundation for future learning (Center on the Developing Child at Harvard University 2007). Research has shown that social, emotional, and behavioral skills, such as cooperation, self-control, and the ability to regulate emotions, are associated with early school success (Raver and Knitzer 2002). Additionally, findings suggest that the development of cognitive skills at school-entry, such as early math and reading skills, are highly predictive of later academic success (Duncan et al. 2007). Programs and services that enhance school readiness include not only programs focused on quality early childhood care and education, but also programs that focus on improving children's health, raising families' incomes, and improving parenting practices (Child Trends 2001).
- *Pre-kindergartners and kindergartners disproportionately live in vulnerable families.* In 2007, 43 percent of the nation's children ages 3 through 4, and 42 percent of children age 5, lived in low-income families, defined as families earning less than 200 percent of the federal poverty level (Douglas-Hall and Chau 2008). The rate of children ages 3 through 5 living below the federal poverty line has risen to 21.1 percent in 2008 from 20.7 percent in 2007 (U.S. Census Bureau 2009). Further, at the time of the 2000 U.S. Census, 23 percent of children ages 3 through 5 lived in single-parent households, and 21 percent of these children had a parent that did not work (Hernandez et al. 2004). Additionally, about one in five children (21 percent) ages 3 through 5 lived in immigrant families (Hernandez et al. 2004).
- *Children from low-income families are more likely to lag behind developmentally when they enter kindergarten, creating disparities that can set the stage for long-term disadvantage.* Kindergartners from low-income families lag behind their peers in cognitive, social-emotional, and physical development (Gershoff 2003). Kindergartners who fall behind in the development of social and emotional skills, lack cognitive skills, and have health problems are disproportionately boys, non-Hispanic blacks, and children from low-income families (Wertheimer et al. 2003). Such findings are particularly concerning given that disadvantages at kindergarten entry can influence long-term patterns of learning and achievement (Shonkoff and Phillips 2000).
- *High-quality care and education during the pre-kindergarten years is associated with better developmental outcomes yet remains unaffordable for many families.* Findings show that children who experience higher-quality pre-kindergarten have stronger skills in their first year of school (Peisner-Feinberg et al. 2001). Research suggests that child care quality is an especially important factor in the developmental trajectories of children from economically disadvantaged families (Votruba-Drzal, Coley, and Chase-Lansdale 2004). The qual-



ity of child care in the United States is variable and inequitably distributed, as high-quality child care remains unattainable for many families whose incomes are not high enough to afford such care, but not low enough to qualify for subsidized child care (Shonkoff and Phillips 2000).

- *Scientifically rigorous evaluations of several model pre-kindergarten and early intervention programs document positive and often lasting effects.* Several programs have received rigorous, random assignment evaluations and have shown positive effects, including the High/Scope Perry Preschool Program, a pre-kindergarten program for children in poverty that operated in Ypsilanti, Michigan, from 1962 to 1967 (Schweinhart 2004); the *Abecedarian Project*, a North Carolina early educational program for children from low-income families that included full-day child care beginning in early infancy (Campbell et al. 2002); Chicago's Child Parent Center pre-kindergarten program, a center-based enrichment and family services program for Title I-funded at-risk pre-kindergartners (Reynolds et al. 2007); and *Head Start*, a federally funded, center-based program that provides comprehensive services to economically disadvantaged pre-kindergartners and their families and has had a large national random assignment evaluation (DHHS 2005). In addition to these programs targeted at disadvantaged children, benefits of universally available pre-kindergarten (pre-K) programs are also documented. Studies show, for example, that Oklahoma's universal pre-K program has positive effects on children's language and cognitive test scores and enhances the school readiness of participating children (Gormley and Gayer 2005; Gormley and Phillips 2005; Gormley et al. 2005).
- *Research documents the long-term economic benefits of investing in interventions for pre-kindergarten children.* For example, a cost-benefit analysis (following children through age 21) of the Chicago Child Parent Center

pre-kindergarten program estimates a return of \$7.14 for every dollar invested through increased economic well-being and tax revenues, as well as government savings on school remedial services, the criminal justice system, and crime-victim expenditures (Reynolds et al. 2002). Additionally, based on estimates from the High/Scope Perry Preschool study, the program has an economic rate of return of roughly 16-to-1 through age 40, with an investment of \$15,166 returning \$244,812 per participant (in 2000 dollars). Such a high rate of return is driven by savings related to crime, education, welfare, and taxes from higher earnings (Schweinhart 2004). Cost-benefit analyses of universally accessible pre-kindergarten programs also suggest returns in this type of investment, although to a lesser extent than those seen for high-quality programs serving the most educationally disadvantaged children (Aguirre et al. 2006; Karoly and Bigelow 2005).

- *The transition from pre-kindergarten to kindergarten and the early elementary grades is a crucial developmental time for young children and important to their future success.* Theories of children's development reflect the importance of supporting children and their families during transition from early education to more formal school settings (Entwisle 1995). Specifically, creating a solid foundation for learning is contingent on providing coordinated and enhanced services to children and their families in each of the years between pre-kindergarten and third grade (Shore 2009). For example, early childhood interventions that continue into the elementary grades, such as the Chicago Child Parent Center and Expansion Program, a school-based enrichment and family services program for children in pre-kindergarten through the third grade, help prevent earlier gains in learning from fading over time (Reynolds, Magnuson, and Ou 2006). In a 19-year follow-up study of children in low-income



families participating in the Child Parent Center program, those who continued in the program beyond their pre-kindergarten years into the primary grades had higher educational attainment, higher rates of full-time employment, as well as lower levels of out-of-home placement, need for public aid, and violent crime (Reynolds et al. 2007).

- *Childhood obesity, a social problem that has increased in magnitude over the past 20 years, is associated with many adverse health outcomes and affects a significant portion of pre-kindergartners and kindergartners.* Although we may not think of pre-kindergartners and kindergartners as having high obesity rates, research finds that roughly 12 percent of children ages 2 through 5 were obese in 2003–2006, with higher rates for non-Hispanic black and Mexican American children (Ogden, Carroll, and Flegal 2008). Additionally, research suggests that parental income and neighborhood socioeconomic quality are negatively related to obesity

(Balistreri and Van Hook 2009; Black and Macinko 2008). Obesity in childhood, as in adulthood, is associated with a number of negative health outcomes, from type 2 diabetes to certain forms of cancer (Freedman et al. 2007). Research suggests that obese children are more likely than children of a healthy weight to become obese adults (Whitaker et al. 1997), which is particularly concerning given the estimated costs of obesity in adulthood. A study by Finkelstein et al. (2003) found that obesity-related expenditures for adults account for \$51.5 to \$78.5 billion annually, half of which are paid for by Medicare and Medicaid.

Given the importance of these early years, how much does the federal government invest in pre-kindergartners and kindergartners? Where and how is the money spent? And in what direction does federal investment in pre-kindergartners and kindergartners seem to be headed given current legislation? This report provides first-time estimates to answer these questions.



METHODS

Calculating federal expenditures on pre-kindergartners and kindergartners is a difficult exercise. How should one define a pre-kindergartner and kindergartner? Which federal programs benefit this population, and what are the best data sources to use? How much of a benefit to families with pre-kindergartners and kindergartners should be allocated to the children compared with their parents? And should analysis consider tax reductions, along with direct spending programs and refundable portions of tax credits? For many of these questions, no clear answer exists. Instead, we must make judgments based on expert advice and available data.

Fortunately, such a task was simplified in this report and a companion report on spending on children ages 6 to 11 (Vericker et al. 2010), as we built on the methods and estimates developed for prior work on children's budgets conducted at the Urban Institute and the Brookings Institution. Specifically, two reports provide guidance in the estimation of federal spending on pre-kindergartners and kindergartners: *Kids' Share: An Analysis of Federal Expenditures on Children through 2008* (Isaacs et al. 2009) and *Federal Expenditures on Infants and Toddlers in 2007* (Macomber et al. 2009).⁴ A complete description of the methods is provided in the *Data Appendix to Federal Expenditures on Pre-kindergartners and Kindergartners in 2008 and Federal Expenditures on Elementary-Age Children in 2008*, a separate publication.⁵

The basic methodology for estimating federal expenditures on children involves a review of more than 100 federal programs, including programs that serve children exclusively, programs with explicit child components or payments to child clients, and programs that pay benefits to families with children (see table 1 for a comprehensive list of the programs reviewed). For each program, we apply to program outlay estimates, a children's

share of spending and then a share of spending for pre-kindergartners and kindergartners. These shares are derived from detailed programmatic data collected from a variety of sources.

We discuss federal expenditures in two broad categories—*outlays*, which include spending programs (e.g., Medicaid) and refundable portions of tax credits (e.g., the Earned Income Tax Credit [EITC]), and *reductions in taxes* (e.g., the dependent exemption and the nonrefundable portions of the EITC). On occasion, to capture the full effect of tax provisions, we combine the refundable portions of tax credits and reductions in taxes into a category called tax programs.

We also calculate total public investment, incorporating state and local spending. To obtain estimates of state and local spending, we relied heavily on estimates for 2004 from a report by researchers at the Rockefeller Institute (Billen et al. 2007). Patricia Billen, coauthor of the report on state and local expenditures, consulted with the authors of our earlier children's budget reports in an effort to improve consistency in methodological approaches in measuring federal and state and local expenditures.

In estimating planned federal expenditures on pre-kindergartners and kindergartners for



TABLE 1. Federal Expenditures on Pre-Kindergartners and Kindergartners in 2008, Children Age 3 through 5, by Category and by Program

	Spending (\$millions)	As percent of total expenditures on children age 3 through 5	As percent of total program spending
SOCIAL SERVICES	9,075	15	
Head Start	6,174		90
Child Care and Development Block Grant	1,921		39
Other social services ^a	980		
HEALTH	7,250	12	
Medicaid	6,119		3
SCHIP	551		8
Other health ^b	580		
NUTRITION	6,580	11	
Supplemental Nutrition Assistance Program/Food Stamp Program	4,015		10
Child nutrition	1,726		12
Supplemental Nutrition Program for Women, Infants, and Children	836		14
Other nutrition ^c	3		
INCOME SECURITY	5,240	9	
Temporary Assistance for Needy Families	2,421		14
Supplemental Security Income	1,068		2
Social Security	988		*
Child support enforcement	577		16
Other income security ^d	185		
EDUCATION	4,593	8	
Education for the handicapped	1,857		15
Education for the disadvantaged (Title I)	1,705		11
Other education ^e	1,031		
Training programs ^f	0		
HOUSING	2,220	4	
Section 8 Low-Income Housing Assistance	1,813		7
Other housing ^g	406		
REFUNDABLE PORTIONS OF TAX CREDITS	13,245	22	
Earned income tax credit (outlays)	7,297		16
Child tax credit (outlays)	5,948		17
REDUCTIONS IN TAXES	12,272	20	
Dependent Exemption	4,996		15
Child tax credit (nonrefundable portion)	4,969		17
Earned income tax credit (nonrefundable portion)	867		16
Dependent care credit	857		28
Other tax provisions ^h	583		
TOTAL EXPENDITURES ON PRE-KINDERGARTNERS AND KINDERGARTNERS (outlays and reductions in taxes)	60,475	100	
OUTLAYS SUBTOTAL (all spending programs and refundable portions of tax credits)	48,203	80	
TAX EXPENDITURES SUBTOTAL (reductions in taxes)	12,272	20	

Source: The Urban Institute and The Brookings Institution, 2010. Authors' estimates based on the *Budget of the United States Government Fiscal Year 2010*.

Notes: * Less than 1 percent.

(a) Other social services includes foster care, adoption assistance, Social Services Block Grant, community services block grant, children and families services programs, child welfare services, child welfare trainings, juvenile justice, missing children, family preservation and support, and children's research and technical assistance.

(b) Other health includes Medicaid—vaccines for children, immunization, children's mental health services, emergency medical services for children, birth defects/developmental disabilities, children's graduate medical education, and lead hazard reduction. (c) Other nutrition includes Commodity Supplemental Food Program and Special Milk. (d) Other income security includes veterans benefits, railroad retirement, and black lung disability. (e) Other education programs includes school improvement, dependents' schools abroad, Impact Aid, Indian education, English language acquisition, domestic schools, American Printing House for the Blind, Gallaudet University (pre-college programs), innovation & improvement, safe schools & citizenship education, hurricane education recovery, and education expenses for children of employees, Yellowstone National Park. (f) No training programs are targeted toward pre-kindergartners and kindergartners. (g) Other housing includes low-rent public housing, Low Income Home Energy Assistance, rental housing assistance, and rent supplement. (h) Other tax provisions includes exclusion of employer-provided child care, exclusion for public assistance benefits, certain foster care payments, veterans death benefits and disability compensation, Social Security disability benefits, Social Security retirement and dependents & survivors' benefits, veterans pensions, special benefits for disabled coal miners, and railroad retirement benefits, along with assistance for adopted foster children, the adoption credit and exclusion, and the employer-provided child care credit.



future years, we rely on the projections of federal spending on all children (children birth to 18), supplied in Isaacs et al. 2009. We choose budgetary projections for what is likely to happen to federal programs under a “current policy” or “baseline” scenario that assumes continuation of current law and policy. However, these budget projections do assume the extension of expiring tax provisions. In general, we rely on outlays projections from the Congressional Budget Office and tax expenditure projections from the Urban-Brookings tax model and the Office of Management and Budget.⁶

Limitations

This report presents a comprehensive examination of the federal investments in the lives of pre-kindergartners and kindergartners, but several caveats and limitations should be kept in mind:

- We do not reach conclusions on the efficiency, success, or worth of a particular type of program or level of spending. We also are not able to assess how expenditures necessarily address need or serve the eligible populations.
- Resources for children are inextricably linked with resources for their parents, because children’s lives are inextricably linked with their parents’ and families’ lives. This presents a conceptual and practical challenge for a children’s budget, and although we have sought extensive consultation and refined

the way we calculated estimates, there is no perfect way to make these distinctions. As a result, some of what we classify as “children’s or pre-kindergartner and kindergartner’s spending” may also assist parents, and some of what we ignore as “other spending” may indeed help these children.

- Because of the large state role in K–12 education, sources of government expenditures likely differ substantially between most pre-kindergarten-age children and children old enough to attend kindergarten. Thus, it is important to note that children attending kindergarten likely receive more state resources than those who do not. Also, state and local roles in K–12 education do vary between states. These points are relevant to the section of the report on the relative size of state and local spending compared with federal spending on pre-kindergartners and kindergartners.
- While the state and local comparison estimates provide a baseline for thinking about different governmental roles, the shares of expenditures attributable to federal and state and local resources may have shifted since 2004, especially when considering the impact of the 2008 recession on state and local budgets. In addition, a number of assumptions are made in order to bridge 2004 state and local estimates on all children with our 2008 federal estimates for pre-kindergartners and kindergartners.⁷



HOW MUCH IS SPENT ON PRE-KINDERGARTNERS AND KINDERGARTNERS?

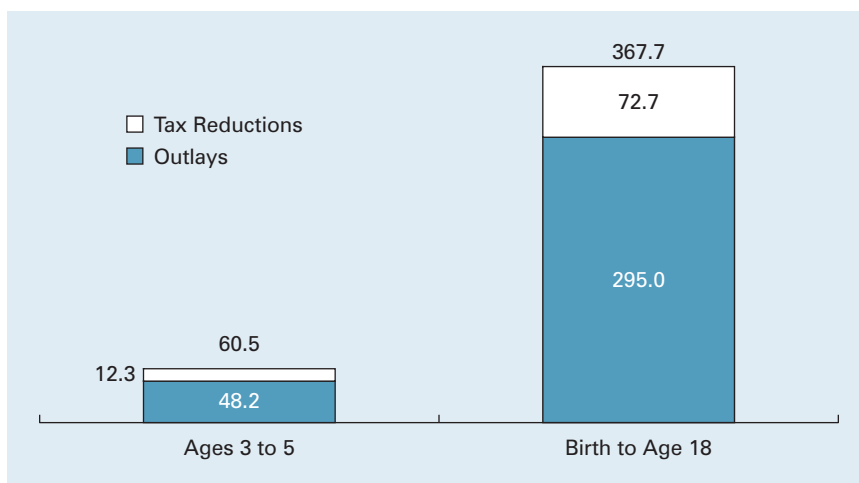
Federal expenditures on pre-kindergartners and kindergartners amounted to \$60.5 billion in 2008 (figure 1). The federal government spent \$48.2 billion through outlays and allocated \$12.3 billion through reductions in taxes. Of the \$48.2 billion in outlays, \$13.2 billion came via the refundable portions of the EITC and the child tax credit (CTC), which means that tax programs accounted for more than 40 percent of total expenditures on children ages 3 through 5 (\$13.2 billion in outlays and \$12.3 billion in tax reductions).

The \$60.5 billion in expenditures on pre-kindergartners and kindergartners represents 16.5 percent of the expenditures on all children from birth to age 18 in 2008.⁸ Correspondingly, the \$48.2 billion in outlays on children ages 3

through 5 is 16.3 percent of outlays on all children in 2008. These proportions are fairly similar to the share of children that are ages 3 to 5 (15.7 percent), according to Census Bureau populations.⁹

It is important to note that this report is a snapshot of federal expenditures in one year. It is not possible to know whether the \$48.2 billion in outlays or the \$60.5 billion in total expenditures represent an increase or decrease from prior years, although we do provide projections on pre-kindergartner and kindergartner spending through 2012.

FIGURE 1. Federal Expenditures on Pre-Kindergartners and Kindergartners in 2008, Children Age 3 through 5 (billions of dollars)



Source: The Urban Institute and The Brookings Institution, 2010. Authors' estimates based on the *Budget of the United States Government Fiscal Year 2010*.

Note: All children generally includes children birth through age 18.

Share of Federal and Domestic Budget

There are different ways to add context when thinking about what the \$60.5 billion spent on pre-kindergartners and kindergartners represents. One way to analyze this amount is to calculate spending on children ages 3 through 5 as a share of the total federal budget and as a share of domestic outlays. Of the \$2.98 trillion in federal outlays in 2008, approximately 1.6 percent



(\$48.2 billion) went to pre-kindergartners and kindergartners. To provide an apples-to-apples comparison, or outlays-to-outlays comparison, tax reductions on pre-kindergartners and kindergartners are not included when comparing with other spending programs in the federal budget. When domestic outlays (which exclude defense and international affairs spending) are isolated, the share devoted to pre-kindergartners and kindergartners is 2.1 percent. In comparison, children ages 3 through 5 represented 4.1 percent of the 2008 U.S. population.¹⁰

State and Local Comparison

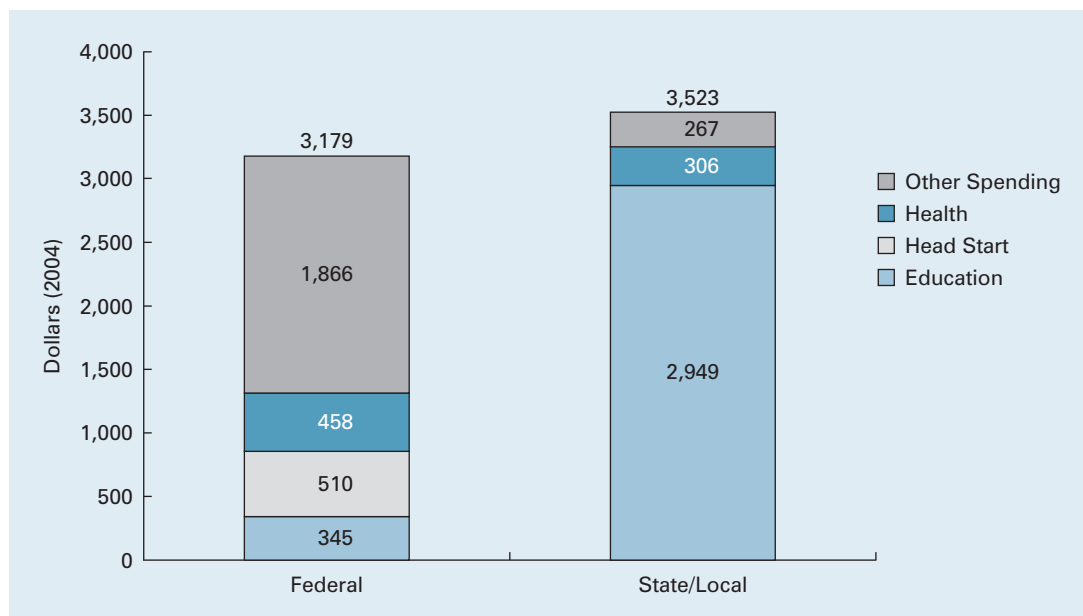
Federal spending, excluding tax reductions, can also be considered in light of state and local spending. In 2007, researchers at the Rockefeller Institute produced a comprehensive 50-state analysis of state and local spending on children in 2004. The Rockefeller report provided estimates

for all children birth to age 18, not broken down for children ages 3 through 5. However, we were able to apply methods for estimating the pre-kindergarten and kindergarten share of children's spending on education, Medicaid, and other major programs to the Rockefeller estimates. While some differences exist between their methodology and ours, we can still reasonably combine the estimates to gain a better understanding of total public investment on pre-kindergartners and kindergartners in 2004.¹¹

Both the federal government and the state and local governments play a significant role in the lives of pre-kindergartners and kindergartners (figure 2). In 2004, the federal government supplied almost half (47 percent) of public spending on children ages 3 through 5, while state and local governments provided the other half (53 percent).

It is important to note that the federal and the state and local roles are sensitive to which state the child lives in and whether the child is in

FIGURE 2. 2004 Per Capita Public Spending on Pre-Kindergartners and Kindergartners, Children Age 3 through 5, by Category



Source: The Urban Institute and The Brookings Institution, 2010. Federal estimates are the authors' estimates; state estimates are from Billen et al. (2007).

Notes: Tax expenditures are not included at either the federal or the state/local level. Other spending includes spending on income security, social services, nutrition, housing, and tax credits. Reductions in federal taxes are not included to improve comparability with state estimates. Excluding reductions in federal taxes from the federal estimate improves comparability to the state estimate, because the state researchers did not collect information on child or dependent exemptions or other types of tax reductions. Even so, the estimates are not completely consistent. For example, the tax credits in the state estimate include the full value of the state earned income tax credits while the tax credits in the federal estimate include the refundable portions of both the earned income tax credit and the child tax credit. All children generally includes children birth through age 18.



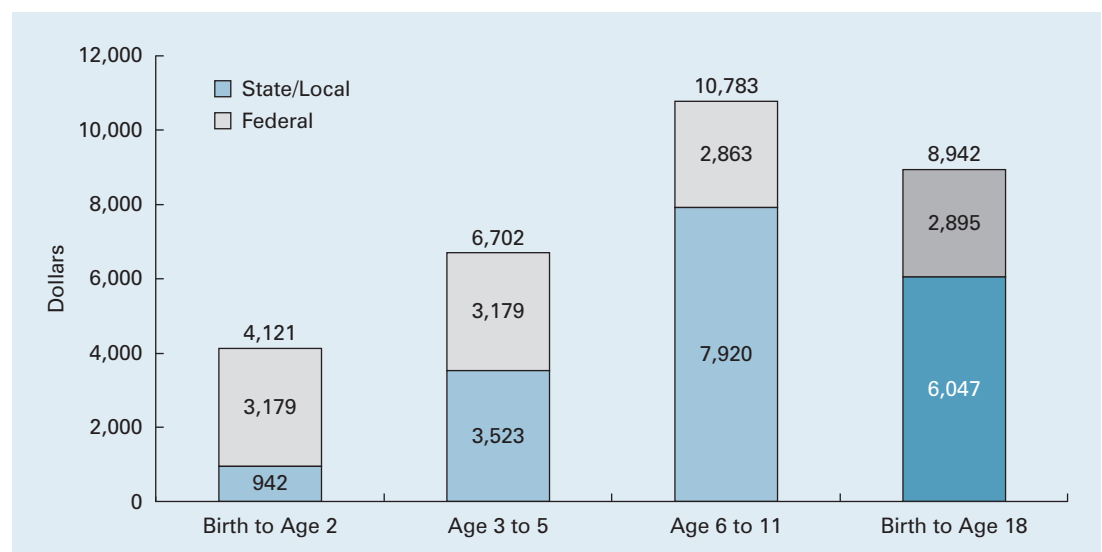
pre-kindergarten or kindergarten. Thus, this relationship may not hold if broken down by state or by age. State and local governments are the primary funders of K–12 education and account for roughly 90 percent of elementary and secondary school expenditures (Snyder, Dillow, and Hoffman 2009).¹² Many states, however, still significantly invest in pre-kindergartners; across the nation, states served more 3- and 4-year-olds in state-run pre-kindergarten programs than the federally funded Head Start program did from 2007 to 2008 (Early Ed Watch 2009). Nevertheless, while the federal and the state and local governments play roughly equal roles in the lives of pre-kindergartners and kindergartners nationally, we would expect this relationship to shift somewhat by state and by age within the 3-to-5 age group.

In 2004, public investment totaled \$6,702 per child age 3 through 5 (figure 3).¹³ Of this, the federal government spent on average \$3,179, the majority of which came through programs other than health, education, and Head Start spending. Specifically, an estimated 59 percent of federal dollars was devoted to other spending programs in 2004, such as tax and nutrition programs.

In contrast, state and local governments primarily allocated their resources to education programs, as 84 percent of the state and local total (\$3,523 per capita) was spent on education in 2004. Overall, education and Head Start spending contributed to almost 60 percent of all public investment in pre-kindergartners and kindergartners in 2004.

While our estimates provide a baseline for thinking about different governmental roles, the shares of spending attributable to federal and state and local resources may have shifted since 2004, for many reasons. At the state level, these reasons include both state efforts to increase investment in pre-kindergarten programs and the possibility of state decreases in funding, especially when considering the impact of the 2008 recession on state and local budgets. As of November 2009, 48 states had addressed or encountered budget shortfalls for fiscal year 2010, amounting to \$190 billion or 28 percent of state budgets (McNichol and Johnson 2009). As a consequence, the relative role of the federal government in pre-kindergarten and kindergarten investment may fluctuate not only because of changes in federal spending, but also as states and localities continue to feel the effects of the

FIGURE 3. 2004 Per Capita Public Spending on Children, by Age Group and by Source



Source: The Urban Institute and The Brookings Institution, 2010. Federal estimates are the authors' estimates; state estimates are from Billen et al. (2007).
Note: Tax expenditures are not included at either the federal or state/local level.



deep recession. Moreover, given the relatively substantial role of state spending, the overall level of public investment in pre-kindergartners and kindergartners could be reduced if the federal government fails to compensate for any state shortfalls that result in spending cuts on children ages 3 through 5.

Relative to Other Age Groups

Comparing outlays on pre-kindergartners and kindergartners to spending on other age groups provides additional context when thinking about federal priorities (figure 2). For instance, the \$3,179 spent federally on the average pre-kindergartner and kindergartner is equal to the amount spent on the average infant and toddler in 2004 and is approximately \$300 more than the average amount spent on an elementary-age child. Although the federal government spends similar average amounts on children of different age groups, the programs through which federal dollars flow differ (Macomber et al. 2010). Additionally, federal spending on the elderly surpasses spending on pre-kindergartners

and kindergartners by a ratio of nearly 7 to 1 when measured on a per-capita basis. In 2004, the federal government spent \$21,144 per person age 65 and older, according to estimates of Isaacs (2009), or 6.7 times higher than the \$3,179 per capita federal estimate for children ages 3 through 5.

When state and local spending is included with federal dollars, more-striking differences between spending on children of different ages appear. In particular, total spending on pre-kindergartners and kindergartners is less than two-thirds of total spending on elementary-age children. In contrast, when state and local spending is included, spending on infants and toddlers would have to increase by 63 percent to reach spending levels for pre-kindergartners and kindergartners. State and local spending on the elderly is quite low and, as a result, total public investments are more balanced but still favor the elderly by a factor of more than 3 to 1. Specifically, in 2004, total public investments in the elderly were estimated to be \$21,904 per elderly person, compared with \$6,702 per child age 3 through 5 (Isaacs 2009).



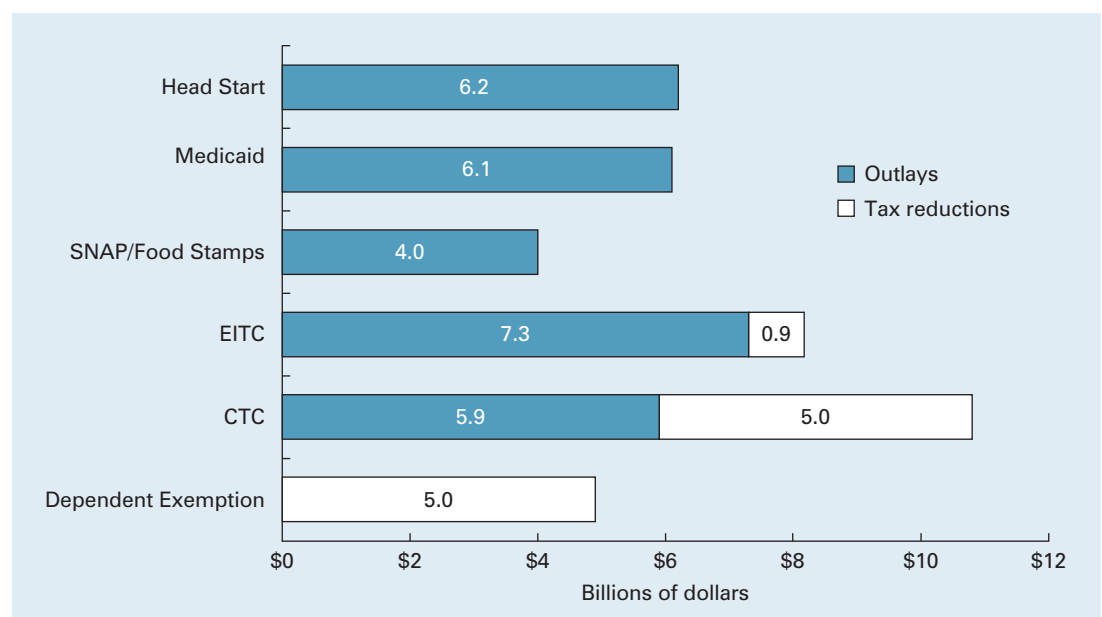
WHERE ARE FUNDS SPENT?

Six programs represent 67 percent of the \$60.5 billion in expenditures on pre-kindergartners and kindergartners (figure 4). Of these six programs, three are tax programs (the child tax credit; EITC; and the dependent exemption), and the other three are Head Start (social services program), Medicaid (health program), and the Supplemental Nutrition Assistance Program (nutrition program).¹⁴ Only one of these six largest programs—Head Start—places an emphasis on serving children 3 to 5 years old. In contrast, the Medicaid program contributes a similar level of resources to pre-kindergartners and kindergartners as Head Start (\$6.1 vs. \$6.2 billion), but this constitutes only 3 percent of all Medicaid spending.

Twenty-three percent of federal expenditures on pre-kindergartners and kindergartners come from programs focused specifically on the care and education of this age group (figure 5). The

major programs in this category (and highlighted in box 1) include Head Start, the Child Care and Development Block Grant (CCDBG), Education for the Handicapped, and Education for the

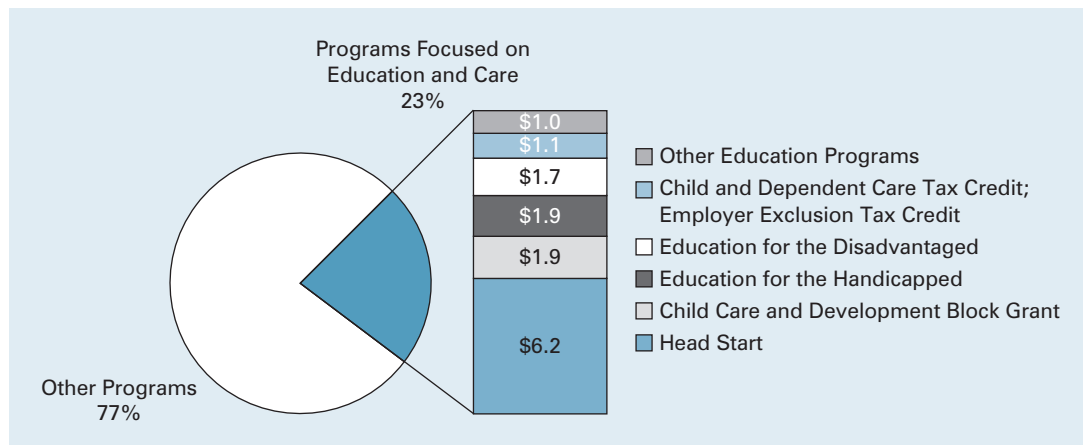
FIGURE 4. Six Largest Programs by Expenditure on Pre-Kindergartners and Kindergartners in 2008, Children Age 3 through 5



Source: The Urban Institute and The Brookings Institution, 2010. Authors' estimates based on the *Budget of the United States Government Fiscal Year 2010*.
Note: See table 1 for further detail.



FIGURE 5. Expenditures on Programs Focused on Education and Care for Pre-Kindergartners and Kindergartners, Children Age 3 through 5



Source: The Urban Institute and The Brookings Institution, 2010. Authors' estimates based on the *Budget of the United States Government Fiscal Year 2010*.
Note: See table 1 for further detail.

BOX 1. Selected Programs Focused on Pre-Kindergartners and Kindergartners

Child Care and Development Block Grant (CCDBG)

CCDBG, administered by the Department of Health and Human Services (DHHS) Child Care Bureau, provides federal support to increase the affordability, availability, and quality of child care for low-income working families (Child Care Bureau 2008). CCDBG consists of three funding streams to states established by the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), including discretionary, mandatory, and matching funds (Child Care Bureau 2008). States use these funds to improve the quality and availability of child care and to subsidize child care primarily by providing vouchers to eligible families (Child Care Bureau 2008). Children age 3 through 5 composed 36 percent of children served through CCDBG in FY 2004 and FY 2005 (Child Care Bureau 2008). In FY 2005, 46 percent of children age 3 through 5 who were eligible for child care subsidies through CCDBG were enrolled in a federally funded child care assistance program, which also includes TANF- and Social Services Block Grant-funded care (DHHS 2008a). Roughly 21 percent of all eligible children birth to age 12 were served in 2005 through CCDBG. About two-thirds (67 percent) of children age 3 through 5 who received funds through CCDBG in FY 2004 received center-based care (Child Care Bureau 2008; DHHS 2008a).

Head Start

Head Start, established in 1965 to promote school readiness and provide comprehensive services to economically disadvantaged pre-kindergartners and their families, is a federally funded, primarily center-based program administered by the Department of Health and Human Services (DHHS n.d.). Educational, health, nutritional, and social services offered through the program are aimed at improving children's social and cognitive development, with an emphasis on the development of children's math and reading skills (DHHS n.d.). The program also focuses on involving parents and engaging them in their children's learning (DHHS n.d.). Though there has been some controversy concerning the effectiveness of Head Start relative to model programs, preliminary results from the first year of a scientifically rigorous evaluation of the program suggest that the program contributes small to moderate statistically significant positive effects on various cognitive constructs, problem behaviors, access to health care and health status, and parenting practices, though mostly for children who enter at 3 rather than 4 years of age (DHHS 2005). In 2006, 1,080,627 children and 10,825 pregnant women participated in Head Start programs nationwide (CLASP 2008). Only about half of the children eligible for Head Start were enrolled in the program in 2006 (Matthews and Ewen 2008).

(continued on next page)



BOX 1. (Continued) Selected Programs Focused on Pre-Kindergartners and Kindergartners

The Child and Adult Care Food Program (CACFP) (Includes Child Nutrition and Special Milk)

CACFP, authorized by the National School Lunch Act, is administered by the Department of Agriculture (USDA 2009). Originally established in 1968 to provide funding for healthy meals served to children in child care centers and family child care homes, the program has since expanded to serve children in at-risk after-school programs, shelters, and adult day care centers as well (Food Research and Action Center 2009b). The majority of the program's participants are preschool age children in child care centers, family child care homes, and Head Start programs (Food Research and Action Center 2009a). To participate in the program, centers and organizations must meet eligibility requirements based on the poverty status of their area or the income of enrolled children (Food Research and Action Center 2009a). In FY 2008, CACFP provided daily meals and snacks to more than 3 million children and about 105,000 elderly adults (Food Research and Action Center 2009b).

Education for the Handicapped/Individuals with Disabilities Education Act

The Preschool Grants Program, administered by the Office of Special Education Programs and authorized under Section 619 of Part B of the Individuals with Disabilities Education Act (IDEA), provides grants to states for special education and related services to 3- to 5-year-old children with disabilities (U.S. Department of Education 2008; DHHS 2008b). While funds are awarded to state education agencies through the Preschool Grants Program, most of this funding is distributed to local education agencies (U.S. Department of Education 2008a). The funds may be used for special education teachers' salaries as well as services such as physical and occupation therapy, speech-language pathology services, and psychological services (U.S. Department of Education 2008a). States determine criteria for identifying children with developmental delays who are eligible (U.S. Department of Education 2008a). Funding for special education for pre-kindergartners also comes through the Grants to States program, authorized under Section 611 of Part B of IDEA, which serves children with disabilities age 3 through 21 (U.S. Department of Education 2008b). In 2004, 702,000 children age 3 to 5 were served under IDEA Part B (U.S. Department of Education 2009a).

Education for the Disadvantaged

Title I of the No Child Left Behind (NCLB) Act (and formerly of the Elementary and Secondary Education Act) provides funding for disadvantaged students, which may be used for early childhood programs designed for children up to the age at which they are required to begin elementary school (CLASP 2009). The first Title I-funded early education program, the Chicago Child Parent Centers, run by the Chicago Public Schools, was established in 1967 (Ewen and Matthews 2007). State education agencies are awarded Title I funds and provide them to local education agencies (Ewen and Matthews 2007). While most of the funding is used for elementary and secondary education, school districts and schools may choose to use these funds to improve, expand, or create new early education programs such as preschool, state-funded pre-kindergarten, Head Start, and community-based child care programs (CLASP 2009; Ewen and Matthews 2007). Eligibility for the program may be based on an assessment indicating that a child is at risk of failing to meet the state's academic standards (Ewen and Matthews 2007). Three percent of students who received services funded by Title I in 2006–2007 were in pre-kindergarten, while roughly 10 percent were in kindergarten (U.S. Department of Education 2009e).^a In 2003, 456,492 children received early education services funded by Title I (Ewen and Matthews 2007).

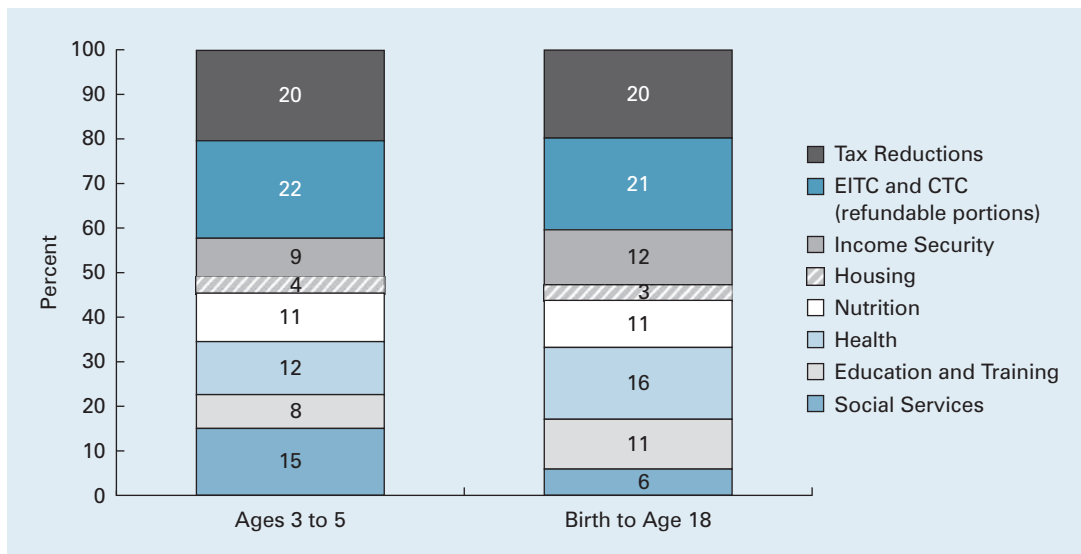
a. The 10 percent estimate assumes an equal distribution of students across grades K–5, as reported by the U.S. Department of Education.

Disadvantaged. Head Start represents the largest portion of care and education spending, with \$6.2 billion, or 90 percent of its program funding, going to children age 3 through 5. If, however, total public expenditures were considered (i.e., including state and local spending), the portion of expenditures focused on care and education would be much higher. As we have discussed, state and local spending on this age group is heavily concentrated in education programs.

We also examine federal expenditures on pre-kindergartners and kindergartners relative to all children, across a range of categories (figure 6). Overall, the federal government spends a higher percentage on children age 3 through 5 through social services programs (under which Head Start is classified) than it does for all children. One could argue that Head Start should be classified as an education program rather than a social services program, and indeed it plays an important role in



FIGURE 6. Federal Expenditures on Pre-Kindergartners and Kindergartners and All Children in 2008, by Category of Expenditure



Source: The Urban Institute and The Brookings Institution, 2010. Authors' estimates based on the *Budget of the United States Government Fiscal Year 2010*. Notes: Education spending on all children includes spending on training programs for older youth. All children generally includes children birth through age 18. Percentages shown may not total 100 due to rounding.

school readiness. However, we classify Head Start as a social services program, following standard budget categories and reflecting the comprehensiveness of services provided (e.g., health, dental, developmental services), as well as the program's administration by the U.S. Department of Health and Human Services. When combined, social services and education programs make up almost one quarter (23 percent) of federal spending on children age 3 through 5, compared to 17 percent for all children. The federal government spends relatively less on pre-kindergartners and kindergartners in the categories of health and income security.

Social Services (\$9.1 billion on pre-kindergartners and kindergartners)

Social services spending on children is heavily targeted toward pre-kindergartners and kindergartners, with 42 percent (\$9.1 billion) of social services spending on all children going to those between the ages of 3 and 5. Social services represent 15 percent of all expenditures on children age 3 through 5, compared with 6 percent for all

children. Spending on Head Start, which focuses 90 percent of its program's funds on children age 3 through 5, is the primary source of social services spending and individually accounts for 10 percent of overall spending on pre-kindergartners and kindergartners (table 1).¹⁵ Again, it is important to note that as of 2006, Head Start served only about half of its eligible population, and from 2007 to 2008, it served fewer 3- and 4-year-olds than state pre-kindergarten programs (Early Ed Watch 2009; Matthews and Ewen 2008). Another large program within the social services category is CCDBG, which spent 39 percent of its budget, or \$1.9 billion, on pre-kindergartners and kindergartners in 2008. As of 2005, this program served approximately 21 percent of all eligible children age 12 and younger (DHHS 2008a).

Education (\$4.6 billion on pre-kindergartners and kindergartners)

Chiefly driven by Education for the Handicapped and Education for the Disadvantaged, education spending totaled \$4.6 billion in 2008 (table 1).



Of the larger education programs, Education for the Handicapped focused the most on children age 3 to 5, with 15 percent of its funding (\$1.9 billion) going to this age group. Education for the Disadvantaged spent a similar amount (\$1.7 billion; 11 percent of its funding) on this age group. These two programs respectively represent 3 percent of total expenditures on pre-kindergartners and kindergartners. Children age 3 through 5 receive proportionally less in federal education dollars (8 percent) than all children (11 percent).

Health *(\$7.3 billion on pre-kindergartners and kindergartners)*

Pre-kindergartners and kindergartners received \$7.3 billion in health spending in 2008, which is proportionally less than expenditures on health received by all children (table 1). Specifically, health spending accounts for 12 percent of expenditures on children age 3 through 5, while totaling 16 percent for all children. The majority of health spending is attributable to the Medicaid program: 3 percent of Medicaid funding, or \$6.1 billion, goes toward pre-kindergartners and kindergartners. The other major children's health program, SCHIP, spent \$0.6 billion on children age 3 through 5 in 2008.

Medicaid is funded through both federal and state resources. With the 2008 recession affecting both state budgets and the number of children (and adults) in need of public health insurance, there are certainly questions about future trends in the level and composition of public spending for health. Congressional deliberations on health reform and the role of Medicaid and SCHIP in children's health insurance coverage under reform add additional uncertainties about the future. We do not try to explore these issues in this paper; instead we rely on projections of current policy.

Nutrition *(\$6.6 billion on pre-kindergartners and kindergartners)*

Similar to spending on all children, nutrition programs amount to 11 percent of total expenditures on pre-kindergartners and kindergartners. Specifically, nutrition programs spent \$6.6 billion on children age 3 through 5 in 2008 (table 1). Nutrition spending for this age group is primarily driven by SNAP/Food Stamps, which devotes 10 percent (\$4.0 billion) of its budget to children age 3 through 5. The Child and Adult Care Food Program (CACFP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) together spent \$2.6 billion on pre-kindergartners and kindergartners in 2008.

Housing *(\$2.2 billion on pre-kindergartners and kindergartners)*

Spending on housing programs totaled \$2.2 billion for children age 3 to 5 in 2008 (table 1). Housing programs make up 4 percent of total expenditures on pre-kindergartners and kindergartners, roughly comparable to housing spending on all children (3 percent). The Section 8 low-income housing assistance program allots \$1.8 billion to children age 3 through 5 and accounts for more than 80 percent of housing spending on this age group.

Income Security *(\$5.2 billion on pre-kindergartners and kindergartners)*

Income security programs accounted for \$5.2 billion of federal spending on pre-kindergartners and kindergartners (table 1). Of this, the Temporary Assistance for Needy Families program (TANF) spent \$2.4 billion, or 14 percent of program spending. Income security programs represent 9 percent of the total expenditures on children



age 3 through 5, compared with 12 percent for all children. The difference is explained by two large programs—Social Security and Supplemental Security Income (SSI)—both of which primarily benefit older children.

Refundable Portions of Tax Credits (*\$13.2 billion on pre-kindergartners and kindergartners*)

Represented by the refundable portions of the EITC and CTC, refundable tax credits provided \$13.2 billion dollars to pre-kindergartners and kindergartners (table 1). This amount accounts for more than one-fifth (22 percent) of total federal expenditures on children age 3 through 5 and is similar to the share devoted to all children (21 percent). The EITC alone spent \$7.3 billion on pre-kindergartners and kindergartners in 2008. Due to the 2008 \$300 CTC credit passed to stimulate the economy, the refundable portion of the CTC is particularly large in 2008, amount-

ing to \$5.9 billion, or 10 percent of all spending on pre-kindergartners and kindergartners.

Reductions in Taxes (*\$12.3 billion on pre-kindergartners and kindergartners*)

Tax reductions—through exemptions, deductions, and tax credits—supply \$12.3 billion in benefits to pre-kindergartners and kindergartners, which amounts to 20 percent of overall expenditures in this age group (table 1). The two largest programs—the dependent exemption and CTC (nonrefundable portion)—both allot \$5.0 billion to children age 3 through 5. Additionally, the child and dependent care tax credit (CDCTC) spends 28 percent of total program funding, or \$0.9 billion, on pre-kindergartners and kindergartners. When combined with the refundable portion, CTC is largest program benefitting children age 3 through 5 in 2008, providing \$10.9 billion in total benefits.¹⁶



HOW ARE FUNDS SPENT?

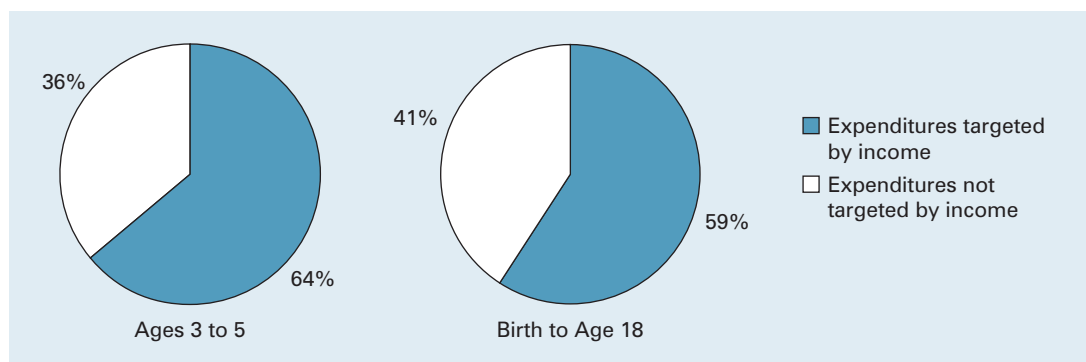
Federal expenditures on children are frequently “means-tested,” meaning programs target their benefits toward low-income families versus being “universally available” like public education. Income targeting is particularly true for federal expenditures on pre-kindergartners and kindergartners; almost two-thirds of expenditures on this age group were directed toward low-income families in 2008. Below, we assess the distribution of expenditures by looking at the portion of expenditures on children age 3 through 5 that is targeted to them based on their families’ incomes. In addition, to further examine how benefits are provided, we also consider four expenditures categories: in-kind benefits, cash payments, the refundable portions of tax credits, and tax reductions.

Targeting on Low-Income Children

Relative to all children, federal expenditures on pre-kindergartners and kindergartners are more likely to be targeted by income. In 2008, 64 percent of expenditures on children age 3 through 5 were means-tested versus 59 percent for all children (figure 7). Looking closer, spending programs on pre-kindergartners and kindergartners (excluding tax reductions) are even more likely to

use means-testing; 87 percent allocate benefits based on income relative to 78 percent for all children (table 2). Some of these programs are restricted to families with incomes below 130 percent of the federal poverty level (e.g., Head Start and SNAP/Food Stamps), others are focused on families below 185 percent of the federal poverty level (e.g., WIC and CACFP), and some are determined by limits set by states (e.g., child care assistance).

FIGURE 7. *Percent of Federal Expenditures Targeted by Income on Pre-Kindergartners and Kindergartners and All Children in 2008*



Source: The Urban Institute and The Brookings Institution, 2010. Authors' estimates based on the *Budget of the United States Government Fiscal Year 2010*.

Notes: Figure includes tax expenditures (including the dependent exemption) on pre-kindergartners and kindergartners. See notes in table 2. All children generally includes children birth through age 18.



TABLE 2. Federal Expenditures on Pre-Kindergartners and Kindergartners in 2008, Children Age 3 through 5, by Program Targeting Based on Family Income

	Expenditures targeted by income (billions of dollars)	Expenditures NOT targeted by income (billions of dollars)	Total expenditures (billions of dollars)	Percent targeted by income
<i>Expenditures on Ages 3 to 5</i>				
Spending Programs	30.4	4.5	35.0	87
EITC and CTC (refundable portions)	7.3	5.9	13.2	55
Total spending	37.7	10.5	48.2	78
Tax reductions	0.9	11.4	12.3	7
Total spending and tax reductions	38.6	21.8	60.5	64
<i>Expenditures on Children Birth to Age 18</i>				
Spending Programs	170.2	49.1	219.3	78
EITC and CTC (refundable portions)	41.7	34.0	75.8	55
Total spending	211.9	83.2	295.0	72
Tax reductions	5.2	67.4	72.7	7
Total spending and tax reductions	217.1	150.6	367.7	59

Source: The Urban Institute and The Brookings Institution, 2010. Authors' estimates based on the *Budget of the United States Government Fiscal Year 2010*.

Notes: Among other tax programs, the "reductions in taxes" categories include the nonrefundable portions of both the EITC and the child tax credit. Apart from the EITC and the exclusion from public assistance benefits, tax programs that are broadly available are characterized as "expenditures not targeted by income," even though several of them, such as the child tax credit and the child and dependent care tax credit, phase out at high-income thresholds.

The explanation for the targeting difference between children age 3 through 5 and all children primarily stems from education and income security spending patterns. Specifically, many of the education programs such as School Improvement, Impact Aid, and Vocational Education are not means-tested and go primarily to children older than 5. In addition, the largest income security program, Social Security, is not targeted by income and primarily benefits children older than 5, whereas SSI, the second-largest income security program, is means-tested and spends a higher percentage of its benefits on pre-kindergartners and kindergartners.

Roughly half (55 percent) of refundable tax credits devoted to pre-kindergartners and kindergartners are targeted by income. In other years, the percent targeted by income would be higher; however, the CTC, which is not considered a means-tested program, was much larger in 2008 due to a one-time \$300 credit. Seven percent of tax reductions were targeted by income, as only two programs—EITC and the Exclusion for

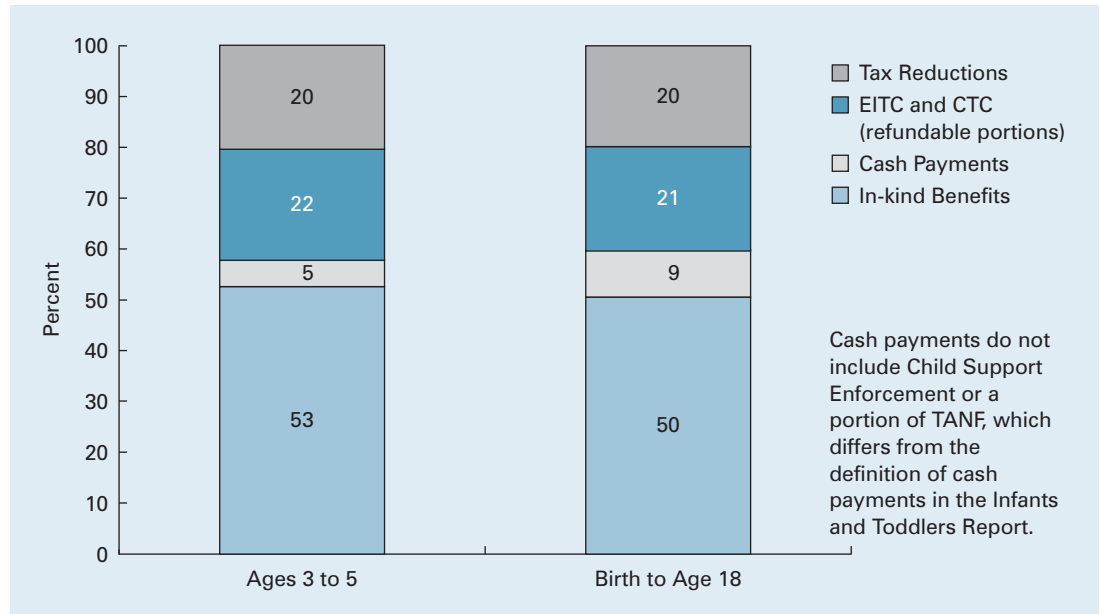
Public Assistance Benefits—are classified as means-tested programs in our analysis.

In-Kind Benefits

In 2008, the federal government delivered roughly half of its expenditures (53 percent) for pre-kindergartners and kindergartners in the form of in-kind, or noncash, benefits (figure 8). In-kind benefits include programs providing services (such as social services, health services, and education), and programs providing households with vouchers for specific benefits (such as SNAP/Food Stamps, WIC, or Section 8 Low-Income Housing Assistance). For this analysis, the TANF program, which has recently shifted away from providing families with cash payments, is separated into both in-kind benefits and cash payments categories. Specifically, we estimate that TANF spent \$1.5 billion in in-kind benefits and \$0.9 billion in cash payments toward pre-kindergartners and kindergartners in 2008.



FIGURE 8. Federal Expenditures on Pre-Kindergartners and Kindergartners and All Children in 2008, by Type of Expenditure



Source: The Urban Institute and The Brookings Institution, 2010. Authors' estimates based on the *Budget of the United States Government Fiscal Year 2010*.
Note: All children generally includes children birth through age 18.

Cash Payments

Cash payments were the smallest form of federal expenditures and were lower for pre-kindergartners and kindergartners (5 percent) when compared with all children (9 percent) in 2008 (figure 8). The majority of programs in the income security category—specifically, Social Security, SSI, Railroad Retirement Benefits, and Veterans' Benefits—explain most of the discrepancy between the ages, as children ages 3 through 5 receive proportionally less benefits from these programs when compared to older children.

Refundable Portions of Tax Credits

Refundable tax credits, which consist of the refundable portions of the EITC and CTC, were 22 percent of total expenditures on pre-kindergartners and kindergartners in 2008 (figure 8). Comparable to the all-children share (21 percent), refundable portions of tax credits are a particularly high portion of expenditures in 2008 because of a one-

time \$300 CTC credit. Typically, the refundable portion of EITC is responsible for a larger share of spending in this category; however, in 2008, the CTC represented 45 percent of the refundable portions of tax credits devoted to pre-kindergartners and kindergartners.

Reductions in Taxes

Similar to the proportion of expenditures on all children, tax reductions account for one-fifth (20 percent) of total expenditures on children age 3 through 5 (figure 8). In this analysis, tax reductions include the dependent exemption, the nonrefundable portions of the EITC and CTC, the CDCTC, the exclusion and credit for employer-provided child care, and a number of other exclusions. The CDCTC, along with the exclusion and credit for employer-provided child care, particularly benefits pre-kindergartners and kindergartners, as a relatively high proportion of each program is devoted to children age 3 through 5 (table 1).



WHAT ARE THE FUTURE TRENDS IN EXPENDITURES ON PRE-KINDERGARTNERS AND KINDERGARTNERS BASED ON CURRENT POLICY?

This final section offers projected estimates for how pre-kindergartners and kindergartners will fare in the federal budget over the next five years. These projections of future spending reflect legislation enacted through March 2009, including the public investments made by the federal government through the American Recovery and Reinvestment Act of 2009 (ARRA). The estimates show how spending on children age 3 through 5 is projected to increase as a result of ARRA in the near future (2008 to 2010), followed by a drop in spending when ARRA expires.

In addition, monitoring spending trends over time will be particularly important as a number of children's programs come before Congress and the Obama administration for reauthorization (box 2). Any changes in policy or spending levels for these programs could dramatically affect overall spending on this age group. Thus, highlighting spending trends will help others to gauge and monitor the priorities and progress of Congress and the Obama administration.

The methodology employed in our projections, described in greater detail in our methodology section above, is based on continuation of current law and policy, with the exception that we assume expiring tax provisions will be extended. We only present projections for broad expenditure categories rather than more detailed groupings given the number of significant pol-

icy and budgetary changes Congress and the Obama administration are currently considering, to which smaller groupings would be very sensitive.

Federal expenditures on pre-kindergartners and kindergartners amounted to 0.43 percent of GDP in 2008 (figure 9). Spending programs make up the largest share of expenditures as a percent of GDP (0.25 percent), and the refundable portions of the EITC and CTC and tax reductions each make up an additional 0.09 percent.

Expenditures on pre-kindergartners and kindergartners are projected to increase in 2009 and 2010 because ARRA included substantial increases in spending on Head Start, CCDBG, Education for the Handicapped, and Education for the Disadvantaged. Additionally, ARRA increases spending in major programs



BOX 2. Selected Programs Facing Reauthorization

Child Nutrition

Expenditures on Pre-Kindergartners and Kindergartners: 12 percent of program expenditures/\$1.7 billion

The Child Nutrition and WIC Reauthorization Act supports programs that provide healthy meals and snacks to children in need, including the Child and Adult Care Food Program (CACFP), which reimburses child care centers, family child care homes, and Head Start programs for healthy meals served to children (Food Research and Action Center n.d.). The Child Nutrition and WIC Reauthorization Act of 2004 was up for reauthorization in the fall of 2009 (Food Research and Action Center n.d.). This reauthorization will amend the National School Lunch Act, which authorizes CACFP as well as other child nutrition programs (Food Research and Action Center n.d.).

Child Care and Development Block Grant (CCDBG)

Expenditures on Pre-Kindergartners and Kindergartners: 39 percent of program expenditures/\$1.9 billion

CCDBG is the primary federal funding stream for child care assistance, providing federal support to increase the affordability, availability, and quality of child care for low-income working families (Child Care Bureau 2008; NACCRA 2009). CCDBG expired in 2002 and has been functioning through a series of extensions since then (NACCRA 2009).

Education for the Handicapped

Expenditures on Pre-Kindergartners and Kindergartners: 15 percent of program expenditures/\$1.9 billion

Education for the Handicapped's Preschool Grants Program, authorized under Section 619 of Part B of the Individuals with Disabilities Education Act (IDEA), provides grants to states for special education and related services to 3- to 5-year-old children with disabilities (DHHS 2008b; U.S. Department of Education 2008). Funds may be used for special education teachers' salaries as well as for services such as physical and occupational therapy, speech-language pathology services, and psychological services (U.S. Department of Education 2008). IDEA was last authorized in 2004 and is set to expire in 2011 (National School Boards Association 2009).

Education for the Disadvantaged

Expenditures on Pre-Kindergartners and Kindergartners: 11 percent of program expenditures/\$1.7 billion

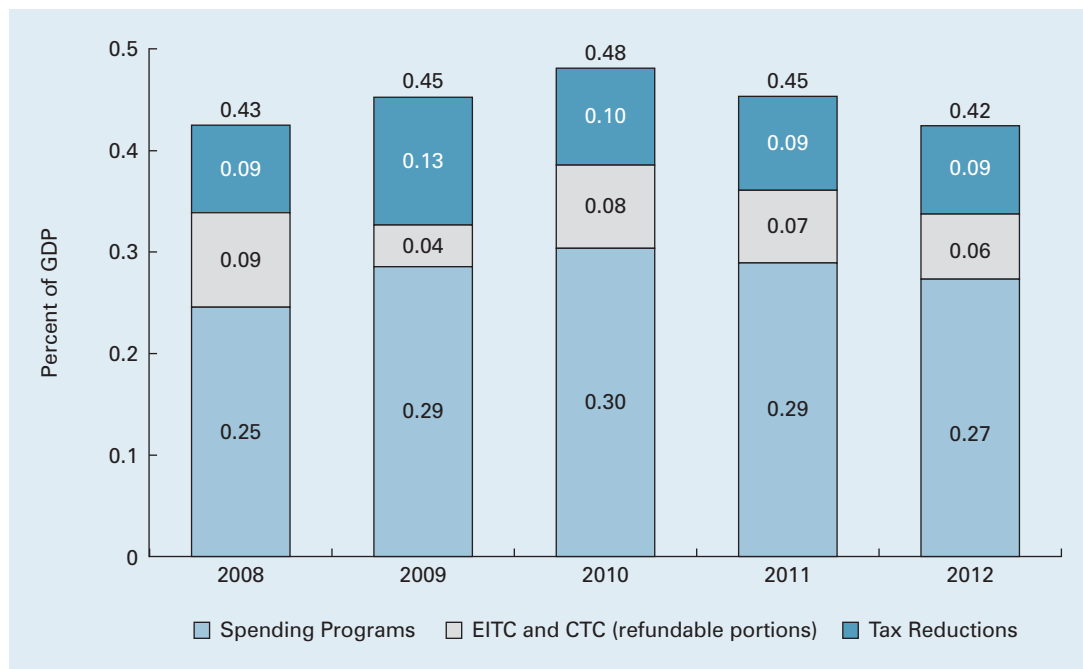
Title I of the No Child Left Behind (NCLB) Act (and formerly the Elementary and Secondary Education Act) provides funding for disadvantaged students, which may be used for early childhood programs designed for children up to the age at which they are required to begin elementary school (CLASP 2009). Although only approximately 13 percent of recipients are pre-kindergartners or kindergartners, these funds may be used to expand preschool, state-funded pre-kindergarten, Head Start, or community-based child care programs serving low-income children (CLASP 2009; U.S. Department of Education 2009a). Congress began discussing reauthorizing the NCLB act in 2007. However, action has thus far been stalled and Congress has not reauthorized the bill as of December 2009 (Gensheimer 2009).

*While we highlight a number of programs facing reauthorization that affect pre-kindergartners and kindergartners, there exist other programs (e.g., TANF, EITC, and CTC) that are scheduled to expire or be reauthorized in the coming years.

affecting children of all ages, such as Medicaid, the CTC, and the EITC (table 3). Specifically, expenditures on pre-kindergartners and kindergartners are expected to grow in 2009 to represent 0.45 percent of GDP and in 2010, reach 0.48 percent of GDP, with spending programs

amounting to 0.30 percent of GDP. After 2010, however, expenditures on pre-kindergartners and kindergartners as a percent of GDP are expected to decrease. By 2012, federal expenditures are projected to actually be lower (0.42 percent of GDP) than 2008 levels.

FIGURE 9. Projected Expenditures on Pre-Kindergartners and Kindergartners, Children Age 3 through 5, as a Percent of GDP Based on CBO Projections of Enacted Legislation



Source: The Urban Institute and The Brookings Institution, 2010. Authors' estimates based on data from the *Budget of the United States Government, Fiscal Year 2010* and previous years and Congressional Budget Office projections.

TABLE 3. Selected Programs Affected by ARRA

Program	2008 Expenditures on Children Age 3 through 5		American Recovery and Reinvestment Act of 2009
	Spending (millions)	Percent of program	
Child tax credit	5,948 (refundable); 4,969 (nonrefundable)	17	Increases eligibility for the refundable portion in 2009 and 2010
Earned income tax credit	7,297 (refundable); 867 (nonrefundable)	16	Temporarily increases benefits for working families with three or more children and for married couples filing a joint return
Head Start	6,174	90	\$2.1 billion for Head Start, to be split between Head Start (\$1 billion) and Early Head Start (\$1.1 billion)
Medicaid	6,119	3	Increases states' FMAP by 6.2 percentage points, among other changes
Supplemental Nutrition Assistance Program/Food Stamp Program	4,015	10	New maximum benefit will be calculated as 113.6% of the Thrifty Food Plan; \$19.9 billion in funding provided by ARRA
Temporary Assistance for Needy Families	2,421	14	Creates a new Emergency Contingency Fund for the TANF program in the amount of \$5 billion for grants for states in three areas: cash assistance caseload increases, non-recurring short term benefits and expenditures for subsidized jobs
Child Care and Development Block Grant	1,921	39	\$2 billion for CCDBG programs
Education for the handicapped	1,857	15	\$11.3 billion for IDEA Part B grants to the states; \$400 million for the IDEA Part B pre-kindergarten grants
Child nutrition	1,726	12	\$100 million for the National School Lunch Program
Education for the disadvantaged (Title I)	1,705	11	\$10 billion for Title I to Local Education Agencies
Supplemental Nutrition Program for Women, Infants, and Children	836	14	\$500 million to WIC

Source: The Urban Institute and The Brookings Institution, 2010. Authors' estimates based on the *Budget of the United States Government Fiscal Year 2010*. Information on provisions in the American Recovery and Reinvestment Act of 2009 is available from these and other organizations: National Conference of State Legislators (2009a, 2009b, n.d.); National Association for the Education of Young Children (2009); U.S. Department of Education (2009b, 2009c, 2009d).

Note: Additionally, states that include pre-kindergarten with their existing K–12 funding formula may use some of the \$53.6 billion in State Fiscal Stabilization Funds for pre-kindergartners.



CONCLUSION

This report provides first-time baseline estimates of 2008 federal expenditures on pre-kindergartners and kindergartners—a disproportionately low-income population in a key developmental stage of life. In an analysis that considers the entire federal budget and more than 100 federal programs affecting children, the report offers significant contextual information for considering policies that will shape future levels of public investment in children age 3 through 5. This information comes at a critical time as the country struggles with difficult budget trade-offs against the backdrop of a deep recession and growing deficits. Results provide answers to four main questions:

How Much Does the Federal Government Spend on Pre-Kindergartners and Kindergartners?

In 2008, federal expenditures on pre-kindergartners and kindergartners totaled \$60.5 billion, \$48.2 of which were outlays and \$12.3 of which came via tax reductions. Since these numbers are first-time estimates, it is not possible to know if federal spending on this age group increased or decreased from prior years. Results make clear, however, that both the federal government and the state and local governments play major roles in the lives of pre-kindergartners and kindergartners. In 2004 (the latest year of available state and local data), the federal government was responsible for 47 percent of total public investment in children age 3 through 5.

Where Are Funds Spent?

Six programs account for 67 percent of the \$60.5 billion in expenditures on pre-kindergartners and kindergartners in 2008. Only one of these six programs—Head Start—places an emphasis on serving children age 3 through 5. Other major programs include three tax programs (the child tax credit; the earned income tax credit; and the

dependent exemption), Medicaid (health program), and SNAP/Food Stamps (nutrition program). In comparison, programs that specifically focus on the care and education of pre-kindergartners and kindergartners represent 23 percent of overall expenditures. When spending is measured as a budget function, social services emerges as an area of high spending on children age 3 through 5—higher than for children as a whole—primarily because of the Child Care and Development Block Grant (CCDBG) and Head Start, which is classified as a social services program and not an education program.¹⁷ Health, nutrition, and education programs spend relatively less on children age 3 through 5 when compared to all children. Finally, when combined, refundable and nonrefundable tax programs make up more than 40 percent of overall federal expenditures on pre-kindergartners and kindergartners.

How Are Funds Spent?

Almost two-thirds of federal expenditures on pre-kindergartners and kindergartners are on programs targeted toward low-income children, which is slightly higher than spending on all children. In-kind benefits represent most federal expenditures (53 percent), and tax programs rep-



resent 42 percent of federal investments in pre-kindergartners and kindergartners.

What Are the Future Trends in Expenditures on Pre-Kindergartners and Kindergartners Based on Current Policy?

In addition to providing first-time baseline analyses, this report presents projections on pre-kindergarten and kindergarten spending from 2009 to 2012. Primarily as a result of the federal stimulus package (ARRA), projections estimate that spending on children age 3 through 5 will increase in 2009 and 2010 as a percentage of GDP. After 2010, however, expenditures on pre-kindergartners and kindergartners are expected to decrease. By 2012, projections indicate federal investment in pre-kindergartners and kindergartners will fall below 2008 levels as a percentage of GDP. These budget projections, however, assume no change in current policies other than the extension of expiring tax provisions. Indeed, Congress and the Obama administration are considering several significant policy and budget

changes, such as health care reform, that could have direct impacts on spending on children over the next decade.

While this report presents detailed information covering over 100 federal programs that affect pre-kindergartners and kindergartners, it does not allow conclusions on the efficiency, success, or worth of a particular type of program or level of spending. We also are not able to assess how expenditures necessarily address need. For example, it is notable from these findings that some of the largest spending programs for this age group, like Head Start, only serve half of eligible children. Going forward, this report may provide a useful tool to juxtapose current expenditures against projected need and to compare expenditure patterns against researchers' findings about high-return public investments. For now, the findings establish a baseline for which one may gauge the priority the nation places on investing in pre-kindergartners and kindergartners—an increasingly important issue, given the critical role of development during these years and the disadvantage so many pre-kindergartners and kindergartners face.



NOTES

1. It is important to note that per capita estimates are not calculated based on eligibility numbers; instead, they are calculated from overall population estimates of children ages 3 to 5.
2. This report is one of a series of reports issued in the past few years on expenditures on children, where analyses focus on children overall (birth to age 18), infants and toddlers (birth to age 2), pre-kindergartners and kindergartners (ages 3 to 5), and elementary-age children (ages 6 to 11).
3. See *Kids' Share: An Analysis of Federal Expenditures on Children through 2008* for all children; *Federal Expenditures on Infants and Toddlers in 2007* for children from birth to age 2; and *Federal Expenditures on Elementary-Age Children in 2008* for children ages 6 to 11.
4. Earlier reports include *Kids' Share 2008: How Children Fare in the Federal Budget* (Carasso et al. 2008), *Kids' Share 2007: How Children Fare in the Federal Budget* (Carasso, Steuerle, and Reynolds 2007), and *Federal Expenditures on Children: 1960–1997* (Clark et al. 2000).
5. The data appendix is available at: www.urban.org.
6. See Isaacs et al. 2009 for a detailed description of the projection methodology used for children birth to 18.
7. Because of the challenge of collecting data across 50 states, the Rockefeller report focuses on fewer programs than our report, providing expenditure information for a dozen major programs, including elementary and secondary education, state programs associated with major federal programs (Medicaid, State Children's Health Insurance Program, Maternal and Child Health Bureau, Temporary Assistance for Needy Families, child support enforcement, child care, child welfare, etc.), and state earned income tax credits. While it does not fully capture expenditures on state-only programs, it is the best available source of recent data on state and local spending. The task of generating estimates for pre-kindergartners and kindergartners specifically was made simpler by the fact that the Rockefeller estimate focused on a relatively small number of programs, almost all of which were federal/state programs and thus were programs for which we had an estimate of spending by age. Patricia Billen, coauthor of the report on state and local expenditures (Billen et al. 2007), consulted with us and other authors in an effort to improve consistency in methodological approaches in measuring federal and state and local expenditures. However, many differences remain between the reports. For example, while both sets of reports start with a definition of children as those age 18 and younger, slightly different population estimates were used in calculating per capita amounts. See also Isaacs (2009) for further estimates of total investments in children, including federal, state and local, and private investments.
8. The \$367.7 billion estimate is taken from Isaacs et al. 2009.
9. For the percentage of all children (birth to age 18) that are age 3 to 5, as of July 2008, see <http://www.census.gov/popest/national/asrh/2008-nat-res.html>.
10. Population estimates are from July 1, 2008, Census numbers and can be found here: <http://www.census.gov/popest/national/asrh/2008-nat-res.html>.
11. See note 7.
12. See *Federal Expenditures on Elementary-Age Children in 2008* for estimates on 6- to 11-year-olds, where state and local spending represent 73 percent of total investments in this age group.
13. See note 1.
14. One could argue that Head Start should be classified as an education program rather than a social services program, and indeed it plays an important role in school readiness. However, we classify Head Start as a social services program, following standard budget categories and reflecting the comprehensiveness of services provided (e.g., health, dental, developmental services), as well as the program's administration by the U.S. Department of Health and Human Services.
15. See note 14.
16. The CTC was particularly large in 2008 as a result of a one-time \$300 per child rebate enacted in 2008 as a stimulus package. Even without such rebate, however, the CTC is one of the largest programs benefitting pre-kindergartners and kindergartners, as well as all children under 17.
17. See note 14.

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