



The United States Is Far Behind Other Countries on Pre-K

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Early childhood education and school readiness is essential to preparing our children to succeed in an increasingly competitive global economy. Compared to other countries, however, the United States lags far behind on preschool, trailing a number of other countries in enrollment, investment, and quality.

In February 2013, however, President Barack Obama put forth a bold plan to significantly expand access to preschool. His plan would invest \$75 billion in high-quality preschool, helping our nation catch up with other countries.¹

The numbers below show how far behind the United States is on preschool and make it evident that we need to implement the president's plan. If the United States is to train a world-class workforce, we have to catch up to the rest of the world on pre-K.

Today: We're far behind

To put it plainly, the United States is getting beat when it comes to preschool. On almost every element, the United States ranks behind most of the other countries in the Organisation for Economic Co-operation and Development, or OECD. We rank:²

- 26th³ in preschool participation for 4-year-olds⁴
- 24th in preschool participation for 3-year-olds
- 22nd in the typical age that children begin early childhood-education programs
- 15th in teacher-to-child ratio in early childhood-education programs
- 21st⁵ in total investment in early childhood education relative to country wealth

These rankings do not bfit the United States. Given the importance of early childhood education to future student success, the United States must take these rankings seriously. We need to do better.

Preschool participation

The United States has a large preschool access gap. Only 69 percent of 4-year-old American children are enrolled in early childhood education. We rank 26th in access to preschool for 4-year-olds and 24th on access for 3-year-olds.

Moreover, top-performing countries are outpacing the United States in preschool participation for 4-year-olds. Japan, which outperformed the United States by more than 40 points on the most recent international test of fourth-grade math,⁶ enrolls nearly all of its 4-year-olds in preschool. Our close ally the United Kingdom also enrolls at least 97 percent of its 4-year-olds in preschool.

Even some countries that don't top the global rankings on international achievement tests are outperforming the United States in preschool enrollment. Mexico, our neighbor to the south, may need to improve preschool quality, for example, but it has committed to enrolling nearly 100 percent of its 4-year-olds in preschool. What's more, Mexico is accomplishing this despite being significantly poorer than the United States: Its per-capita gross domestic product, or GDP, is less than a third of ours.⁷

The story is similar for 3-year-olds. Seven countries including France, Norway, and Italy ensure that at least 90 percent of all 3-year-olds have access to preschool. In the United States that number is barely 50 percent.

The age children start preschool

Even when children do attend preschool in the United States, they usually don't start until age 4.⁸ Most children in OECD countries, however, begin early childhood education much earlier. Denmark typically enrolls children from age 1, and Belgium at about age 2 and a half. In fact, children in most OECD countries—including those in Estonia, Japan, and Poland—begin preschool by at least age 3.

Teacher-to-child ratios

The ratio of teachers to children is a key element of preschool quality. Academic powerhouse Finland has a teacher-to-child ratio of 1 to 11 in their early education programs, besting the United States' average of 1 to 15 and demonstrating its strong commitment to providing high-quality preschool. Sweden and Estonia both have a ratio of 1 to 6, the best among all countries.

Investment

The United States underinvests in preschool compared to most countries. Public and private spending on preschool in the United States amounts to only 0.4 percent of our GDP, while Denmark, Spain, and Israel each spend at least 0.9 percent. Increasing spending on preschool to even 0.6 percent of our GDP, which would put us on par with countries such as Germany and Poland, would result in an additional \$30 billion per year in early childhood education. This would be more than enough to enroll all 3- and 4-year-olds in high-quality preschool.⁹

In terms of per-student expenditures, Luxembourg leads the pack, spending more than \$16,000 per child. Italy and Sweden, which both have programs that are almost entirely publicly funded, spend more than \$6,500 per child. According to the OECD, the average per-pupil expenditure in the United States is about \$8,400; this includes, however, both privately and publicly funded programs.¹⁰ Expenditures for federally funded Head Start programs, which provide more than just preschool services, are approximately the same amount per pupil—\$8,369 in 2009¹¹—although Head Start reaches a very small share of U.S. children.¹² The majority of children in publicly funded programs are in state-funded preschool programs, where expenditures average only \$4,143 per pupil.¹³

Why do these numbers matter?

Studies show that high-quality early childhood education can significantly improve a child's preliteracy, prewriting, and premath skills. Children in Tennessee's state-funded pre-K program, for example, saw a 75 percent improvement in letter-word identification, a 152 percent improvement in oral comprehension, a 176 percent improvement in picture vocabulary, and a 63 percent improvement in quantitative concepts, compared to children not in pre-K.¹⁴

These vital skills have been linked to third-grade reading achievement¹⁵—a predictor of high school graduation—and to success in math in secondary school and later in life.¹⁶ School readiness and the skills gained from high-quality early childhood education are essential to educating a strong workforce that is able to successfully compete in the global economy. And yet the United States is behind in every category of preschool.

Although Russia is not an OECD member, the United States should take notice of its preschool commitment, especially since Russia has leapfrogged the United States on fourth-grade reading over the past decade. After trailing the United States by 14 points on the 2001 Progress in International Reading Literacy Study, or PIRLS, for fourth-grade reading, Russia surpassed the United States by more than 10 points in 2011.¹⁷

Russia enrolls 75 percent of its 4-year-olds in preschool, spending about 0.9 percent of its GDP on early childhood education altogether. This would tie Russia for third among OECD countries if it were a member.

Future: Without investment, we'll fall further behind

Things may only get worse for the United States. Rising superpowers India and China are making serious and significant commitments to expand access to early childhood education over the next few decades. In a report released last year, “The Competition that Really Matters,”¹⁸ CAP outlined China’s and India’s commitments:

By 2020, China will increase preschool enrollment by 50 percent, providing access to 40 million children. This access will include 3 years of preschool for 70 percent of all children in China and at least two years to 80 percent of 3 and 4 year olds.

By 2018, India will raise the percent of children who are ready for school from 26 to 60, for a total of about 19 million children school ready. The preschool system already reaches 38 million children under six.

Commitments such as China’s and India’s are neither unrealistic nor exceptional. More than a decade ago, the British government pledged to provide universal preschool to every child between the ages of 3 and 5, and it has achieved that goal.¹⁹ Mexico similarly committed to expanding its early childhood-education enrollment, increasing its participation by almost 30 percent over the past eight years.

The United States is in a race to educate a globally competitive workforce—one that is needed to keep our economy strong and booming. As we wrote in the aforementioned report, “intellectual and innovative superiority” will rule the day. We can continue to lead on that front by making a significant investment in education, or we can instead allow ourselves to fall further behind.

Sweden

The Scandinavian countries receive a lot of attention for their early childhood-education programs, and with good reason: They top the OECD rankings in almost every category. In Sweden, for example, children are able to attend publicly funded preschool beginning at age 1, and nearly 80 percent of children ages 1 through 5 spend at least part of their day in preschool.²⁰

This did not happen by accident. In the early 1970s only 70,000 Swedish children were enrolled in preschool and child care. But that number grew to 750,000 by 2007 because Sweden committed to making preschool a national priority.²¹

Sweden has also made a strong commitment to ensuring that its early childhood education is high quality. Class sizes average about 17 students,²²

50 percent of preschool staff are teachers who have college degrees, and the other half have earned three-year training certificates.²³ And a standard curriculum in preschool classrooms ensures cohesion in learning and teaching pedagogy.²⁴ This curriculum covers “children’s development in language and mathematics, and in natural sciences and technology.”²⁵

Moreover, Sweden has adopted a maximum parental fee level. As a result, parents cover only 9 percent of preschool costs, which amounts to just 2 percent of the average income.²⁶ And children ages 3 and older have a right to attend at least 525 hours of preschool per year at no cost.²⁷

Conclusion

High-quality preschool is critically important for building a globally competitive workforce. Yet our numbers are not impressive. We lag behind other countries in access, quality, and investment. We are getting beat by top-performing countries whose commitment to preschool helps propel them forward, as well as by countries we usually do not expect to see ahead of us in rankings. Meanwhile, China and India are racing ahead to improve their student achievement and are making the necessary commitments to do so.

The United States has a lot to do to catch up to the rest of the world on early childhood education. Increased investments in high-quality preschool education for all children, regardless of income, will put us more in line with the rest of the world, help keep us on track with China and India, and ensure school readiness for our most at-risk children.

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Endnotes

- 1 Office of Management and Budget, "Educating a Competitive Workforce," available at <http://www.whitehouse.gov/omb/budget/factsheet/educating-a-competitive-workforce>.
- 2 The OECD has 34 member countries: Australia; Austria; Belgium; Canada; Chile; the Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Iceland; Ireland; Israel; Italy; Japan; Korea; Luxembourg; Mexico; the Netherlands; New Zealand; Norway; Poland; Portugal; the Slovak Republic; Slovenia; Spain; Sweden; Switzerland; Turkey; the United Kingdom; and the United States. Data on early childhood programs is provided for all 34 countries, but not every country has data in every category.
- 3 Secretary Arne Duncan and others have stated that the United States ranks 28th in enrollment of 4-year-olds. This ranking, however, includes two countries—the Russian Federation and Indonesia—that are not members of the OECD. We limited our dataset for the entire brief to just countries that are members of the OECD. Secretary Arne Duncan, "Testimony of US Secretary of Education Arne Duncan—FY 2014 Budget Request," House Appropriations Subcommittee on Labor, Health and Human Services, Education, and Other Related Agencies, April 11, 2013, available at <http://www.ed.gov/news/speeches/testimony-us-secretary-education-arne-duncanfy-2014-budget-request>.
- 4 Unless otherwise cited, all data included in this issue brief is from or was derived from OECD, "Education at a Glance: Indicator C2: How do early childhood education systems differ around the world?" (2012), available at <http://www.oecd-ilibrary.org/education/education-at-a-glance-2012-eag-2012-en>.
- 5 Author's calculation based on rounded numbers.
- 6 National Center for Education Statistics, *Highlights From TIMSS 2011 Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context* (U.S. Department of Education, 2012), available at <http://nces.ed.gov/pubsub/2013/2013009.pdf>.
- 7 Central Intelligence Agency, "The World Factbook: North America: Mexico," April 10, 2013, available at <https://www.cia.gov/library/publications/the-world-factbook/geos/mx.html>; Central Intelligence Agency, "The World Factbook: North America: United States," April 18, 2013, available at <https://www.cia.gov/library/publications/the-world-factbook/geos/us.html>.
- 8 OECD, "Education at a Glance: Indicator C2." This is according to the OECD data. We recognize that the OECD data also says that 51 percent of 3-year-olds are enrolled in early childhood education.
- 9 Donna Cooper and Kristina Costa, "Increasing the Effectiveness and Efficiency of Existing Public Investments in Early Childhood Education" (Washington: Center for American Progress, 2012), available at <http://www.americanprogress.org/issues/education/report/2012/06/01/11723/increasing-the-effectiveness-and-efficiency-of-existing-public-investments-in-early-childhood-education/>.
- 10 Laura Bornfreund, "The State of Preschool: Comparing the U.S. to Our International Competitors" (Washington: The New America Foundation, 2011), available at <http://earlyed.newamerica.net/blogposts/2011/the-state-of-preschool-comparing-the-us-to-our-international-competitors-43836>. The OECD data set includes a per-pupil expenditure of 8,396 for the United States. As the New American Foundation has pointed out, however, "It is not clear how OECD arrived at this figure; our best guess is that the figure comes from federal Head Start spending, which in 2009, according to the NIEER State Preschool Yearbook, was \$8,369." But less than half of children enrolled in publicly funded programs, let alone in all programs, are in Head Start programs.
- 11 National Institute for Early Education Research and Rutgers, "The State of Preschool 2009" (2009), available at <http://nieer.org/sites/nieer/files/2009%20yearbook.pdf>. We are using 2009 numbers as the OECD numbers are from 2009.
- 12 Ibid.
- 13 Ibid.
- 14 Mark Lipsey and others, "Initial Results of the Evaluation of the Tennessee Voluntary Pre-K Program" (Nashville: Peabody Research Institute at Vanderbilt University, 2011), available at <http://peabody.vanderbilt.edu/docs/pdf/PRI/New%20Initial%20Results%20of%20the%20Evaluation%20of%20TN-VPK.pdf>.
- 15 Rhode Island Kids Count, "Getting Ready: Findings from the National School Readiness Indicators Initiative a 17 State Partnership" (2005), available at <http://www.gettingready.org/matriarch/d.asp?PageID=303&PageName2=pdfhold&=&PageName=Getting+Ready+-+Full+Report%2Epdf>.
- 16 Sarah Sparks, "Number Sense, Not Counting Skills, Predicts Math Ability, Says Study," Inside School Research, February 4, 2013, available at http://blogs.edweek.org/edweek/inside-school-research/2013/02/early_number_linkages_not_coun.html?qs=University+of+Missouri+1st+grade+math.
- 17 National Center for Education Statistics, *Highlights from PIRLS 2011: Reading Achievement of U.S. Fourth-Grade Students in an International Context* (U.S. Department of Education, 2012), available at <http://nces.ed.gov/pubsub/2013/2013010.pdf>.
- 18 Donna Cooper, Adam Hersh, and Ann O'Leary, "The Competition that Really Matters: Comparing U.S., Chinese, and Indian Investments in the Next-Generation Workforce" (Washington: Center for American Progress, 2012), p. 7, available at <http://www.americanprogress.org/issues/economy/report/2012/08/21/11983/the-competition-that-really-matters/>.
- 19 Ibid. During this same time period, Britain was able to cut its child poverty rate in half from "26 percent in 1998 to 12 in 2009." Preschool was part of a concerted effort aimed at child poverty.
- 20 Swedish Institute, "Swedish preschool," available at <http://www.sweden.se/eng/Home/Education/Preschool/> (last accessed May 2013).
- 21 Barbara Martin Korpi, "The Politics of Pre-School – intentions and decisions underlying the emergence and growth of the Swedish pre-school" (Stockholm: The Swedish Ministry of Education and Research 2007), available at <http://www.regeringen.se/content/1/c6/09/10/61/322638cd.pdf>.
- 22 OECD, "Starting Strong II: Early Childhood Education and Care, Annex E: Sweden" (2006), available at <http://www.oecd.org/edu/school/37423778.pdf>.
- 23 Ibid.
- 24 European Encyclopedia on National Education Systems, "Sweden: Early Childhood Education and Care" (Brussels: European Commission, 2013), available at https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Sweden:Early_Childhood_Education_and_Care.
- 25 Ibid.
- 26 OECD, "Starting Strong II."
- 27 Miriam Nordfors, "Room for Debate: Sweden Solves Two Problems at Once," *The New York Times*, February 28, 2013, available at <http://www.nytimes.com/roomfordebate/2013/02/25/is-public-preschool-a-smart-investment/what-preschool-means-in-sweden>.