

DOCUMENT(S) REVIEWED:	“How Sound an Investment? Analysis of Federal Prekindergarten Proposals”
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PUBLISHER/THINK TANK(S):	Lexington Institute
DOCUMENT RELEASE DATE(S):	March 5, 2008
REVIEW DATE:	March 24, 2008
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Summary of Review

This new report from the Lexington Institute, “How sound an investment? An analysis of federal prekindergarten proposals,” considers current proposals for federal involvement in prekindergarten (pre-K). It is misleading, however, with respect to both the provisions and likely consequences of those proposals. The report attempts to disparage the potential benefits of pre-K by presenting inaccurate information about public pre-K programs and their effects. Although the report provides some useful cautions about these programs, it exaggerates the relative importance of those cautions. The report’s conclusions are grounded in a failure to consider other relevant research on pre-K’s effectiveness and the relative merits of targeted and universal approaches to preschool education.

Review

I. INTRODUCTION

There is a growing national movement to provide more early learning opportunities for children. State investments in the education of young children have increased at a rapid pace in recent years, coinciding with increasing evidence in the broad individual and societal benefits of early childhood education.¹ However, substantial disparities have emerged among states in enrollment rates, program standards, and funding levels. For example, three states serve more than 40% of their 4-year-olds, while 12 have no pre-K program at all. Spending per child varies from over \$10,000 per child to less than \$2,500. Some states have no class size or ratio limits at all.²

These disparities have spurred proposals for a federal role in preschool education beyond Head Start, particularly support for universal prekindergarten (UPK), to ensure adequate funding, higher standards, and wider access. The issue of what the federal government might do to improve matters has been taken up by candidates for president and among members of Congress. The new Lexington Institute report, “How Sound an Investment? Analysis of Federal Prekindergarten Proposals,” seeks to inform public debate regarding proposals. However, its data and analysis are incomplete and biased.

II. FINDINGS AND CONCLUSIONS OF THE REPORT

The report suggests that proponents of universal preschool education fail to consider all of the relevant evidence, particularly research indicating negative effects on behavior and that all children do not benefit from pre-K. It also raises questions about the cost

and educational effectiveness of requiring a bachelor’s degree to teach pre-K.

It concludes that a government-run preschool program for all children would be unnecessarily expensive and would provide little benefit to most children. In addition, such a program “would drive many private child care providers out of business, drastically decrease options for parents, and, ultimately, likely impair the social development of many children.”³ The report instead urges policymakers to consider either giving tax credits to businesses or giving vouchers to low-income families for the purchase of private early childhood care and education.

III. RATIONALES SUPPORTING FINDINGS AND CONCLUSIONS OF THE REPORT

In its overview of the national context and support for preschool programs, the Lexington Institute report cites position statements from the National Education Association (NEA), a Congressional Joint Economic Committee report, and statements from Democratic and Republican presidential candidates. Except for the Republican candidates, all of these groups and individuals express support for ensuring that all children have access to quality preschool education. The Republican candidates are instead described as advocating for parental choice in schooling. Four current legislative initiatives that exemplify current proposals for new federal early childhood policies are summarized in the report’s appendix. However, as discussed below, careful scrutiny of these proposals suggests a disconnect between the Lexington Institute’s characterization of policy proposals and what is actually being proposed.

The report briefly discusses research on four issues: the costs and benefits of universal versus targeted programs; negative effects from pre-K on behavior; pre-K teacher qualifications and classroom quality; and public support for preschool education in private programs rather than the public schools.

The Lexington Institute report cites two studies that find a negative association between participation in preschool programs and later classroom behavior.⁴ In addition, it cites a study that finds expulsion rates for preschoolers in state pre-K programs to be several times higher than expulsion rates in K-12.⁵ The report uses these findings to raise questions about whether preschool education excessively pressures young children. The report relies on the expulsion rate study (actually, on a newspaper article describing the expulsion rate study) to suggest that preschool programs may cause the behavior problems that result in expulsions from pre-K.

The report attempts to make its case against requiring pre-K teachers to have a college degree by pointing to two additional studies. The first did not find an association between teacher qualifications and classroom quality and children's academic gains in state pre-K classrooms.⁶ That study concludes that a bachelor's degree "may not be sufficient to ensure quality in every classroom."⁷ The other study brought to bear on this issue found that the quality of parenting was more strongly associated with children's development through grade six than was the quality of child care, thus suggesting (in the view of the Lexington authors) that additional requirements for pre-K teachers would be of limited benefit.⁸ The report then criticizes several current proposals that would require increased qualification requirements to be phased in over time in or-

der to receive federal funding for preschool education. The authors dismiss these additional staffing requirements as unnecessary.

The writings of James Heckman are cited in support of the view that preschool should be subsidized only for poor and at-risk children—rather than for all children—and that vouchers are the best means of providing this subsidy. Heckman indicates that the largest economic benefits accrue from serving children in poverty because they have the worst developmental outcomes and their families have the least capacity to invest in their development.⁹ In addition, the Perry Preschool study is identified as a "prime basis for assertions of enormous social and economic benefits" of preschool.¹⁰ The report points out that the Perry Preschool sample was highly disadvantaged and that it would be inappropriate to assume from this study that preschool benefits all children, including the affluent.

A Reason Foundation report is then cited as evidence that public preschool education for all would not produce the educational and economic benefits that advocates promise.¹¹ The Reason report speculates that benefits of the Perry Preschool program were primarily due to its home visitation component. This speculation is linked to the finding that parenting has stronger impacts on child development than do preschool programs. The Reason Foundation report also finds that Oklahoma and Georgia (two states with UPK) were among the bottom 10 states for percentage-point changes in fourth grade reading scores between 1992 and 2005 on the National Assessment of Educational Progress (NAEP). This result is presented as evidence that UPK did not improve elementary school education outcomes.

The Lexington report's concluding argument, in favor of "choice," emphasizes the

size of the existing private child care sector and that sector's advantages to parents. The private sector is said to have excess capacity that could offer access at lower cost, and it is stated that universal preschool education would displace private providers. Choice also is advocated on the grounds that parents' needs and wants vary depending on length of day (part- or full-day), schedule (some parents work night or swing shifts), and preference for religious providers.

Exercising choice through vouchers, the report argues, would increase parent engagement in general, which has other positive benefits for children's learning. The report cites a study that describes Georgia pre-K as voucher-like and as offering parents more choices than if pre-K were only in public schools.¹² This study found Georgia pre-K to produce the same educational results as Head Start but at a lower cost. The report also cites a newspaper article that describes the success of New Jersey's "targeted pre-K voucher program" in improving children's learning.¹³

IV. THE REPORT'S USE OF RESEARCH LITERATURE

The report cites two longitudinal studies as evidence that pre-K increases behavior problems. These studies, however, concerned children who attended primarily private programs with minimal standards and public oversight. As correlational studies, the authors could not rule out the plausible alternative hypothesis that children more prone to behavior problems are more often enrolled in the preschool programs—something not mentioned in the Lexington report. The report also fails to indicate that the observed negative effects are modest (effect size less than .20), which limits their value in making policy decisions.¹⁴ More importantly, the report fails to mention national randomized

trials of Head Start (and Early Head Start), which found that these public programs *reduced* behavior problems.¹⁵ This flatly contradicts the findings of one of the correlational studies that Head Start produced negative effects on behavior, and it casts doubt on the validity of the nonexperimental approach to estimating these effects.¹⁶ Finally, the report neglects the randomized trials and other rigorous studies that have found high-quality preschool education reduced later delinquency and crime.¹⁷

The Lexington report does, however, acknowledge that the study the authors cite for the lack of a link between a bachelor's degree and preschool teacher "credentials" and education quality is contradicted by much of the other research on this topic. What the report does not mention are the limitations of this and other education "production" studies, and it omits the findings that counter the authors' views. For example, the study they cite as evidence of their assertion also found that the bachelor's degree was associated with higher achievement in math and found education and credentials to be associated with several other measures of teaching quality and children's test scores.¹⁸ Another important research omission that detracts from their argument is that only programs with highly educated teachers who are paid public school salaries and benefits have been found to produce the large gains in achievement and school success cited by the proponents as the rationale for UPK.¹⁹

Also troubling is the authors' over-reliance on James Heckman's view that new investments in early education should focus on disadvantaged children—a view based on his belief that impacts and rates of return are highest for these children. Heckman acknowledges that he lacks hard evidence to support his view. Other economists do agree that the rate of return is higher for disadvan-

tagged children, but they argue that the larger total net benefits from including all children in public early education initiatives favor universal programs over targeted programs.²⁰ The analyses of these other economists, which demonstrate that under reasonable assumptions a universal program can be a more economically efficient policy—are not acknowledged.

The report's conclusion that pre-school programs should focus exclusively on disadvantaged children is also grounded in the contention that the research support for pre-school is dependent upon the Perry Preschool study. However, that study is not the only research on the effects and economic benefits of preschool education that informs pre-K policy proposals. This other research, including studies of the effects of UPK, is essentially ignored by the report, and the citations pulled from the Reason Foundation report are misleading at best.²¹ (Again, the Reason report speculations that the positive effects should be primarily attributed to the home visitation component of the Perry program.) The Perry Preschool program did include a home visiting component, but the Perry study found no effects on parenting practices, so changes in parent education resulting from the home visits is not a plausible mechanism for program effects.²²

The finding derived from the Reason Foundation report on poor NAEP scores in states with UPK is similarly flawed. Reason's choice of 1992 as a starting point (many years prior to UPK), its use of aggregate NAEP scores, and its focus on reading scores appear to be careful choices needed to support a desired conclusion.²³ In contrast, an analysis of scores for whites, blacks, and Hispanics separately (because the population's ethnic composition changes over time) a few years before UPK and in 2005 reveals that NAEP scores rose in

Georgia for reading and math, as they did in Oklahoma with the exception of reading for whites.²⁴

Finally, the evidence provided about choice in pre-K is incomplete and inaccurate. The report describes Georgia's pre-K policy as voucher-like and as offering parents more choices than if pre-K were only in public schools. This is true, but it does not mean that Georgia parents would not want more public school pre-K programs than they have access to currently.²⁵ The report does not present any rigorous evidence on the quality and effectiveness of actual voucher or voucher-like programs. Florida's UPK program is a true voucher program with minimal standards, but it is not discussed in the report with respect to either its effects on parent choice or its educational quality and effectiveness.

The report suggests that New Jersey has a targeted pre-K voucher program and that this program has led to improved student learning. However, New Jersey's program is not a targeted voucher program. It is universal in the 31 school districts with high percentages of children from low-income families. Although most providers are private, school districts deliver the program through contracts with private providers as well as through public school programs. Both the public schools and the private providers are responsible for program quality and effectiveness.²⁶

The report also incorrectly suggests that Head Start providers are public programs; in fact, most are private.²⁷

V. REVIEW OF THE VALIDITY OF THE FINDINGS AND CONCLUSIONS

The Lexington Institute report describes a dichotomous policy debate between propo-

nents of UPK offered through public schools and targeted programs that would provide children in poverty increased access to private programs. This oversimplifies the debate and does not accurately represent most policy proposals, which stress serving the most disadvantaged children first and include the participation of private programs. In addition, the report uses language to introduce subtle biases. For example, the report contrasts “government day care” with “vouchers that they can redeem for early childhood education services from the private or public provider of their choice.”²⁸

The report frames the issue by leading with the NEA position statement, the only proposal this author is aware of that would in fact limit public funding for pre-K to the public schools. It is also the only one to suggest mandatory kindergarten, an issue that is not relevant to any of the proposed pre-K plans. By contrast, all four bills in the report’s Appendix permit or encourage private providers to participate. Two, including Sen. Hillary Clinton’s bill, specify that at least 25% of the funds must go to private providers.²⁹ (This prominent feature is omitted from the Lexington Report’s description of Senator Clinton’s bill.) Similarly, the Early Childhood Investment Act sponsored by Sen. Chris Dodd and Rep. Rose DeLauro would provide funds through the Department of Health and Human Services to state public-private partnerships that would help finance a broad array of public and private programs.

Two key assertions in the report—that UPK proposals fail to consider all the evidence on impacts and that UPK is ineffective—are not adequately supported and are contradicted by omitted information. The report ignores rigorous studies of the impacts of UPK on

children’s learning and analyses that compare projected benefits for UPK and targeted programs. The conclusion that targeted programs are to be preferred over universal programs is not supported by the evidence presented. Moreover, the debate is more complex than the report indicates, and much of the rationale for UPK is unexamined, including three crucial claims: that parents are reluctant to participate in a program restricted to the poor; that positive peer effects have been found for at-risk children in UPK; and that greater public support for quality will accrue to a program that is offered for all children.³⁰

The reality is that most proposals are more nuanced than the report suggests. Prominent legislative proposals and the Democratic Presidential candidates’ proposals include private providers and could expand parental choice. The conclusion that private providers will be driven out of business is not based on data or on proposed legislation; it appears to be based only on the unwarranted premise that public UPK would exclusively be in the public schools. Also, most of the proposals emphasize serving disadvantaged populations first and foremost, as James Heckman recommends. The proposals also do not expressly call for 100% public funding for all children regardless of income. Ensuring all children access to quality early education might be done with sliding fee scales that might provide no subsidy at some income levels.

The report’s discussion of presidential candidates’ proposals is also somewhat misleading. The focus is on choice, with Republican proposals getting higher marks. But the Republican proposals entail an increase in parental choice for pre-K only in so far as their proposals for increased choice in the

public schools would apply to existing pre-K. None of the major Republican candidates proposed expanded access to pre-K, public or private. The Democratic candidates' proposals to expand choice through public funding include public and private organizations, with minimum levels of participation by the private sector. Moreover, when states have implemented similar proposals, actual levels of private provision have been higher. Accordingly, even by the standards set up by the Lexington report, the Democratic proposals may result in more choice.

Beyond potentially providing more choice, UPK proposals might be more effective and economically efficient. New Jersey's program—which is favorably cited in the report—has been found to produce strong positive effects using mostly private providers in a system that combines elements of parent choice with high standards and oversight by the public schools.³¹

Effective choice requires that vouchers provide enough funds that low-income families can purchase a quality education. The report does not discuss concerns about this or mention that Florida's pre-K voucher was less than \$2,200 per child in 2005-06, which limited choice substantially.³² It also does not fully discuss the research indicating that large gains in children's achievement should not be expected from vouchers, though vouchers might better accommodate child care needs and preferences for provider religious affiliation.³³

VI. USEFULNESS OF THE REPORT FOR GUIDANCE OF POLICY AND PRACTICE

The report presents itself as a fair and balanced analysis of the potential value of federal involvement in pre-K, but it is misleading with respect to both the content and the likely consequences of the current proposals being debated in Congress and among presidential candidates. The report presents inaccurate information about current public pre-K programs and the research into their effects. Although the report provides some useful cautions to policymakers, it exaggerates their importance in comparison to the potential benefits of pre-K.

The report also sets up a false dichotomy for policymakers and voters to choose between: UPK exclusively in public schools *or* targeted programs that provide increased access to private pre-K programs to children in poverty. The report's discussion omits much of the relevant research and analyses on program effectiveness and the relative merits of targeted and universal approaches to preschool education—information that could have provided for a much more nuanced and thoughtful policy discussion. Rather than capitalizing on an opportunity to clarify an area of policy that is ripe for change, the report manages to muddy the waters and to obstruct reasoned discussion of approaches for improving opportunities for many of the nation's children.

Notes & References

- ¹ Barnett, W.S., Hustedt, J.T., Friedman, A., Boyd, J., & Ainsworth, P. (2007). The state of pre-school 2007. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University.
- ² Barnett, W.S., Hustedt, J.T., Friedman, A., Boyd, J., & Ainsworth, P. (2007). The state of pre-school 2007. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University.
- ³ Holland, R. & Soifer, D. (2008, March). *How sound an investment? An analysis of federal pre-kindergarten proposals*. Arlington, VA: Lexington Institute, 14.
- ⁴ Magnuson, K.A., Ruhm, C., & Waldfogel, J. (2007). Does prekindergarten improve school preparation and performance? *Economics of Education Review*, 26(1), 33-51.
- Holland and Soifer cite an earlier draft working paper of Magnuson et al. Belsky, J., Vandell, D., Burchinal, M., Clarke-Stewart, A., McCartney, K., Owen, M., & the NICHD ECCRN. (2007). Are there long-term effects of early child care? *Child Development*, 78 (2), 681 – 701.
- ⁵ Gilliam, W. (2005, May) Prekindergarteners left behind: Expulsion rates in state prekindergarten programs. *FCD Policy Brief Series*, 3. New York: Foundation for Child Development.
- ⁶ Early, D.M., Bryant, D.M., Pianta, R.C., Richard M. Clifford, R.M., Margaret R. Burchinal, M.R., Sharon Ritchie, S., Carollee Howes, C., & Barbarin, O. (2007). Are teachers' education, major, and credentials related to classroom quality and children's academic gains in pre-Kindergarten? *Early Childhood Research Quarterly*, 21 (2), 174-195.
- ⁷ Holland, R. & Soifer, D. (2008, March). *How sound an investment? An analysis of federal pre-kindergarten proposals*. Arlington, VA: Lexington Institute, 8.
- ⁸ Belsky, J., Vandell, D., Burchinal, M., Clarke-Stewart, A., McCartney, K., Owen, M., & the NICHD ECCRN. (2007). Are there long-term effects of early child care? *Child Development*, 78 (2), 681 – 701.
- ⁹ Heckman, J. (2005, June). Interview with James J. Heckman. *The Region*. Minneapolis: Federal Reserve Bank of Minneapolis. Retrieved March 16, 2008, from <http://www.minneapolisfed.org/pubs/region/05-06/heckman.cfm#>
- ¹⁰ Holland, R. & Soifer, D. (2008, March). *How sound an investment? An analysis of federal pre-kindergarten proposals*. Arlington, VA: Lexington Institute, 10.
- Schweinhart, L.J., Montie, J., Xiang, Z., Barnett, W.S., Belfield, C.R., & Nores, M. (2005). *Lifetime effects: The High/Scope Perry Preschool study through age 40* (Monographs of the High/Scope Educational Research Foundation, 14). Ypsilanti, MI: High/Scope Educational Research Foundation.
- ¹¹ Olsen, D., & Snell, L. (2006, May). Assessing proposals for preschool and kindergarten: Essential information for parents, taxpayers, and policymakers. Los Angeles, CA: Reason Foundation. For a full critique of this report see the author's May 2006 Think Tank Review Project assessment at: <http://epsf.asu.edu/epru/ttreviews/EPSSL-0605-201-EPRU.pdf>
- ¹² Levin, H.M., & Schwartz, H.L. (2007). Educational vouchers for universal pre-schools. *Economics of Education Review*, 26(1), 3-16.
- ¹³ Holland, R. & Soifer, D. (2008, March). *How sound an investment? An analysis of federal pre-kindergarten proposals*. Arlington, VA: Lexington Institute, 13.
- ¹⁴ Belsky, J., Vandell, D., Burchinal, M., Clarke-Stewart, A., McCartney, K., Owen, M., & the NICHD ECCRN. (2007). Are there long-term effects of early child care? *Child Development*, 78 (2), 681 – 701.

- ¹⁵ Puma, M., Bell, S., Cook, R., Heid, C., Lopez, M., Zill, N., Shapiro, G., Broene, P., Mekos, D., Rohacek, M., Quinn, L., Adams, G., Freidman, J. & Bernstein, H. (2005). *Head Start impact study: First year findings*. Washington, DC: US Dept. of Health and Human Services, Administration for Children and Families.
- Love, J. M., Kisker, E.E., Ross, C. M., Schochet, P.Z., Brooks-Gunn, J., Paulsell, D., Boller, K., Constantine, J., Vogel, C., Fuligni, A. S., & Brady-Smith, C. (2002/2004). *Making a difference in the lives of infants and toddlers and their families: The impacts of Early Head Start. Volume I: Final technical report*. Princeton, NJ: Mathematica Policy Research Inc.
- ¹⁶ Magnuson, K.A., Ruhm, C., & Waldfogel, J. (2007). Does prekindergarten improve school preparation and performance? *Economics of Education Review*, 26(1), 33-51.
- ¹⁷ Schweinhart, L.J. & Weikart, D.P. (1997). The High/Scope preschool curriculum comparison study through age 23. *Early Childhood Research Quarterly*, 12(2), 117-143.
- Schweinhart, L.J., Montie, J., Xiang, Z., Barnett, W.S., Belfield, C.R., & Nores, M. (2005). *Lifetime effects: The High/Scope Perry Preschool study through age 40* (Monographs of the High/Scope Educational Research Foundation, 14). Ypsilanti, MI: High/Scope Educational Research Foundation.
- Raine, A., Mellingen, K., Liu, J., Venables, P., Mednick, S. A. (2003). Effects of environmental enrichment at ages 3-5 years on schizotypal personality and antisocial behavior at ages 17 and 23 years. *American Journal of Psychiatry*, 160(9), 1627-1635.
- Reynolds, A.J., et al. (2007). Effects of a school-based, early childhood intervention on adult health and well-being: A 19 year follow-up of low-income families. *Archives of Pediatrics and Adolescent Medicine*, 161(8), 730-739.
- ¹⁸ Early, D.M., Bryant, D.M., Pianta, R.C., Richard M. Clifford, R.M., Margaret R. Burchinal, M.R., Sharon Ritchie, S., Carollee Howes, C., & Barbarin, O. (2007). Are teachers' education, major, and credentials related to classroom quality and children's academic gains in pre-Kindergarten? *Early Childhood Research Quarterly*, 21 (2), 174-195.
- ¹⁹ Barnett, W. S. (2007). Benefits and costs of quality early childhood education. *The Children's Legal Rights Journal (CLRJ)*, 27, 7-23.
- ²⁰ Barnett, W. S. (2007). Benefits and costs of quality early childhood education. *The Children's Legal Rights Journal (CLRJ)*, 27, 7-23.
- Bartik, T.J. (2008). *The economic development effects of early childhood programs*. Kalamazoo, MI: Upjohn Institute for Employment Research.
- Lynch, R.G. (2007). *Enriching Children, Enriching the Nation: Public Investment in High-Quality Prekindergarten*. Washington, DC: Economic Policy Institute.
- ²¹ Barnett, W. S., & Belfield, C. (2006). Early childhood development and social mobility. *Future of Children*, 16(2), 73-98.
- Gormley, W. T., Gayer, T., Phillips, D., & Dawson, B. (2005). The effects of universal pre-k on cognitive development. *Developmental Psychology*, 41(6), 872-884.
- Barnett, W.S., Jung, K., Wong, V, Cook, T., & Lamy, C. (2007). The effects of state prekindergarten programs on young children's school readiness in five states. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University.
- Frede, E., Jung, K., Barnett, W. S., Lamy, C., & Figueras, A. (2007). *The Abbott preschool program longitudinal effects study (APPLES)*. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University.

- ²² Weikart, D.P., Bond, J.T., & McNeil, J.T. (1978). *The Ypsilanti Perry Preschool Project: Pre-school years and Longitudinal results*. (Monographs of the High/Scope Educational Research Foundation, 4). Ypsilanti, MI: High/Scope Educational Research Foundation.
- ²³ Olsen, D., & Snell, L. (2006, May). Assessing proposals for preschool and kindergarten: Essential information for parents, taxpayers, and policymakers. Los Angeles, CA: Reason Foundation. For a full critique of this report see the author's May 1006 Think Tank Review Project assessment at: <http://epsl.asu.edu/epru/treviews/EPSTL-0605-201-EPRU.pdf>
- ²⁴ Barnett, W.S. (2008). Analysis available from the author.
- ²⁵ There is evidence of waiting lists at public and private centers, and it is difficult to know where demand most exceeds the available slots. Public schools do seek to place excess demand in the private sector, see for example, <http://www.athensparent.com/articles/featuregen/prek4.html>
- ²⁶ Education Law Center (2007). Abbott pre-K is not an unregulated private school “voucher” program. Newark, NJ: ELC. Retrieved March 15, 2008, from: http://www.edlawcenter.org/ELCPublic/elcnews_070509_AbbottPreKInvestment.htm
- ²⁷ Head Start Bureau. (2005). Biennial report to Congress: The status of children in Head Start programs 2005. Washington, DC: US Department of Health and Human Services, Administration for Children and Families, Head Start Bureau.
- ²⁸ Holland, R. & Soifer, D. (2008, March). *How sound an investment? An analysis of federal pre-kindergarten proposals*. Arlington, VA: Lexington Institute, 10, 13.
- ²⁹ Ready to Learn Act of 2007, S. 1823, 110th Cong., 1st Session (2007).
- ³⁰ Barnett, WS, Brown, K., and Shore, R. (April, 2004). The universal v. targeted debate: Should the United States have preschool for all? *Preschool Policy Matters*, 6. New Brunswick, NJ: National Institute for Early Education Research.
- Barnett, W. S. (2004). Maximizing returns from prekindergarten education. In *Federal Reserve Bank of Cleveland Research Conference: Education and economic development* (pp. 5-18). Cleveland, OH: Federal Reserve Bank of Cleveland.
- ³¹ Barnett, W.S., Jung, K., Wong, V, Cook, T., & Lamy, C. (2007). The effects of state prekindergarten programs on young children's school readiness in five states. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University.
- Frede, E., Jung, K., Barnett, W. S., Lamy, C., & Figueras, A. (2007). *The Abbott preschool program longitudinal effects study (APPLES)*. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University.
- ³² Barnett, W.S., Hustedt, J.T., Hawkinson, L.E., & Robin, K.B. (2006). The state of preschool 2006. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University.
- ³³ Levin, H.M., & Schwartz, H.L. (2007). Educational vouchers for universal pre-schools. *Economics of Education Review*, 26(1), 3-16. Belfield, C.R. (2006). The evidence on education vouchers: An application to the Cleveland Scholarship and Tutoring Program. New York, NY: National Center for the Study of Privatization in Education, Teachers College, Columbia University.

The Think Tank Review Project is made possible by funding from the Great Lakes Center for Education Research and Practice.

SUGGESTED CITATION:

Barnett, W. (2008). *Review of "How Sound an Investment? An Analysis of Federal Prekindergarten Proposals."* Boulder and Tempe: Education and the Public Interest Center & Education Policy Research Unit. Retrieved [date] from <http://epicpolicy.org/thinktank/federal-prekindergarten-proposals>