MICHAEL P. FARRIS, JD, LLM CHAIRMAN (WA, DC)

J. MICHAEL SMITH, ESQ. PRESIDENT (CA, DC, VA)

JAMES R. MASON III, ESQ. VICE PRESIDENT (OR, DC)

SCOTT A. WOODRUFF, ESQ. SENIOR COUNSEL (VA, MO)

DARREN A. JONES, ESQ.

ATTORNEY (CA, DC)

THOMAS J. SCHMIDT, ESQ. ATTORNEY (CA)



MICHAEL P. DONNELLY, ESQ.
ATTORNEY (MA, NH, WV, DC)

WILLIAM A. ESTRADA, ESQ.
ATTORNEY (CA)

PETER K. KAMAKAWIWOOLE, ESQ.
ATTORNEY (MO, VA)

DANIEL T. BEASLEY, ESQ.
ATTORNEY (CA, WI)

MARY E. SCHOFIELD, ESQ.
OF COUNSEL (CA)

February 28, 2017

Early Childhood Education: What the Empirical Studies Show

By Scott A. Woodruff, Esq., and HSLDA Legal Staff

Benefits Do Not Endure

According to a comprehensive, rigorous study (released October 2012) by the Department of Health and Human Services, which operates Head Start,

Looking across the full study period, from the beginning of Head Start through 3rd grade, the evidence is clear that access to Head Start ... had few impacts on children in kindergarten through 3rd grade....

In summary, there were initial positive impacts from having access to Head Start, but by the end of 3rd grade there were very few impacts found for either cohort in any of the four domains of cognitive, social-emotional, health and parenting practices. The few impacts that were found did not show a clear pattern of favorable or unfavorable impacts for children.¹

According to Dr. Elizabeth Cascio, assistant professor of economics at Dartmouth College, state funding of universal kindergarten has "no discernible impact on many of the long-term outcomes desired by policymakers, including grade retention, public assistance receipt, employment, and earnings," including "no positive effects for African Americans, despite comparable increases in their enrollment in public kindergartens after implementation of the initiatives. These findings suggest that even large investments in universal early-childhood education programs do not necessarily yield clear benefits, especially for more disadvantaged students."²

"Despite considerable taxpayer investments for universal preschool in Georgia [1993] and Oklahoma [1998] [the first states to push universal preschool], neither state has experienced significant improvement in students' academic achievement."

After reviewing 210 research reports in 1985, the Head Start Synthesis Project reported that "in the long-run, cognitive and socioemotional test scores of former Head Start students do not remain superior to those of disadvantaged children who did not attend Head Start."

After a careful six-year study of 35,000 children, Durham University reported that early education programs did not improve the development and skills of children entering primary school.⁵

According to Dr. Matthew Ladner's 2007 study, the academic benefits of full-day kindergarten disappear by the 5th grade. 6

According to Lisa Snell, director of education and child welfare at the Reason Foundation (Los Angeles, CA), most research "indicates that the academic effects of early education programs disappear soon after children leave the programs."⁷

The National Center for Education Statistic's Early Childhood Longitudinal Study of 22,000 children showed that by the end of the 3rd grade, there was no academic difference between children who attended kindergarten part time and those who attended full time.⁸

"New Jersey's significant investment in universal preschool in low-income Abbott districts has had zero effect to date on the bottom line of 4th-grade reading scores for disadvantaged children." ⁹

In reference to the 24 percent graduation rate in Detroit Public Schools, Lisa Snell wrote: "Michigan is considering investing hundreds of millions of taxpayer dollars each year in a program whose benefits disappear by 3rd grade to solve education problems that come after the 3rd grade." 10

According to a 1969 Westinghouse Learning Corporation study, the benefits of Head Start programs tend to fade out by 2nd or 3rd grade. 11

According to a 1987 study of almost 15,000 Philadelphia children, the academic achievement test scores of children who attended Head Start were no different than those who did not by the time they reached the 3rd through 6th grade. 12

According to a 1988 University of Delaware study, the cognitive development of children who attended a Head Start center was the same as those who did not. 13

High-Intervention Programs Cannot be Replicated

Two high-intervention, small-scale programs have showed lasting gains, Perry Preschool (1962) and Abecedarian (1972). However, when states have tried to scale these programs up, the

long-term gains disappear. The gains from the small, "boutique" programs cannot be replicated on a large scale. 14

The Peabody Research Institute of Vanderbilt University conducted a study (2015) in which 770 children were assigned to participate in state-funded full day pre-k program and 300 were assigned to not participate. By the end of kindergarten, the children who had not participated had caught up academically with those who had. By the end of second and third grade, however, the children who had participated actually scored lower on literacy, language and math than those who had not.¹⁵

The 2004 Perry Preschool Study by Lawrence J. Schweinhart, Ph.D., noted that reported results of narrowly focused and highly controlled experimental preschool programs, such as Perry Preschool are "seldom if ever achieved in state preschool programs" such as open-enrollment universal preschool. 16

The Scope Perry Preschool study, often cited as proof that early education brings lasting gains, has been criticized for (i) study design problems, (ii) small sample size, (iii) introduction of systematic bias related to destruction of the experimental design, and (iv) suspect conclusions related to failure to take into account long-term life and environmental circumstances. 17

The Hewitt Foundation reported, "The Stanford ECE [Early Childhood Education] public policy research team, which worked in this field for a number of years, could not find a single state that had early school mandates based on replicable research." 18

Behavior, Academic Problems from Early Education and Preschool

"Prekindergarten increases reading and mathematics skills at school entry, but also increases behavioral problems and reduces self-control. Furthermore, the effects of prekindergarten on skills largely dissipate by the spring of 1st grade, although the behavioral effects do not." 19

The National Bureau of Economic Research published a paper (2015) showing that after Quebec created universal low-cost child care for children from age 0 to age 4 beginning in 1997, the children involved had increased levels of crime, aggression and hyperactivity and worsened health and lower life satisfaction long term. There was no consistent impact in academic performance. ²⁰

The RAND Corporation reported in 2006 that a study of almost 7,900 students found that "full-day kindergarten programs may actually be detrimental to mathematics and nonacademic readiness skills."²¹

After Quebec introduced virtually free daycare for children in the range of birth through age 4, researchers found (2005) striking evidence that the children placed in this daycare had

worse health and behavior, were more aggressive and had lower motor skills. It also led to negative impacts on the parents and parenting. It produced more hostile and less consistent parenting, lower quality parental relationships, and lower parental health.²²

"In Oklahoma, 4th-grade reading test scores have declined since 1998 when the state first implemented universal preschool." 23

"Despite increased investments in preschool for disadvantaged children ... in 1998, 56 percent of free-lunch eligible students scored below basic on the NAEP; by 2005, 57 percent ... scored below basic." ²⁴

The longer a child is enrolled in Head Start rather than being at home, the worse his behavior upon entering kindergarten. $\frac{25}{}$

According to Dr. Susan Loeb, "We find that attendance in preschool centers, even for short periods of time each week, hinders the rate at which young children develop social skills and display the motivation to engage classroom tasks, as reported by their kindergarten teachers." This lack of development of social skills involved three specific areas: "children's externalizing behaviors (such as, aggression, bullying, acting up), interpersonal skills (such as, sharing and cooperation), and self control in engaging classroom tasks." 26

Children in academically oriented preschool programs perform significantly worse in school in the long run than others, according to the research of Dr. Rebecca Marcon, developmental psychologist and professor of psychology at the University of North Florida.²⁷

Dr. David Elkind, professor of child development at Tufts University, ²⁸ wrote: "There is really no evidence that early formal institutionalization brings any lasting or permanent benefits for children. By contrast, the risk to the child's motivation, intellectual growth, and self-esteem could well do serious damage to the child's emerging personality. It is reasonable to conclude that the early instruction of young children derives more from the need and priorities of adults than from what we know of good pedagogy for young children."²⁹

Dr. David Elkind, professor of child development at Tufts University, wrote: "When we instruct children in academic subjects ... at too early an age, we miseducate them; we put them at risk for short-term stress and long-term personality damage There is no evidence that such early instruction has lasting benefits, and considerable evidence that it can do lasting harm." 30

According to Dr. David Elkind, "Hurried children ... constitute many of the young people experiencing school failure, those involved in delinquency and drugs, and those who are committing suicide." ³¹

Dr. Raymond Moore³² said: "What the child needs most to grow well is a warm one-to-one relationship with a parent (or parent figure) who is always there to comfort and guide him. During the first crucial eight years, home should be the child's only nest and parents the teachers of their children."

Delaying School Entry From Age 6 to 7 Reduces Inattention, Hyperactivity Long Term

Dr. Thomas S. Dee (Stanford University Center for Education Policy Analysis) conducted a study of 35,000 Danish children and found that delaying entry into school from age 6 to age 7 was strongly linked to a large long-term reduction in hyperactivity and inattention and an increase in self-regulation. The increase in self-regulation was as large or larger than the gap typically found between boys and girls, and the gap typically found between children of low-income families and high-income families. Put another way, a delay of one year can help a boy to have as much self-regulation as a girl, or a child from a poor family to have as much self-regulation as a child from a wealthy family. 34

Boys, Girls, Not Ready for Institutional Education at the Same Time

Dr. Leonard Sax, M.D., Ph.D., wrote in his book *Boys Adrift*, that physiologically boys' brains and girls' brains develop differently. For instance, the parts of the brain most involved in integrating information (i.e. sight, touch, taste, smell, hearing) develop in girls at a rate roughly two years ahead of boys. A 2006 *Educational Horizons* article explains that this more rapid development of the left hemisphere of the brain in girls enables them to learn to read and write earlier than boys. "Its primary responsibility is auditory processing and verbal expression, such as listening, speaking, and writing." However, the right hemisphere, which develops sooner in boys, "has the primary responsibility for visual-spatial and visual-motor activities, such as [are used in] sports, architecture, sculpture, painting, and carpentry." 36

In a study of 1st- through 6th-graders it was noted that 70% of readers with visual, perceptual, or refractive problems were boys. ³⁷ Stanley Krippner's research showed that boys make up 90% of disabled readers. ³⁸ This is supported by Bickel & Maynard in their 2004 paper on "No Child Left Behind." ³⁹

Replicated research has consistently demonstrated that on the average girls develop formal academic skills at an earlier age than boys. 40 Many studies suggest that the decreased self esteem experienced by boys has resulted in much of their antisocial and delinquent behavior. This can be traced to the failures in their early school experiences due to their comparatively slower development. 41

Too Early School May Cause Lifelong Vision Problems

According to the American Optometric Association, "There is ... growing evidence that nearsightedness may be caused by the stress of too much close vision work. It normally first

occurs in school-age children. Since the eye continues to grow during childhood, nearsightedness generally develops before age 20." $\frac{42}{2}$

Dr. Chen Tzay-jinn, ⁴³ director-general of the Health Promotion Bureau under the Department of Health in Taiwan, observed, "The growth of nearsightedness among young children is thought to result from learning to read very young and using computers very young." Lin Lung-kuang, ophthalmology professor at National Taiwan University, said, "Myopia cannot be cured. We have to prevent children from becoming nearsighted. Don't let them use their vision too early."

Multiple studies over a period of 100 years, beginning in the late 1800s, demonstrate that close eye work can result in astigmatism and myopia, especially close eye work by young children. For example, E.W. Adams, OD, summarized a report to the Optometric Research Institute: "that in the 1st and 2nd grades very little astigmatism is found, but after these two beginning grades each successive grade up to about the 6th increases the percentage of astigmatism; after the 6th the percentage remains about the same." 46

Studies in Japan and Alaska strongly indicate that the introduction of compulsory education, with the attendant close work required of young children, has resulted in significant increases of cases of myopia in those societies.⁴⁷

Henry Hilgartner, MD, in a 1963 paper to the Texas Medical Society, noted that children's eyes, up to about the age of 8 or 9, are more plastic than older eyes, and the outer covering of the eye (sclera) can be distorted by undue strain. Until a youngster's eyes have developed more, they should not read much. This also means that brighter children could have a greater risk if they are in a regular reading program before they are 8 years old. 48

Information in a pamphlet distributed by a Southern California optometry clinic explains that "Myopia may simply develop as a result of excessive near work and excessive near work may simply mean going to school." "Consider the following statistics: only 4% of our 8 year-olds are nearsighted, whereas over 60% of our college students are nearsighted."

Educator Dr. John Dewey, Ph.D., was aware that children's eyes develop first to look at larger objects and at a distance. In 1898 he reported that when children have to focus on close work or small objects over extended periods of time, unnecessary stress and strain would develop. According to Dewey, children should not be required to engage in this type of work until about 8 years of age. ⁵⁰

- **Foot Notes 1.** Michael Puma Et Al., Office Of Planning, Research, & Evaluation, Third Grade Follow-Up To The Head Start Impact Study Final Report: Executive Summary iv-v (2012) available at http://www.acf.hhs.gov/sites/default/files/opre/head_start_executive_summary.pdf.
- **2.** Elizabeth U. Cascio, *What Happened when Kindergarten went Universary?*, 10 Educ. Next 63, 64 (2010), available at http://educationnext.org/files/ednext 20102 62.pdf.
- **3.** Lindsay M. Bure, The Heritage Foundation, "Does Universal Preschool Improve Learning? Lessons from Georgia and Oklahoma 1" (2009), available at http://www.heritage.org/research/reports/2009/05/does-universal-preschool-improve-learning-lessons-from-georgia-and-oklahoma.
- **4.** Ruth McKey *et al*, U.S. Department of Health and Human Services, "The Impact of Head Start on Children, Families and Communities" 19 (2012), available at http://www.eric.ed.gov/PDFS/ED263984.pdf.
- **5.** Government's Early Years Education Measures Yet to Make an Impact, Durham University News, Aug. 28, 2007, http://www.dur.ac.uk/news/newsitem/?itemno=5685.
- **6.** Matthew Ladner, Goldwater Institute, "Putting Arizona Education Reform to the Test: School Choice and Early Education Expansion" (2007), available at http://goldwaterinstitute.org/sites/default/ files/Putting%20Reform%20to%20the%20Test.pdf.
- 7. Lisa Snell, *Don&rsqu;t Expect Long-term Gain from Early Education Money*, Michigan Education Report, Aug. 15, 2007, http://www.educationreport.org/8835.
- **8.** Lisa Snell, *Don't Expect Long-term Gain from Early Education Money*, Michigan Education Report, Aug. 15, 2007, http://www.educationreport.org/8835.
- **9.** Lisa Snell, *Don't Expect Long-term Gain from Early Education Money*, Michigan Education Report, Aug. 15, 2007, http://www.educationreport.org/8835.
- **10.** Lisa Snell, *Don't Expect Long-term Gain from Early Education Money*, Michigan Education Report, Aug. 15, 2007, http://www.educationreport.org/8835.
- **11.** Sharon M. McGroder, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human services, *Head Start: What do we Know about What Works?* 2 (1990), available at http://aspe.hhs.gov/daltcp/reports/headstar.pdf.
- **12.** Carol Copple *et al*, Administration for Children, Youth, & Families, *Path to the Future: Long-Term Effects of Head Start in the Philadelphia School District* (1987).
- **13.** Sharon M. McGroder, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human services, *Head Start: What do we Know about What Works?* 4 (1990), available at http://aspe.hhs.gov/daltcp/reports/headstar.pdf.

- **14.** Lindsay M. Burke & Rachel Sheffield, The Heritage Foundation, "Universal Preschool's Empty Promises" 4 (2013), available at http://thf_media.s3.amazonaws.com/2013/pdf/bg2773.pdf at 4.
- **15.** "A Randomized Control Trial of a Statewide Voluntary Prekindergarten Program on Children's Skills and Behaviors Through Third Grade." Mark W. Lipsey, Dale C. Farran, Kerry G. Hofer, Peabody Research Institute, Vanderbilt University, 2015. http://peabody.vanderbilt.edu/research/pri/VPKthrough3rd final withcover.pdf
- **16.** Lawrence J. Schweinhart *et al*, Educational Research Foundation, *The High/Scope Perry Preschool Study Through Age 40: Summary, Conclusions, and Frequently Asked Questions*, 12 (2011).
- 17. Sharon M. McGroder, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, *Head Start: What do we Know about What Works?* 5-6 (1990), available at http://aspe.hhs.gov/daltcp/reports/headstar.pdf.
- **18.** Pascal D. Forgione & R. S. Moore, Hewitt Research Foundation, "The Rationales for Early Childhood Education Policy Making" (1975).
- 19. Katherine A. Magnuson, Christopher Ruhm, & Jane Waldfogel, *Does Prekindergarten Improve School Preparation and Performance?* 26 Econ. of Educ. Review 33, 34 (2007), available at http://www.nber.org/papers/w10452.pdf.
- **20.** National Bureau of Economic Research, "Non-Cognitive Deficits and Young Adult Outcomes: The Long-run Impacts of a Universal Child Care Program." Michael Baker, Jonathan Gruber, Kevin Milligan, 2015. https://www.gwern.net/docs/2015-baker.pdf
- **21.** Lisa Snell, *Don't Expect Long-term Gain from Early Education Money*, Michigan Education Report, Aug. 15, 2007, http://www.educationreport.org/8835; also see http://www.rand.org/pubs/monographs/MG558.html.
- **22.** Michael Baker, Jonathan Gruber, Kevin Milligan ,"Universal Childcare, Maternal Labor Supply and Family Well-Being", National Bureau of Economic Research, 2005. http://www.nber.org/papers/w11832.pdf
- **23.** Lindsay M. Burke & Rachel Sheffield, The Heritage Foundation, "Universal Preschool's Empty Promises" 4 (2013), available at http://thf_media.s3.amazonaws.com/2013/pdf/bg2773.pdf.
- **24.** Lisa Snell, *Don't Expect Long-term Gain from Early Education Money*, Michigan Education Report, Aug. 15, 2007, http://www.educationreport.org/8835.
- **25.** Susanna Loeb, Margaret Bridges, Bruce Fuller, Russ Rumberger, & Daphna Bassok, *How Much is Too Much? The Influence of Preschool Centers on Children's Social and Cognitive*

- *Development*, 26 Econ. of Educ. Review, 52-66 tbl. 5 (2005), available at http://www.nber.org/papers/w11812.pdf.
- **26.** Susanna Loeb, Margaret Bridges, Bruce Fuller, Russ Rumberger, & Daphna Bassok, How Much is Too Much? The Influence of Preschool Centers on Children's Social and Cognitive Development, 26 Econ. of Educ. Review 52, (2005), available at http://www.nber.org/papers/w11812.pdf. See also National Institute of Child Health and Human Development Early Child Care Research Network, *Duration and Development Timing of Poverty and Children's Cognitive and Social Development from Birth through Third Grade*, 76 Child Dev. 795, 795-810 (2005).
- **27.** Rebecca A. Marcon, *Moving up the Grades: Relationship between Preschool Model and Later School Success*, 4 Early Childhood Research & Practice (2002), http://ecrp.uiuc.edu/v4n1/marcon.html.
- **28.** David Elkind, at the time of the writing of his book, *The Hurried Child*, was a child psychologist and chairman of the Eliot-Pearson Department of Child Study at Tufts University in Medford Massachusetts.
- 29. David Elkind, Miseducation: Preschoolers at Risk (1987).
- **30.** David Elkind, *Miseducation: Preschoolers at Risk* (1987) at 83.
- **31.** David Elkind, *The Hurried Child: Growing Up Too Fast Too Soon* 103 (Preseus Publishing 3rd ed. 2001) (1981).
- **32.** Dr. Raymond Moore was a classroom teacher and administrator, worked in public schools and universities, was superintendent of a school system, and held responsible positions at the federal level in relation to policy formation and implementation.
- 33. Raymond S. Moore & Dorothy N. Moore, Better Late Than Never 3 (1977).
- **34.** Thomas Dee and Hans Henrik Sievertsen, Stanford Center for Education Policy Analysis, CEPA Working Paper No. 15-08: "The Gif of Time? School Starting Age and Mental Health." (2015) https://cepa.stanford.edu/sites/default/files/WP15-08.pdf
- **35.** Leonard Sax, *Boys Adrift* 17 (2007).
- **36.** Betsy Gunzelmann & Diane Connell, *The New Gender Gap: Social, Psychological, Neurobiological and Educational Perspectives*, 84 Educ. Horizons 94, 98 (2006).
- 37. Howard Coleman, Visual Perception and Reading Dysfunction, 1 J. Learning Disability 116, 116-123 (1968).
- **38.** Stanley Krippner, Address to 21st Annual School Vision Forum and Reading Conference (1968).

- **39.** Robert Bickle & A. Stan Maynard, *Group and Interaction Effects with "No Child Left Behind": Gender and Reading in a Poor Appalachian District*, 12 Educ. Pol'y Analysis Archives (2004).
- **40.** R. Vance Hall, *Does Entrance Age Affect Achievement?*, 63 Elementary Sch. J. 391, 396-99 (1963); Ronald Davie, Neville R. Butler, Harvey Goldstein, *From Birth to Seven* (1972); Frances Bentzen, *Sex Ratios in Learning and Behavior Disorders*, 33 Am. J. of Orthopsychiatry 92, 92-98 (1963).
- **41.** Donald P. Flammer, Self-Esteem, *Parent Identification and Sex Role Development in Preschool Age Boys and Girls*, 2 Child Study J. 39, 39-45 (1971); D. L. Mumpower, *Sex Ratios Found in Various Types of Referred Exception Children*, 36 Exceptional Child. 621, 621-22 (1970); Norma Estelle Cutts & Nicholas Moseley, *Teaching the Disorderly Pupil in Elementary and Secondary School* (1957).
- **42.** "Myopia (Nearsightedness)," American Optometric Association (2001), http://www.aoa.org/myopia.xml.
- **43.** Dr. Chen Tzay-jinn, received his master's degree in public health from Harvard University and graduated from the National Taiwan University's School of Medicine. He lives and works in Taiwan. Since his position as director-general of the Health Promotion Bureau, he has served as head of the central region Department of Health; the director-general of the Center for Disease Control; and head of the Commission on Hospital Affairs.
- **44.** Liu Shao-hua, *Myopia Increases Among Children*, Taipei Times, Dec. 6, 2000, available at http://www.myopia.org/myopiaprevalence.htm.
- **45.** Liu Shao-hua, *Myopia Increases Among Children*, Taipei Times, Dec. 6, 2000, available at http://www.myopia.org/myopiaprevalence.htm.
- **46.** Alexander Eulenberg, *The Case for the Preventability of Myopia*, March 3, 1996, http://www.i-see.org/prevent myopia.html.
- 47. Donald S. Rehm, The Prevention of Acquired Myopia (1974).
- **48.** Henry L. Hilgartner, *The Frequency of Myopia Found in Individuals under 21 Years of Age* (Apr. 30, 1963) (unpublished manuscript, first reported by Moselle Boland in "Going to School Too Soon Blamed for Eye Troubles," Houston Chronicle).
- **49.** San Bernardino Optometric Vision Care Center, "Orthokeratology and Myopia—Children's Vision Visual Requirements: Public Service Pamphlet No. 18106 W-B" (1975).
- 50. John Dewey, "The Primary Education Fetish" 15 (Forum 1898).