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Access to universal preschool has the attention of politicians and policymakers—from President Obama to gubernatorial candidates in Maryland who have advanced various proposals to expand pre-kindergarten. This attention has generated debate about the benefits of early education, in part because expanding access to preschool requires significant funding, but also because the research on early education can appear contradictory. Yet, unlike many educational reforms that capture policymakers’ attention, there is a substantial research base supporting the efficacy of early education.

As policymakers in Maryland consider universal preschool programs as a means to capitalize on learning that takes place in the early years, it is important to understand the research on the benefits of early education, the program characteristics critical to successful outcomes, and the costs and benefits of expanding preschool. New knowledge from neuroscience and developmental research has converged with empirical findings from four decades of program evaluation studies on early education programs that can be used to guide policy on early learning.

**Summary of Key Research Findings**

This policy brief surveys recent literature on advances in the science of early child development and brain development and summarizes findings from program evaluations of preschool programs. It examines the arguments for and against universal preschool from a research perspective and sorts out conflicting information on the benefits of early education. The aim is to provide Maryland policymakers with an informed foundation for considering whether to expand access to early education. The research findings are summarized below.

- Gaps in both cognitive and non-cognitive abilities emerge early in a child’s life, before a child enters school. Schools have limited impact on closing these gaps, even though students who are behind show learning gains throughout their school years.
Experiences in the early years of life are of critical importance for establishing the brain architecture that will shape future cognitive, social, and emotional development as well as physical and mental well being.

There is a substantial body of methodologically sound evaluations of early childhood programs that show positive impacts from participating in early childhood programs. Early childhood programs appear to improve achievement in the short term, and long-term follow studies of some programs show long-lasting, positive effects on a variety of measures of academic performance and later life outcomes.

Cost-benefit studies demonstrate that the long-term benefits of pre-kindergarten outweigh the initial short-term costs needed to start such a comprehensive program. Studies estimating the rate of return to early childhood investments have ranged from 7-18% annually for every dollar invested. Moreover, early investments are often more cost effective than investments made later in a child’s life.

Why Invest in Early Education?
The primary argument for investing in early education is that gaps in both cognitive and non-cognitive abilities emerge early in a child’s life, often before children start school, and that many of these early abilities are important determinants of later success in life. A substantial body of education research has consistently shown that differences in mean test score levels usually reflect differences in children’s cognitive skills and background characteristics before they enter school. Schools have little impact on closing these gaps, even though students who begin behind show learning gains throughout their school years. Similarly, noncognitive or social skills diverge early and then are nearly parallel during school-going years across children with parents of different socioeconomic status. This divergence has led some states, including Maryland, to invest in expanding access to preschool for disadvantaged children.

Early childhood interventions are often more effective and less costly in promoting success in school, reducing crime, and fostering workforce participation and productivity than interventions later in a child’s life. James Heckman, economist and Nobel laureate, and Flavio Cunha distinguish between early and late childhood investments, and show that early investments result in greater returns than later investments in initiatives such as reduced student-teacher ratios, job training and convict rehabilitation programs, adult literacy programs, or college tuition subsidies. Investments though are complementary—it is essential to invest early to get satisfactory adult outcomes, but it is also essential to invest late to harvest the fruits of the early investments. Early investments in learning lay the foundation for later learning, and when missing, can explain why returns to investments later in the adolescent years are low. In many poor families, the underinvestment begins at early ages and continues throughout the life of the child.

Implications for Early Education Policy in Maryland: Recommendations
The combined knowledge generated from neuroscience, developmental research, and empirical findings from program evaluation studies of early education programs present a compelling argument for the benefits of publicly funded preschool education. Cost-benefit analyses show that benefits accrue to both individuals who participate in early education and to society as a whole and that the benefits far exceed their costs. There is also evidence that early interventions are more cost effective than interventions undertaken in later school years. Taken together, these various streams of research present a compelling argument for investing in early education programs. Based on this review of the literature, we offer the following recommendations.

- Policymakers in Maryland should expand access to preschool for all 4-year old children. Given the current tight fiscal environment, Maryland may not be
able to fully fund the program immediately. However, the program could be phased-in over the next three to five years to accommodate current budget constraints.

- If targeting is continued, ensure that there is stability in preschool enrollment within a school year and across school years for those who start preschool at age three.

- Expand targeted programs to include more 3-year old children.

- Consider combining place-based (geographic) targeting with person-based (income) targeting to expand access to preschool.

- To institutionalize the expansion of publicly funded preschool, a dedicated funding source is needed. This will insure that districts have the resources to sustain universal preschool over time and are willing to commit local resources to the program.

- Because program quality matters, policymakers should maintain and strengthen current program requirements. Preschool programming should include elements that address cognitive, social, emotional, and physical development.

- Preschool programs should have reasonably small class sizes; teachers who are certified in early childhood education; and provide ongoing professional development, mentoring, coaching, and adequate pay.

- Policymakers should encourage districts to implement programs that serve diverse students in order to maximize the benefits of early education. To lessen income segregation, districts preschool programs that enroll more than 40 percent low-income students should be discouraged. Five decades of research have shown that students learn more in racial and economically integrated schools. For example, a 2010 study of public housing students in Montgomery County found that students randomly assigned to schools in integrated neighborhoods showed greater academic gains than students in high poverty schools that spent more per pupil (Schwartz, 2010).

- Since education deficiencies stem from many sources outside the school system, consideration needs to be given to providing an integrated and comprehensive system of services that addresses the needs of young children and their families. This includes policies that improve access to health care, ensure access to stable, integrated housing, provide adequate income supports, as well as those that support high quality preschool. The Judy Centers provide a model for these kinds of services.

- Legislation expanding access to preschool offers the opportunity to design an evaluation that would provide information on a wide range of variables, include long-term follow-up, and show the benefits and costs of designing, implementing, and running preschool education programs in the state of Maryland. A well-designed evaluation would inform local decision-making and state policymaking and include the following components:

  - It would capture multiple benefits that may accrue from participation in preschool education, and would include at a minimum the impact of preschool education on children's social-emotional, cognitive, and physical development.

  - It would identify both short-term and long-term benefits associated with participating in preschool programs.

  - It would include data that allows investigators to follow program participants over time, as well as examine possible benefits outside of schooling and in later adult life.

  - It would capture which program features, such as curriculum and instructional practices are most effective, and show how various program designs enhance the preschool experience.

Universal preschool is a promising intervention that capitalizes on the learning that takes place in the early years of a child’s life, however it should not be taken as a silver bullet. Early interventions must be followed by investments in the later school years. And since educational disadvantage stems from many social and economic factors external to schools, additional policies and resources are needed that address these larger social and economic factors that impact school success and life outcomes. ✦

To read the full report, go to: http://www.education.umd.edu/TLPL/centers/MEP/Research/earlyeducation/
Maryland Preschool Education Timeline

1980
- First pilot preschool program is created under the Extended Elementary Education Program (EEEP) for at-risk 4-year olds in Baltimore City and Prince George's County.

2000
- 25 early learning centers known as Judy Centers are created. Located in Title 1 districts, the centers continue to provide year-round education for children from birth to age 6.

2002
- Bridge to Excellence in Public Schools Act is passed, requiring access to publicly funded pre-K for all economically disadvantaged 4-year-olds by 2008.

2007
- Maryland Task Force on Universal Preschool Education publishes report recommending universal preschool for all 4-year olds. Due to budget constraints, the recommendations are not implemented.

2010-2011
- Increased state funding for Head Start expands enrollment and provides extended-day services for 2,557 children between the ages of 3-5.

2011
- Maryland is one of nine states awarded Race to the Top Early Learning Challenge grant. The grant allows for expanded pre-K and child care programs along with Community Hubs designed to support undersourced communities in Baltimore City.
Dissatisfaction with U.S. schools has brought about a wide range of school reform efforts in recent years. One of the most current, compelling ideas centers on school-community partnerships. In these reform initiatives schools expand the traditional educational mission of the school to include health and social services for children and families. Partnerships seek to improve students' overall wellbeing and life prospects, strengthen families, and sometimes even transform the broader community.

A close look at these partnerships indicates a variety of models, strategies, and purposes that require different commitments and resources. In this brief, we discuss the underlying assumptions and history of school-community partnerships, describe our typology of partnerships, summarize the key findings on the benefits and challenges of these partnerships, and make recommendations for continued progress in this area of reform.

**Assumptions and History**
The basic theory of action that underlies school-community partnerships is that students’ educational and life prospects will improve if schools can attend to a broad array of needs. In other words, school-community partnerships work based on the idea that schools serve students' academic needs better if they can quickly and efficiently respond to the overall health and well-being of children and their families.

This partnership ideal is far from new. During the Progressive Era, educators saw the school as the community’s central institution, a place where citizens could gather for social activities, where adults could be trained for jobs, and where community members could learn more about one another. In the early 1990s a contemporary community school movement started based on the ideas of Joy Dryfoos, who argued that schools cannot meet the challenges students bring to school on their own and that education and social service systems must work together to address children's many needs. Today, community schools and similar collaborative initiatives rely on numerous types of partners to support their efforts.

**Current Models of School-Community Partnerships**
Reformers do not always mean the same thing when they talk about community schools, full-service schools, and school-community partnerships. Authors often use different terminology to describe the same phenomenon—or the same terminology to describe different phenomena. To untangle the messy array of school-community partnerships, we developed the following typology based on overall goals and implications for organizational change. Arranged from the least to the most comprehensive in purpose and design, the four categories within this typology are: Family and Interagency Collaboration, Full-Service Schools, Full-Service Community Schools, and the Community Devel-
Family/Interagency Collaboration: The primary purpose of the Family and Interagency Collaboration model is to increase family and community involvement in promoting student learning and development. Partners in this model are motivated by the belief that coordinating the delivery of educational, health, and social services is the key to strengthening families and meeting the learning and developmental needs of students. This collaborative model requires the organizational commitment of each partner.

Full-Service Schools: Full-Service Schools seek fruitful partnerships with community agencies to serve the needs of the whole child and his or her family. This model focuses more on serving families than on engaging families in the life of the school. But unlike the model above, which tends to identify specific and limited goals for partners to accomplish, a Full-Service School attempts to integrate a full-range of academic, health, and social services and is, thus, often referred to as a “wrap-around” school. By expanding the school day and setting aside space within the school, a Full-Service School literally wraps social, family, and health services around the educational time and space dimensions of the school.

Full-Service Community Schools: Full-Service Community Schools promotes equal voice among the partners who form the network. Advocates of this model argue that in addition to a coordinated, school-based set of services, students’ learning and development are best served with cultural as well as organizational change—when democratic decision-making occurs through community input. In this model, community and parental engagement replace more traditional ideas of service provision, which typify the previous models. Schools do not merely draw community resources into the school.

Community Development: The most comprehensive model described in our typology is that of Community Development. This model goes well beyond the other three in its goals and vision. Schools become not only places of continuous intellectual growth for both children and adults, not only sites for extended agencies and social services, but also points of contact for community members to deal with pressing political, economic, and cultural matters. The Community Development model is more broadly place-based than school-based. Wrap-around services can be provided at other convenient, community-based locations as long as the school remains centrally involved in integrating them.

Research on Model Effects
All four models aim to address the needs of the whole child—academic, social, health, emotional—as well as attending to family needs. Because comparative studies examine differences between schools with and without community partners, not different types of partnerships, the relative success of the partnership models is impossible to determine. We did, however, find examples of success across all four models.

Student/Family Outcomes: The most studied outcome—and the one with the most consistent record of success across all four models—was academic achievement, especially in mathematics. There is also evidence showing literacy improvement as well as improved attendance, classroom behaviors, and attitudes toward school. Some studies also indicate that extended programs are particularly helpful to English language learners.

A study of the Linkages to Learning program, a district-led Full Service School initiative, conducted by University of Maryland researchers, found a range of positive outcomes, including a decrease in students’ emotional stress levels, decreased parental depression over time, an increased sense of family cohesion, greater consistency in parenting practices, more consensus within couples about those practices, and less reliance on physical punishment than parents in the control school.

Capacity/Infrastructure Outcomes: School-community partnerships beyond the Family and Interagency Collaboration model strive to have a number of additional outcomes. Here there are also positive findings, but the evidence is weaker. Scholars generally conclude that although school engagement in community development is promising, there was little evidence of impact beyond the creation of full-service schools or the encouragement of service learning projects.

The studies of organizational and infrastructure change that do exist indicate how difficult it is to create new types of institutions and transform whole neighborhoods. Implementation and sustainability problems fell into four broad areas: organization, communication, resources, and leadership. But some of these ambitious partnerships were successful, increasing the school’s capacity, improving its climate, attending to health and adult education needs, and developing collaborative leadership styles. There is also some promise of sus-
tained improvements in housing, health, employment, and transportation in the Community Development model.

**Recommendations**

Based on our review of the school-community partnership literature, we make the following recommendations for community activists, researchers and policymakers and encourage close collaboration among them in acting upon all three.

**Strengthen and sustain partnerships:** Without institutional resolve, partnerships easily unravel when resources are tight or when key educators, family members, or community organizers move on to other sites or projects. School-community advocates have learned a great deal about the mechanisms needed to put and keep these partnerships in place.

**Conduct on-going, detailed evaluations:** The broader goals of school-community partnerships, such as improving student and family health and living conditions, viewed as critical to student learning within their theories of action, often go unexamined. More research is needed in this area.

**Develop integrated, comprehensive databases:** Provide resources for community organizations, schools, and researchers to develop comprehensive databases so they can adequately track and study the multiple goals of these partnerships over time. Only when researchers have large comparative samples and are able to apply rigorous analytic tools over time, can the effects be meaningfully untangled and interpreted.

Taken as a whole, the sources we reviewed build a strong theoretical framework with a coherent and tested theory of change. They provide evidence that school-community partnership efforts around the country are based on sound empirical evidence on the importance of parent and community involvement, building trust, attending to the whole child, and having the resources to respond to specific academic and social needs. But compared to studying traditional school processes and improvement efforts, studying school-community partnerships is an incredibly complex effort, itself requiring strong and sustained networks of support.

To read the full report, go to: [http://www.education.umd.edu/TLPL/centers/MEP/Research/k12Education/](http://www.education.umd.edu/TLPL/centers/MEP/Research/k12Education/)

**Director’s Message continued from page 1**

public education through research that supports an informed public policy debate on the quality and distribution of educational opportunities in Maryland—guides our work.

Work began on the Maryland Equity Project in the summer of 2013. The two principle organizers—Robert Croninger and myself—met with stakeholders from across the state to gauge interest in MEP and to identify education priorities in Maryland. We launched the project in November 2013 with a panel discussion focused on research conducted by Daniel Klasik on the steps to college enrollment. That policy brief was summarized in the higher education Policy Report.

We look forward to continued dialogue with educators and policymakers from across the state. Please send us your comments and let us know what you think needs to be done to improve equity and opportunity for Maryland students. mdequity@umd.edu

Finally, please join us on November 20, 2014 for a one-day institute focusing on school-community partnerships, featuring Linda Valli, Amanda Stefanski and Reuben Jacobson’s work summarized in this report. Details are on our website: [www.mdequity.org](http://www.mdequity.org).
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About Us: The Maryland Equity Project seeks to improve education through research that supports an informed public policy debate on the quality and distribution of educational opportunities in Maryland. The Maryland Equity Project is a program in the Department of Teaching and Learning, Policy and Leadership, College of Education at the University of Maryland, College Park, MD. Visit us at mdequity.org or follow us on Twitter @mdequity.