

Divergent Paths: Quality Provisions in State Prekindergarten Programs

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Abstract

Publicly-funded state prekindergarten programs vary along a number of important dimensions. This paper attempts to isolate the political sources of cross-state variation in their teacher qualification requirements and classroom regulations. Its analysis suggests that these differences reflect a divide within the preschool community over the purposes and control of such programs. Free-standing prekindergarten programs are more likely to impose the requirements and regulations associated with program quality, but Head Start supplements are less likely to do so. This divergence suggests that state prekindergarten programs may evolve along two distinct tracks in the future.

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In recent years, developments in neuroscience research and the efforts of a strong and growing advocacy community have helped place preschool education on the political agenda. Fueled by scientific findings suggesting that the early years of a child's life are a critical window for brain development and learning, supporters argue that "early learning programs merit a substantial commitment of public dollars" (Stone 2008, 3). Advocates of publicly-funded preschool education include such organizations as Pre-K Now and members of the business community who view public support as a long-term investment in a productive workforce. They have experienced considerable success at the state level. Forty-one states currently operate prekindergarten programs, and state spending on these programs has increased by hundreds of millions of dollars in the past two years.

Publicly-funded state prekindergarten programs vary along several important dimensions. For the most part, scholars have focused on preschool access, examining the universal programs established in such states as Oklahoma (Fuller 2007; Gormley and Phillips 2005; Kirp 2007). The dimension of access is certainly important, but universal programs are the exception rather than the rule. Focusing solely on program eligibility overlooks provisions, such as teacher qualifications and classroom requirements, which determine the quality of state programs and, consequently, their ability to achieve the positive effects often attributed to preschool attendance. Preschool attendees are most likely to perform well academically in kindergarten and primary school when they attend a high-quality program.

This paper attempts to isolate the political sources of cross-state variation along five provisions of preschool education programs: a requirement that teachers have a bachelor's degree; a requirement that teachers have a specialization in early childhood

education; a requirement that assistant teachers have a CDA or equivalent credential; a maximum class size of twenty or fewer students; and a staff-child ratio of 1:10 or better. It argues that understanding the contemporary politics of preschool education requires an awareness of the history that has shaped, and that continues to shape, the present terrain of preferences and actors (Pierson and Skocpol 2002, 701). Merging the insights of the scholarly literature on state politics with insights drawn from research on the evolution of preschool education in the United States, it suggests the importance of a divide within the preschool advocacy community. Supporters of enhancing the government role in preschool education and child care have been characterized as a “divided constituency” (Michel 1999). A distinction between “educational” programs for young children and “custodial” programs dates to the early twentieth century and has developed into a conflict among preschool supporters over purposes, methods, and control (Grubb 1987). Constituencies that support the same objectives, at least in theory, sometimes find themselves on opposite sides of a specific proposal or fighting a proposal that nominally serves these objectives. The quality provisions of contemporary state prekindergarten programs reflect this long-standing split.

Preschool Education: Decentralization, Diversity, and Program Quality

In focusing on preschool education, this paper emphasizes a specific subset of programs that often fall under the broader headings of child care or early childhood care and education. Preschools include “programs offered under public and private education auspices or providing compensatory education under special legislation, usually serve

children from age 2-3 to compulsory school entry, are largely half-day or cover the normal school day...and cover the normal school year” (Kamerman and Gatenio 2003, 1-2). These programs share an educational component, but it is difficult to overstate their diversity. Preschool education in the United States includes a kaleidoscopic array of organizations and funding streams that has been labeled a “hodgepodge” (Kirp 2007, 25), a “mishmash” (Fuller 2007, 285), and an “uneven patchwork” (Barnett and Hustedt 2003, 57). This highly decentralized sector is marked by an institutional pluralism that includes Head Start, public school prekindergartens, schools housed in religious institutions, schools housed in private schools and private homes, and various other programs in the for-profit and the nonprofit sectors. Further complicating matters, the public-sector preschool programs are administered at the national, state, and local levels.

The decentralization of preschool education allows states and localities to design and to administer programs in a manner consistent with the needs or preferences of their jurisdictions. In recent years, state officials have devoted increased attention and funding to preschool education, and this period of considerable state-level innovation testifies to the ongoing significance of decentralization. Publicly-funded preschool programs at the state level vary widely due to the considerable discretion that subnational governments possess. During the 2005-2006 academic year, for example, Oklahoma enrolled 70.2 percent of its four-year-olds in state prekindergarten while Alabama enrolled only 1.7 percent of its four-year-olds (Barnett et al. 2006, 26).¹ That same year, New Jersey spent \$9,854 per child on its program while South Carolina spent \$1,095 per child (Barnett et al. 2006, 26). Access to state prekindergarten programs and the funds devoted to such programs vary considerably among the states.

Access and resources are important, but this paper emphasizes the educational qualifications required of preschool personnel and specific classroom requirements.² Some analysts classify these two types of provisions under the broad heading of “quality standards” (Barnett et al. 2006; Kagan and Neuman 2003). According to some analysts, the “quality of a preschool education program is the key to determining its educational value” (Barnett et al. 2006, 19). Preschool attendance has been tied to cognitive, social, and emotional development. It is most likely to produce these beneficial outcomes, many argue, when quality standards are imposed.³ The five provisions examined in this paper are generally associated with high-quality programs. The quality of state prekindergarten programs varies widely, and this variation may determine whether preschool enrollment has a positive impact on young children. Although the number of children enrolled in preschool has risen dramatically in recent years, many of them receive services that are of poor or mediocre quality.

Three educational qualifications, or teacher credentials, are investigated in this paper. The first is whether programs require teachers to have a bachelor’s degree.⁴ Most analysts believe that the presence of a highly-qualified teaching staff produces stronger academic performance among enrollees. For example, after reviewing existing research on preschool education the National Research Council recommended that teachers have a bachelor’s degree with specialization in early childhood education (Barnett et al. 2006, 33). During the 2001-2002 academic year, twenty-one state prekindergarten programs imposed a degree requirement on teachers; this number had increased to twenty-six by 2005-2006.⁵ The second teacher credential relates to the second recommendation of the National Research Council, namely, whether teachers are required to have specialization

in early childhood education. Supporters of this requirement contend that there is a link between caregiver training and classroom quality. Twenty-nine state programs imposed this requirement during the 2001-2002 academic year, and this number rose to thirty-five by 2005-2006. Most preschool classrooms are taught by teams of a lead teacher and an assistant, and the third credential addresses the educational qualifications of the assistant. Do state programs require the assistant to have at least a Child Development Associate (CDA) or equivalent credential? This credential intends to motivate caregivers toward continuing education, and its training and assessment requirements depend on how much experience applicants have in early childhood education. Like the bachelor's degree and specialization requirements, mandating that assistants acquire a CDA is thought to raise classroom quality. Only ten state prekindergarten programs imposed this requirement during both the 2001-2002 and the 2005-2006 academic years.

This paper also examines class size and staff-child ratio regulations. These two classroom requirements reflect a desire to increase preschool enrollees' opportunities for interaction with adults and individualized attention. A majority of state prekindergarten programs limit class size, and this paper examines whether they impose a maximum size of twenty or fewer students. Thirty-one state prekindergarten programs imposed such a maximum during the 2001-2002 academic year, and that number rose to thirty-seven by the 2005-2006 school year. Mandating a staff-child ratio of 1:10 or better is a related classroom requirement, one that preschool advocates argue is related to program quality and child outcomes. That specific ratio, in fact, has been described as "the lowest (fewest number of teachers per child) generally accepted by professional opinion" (Barnett et al. 2006, 33). Most state prekindergarten programs meet this benchmark. During the 2001-

2002 academic year, thirty programs required a staff-child ratio of 1:10 or better. By the 2005-2006 academic year, this requirement was in place in thirty-nine state programs.

In sum, preschool education in the United States is characterized by fragmentation and decentralization. At the state level, publicly-funded prekindergarten programs vary along several dimensions. This paper emphasizes the teacher credentials and classroom requirements which have been used to assess the quality of existing programs. Isolating the political origins of programmatic variation in this policy sector requires attention both to state characteristics and to the historical evolution of preschool education in the United States. The latter suggests that the distinct approaches taken at the state level may reflect divisions within the preschool advocacy community. Understanding the contemporary politics of preschool education may therefore require a developmental perspective that is sensitive to how political processes play out over considerable periods of time (Pierson 2005, Hacker 2005).

The Evolution of a Divided Constituency

In the United States, debates about the education and care of very young children date back at least to the infant school movement of the early 1800s.⁶ Much of the present rhetoric surrounding preschool education resonates with the claims and counterclaims of earlier eras. Another consistent feature of the ongoing debate is an internecine struggle among preschool supporters. The split between “educational” and “custodial” programs widened in the early twentieth century, embodied in the distinction between day nurseries and nursery schools (Grubb 1987, 7). Day nurseries and nursery schools served different

clienteles. The former were largely viewed as a charitable enterprise and were intended to be, in part, “child welfare stations” (Rose 1999, 39). Day nurseries served low-income children, particularly those whose mothers were forced to work, placing them squarely in the custodial camp. Nursery schools, which experienced especially rapid growth during the 1920s, emphasized educational development and maintained strong links to middle-class children and their parents.

The Great Depression drew heightened attention to the nursery school movement and caused the government to extend its role in providing preschool services. Publicly-funded “emergency” nursery schools were one component of the New Deal. The national government program was viewed as a temporary response to the depression (Beatty 1995; Slobdin 1975). It targeted unemployed teachers and the young children of families who were affected by the economic crisis. In many ways, it was as much a jobs program as an educational endeavor. Yet its provisions helped solidify the emerging divide within the preschool community. New Dealers chose to administer the program through the nursery schools, a decision that “pushed the day nursery even farther to the margins of the realm of social policy” (Michel 1999, 119) and also reinforced the widening fissure within the preschool community between the custodial and educational perspectives. During the Second World War, the needs of the war effort necessitated the employment of mothers of young children. The national government created a temporary, targeted program that provided grants for day care to those areas most affected by the wartime mobilization effort.

During the postwar era, several developments shifted the contours of the societal debate over preschool education as well as the debate within the preschool community.

One important force was a shift in societal attitudes toward female employment and the public role in day care provision. The employment rate of married women with children under six increased dramatically, leading Americans increasingly to view day care as a “socially legitimate “need” of normal families, and even a potential responsibility of the state” (Rose 1999, 213). At about the same time, developmental psychologists Benjamin Bloom and J. McVicker Hunt described the development of intelligence as a dynamic process. They argued that carefully controlled stimulation was critical to children’s mental, physical, and emotional growth during the early years of life (Bloom 1964; Hunt 1961). This mixture of demographic and intellectual forces galvanized political interest in preschool education. They launched a discussion of the merits of establishing a permanent government presence in the policy sector, prompting an intramural squabble among preschool advocates over who should control such a program. The modern debate blurred the previous distinction between educational and custodial programs, replacing it with a controversy over the respective roles of the public schools and community-based organizations.

One manifestation of the heightened societal interest in preschool education was the creation of Head Start in 1965 as part of the War on Poverty. Head Start is a national program that distributes federal funds to various types of local community organizations. The targeted program serves disadvantaged young children and their families, providing a variety of social services to the families while preparing the children for primary school. Head Start initially maintained a tenuous existence, but President Johnson believed that it would survive these early difficulties as its clientele groups formed protective alliances with sympathetic congressional subcommittees and agency administrators (Graham 1984,

xxii). Subsequent events proved Johnson correct, as its supporters managed to put Head Start on surer footing during the 1970s (Vinovskis 2005; Zigler and Muenchow 1992).

The political success of Head Start, however, effectively divided the preschool advocacy community. The adoption of a policy can facilitate the organization and the empowerment of its beneficiaries, a phenomenon known as policy feedback (Pierson 2004, 2005). Beneficiaries may press for the expansion of the policy and protect it against attack. Head Start produced policy feedback. Its beneficiaries and supporters favored the extension of public preschool programs but were skeptical of proposals that affected their existing prerogatives. Specifically, the families who participate in Head Start are “an integral part of the decision-making process” in governing and planning the program (Grotberg 1981, 12), and they carefully guard these prerogatives. Furthermore, Head Start provides parents with career development opportunities that historically have focused on careers in early childhood education (Zigler and Muenchow 1992). Head Start parents are usually staunch defenders of the program because they value its many educational and other services, their decision-making authority, and, in many cases, their jobs. As a result, they tend to resist the imposition of new educational requirements on preschool personnel, viewing these requirements as increasing the authority of the public schools at the expense of community-based organizations.⁷

Congressional debates during the 1970s furthered the erosion of the preschool advocacy coalition.⁸ The Comprehensive Child Development Act of 1971 proposed universally available child development programs. It passed both houses of Congress but was resoundingly vetoed by President Nixon, who invoked issues of family autonomy, administrative control, and cost to explain his position. Following the veto, several states

established public preschool programs, and private-sector preschool enrollment began to rise. Both developments created new constituencies in this policy sector, making it more difficult for advocates to maintain a unified coalition. In 1975, preschool supporters introduced the Child and Family Services Act, an ambitious proposal that attempted to respond to the objections voiced by the president and others. The 1975 bill was derailed, in part, by a split among preschool supporters over program control. The American Federation of Teachers (AFT) proposed the creation of a national preschool system and argued that the public schools should serve as its prime sponsors. Many members of the preschool community viewed this proposal as an AFT power grab and criticized the idea in heated terms (Fishhaut and Pastor 1977). The “fragile coalition of 1975 was quickly torn apart over the merits of giving public schools a major role” (McCathren 1981, 124), and the bill suffered a resounding defeat. By the time another bill, the Child Care Act, emerged in 1979, the preschool coalition was “hopelessly divided” (McCathren 1981, 131). After receiving a tepid response from the preschool community, the bill’s sponsor killed it by canceling further hearings.

The repeated political defeats of the 1970s, the solidification of the status of Head Start, and the emergence of smaller programs at the national and state levels affected the politics of preschool education more generally. By the early 1980s, active support for government involvement in this policy arena was “more splintered and more difficult to mobilize” than it had been a decade earlier (Beck 1982, 308). Continued fragmentation within the preschool advocacy community has repeatedly frustrated supporters of a more comprehensive and more unified approach to preschool education in the United States. Over time, the historical rift between the educational and custodial models of preschool

education gave way to a broader debate over teaching philosophies, program content, and parental responsibilities that manifested itself in turf battles over purposes, methods, and control (Grubb 1987). Another manifestation of this controversy is the tension that exists between Head Start centers (and other community-based preschool providers) and the public schools. The latter are more likely to embrace the teacher credential requirements and classroom regulations that are the subject of this paper.

Assessing the Determinants of Prekindergarten Program Quality

The main objective of this paper is to ascertain the political sources of variation among publicly-funded prekindergarten programs. Its analysis uses four years of cross-sectional data, the sources of which are annual reports published by the National Institute on Early Education Research (Barnett et al., various years).⁹ The five outcomes of interest are the provisions described earlier: a requirement that teachers have a bachelor's degree; a requirement that teachers have a specialization in early childhood education; a requirement that assistant teachers have a CDA or equivalent credential; a maximum class size of twenty or fewer students; and a staff-child ratio of 1:10 or better. The five models presented in the next section therefore use a dichotomous dependent variable to indicate whether state prekindergarten programs incorporated the relevant requirement in a particular year.¹⁰ Standard logistic regression methods are used on these data to assess the determinants of policy adoption. All models incorporate independent variables drawn from historical research on preschool education and the scholarly literature on state politics.¹¹

The discussion in the preceding section suggests that internal divisions within the preschool advocacy may affect the basic contours of preschool education in the states. This paper operationalizes this internecine struggle by classifying state prekindergarten programs into two categories: free-standing state programs and Head Start supplements.¹² States can invest funds either to expand Head Start programs in the state or to establish a state-specific preschool program. Free-standing programs are more likely to reflect the priorities of the educational community, incorporating the five regulations considered in this paper. Head Start supplements, for the reasons outlined in the preceding section, are less likely to include these regulations. The key independent variable is a dichotomous variable indicating whether a state operates a Head Start supplement.¹³

To insure that the dichotomous Head Start variable captures a philosophical and administrative decision, rather than a general commitment to preschool education, all of the models presented in the following section include an additional control variable. This control variable represents the total funds spent on a prekindergarten program, regardless of type, divided by the state population under five years old.¹⁴ It is important to note that it is a proxy for the state's general financial commitment to very young children and not a measure of per pupil spending.¹⁵ During the 2005 legislative session, for example, state officials passed preschool budgets that ranged from approximately \$746 per young child in Oklahoma to less than \$20 per young child in Alabama and Nevada.

The scholarly literature on state politics suggests that demographic and political variation among the states affects policy outcomes. This paper examines five potential influences. Socioeconomic development may affect program enactment. The seminal research of Thomas Dye (1966) and Jack Walker (1969) describes a general relationship

between wealth, urbanization, industrialization, and policy adoption. According to this hypothesis, adoption is driven by resources rather than needs (Tweedie 1994). The teacher credentials and classroom requirements examined in this paper may raise the cost of prekindergarten programs. Preschool personnel with stronger educational credentials might demand higher salaries than their less educated colleagues, and classroom size and staff-child ratio regulations might require a larger number of teachers and assistants.¹⁶ As a result, there may be a positive relationship between state wealth and the adoption of the five requirements. The models presented in this paper use real state per capita income as a proxy for the economic resources that facilitate program adoption.¹⁷

This paper examines the impact of two other demographic characteristics on the contours of state prekindergarten programs. The first is racial diversity. Several scholars have linked the racial heterogeneity of a state to its public policies. States with a larger minority population, for example, tend to have less generous welfare policies (Fellowes and Rowe 2004; Soss et al. 2003). Racial diversity has also been linked to educational outcomes (Hero and Tolbert 1996). Based on these findings, states with homogeneous populations may be more likely to adopt the five prekindergarten regulations examined in this paper. All models therefore include an annual measure of the state non-Hispanic white population.¹⁸ The second demographic characteristic is the proportion of the state population that is under five years old.¹⁹ The issue of preschool education may resonate more strongly in states with a high proportion of young children, leading them to adopt the five regulations. The logic of this potential relationship is analogous to the argument that problem severity drives policy adoption, the idea that adoption is more likely when a policy responds to conditions within a state (Nice 1994; Sapat 2004). Policymakers may

perceive a greater need for publicly-funded prekindergarten programs in states with a relatively young population.

The likelihood of policy adoption might also be influenced by the state political environment. Such political conditions as partisanship and ideology have been associated with the adoption of public policies (Erikson, Wright, and McIver 1993; Roh and Haider-Markel 2003; Spill, Licari, and Ray 2001). Party control of government institutions may explain policy adoption because the two major political parties tend to possess distinctive policy priorities. Democrats tend to be more enthusiastic about preschool education than Republicans, especially when it comes to expanding the government role in its provision. During the 2007 legislative sessions, for example, Democratic governors were among the “most eager to jump on the pre-K bandwagon.”²⁰ A dichotomous variable that indicates whether Democrats control the governorship and both houses of the legislature therefore appears in all models.²¹

The state ideological environment might affect the likelihood of policy adoption. Conservatives typically prefer policies that rely on the market or that reduce the scope of government activity; liberals usually support the expansion of government prerogatives. It is important to recognize (but not overstate) these broad differences. In the context of preschool education, many conservatives have object to publicly-funded prekindergarten as an intrusion of the “nanny state” on parental autonomy. For this reason, states with a conservative ideological environment may be less likely to embrace the five program requirements examined in this paper. All models therefore include data from the revised citizen ideology series and the revised government ideology series, both of which supply annual estimates of the state ideological environment (Berry et al. 1998).

Results

Table One displays the results for three regulations of the academic credentials of prekindergarten personnel. As predicted in the preceding section, states that operate a Head Start supplement are significantly less likely to require that preschool teachers have a bachelor's degree. They are also significantly less likely to require that teachers have specialization in early childhood education or that assistant teachers have a CDA or equivalent credential.²² In sum, states operating Head Start supplements are significantly less likely to impose strict academic requirements on their personnel. Having this type of prekindergarten program, all else equal, reduces the probability that a state will require a bachelor's degree by 18.3 percentage points.²³ It reduces the probability that a state will require that teachers specialize in early childhood education by 17.7 percentage points, and it also reduces the probability that states will impose a CDA requirement by 13.1 percentage points. The limitations of the cross-sectional data examined in this paper mean that it is inappropriate to draw causal inferences about this relationship, but Table One suggests a strong correlation between program type and the imposition of the three personnel requirements.

(Insert Table One about here)

Fewer strong patterns emerge regarding the other potential influences examined here. Per capita spending on prekindergarten has a positive impact on the probability of regulation adoption in two of three cases and achieves conventional levels of statistical significance in the context of early childhood education specialization. Homogeneity and

unified Democratic government each have the expected positive impact in all three cases. Homogeneous states are significantly more likely to require an early childhood education specialization, and unified Democratic states are significantly more likely to require that assistant teachers have a CDA or equivalent credential. The early childhood education requirement is also more likely to be imposed in states with a relatively large population under age five and in states with a more liberal citizen ideology. In sum, the results for the hypotheses drawn from the state politics literature are a mixed bag.

Table Two presents the results for two prekindergarten classroom requirements. Once again, states that operate a Head Start supplement are significantly less likely to impose these regulations. They are significantly less likely to mandate a maximum class size of 20 students or less, and they are significantly less likely to require a staff-child ratio of 1:10 or better. Operating a Head Start supplement, all else equal, reduces the probability that a state will impose a maximum class size of less than 20 by 24.7 percentage points, and it reduces the probability that a state will impose the staff-child ratio requirement by 27.4 percentage points. These results suggest a strong correlation between a free-standing prekindergarten program and the imposition of regulations tied to program quality. Head Start supplements are less likely to include these regulations.

(Insert Table Two about here)

The results displayed in Table Two provide mixed support for the hypotheses drawn from the state politics literature. There is a positive, significant relationship between per capita spending on prekindergarten and both classroom requirements. Rather than suggesting anything specific about the politics of preschool education, this relationship probably reflects the cost of shrinking class sizes and the staff-child ratio.

This control variable, however, helps separate the impact of funneling money through Head Start from a general state commitment to very young children. Of the other factors examined here, the most consistent influence is state homogeneity. There is a positive and significant relationship between the non-Hispanic white proportion of the state population and the adoption of both classroom regulations. Wealthier states and states with a more liberal government ideology are more likely to impose a staff-child ratio of 1:10 or better, but neither per capita income nor government ideology attains conventional levels of statistical significance in the context of maximum class size requirements. None of the other factors included in the models—the proportion of the population under age five, unified Democratic government, or citizen ideology—attains conventional levels of statistical significance in either model. Sometimes these variables do not even have the predicted positive impact.

In combination, the results presented in Tables One and Two suggest that state prekindergarten programs have developed along two distinct paths and that these paths reflect an historical divide within the preschool advocacy community. Both program types provide educational services and some family supports, but they differ significantly in their quality provisions. Free-standing state prekindergarten programs, reflecting the priorities of the educational community, are more likely to impose teacher credential requirements and classroom regulations than are Head Start supplements. The imposition or absence of these quality provisions may ultimately affect the educational value of the state programs.

Conclusion

Preschool education in the United States has long been a sector characterized by decentralization and diversity. Debates over purposes, methods, and control have divided preschool advocates into competing camps (Grubb 1987) and prevented the emergence of a unified coalition. Taking advantage of the decentralization of preschool education, the preceding analysis assessed the political determinants of state prekindergarten programs' quality provisions. The shape of these contemporary programs reflects a divide within the preschool advocacy community. Free-standing prekindergarten programs are more likely to impose education credential requirements on personnel and stricter classroom regulations than are Head Start supplements. What are the political consequences of these distinctions?

By adopting a particular approach, contemporary state prekindergarten programs privilege specific sets of political actors. The empowerment and political mobilization of program beneficiaries and other groups with a stake in the maintenance of the program implies that the existing policy repertoire has a dynamic impact on policymaking. It serves as a "vital force shaping the alternatives perceived and the policies adopted" (Hecl 1974, 156). Officials who wish to alter the status quo often must overcome the opposition of groups who benefit from existing arrangements, and the political power of program beneficiaries can become a source of stability that constrains the options that policymakers possess. The evolution of Head Start is instructive. As the program's political status solidified, its supporters and beneficiaries viewed some public preschool proposals as a threat. Even though these constituencies generally favored the extension of public preschool programs, they were skeptical of programs that affected their existing

prerogatives. Similarly, case studies of recent adjustments to state prekindergarten programs in California and Texas suggest the importance of accommodating existing stakeholders (Fuller 2007; Kirp 2007).

Recent internecine struggles within the preschool advocacy community and the concept of policy feedback suggest that contemporary distinctions among state prekindergarten programs may be quite durable. Some observers, in fact, have noted the difficulty of integrating Head Start into universal state programs that serve all children (Barnett and Hustedt 2003, 56). The potential resilience of existing arrangements might signal that state prekindergarten programs are destined to evolve along two separate and distinct tracks. Thus understanding the long-standing divide among preschool advocates not only illuminates the current differences among state programs. It might also predict the shape of future political battles in this increasingly important policy arena.

Notes

¹ During the 2005-2006 academic year, 19.9 percent of all four-year-olds and 3.0 percent of all three-year-olds in the United States enrolled in state prekindergarten programs (Barnett et al. 2006, 12). Many other American children enrolled in Head Start and other public and private programs, so this percentage is not a comprehensive estimate of preschool enrollment.

² The data on state prekindergarten programs come from annual reports published by the National Institute on Early Education Research, hereafter referred to as NIEER (Barnett et al., various years).

³ Some scholars contend that the effect of these requirements on program quality is more ambiguous than is typically portrayed by preschool advocates (Fuller 2007). A comparative study of early childhood policies in thirteen nations concludes that preschool attendance promotes cognitive development and school success but “the specific type of program attended matters very little” (Boocock 1995, 94).

⁴ Several states, while eschewing a formal degree requirement, have implemented other programs designed to encourage prekindergarten teachers to continue their formal education. Ackerman (2004) describes and evaluates several of these programs.

⁵ Some states operate multiple prekindergarten programs and are therefore “double counted” in this specific count. The quantitative analysis that follows addresses this double counting problem by only including the largest program (i.e., the one with the highest enrollment).

⁶ For a comprehensive historical account of preschool education in the United States, see Beatty (1995) and Cahan (1989).

⁷ Other preschool supporters, such as Montessori schools, oppose these educational requirements because they feel that training caregivers on-site or in classes on child development practices is sufficient.

⁸ McCathren (1981) provides a more detailed account of these congressional debates.

⁹ The NIEER reports cover the 2001-2002, 2002-2003, 2004-2005, and 2005-2006 academic years.

¹⁰ In order to isolate distinctions among the states that operate prekindergarten programs, states that do not operate such programs are excluded from the analysis.

¹¹ The models also include dichotomous time variables for each year. The time variables are not discussed in the paragraphs that follow due to their limited theoretical significance.

¹² This coding decision is derived from an annual measure of prekindergarten spending developed in Rigby (2007). A third category of programs combines the two approaches, with funds devoted to a free-standing state program and a Head Start supplement. This combined approach is treated as a Head Start supplement in the analysis that follows. With only one exception, the results do not change if the combined approach is excluded from the Head Start category. None of the states that exclusively allocate public funds to a Head Start supplement requires that assistant teachers have a CDA or equivalent credential, making multivariate analysis impossible.

¹³ The Head Start program includes its own set of regulations, some of which affect the quality provisions considered in this paper. The NIEER data account for this possibility by focusing on instances in which the “state assumed some administrative responsibility for the program. State supplements to fund quality improvements, extended days, or other programs enhancements that expand enrollment minimally are not considered equivalent to a state preschool program” (Barnett et al. 2006, 31). When this paper refers to states that “operate Head Start supplements,” it is referring only to those Head Start supplements that the NIEER considers equivalent to state preschool programs.

¹⁴ The spending measure examined here is an updated, annual version of the data presented in Rigby (2007). These data are divided by the state population under age five, which is the relevant age category in the U.S. Census. U.S. Census Bureau, “SC-EST2005-02: Population Estimates by State: Age and Sex for States and for Puerto Rico: April 1, 2000 to July 1, 2006,” <http://www.census.gov/popest/states/asrh/SC-EST2005-02.html> (accessed February 27, 2008).

¹⁵ For a variety of reasons, this control variable underestimates per pupil spending on state prekindergarten programs. Using a measure of per pupil spending creates an endogeneity problem, however, because of the potential relationship between the five regulations examined here and the costs of operating state programs.

¹⁶ Maximum class size and staff-child ratios raise the cost of operating a state prekindergarten program if the number of children served remains constant. State officials might, however, impose these requirements but serve fewer children.

¹⁷ The measure used is per capita income (Bureau of Economic Analysis, <http://www.bea.gov/regional/reis>, accessed February 20, 2008) divided by the implicit price deflator (“Table D-1: Population, U.S. Gross Domestic Product, and Implicit Price Deflator,” <http://www.eia.doe.gov/emeu/aer/txt/ptb1601.html>, accessed February 20, 2008) and then logged.

¹⁸ U.S. Census Bureau, “SC-EST2006-6RACE: Annual State Population Estimates with Sex, 6 Race Groups (5 Race Alone Groups and One Group with Two or More Race Groups) and Hispanic Origin: April 1, 2000 to July 1, 2006,” http://www.census.gov/popest/states/asrh/files/SC_EST2006_6RACE_ALL.csv (accessed March 3, 2008).

¹⁹ U.S. Census Bureau, “SC-EST2005-02: Population Estimates by State: Age and Sex for States and for Puerto Rico: April 1, 2000 to July 1, 2006,” <http://www.census.gov/popest/states/asrh/SC-EST2005-02.html> (accessed February 27, 2008).

²⁰ Pauline Vu, “Early Ed Gains Momentum in States,” *Stateline.org*, June 25, 2007.

²¹ The party control measure examined here is an updated, annual version of the data presented in Klarner (2003).

²² In light of the strong theoretical expectations described in the previous section, Tables One and Two use one-tailed tests of statistical significance.

²³ The first differences presented in this section were derived by setting unified Democratic government to zero, setting all other variables to their means, and manipulating the quantity of interest. For dichotomous variables such as Head Start supplement, the results described in the text represent change in the predicted probability of policy adoption when the quantity of interest shifts from 0 to 1. Values were derived using the statistical simulation approach and computer software described in King, Tomz, and Wittenberg (2000).

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Table One: Determinants of Prekindergarten Teacher Credentials

Variable	Bachelor's Degree	Early Childhood Education Specialization	CDA or Equivalent Credential
Head Start Supplement (-)	-0.81* (0.43)	-0.77* (0.42)	-1.05* (0.55)
Per Capita Spending on Prekindergarten (+)	0.0012 (0.0012)	0.0032* (0.0018)	-0.0057 (0.0022)
Per Capita Income (+)	-5.88 (3.56)	1.00 (3.71)	-0.027 (4.281)
Homogeneity (+)	1.77 (1.87)	3.91* (1.87)	2.55 (2.14)
State Population Under Age Five (+)	-23.23 (52.10)	110.31* (56.40)	12.88 (61.32)
Unified Democratic Government (+)	0.67 (0.60)	0.75 (0.64)	1.35* (0.67)
Citizen Ideology (+)	-0.016 (0.020)	0.034* (0.021)	-0.013 (0.022)
Govt. Ideology (+)	-0.0013 (0.0103)	-0.0093 (0.0111)	0.0030 (0.0123)
2002	-0.12 (0.47)	-0.32 (0.48)	0.23 (0.54)
2004	-0.15 (0.49)	0.59 (0.51)	0.30 (0.56)
2005	-0.09 (0.48)	-0.0079 (0.5161)	0.14 (0.58)
Constant	27.24 (15.89)	-15.55 (16.40)	-2.67 (18.90)
Number of Observations	164	164	164
Log Likelihood	-102.23	-95.93	-82.80
LR Chi-Squared (df)	21.69	17.38	25.15
P > Chi-Squared	0.0269	0.0971	0.0087
Pseudo R-Squared	0.0959	0.0831	0.1318

Note: Expected direction and standard errors in parentheses.

* P < .05, one-tailed tests of statistical significance

Table Two: Determinants of Prekindergarten Classroom Requirements

Variable	Maximum Class Size of 20 or Less	Staff-Child Ratio of 1:10 or Better
Head Start Supplement (-)	-1.20* (0.46)	-1.44* (0.48)
Per Capita Spending on Prekindergarten (+)	0.0063* (0.0024)	0.0060* (0.0025)
Per Capita Income (+)	-0.16 (4.05)	8.96* (4.34)
Homogeneity (+)	4.80* (2.07)	3.49* (2.01)
State Population Under Age Five (+)	31.51 (57.99)	38.79 (59.46)
Unified Democratic Government (+)	-0.26 (0.70)	-0.50 (0.71)
Citizen Ideology (+)	0.0091 (0.0227)	-0.023 (0.023)
Govt. Ideology (+)	0.0069 (0.0117)	0.027* (0.012)
2002	-0.068 (0.0117)	0.20 (0.52)
2004	-0.34 (0.53)	-0.10 (0.54)
2005	0.032 (0.556)	0.32 (0.58)
Constant	-4.62 (17.89)	-44.52* (19.09)
Number of Observations	164	164
Log Likelihood	-87.04	-82.52
LR Chi-Squared (df)	27.63	29.59
P > Chi-Squared	0.0037	0.0018
Psuedo R-Squared	0.1370	0.1520

Note: Expected direction and standard errors in parentheses.

* P < .05, one-tailed tests of statistical significance