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Educational vouchers for universal pre-schools

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Abstract

This article considers two issues regarding preschool education. First, it provides a brief set of arguments for government funding of universal, pre-school education. Second, it explores the applicability of a voucher plan using a regulated market approach for the funding of universal, pre-school education. Four criteria are used to assess the approach: freedom of choice, equity, productive efficiency, and social cohesion. The analytic framework is then applied to the Georgia Pre-K program, a statewide and universal approach based upon market competition that enlists government, non-profit, and for-profit educational providers. We conclude that, according to the four criteria set out, the highly regulated Georgia pre-school approach appears to produce superior results than one built upon exclusive production of pre-school services by government entities.

JEL classification: I21; I22; I28

Keywords: Educational vouchers; School choice; Efficiency

1. Introduction

In the search for ways to improve educational equity and overall educational outcomes, the provision of universal pre-school experiences of high quality has become a leading solution (Wolfe & Scrivner, 2003). Researchers have found a substantial gap in school readiness by race and socio-economic status when children reach kindergarten. Most of this gap can be explained by differences in home environments and parenting behaviors (Belfield & Levin, 2002; Lee & Burkam, 2002). Effective pre-school programs can substantially increase both intellectual and behavioral skills for school readiness and success. Moreover, at least three long-term evaluations of different pre-school programs have shown that the public investment costs are far outweighed by social benefits in productivity, tax revenues, and reductions in the cost of remedial education, criminal justice, and public assistance (Barnett, 1996; Barnett, Belfield, & Nores, 2004; Masse & Barnett, 2002; Reynolds, Temple, Robertson, & Mann, 2002).

These facts have helped persuade a number of states to adopt "universal" pre-school reforms, and many others are contemplating them.[1] Typically,

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[1]Thirty-eight states have state funded pre-kindergarten programs, of which three (NY, FL, WV) have enacted legislation for a universal pre-k program. But Georgia and Oklahoma are the

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these reforms build on the existing system of pre-school programs, which often represent a hodge-podge of government and private providers funded by families as well as federal, state, and local government agencies. The question raised in this paper is whether a more comprehensive offering of educational vouchers for pre-school children at public expense is superior to a categorical government-sponsored pre-k program. To answer this question, we compare outcomes from Georgia's voucher-like universal pre-kindergarten program to those of the government-sponsored Head Start program. Established in 1993, Georgia Pre-K was the first preschool program implemented by a state that is open to all 4-year olds.

1.1. Justification for public funding

As Friedman (1962) noted, public funding for any particular segment of education must be predicated on the existence of social benefits—i.e., benefits that accrue to society beyond those received by the individual students and their families. Currie (2001) has argued that such investments for the poor are justified by their effect on educational equity and lifetime opportunities as well as by addressing market failure, such as the effect of liquidity constraints for the poor that lead to underinvestment.

Additionally, the apparent benefits in reduced social costs of special education, grade retention, public assistance, and criminal justice and the additional tax revenues from higher incomes exceed by many times the social investment required, at least for students from low-income families. Therefore, pre-school education, at least for the poor, merits support as an investment that has payoffs for the entire society.

An impressive indicator of learning outcomes at an early age in the absence of pre-school and how they vary by social class of family is assessed in the highly regarded study of Hart and Rist (1995). From 30 to 36 months of age the children in professional families added twice as many words to their vocabulary as those whose families were on welfare, and the gap continued to widen. Further, the potentially devastating effects of these inequalities on later learning are indicated by the fact that measured vocabulary between the ages of 1 and 2 was highly correlated with test scores at third grade some 6 years later (Hart & Rist, 1995, pp. 158, 164, 161–162).

These rationales, however, emphasize the public interest in providing pre-kindergarten subsidies for the poor, not for funding universal pre-schooling. A strong basis for universal public funding of pre-kindergarten education is that existing provision of elementary and secondary schooling may start too late to take advantage of the potential leverage that earlier learning provides to all individuals. It is well-known that much brain development takes place in the early years, and habits, skills, and knowledge that are developed earlier can have a profound effect on learning at a later period (National Research Council, 2001). Further, there is evidence that negative behaviors developed early in life may undermine education and subsequent earnings (Stiles, 2005). Student learning in elementary and secondary schools is likely to be more efficient if students are prepared for that experience by early learning when they are most capable of developing basic skills and behaviors and before negative habits and attitudes are formed.

Evidence also suggests that improved efficiency of the teaching and learning process in elementary and secondary schools is greater the higher the proportion of students who have participated in formal pre-kindergarten schooling—an important external benefit that extends to entire classrooms. Belfield (2006) finds that both reading and mathematics achievement scores are higher for kindergartners according to the proportion of students in their classes that had participated in center-based, pre-kindergarten education. He also finds a positive relation between percentage of students with center-based pre-k background and student behavior and a negative relation with student absenteeism, teacher absenteeism, and teacher turnover. This holds true after using statistical controls for both individual socio-economic status and average socio-economic status of the school. Magnuson, Meyers, Ruhm, and Waldfogel (2004) also find that children who attended center or school-based pre-kindergarten performed better on kindergarten math and reading assessments. This held true for all student groups, but children with low socioeconomic status made the largest gains, a finding that is replicated for a recent study of the effectiveness of pre-schools in Oklahoma (Gormley & Gayer, 2005).

(*footnote continued*)
only two statewide universal pre-k programs that are operational (NIEER, 2004).

A related "public goods" argument for a universal pre-school approach is that there are likely to be spillover effects among students from different social class backgrounds. When children of different social class and racial groups share common experiences, they also share language, play, ideas, creativity, and skills. Thus, it is desirable that pre-schools promote diversity in enrollments in order to reap peer effects. In a longitudinal study of Georgia Pre-K students and teachers from 1996 to 2001, surveyed teachers reported that pre-k students' cooperation and social behavior improved during the pre-k year. Specific skills included making conversation, a positive attitude towards others, communication skills, coping with conflict, ethical behavior positive expression, respect for authority, and refusal skills (Henry, Gordon, Henderson, & Ponder, 2003, p. 32). These interactions represent experiences from which children of different races and social classes can build positive peer relationships and learning. If only the poor are subsidized, they will constitute a segregated population that cannot benefit from interactions with other students from more enriched educational backgrounds.

A final reason for a universal pre-k program is that of political support and solidarity. Not only are there societal externalities that result from the functioning of universal pre-school programs, but also support for pre-school arrangements is likely to be greater when students from all families are eligible. This is an important factor in getting universal pre-kindergarten programs initiated and funded.

In the next section we will provide the basic outline of a voucher plan and set out four criteria for assessing a system of pre-school institutions and three design tools for addressing these criteria. We include summary information about Georgia's Pre-Kindergarten program, GA Pre-K, in order to apply the assessment criteria to its voucher-like system.

2. Should vouchers be considered for pre-school?

The use of publicly funded vouchers has become increasingly common for financing services for the poor in the private marketplace. Vouchers represent government-financed entitlements or certificates that can be used for a specific purpose such as the provision of health or housing for targeted populations (Steuerle, 2000). Eligible individuals and families are provided with government-financed vouchers that can be used for the specified services. They choose from among eligible suppliers of health or housing services and pay for these services with the voucher. Suppliers obtain reimbursement by submitting the vouchers to the appropriate government agencies. The voucher mechanism represents an approach for enlisting the competitive marketplace to provide services funded by government.

Educational vouchers were first proposed as a funding mechanism by Milton Friedman (1962). Friedman acknowledged that the education of individuals provides external benefits to society in the form of inculcation of common values and citizenship for a democratic society. But, he argued that this is not a justification for public production of educational services. Instead, he asserted the superiority of the private marketplace for the production and distribution of educational services because of its emphasis on freedom of choice and competition. He viewed the use of educational vouchers as the mechanism for combining public finance with private provision.

In recent years educational vouchers have been available to students from low-income families in Milwaukee (Witte, 2000), Cleveland (Metcalf, Legan, Paul, & Boone, 2004), and Washington DC (Wolf, Gutmann, Eissa, & Silverberg, 2005) and for special education students and those in failing schools in Florida. These vouchers can be used to select a private alternative to existing public schools. In addition, experiments have been undertaken with educational vouchers for low-income families to ascertain the impact of private market alternatives on student achievement (Howell & Peterson, 2002).

The subject of educational vouchers for elementary and secondary education is highly controversial with conflicting claims on their educational efficacy and effects on equity and citizenship (Gill, Timpane, Ross, & Brewer, 2001). However, there is little in the voucher literature that applies to pre-school programs.[2] The question here is: Are educational vouchers superior to a residence-based government operated program for publicly funded, universal preschool programs?

Georgia's universal Pre-Kindergarten program, GA Pre-K, is voucher-like in that parents may choose among public or private providers in any

[2]One exception is Ryan and Heise (2002) who advocate publicly funded preschool choice program as a means to break parents'—particularly suburban parents'—"reflexive attachment" to neighborhood-based public schooling.

district, but the state pays providers directly rather than issuing entitlements to parents. Funding for services is contingent upon providers attracting enough children to assemble pre-k classes of at least 18 students. Although we will suggest a transformation to a system in which the parent receives a tangible voucher to exercise choice, the present GA Pre-K program approach functions like a regulated voucher system.

2.1. Criteria for answering the question

In order to answer the question of relative desirability of a highly regulated voucher program to a residence-based, public sector pre-kindergarten program, one needs to establish criteria that can be used to ascertain whether a pre-school marketplace funded by vouchers meets the goals and rationale for universal pre-school provision. In general, we have found that the literature on the provision of schooling focuses on four desirable criteria in the organization and funding of a public educational system: (1) freedom of choice, (2) productive efficiency, (3) equity, and (4) social cohesion (Levin, 2002).

Freedom of choice refers to the ability to choose among alternative educational offerings. Families are given the opportunity to select the school that best meets the needs of their child and that they can best relate to in terms of philosophy, personnel, curriculum, and other central aspects. This is one of the most important claims for an educational marketplace and the use of vouchers to fund schools.

Productive efficiency refers to the standard economic concern of producing the maximum output for any given cost. The argument for vouchers is that they permit the use of a competitive marketplace for producing educational outcomes, providing incentives for schools to be efficient in their use of resources and to constantly look for new ways of improving their competitive position.

Equity refers to the fairness in the distribution of educational access, participation, and results as a principal goal. This focus is especially important for assuring that students from families that lack sufficient educational resources in the home will receive special consideration to meet their educational needs in the school. In an educational voucher program it is possible to employ larger vouchers for the poor to obtain these services.

Social cohesion refers to the provision of a common set of experiences that are important for building the values and behaviors for ultimate participation and sharing in the common language and social, economic, and political institutions of society. Often this is thought of more broadly as preparation for democracy (e.g., Friedman's "neighborhood benefits"). However, this term is sufficiently ambiguous that we prefer to describe the criterion as social cohesion.

2.2. Designing a voucher plan

If a universal voucher plan for pre-school produces results on these four criteria that are at least equal to those of alternative approaches such as government-sponsored pre-schools, the voucher plan is feasible. If it produces outcomes on at least one of these criteria that are superior to those of alternatives, with other criteria about equal, the voucher approach is desirable over a government-sponsored program. To explore the performance implications of voucher plans for preschool education, it is important to set out the main features of such plans.

There is no single voucher plan, but an infinite number of possibilities depending upon the application of three policy tools: finance, regulation, and support services. Each of these can be fashioned to achieve specific results on the criteria set out above. After a general discussion of each policy tool, we include the relevant provisions of the GA Pre-K program, followed by a discussion of the ramifications of each. For reference, Box 1 provides more specifics about each Georgia policy tool.

2.2.1. Policy tool 1: finance

Finance refers to the size of the publicly funded voucher, whether it varies with educational need, who qualifies for the vouchers, and whether families can add on to the voucher from their own resources. In general, a larger voucher would be expected to increase freedom of choice and productive efficiency through stimulating a greater market supply of competitors. A larger voucher could also increase equity if greater public investments in children from low-income families compensate for lower private investments. And, larger vouchers could increase social cohesion by providing such attractive services that higher income families would be attracted to the same schools as lower income families, resulting in greater peer interactions. A high voucher could

Box 1
To summary of Georgia Pre-K policy tools.

Finance

- *Annual payments to providers*. $2481 to $3677 per child in the 2003–2004 school year depending upon teacher credentials, locality (metropolitan/non-metropolitan), and whether a provider is public or private. Private providers and those in metropolitan are paid the most.
- *Start up or expansion funds*. Up to $8000 per provider.
- *Expenditure requirements*. Providers must spend at least $1200 annually per classroom for materials and equipment, and may not spend more than 6% of the budget on administrative expenses.
- *Fees*. Providers may not charge low-income children (those eligible for GA subsidized health care, food, or other family service programs) for health services, transportation, or services and food provided during the 6.5 h pre-k day.

Regulations

- *Student eligibility*. Four-year-old residents of GA.
- *Class size*. 18–20 children.
- *Curriculum*. No part of the day may be religious in nature. Bright from the Start must approve curriculum.
- *Enrollment*. May be on first-come, first-served basis. Must be open and non-discriminatory. Immunizations may not be a mandatory requirement for enrollment.
- *Suspension of students*. Providers must obtain the state administrator's approval to disenroll or suspend a student on an extended basis (greater than 2 days).
- *Student assessment*. Instructors must keep a portfolio of each student's work and include observational assessments. Standardized tests or assessment tools require approval of a GA Pre-K consultant.
- *Staff*. A lead teacher and teacher assistant or substitute must be present in each class (a 1:10 staff to student ratio) during the whole day. Providers must have criminal background checks on file for all personnel.
- *Staff salaries*. Lead teachers must be paid minimum salaries stipulated in the pre-k operating guidelines. Salary levels are based upon education credentials.
- *Recordkeeping*. Providers must keep specified records regarding students and student enrollment for at least 3 years.
- *Monitoring of providers*. Providers must be licensed. A state consultant conduct site visits and uses a checklist (posted on line) to rate the provider. ''Not met'' scores require the provider to respond in writing within 10 days.
- *Probation of providers*. Providers deemed to be out of compliance with the written operating guidelines may be placed on probation, which can result in funding loss or prohibition from participation in the coming year. The state can cancel contracts of those on continued probation or who lose their license.

Support services

- *Transportation*. Transportation is optional. $165 annual transportation subsidy for low-income children available from state for providers.
- *Information*. The state maintains an online database that helps parents find locations of providers within a county or zip code. Profiles of providers include licensing study and monitoring visit reports performed by the state.
- *Information*. The state administrative office in consultation with Department of Early Childhood Education authors 10 ''Parent Post'' newsletters annually that offer tips and advice for parents.
- *Information*. Providers must hold at least 2 individual parent conferences per year.

also finance a greater range of activities that might contribute to social cohesion, including a longer school session that allows children to interact more fully and promote peer learning.

Vouchers provided to all children regardless of family income levels might curry the favor of wealthier families who can, in turn, provide political support. But universal vouchers would also provide a public subsidy to wealthier parents who might otherwise pay for pre-kindergarten services from their private funds. The distribution of vouchers to all or to only some obviously affects the total costs of such a program.

Another major financial dimension of a voucher plan is whether families could add-on to the government voucher in order to send their children to a more expensive school. If this were permitted, it would give parents with greater financial resources more freedom of choice and possibly stimulate greater competition for such students, increasing competitive efficiency in that portion of the market. However, such add-ons may have the opposite effects for the poor who could not afford to supplement the voucher amount and may be less sought after in the marketplace. It would also undermine equity and social cohesion because lower income families would be relegated to schools that accepted the voucher, but families with greater incomes could choose schools for their students that would provide more services and segregate their children from those in lower income families. Add-ons may be difficult to prevent in practice, as significant monitoring would be required.

In 1993 Georgia established its statewide, universal, pre-kindergarten program known as GA Pre-K. The purpose of the program is to provide children with the "learning experiences they need to prepare for kindergarten." The program sets development learning goals for language, reading, mathematics, creativity, and children's physical, social, and emotional development. The program is paid for by the proceeds from a state lottery. In the 2003 school year, the state allocated $261 million for the program and served 68,155 children—56% of Georgia 4-year olds. The program is voluntary and allows families to enroll their children at a participating preschool of their choice.

pre-k providers were paid between $2481 to $3677 per child in the 2003–2004 school year depending upon teacher credentials, locality (metropolitan/non-metropolitan), and whether a provider is public or private. For example, in 2003–2004, a provider in a metropolitan area with a college-graduate teacher of 20 students received $63,543. A private provider in a non-metropolitan area with the same teacher and class would receive $57,165, and a public provider $54,148. Bright from the Start, the state office that administers the program, provides up to $8000 in start-up funds for new sites or expansion of existing ones.

In Georgia, as in most states, there are many preschool options: federally funded Head Start centers as well as government-funded centers sponsored by school districts and municipalities, and a plethora of for-profit and not-for-profit providers. State pre-k funding can be used to supplant or supplement existing funding, meaning that a center can use the state allowance for each child to either add to its funding base or can use it to reduce dependence on other sources of funds.

Any activity performed during the 6.5-h pre-k day must be free to all students. However, providers may charge fees to families who opt to enroll their children in extracurricular activities outside the 6.5-h school day. Providers may also charge children from families with earnings above the poverty level for health services, meals, and transportation.

2.2.2. Policy tool 2: regulation

Regulation refers to the requirements set out by government for eligibility of schools to accept and redeem government vouchers. Particular regulatory concerns are child safety, personnel ratios and qualifications, admissions criteria, curriculum, and performance measures. Child safety is typically determined by characteristics of the preschool facility as well as personnel requirements. Beyond this, personnel adequacy refers to the numbers of teachers and aides for a given preschool enrollment and the qualifications of those personnel to provide the training in social and cognitive skills for ensuring school success. Admissions criteria refer to non-discrimination in accepting applicants as well as some kind of policy such as a lottery to ensure equal chances of admission in the event that there are more applications than places. Curriculum and performance measures focus on those skills and behaviors that are key to later school success.

In general, the more detailed and extensive the regulations, the more that participating schools will be similar, limiting the range of freedom of choice. More regulation may lead to greater productive efficiency if competition becomes more intense

along common dimensions of performance, or it may lead to less productive efficiency if schools find the restrictions to be burdensome and bureaucratic rather than helpful. Common dimensions can also improve efficiency by enabling an assessment system that can measure pre-school performance and communicate results to parents as well as providing a basis for withdrawing eligibility to schools that show poor results.

Most regulations tend to reinforce equity and social cohesion in the sense of providing a common curriculum and performance criteria for children from different social class backgrounds as well as fair admission procedures. To the degree that they assure a more diverse mixture of students, they are also likely to promote important peer effects for the less advantaged, which, in turn produces greater equity.

The Georgia Pre-K program is highly regulated, but it still promotes many options. Public schools, Head Start centers, and religious and private for-profit providers are eligible to participate. However, no part of the 6.5-h pre-k day may be religious in nature. By the 2004–2005 school year 156 school districts and 689 private providers (with a total of 3611 pre-k classes) were participating. About 56% of pre-k students were enrolled in schools sponsored by private providers.

All providers must be licensed and teach an approved curriculum. To become a pre-k provider, a daycare or preschool center must submit an application to Bright from the Start and agree to follow its operating guidelines, including paying its teachers according to a minimum pay scale, and submitting class rosters and other documentation as a condition of payment.

Personnel requirements include criminal background checks and at least one lead teacher and teacher assistant per 20 students (capped class size). Providers must pay teachers according to a minimum salary scale stipulated by state administrative office. Classes must be offered for at least 6.5-h per day, 5 days a week, and 180 days (i.e., the K-12 academic year). Providers must keep records of student assessment, attendance, lesson plans, and parent conferences for 3 years.

There are no income-restrictions on eligibility, but children must be Georgia residents and no more than 4-years old. Providers must accept applicants in an ''open and non-discriminatory'' manner. They may enroll students on a first-come, first-served basis, and give preference for children living in the local school's attendance zone. Children who qualify for special education services and are deemed eligible for the pre-k program may not be denied access.

Bright from the Start pays providers and ensures that they are licensed and using an approved curriculum. Department consultants conduct random site visits, using the pre-k Program Quality Assessment tool to assign each provider a series of scores. These scores are posted on an online database,[3] which the public may use to find providers in their locality. Those providers receiving a ''not met'' score must provide written explanation to Bright from the Start within 10 days. The GA department may cancel contracts of those providers on continued probation or who have problems with licensure.

The GA department also imposes expenditure restrictions on providers. They must spend at least $1200 annually per classroom for materials and equipment, and may not spend more than 6% of the budget on administrative expenses. Using the example of a metropolitan private provider from above, this restriction translates into less than $4000 annually for administrative expenses per GA Pre-K class.

2.2.3. *Policy tool 3: support services*

Support services refer primarily to the provision of school information and transportation of students. Markets work best when potential clients have the knowledge to make informed choices and have access to a large number of suppliers. It is typically difficult for households, especially low income ones, to acquire substantial information on educational alternatives without government provision. Limited transportation options can also be a constraint, especially for the poor, in the absence of government assistance. Government provision of information and transportation contributes to equity, choice, and social cohesion to the degree that they create greater peer diversity, and may enhance productive efficiency through increased competitive pressures on producers.[4]

One policy question is whether a common information system reduces or fully offsets the

[3]Report cards can be found at: 〈http://reportcard.gaosa.org/dev04/osr/〉

[4]However, it is also important to note that even if information and transportation services improve competitive efficiency of individual preschools, they have their own infrastructural costs that take resources from the pre-school budget (Levin & Driver, 1997.

transaction costs of individual schools in the provision of information. Similarly, how much are household costs for transportation offset by public provision? Support services may improve or undermine productive efficiency of the system of pre-schools depending on their net cost and effectiveness.

The Georgia Pre-K program offers an online searchable database of providers and their state-generated evaluations from site visits, as well as a handbook that explains admissions, enrollment, curriculum standards, and choices of providers. In partnership with the Department of Early Education at the Georgia State University, Bright from the Start publishes a series of 10 newsletters during the year about activities for pre-k parents and children. Training sessions for providers are covered annually.

GA Pre-K providers are not required to provide transportation services, but Bright from the Start will reimburse providers for transportation of enrolled children who are in poverty up to a rate of an additional $165 per child per year, a rate that may be too modest to allow access to sufficient pre-school alternatives for the poor.

3. Applying the four voucher criteria to Georgia Pre-K

Although the Georgia Pre-K approach is not strictly a voucher system, it has many of the features of a voucher system with its provision for universal funding of pre-school, a voucher-like payment, and emphasis on choice within a regulated market framework. In this section, we explore how well the Georgia Pre-K approach meets the criteria of freedom of choice, productive efficiency, equity, and social cohesion as well as the overall expectations for a competitive marketplace.

3.1. Freedom of choice

Freedom of choice requires a wide range and large number of potential suppliers competing for students. The Georgia Pre-K program seems to meet those standards with its inclusion of government-sponsored, for-profit, and not-for-profit providers, including religious sponsors, provided that religion is not required in the curriculum. By definition it provides considerably greater choice of providers than a government sponsored program such as Head Start. Although there will be fewer choices for rural parents, there are still likely to be more alternatives than dependence on one provider. In the 2003–2004 school year, for example, there was at least one GA Pre-K provider in each county. Some of these counties, however, are quite rural: as of 2000, there were as few as 2000–6000 people in ten of 159 total counties.

GA Pre-K partially follows Milton Friedman's plan of permitting additional financing for families, but the parental add-ons under GA Pre-K are only allowed for non-educational services such as health services, meals, and transportation.[5] It also permits existing pre-schools to use grants to supplement or supplant existing sources of funding. In particular, Head Start classrooms may also operate as GA Pre-K classes, thus qualifying for both the federal and state payments.

These provisions have spurred considerable numbers of schools to enter and compete in the marketplace. Table 1 shows the average size, growth, and output of companies participating in GA Pre-K. Between 1997 and 2003, there was a 17% growth in the total number of companies participating in the GA Pre-K program. By 2003, there were 838 companies participating in GA Pre-K. These providers offered pre-k services at 1712 different locations in 3421 classes. The private for-profit sector accounts for the majority of the growth in companies. However, as a percent share of total classes provided, the for-profit, non-profit, and public sectors showed relative stability in their shares of the GA Pre-K market—about 48%, 9%, and 45%, respectively. The for-profit sector's share of the market grew slightly over this time, offsetting a slight decline in non-profit sector share.

A number of indicators suggest robust competition amongst providers in the GA Pre-K program. Between 1997 and 2003, the largest five companies within each sector commanded a stable share of the sector, accounting for about 11–12% of the total for-profit sector and 4% of the non-profit sector. There was no evidence of tendency towards market concentration. While there were as many as 16 classes at some sites, the average remained around 2 classes per site across the sectors. In the private sector the average number of sites sponsored by each private company was less than two.

[5]GA Pre-K providers may not charge students of families eligible for TANF or GA-subsidized programs for these services, but should direct families to enroll in Georgia programs that subsidize them.

Table 1
Characteristics of the Georgia Pre-K program by sector

	Beginning of academic year						
	1997	1998	1999	2000	2001	2002	2003
Number of companies participating							
Private for-profit	398	497	519	534	536	533	564
Private not for-profit	166	120	127	125	119	128	94
Public[a]	150	149	148	150	151	152	180
Total companies	*714*	*766*	*794*	*809*	*806*	*813*	*838*
Total number of sites	*1549*	*1611*	*1658*	*1682*	*1683*	*1698*	*1712*
Total number of classes[b]	*3055*	*3106*	*3296*	*3218*	*3281*	*3354*	*3421*
Percent share of total output (classes)[b]							
Private for-profit	43.7	47.0	44.5	46.0	46.6	46.2	47.8
Private not for-profit	13.3	10.8	11.2	11.6	10.7	10.8	9.4
Public[a]	43.0	42.2	44.3	42.4	42.7	43.0	44.7
5-Company concentration ratio							
Private for-profit	0.12	0.13	0.12	0.11	0.12	0.12	0.11
Private not for-profit	0.04	0.04	0.05	0.05	0.04	0.04	0.04
Average number of sites per company							
Private for-profit	1.43	1.61	1.58	1.58	1.60	1.62	1.54
Private not for-profit	1.43	1.59	1.66	1.65	1.59	1.54	1.73
Public[a]	4.40	4.34	4.47	4.44	4.52	4.49	4.03
Average number of classes per site							
Private for-profit	1.98	1.86	1.84	1.81	1.86	1.90	1.96
Private not for-profit	1.71	1.76	1.76	1.82	1.85	1.84	1.96
Public[a]	2.07	2.06	2.04	2.07	2.08	2.10	2.13

Source: GA Office of School Readiness.
[a]Public sector providers include public school districts, county Board of Educations, public colleges, and army or naval bases.
[b]Class size may not exceed 20 enrollments.

Table 2 provides another indicator of the dynamics of choice and competition by showing the number of companies that have entered and exited the pre-k program on an annual basis. At the beginning of 1998 academic year there were 361 for-profit companies who chose to continue participation in pre-k and 89 for-profits new to the program. After the end of the 1998 academic year, 51 for-profits dropped out of pre-k, and 51 companies shifted classification (either from or to for-profit status) for the subsequent school year.[6] Within the for-profit sector, the rate of new entry is reasonably robust, adding 7–20% to the for-profit market annually. However, entry rates have declined over the 1998–2002 period. Likewise, there is a non-trivial exit rate from the pre-k program of 5–11% each year. This churning of providers indicates that only 68–87% are present year-to-year. But exit and entry rates declined between 1997 and 2003, suggesting that the pre-k market has grown increasingly stable.

As expected, the non-profit sector shows considerably greater stability, with lower entry and exit rates. Although there is some growth over the 1998–2002 period, the year-end balance of non-profits remains essentially flat. The public sector was the most static of the three. Public school districts, which comprise the majority of "companies" in the sector, showed consistent participation, with negligible entry and exit from the program.

There is some evidence that private companies operate pre-k programs as a benefit for their employees. For example, companies such as Automated Billing Systems, Eastview Apartments Limited, or Management and Training Corporation participate in GA Pre-K, clearly in connection with

[6]Reclass may be a result of coding errors by the GA Office of School Readiness or reflect a true change of a company's profit status.

Table 2
Georgia Pre-K program—provider entry and exit rates

	1998	1999	2000	2001	2002
Private for-profit					
Balance from prior year	361	444	470	495	495
Entrants	+89	+70	+ 58	+41	+36
Exits	−51	−46	−37	−39	−26
Reclass in from not for profit	+47	+5	+6	+0	+1
Reclass out to not for profit	−2	−3	−2	−2	−1
Year-end balance	444	470	495	495	505
Private not for-profit					
Balance from prior year	104	109	120	119	119
Entrants	+12	+16	+7	+3	+13
Exits	−6	−5	−11	−3	−9
Reclass in from for-profit	+4	+2	+3	+2	+1
Reclass out to for-profit	−5	−6	−0	−1	−5
Reclass out to public	−0	−1	−0	−1	−23[a]
Year-end balance	109	120	119	119	96
Public					
Balance from prior year	149	148	148	150	150
Entrants	+0	+0	+1	+1	+1
Exits	−1	−0	−0	−1	−1
Reclass in from not for profit	+0	+0	+1	+0	+1
Reclass out	−0	−0	−0	−0	−0
Year-end balance	148	148	150	150	151

[a]The GA Office of Readiness changed coding practice in 2003, designating providers such as naval bases and public colleges as "public" instead of "not for profit".

a separate business. However, the vast majority of the providers appear to be stand-alone pre-kindergarten service providers.

Although Bright from the Start does not collect data about providers' religious status, a conservative estimate can be made by a simple review of providers' names. Assuming, for example, providers with "Christian", "Jesus" and so forth in their name are religiously affiliated, the number steadily grew from 24 providers (18% of non-profit providers) in 1997 to 31 (or 32%) in 2003. These estimates suggest that religiously affiliated providers constitute a substantial portion of the non-profit GA Pre-K sector, although only about 4% of the total sites.

In summary, from 1997 to 2003 the for-profit sector showed the most dynamic market activity with the highest entry and exit rates. However, the for-profit sector has not crowded out the public or non-profit sector; the three sectors' respective shares of total output have remained relatively static over the 7-year period. The largest companies within each sector have not absorbed increasingly large shares of their sector, suggesting reasonable competition within the market. Finally, the average number of classes per site has remained flat, showing that sites are not tending towards large-scale pre-k production.

3.2. Productive efficiency

The productive efficiency criterion requires that outcomes for any given level of resource commitment be maximized. This goal is a difficult one to evaluate because there are many potential outcomes of a universal pre-school program, and not all of them are measurable. Recall that the Georgia Pre-K program is dedicated to growth in language, numbers, and conceptual skills as well as social, physical, and emotional development that will contribute to school learning when children arrive at elementary school. Singular reliance on any one goal is not adequate, and there will be tradeoffs among goals to the degree that they compete for resources.

Comparison of the state funding for GA Pre-K with federal funding for Head Start is complicated by the fact that public resources provided for Georgia Pre-K can be supplemented or supplanted in existing programs, and additional resources can be sought from non-poverty families for health services, meals, and transportation. Both outcomes and available resources are not easily measurable among sites. And, randomized field trials between Georgia Pre-K centers and others is not feasible in a system of universal choice (rather than assignment) where most centers in the state participate in the program.

Having said that, there is some evidence that the GA Pre-K program performs as well or better than the Head Start program in preparing poor children for kindergarten, despite the fact that GA Pre-K funding is approximately one-half that of Head Start and that some Head Start centers also receive GA Pre-K funding.[7] Based on a sample of 353 economically poor pre-k children to 134 Head Start students, Henry, Gordon, and Rickman (2004) found that GA Pre-K students performed better on cognition and language tests in Kindergarten than their counterparts from Head Start.

One effect of Georgia Pre-K is to increase competition by inducing more suppliers to enter

[7]Head Start funding, though, covers nutritional, dental, and health care and family support spending not included in the GA Pre-K program.

the marketplace. Henry and Gordon (2003) used a longitudinal sample of children who had participated in Georgia Pre-K as 4-year olds in 1996–97 and assessed their performance in third grade, some 4 years later. Competition was assessed by a Herfindahl index constructed for each county. They found that the level of competition in Georgia Pre-K improved third grade outcomes modestly, especially in language arts, mathematics, and reductions in grade retention, comporting with the general findings on the effects of competition in the schooling literature (Belfield & Levin, 2002). We should keep in mind that since the number of sites per supplier (Table 1) is more than twice as great in publicly sponsored organizations as in private ones, competition levels created by the Georgia Pre-K program are considerably greater than if only public sites were competing for students. Moreover, traditional public centers are sponsored by governments that typically set attendance within residential zones, so that competition is further reduced by strictly relying on public provision. In a separate study, Henry and Gordon (2006) found reduced retention rates of children in counties where there was more competition to provide pre-k services.

Certainly, the preliminary evidence suggests that the voucher-like mechanism of Georgia Pre-K improves competition; and competition improves educational outcomes. This finding is further strengthened by the modest amounts that Georgia Pre-K programs receive when they do not have supplementary funding from other government agencies or private sources of support. The allocation of less than $4000 a student contrasts markedly with the approximately $ 7000 a child allocated to Head Start and the $8000 per child that expert opinion suggests is necessary for a high quality program that is year-round (Wolfe & Scrivner, 2003, p. 129–30).

The reason for these cost differences is not readily obvious. The minimum GA Pre-K program requires more days a year than Head Start (180 vs. 160) and a longer daily session. Minimum educational qualifications for teachers and support personnel are also higher for GA Pre-K, and minimum salaries for each educational level are higher than salaries paid to Head Start instructors.[8] Student ratios for the two programs are similar. The main difference is that Head Start provides health screenings and exams and more nutritional inputs as well as family services, although it is not clear that such differences can account for most of the greater spending on Head Start.[9]

3.3. Equity

Universal pre-school programs are inherently oriented towards equity in their goal of preparing all students for school readiness and success. That is, in their absence such programs would only be available to parents with economic means or those fortunate enough to obtain subsidized services in the private sector or those eligible for and accessible to public pre-schools. The advantage of a market mechanism with universal eligibility is that accessibility and choice rises, especially for the poor. Thus, it is possible for the poor to choose among a greater variety of pre-school providers than if they were restricted to government services, and it also enables them to have the threat of "exit" when services do not meet the standard of alternative suppliers (Hirschman, 1970). For these reasons we believe that universal pre-school programs with a regulated market mechanism like that of Georgia Pre-K tend toward greater equity among families of different income levels than when the poor are restricted to government-funded centers in particular geographical attendance zones.

Equal access can also undermine stratification of students by income where the existing system of government and privately subsidized (often religious) centers serve the poor, and private (for-profit and not-for-profit) centers enroll those who can pay. Universal eligibility allows children from different social class backgrounds to attend the same pre-school centers and to learn from each other, an important gain that also extends to social cohesion. However, there is some evidence of stratification by pre-k sponsor type. The longitudinal study of GA Pre-K students from 1996 to 2001 found that for-profit centers tended not to serve high-risk pre-k students at the same rate as other providers (Henry, Gordon et al., 2003, p. 40). This is not surprising since the non-profit and government centers are

[8]Individual Head Start centers determine teacher wages, and a competitive wage of $18,144 in rural Georgia in 2005 for a Head Start teacher with a Bachelor of Arts degree was less than that required by the GA Pre-K program for an equally qualified teacher.

[9]GA Pre-K centers are expected to refer students and families to the state health care and welfare agencies for students and families in need of those services.

more likely to receive subsidies through fundraising or public funds from other government units that will cover additional services for the poor. Moreover, some for-profit providers were in operation prior to the GA Pre-K program and had an established clientele in non-poor communities.

Perhaps more importantly, there is some evidence that the GA Pre-K program reduces the achievement gap between advantaged and disadvantaged students relative to Head Start (Henry, Henderson et al., 2003). An examination of three student groups in 2001 found that after controlling for family and individual characteristics, GA Pre-K students caught up to private preschool students on five skill measures assessed in kindergarten. The GA Pre-K students performed better than Head Start students on three of the five measures of cognitive and language skills and about the same on the others. In a comparison of only low income children in GA Pre-K to those in Head Start that also controlled for selection bias and individual and family characteristics, the GA Pre-K children performed better in kindergarten on six of eight directly assessed measures of language and cognitive skills and four out of five skills ratings by kindergarten teachers (Henry, Henderson et al., 2003).

3.4. Social cohesion

Much of the goal of social cohesion is premised on the notion of common experiences in both learning activities and outcomes and social interactions among students from different backgrounds. The Georgia Pre-K program has the potential for providing both. As a condition of participation and funding, schools must meet curriculum and teaching standards and outcome standards. At the same time, the universal aspect means that families of different social class backgrounds will send their children to centers with greater diversity of families than if subsidized pre-schools were limited to the government institutions alone based upon residential location. Under the GA Pre-K plan, both low-income families and those with economic means are able to choose within a common marketplace of schools with a common set of performance standards.

With 60% of eligible 4-year olds enrolled in the Georgia Pre-K program, it is clear that the majority of such children are non-poor and that there is likely to be greater diversity than in a relatively stratified system of government-funded schools for the poor and a market for the non-poor. We are not aware of any empirical studies that can verify the extent of student diversity within classrooms, and there is some economic sorting of students across for-profit and not for profit-providers. However, given the residential segregation of neighborhoods by race and social class in Georgia, it is likely that restricting the supply to government-sponsored neighborhood centers will lead to highly segregated results under universal access.

4. Evaluating the Georgia Pre-K voucher program

We have suggested that the voucher mechanism has attractive properties for funding universal pre-school programs. Although the Georgia approach is not literally a voucher program, it functions as one. The main difference is that schools are reimbursed by the state directly rather than through vouchers received by parents and redeemed at the school site. Nevertheless, in all of its major features the Georgia Pre-K program is a regulated, marketplace strategy to achieving universal pre-school that emulates the features of a voucher plan.

We have suggested that the Georgia pre-school approach is likely to produce superior results than one built upon strictly government provision of pre-school services according to the four criteria that were set out: freedom of choice; productive efficiency, equity, and social cohesion. Even with its high level of regulation, the use of a competitive marketplace generates more differentiated alternatives and greater freedom of choice than strictly, government provision of pre-school services. Not only is the market more flexible, but, on average, private centers have smaller enrollments (Table 1) so that the sheer number of alternatives is likely to be greater for any given population than with a model limited to government-run centers. The available evidence on productive efficiency when comparing the results of the Georgia Pre-K marketplace with the government-run Head Start centers suggests that GA Pre-K model has lower costs and educational results that are equal or superior. With respect to equity and social cohesion, we do not have any direct, comparative evidence. However, we believe that choice in the marketplace is likely to provide greater access and peer diversity than a government-run service limited by residential location.

5. Recommendations and questions

We propose three recommendations that may improve the functioning of the GA Pre-K program and similar approaches.

The first is that the GA Pre-K program and other states that wish to emulate its provisions should distribute an actual voucher to families for each eligible child rather than just reimbursing the centers directly. The reason for providing vouchers directly to parents is to make them fully aware of their responsibility for enrolling their children and their market power in doing so. We believe that the tangible receipt of an actual voucher of a given monetary value by each eligible family will have a positive impact on stimulating greater enrollment and in getting families to recognize that they have a right to discriminate carefully in choosing a provider. Certainly, Georgia could test this proposition by carrying out field trials with random assignment of vouchers to families and comparing their behavior with that of families that are simply informed of their eligibility to receive universal preschool services under the existing approach.

The second recommendation is to offer greater flexibility in the provision of pre-school opportunities for those who wish to have their children participate in shorter daily sessions or attend less than 5 days/week. We recognize that the option of a shorter session may induce some families whose children can more fully benefit from the full session to shift their children to the shorter one with some loss of potential educational results. These tradeoffs would have to be considered in any schedule changes.

Our third recommendation is that of considering the provision of financial bonuses to schools that are able to meet diversity goals. More specifically, to promote diversity in enrollments by race and social class, the state might offer a financial incentive to schools that meet specified diversity criteria. Such a bonus would be justified by the external benefits from promoting greater peer interactions among children from different backgrounds.

Finally, we suggest attention to answering three key questions that may provide insights into improving overall effectiveness. First, what is the demographic composition of families that opt not to take advantage of the pre-k option? For example, does the full day, 5 day/week requirement bias the demand toward families whose mothers work outside the home? What are their reasons for making other choices? To what degree have they chosen preschools that do not participate in Georgia Pre-K, and what would induce them to participate? Second, what is the extent of demographic diversity within classrooms induced by the Georgia Pre-K program, particularly with respect to race and income? This might be analyzed by type of school sponsorship with a goal to considering how incentives and regulations affect diversity. Third, given the relatively modest level of per-student spending in the Georgia Pre-K program, is there room for program improvement and for higher personnel salaries and benefits? Expansion of enrollments will raise the demand for preschool staff, putting upward pressures on salaries. If costs rise without compensating increases in reimbursement, the market of potential suppliers will shrink. Additionally, dependence on the lottery revenues may be inadequate to accommodate expanding enrollments. Although the use of lottery revenues may have been politically palatable initially, the magnitude and behavior of lottery revenues is not an appropriate criterion for ascertaining desirable social investment. At the very least it is important to explore supplemental sources of support as well as consideration of whether per-student spending is at an appropriate level.

We believe that the answers to these questions might provide insights into further improvements in a market-oriented program.

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