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Network on Early Childhood Education and Care

THOUGHTS ON ECEC COSTS AND FINANCING

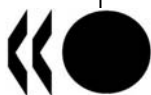
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Thoughts on ECEC Costs and Financing

Robert Myers

A paper prepared for presentation at
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Financing ECEC Services

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Introduction

In an attempt to respond to what I perceive as the purposes of this meeting, this paper will be divided into three parts. In the first section I will try to contribute to the stated focus of this specific session on “mapping different financing mechanisms and funding strategies for ECEC services and infrastructure”, focusing on Mexico where I live and work. The second section will report briefly on a costing exercise carried out in Mexico that experimented with constructing costs for individual preschool centers; although carried out in only a few centers, the results of the exercise show how difficult it is to estimate (let alone “know”) what the real total costs of education are and who bears these costs. The results also suggest hypotheses about costs and both equity and quality issues. Third, I will, in a rather telegraphic manner, present several conclusions about costs and financing of ECEC that come from my experience.

1. Mapping financing mechanisms and funding strategies, with an emphasis on Mexico

To approach this topic I have tried to incorporate, from a decidedly unofficial viewpoint, some of the information that is requested in the country questionnaire. I will also refer to the framework presented by Cleveland and Krashinsky in. Their framework looks beyond “services” to include strategies such as voucher systems and providing subsidies or tax credits and incentives to parents or providers of various sorts (including employers) in open or conditioned strategies

ECEC in Mexico: a general description

A reminder: care and education at home. It is probably fair to say that the bulk of early childhood education and care in Mexico occurs in homes. This is decidedly the case for children from birth up to age four where enrolments in day care or educational programs are relatively low. But is also so for ages 4 and 5 despite that fact that preschool enrolments are approaching 100% for five-year olds and 90% for age 4. That is so because children are in preschools for only 3 or 4 hours per day five days a week. Therefore, most of the costs of ECEC will be borne by families whose members take their time to provide direct care and educational activities¹ and provide the home conditions settings within which they will occur. Accordingly, it is important to include in the discussion what governments do to support the families that continue to carry out this role (which may be through programs of education directed to parents) and/or to ease their cost burden (subsidies or tax credits) even while we focus on services and programs that take on part of the responsibility of caring directly for children outside the home during certain periods of time. Information about who actually cares for children during time when they at home or about the quality of care and education in home environments is not easily found, contained occasionally in research studies with limited coverage or described with a few variables found in occasional sample surveys. This information is not part of standard reporting about ECEC. This means there is an important gap in our information.

Care and education through services and programs. ECEC services and programs for young children in Mexico vary widely in their: size; the populations served (children of different ages, parents, targeted groups vs. universal availability); administrative responsibility; location in

¹ And/or who contract individuals to be in their home to do so rather than to look to services or programs outside the home.

home or schools or elsewhere; infrastructure (degrees of sophistication and maintenance); teacher or caregiver qualifications and experience; supervision; involvement of parents and community; models taken as the base for action (home-based/center-based/community-based, instructive/constructive, imported/locally-developed, etc); duration attention (during the day and year); organizational features (number of children per teacher or caregiver) and content (focused on health, education, care, or integral development of children).² The main purposes for operating services vary as well: reducing poverty, helping women to earn and learn, preparing children for school or life, caring for children with special problems, etc. This diversity makes it difficult, if not impossible, to construct and to interpret general figures that purport to describe what is being spent on ECEC.

Although the central government exerts considerable control over public educational, health and welfare services and is the main source of funds, most of these services and programs are “deconcentrated,” run by states and municipalities which sometimes introduce their own programs as well. Funds received by states may or may not be earmarked. Expenditures may or may not follow budgets. Financial reporting is not particularly transparent.

To add to the diversity, services and programs are operated by several different ministries (Secretariats), departments within ministries and semi-autonomous organizations within the government as well as by organizations within the social and private sectors. It will be clear from the above that costs, sources of funding and who bears the costs will vary widely as well.

Within education, early childhood programs are divided into two main groups: preschool education and initial education.

Preschool education is obligatory (since November 2002) from age 3 to 5/6.³ In theory and according to the constitution, because preschool is obligatory, it should be “free”, just as the rest of basic education should be free of charge. In fact, parents are asked to make monetary contributions to the operation of preschools. They also provide assistance in kind and time for a variety of activities.

Preschools are organized in three levels according to the age of children with age-three children in the first year, age 4 in the second and age 5 in the third and immediate pre-primary year. It is not correct, as suggested in Annex A (Typology of child care and early education services) to the questionnaire for Mexico that “schooling” begins at age 5; children of this age are still in “pre-school”.

² Although early childhood care should include attention during the prenatal period, programs of maternal and child health during this period will not be considered in this paper.

³ In theory, obligatory preschool means not only that the government must make preschool education to ALL children but also that parents are obliged to send their children, ages 3 to 5, to preschool. Obligatory preschool has had a marked effect on enrolment and, at least in the short run, seems to have had a negative effect on quality (Mártinez and Myers 2008). It has not been possible to provide sufficient places for all children so the deadlines for achieving universal enrolment for three-year olds have been postponed. There is no official sanction if parents do not send their children to preschool and states have agreed that no child should be denied access into primary school if they have not gone through preschooling (although the common belief is that they can be denied).

It is probably correct to say that preschool cover the second E (Education) in ECEC but do little related to the C (Care). Programs may or may not have nutritional components. The links to the health system are extremely varied and not a direct part of the preschool service. The length of the preschool day does little to help solve problems of care for working mothers and families.

The main preschool programs within the Secretariat of Public Education (SEP) are:

- general preschool (about 5 million children, including both urban and rural) which accounts for about 90 percent of all preschooling.
- indigenous preschool (about 400,000 children. Operated by a special department within the SEP).
- community preschool (about 150,000 children), requiring participation from communities and employing youth with minimal training)

The administration of preschools is not restricted to the SEP. Some preschooling is also carried out in child care centers operated by other governmental agencies (social security system, family welfare) or semi-autonomous organizations, based on the norms set by the SEP.

The percentage of children enrolled in “private” preschools has increased from approximately 10% in 2000 to 15% in 2007/8⁴

Initial Education: direct attention. This category, which covers children from birth to four years of age⁵, is not obligatory and programs are of two main types, direct attention to children in centers and education of parents.

The main public programs to provide direct attention to children are those run by the two national social security institutes responsible for social benefits for workers (IMSS and ISSSTE). These services are only available to workers employed in the formal sector, meaning that a large percentage of working families employed in the informal sector (estimated to be as high as 50%) are not eligible. Moreover, the available places in the two systems cover only about 10% of the potential demand meaning that many eligible families must remain on waiting lists to enroll their children and seek other opportunities. Access to care can begin at 43 days after giving birth. Children in families where an employed male is a single parent are also eligible for these care services.

Within each of these services different models are operating which vary considerably in the cost per child. The original model was to group children in large centers providing health, nutritional and other services in an integrated manner on site. Because these services were very expensive (more than US\$3,000 per child per month) alternative models were established, usually involving farming out the care to approved caregiver organizations, providing a subsidy

⁴ “Private” preschooling includes both “for profit” centres and “non-profit” centres which are usually run by social institutions. The percentage of enrolment in private centers is much higher in urban areas than in rural, reaching, for instance, 35% in the Federal District.

⁵ The alert reader will immediately note that there is an overlap between preschool ages (3 to 5) and initial education ages (0 to 4). Children age 3 can be in either initial or preschool education programs (or perhaps even both).

depending on the per child attendance. Because IMSS and ISSSTE incorporate different models with varying costs it is difficult to interpret what an average cost figure for the service provided by each of these organizations means; costs need to be assigned to the different models.

Direct attention in care centers is also provided by:

- DIF (Integrated Family Development). Family welfare, located within the health sector organizationally, is supposed to attend to children of mothers⁶ who are working in the informal sector but in fact many of the children enrolled are of mothers in the formal sector because the social security system does not provide sufficient places.
- SEP provides attention to young children in Centers for Integrated Child Development and in a program of “semi-formal” education.

Initial Education: Parental education is often provided in conjunction with direct attention to children in centers (and so would not be costed separately). The main program of parental education is run by the National Council for Educational Promotion (CONAFE); it currently reaches 438,455 children (at a cost per child estimated at US\$112 per child per year).

Other major ECEC programs for reaching young children.

To complete this description of ECEC services and programs it is necessary to mention two other national programs: a conditional cash transfer program called Oportunidades and a day care program (presently referred to as Estancias) for working mothers that is run by the Social Development Ministry with assistance from DIF.

Oportunidades presently reaches more than 5,200,000 poor families throughout Mexico. It provides cash transfers to families that qualify as living below the extreme poverty line. These transfers are linked to specific health, nutrition and educational actions which families must take. At the earliest ages (pre-natal through entrance into primary school), there has been no education (or early stimulation) component in the program. Nutritional and health-related subsidies are provided. The educational component does not kick in until the third grade of primary school when families are provided with “scholarships” for their children if they continue their education.⁷

Estancias. When the current President of Mexico took office in 2006 he began to make good on a campaign promise to provide child care for working mothers. This program, called Estancias Infantiles para Apoyar a Madres Trabajadoras (Children’s Places to Help Working Mothers?) now attends to approximately 300,000 children whose ages are between one year and four years (one day before the fourth birthday) living in families with low incomes who do not have access to another child care service. Centers of attention are, for the most part, newly

⁶ DIF also is responsible for young children without families to care for them.

⁷ Although various evaluations of Oportunidades have shown significant effects on the health and nutritional status, the motor skills and the socio-emotional development of young children, there do not seem to have been effects on cognitive development at entrance into school. (Gertler and Fernald, 2004) This should not be surprising given the lack of an educational component during the early years. There has been no subsidy for children to attend preschools. Some effort is currently being made to introduce stimulation into the early years.

created home day care centers. The government provides a subsidy of up to \$35,000 pesos to help owners of these centers condition and equip their centers so as to meet the program's requirements. It also offers initial and continuous training. Parents are provided with a subsidy to help pay for attention of their child in these centers, up to 700 pesos per month (average subsidy is 450 pesos per child), according to their socio-economic condition. However, this money is not given to parents; it goes, rather, directly to the centers and the total amount provided depends on daily attendance. Parents who are not eligible for the full subsidy are required to contribute the difference.

Although the Estancias program initially insisted that it would provide care and not education (because its purpose was to help mothers working or seeking work, not to promote the integral development of young children), that stance has changed recently and an effort is being made to incorporate an educational component. The program is also beginning to work with companies that would like to set up centers within (or related to) their company.

Financing Strategies

To my knowledge, Mexico does NOT employ the following strategies for funding ECEC services and programs:

- Voucher systems
- Tax incentives (deductions or credits) for parents
- Universal standard subsidies to families for children during the early years
- Tax deductions for centers providing attention to young children
- Tax deductions to employers for providing on-site child care

With respect to the five categories proposed by Cleveland and Krashinsky, the following are used to fund ECEC in Mexico:

1. Child-related leaves and associated benefits. Women who are employed in the formal sector and covered by programs of IMSS and ISSSTE are entitled to a leave of absence 6 weeks prior to giving birth and 6 week following birth, with 100% salary and a guarantee that they can return to their job. There is also a provision for women who, with medical approval, need to be absent from their job during their pregnancy and before the 6 week provision kicks in. Medical benefits are provided for the birth. Families are entitled to coverage for clothing for the baby as well as to a six month supply of food.
2. Publicly provided services. These have been described in the previous paragraphs.
3. Supply subsidies to ECEC services. As indicated above, the initial subsidies provided within the Estancias program would seem to fall within this category.
4. Demand-side subsidies for the use of ECEC services. Through the Oportunidades program, parents are provided with cash transfers and access to health and nutrition services. As yet, these subsidies do not apply to early education.

5. Other financing programs. Small grants from a national pawn service are available to certain types of non-governmental organizations that provide ECEC services.

2. An experimental study of preschool costs in Mexico

Systematic studies that calculate (or better said, estimate) and analyze costs of ECEC programs are infrequent and most such studies are narrowly conceived. The following are characteristic of most educational cost studies:

- They do not try to estimate total costs. Rather, they are based on budget analyses and look only at the costs that are covered specifically by the public or private entity responsible for administering the educational system or program being considered.
- Studies rarely include costs of resources used in educational institutions that are covered by direct payments or through donations of materials or time made by 1) families, communities and 2) others who are not directly responsible for operating the institutions.
- Most studies are used for budgeting and planning and occasionally for cost-effectiveness analysis. Rarely are they used to identify inequities in an educational system despite the lingering notions that better education probably costs more, that there are huge differences in the resources available to different schools, programs and educational sub-systems and that we should try to reduce inequities, including those related to the distribution of resources.
- Costs are rarely related to the quality of the education provided. When that is done, the relationship examined is to educational outcomes (usually standardized test scores) but not to educational processes. The quality of educational processes is often assumed to be determined by the level of costs or expenditures despite evidence that the relationship is far from perfect.

In 2008, the author, with colleagues, carried out a study of costs in a very small number of preschools of different kinds (Myers and Valle). Most of the preschools were in rural areas. A main purpose of the study was to try out a methodology for estimating the total costs of preschool education, their various components and for identifying who bears costs at the level of individual preschool centers. We were interesting in seeing how total costs as well as the distribution among cost components and the sources of financing vary at local levels. With this information it is possible to examine variations within the same program and/or across program models. Behind this was a particular interest in identifying resource and funding inequities related not only to the resources available but also to the way in which different groups are asked to participate in covering costs (for instance, a disadvantaged rural population may be asked to contribute relatively more in money, time and/or kind to financing a program than more privileged urban participants).

The method used was to visit each center to interview, using standard formats, center directors, teachers, parents and others involved in attending to the preschool children as well as to examine center records and to inventory resources. Table 1 presents a composite look, at an aggregate level, at how the costs for the eight centers examined were distributed among the cost

“ingredients” (salaries and benefits, infrastructure, materials and supplies, food, overhead, transport, uniforms, training, supervision and participation in school committees and special events) as well as who was covering the cost of each ingredient.

Table 1 (Mexican pesos)
Resultados del Promedio de los 8 Centros Escolares ciclo escolar 2007-2008

	Público			Privado		Gasto Promedio Total	Distribución porcentual promedio
	Federal	Estatad y Municipal	Programas Especiales (PNL, PEC, CONAFE, etc.)	Padres de familia y comunidades	Personal del Centro con recurso propio		
1. Personal							
Salarios y otros beneficios	\$1,481,687	\$525,826		\$118,760		\$2,126,273	33%
Aguinaldo y prima	\$176,300	\$65,200				\$241,500	4%
Alimentación y hospedaje				\$86,950	\$200	\$87,150	1%
2. Infraestructura: Construcción	\$1,000	\$269,280	\$4,900	\$96,323		\$371,503	6%
3. Infraestructura: Equipamiento	\$18,878	\$79,425	\$5,205	\$12,838	\$771	\$117,118	2%
4. Materiales	\$20,851	\$64,872	\$6,000	\$84,060	\$32,460	\$208,244	3%
5. Suministros	\$48,186	\$20,881				\$69,067	1%
6. Alimentación	\$23,200			\$2,264,995		\$2,288,195	36%
7. Gastos Indirectos	\$450	\$11,310			\$9,900	\$21,660	0%
8. Transporte	\$0			\$180,600		\$180,600	3%
9. Capacitación	\$13,500	\$51,050			\$35,746	\$100,296	2%
10. Supervisión	\$6,472	\$1,523				\$7,995	0%
11. Uniformes				\$216,050		\$216,050	3%
12. Comité Escolar				\$252,984	\$4,342	\$257,326	4%
13. Otros		\$5,000		\$77,629	\$62,240	\$144,869	2%
Total	\$1,790,525	\$1,094,367	\$16,105	\$3,391,189	\$145,659	\$6,437,845	
Gasto promedio por alumno	\$4,060	\$2,482	\$37	\$7,690	\$330	\$14,598	100%
Proporciones	27.8%	17.0%	0.3%	52.7%	2.3%	100%	
Proporciones	45.1%			54.9%		100%	

One can see from the table that, in this particular set of centers, salaries and benefits accounted for only 38% of the total costs. This differs significantly from the common wisdom that salaries and benefits account for about 90% of the costs because in this study, total costs were calculated rather than restricting the study to costs covered by government. One can also see that private contributions (including contributions in time and kind) are slightly greater than public contributions. It is interesting to see also that training and supervision are such a small cost component whereas food is large.

Perhaps more interesting than the aggregate data, the study allows for comparisons of per student costs among the individual schools, as presented in Table 2.

Table 2
Summary of selected cost results for 8 Preschool Centers

	Characteristics of Preschool				Selected cost results				
	students /teacher	Urban rural	Quality *	Type of preschool	Per student Cost*	% Gov	% Par-ents	% Salaries	% Alimen-tación
1	54/3	R	2.16	Indigenous	12,189	78	12	66	7
2	40/1	R	2.09	Indigenous	9,011	48	50	33	31
3	63/2	R	2.72	General	13,028	67	32	53	14
4	30/2	R	2.62	General	12,628	64	28	48	7
5	25/2	R	3.04	Community (CONAFE)	13,409	35	65	11	50
6	74/3	R	2.77	Community (Puebla)	16,498	17	83	25	60
7	80/4	R	2.32	Community (Oaxaca)	16,625	34	66	23	58
8	75/4	U	3.68	General	18,109	47	51	41	32
Consolidated results					14,654	45	53	37	37

Per student costs. For this small sample of schools, the consolidated per student cost is \$14,598 pesos (US\$1,377). This per student cost places the set of preschools analyzed here somewhat above the estimate of \$11,100 (US\$1,047) presented in the Annual Report of the Secretariat of Education (2007) for the 2006-7 school year. It should be kept in mind, however, that the official figure does not include the contributions made by families. If we took out the 53% contributed by families and the 2% contributed by teachers, the per-child cost would be \$6,594, much lower than the reported national average. It suggests that government support is not getting to rural areas.

By way of contrast, the study estimate is considerably below the expenditures per child per year at the preschool level reported by OECD for the previous school year as \$US2,045. These disparate figures suggest how difficult it is to pin down a specific cost estimate and how much the estimates depend on methods and assumptions applied.⁸

The range of per student costs across the eight centers is from \$9,011 to \$18,109 (US\$850 to US\$1,708). Had urban centers in the Federal District or Nuevo Leon been included, for instance, the range would certainly have been greater. When one compares the individual per student cost figures with other variables presented in the table one can begin to see the relationship to, for instance, the quality of the educational process or to the relative contribution of parents.

⁸ It does not seem possible to account for the difference between the SEP and OECD in terms of an adjustment made for purchasing power parity or an adjustment associated with a one-year difference in the time when the information was collected. Although we have tried to explain the difference, taking into account the information supplied by OECD about how their calculation was made, we have not been able to come up with a satisfactory explanation for the different number we have come up with. The most probable explanation, to our understanding, is that the figures presented by SEP are calculated only for Federal funds used at the center, and dispersed to the states to cover decentralization. No independent state funds or parental contributions are included. However, it seems that OECD included both federal and state expenditures, as well as contributions from families derived from responses to questions on the annual educational survey.

Without trying to attribute too much to such a small experimental study let me suggest, nevertheless, several possible implications.

1. It is difficult to “know” what the real and total costs of early education are.
2. Costs and who bears the costs differ significantly across programs but also within particular program lines (see, for instance the two indigenous schools in Table 2).
3. “Average” cost calculations hide crucial information about differences that may be as important, or more so, than the average figure offered to the public.
4. Quality does seem to be related to per student cost (see columns 3 and 5 of Table 2).
5. Programs for the poor tend to cost less and place a greater relative burden on parents.
6. The cost of continuous training and of supervision is extremely low.

Perhaps the main point to be made is that this method of constructing costs offers potentially useful possibilities for analysis as well as a set of hypotheses to be explored.

3. Closing Thoughts

These general thoughts may or may not be related to the first two sections of the paper and are presented with the idea of being intentionally provocative in some cases.

1. **One should not attempt direct comparisons of the costs of ECEC across countries, systems or programs.** Too many differences exist in purposes, expected or real benefits, populations (ages groups, enrolments, characteristics of participants), contexts (dispersed, concentrated, price structures and insertions in markets) technologies, components (education, health, nutrition, others), hours of operation, in-kind contributions, etc. to allow comparison. Because these differences exist,
2. **It is important not to combine cost data from programs that are very different in order to arrive at average per child costs.** Because aggregate or averaged cost data hides so much, the data may be misleading.
3. **In many countries, the information base is weak and does not easily permit cost calculations.** Accounting procedures are lax. Funds are often used for purposes that are different from those for which they have been allocated. It is hard to amass information about costs from different sources as they converge in a particular ECEC program or learning environment.
4. **Most cost studies involve calculations based on public budget allocations or expenditures and focus on direct operational costs; most do not include time or in-kind costs borne by families, volunteers and private organizations.** Although time and in-kind costs are not important in some programs they do add up to a significant contribution in others, particularly in community-based, non-formal programs which are often carried out in poorer or hard-to-reach areas. Recognition should be given to hidden parental and community contributions without which it would be difficult for the programs to function.

- 5. The estimation of costs required to mount a program of “acceptable” quality is a useful exercise for planning or to compare with the actual costs of programs in operation.** Most cost projections are based on cost averages and do not explicitly take quality into account. If one wants to determine what is “best” it is useful to construct and project costs according to agreed-upon characteristics.
- 6. It is right to be skeptical of any cost estimate made for an early childhood program.** To understand the estimate and sometimes to overcome that skepticism requires looking behind the summary figures to see from whose viewpoint the estimate is presented, to determine what “ingredients” were taken into account and to see what assumptions were used to assign values to the ingredients. This can be extraordinarily frustrating for those of us who would like to think that one accepted and “scientific” way exists to determine costs. I would like to think, for instance, that the figure presented in Annex B for Mexico (suggesting that “pre-primary spending as a % of GDP” in Mexico is 0.6) is meaningful. Unfortunately, I find it difficult to extract meaning for Mexico, given the data problems inherent in the calculation, or in comparison with other countries. Similarly, the figures presented in Annex C on public and private expenditure on educational institutions for pre-primary education by funding source require a great deal of explanation to make them meaningful.
- 7. More use should be made of costing information to look at questions of social participation and equity.** These issues have remained in the background as planners and budgeters worry more about what a program will cost and the implications for their particular budget than about the larger social picture in which the process of obtaining and using resources is embedded. To this end, studies that construct costs by looking at the resources actually used in centers and on-the-ground can be helpful by identifying differences in costs among programs (and even among particular units within programs) as well as in who is bearing the costs.

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