

# **Is the Integrated Child Development Scheme (ICDS) in India Able to Address its Targeted Audience?**

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**Abstract:**

The largest public provision of early childhood education is provided by the Government of India since 1975 under the programme called Integrated Child Development Scheme (ICDS). However, it seems failed to provide universal coverage and preference towards private preschools is growing rapidly among all income groups.

The objective of this study is to investigate whether the public preschools are actually able to address its main audience i.e. the marginalized section of the society. Based on primary data from India, this paper explores the determinants behind the differential choice of preschool in India.

This study found differential preschool choices based on the socio-economic status of parents. The result shows that ICDS is able to address people from the underprivileged section of the society, and providing a great support to them.

*Keywords:* Socio-economic Status, Preschool, Demand, Inequality.

## **1. Introduction:**

There are two major types of ECE provisions available in India: Public and Private. The public provision of ECE is named as Integrated Child Development Scheme (ICDS), which is one of the largest universalized ECE service in the world. Alternatively, there exist private providers of ECE which refer to a profit making initiative. Whereas ICDS is targeted to cater the disadvantaged group of the community, private ECE provisions are mainly targeted towards children of socio-economically better off families. But it has been observed that economically upward mobile families and sometimes low income families are often choosing private preschool (which is beyond their economic ability). There is a steady expansion of private preschools across the country, in not only urban but also rural and tribal areas in many states (Kaul et al. 2015). Recent trends suggests an increasing preference for private ECE not only by economically well off families but also by low income families. If the ICDS programme is not able to address the group of people they are targeted to cater and parents (including low income parents) have preference towards private provisions, then it may lead to several further consequences for the families and the society as a whole. Also if ICDS project fails to achieve its goals then increasing investment in this project is not worthwhile.

The purpose of this paper is to find out who is choosing what in terms of ECE and identify the key determinants behind parental choice of a type of preschool. Using primary household-level data, primary objective in this paper is to see how a household's different resource endowment matters in their choice of a type of preschool: public or private. Findings of the paper suggest that, choice of a type of preschool was mainly based on the socio-economic status of the people matched with the available preschool alternatives they have. Anganwadi centres were mostly chosen by socio-economically disadvantaged families and in that way,

ICDS is able to address its audience. Besides, significant difference in selection of a type of preschool has been noticed with respect to residing district.

## **2. Indian Context:**

The public provision of ECE named ICDS was launched by the Govt. of India on 2<sup>nd</sup> October 1975, based on four main pillars namely 'Pre School Education', 'Joy of Learning', 'Linkages to Nutrition and Health' and 'All Matters relating to Early Childhood Education'. Nowadays ICDS represents one of the world's largest programmes for early childhood education and development. Popularly known as 'Anganwadi' (village courtyard), the lowest tier of the ICDS programme, is the main platform where all the services converge. The programme offers non-formal preschool education to children aged three to six, supplementary feeding for all children aged upto six, and their periodic health checkup. The Pre-school Education (PSE) component of ICDS may well be considered 'the backbone of the ICDS programme' as 'it brings and keeps young children at the Anganwadi centre - an activity that motivates parents and communities' (MWCD). Currently there are about 1.3 million anganwadi centres across the country and about 95 million children (zero to six year of age) were enrolled for SNP and about 36 million children (3 to 6 years of age) are enrolled for PSE (source: MWDC 2014-15).

The initiative taken to develop the strong foundation of nutrition, health and education of children through the ICDS programme is well applauded but often ICDS is criticized for its quality and availability of services. Discipline was enforced strictly, making children epitomes of conformist behaviour' (Sharma 1987; 57-59) Nevertheless, despite its poor quality, empirical evidence has indicated its positive impact on young children.' (Sharma 1998; 292) Though performance of ICDS with regards to reducing mal-nutrition and

undernutrition among children is well applauded; but that with regards to ECE is dubious and much criticized for the quality and methods.

The next in order is the private providers of ECE with profit motives. Though the exact number is not available, it is estimated that about 10 million children receive ECE from private providers. While many of these private preschools are operated by entrepreneurs as separate enterprises, others are attached to private primary schools. In absence of any regulation and control by the Government, the curriculum and education offered by them are of wider range and also it is hard to have any data to evaluate their performance and impact on children. But most of the experts oppose the growth of an unregulated preschool education sector in India and according to them, in private preschools ‘untrained teachers in ill-equipped classrooms, [cram] the three Rs forcibly down the throats of unwilling children, ... parents who, ironically, often pay a fee they can ill afford for this dubious ‘service’ resembling torture.’ (Swaminathan 1998; 22) Some of these preschools are referred as more of a ‘teaching shop’ and the quality of education offered by these preschools is often being countered and described as ‘mis-education’ (Kaul & Sankar 2009, kaul 1998a, Kaul 1992).

The range of ECE provision in India is huge but availability of ‘quality’ ECE is still under question. There might have several excellent and innovative ECE programmes largely unknown outside their region or community. It is important to evaluate performance of existing ECE programmes, especially ICDS, because unless this programme is successful in addressing its targeted audience increasing public expenditure in this programme is not justified.

### **3. Theoretical discussion:**

Generally, the source of differences in preschool choices lies in the question of why parents demand for ECE for their children. For parents, the benefit of

ECE is potentially two-fold: First, ECE can make it feasible for both parents (and the only parent in a single parent family) to be employed. This role has become increasingly important in an era of welfare reform, in which able bodied mothers are expected to work regardless of the age of their children. Second, early intervention programs can enhance child development, particularly among disadvantaged children (Blau & Currie 2006; 1165) and human capital accumulation (Becker 1964, Heckman 2000) for the family and the society. Moreover, ‘evidence is quite clear that inequality in the development of human capabilities produces negative social and economic outcomes that can and should be prevented with investments in early childhood education, particularly targeted toward disadvantaged children and their families’ (Heckman 2011).

Parents want education for their children because they want their children to have a better future from all respect and providing early education could be one of the initial steps that parents could take for the better educational career of their children (Checchi 2006: 15). Two factors contribute to the variation in educational attainment in the population: one is talent (be it ‘pure intelligence’ or ‘better family background’) which boosts the human capital accumulation and the other is resource endowment which may constrains poor families when financial market is imperfect or absent (Checchi 2006: 27). Educational choices for children are the reflection of parents’ rationality to think, their resource endowment, societal status, and also their values and sentiments. It has been assumed that parents behave rationally in the economic sense, but they also behave within decision fields whose parameters are a function of their position in the stratification system (Boudon 1974; 36). Later, Breen and Goldthorpe (1997) have explained this difference as a consequence of the “Primary” and “Secondary” effects.

Studies so far have confirmed that, the differences in educational opportunity is time and space dependent; and the set of factors responsible for disparity in educational opportunity

vary a lot depending on the level of education and the region. As the demand for ECE comes from parents and extended family members, it is utmost important to investigate the argument that parents use to choose an ECE option from a set of available options. Children from lower social strata meet very severe selection barriers at the early educational transition because of the differences in resource endowment and the values attached to education by different social groups (Blossfeld & Shavit 1993).

Endowments of different resources, both economic and non-economic, have direct impact on educational choices. Whereas the economic resources are decisive for actual costs, the social and cultural resources influence their educational aspirations for their children. ‘Resourceful families transmit relevant knowledge and skills to their children; send them to expensive private schools....’ (Jonsson & Erikson 2000; 347) Also, the probability of having ever attended a preschool depends significantly on household income: that is, children of families with a lower household income attend such programmes for a shorter period of time than children from high-income families (Spiess et al. 2008, Schober & Spiess 2013). Other than this, several factors related to parents’ employment such as type of work and its duration, whether single or both the parents work etc. also matter for the preschool decisions by parents (Vesely 2013, Han 2004, Johnson & Erikson 2000, Spiess et al. 2008, Schober & Spiess 2013).

Apart from that, parents’ level of education has a significant role in their decision making for ECE. The effect of parents’ educational qualifications is a good indicator of cultural and educational resources in the family. The positive effects of parents’ level of education on children’s educational attainment come through (1) better strategic knowledge about different educational options available in the market, especially school types, curriculum etc., and (2) more qualified help with the learning of cognitive and other type of skills that improve the performance of the children and their probability of success. Parents with higher education

make sure that their children are exposed to lots of educational opportunities in their communities. ‘There are several plausible mechanisms by which, for instance, more educated parents reinforce the academic ability of their offspring and act consciously or not to improve their educational performance; these include choosing right option for children and at right time, motivation children to continue study by verbal training during childhood and practical help with school work. Apart from that, parents can invest in good schools and in extra tuition for their children.’ (Jonsson & Erikson 2000; 356) Furthermore, ethnic background and tradition, cultural beliefs and practices are often referred as important determinants of ECE decisions (Johansen et al. 1996, Leasman 2002, Liang et al. 2000, Singer et al. 1998).

#### **4. Methodology**

**The Data:** The data used for this paper has been collected from a field survey conducted during September 2014 to January 2015 in two districts of West Bengal, India. Though, the choice of the State was based on pragmatic reasons, the sampling method was carefully designed to have a representative sample. Final sample consists of two districts: Howrah and Murshidabad and the aggregate population of these two districts (which is about 12 million according to the Census 2011) represent about 13% of the total population of the State (91.34 million in 2011). The household survey was conducted with personal visits to each household and by filling in a paper based questionnaire with no unit non-response. The sample consists of a total of 1373 number of households with atleast one child of the age group 6-7 years. Out of these 1373 households, 906 households reported sending their children to preschool of which 646 number of children attended Anganwadi centres and 260 number of children attended private preschools.

**Regression strategy:** Since choice of a type of preschool is conditioned only on demanding for it, therefore we can observe the preschool choice only for those households who have

decided to send their children to preschool. Taking just the type of preschool choices implies that dealing with a selected sample (906 households which have sent their children to preschool) of random households and that in turn may leads to the classic case of “sample selection bias” (Heckman, 1979). Families may decide not to send their children to any preschool if they find that the available alternatives are not suitable for them and typically this types of incidence is unobserved. Hence using probit regression estimation considering only those households which decided to send their children to a preschool can lead to a biased estimation. Therefore, this study follows a bivariate probit model with sample selection correction by Heckman methods (Van de Ven and Van Pragg 1981). This involves two steps. First, estimate selection equation and then outcome equation.

a) Selection Equation: This is a probit regression (binary dependent variable taking a value of ‘1’ if the household send their child to any preschool and ‘0’ otherwise) to explain the demand for ECE.

b) Outcome equation: This is also a probit regression to explain the choice of a particular type of preschool by the household, observed only for those who demanded for ECE.

In terms of econometrics model, the Selection equation or the probit model to estimate the probability of households to demand for ECE can be explained in terms of the following relationship.

$$y_i^{\text{preschool\_type}} = x_i\beta + u_{1i} \dots \dots \dots (1) \text{ (Outcome Equation)}$$

$$y_i^{\text{went\_preschool}} = z_i\gamma + u_{2i} \dots \dots \dots (2) \text{ (Selection Equation)}$$

Where  $u_1 \sim N(0,1)$  and  $u_2 \sim N(0,1)$  and  $\text{corr}(u_1 u_2) = \rho$

## 5. Results

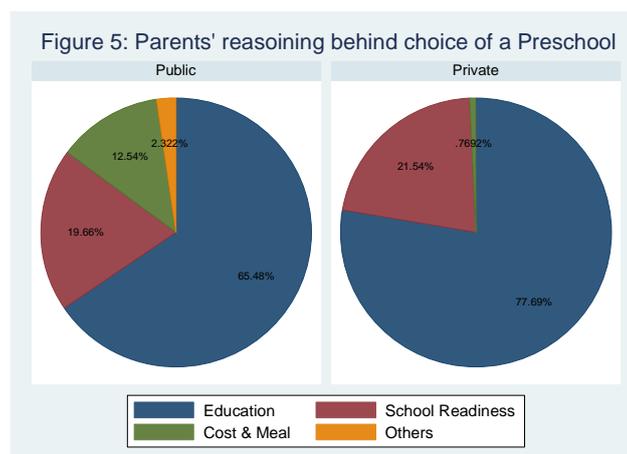
**Exploratory Analysis:** Table-2 lists the variables used in the regressions as well as the mean and stand deviation for those households with respect to their choice of a type of preschool: public or private. It can be seen from table 2 that, there is a significant association between type of preschool attended and the socio-economic status of the household in terms of monthly income, parents’ education and occupation etc.

**Table 2: Descriptive Statistics according to the type of Preschool**

Variable Name	Definition	Values	Public Preschool		Private Preschool		t-test P-Value
			Mean	Std. Dev.	Mean	Std. Dev.	
Monthly Income	Gross monthly income of the household in Indian Rupee.		5371.36	2651.34	10358.36	6537.06	0.001
House Type	Type of housing household have	1= Concrete	0.351	0.477	0.746	0.436	0.001
		2=semi-concrete	0.334	0.472	0.207	0.406	0.001
		3=non-concrete	0.314	0.464	0.046	0.210	0.001
Parent Edu	Highest education level achieved by either of the parents	1= up to primary	0.351	0.477	0.057	0.233	0.001
		2= up to secondary	0.478	0.499	0.526	0.500	0.10
		3=higher secondary or above.	0.170	0.376	0.415	0.493	0.001
Parent Job	Occupational status of Parents	1=Regular	0.726	0.446	0.759	0.428	0.80
		2= casual or no job.	0.273	0.446	0.240	0.428	0.15
Father job	Occupational status of the father	1=Regular	0.721	0.448	0.745	0.436	0.23
		2= casual or no job.	0.278	0.448	0.254	0.436	0.23
Mother Job	Occupational status of the mother	1=Regular	0.040	0.196	0.088	0.285	0.01
		2= casual or no job.	0.959	0.196	0.911	0.285	0.01

Source: Author’s calculation based on primary survey.

Parents were asked about their reasoning behind the choice of a type of preschool, and answers were then classified in four major categories: Early education, school readiness, cost and meal, and others. Figure 5 illustrates that, parents sent their children to private preschool



mainly because of education and school readiness; whereas parents had other reasons such as free meal and low cost, free time to work etc. to send their children to public preschools. Most of the parents (about 98%) were satisfied with the service. But the reasons forwarded behind their satisfaction vary depending on the type of preschool and parents level of education. Overall, descriptive statistics suggests a relation between resource endowment by the parents and their choice of preschool. It seems that, parents with greater resources are more likely to give importance to early education and tend to select private preschools. Whereas, parents with relatively lower endowment of resources emphasis more on cost and available additional facilities. This has been examined at the next stage by the multivariate analysis.

**Confirmatory Analysis:** Table 3 provides the estimated results of equation 1 (i.e. Outcome equation) and 2 (i.e. Selection equation). The first column represents the estimation of the outcome equation with Heckman sample selection correction and the second column provides the estimation of the selection equation including the exclusion variable named “parents’ motivation”.

Table 3: Estimation of Probit Regression

	Outcome Model with Heckman Correction (Base category: Private preschool)	Selection Model (Base category: No Preschool)
Log(household Income)	1.481*** (0.150)	0.110 (0.126)
House Type (Ref: Kuccha House)		
Pucca (Concrete)	0.795*** (0.197)	-0.084 (0.140)
Semi Pucca (Semi Concrete)	0.526** (0.189)	-0.079 (0.120)
Parents' Level of Education (Ref: up to Primary)		
Secondary	0.842*** (0.176)	-0.035 (0.113)
HS and above	0.887*** (0.217)	0.491* (0.203)

Fathers' Occupation Status (Ref: Casual Job)			
	Regular Job	0.217	0.110
		(0.139)	(0.107)
Mothers' Occupation Status (Ref: Casual Job)			
	Regular job	-0.006	-0.139
		(0.261)	(0.252)
Observation		897	1355
Pseudo R2		0.338	0.479
Log Likelihood		-356.04	-451.08

Source: Authors calculation from primary data.

Standard Error in parenthesis. \*p<0.05, \*\*p<0.01, \*\*\*p<0.001.

It can be seen from the first column that, the coefficient of Inverse Mills Ratio is not significant, which means that there is no selection bias. Also in column 2, the coefficient for the exclusion variable “parents’ motivation” is statistically significant at 0.001% level which means that parents who do not consider ECE as important for their children are significantly less likely to send their children to any preschool. Column 1 reveals that, households with better economic condition (such as high income and better housing) are significantly more likely to choose private preschools for their children. Household income seems to be a good predictor for preschool choices in both the districts. Also, well-educated parents are more likely to send their children to private preschools. In terms of other household characteristics, girls in general have a higher chance of attending private preschool compared to boys. But this finding was observed only for parents with education level more than primary and only in Howrah district which may indicate that, parents from Howrah district (with higher adult literacy rate) are more likely to have better educational background and higher income and thus more interested in provide better foundation to their girl child. Therefore they send them to private preschool which has been considered as relatively better than public preschools. Also, care towards children, security and safety could be other reasons for sending girls to private preschool.

## **6. Conclusion**

The study shows that, in general parents send their children to a preschool if they consider ECE as important for their children. And if they do so, then the choice of a type of preschool mainly depends on their socio-economic status. Another important factor here is what parents expect from a preschool and this expectation also varies according to their socio-economic status. Most of the parents send their children to preschool mainly for early education and school readiness which may in turn help children for later education. But there are also other reasons of choosing preschool depending on parents' perception and needs, for example free meal and other benefits, child care etc.

Private preschools, in most cases, seem to have better infrastructure such as nice building, decorated classrooms, access to playgrounds, and well equipped with teaching materials. Private preschools are generally expensive to afford and only economically well off families can send their children in private preschools. And as mentioned before, it is mostly attractive among socio-economically better off families.

However, Anganwadi centres, which are the main concern of the study, were hugely popular among families, especially from the socio-economically disadvantaged section of the society. For many of these parents, it was an important support as free child care and additional facilities like meal, health checkup etc. They found it really helpful to have a place where they can leave their children for certain period of the day and that allow them to engage in other economic and non-economic activities. In general, public preschools appear to be successful so far in addressing the disadvantaged section of the society irrespective of the complaint against the quality of service provided. Although the coverage of the public ECE provisions is claimed to be not adequate, this study has found that it is at least on the right track and able to address the marginalized section of the society.

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