



**THE KINDERGARTEN FREE MEAL PROGRAM
IN MONGOLIA:
Changes in kindergarten enrollment and
parental perceptions of its impact
on household income and employment
opportunities**

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Contents

Abbreviations	105
Executive summary	106
Summary of major findings	107
Recommendations	110
Introduction	112
Findings: enrollment characteristics of the sample kindergartens.....	120
Findings: households with children enrolled in kindergarten.....	127
Findings: households with children not enrolled in kindergarten.....	142
Conclusions and recommendations	151

APPENDICES

Appendix A: Sample Kindergarten Absorption Capacity and Enrollment: 2008–09 to 2011–2012	158
Appendix B: Respondents With Enrolled Children: Enrolled Children’s Monthly Household Income 2011–2012	159
Appendix C: Sample Kindergartens: Changes in Enrollment After the Free Meal Program Implementation, By School.....	160
Appendix D: Sample Kindergartens: Changes in Enrollment by Household Income Level	161
Appendix E: Respondents with Enrolled Children: Reasons for Enrolling Child in Kindergarten by Income Level.....	162
Appendix F: Respondents with Enrolled Children: Method of Enrollment by Income Level	162
Appendix G: Kindergarten Director’s Factsheet.....	163
Appendix H: Survey for Households with Children Enrolled in the Sample Kindergartens.....	165
Appendix I: Survey of Households with Preschool Age Children Not Enrolled in Kindergarten	169

ABBREVIATIONS

ADB	Asian Development Bank
GDP	Gross domestic product
GoM	Government of Mongolia
ICREST	International Center for the Restructuring of Education, Schools and Teaching, Teachers College, Columbia University
KG	Kindergarten
MEA	Mongolian Education Alliance
MECS	Ministry of Education, Culture and Science
MNT	Mongolian Tugrik
NA	Not available
N/A	Not applicable
SFP	School Feeding Programs
TA	Technical assistance
UB	Ulaanbaatar

EXECUTIVE SUMMARY

This study of the Kindergarten Free Meal Program in Mongolia was carried out as part of the technical assistance agreement (TA) for the Education for the Poor: Financial Crisis Response Project between the Ministry of Education, Culture and Science (MECS) and the International Center for Restructuring Education, Schools and Teaching (ICREST) at Teachers College, Columbia University and the Mongolian Education Alliance (MEA) in Ulaanbaatar. This report is the final report of the Kindergarten Monitoring TA component of the Project.

The purpose of this study was two-fold. The first objective was to examine changes in kindergarten enrollment following the nation-wide implementation of the Kindergarten Free Meal Program during the 2009–2010 school year. The second objective was to document and describe the perceptions of the Kindergarten Free Meal Program that parents with children enrolled in kindergarten as well as parents with preschool-age children not enrolled had. For the former group (parents with enrolled children), the study aimed to examine: (1) parental reasons for and methods of enrolling their child in kindergarten; (2) their perceptions of the differences in the meals served to their child in the kindergarten and in the home; (3) their perceptions of the impact of the free meal program on their household, in particular, on household income/savings and employment opportunities; and (4) the potential implications of discontinuing the provision of kindergarten meals free of cost to households on parental enrollment decisions. For the latter group (parents with preschool-age children not enrolled), the study aimed to document: (1) the reasons why their child was not enrolled in kindergarten; (2) parental awareness of the Kindergarten Free Meal Program; (3) perceptions of the potential benefits of kindergarten enrollment on the child; and (4) perceptions of the potential impact kindergarten enrollment would have on their household as a whole.

Using a sample of eleven public kindergartens located in Bayan Ulgii, Dornod and Ulaanbaatar, surveys were administered to the kindergarten directors, household members of the children who were enrolled in the sample kindergartens during the 2011–2012 school year and to households with non-enrolled preschool-age children who resided in the kindergarten catchment areas. The household survey administrations yielded a total of 1,363 valid surveys (801 from households with enrolled children, 562 from households with children not enrolled). The main findings of the study and the study team's recommendations are summarized in this section.

SUMMARY OF MAJOR FINDINGS

- 1. Kindergarten Enrollment Increased Following the Free Meal Program Implementation.** As a whole, enrollment increased across ten of the eleven sample kindergartens¹ after the implementation of the free meal program during the 2009–2010 school year. From 2008–2009, the year prior to implementation, to 2009–2010, enrollment increased by 1% across the sample kindergartens. The year following implementation (from 2009–2010 to 2010–2011), enrollment across the kindergartens increased by 5%. Two years post-implementation (2011–2012) enrollment across the sample schools had increased by 10%.
- 2. Enrollment Increased Despite The Fact That Most of the Kindergartens Were Already At or Above Their Enrollment Capacity Prior to the Implementation of the Free Meal Program.** In 2008–2009, the year prior to the implementation of the free meal program, enrollment across the ten sample kindergartens was already 10% above capacity. All but three of the kindergartens were at or above their enrollment capacity during this period. Three years later, and two years post-implementation of the free meal program, enrollment was 21% above capacity. All but one of the sample kindergartens was at or above their enrollment capacity during the 2011–2012 school year.
- 3. In Many of the Kindergartens, the Enrollment Increases Were Not Among Children From Households Who Would Benefit the Most From Kindergarten Meals That Were Free of Cost to Them.** Seven of the sample schools had data on their enrolled children’s household income available for the school years 2008–2009 through 2011–2012. Across these seven kindergartens, there was a net increase in enrollment of 23% (from 13% to 36%) among children from upper middle or high income households, and a net decrease in enrollment of 19% (from 45% to 26%) among children from poor or very poor households during this period.
- 4. The Kindergarten Free Meal Program Is Not a Major Factor in Parents’ Initial Decision to Enroll Their Child in Kindergarten.** Although enrollment increased considerably following the implementation of the Kindergarten Free Meal program, for the majority of the surveyed parents, the free meal program was not the main reason why they enrolled their child. The majority of parents, regardless of their location and income levels, reported that they enrolled

¹ One of the eleven sample kindergartens opened in 2011-2012, after the implementation of the free meal program.

their child in kindergarten for the educational benefits to their child. Access to free meals for their child was the main reason why they enrolled their child in kindergarten for only 4% of the parents.

5. Many Parents Utilize Non-Standard Methods to Get Their Child Enrolled in Kindergarten.

Most of the surveyed parents reported that they followed the standard registration processes to get their child enrolled in kindergarten. However, a considerable number of parents (over one-third) reported that they used non-standard methods to register and enroll their child, such as seeking and getting assistance from kindergarten staff members or making an unofficial payment to the kindergarten. Over one-half of the parents in Ulaanbaatar and from upper middle or high income households reported that they obtained assistance from staff members or that they paid an unofficial fee to the kindergarten to enroll their child.

6. Other Parents Cannot Enroll Their Child in Kindergarten Because There Are No Spaces Available.

Surveyed parents with preschool-age children who were not enrolled in kindergarten overwhelmingly saw the potential benefits of kindergarten enrollment for their child. For about three-quarters of these parents the opportunity to learn is what they saw as the primary benefit for their child. Although the demand for preschool education appears to be prevalent among households whose children are not enrolled, the supply for preschool education is not adequate. About three-quarters of the surveyed parents overall, and in Dornod and Ulaanbaatar reported that the reason their child was not enrolled was because there were no openings in the kindergarten in their residential area.

7. Most Parents Favor the Kindergarten Meals Over the Meals Served to Their Child at Home.

The majority of surveyed parents with enrolled children (about 60%) overall, within Bayan Ulgii, Dornod and Ulaanbaatar, and across all income levels, perceived the meals served to their child in the kindergarten to be generally more favorable than the meals served in the home. Only 12% of the surveyed parents favored the home meals and 29% saw no difference between home and kindergarten meals served to their child. Parents who favored the kindergarten meals did so because they perceived the kindergarten meals to be of greater nutritional value than home meals (50%); or they saw the kindergarten meals to be of greater variety (47%), or they viewed the kindergarten meals to be *both* of higher nutrition value and of greater variety than home meals (3%). Furthermore, most parents from poor or very poor households favored the kindergarten meals for their greater nutritional value,

while most parents from lower middle to high income households favored the kindergarten meals for their variety.

8. Many Parents Perceive that the Kindergarten Free Meal Program Has Had an Impact on Their Household Income/Savings.

Overall, the largest portion of surveyed parents described the impact of the Kindergarten Free Meal Program on their household income/savings to be “significant”, and estimated the cost savings of the free meal program to be between 10,000 to 20,000 MNT per month. Not surprisingly, one-half of the parents from poor or very poor households perceived the free meal program to have had a “significant” impact on their household income. In contrast, the majority of parents from upper middle to high income households perceived the free meal program to have had “minimal or no impact.”

9. Most Parents Viewed the Most Important Impact (or Potential Impact) of Kindergarten Enrollment on Their Household, Overall, to be the Opportunities for Parental Employment.

Regardless of whether or not their child was or was not enrolled in kindergarten, the majority of surveyed parents viewed the most important impact (or potential impact) of enrolling their child in kindergarten for their household as a whole was the increased opportunity for parents to be employed or seek employment.

10. For Many Parents, Particularly Those from Disadvantaged Households, Discontinuing the Free Meal Program Would Influence their Decision About Whether or Not to Keep Their Child Enrolled in Kindergarten.

Most parents whose children were enrolled in kindergarten (57%) would keep their child enrolled if the meals served at the kindergarten were no longer provided free of cost. However, even though only 4% of surveyed parents identified the free meal program as the main reason why they enrolled their child in kindergarten initially, a considerably larger percentage of parents (43%) reported that they would not keep their child enrolled in kindergarten without the free meals. Of the parents who would not keep their child enrolled without the free meals, the majority, about two-thirds, were from very poor, poor, or lower middle income households.

RECOMMENDATIONS

- 1.** This study of the Kindergarten Free Meal Program was conducted with eleven public kindergartens selected using non-random sampling criteria described in the methodology of this report. Although the eleven kindergartens were located in two aimags and in UB, were of various sizes, and appear to serve preschool-aged children from a socio-economically varied spectrum of households, the findings from this study about the Kindergarten Free Meal Program within these kindergartens cannot be assumed to be representative of all public kindergartens in Mongolia. Therefore the study team recommends that MECS replicate this study using a larger, randomly selected and representative sample of kindergartens in order to examine the extent to which findings from this study hold true across kindergartens in Mongolia.
- 2.** During the 2011–2012 school year, all but one of the eleven sample kindergartens in this study were at or above their enrollment capacity and eight of these kindergarten had been over their enrollment capacity since at least the 2008–2009 school year. The study also revealed there is widespread demand for preschool education, as evidenced by the findings from households with preschool aged children not enrolled in kindergarten during the 2011–2012 school year. This study also revealed that even within the confines of the catchment areas of the sample kindergarten, the supply of preschool education is wholly inadequate. Given that a notable portion of Mongolia’s preschool-aged children do not have access to preschool education, the study team recommends that MECS continue to further prioritize the expansion of the supply of preschool education.
- 3.** This study revealed that a considerable portion of surveyed parents reported that they utilize methods other than the standard registration process to get their child enrolled in kindergarten and it is the more advantaged and privileged households that appear to engage in these non-standard practices. The study team recommends that MECS further investigate the degree to which these practices occur and, if found to be widespread, consider mechanisms for implementing and enforcing policies that prohibit kindergartens from engaging in non-standard registration and enrollment practices.
- 4.** The study revealed that following the implementation of the Kindergarten Free Meal Program, there was a 19% net decrease in enrollment among children from poor and very poor households and a 23% net increase among

children from upper middle and high income households across seven sample kindergartens. This suggests that households that would presumably benefit the most from the free meals are doing so at decreasing rates. Furthermore, households from disadvantaged backgrounds reported at higher rates that they would not keep their child enrolled in kindergarten should the meals no longer be provided free of cost to them. To the extent that these two patterns are found to hold across kindergartens in Mongolia, the study team recommends that MECS explore the possibility of reinstating a cost-sharing scheme for the kindergarten meals for advantaged households, and mechanisms for targeting disadvantaged households for full government subsidies for the cost of the kindergarten meals.

1. INTRODUCTION

A child's nutritional status is among the most significant influences on his or her ability to learn and perform well in school. Under- or malnourished children are more likely not to enroll in school or enroll at a later age, attend school irregularly, perform poorly, not advance to the next grade level and complete fewer years of schooling.² Poor nutrition in childhood contributes to inefficiency of educational systems and significant economic costs on individuals and nations. Improving children's diets and nutrition can have positive effects on their school performance and their productivity as adults.

1.1. School Feeding Programs

School feeding programs (SFPs) have increasingly gained popularity worldwide and have been implemented widely in the developing nations and targeted to disadvantaged populations in middle and high income nations. The recent global financial crises and concomitant increases in food prices has led to greater interest in SFPs among governments as a mechanism for providing disadvantaged and vulnerable households with safety nets to absorb social and economic shocks. In addition SFPs most often have the objective of serving as a school-based intervention for addressing hunger, under nutrition, malnutrition and other nutritional and health problems among beneficiary school-aged children, and thus improving their learning and academic performance³ SFPs are a form of conditional transfer, which are theorized to incentivize and motivate parents to enroll their children in school by reducing the costs of schooling and increasing the benefits of time spent in school. If the SFP is implemented effectively, its associated transfers are expected to improve children's educational participation, academic performance, and nutritional status.⁴

The literature on the impact of SFPs generally shows positive effects on energy intake and micronutrient status of school-aged children, while the evidence on their impact on learning and academic performance is mixed. The most consistent and compelling empirical evidence on the impact of SFPs appears to be on children's school enrollment and attendance.⁵

1.2. The Kindergarten Free Meal Program in Mongolia

Around 23% of the total population of Mongolia is under the age of six, among who are children between ages 2 to 5, the target group of preschool education in the country. It is estimated that 43% of preschool age children are not enrolled in any form of early childhood education (i.e. public, private, or alternate forms); 30% are children from

² Miller Del Rosso, J. (1999). School feeding programs. Improving effectiveness and increasing the benefit to education. The Partnership for Child Development. Retrieved from http://portal.unesco.org/education/en/file_download.php/aa5df5dc6a74959fe9c58b06ef31a2a0School-feeding-programs.pdf

³ Bundy, D. et al. (2009). Rethinking school feeding: social safety nets, child development, and the education sector. World Food Program and the World Bank. Retrieved from http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099080042112/DID_School_Feeding.pdf

⁴ Ibid

⁵ Ibid

migrant families and 13% are nomadic and rural children.⁶

Many preschool-age children in Mongolia also face the challenge of chronic malnutrition, and key indicators of these such as low birthweight, stunting, underweight, rachitis and anemia among the under-five age group appear to not be decreasing at substantial rates.⁷ The Mongolia Multiple Indicator Cluster Survey conducted in 2010 found that protein energy malnutrition in children under age 5 was still prevalent in Mongolia; with a relatively high proportion of children in this age group (16%) suffering from stunting, 5% from being underweight, and 2% from wasting.⁸ The prevalence of these indicators of protein energy malnutrition, particularly stunting and being underweight, among preschool-age children is even higher in rural areas, and among children from households in the poorest income quintile.⁹

Mongolian children, particularly those from disadvantaged and vulnerable households, are also often at risk of malnutrition due to the food security issues that arise, particularly as a consequence of *dzuds* (an accumulation of summer drought and severe winter snowfall and temperatures). The most recent *dzud* (in 2009–2010), for example, had a severe impact on Mongolia's economy, causing an estimated loss of 8.8 million livestock, an implied loss of capital stock of at least 264 billion MNT, the equivalent to 4.4 percent of the country's 2009 GDP.¹⁰ Herding is the primary source of livelihood for many households in Mongolia, constituting over one-third of all employment in the country.

The Government of Mongolia (GoM) has engaged in instituting a series of child-sensitive social protection programs as well as enacting laws and policies that recognize that investments in preschool education are a highly cost-effective strategy to break the inter-generational transmission of poverty and to improve productivity in the long run. In 2001, for example, GoM adopted a National Program on Food Security, Food Safety and Nutrition for 2001–2008, followed by the National Programme on Food Security for 2009–2016 in 2009. The Government, through the Ministry of Health (MOH), has also adopted a mother and child micronutrient deficiency prevention strategy.

A financial barrier for many Mongolian parents who wished to enroll their child in kindergarten was lifted in 2008 when the Mongolian Preschool Education Law was passed. Among the stipulations of this law was that meals served in public kindergartens would be subsidized 100% by the state at a rate of 1100 MNT per enrolled child. Prior to the implementation of the law, parents paid 50% of the cost of kindergarten meals.

In addition to the provision of meals in state kindergarten free of cost to households, in

⁶ Asian Development Bank (August, 2009). Mongolia: Education for the Poor: Financial Crisis Response Project.

⁷ Government of Mongolia (2009). National programme for food security 2009-2016. Ulaanbaatar, Mongolia. Retrieved From http://gafspfund.org/gafsp/sites/gafspfund.org/files/Documents/Mongolia_5_of_9%20National%20Food%20Security%20Programme.pdf

⁸ National Statistics Office & UNICEF (2011). Multiple indicator cluster survey 2010 summary report. Ulaanbaatar, Mongolia. Retrieved from http://www.unicef.org/mongolia/mongolia_mics_summary_report_.pdf

⁹ Ibid.

¹⁰ Benson, C. (2011). Structuring disaster preparation, financing and response to increase resilience of herder households to climatic risk in Mongolia. World Bank. Retrieved from http://reliefweb.int/sites/reliefweb.int/files/resources/Full_Report_4070.pdf

2008–2009, MECS, the Food Study Center at the Public Health Institute in Ulaanbaatar and UNICEF collaboratively developed guidelines for kindergarten meal preparation and menu selection. The “Template Menu” or “Green Book” as it popularly known provides sample menus targeted toward ensuring quality nutrition and variety in the meals prepared at the kindergarten. The Template Menu includes methods for kindergarten to follow for menu planning, meal preparation and for food item substitution. The Template Menu was published and distributed nation-wide to kindergartens in 2009. Training on the use of the template menu was provided in Ulaanbaatar to aimag Educational Specialists as well as cooks from each aimag, who in turnkeyed the Template menu training at the aimag level. In October, 2010, a resolution officially adopting the Template Menu for the Free Kindergarten Meal Program was passed.

1.3. Purpose and Scope of the Study

The purpose of this study was two-fold. The first was to examine changes in kindergarten enrollment following the 2009–2010 implementation of the Kindergarten Free Meal Program. The second objective was to document and describe the perceptions of parents with children enrolled in kindergarten as well as parents with preschool-age children not enrolled had of Kindergarten Free Meal Program. For the former group (parents with enrolled children), the study aimed to examine: (1) parental reasons for and methods of enrolling their child in kindergarten; (2) their perceptions of the differences between the meals served to their child in the kindergarten and in the home; (3) their perceptions of the impact of the free meal program on their household, in particular, on household income/savings and employment opportunities; and (4) the potential implications of discontinuing the provision of kindergarten meals free of cost to households on parental kindergarten enrollment decisions. For latter group (households with preschool-age children not enrolled), the study aimed to document: (1) the reasons why their child was not enrolled in kindergarten; (2) parental awareness of the Kindergarten Free Meal Program; (3) perceptions of the potential benefits of kindergarten enrollment on the child; and (4) perceptions of the potential impact kindergarten enrollment would have on their household as a whole.

This study was carried out as part of the technical assistance agreement between the Ministry of Education, Culture and Science (MECS) and the International Center for Restructuring of Education, Schools and Teaching (ICREST) at Teachers College, Columbia University and the Mongolian Education Alliance (MEA) in Ulaanbaatar for the Education for the Poor: the Financial Crisis Response Project, funded by the Asian Development Bank (ADB).

2. METHODOLOGY

2.1. Site Selection

Eleven kindergartens comprised the sample schools for this study. The geographic locations and the schools for this study were selected in accordance with sampling criteria described in the project inception report prepared by ICREST and MEA in July, 2010 detailing the technical assistance activities for the Education for the Poor: Financial Crisis Response Project. In brief, the overarching sampling criteria as described in the inception report were: (1) *Maximum Variation Sampling*: the inclusion of schools which range in size, are located in various geographic and demographic areas and serve households and children of various socioeconomic backgrounds; (2) *Extreme Case Sampling*: the inclusion of schools in Bayan Ulgii aimag, where the majority of the population speaks a language other than Mongolian, as well as schools in Ulaanbaatar districts with disproportionately large numbers of low income rural migrants; (3) *Convenience Sampling*: the inclusion of schools that have an established and positive working relationship with the Mongolian Education Alliance (MEA) in order to increase the likelihood of obtaining voluntary participation of staff members and the households they serve in the various TA components of the Crisis Project.

Table 1 shows the sample kindergartens for this study. Initially, eleven kindergartens (four in Bayan Ulgii, four in Dornod and three in Ulaanbaatar) were selected using the above mentioned criteria for the project's Kindergarten Free Meal Monitoring and the Nutrition TA components. One of the kindergartens (in Bayantumen

Table 1: Sample Kindergartens, By Location

Aimag/City	Soum/District	Kindergarten
Bayan Ulgii	Altantsugts	Altantsugts KG
	Bugat	Bugat KG
	Ulgii	KG No. 1 KG No. 10
Dornod	Kherlen	KG No. 1 KG No. 2
	Sergelen	Sergelen KG
	Bayanzurkh	KG No. 61 KG No. 63
Ulaanbaatar	Songinokhairhan	KG No. 158 KG No. 163

Dornod) was later dropped as a sample school because the area was quarantined due to a Hepatitis A outbreak at the time of data collection. An additional kindergarten in Songinokhairhan district in Ulaanbaatar was later added to increase the study's sample size and to improve upon the representativeness of households with non-enrolled preschool-aged children in the district.

2.2. Data Collection Instruments

Three main instruments, described below, were developed by the study team to collect data for this study.

- 1. Kindergarten Director's Factsheet.** The team developed a survey for administration to the directors of the eleven sample kindergartens (see Appendix G). The instrument asked the kindergarten directors to provide information on the enrollment capacity of their schools and enrollment figures for the school years 2008–2009 through 2011–2012. The survey also requested socioeconomic information of the enrolled children's households, including estimates of monthly household income and household employment status. Household income categories were established by the study team as there were no set standards for income categorization in Mongolia, although 108,000 MNT per month was the established minimum wage at the time of the study. The study team developed the following monthly household income categories for the data collection instruments used in the study: *Very Poor* (less than 108 thousand MNT), *poor* (108–250 thousand MNT), *lower middle* (250–300 thousand MNT), *middle* (300–400 thousand MNT), *upper middle* (400–500 thousand MNT) and *high* (more than 500 thousand MNT).
- 2. Survey for Households with Children Enrolled in the Sample Kindergartens.** The team developed this instrument to be administered to the households of the children enrolled in the sample kindergartens (see Appendix H). The instrument contain mostly closed-ended questionnaire items that covered the following areas: (1) respondent and household demographic information, including age, gender of the respondents, household size and composition, parental educational attainment, employment status and monthly household income; (2) kindergarten enrollment, including reasons for and methods of enrolling their child, and enrollment status prior to the free meal program implementation; (3) perceptions of difference in meals served at the kindergarten and at home, including variety and nutrition; (4) perceived impact on the free meal program on household income and employment opportunities, including estimated monthly cost savings; (5) how enrollment decisions would be impacted if the kindergarten meals were no longer offered free.
- 3. Survey of Households with Preschool-Age Children Not Enrolled in Kindergartens.** This instrument (see Appendix I) also consisted of mostly closed-ended questionnaire items that covered the following areas: (1) respondent and household demographic information, including age, gender of the respondents, household size and composition, parental educational attainment, employment status and monthly household income; (2) reasons for non-enrollment in kindergarten; (3) awareness of the Kindergarten Free Meal Program; (4) perceived potential benefits of kindergarten enrollment

for the child; (5) perceived potential impact of the free meal program on the household, including its impact on income and employment opportunities.

2.3. Data Collection Procedures

Data collection occurred during October and November of 2011 and January through April of 2012. The survey for households with enrolled children was administered on site at the kindergartens, with the assistance of kindergarten staff members to increase parents' participation rates. The kindergarten director's factsheet was either given to the directors at the time of the survey administration or the team members followed up with directors via telephone or email to obtain and verify the data collected. The survey to households with children not enrolled in kindergarten was administered with the assistance of education specialists, social welfare specialists, and social workers in the soum/district levels as well as *khoroо*-level social workers and heads of *kheseгs* in the Ulaanbaatar districts. The involvement of these individuals was critical for identifying households with non-enrolled preschool age children as well as for assisting with the recruitment of participants and survey administration.

2.4. Survey Response

The survey administrations resulted in 1,488 returned surveys: 877 from households with children enrolled in the sample kindergartens and 611 from households with preschool age children not enrolled in kindergarten. Of the 877 surveys returned from households with enrolled children 76 surveys were excluded either for having a great number of incomplete or no responses, or a respondent indicated that he/she was a minor (under age 17) and not the parent or guardian of the kindergarten child, or a respondent indicated there were no preschool-age children in the household. This yielded a final count of 801 valid surveys, which represented approximately 51% of the total 2,230 children enrolled in the eleven sample kindergartens. Of the 611 returned surveys from households with preschool-age children not enrolled in kindergarten, 49 surveys were excluded for being incomplete or invalid, yielding 562 valid surveys. In total, 1,363 surveys were used in the study.

Table 2 shows the number of respondents for the two household surveys. Of the 801 respondents of the survey administered households with children enrolled in the sample kindergartens, 401 respondents (50%) were from the Bayanzurkh and Songinokhairhan districts in Ulaanbaatar, 247 respondents (31%) were from the Kherlen and Sergelen soums in Dornod, and 153 respondents (19%) were from the Altantsugts, Bugat, and Ulгii soums in Bayan Ulгii.

Of the 562 respondents with children not enrolled in kindergarten, 387 respondents (69%) were from the Bayanzurkh and Songinokhairhan districts in

Ulaanbaatar, 111 respondents (20%) were from Ulgii soum in Bayan Ulgii, and 64 respondents (11%) were from Kherlen soum in Dornod.

Table 2: Number of Household Survey Respondents

Households with Enrolled Children					Households with Preschool Age Children Not Enrolled				
Aimags/ City	Soum/ District	Kindergarten	n	%	Aimags/ City	Soum/ District	Bagh/ Khoroo	n	%
Bayan Ulgii	Altantsugts	Altantsugts KG	28	3.5	Bayan Ulgii	Ulgii	4	45	8.0
		Bugat	Bugat KG	30			3.7	6	32
	Ulgii	KG No. 1	47	5.9			9	34	6.0
		KG No. 10	48	6.0		Bayan Ulgii Total		111	19.8
	Bayan Ulgii Total			153		19.1	Dornod	Kherlen	2
Dornod	Kherlen	KG No. 1	112	14.0	Dornod Total			64	11.4
		KG No. 2	111	13.9	Bayanzurkh		21	53	9.4
	Sergelen	Sergelen KG	24	3.0		27	65	11.6	
	Dornod Total			247		30.8	28	73	13.0
Ulaan- baatar	Bayanzurkh	KG No. 61	110	13.7	Ulaan- baatar	Songino- khairhan	9	46	8.2
		KG No. 63	68	8.5			24	69	12.3
	Songino- khairhan	KG No. 158	67	8.4			25	44	7.8
		KG No. 163	156	19.5		31	37	6.6	
	Ulaanbaatar Total			401		50.1	Ulaanbaatar Total		387
Total Respondents			801	100.0	Total Respondents			562	100.0

2.5. Data Entry, Cleaning and Analyses

All survey data were entered into Microsoft Excel worksheets by the local team members and MEA administrative and support staff. The data went through an initial cleaning in Excel before being imported into SPSS 19.0 for analysis. In SPSS, tests were run on all data files to check for error and inconsistencies. Strata variables were added at this stage for respondents' age and basic descriptive statistics, (simple means and percentage) were calculated.

There were some instances of data errors and inconsistencies discovered in the data cleaning phase. First, the method for collecting household employment status from the Kindergarten directors fact sheet survey yielded inconsistent categories of employment for the enrolled children's household across the survey administration in the eleven sample schools, which in turn did not correspond with the actual number of enrolled children. To resolve this issue and to be able to report on the household employment characteristics of the enrolled children kindergarten, three categories of employment status, *employed non-herder*, *herder* and *unemployed* were created and the data were recoded into the three categories.

There were other instances in which a decision was made to exclude data from particular survey questions if the response rates for those items were too low as a whole. For example, responses to the eight items for question 17 on the survey for households with enrolled children yielded a significant number of non-responses, ranging from 22% to 60% of the respondents. Due to the degree of non-response, the data for these eight items were excluded from the analyses and not reported in this study.

2.6. Limitations of the Study

The main limitation of this study is from a design perspective. The sample kindergartens in this study were purposively as opposed to randomly selected. In addition, the households in this study were selected through convenience rather than random sampling. Therefore, caution should be exercised when attempting to generalize the findings from this study to Mongolian public kindergartens and households with enrolled and without enrolled preschool-aged children as a whole, or within specific aimags, soums, districts or baghs.

3. FINDINGS: Enrollment Characteristics of the Sample Kindergartens

This section highlights findings from the survey administered to directors of the eleven sample kindergartens in this study. The findings are organized into the following sections: (1) Enrollment Characteristics of the Sample Schools, 2011–2012; and (2) Changes in Enrollment after the Free Meal Program Implementation.

3.1. ENROLLMENT CHARACTERISTICS OF THE SAMPLE SCHOOLS, 2011–2012

3.1.1. Absorption Capacity and Enrollment during the 2011–2012 School Year

Table 3 shows the absorption capacities and enrollment in the eleven sample kindergartens during the 2011–2012 school year. As a group, the kindergartens had an absorption capacity of 1,889 children, and actual enrollment was 2,308 children. Expressed as a percentage of capacity, enrollment was at 122% of capacity across the eleven kindergartens in 2011–2012.

By location, enrollment was at 121% of capacity across the Bayan–Ulgii kindergartens, 149% across the Dornod kindergartens and 116% across the Ulaanbaatar kindergartens. Within the kindergartens, the number of enrolled children ranged from 61 at Sergelen KG in Sergelen, Dornod to 595 at KG No. 61 in Bayanzurkh, Ulaanbaatar. Enrollment as a percentage of capacity ranged from 99% at KG No. 63 in Bayanzurkh, Ulaanbaatar, to 168% at KG No. 1 in Kherlen, Dornod. Eight of the eleven kindergartens were over capacity in enrollment in 2011–2012, and seven of the eight had been over their capacity since at least the 2008–2009 school year (see Appendix A for past enrollment figures).

Table 3: Sample Kindergarten Absorption Capacity and Enrollment: 2011–2012

Aimag/ City	Soum/District	Kindergarten	Capacity	Enrollment	Enrollment as a Percent of Capacity
Bayan Ulgii	Altantsugts	Altantsugts KG	100	100	100.0
	Bugat	Bugat KG	75	75	100.0
	Ulgii	KG No. 1	125	187	149.6
		KG No. 10	125	151	120.8
	Bayan Ulgii Total		425	513	120.7
Dornod	Kherlen	KG No. 1	125	210	168.0
		KG No. 2	120	169	140.8
	Sergelen	Sergelen KG	50	61	122.0
	Dornod Total		295	440	149.2
Ulaanbaatar	Bayanzurkh	KG No. 61	533	595	111.6
		KG No. 63	256	254	99.2
	Songinokhairhan	KG No. 158	100	150	150.0
		KG No. 163	280	356	127.1
	Ulaanbaatar Total		1169	1355	115.9
Total			1889	2308	122.2

3.1.2. Demographic Characteristics of the Enrolled Children's Households

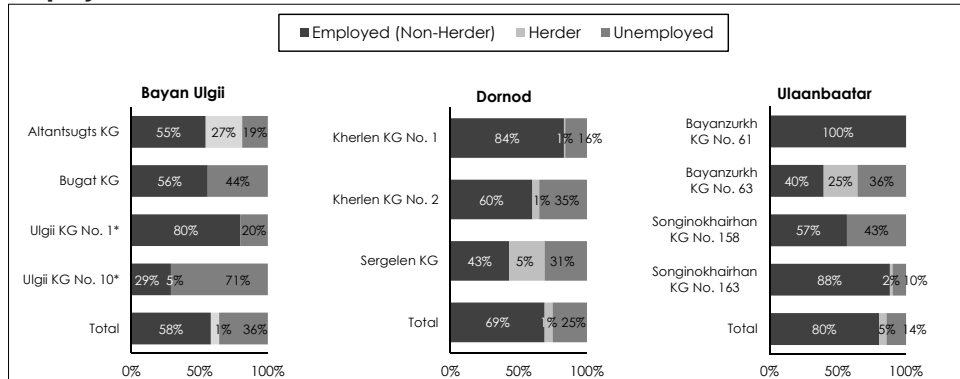
Employment Status of Enrolled Children's Household. Figure 1 shows the percentage of enrolled children by their households' employment status during the 2011–2012 school year. In all but one kindergarten, (KG No. 10 in Ulgii, Bayan Ulgii) the largest percentage of enrolled children came from households in which the head or both parents were employed (as non-herders). The percentage of enrolled children from employed non-herder households ranged from 40% at KG No. 63 in Bayanzurkh, Ulaanbaatar to 100% of enrolled children at KG No. 61 in Bayanzurkh, Ulaanbaatar. Across the eleven schools, 74% of enrolled children were from employed, non-herder households.

The percentage of enrolled children from herder household ranged 0% in the three sample kindergartens located in Bugat and Ulgii soums in Bayan Ulgii, as well as Kindergarten No. 61 in Bayanzurkh and Kindergarten No. 158 in Songinokhairhan, Ulaanbaatar. The largest percentage of enrolled children from herder households (about one-quarter) were in Altantsugts KG in Bayan Ulgii (27%), Sergelen KG in Dornod (26%) and KG No. 63 in Bayanzurkh, Ulaanbaatar (25%).

There was wide variation in the percentage of enrolled children from households in which the head or both parents were unemployed. Across the eleven schools, 21% of the enrolled children came from unemployed households. The percentage of enrolled

children from unemployed parents ranged from 0% of enrolled children at Kindergarten No. 61 in Bayanzurkh, Ulaanbaatar, to 71% of enrolled children at KG No. 10 in Ulgii, Bayan Ulgii.

Figure 1: Sample Kindergartens: Percent of Enrolled Children by Households Employment Status: 2011–2012



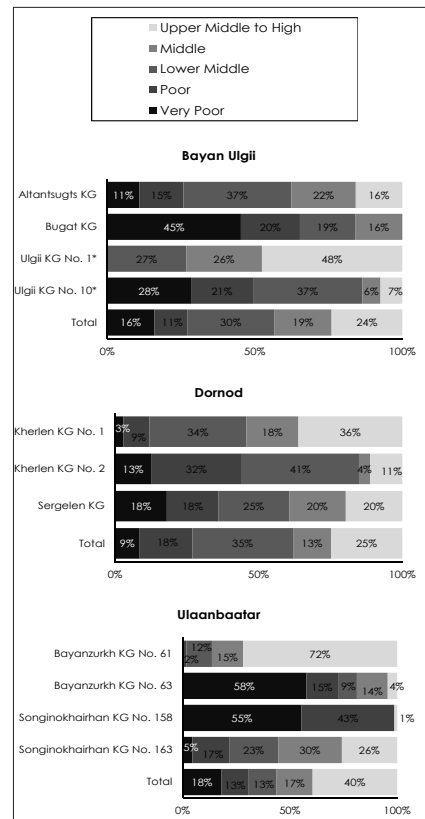
**Data for the Ulgii kindergartens are from the 2010–2011 school year

Monthly Income of Enrolled Children's Household.

Data from the kindergarten directors' survey indicate that the sample schools also serve children from households of varied income levels. Figure 2 shows the distribution of enrolled children in each of the sample kindergartens by their households' monthly income during the 2011–2012 school year.

Across all eleven kindergartens, 29% of the enrolled children were from poor households (earning 108 to 250 thousand MNT per month) or very poor households (earning less than 108 thousand MNT per month). The percentage of enrolled children from poor or very poor household was about evenly distributed across Bayan Ulgii (27%), Dornod (27%) and Ulaanbaatar (31%). However, within the aimags/city, there was wider variation. The percentage of children from poor or very poor households in the Bayan Ulgii schools ranged from 65% in Bugat KG, to 0% in KG No. 1 In Ulgii. In the Dornod schools, children from poor or very poor households

Figure 2: Sample Kindergartens: Enrollment By Monthly Household Income: 2011–2012



**Data for the Ulgii kindergartens are from 2010–2011

ranged from 44% in KG No. 2 in Kherlen to 12% in KG No. 1 in Kherlen. In Ulaanbaatar, the percentage of enrolled children from poor or very poor households ranged from 98% in KG No. 158 in Songinokhairhan to 2% in KG No. 61 in Bayanzurkh.

The percentage of enrolled children from lower middle or middle income households (earning between 250 to 400 thousand MNT per month) was 37% across the kindergartens. In the Bayan Ulgii and the Dornod kindergartens, about one-half of enrolled children came from this middle income bracket, compared to 30% in the Ulaanbaatar kindergartens.

Within Bayan Ulgii, the range of children from middle income households was 52% at KG No. 1 in Ulgii to 35% at Bugat KG. In Dornod, the percentage of middle income children was less varied: from 52% in KG No. 1 in Kherlen to 45% in Sergelen KG. The largest variation of middle income enrollment was in Ulaanbaatar, which ranged from 53% at KG No. 163 to 0% in KG No. 158 in Songinokhairhan.

The percentage of children from upper middle to high income households (earning more than 400 thousand MNT per month) was 34% across the eleven sample kindergartens. As a whole, the kindergartens in Ulaanbaatar had the highest percentage of children from upper middle to high income households (40%), compared to the kindergartens in Dornod (25%) and in Bayan Ulgii (24%). The Ulaanbaatar schools had the greatest variation in the percentage of children from upper middle to high income households, ranging from 1% at Songinokhairhan KG No. 158 to 72% at Bayanzurkh KG No. 61. In Bayan Ulgii, the percentage of upper middle to high income enrolled children ranged from no children (0%) in Bugat KG to 48% in KG No. 1 in Ulgii. In Dornod, the range was from 11% of enrolled children in Kherlen KG No. 2 in to 36% in Kherlen KG No. 1.

3.2.Changes in Enrollment after the Free Meal Program Implementation

As a whole, enrollment increased across ten of the sample kindergartens¹¹ after the implementation of the free meal program during the 2009–2010 school year. Enrollment increased across the sample kindergartens by 10% from 2009–2010 to 2011–2012. Within the individual kindergartens, the number of enrolled children increased in seven of the ten sample schools during this period (See Appendix A for individual school enrollment changes). Two kindergartens had no changes in enrollment, and one kindergarten had a 6% decrease.

From 2008–2009 (the year prior to implementation) to 2009–2010, enrollment across the kindergartens increased by 1%. There was some variation by location, with the Bayan Ulgii kindergartens as a whole showing the largest enrollment increase during this period (7%), the Dornod kindergartens experienced a 2% decline, and the Ulaanbaatar kindergartens experienced a modest .04% increase.

The school year following the free meal program implementation (from 2009–2010

¹¹ One of the eleven sample kindergartens opened during the 2011–2012 school year, therefore pre- free meal program implementation enrollment does not apply to this school.

to 2010–2011), enrollment across the kindergartens increased by 5%. This overall increase in enrollment was accounted for by an 11% increase in enrollment in the Ulaanbaatar kindergartens. Two years post-implementation (from 2009–2010 to 2011–2012) enrollment across the sample schools had increased by 10%. During this period, enrollment increased by 9% across the Bayan Ulgii sample kindergartens, by 5% across the Dornod kindergartens and by 10% across the Ulaanbaatar kindergartens.

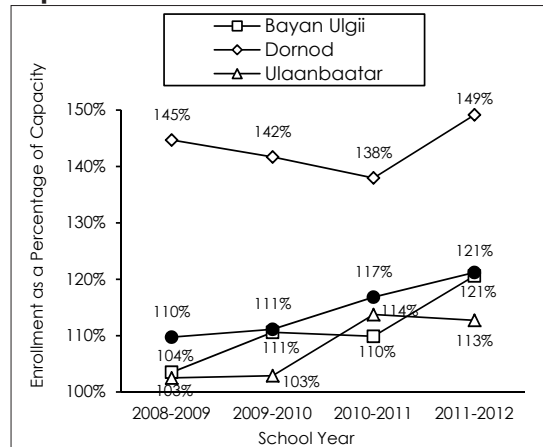
3.2.1. Changes in Enrollment as a Percentage of Absorption Capacity

Figure 3 shows the changes in enrollment, expressed as a percentage of capacity, by location across ten of the eleven sample schools from 2008–2009, one year prior to the implementation of Kindergarten Free Meal program, through 2011–2012, two years post implementation. Across the ten sample kindergartens, enrollment was at 110% of capacity in 2008–2009. During this period, all but three of the ten sample schools were at or above their absorption capacity (see Appendix B for individual kindergarten enrollment changes as a percentage of capacity). As a group, the Bayan Ulgii sample kindergartens were at 104% enrollment, the Dornod kindergartens at 145% and the Ulaanbaatar kindergartens at 103%.

Enrollment increased across the sample kindergartens to 111% of capacity in 2009–2010, the year the free meals program was implemented. There was some variation by location during this period. Enrollment in the Bayan Ulgii kindergartens overall increased from 104% to 111% of capacity. Across the Dornod kindergartens, enrollment decrease from 145% to 142% of capacity. Among the Ulaanbaatar kindergartens, enrollment remained the same at 103%.

By 2011–2012, three years post implementation, enrollment across the sample schools had increased to 121% of capacity. During this school year, all but one of the sample kindergartens were at or above their enrollment capacity (see Appendix A and B). Enrollment was at 121% of capacity across the Bayan Ulgii kindergartens, at 149% of capacity across the Dornod kindergartens and at 113% of capacity across the Ulaanbaatar kindergartens.

Figure 3: Sample Kindergartens: Changes in Enrollment After the Free Meal Program Implementation: 2008–09 to 2011–12



3.2.2. Changes in Enrollment By Children's Household Monthly Income

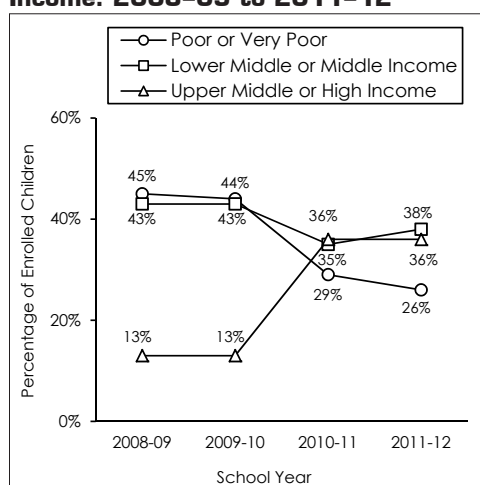
Seven of the ten sample schools provided data on enrolled children's monthly household income for the school years 2008–2009 (one year prior to the implementation of the free meal program) through 2011–2012. Figure 4 shows that across these seven kindergartens, enrollment increased among children from upper middle or high income households from 2008–2009 to the 2011–2012, while enrollment decreased during this period among children from lower middle and middle income households and among children from poor or very poor households.

Across the seven kindergartens, 13% of the enrolled children during the 2008–2009 school year, were from upper middle or high income households (earning 400,000 MNT or more per month). In 2009–2010, the year of implementation, enrollment remained the same at 13%. One year post implementation (2010–2011), enrollment increased by 23% (from 13% to 36%). In 2011–2012, enrollment among children from upper middle or high income households remained the same at 36%. In sum, there was a net enrollment gain of 23% among children from upper middle or high income households from 2008–2009 to 2011–2012.

Children from middle or lower middle income households (earning 250,000 to 400,000 MNT per month) comprised 43% of the enrolled children across the seven kindergartens in 2008–2009. The year the free meal program was implemented (in 2009–2010), enrollment remained the same as the year prior at 43%. The following school year, (2010–2011) the percentage of enrolled children from middle or lower middle income households decreased by 8% (from 43% to 35%), and in 2011–2012, enrollment increased by 3% to 38%. In total, there was a net enrollment loss of 5% among children from middle or lower middle income households from 2008–2009 to 2011–2012.

In 2008–2009, 45% of enrolled children in the seven kindergartens were from poor or very poor households (earning less than 250,000 MNT per month). In 2009–2010, the year of implementation, enrollment declined by 1% to 44% of total enrollment. One year post implementation (2010–2011), enrollment fell by 15% (from 44% to 29%),

Figure 4: Sample Kindergartens: Changes in Enrollment by Household Income: 2008–09 to 2011–12 *



* Data are based on seven of the ten sample schools.

and two years post implementation (2011–2012), enrollment further declined to 26%. Overall there was a net enrollment loss of 19% among children from poor or very poor households from 2008–2009 to 2011–2012.

Within the seven sample kindergartens, similar patterns of changes in enrollment by children's household income from 2008–2009 to 2011–2012 were seen, although the net increases and decreases were varied (see Appendix D for individual kindergarten enrollment changes by household monthly income). Net enrollment increases among children from upper middle or high income households ranged from 2% at KG No. 1 in Kherlen, Dornod (from 10% to 12%) to 18% at Sergelen KG in Sergelen, Dornod (from 2% to 20%). Only one kindergarten, KG No. 63, in Bayanzurkh, Ulaanbaatar had a net enrollment loss (from 7% to 4%) among upper middle or high income households from 2008–2009 to 2011–2012.

Changes in enrollment among children from middle or lower middle income households within the seven schools varied. In two of the kindergartens, (KG No. 1 in Kherlen, Dornod and KG No. 163 in Songinokhairhan, UB) middle or lower middle income children comprised the majority of all enrolled children in 2008–2009. These two kindergartens experienced a net enrollment loss of middle or lower middle income children from 2008–2009 to 2011–2012. In KG No. 1 in Kherlen, Dornod enrollment decreased from 73% to 52%, and at KG No.163 in Songinokhairhan, Ulaanbaatar, enrollment decreased from 63% to 53%. In the remaining five kindergartens, where middle or lower middle income children comprised less than a majority of all enrolled children in 2008–2009, enrollment increased among this group of children by 2011–2012. Net enrollment increases among children from middle or lower middle income household ranged from 6% at KG No. 63 in Bayanzurkh, Ulaanbaatar (from 17% to 23%), to 23% at Sergelen KG in Sergelen, Dornod (from 21% to 44%)

Changes in enrollment among children from poor or very poor households decreased in six of the seven sample kindergartens from 2008–2009 to 2011–2012. One kindergarten, KG No. 163 in Songinokhairhan, Ulaanbaatar, had a net enrollment increase of 1% (from 21% to 22%) among children from poor or very poor households. In the remaining kindergartens, there was a net decrease in enrollment among children from poor or very poor households, ranging from a 3% decrease at KG No. 63 in Bayanzurkh, Ulaanbaatar (from 76% to 73%) to a 32% decrease at KG No. 2 in Kherlen, Dornod (from 82% to 50%).

4. FINDINGS: Households with Children Enrolled in Kindergarten

This section presents major findings from the survey administered to households with children enrolled in the eleven sample kindergartens in this study. The findings highlight parents' perceptions of the kindergarten free meal program and the impact that it has had on their households. The findings are organized into the following sections: (1) Demographic Characteristics of Respondents; (2) Reasons for and Methods of Enrolling Child in Kindergarten; (3) Perceptions of the Differences in Home and Kindergarten Meals; (4) Perceived Impact of the Free Meal Program on Household Budget and Employment; and (5) Potential Impact of Discontinuing Free Meals on Parents' Enrollment Decisions.

4.1. Demographic Characteristics of Survey Respondents

Respondents' Relationship to Child. The large majority of the surveys (87%) were completed by the enrolled children's mothers (61%) or fathers (26%) (See Table 4). Non-minor siblings comprised 4% of the respondents, of which, 24% were guardians of the enrolled child. Eight percent were the grandparents of which 35% were the enrolled child's guardian. Two respondents were other relatives, one of which was a guardian to the child. Fifteen respondents did not report their relationship to the child.

Table 4: Respondents with Enrolled Children: By Relationship to Child

Relationship	n	%	Child's Guardian	
			n	%
Mother	479	60.9	479	100.0
Father	206	26.2	206	100.0
Sibling (non-minor)	33	4.2	8	24.2
Grandparent	66	8.4	23	34.8
Other Relative	2	0.3	1	50.0
Total	786	100.0	717	91.2
Not reported	15			

Age and Gender of Respondents. The mean age of the respondents was 34.4 years (36.1 for males, 33.7 for females) with a range from 17 years old to 86 years old. Table 5 shows the age and gender distribution of the survey of the respondents. About one-half of the respondents overall (45%) and among male (47%) and females (45%) were between the ages of 30 to 39 years. About 1% were under age 20 and 10% of male respondents and 6% of female respondents were 50 or older. Five respondents did not report their age and/or their gender.

Table 5: Age and Gender Distribution of Respondents with Enrolled Children

Gender	N	under 20 years old		20-29 years old		30-39 years old		40-49 years old		50 years old or over	
		n	%	n	%	n	%	n	%	n	%
Male	244	2	0.8	60	24.6	115	47.1	42	17.2	25	10.2
Female	552	5	0.9	200	36.2	246	44.6	67	12.1	34	6.2
Total	796	7	0.9	260	32.7	361	45.4	109	13.7	59	7.4
Not Reported	5										

Household Size. Table 6 shows the household size and number of school-age and preschool-age children as reported by the survey respondents. Across all respondents, the mean household size was 4.2 with a range of 2 to 12 members. Survey respondents from the Bayan

Ulgii kindergartens had on average the smallest household size (3.5 members), followed by Ulaanbaatar respondents (4.3) and Dornod (4.4). The mean number of children under age 18 was 2.1, with a range of 1 to 7 children, and the mean number of preschool-age children was 1.5 with a range of 1 to 5 children. Respondents from the Bayan Ulgii had the highest number of children under age 18 on average (2.4), followed by Dornod and Ulaanbaatar respondents (2.0 respectively). Bayan Ulgii respondents also had the highest number of preschool-aged children (1.7), followed by respondents from Ulaanbaatar (1.4) and Dornod (1.3). Seven respondents did not report household size information.

Table 6. Respondents with Enrolled Children: By Household Size

Aimags/City	Household Size			
	N	Mean	Min	Max
Bayan-Ulgii	149	3.5	2	6
Dornod	246	4.4	2	12
Ulaanbaatar	399	4.3	2	10
Total	794	4.2	2	12
Not Reported	7			
	No. Children Under Age 18			
Bayan-Ulgii	153	2.4	1	6
Dornod	247	2.0	1	7
Ulaanbaatar	401	2.0	1	6
Total	801	2.1	1	7
	No. Preschool Aged Children			
Bayan-Ulgii	153	1.7	1	5
Dornod	247	1.3	1	4
Ulaanbaatar	401	1.4	1	4
Total	801	1.5	1	5

Educational Attainment. Table 7 shows the highest education level of the parents or guardians of enrolled kindergarten students as reported by the survey respondents. In general, mothers had higher educational attainment level compared to fathers. Across all survey respondents, 46% of mothers (the largest percentage) had attained a postsecondary education, compared to 35% of fathers. The largest percentage of fathers (41%) had attained a secondary education, compared to 34% of mothers. Incomplete secondary was the highest educational level for 16% of mothers and 17%

of fathers, while 3% of mothers and 4% fathers had primary school as their highest educational attainment. Less than 1% of mothers and fathers had no formal schooling. Among the 29 guardians, the largest percentage (31%) reported an incomplete secondary education, followed by secondary education (24%) and post-secondary (24%). Information on educational attainment was not reported for 72 mothers, 107 fathers and 2 guardians.

Among Bayan Ulgii, respondents 39% of mothers had attained a postsecondary education, compared to 37% of fathers. The largest percentage of fathers (41%) had attained a secondary education (compared to 35% of mothers). Incomplete secondary was the highest educational level for 16% of mothers and 14% of fathers, while primary school was the highest level for 10% of mothers and 9% of fathers. One respondent (a mother) reported having no formal schooling.

Table 7: Respondents with Enrolled Children: Household Educational Attainment

Aimag/ City	Role	N	No Formal Schooling		Incomplete Primary		Complete Primary		Incomplete Secondary		Complete Secondary		Incomplete Postsecondary		Complete Postsecondary	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
Bayan- Ulgii	Mother	135	1	0.7	0	0.0	14	10.4	21	15.6	47	34.8	0	0.0	52	38.5
	Father	126	0	0.0	0	0.0	11	8.7	18	14.3	51	40.5	0	0.0	46	36.5
	Guardian	6	0	0.0	0	0.0	0	0.0	1	16.7	5	83.3	0	0.0	0	0.0
Dornod	Mother	212	1	0.5	0	0.0	2	0.9	52	24.5	70	33.0	0	0.0	87	41.0
	Father	201	2	1.0	0	0.0	10	5.0	55	27.4	72	35.8	0	0.0	62	30.8
	Guardian	9	0	0.0	0	0.0	1	11.1	2	22.2	2	22.2	0	0.0	4	44.4
Ulaan- baatar	Mother	354	1	0.3	0	0.0	4	1.1	36	10.2	118	33.3	11	3.1	184	52.0
	Father	336	0	0.0	0	0.0	5	1.5	40	11.9	147	43.8	17	5.1	127	37.8
	Guardian	14	2	14.3	1	7.1	2	14.3	6	42.9	0	0.0	0	0.0	3	21.4
Total	Mother	701	3	0.4	0	0.0	20	2.9	109	15.5	235	33.5	11	1.6	323	46.1
	Father	663	2	0.3	0	0.0	26	3.9	113	17.0	270	40.7	17	2.6	235	35.4
	Guardian	29	2	6.9	1	3.4	3	10.3	9	31.0	7	24.1	0	0.0	7	24.1
Not Reported	Mother	72														
	Father	107														
	Guardian	2														

Among respondents from the Dornod kindergartens, the largest percentage of mothers (41%) had a postsecondary education (compared to 31% of fathers). The largest percentage of fathers (36%) had attained a secondary education (compared to 33% of mothers). Incomplete secondary was the highest educational level for 26% of mothers and 27% of fathers. Less than 1% of mothers and 5% of fathers had primary school as their highest educational attainment, and 3 respondents (1 mother and 2 fathers) had no formal schooling.

Among Ulaanbaatar respondents, 52% of mothers had a postsecondary education, compared to 38% of fathers. The largest percentage of fathers (44%) had a secondary education, compared to 33% of mothers. Incomplete secondary was the highest educational level for 10% of mothers and 12% of fathers. One percent of mothers and 2% of fathers had primary school as their highest educational attainment, and one respondent (a mother) had no formal schooling.

Employment. Table 8 shows household employment for 2011–2012. The majority of respondents came from households in which the mother (63%) or father (77%) was employed (non-herders). Less than 3% of both mothers and fathers worked as herders. About one-quarter of mothers (29%), 16% of fathers and 14% of guardians were unemployed. The remaining 6% of mothers, 4% of fathers and 21% of non-parental guardians had an “other” status, which included student, retired, on disability or not specified. Employment information was not reported for 76 mothers, 103 fathers and 4 non-parental guardians.

Table 8: Respondents with Enrolled Children: Household Employment Status: 2011–2012

Aimag/City	Role	N	Employed (non-herder)		Herder		Unemployed		Other	
			n	%	n	%	n	%	n	%
Bayan-Ulgii	Mother	138	74	53.6	5	3.6	50	36.2	9	6.5
	Father	127	81	63.8	7	5.5	35	27.6	4	3.1
	Guardian	6	3	50.0	0	0	0	0.0	3	50.0
Dornod	Mother	203	126	62.1	7	3.4	63	31.0	7	3.4
	Father	195	130	66.7	10	5.1	46	23.6	9	4.6
	Guardian	6	1	16.7	0	0	4	66.7	1	16.7
Ulaanbaatar	Mother	356	241	67.7	3	0.8	87	24.4	25	7.0
	Father	348	302	86.8	2	0.6	29	8.3	15	4.3
	Guardian	16	13	81.3	1	6	0	0.0	2	12.5
Total	Mother	697	441	63.3	15	2.2	200	28.7	41	5.9
	Father	670	513	76.6	19	2.8	110	16.4	28	4.2
	Guardian	28	17	60.7	1	3.6	4	14.3	6	21.4
Not Reported	Mother	76								
	Father	103								
	Guardian	4								

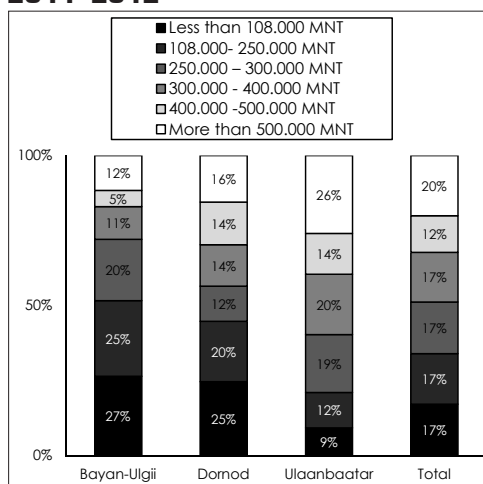
There was some variation in household employment by location. The majority of mothers, fathers and non-parental guardians were employed (in non-herding occupations) in both aimags and in Ulaanbaatar. However, a smaller percentage of mothers and particularly fathers were employed in Bayan Ulgii (54% of mothers, and 64% of fathers) and Dornod (62% of mothers and 67% of fathers) compared to Ulaanbaatar (68% of

mothers and 87% of fathers). Unemployment was prevalent among about one-quarter to one-third of households in Bayan Ulgii (36% of mothers and 28% of fathers) and in Dornod (31% of mothers and 24% of fathers). In Ulaanbaatar, 24% of mothers and 8% of fathers were unemployed.

Household Monthly Income. Figure 5 shows the distribution of respondents by household monthly income for 2011–2012. Overall, respondents were about evenly distributed across low, middle and high income levels. About one-third (34%) were from poor households (earning 108 to 250 thousand MNT per month) or very poor households (earning less than 108 thousand MNT per month). Lower middle income (earning between 250 to 300 thousand MNT per month) and middle income households (300 to 400 thousand MNT per month) comprised 34% of all respondents. About one-third (32%) of the respondents came from upper middle income (earning between 400 to 500 thousand MNT per month) or high income (more than 500 thousand MNT) households. Seventeen respondents did not report their monthly income.

Household income varied by location. About half of the respondents from Bayan Ulgii (52%) and 45% from Dornod were from poor or very poor households compared to 21% from Ulaanbaatar. About one-third from Bayan Ulgii (31%) and Ulaanbaatar (39%) were from lower middle or middle income households, compared to 26% from Dornod. Upper middle or high income households comprised 17% of Bayan Ulgii respondents, compared to 30% of Dornod and 39% of Ulaanbaatar respondents. (See Appendix C for respondents' monthly household income by the kindergarten in which their child is enrolled.)

Figure 5: Respondents with Enrolled Children: Monthly Household Income for 2011–2012



4.2. Reasons For and Methods of Enrolling Child in Kindergarten

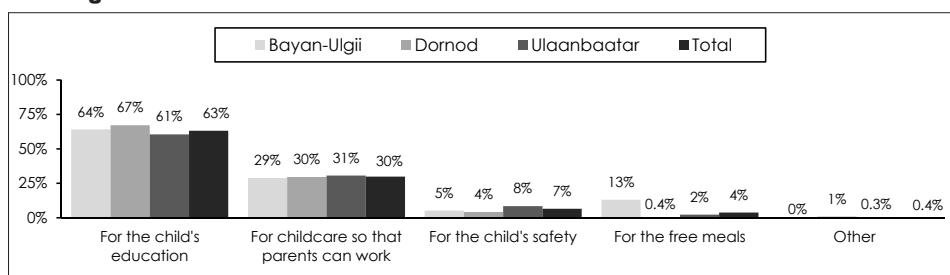
Parents were asked to indicate the main reason why they made the decision to enroll their preschool age child in kindergarten and the method they utilized to get their child enrolled. In addition, parents were asked if they had preschool aged children prior to the implementation of the kindergarten free meal program and, if so, whether or not that child was enrolled in the kindergarten. Finally parents were asked if they would keep their child enrolled in the kindergarten if the meals were no longer provided for free.

4.2.1. Reasons for Enrolling Child in Kindergarten

Figure 6 shows the main reason why parents enrolled their child in kindergarten. The majority, nearly two-thirds (63%), reported that they enrolled their child in kindergarten for the educational benefits to the child. Similarly, about two-thirds of parents across the three locations indicated educational benefits to the child as the main reason for enrollment: Bayan Ulgii (64%), Dornod (67%) and Ulaanbaatar (61%).

Overall, 30% of parents reported that enrolling their child in kindergarten allowed them to work. Similar percentages of respondents from Bayan Ulgii (29%), Dornod (30%) and Ulaanbaatar (31%) reported that they chose to enroll their child for parental employment opportunities.

Figure 6: Respondents with Enrolled Children: Reasons for Enrolling Child in Kindergarten



A small percentage of parents overall (7%) and in Bayan Ulgii (5%), Dornod (4%) and Ulaanbaatar (8%) indicated that child safety was the primary reason behind their decision to enroll their child in kindergarten. Access to the free meals in kindergarten was the motivator for only 4% overall and for less than 2% from Dornod and Ulaanbaatar, compared to 13% from Bayan Ulgii. Less than 1% of respondents had other reasons for enrolling their child, and 13 respondents did not report their reasons for enrolling their child in kindergarten.

4.2.2. Method Used to Enroll Child in Kindergarten

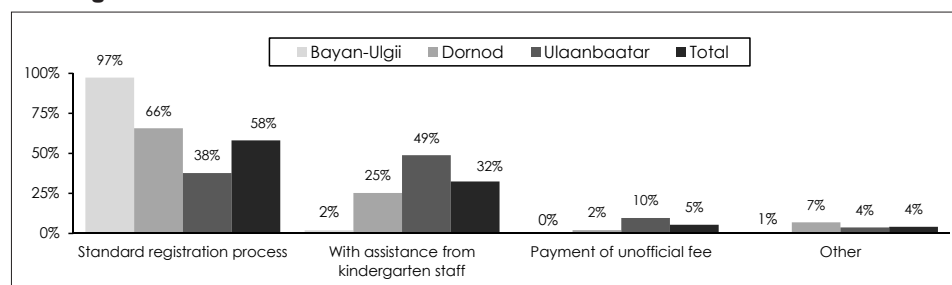
Figure 7 shows the method that parents utilized to enroll their child in the kindergarten. Overall, about one-half of respondents (58%) followed the standard registration process to enroll their child. About one-third (32%) sought assistance from kindergarten staff members to enroll their child, while 5% reported that they paid an unofficial fee to get their child into the kindergarten. Overall, 4% of respondent had other methods for enrolling their child, and 45 respondents did not report their methods for enrolling their child in kindergarten.

There was considerable variation by location in the method that parents used to enroll their child. In Bayan Ulgii, all but four parents (97%) reported following the standard registration process, compared to two-thirds of Dornod parents (66%) and about one-third of parents from Ulaanbaatar (37%). Nearly one-half Ulaanbaatar parents

(49%) sought assistance from staff members to enroll their child, compared to 25% of Dornod parents and 2% of Bayan Ulgii parents. Payment of an unofficial fee was how 10% of Ulaanbaatar parents enrolled their child, compared to 2% of Dornod parents. There were no parents from Bayan Ulgii who reported that they paid a fee to enroll their child in the kindergarten.

There was also some variation in the methods that parents used to enroll their child by their household income level (see Appendix D). Nearly three-quarters (71%) of parents from poor or very poor households (those earning 250 thousand MNT or less per month) followed the standard registration process, compared to 59% of parents from lower middle to middle income households

Figure 7: Respondents with Enrolled Children: Methods of Enrolling Child in Kindergarten



(earning 250 to 400 thousand MNT), and 42% of parents from upper middle to high income households (earning 400 thousand MNT or more). About one-quarter of poor or very poor parents (24%) got assistance from kindergarten staff members, compared to 32% of lower middle to middle income parents, and 44% of upper middle to high income parents. Payment of an official fee was the method utilized by 2% of poor or very poor parents, compared to 6% of lower middle to middle income parents, and 8% of upper middle to high income parents.

4.3. Child Enrollment Prior to Free Meal Program Implementation

Table 9 shows that more than one-half of the households overall (59%) and within Bayan Ulgii, Dornod, and Ulaanbaatar had children of preschool age prior to the implementation of the free meal program in kindergartens (which began during the 2009–2010 school year). Of these parents, the majority overall (72%) and in Bayan Ulgii (76%), Dornod (75%), and Ulaanbaatar (69%) reported that their preschool-age child was enrolled in the kindergarten prior to the implementation of the free meal program. This finding suggests that approximately 40% of all parent respondents (and 45% of Bayan Ulgii, 44% of Dornod and 41% of Ulaanbaatar parents) have had the experience of paying 50% of the cost of the kindergarten meals—the amount not subsidized by government prior to implementation of the free meal program.

Table 9: Respondents with Enrolled Children: Child Enrollment Prior to Free Meal Implementation

Aimags/City	N	Had preschool-age child prior to free meal program implementation		Child enrolled in kindergarten prior to free meal program implementation	
		n	%	n	%
Bayan-Ulgii	150	88	58.7	67	76.1
Dornod	239	141	59.0	105	74.5
Ulaanbaatar	320	190	59.4	131	68.9
Total	709	419	59.1	303	72.3
Not Applicable	67				
Not Reported	25				

4.4. Perceptions of the Differences in Kindergarten and Home Meals

Parents were asked to provide their perceptions about the differences in the meals served to their child at home and at the kindergarten, including difference in the variety of meals, and the nutritional quality of the meals.

Overall Perceptions of Differences in Meals. Figure 8 shows the parent's perceptions of the differences in the meals served to their child at the kindergarten and at home. Overall, 60% of parents perceived the meals at the kindergarten to be generally more favorable than the meals served at home. Of those who favored the kindergarten meals, 50% felt that the main difference between home and kindergarten meals was that the kindergarten meals were more nutritious. Forty-seven percent of parents perceived the main difference to be of greater variety in the kindergarten meals compared to home meals, and 3% of parents felt that there was both greater variety and more nutritious meals served at the kindergarten than at home.

Overall, only 12% of parents perceived the meals served to their child at home to be generally more favorable than the meals served at the kindergarten. Of this group of parents, a large majority (89%) viewed better nutrition in home meals, as the primary difference. Only 9% felt that the main difference was due to greater variety in the meals served at home, and 1% felt the difference was in both greater variety and nutrition.

Twenty-nine percent of parents perceived no difference in the meals served to their child at home or at the kindergarten. About 20% of the parents reported that they were unsure of the differences in kindergarten and home meals. Thirty-one parents did not report their views on the difference in the meals.

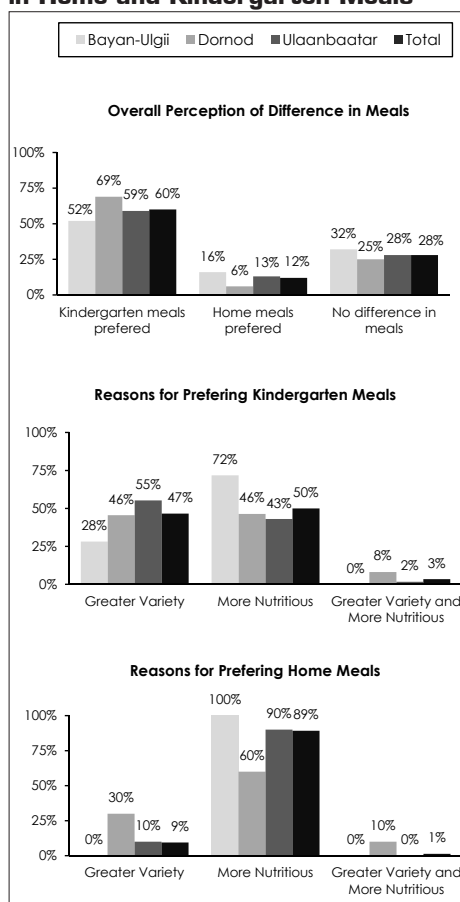
Perceptions of Differences in Meals by Location. The majority of parents in Bayan Ulgii (52%), Dornod (69%) and in Ulaanbaatar (59%) viewed the meals served to their child at the kindergarten more favorably than home meals. However there was considerably variation by location in parents' views about what the main difference in the kindergarten and home meals was. In Bayan Ulgii, of the parents who favored the

kindergarten meals, 72% did so because they believed the kindergarten meals were more nutritious than home meals. Among the parents in Ulaanbaatar who favored the kindergarten meals, 55% did so because they perceived greater variety in kindergarten meals than in home meals. The Dornod parents who favored the kindergarten meals were evenly split, with 46% seeing greater variety in the kindergarten meals as the main difference and another 46% viewing greater nutrition in the kindergarten meals as the main difference.

There was considerably less variation by location among parents who viewed the meals served to their child at home more favorably than meals served at the kindergarten. Of parents who had more favorable views of home meals, the majority in all three locations did so because they perceived home meals to be of better nutritional quality. In Bayan Ulgii, 16% favored home meals to the kindergarten meals, of which 100% did so because they perceived better nutrition in home meals. In Ulaanbaatar, 10% favored home meals and of these parents, 90% attributed the difference to better nutrition of home meals. In Dornod, 4% of parents favored home meals to kindergarten meals, but smaller percentage (60%) attributed the difference to higher nutrition. Another 30% of the parents from Dornod who perceived the difference in the meals was that the home meals were of greater variety than at the kindergarten, and 10% of Dornod parents felt that the meals served at home were both of greater variety and better nutrition than kindergarten meals.

There was some variation by location in the percentage of parents who perceived no difference in the meals served to their child at the kindergarten and at home, and those who were unsure of the differences. Among parents from Bayan Ulgii, 32% felt that there were no differences in home and kindergarten meals, and there were no parents who were unsure of the differences. In Dornod, 19% of parents viewed no difference in home and kindergarten meals, while 24% were unsure about the differences. In

Figure 8: Respondents with Enrolled Children: Perceptions of Differences in Home and Kindergarten Meals



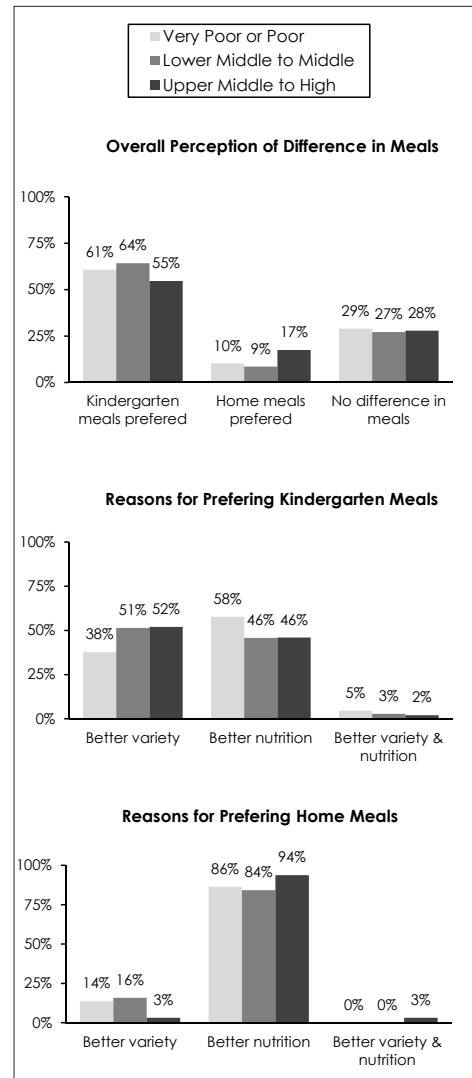
Ulaanbaatar, 22% perceived no difference in the meals served at home and at the kindergarten, and 21% were unsure of the differences.

Perceptions of Differences in Meals by Income Level. There was some variation in parents' perceptions of the differences between home and kindergarten meals based on household income (see Figure 9). The largest percentage of parents across all income levels viewed the meals at the kindergarten generally more favorably than meals at home. More than one-half of parents from poor and very poor income households (61%), from lower middle and middle income households (64%) and from upper middle to high-income households (55%) viewed the kindergarten meals more favorably. However, what parents perceived to be the main differences in kindergarten and home meals varied by income. More parents from poor and very poor households (58%) viewed better nutrition to be the main difference in kindergarten meals, compared to lower middle and middle income parents (46%) and to parents from upper middle and high-income households (46%).

Overall, only 10% of parents from poor or very poor households, 9% from lower middle and middle-income, and 17% of upper middle and high-income households viewed home meals more favorably than the kindergarten meals. Of these parents, the majority viewed nutrition as primary difference between home and kindergarten meals: 86% from poor to very poor households, 84% from lower middle to middle income households and 94% of upper middle to high income households.

About one-quarter of parents across all income levels perceived no difference in the meals served to their child at home or the kindergarten: 29% from poor to very poor households, 27% from lower middle to middle income and 28% of upper middle to high income households

Figure 9: Respondents with Enrolled Children: Perceptions of Differences in Home and Kindergarten Meals, By Income



4.5. Perceived Impact of Free Meal Program on Household Budget and Employment

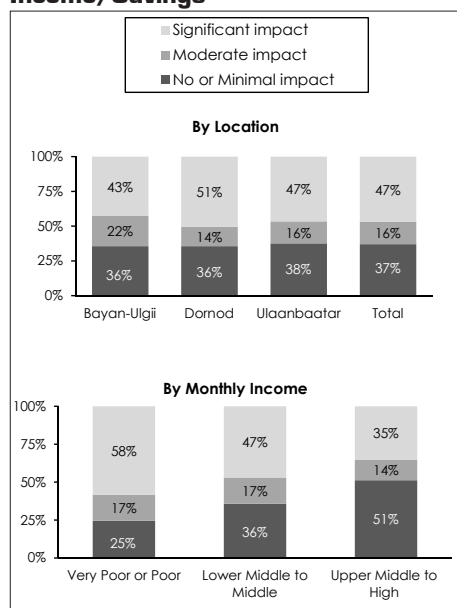
The survey asked respondents to provide their perceptions of the impact of the kindergarten free meal program on their household budget, including their estimates of the monthly cost savings to them. Parents were also asked to provide an assessment of what the free meal program's impact has had on employment opportunities for the household.

4.5.1. Perceived Impact of Free Meal Program on Household Budget

Figure 10 shows parent's perception of the impact of having free meals at the kindergarten has on their household income/savings. The largest percentage of parents (47%) perceived that the free meals have had a significant impact on their budget. About one-third (37%) felt that the free meals have had no or minimal impact, while 16% viewed the impact to be moderate. Forty-one respondents did not report on their perception of the impact on their household budget.

By Location. There was very little variation by location in parents' perceptions of the impact of the free meal program on their household budget, with the largest percentage of parents across all three location perceiving a significant impact. Among Bayan Ulgii parents, 42% perceived a significant impact, 22% viewed the impact as moderate, and 36% perceived minimal or no impact. About one-half of the parents from Dornod (51%) felt a significant impact of the free meal program on their household budget, 14% viewed the impact as moderate, and 36% as minimal or no impact. The largest percentage of Ulaanbaatar parents (47%) reported a significant impact, 16% a moderate impact, and 38%, minimal or no impact.

Figure 10: Respondents with Enrolled Children: Perceived Impact of the Free Meal Program on Household Income/Savings



By Income. Not surprisingly, there was considerable variation by income in parents' perceptions of the impact that the free meal program has had on their household budget (see Figure 10). Among parents from poor or very poor households, 58% perceived the free meal program to have had a significant impact on their household

budget, compared to 47% of lower middle or middle income parents, and 35% of parents from upper middle to high-income households. About one-half of upper middle to high income parents (51%) perceived the free meal program to have had minimal or no impact on their household budget, compared to 36% of lower middle to middle income parents, and 25% of parents from poor or very poor households.

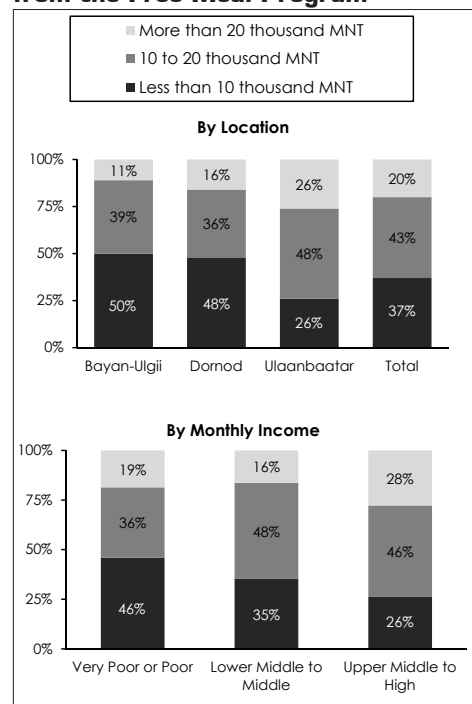
4.5.2. Parents' Estimates of Monthly Household Savings from the Free Meal Program

Figure 11 shows parent's estimates of the monthly cost saving of the kindergarten free meal program for their household. Overall, 43% estimated the saving from the free meal program to be between 10 to 20 thousand MNT per month. About one-third (37%) estimated the savings to be less than 10 thousand MNT per month, while 20% estimated it to be more than 20 thousand MNT. Nearly one-third of respondents (30%) indicated that they were unsure about what the cost savings of the free meal program was and 48 respondents did not respond to the question.

By Location. There was variation by location in parents' estimates of the cost savings of the free meal program. About one-half of Bayan Ulgii (50%) and Dornod (48%) parents estimated the savings to be less than 10 thousand MNT per month. In contrast, nearly one-half of Ulaanbaatar parents (48%) estimated the savings at 10 to 20 thousand MNT per month. Only 26% of Ulaanbaatar parents estimated the cost savings to be less than 10 thousand MNT per month.

By Income. There was also variation by income in parents' estimates of the cost savings of the free meal program. About one-half of parents from poor and very poor households (48%) estimated the savings to be less than 10 thousand MNT, whereas about one-half of lower middle and middle income parents (48%) and upper middle and high income parents (46%) estimated the savings to be between 10 to 20 thousand MNT.

Figure 11: Respondents with Enrolled Children: Estimated Monthly Savings from the Free Meal Program



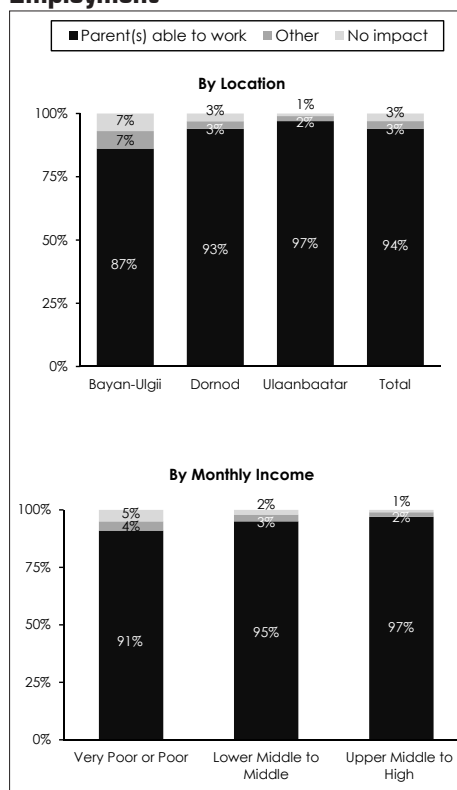
4.5.3. Perceived Impact of Free Meal Program on Household Employment

Figure 12 shows parent's perceptions of the impact of having free meals served to their child at the kindergarten on household employment opportunities. The overwhelming majority of parents (94%) indicated that enrolling their child in kindergarten and having access to free meals for their child better allows them to be employed. Only 3% of parents reported no impact on household employment, and another 3% indicated other impacts. Twenty-five respondents did not provide a response.

By Location. There was minor variation by location in parents' perceptions of the impact of the free meal program on household employment opportunities. Across all three locations, the majority of parents indicated that they free meal program better allows them to work, although a somewhat smaller percentage of parents from Bayan-Ulgii (87%) felt this way compared to Dornod parents (93%) and Ulaanbaatar parents (97%).

By Income. There was less variation by income in parents' perceptions of the impact of the free program on household employment opportunities. Across all income ranges, the large majority of parents indicated that they free meal program better allows them to work. Parents from poor or very poor households perceived this at a somewhat smaller rate (91%), compared to lower middle and middle income parents (95%) and upper middle and high income parents (97%).

Figure 12: Respondents with Enrolled Children: Perceived Impact of the Free Meal Program on Household Employment



4.6. Potential Impact of Discontinuing Free Meals on Parents' Enrollment Decisions

The survey asked parents whether or not they would keep their child enrolled in kindergarten if the meals served were no longer free of cost to them. Figure 13 shows that overall, 57% of parents indicated that they would keep their child in kindergarten

even without the free meals. However, although only 4% of parents had indicated that access to free meals was the primary reason why they initially decided to enroll their child in kindergarten, as Figure 12 shows, a considerably larger percentage of parents (43%) said that they would not continue to enroll their child in kindergarten without the free meal program. (Thirty-one respondents did not report what their enrollment decisions would be).

By Location. Figure 13 also shows considerable variation by location in the percentage of parents who said they would not keep their child in kindergarten without the free meals. Among parents from Dornod, only 12% said they would not continue to enroll their child without free meals. In comparison, about one-half of parents from Ulaanbaatar (52%) and about two-thirds of the parents from Bayan Ulgii (67%) indicated that they would not keep their child enrolled in kindergarten without the free meal program.

By Income. Household income also contributed to the variation in the percentage of parents who would not continue to enroll their child in kindergarten without the free meal program (see Figure 13). Nearly two thirds (62%) of the parents who said they would not continue to enroll their child without the free meal program were from very poor, poor or lower middle income households (earning less than 300 thousand MNT per month). About one quarter (29%) of parents were from middle or upper middle income households (earning between 300 to 500 thousand MNT per month) and 9% of parents were from higher income household (earning more than 500 thousand MNT).

Figure 13: Parents Who Would or Would not Keep Child Enrolled In Kindergarten Without the Free Meal Program

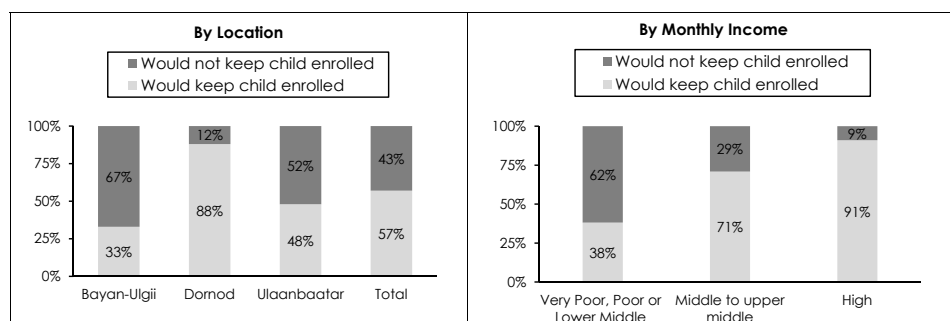
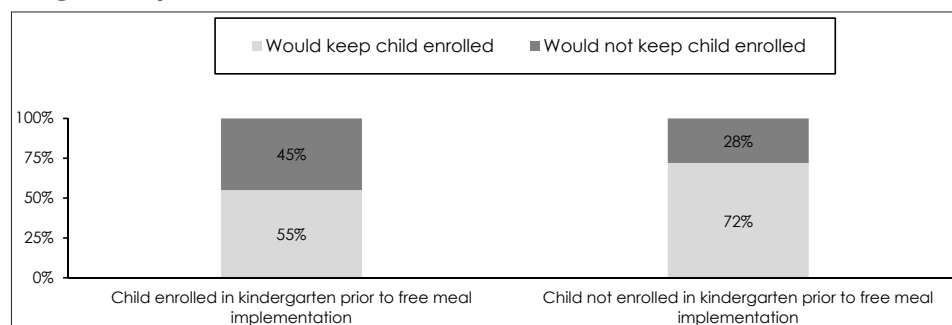


Figure 14: Parents Who Would or Would Not Keep Their Child Enrolled Without Free Meals: By Enrollment Prior to the Kindergarten Free Meal Program Implementation



By Enrollment Prior to Free Meal Program Implementation. Prior experience paying 50% of the cost of kindergarten meals appears to have some influence on whether or not parents would continue to enroll their child in kindergarten without the free meals (see Figure 14). Among the parents with children who had been enrolled in kindergarten prior to the free meal program implementation (and had prior experience paying 50% of the meal costs), 45% percent reported that they would not continue to enroll their child without the free meal program. In comparison, among parents whose preschool aged children were not enrolled in kindergarten prior to the free meal program implementation, only 28% indicated that they would no longer continue to enroll their child without the free meals.

5. FINDINGS: Households with Children Not Enrolled in Kindergarten

This section presents findings from the survey administered to households with preschool age children who were not enrolled in kindergarten during the 2011–2012 school year. The findings are organized into the following sections: (1) Demographic Characteristics of Survey Respondents; (2) Reasons for Not Enrolling Child in Kindergarten; (3) Parental Awareness of the Kindergarten Free Meal Program; (4) Perceptions of the Potential Benefits and Impact of Enrolling Child in Kindergarten.

5.1. Demographic Characteristics of Survey Respondents

Respondents Relationship to Child. Over half of the respondents (57%) were mothers of non-enrolled preschool children (see Table 10). Fathers comprised 25% of the respondents. Non-minor siblings comprised 4% of the respondents, of those, 26% were the guardians of the child.

Table 10: Respondents Without Enrolled Children: By Relationship to Child

Relationship	n	%	Child's Guardian	
			n	%
Mother	319	57.0	319	100.0
Father	142	25.4	142	100.0
Sibling (non-minor)	19	3.4	5	26.3
Grandparent	76	13.6	3	3.9
Other Relative	4	0.7	0	0.0
Total	560	100.0	469	83.8
Not reported	2			

Seventy-six respondents (14%) were grandparents, of which 4% were also the child's guardian. Four respondents were other relatives none of whom were guardians. Two respondents did not report their relationship to the child.

Age and Gender of Respondents. The mean age of the respondents was 36.7 years (38.4 for males, 36.0 for females) with a range from 19 to 73 years old. Table 11 shows the age and gender distribution of the survey respondents. Overall 44% of respondents, and among males (42%) and females (46%), were between the ages of 30 to 39 years. One respondent (male) was under age 20 and 16% of male respondents and 12% of female respondents were 50 years of age or older. Six respondents did not report their age and/or gender.

Table 11: Age & Gender Distribution of Respondents Without Enrolled Children:

Gender	N	under 20 years old		20-29 years old		30-39 years old		40-49 years old		50 years old or over	
		n	%	n	%	n	%	n	%	n	%
Male	169	1	0.6	30	17.8	78	46.2	33	19.5	27	16.0
Female	387	0	0.0	117	30.2	164	42.4	58	15.0	48	12.4
Total	556	1	0.2	147	26.4	242	43.5	91	16.4	75	13.5
Not Reported	6										

Household Size. Table 12 shows the household size and number of school-age and preschool-age children as reported by the survey respondents. Across all respondents, the mean household size was 4.7 members, with a range of 2 to 13 individuals. Survey respondents from the Ulaanbaatar had, on average, the smallest household size (4.6), followed by Dornod respondents (4.2) and Bayan Ulgii (5.1). The mean number of children under age 18 across all respondents was 2.1, with a range of 1 to 8 children, and the mean number of preschool-age children was 1.6 with a range of 1 to 6 children. Respondents from Bayan Ulgii had the highest number of children under age 18 on average (2.6), followed by respondents from Dornod (2.5) and respondents from Ulaanbaatar (2.2). The average number of preschool-aged school children was the same (1.6) as reported by respondents from Bayan Ulgii, Dornod and Ulaanbaatar. Ten respondents did not report household size information.

Table 12: Respondents Without Enrolled Children: By Household Size

Aimags/City	Household Size			
	N	Mean	Min	Max
Bayan-Ulgii	104	5.1	3	10
Dornod	64	5.2	3	13
Ulaanbaatar	384	4.6	2	12
Total	552	4.7	2	13
Not Reported	10			
No. Children Under Age 18				
Bayan-Ulgii	111	2.6	1	6
Dornod	64	2.5	1	8
Ulaanbaatar	387	2.2	1	6
Total	562	2.1	1	8
No. Preschool Aged Children				
Bayan-Ulgii	111	1.6	1	4
Dornod	64	1.6	1	6
Ulaanbaatar	387	1.6	1	5
Total	562	1.6	1	6

Educational Attainment. Table 13 shows the highest education level of the parents or guardians of non-enrolled preschool aged children. Across all households of the respondents, the largest percentage of both mothers (44%) and fathers (51%) had attained a secondary education. One-third of mothers (33%) and 23% of fathers had acquired a postsecondary education.

Incomplete secondary was the highest educational level for 19% of mothers and 20% of fathers, while 3% of mothers and 4% fathers had primary school as their highest educational attainment. Less than 1% of both mothers and 2% of fathers had no formal schooling. Among the 7 non-parental guardians, 29% reported an incomplete secondary education, another 29% secondary education, another 29% a post-secondary education. One respondent (a guardian) reported primary school as his/her highest level of education. Information on educational attainment was not reported for 62 mothers, 103 fathers and 1 guardian.

Table 13: Respondents Without Enrolled Children: Household Educational Attainment

Aimags/ City	Role	N	No Formal Schooling		Incomplete Primary		Complete Primary		Incomplete Secondary		Complete Secondary		Incomplete Postsecondary		Complete Postsecondary	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%
Bayan- Ulgii	Mother	93	0	0.0	0	0.0	3	3.2	11	11.8	46	49.5	0	0.0	33	35.5
	Father	97	0	0.0	0	0.0	3	3.1	12	12.4	53	54.6	0	0.0	29	29.9
	Guardian	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Dornod	Mother	60	0	0.0	0	0.0	6	10.0	18	30.0	26	43.3	0	0.0	10	16.7
	Father	54	2	3.7	0	0.0	6	11.1	18	33.3	25	46.3	0	0.0	3	5.6
	Guardian	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ulaan- baatar	Mother	339	4	1.2	0	0.0	5	1.5	65	19.2	145	42.8	0	0.0	120	35.4
	Father	300	7	2.3	0	0.0	8	2.7	61	20.3	153	51.0	0	0.0	71	23.7
	Guardian	7	0	0.0	0	0.0	1	14.3	2	28.6	2	28.6	0	0.0	2	28.6
Total	Mother	492	4	0.8	0	0.0	14	2.8	94	19.1	217	44.1	0	0.0	163	33.1
	Father	451	9	2.0	0	0.0	17	3.8	91	20.2	231	51.2	0	0.0	103	22.8
	Guardian	7	0	0.0	0	0.0	1	14.3	2	28.6	2	28.6	0	0.0	2	28.6
Not Reported	Mother	62														
	Father	103														
	Guardian	1														

Among Bayan Ulgii respondents, the majority of both mothers (50%) and fathers (55%) reported attaining a secondary education. About one-third of both mothers (36%) and fathers (30%) reported a postsecondary education. Incomplete secondary was the highest educational level for 12% of both mothers and fathers, while primary school was the highest level for 3% of both mothers and fathers. No respondents from Bayan Ulgii had no formal schooling.

Among Dornod respondents, the largest percentage of both mothers (43%) and fathers (46%) reported attaining a secondary education. Sixteen percent of mothers and 6% of fathers reported a postsecondary education. Incomplete secondary was the highest educational level for about one-third of both mothers (30%) and fathers (33%), while primary school was the highest level for 10% of mothers and 11% of fathers. Two fathers had no formal schooling.

Among respondents from Ulaanbaatar, the largest percentage of both mothers (42%) and fathers (51%) reported attaining a secondary education. Thirty-five percent of mothers and 24% of fathers reported a postsecondary education. Incomplete secondary was the highest educational level for 19% of mothers 20% of fathers, while primary school was the highest level for 2% of mothers and 3% of fathers. Eleven respondents had no formal schooling.

Employment. Table 14 shows the respondents' household employment status for the 2011–2012 school year. The majority of respondents came from households in which the father (65%) was employed (non–herders). Less than half (45%) came from households in which the mother was employed. About 2% of came from households where the mothers or fathers were herders. In 46% of the households the mother was unemployed; in 30% of the households the father was unemployed. The remaining 7% of mothers, 3% of fathers and 43% of guardians had an “other” status, which included student, retired, on disability or not specified. Employment information was not reported for 51 mothers, 93 fathers and 1 guardian.

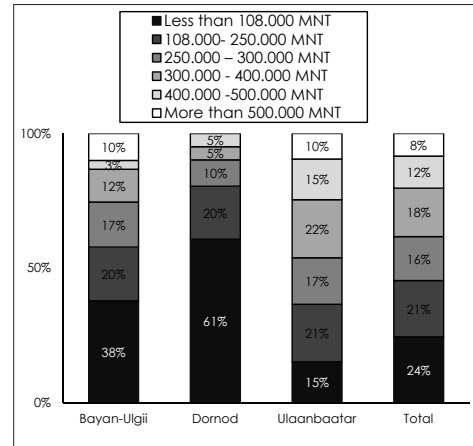
There was considerable variation in household employment by location. In Bayan Ulgii, respondents were about evenly divided between households in which the mother (43%) and/or father (48%) were employed (non–herder) and households in which the mother (50%) and/or father (50%) were unemployed. Among Dornod respondents, only 16% came from households in which the mother was employed and 30% from households in which the father was employed. Nearly three quarters of Dornod respondents (73%) came from household in which the mother was unemployed and 58% in which the father was unemployed. Among Ulaanbaatar respondents, 52% were from households in which the mother was employed and 77% from households in which the father was employed. Unemployment was comparatively less prevalent in Ulaanbaatar: 46% among mothers, 30% among fathers.

Table 14: Respondents Without Enrolled Children: Household Employment Status: 2011–2012

Aimag/City	Role	N	Employed (non-herder)		Herder		Unemployed		Other	
			n	%	n	%	n	%	n	%
Bayan-Ulgii	Mother	96	41	42.7	2	2.1	48	50.0	5	5.2
	Father	96	46	47.9	1	1.0	48	50.0	1	1.0
	Guardian	0	0	0.0	0	0.0	0	0.0	0	0.0
Dornod	Mother	62	10	16.1	3	4.8	45	72.6	4	6.5
	Father	57	17	29.8	3	5.3	33	57.9	4	7.0
	Guardian	0	0	0.0	0	0.0	0	0.0	0	0.0
Ulaanbaatar	Mother	345	178	51.6	2	0.6	139	40.3	26	7.5
	Father	308	238	77.3	4	1.3	58	18.8	8	2.6
	Guardian	7	3	42.9	0	0.0	1	14.3	3	42.9
Total	Mother	503	229	45.5	7	1.4	232	46.1	35	7.0
	Father	461	301	65.3	8	1.7	139	30.2	13	2.8
	Guardian	7	3	42.9	0	0.0	1	14.3	3	42.9
Not Reported	Mother	51								
	Father	93								
	Guardian	1								

Household Monthly Income. Figure 15 shows respondents by monthly household income for 2011–2012. Overall, 45% of the respondents were from poor (108 to 250 thousand MNT per month) or very poor households (less than 108 thousand MNT per month). Lower middle income (250 to 300 thousand MNT) and middle income households (300 to 400 thousand MNT) comprised 34% of all respondents. Twenty percent came from upper middle income (400 to 500 thousand MNT) or high income (more than 500 thousand MNT) households. Forty-one respondents did not report their monthly household income.

Figure 15: Respondents Without Enrolled Children: Monthly Household Income for 2011–2012



There was considerable variation in household monthly income by location. The large majority of respondents from Dornod (81%) were from poor or very poor households compared to 58% of respondents from Bayan Ulgii and 36% of respondents from Ulaanbaatar. Over one-third of Ulaanbaatar respondents (39%) were from lower middle and middle income households, compared to 29% of Bayan Ulgii respondents and 15% of Dornod respondents. Only 5% of respondents from Dornod were from upper middle or high income households compared to 13% of Bayan Ulgii respondents and 25% of Ulaanbaatar respondents.

5.2.Reasons for Not Enrolling Child in Kindergarten

Figure 16 shows the main reasons why parents did not enroll their preschool age child in kindergarten. Three quarters of parents (74%) indicated a lack of openings in the area kindergartens. For 11% of the parents, their child was not enrolled because they have daycare available to them, and for 5% of the parents, there was no kindergarten available in their residential area. Two percent or less reported other reasons for not enrolling their child in kindergarten including: that they could not afford an unofficial registration fee (2%); that their child has a disability or health issues (1%); that they are unregistered residents in the area (1%); and that they are not familiar with any kindergarten staff members (0.4%). Seventy-eight individuals did not provide a response to the questions.

By Location. There were some differences by location in parents' reasons for not enrolling their child. Namely, in Bayan Ulgii, a smaller percentage of parents (60%) indicated that the kindergarten was over capacity in enrollment, compared to 79% of

Dornod parents and 78% of Ulaanbaatar parents. For 30% of Bayan Ulgii parents, the availability of daycare for their child was the main reason they did not enroll their child in kindergarten, compared to only 3% of Dornod parents and 6% of Ulaanbaatar parents. For 7% of Ulaanbaatar parents, the lack of available kindergartens in their residential areas was the main reason for not enrolling their child, while this was not a factor for any of the parents in Bayan Ulgii and Dornod.

By Income. Household income did not appear to be a major factor in differences in parents' reasons for not enrolling their child (see Figure 17). Across all income levels, the majority indicated that the lack of available openings at their local kindergarten as the main reason why their child was not enrolled. Among parents from poor and very poor households, 72% reported that the lack of vacancies was the main reasons, as did 74% of lower middle and middle income

Figure 16: Respondents Without Enrolled Children: Reasons Why Child is Not Enrolled in Kindergarten

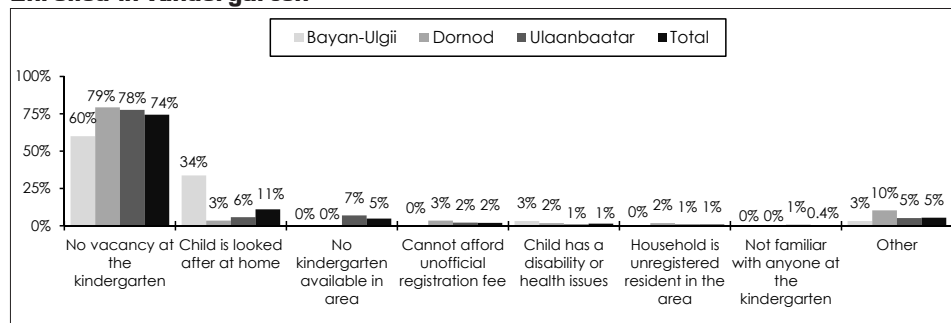
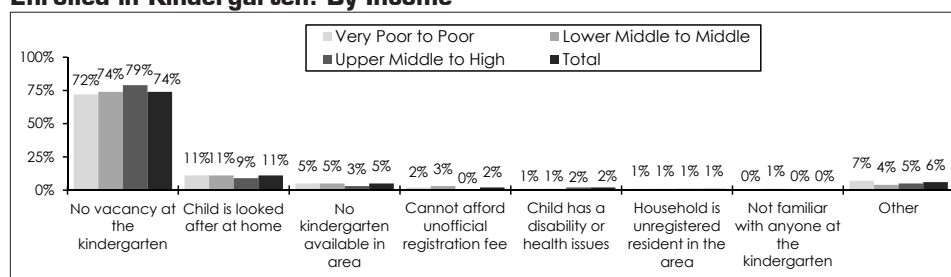


Figure 17: Respondents Without Enrolled Children: Reasons Why Child is Not Enrolled in Kindergarten: By Income

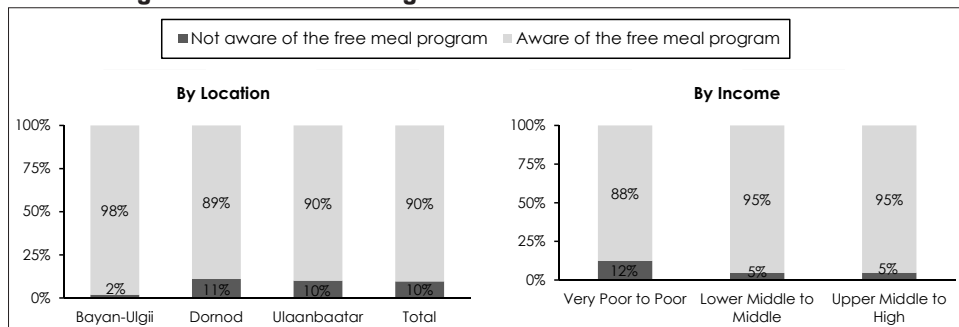


parents, and 79% of upper middle and high income parents. The availability of day care was the main reason for not enrolling their child in kindergarten for 11% of parents from poor and very poor households, and for lower middle and middle income parents. For 9% of parents from upper middle to high income household, the availability of daycare was the main reason.

5.3. Parental Awareness of the Kindergarten Free Meal Program

Parents were asked if they were aware that kindergartens offer meals to enrolled children free of cost to households. Figure 18 shows that the vast majority of parents (90%) were aware of the kindergarten free meal program. A larger percentage of parents from Bayan Ulgii (98%) appeared to be aware of the kindergarten free meals compared to Dornod parents (89%) and Ulaanbaatar parents (90%). There was also some variation in parents' awareness of the free meal program by their income level. Generally, a somewhat higher percentage of parent (95%) from lower middle and middle income households, as well as parents from upper middle and high income household were aware of the free meal program, compared to parents from poor or very poor households (88%).

Figure 18: Respondents Without Enrolled Children: Parental Awareness of the Kindergarten Free Meal Program



5.4. Perceptions of the Potential Benefits & Impact of Enrolling Child in Kindergarten

5.4.1. Perceived Potential Benefits of Kindergarten Enrollment to the Child

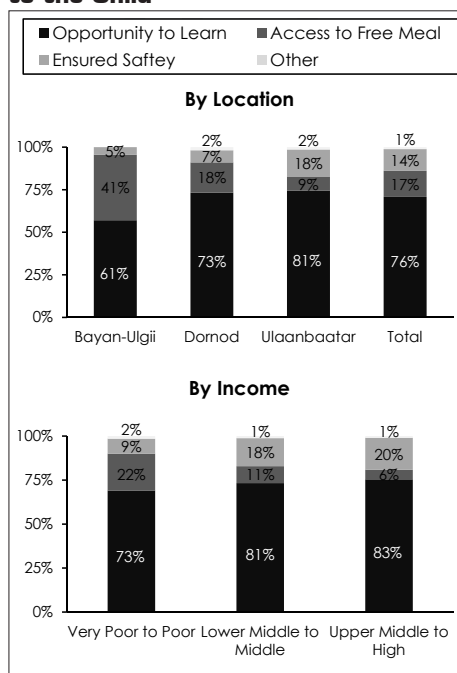
The survey asked parents what potential benefits they perceived enrolling their child in kindergarten would have for their child. Figure 19 shows that 76% of all parents saw the opportunity for their child to learn as the primary potential benefit of kindergarten enrollment. For 17%, access to free meals for their child was the main potential benefit, and for 14% of parents, ensured safety for their child was the primary potential benefit. A small number of parents (1%) identified other benefits, and 66 respondents did not respond to the question.

By Location. Parents perceptions of the potential benefits of kindergarten enrollment to their child varied by location. A larger percentage of Ulaanbaatar parents (81%) identified the opportunity to learn as the main potential benefit, compared to 73% of Dornod parents and 61% of Bayan Ulgii parents. Access to free meals was the primary potential benefit for more Bayan Ulgii parents (41%) than Dornod parents (18%) and Ulaanbaatar parents (9%). Safety was identified as the main potential benefit for 18%

of Ulaanbaatar parents, compared to 7% of Dornod parents, and 5% of Bayan Ulgii parents.

By Income. Perceptions of the benefits of kindergarten enrollment also varied by their income. Although the opportunity to learn was identified as the main benefit by a majority across income levels, lower middle to high income households identified this benefit at higher rates (about 80%) than parents from poor or very poor households (73%). Access to free meals was identified as the main benefit of kindergarten enrollment by 22% of parents from poor or very poor households, compared to 11% of lower middle and middle income parents, and 6% of upper middle to high income parents. Safety was a main benefit for more parents from lower middle and middle income parents (18%) and upper middle and high income parents (20%) than was for parents from poor or very poor households (9%).

Figure 19: Respondents Without Enrolled Children: Perceived Potential Benefits of Kindergarten Enrollment to the Child



5.4.2. Perceived Potential Impact of Kindergarten Enrollment on the Household

Parents were also asked what they perceived the potential benefits of enrolling their child in kindergarten might be for their household overall. Figure 20 shows that for about two-thirds of parents (67%), the main potential household impact of enrolling their child in kindergarten was perceived to be better opportunities for parental employment. For 16% of the parents, kindergarten enrollment the main potential impact was increased household income. A smaller percentage of parents identified educational, social and developmental benefits for the child (4%) and access to free meals for the child (4%) as the main potential household impact. Other parents identified general improved living standards (1%) or overall unspecified positive impact (9%). A very large number of parents, 171 individuals, chose not to respond to this question.

By Location. There was considerable variation by location in parents' perceptions of the potential impact of kindergarten enrollment on the household. A majority of Dornod parents (86%) and Ulaanbaatar parents (75%) identified parental employment opportunities, in contrast to only 37% of Bayan Ulgii parents. There were no parents

from Dornod who identified the potential on household income, compared to 14% of Bayan Ulgii parents and 19% of Ulaanbaatar parents. For 14% of parents from Bayan Ulgii and 7% of parents from Dornod, the educational, developmental and social benefits to the child were the primary household impact, whereas no parents identified this benefit from Ulaanbaatar. Only parents from Bayan Ulgii (15%) identified the free kindergarten meals as a potential impact on the household.

By Income. Parents' responses varied somewhat less by their household income levels (see Figure 21). The majority of parents across the income levels identified the opportunity for parental employment as the main potential impact of enrolling their child in kindergarten on the household.

A smaller percentage of parents from poor and very poor households (67%) identified parental employment opportunities as the main impact compared to parents from lower middle to middle incomes (73%) and from upper middle to high incomes (73%). Similarly, the impact of kindergarten enrollment on household income/savings was perceived to be the main potential impact of kindergarten enrollment on the household by fewer parents from poor and very poor households (13%) compared to parents from lower middle to middle income households (20%) and to parents from upper middle to high income households (20%).

Figure 20: Respondents Without Enrolled Children: Perceived Potential Impact of Kindergarten Enrollment on the Household

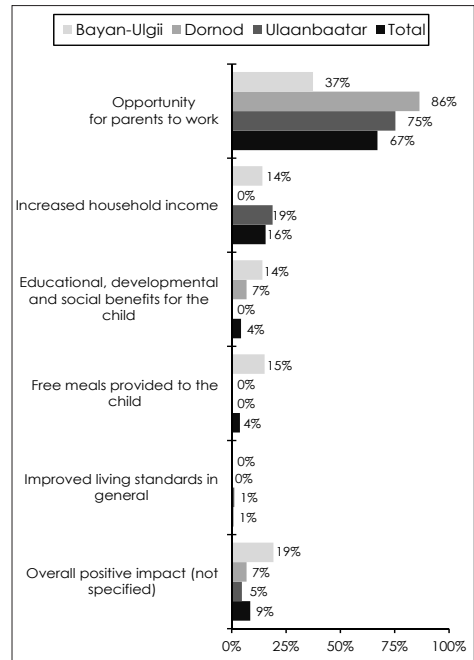
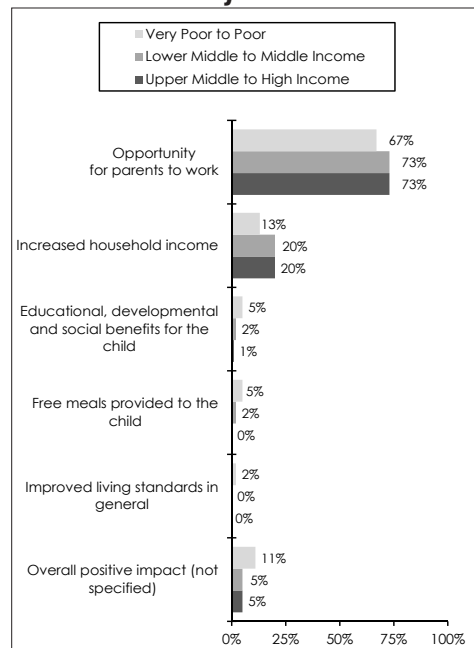


Figure 21: Respondents Without Enrolled Children: Perceived Potential Impact of Kindergarten Enrollment on the Household: By Income



6. Conclusions and Recommendations

6.1. Major Findings and Conclusions

This study in eleven sample schools in Bayan Ulgii, Dornod and Ulaanbaatar, and among households with children enrolled and not enrolled in kindergarten revealed important and interesting insights about the Kindergarten Free Meal Program in Mongolia, including changes in enrollment that occurred following its implementation, and parental perspectives of its impact. The major findings of the study were as follows.

1. Kindergarten Enrollment Increased Following the Free Meal Program Implementation.

As a whole, enrollment increased across the sample kindergartens after the implementation of the free meal program during the 2009–2010 school year. Enrollment across the sample schools increased by 10% from 2009–2010 to 2011–2012.

- From 2008–2009 (year prior to implementation) to 2009–2010, enrollment across the kindergartens increased by 1%. There was some variation by location, with the Bayan Ulgii kindergartens as a whole showing the largest enrollment increase during this period (7%), the Dornod kindergartens experienced a 2% decline, and the Ulaanbaatar kindergartens experienced a modest .04% increase.
- The year following implementation (from 2009–2010 to 2010–2011), enrollment across the kindergartens increased by 5%. This overall increase in enrollment was accounted for by an 11% increase in enrollment in the Ulaanbaatar kindergartens.
- Three years post-implementation (from 2009–2010 to 2011–2012) enrollment across the sample schools had increased by 10%. During this period, enrollment increased by 9% across the Bayan Ulgii sample kindergartens, by 5% across the Dornod kindergartens and by 10% across the Ulaanbaatar kindergartens.

2. Enrollment Increased Despite The Fact That Most of the Kindergartens Were Already At or Above Their Absorption Capacity Prior to the Implementation of the Free Meal Program.

In 2008–2009, the year prior to the implementation of the free meal program, enrollment across the sample kindergartens was already 10% above capacity. Four years later, and three year post-implementation of the free meal program, enrollment was 21% above capacity.

- In 2008–2009, all but three of the sample kindergartens were at or above their enrollment capacity. As a whole, the Bayan Ulgii kindergartens were 4% above their enrollment capacity; the Dornod schools were 45% above capacity, and the Ulaanbaatar kindergarten were 3% over capacity.

- In 2011–2012, all but one sample school was at or above their enrollment capacity. The Bayan Ulgii kindergartens were 21% over capacity in enrollment, the Dornod kindergartens were 49% over capacity, and the Ulaanbaatar kindergartens were 13% over capacity in enrollment.

3. In Many of the Kindergartens, Enrollment Increases Were Not Among Children From Households Who Would Benefit the Most From Kindergarten Meals That Were Free of Cost to Them.

Seven of the sample schools had enrolled children's household income data available for the school years 2008–2009 through 2011–2012. Across these seven kindergartens, enrollment among children from upper middle or high income households increased by 23%, while enrollment among children from poor or very poor households decreased by 19%.

- Across the kindergartens, 13% of the enrolled children during the 2008–2009 school year were from upper middle or high income households (earning 400,000 MNT or more per month). By the 2011–2012, school year, the percentage of enrolled children from upper middle or high income households had increased to 36%.
- In 2008–2009, 43% of enrolled children across the seven kindergartens were from middle or lower middle income households (earning 250,000 to 400,000 MNT per month). By the 2011–2012, the percentage of enrolled children from middle or lower middle income households decreased to 38%.
- Children from poor or very poor households (earning less than 250,000 MNT per month) comprised 45% of the enrolled children across the kindergartens in 2008–2009. In 2011–2012, the percentage of children from poor or very poor households decreased to 26%.

4. The Kindergarten Free Meal Program Is Not a Major Factor in Parents' Initial Decision to Enroll Their Child in Kindergarten.

Although enrollment increased considerably following the implementation of the Kindergarten Free Meal program, for the majority of parents, the free meal program was not the main reason why they enrolled their child.

- About 60% of parents overall, within Bayan Ulgii, Dornod and Ulaanbaatar, and across household income levels, reported that they enrolled their child in kindergarten for the educational benefits to their child. For about 30% of the parents overall, within Bayan Ulgii and Ulaanbaatar, and across household income levels, the main reason they enrolled their child was so that their child was looked after while they were at work.
- Access to free meals was the main reason why they enrolled their child in kindergarten for only 4% of parents overall; 13% of Bayan Ulgii parents,

and less than 2% of Dornod and Ulaanbaatar parents. Only 6% of parents from poor or very poor households reported the free meal program as the main motivator for enrollment, 4% from lower middle to middle income households, and 1% from upper middle to high income households.

5. Many Parents Utilize Non-Standard Methods to Get Their Child Enrolled in Kindergarten.

Overall, most parents (58%) followed the standard registration processes to get their child enrolled in kindergarten. However, a considerable number of parents (over one-third) use non-standard methods to register and enroll their child, such as seeking and getting assistance from kindergarten staff members (32%) or making an unofficial payment to the kindergarten (5%).

- There was considerable variation by location in the method that parents used to enroll their child. In Bayan Ulgii, all but four parents (97%) reported following the standard registration process, compared to two-thirds of Dornod parents (66%) and about one-third of parents from Ulaanbaatar (37%). Nearly one-half Ulaanbaatar parents (49%) sought assistance from staff members, compared to 25% of Dornod parents and 2% of Bayan Ulgii parents. Payment of an unofficial fee was how 10% of Ulaanbaatar parents reported they got their child enrolled, compared to 2% of Dornod parents.
- Variation was seen by household income in the method parents used to enroll their child. Nearly three-quarters (71%) of parents from poor or very poor households followed the standard registration process, compared to 59% of parents from lower middle to middle income households and 42% of parents from upper middle to high income households. About one-quarter of poor or very poor parents (24%) got assistance from kindergarten staff members, compared to 32% of lower middle to middle income parents, and 44% of upper middle to high income parents. Payment of an unofficial fee was the method utilized by 2% of poor or very poor parents, compared to 6% of lower middle to middle income parents, and 8% of upper middle to high income parents.

6. Other Parents Cannot Enroll Their Child in Kindergarten because there are No Spaces Available.

Parents with preschool-age children not enrolled in kindergarten overwhelming saw the potential benefits of kindergarten enrollment for their child. For the majority of these parents (76%) the opportunity to learn is what they saw as the primary benefit. For 17%, it was access to free meals for their child, and for 15% it was other benefits, such as ensured safety. This pattern of responses held true across the three locations, as well as across household income levels. Although the demand for preschool

education appears to be prevalent among households whose children are not enrolled, the supply for preschool education is not adequate.

- About three quarters of parents overall, and in Dornod and Ulaanbaatar reported that the reason their child was not enrolled was because there were no openings in the kindergarten in their residential area. In Bayan Ulgii, a smaller percentage (60%) reported overcapacity as the reason their child was not enrolled in kindergarten.
- For 11% of the parents, overall and 30% in Bayan Ulgii, the availability of daycare for their child was the main reason they did not enroll their child in kindergarten, compared to only 3% of Dornod parents and 6% of Ulaanbaatar parents.
- For 5% of the parents, and for 7% of Ulaanbaatar parents, the lack of kindergartens in their residential areas was the main reason for not enrolling their child, while this was not a factor for any of the parents in Bayan Ulgii and Dornod.

7. Most Parents Favor the Kindergarten Meals Over the Meals Served to Their Child at Home.

The majority of parents with enrolled children (about 60%) overall, within Bayan Ulgii, Dornod and Ulaanbaatar, and across all income levels, perceived the meals served to their child in the kindergarten to be generally more favorable than the meals served in the home. Only 12% favored the home meals and 29% saw no difference in home and kindergarten meals.

- Of the parents who favored the kindergarten meals, 50% did so because they perceived the kindergarten meals to be of higher nutritional value than home meals; 47% saw the kindergarten meals to be of greater variety, and 3% viewed the kindergarten meals to be *both* of higher nutrition value and of greater variety than home meals.
- The reasons why most parents favored the kindergarten meals over home meals varied by location. The majority of parents in Bayan Ulgii (72%) favored the kindergarten meals for their higher nutritional value, while the majority of Ulaanbaatar parents (55%) did so for the greater variety in the meals. Parents from Dornod were evenly split, with 46% favoring the kindergarten meals for their variety, and 46% for their higher nutritional value.
- Parents' preference for kindergarten meals also varied by their household income level. Most parents from poor or very poor households (58%) favored the kindergarten meals for its higher nutritional value, while most parents from lower middle and middle income households (51%) and from upper middle and high-income households (52%) favored the kindergarten meals for their variety.

8. Many Parents See the Kindergarten Free Meal Program as Having an Impact on Their Household Income/Savings.

Of the parents whose children were enrolled in kindergarten, nearly one-half (47%) described the impact of the Kindergarten Free Meal Program to be “significant” on their household income/savings. Sixteen percent viewed the impact as “moderate” and 37% felt free meal program has had “minimal or no impact” on their household income/savings.

- The largest percentage of parents overall (43%) estimated the household cost savings of the Free Meal Program to be between 10,000 to 20,000 MNT per month, while another 20% estimated the monthly savings to be greater than 20,000 MNT.
- Not surprisingly, there was considerable variation by household income level in parents’ perceptions of the degree of impact the free meal program has had on their household income and in their estimates of the cost savings to them. The largest percentage of parents from poor or very poor households (58%) and from lower middle or middle income households (47%) perceived the free meal program to have had a “significant” impact on their household income. In contrast, the majority of parents from upper middle to high income households (51%) perceived the free meal program to have had “minimal or no impact” on their household budget.
- Interestingly, the largest percentage of parents from poor or very poor households (48%) estimated the cost saving of the free meal program to be less than 10,000 MNT per month. In comparison, the largest percentage of lower middle and middle income parents (48%) and upper middle and high income parents (46%) estimated the monthly savings to be between 10,000 to 20,000 MNT.

9. Most Parents Viewed the Most Important Impact (or Potential Impact) of Kindergarten Enrollment on Their Household, Overall, to be the Opportunities for Parental Employment.

Regardless of whether or not their child was or was not enrolled in kindergarten, the majority of parents viewed the most important impact (or potential impact) of enrolling their child in kindergarten for their household as a whole, was the increased opportunity for parents to be employed or seek employment.

- The overwhelming majority of parents with enrolled children (94%) overall, and by location and income level, reported that enrolling their child in kindergarten better allows parental employment.
- Among parents whose child was not enrolled in kindergarten, about two thirds (67%) viewed the most important potential impact of kindergarten enrollment for their household was increased opportunities for parental employment. Only 16% saw the household cost savings associated with

the free meal program, as the most important potential impact that kindergarten enrollment would have on their household, and only 4% saw access to free meals for their child as the most important potential impact for their household.

10. For Many Parents, Discontinuing the Free Meal Program Would Influence their Decision About Whether or Not to Keep Their Child Enrolled in Kindergarten.

Most parents whose children were enrolled in kindergarten (57%) would keep their child enrolled if the meals served at the kindergarten were no longer provided free of cost to households. However, even though only 4% of parents identified the free meal program as the main reason why they enrolled their child kindergarten initially, a considerably larger percentage of parents (43%) reported that they would not keep their child enrolled in kindergarten without the free meals.

- There were differences by location in the percentage of parents who would not continue to enroll their child in kindergarten without the free meals. Only 12% of parents in Dornod said they would not continue to enroll their child, compared to about one-half of parents from Ulaanbaatar (52%) and about two-thirds of the parents from Bayan Ulgii (67%).
- Of the parents who would not keep their child enrolled without the free meals, about two-thirds (62%) were from very poor, poor, or lower middle income households. About one quarter (29%) were from middle or upper middle income households and 9% were from high income households.

6.2. Recommendations

The study team offers the following recommendations to MECS:

1. This study of the Kindergarten Free Meal Program was conducted with eleven public kindergartens selected using non-random sampling criteria described in the methodology of this report. Although the eleven kindergartens were located in two aimags and in UB, were of various sizes and appear to serve preschool-aged children from a socio-economically varied spectrum of households, the findings from this study about the Kindergarten Free Meal Program within these kindergartens cannot be assumed to be representative of all public kindergartens in Mongolia. Therefore the study team recommends that MECS replicate this study using a larger, randomly selected and representative sample of kindergartens in order to examine the extent to which findings from this study hold true across kindergartens in Mongolia.
2. All but one of the eleven kindergartens in this study were at or above capacity in enrollment during the 2011–2012 year, and eight of these kindergarten

had been over their enrollment capacity since at least the 2008–2009 school year. The study also revealed widespread demand for preschool education, as evidenced by the findings from households with preschool aged children not enrolled in kindergarten during the 2011–2012 school year. This study also revealed that even within the confines of the catchment areas of the eleven sample schools, the supply of preschool education is wholly inadequate. Given that currently, 24% of Mongolia’s preschool-aged children do not have access to preschool education; the study team recommends that MECS further prioritize the expansion of the supply of preschool education.

- 3.** This study revealed that a considerable portion of households reported that they utilize methods other than the standard registration process to get their preschool-aged child enrolled in kindergarten, and that it is the more advantaged and privileged households that appear to engage in these non-standard practices. The study team recommends that MECS further investigate the degree to which these practices occur, and if found to be widespread implement policies that prohibit kindergartens from engaging in non-standard registration and enrollment practices.

- 4.** The study revealed that following the implementation of the Kindergarten Free Meal Program, there was a 19% net decrease in enrollment among children from poor and very poor households and a 23% net increase among children from upper middle and high income households across the sample kindergartens. This suggests that those households that would presumably benefit the most from the free meals are doing so at decreasing rates. Furthermore, households from disadvantaged backgrounds reported at higher rates that they would not keep their child enrolled in kindergarten should the meals no longer be provided free of cost to them. To the extent that these two patterns are found to hold across kindergartens in Mongolia, the study team recommends that MECS explore the possibility of reinstating a cost-sharing scheme for the kindergarten meals for advantaged households, and mechanisms for targeting disadvantaged households for full government subsidies for the cost of the kindergarten meals.

APPENDICES

APPENDIX A: Sample Kindergarten Absorption Capacity and Enrollment: 2008-09 to 2011-12

Aimag/ City	Soum/ District	Kinder- garten	Capacity	2008-2009		2009-2010		2010-2011		2011-2012	
				Enrollment	Percent Capacity	Enrollment	Percent Capacity	Enrollment	Percent Capacity	Enrollment	Percent Capacity
Bayan Ulgii	Altantsugs	Altantsugs KG	100	90	90.0	100	100.0	100	100.0	100	100.0
	Bugat	Bugat KG	75	75	100.0	75	100.0	75	100.0	75	100.0
	Ulgii	KG No. 1	125	150	120.0	168	134.4	168	134.4	187	149.6
		KG No. 10	125	125	100.0	127	101.6	124	99.2	151	120.8
Bayan Ulgii Total			425	440	103.5	470	110.6	467	109.9	513	120.7
Dornod	Kherlen	KG No. 1	125	186	149.0	186	148.8	186	148.8	210	168.0
		KG No. 2	120	180	150.0	170	141.7	160	133.3	169	140.8
	Sergelen	Sergelen KG	50	61	122.0	62	124.0	61	122.0	61	122.0
	Dornod Total			295	427	144.7	418	141.7	407	138.0	440
Ulaan- baatar	Bayanzurkh	KG No. 61*	533	519	97.4	519	97.4	608	114.1	595	111.6
		KG No. 63	256	253	98.8	256	100.0	259	101.2	254	99.2
	Songino- khairhan	KG No. 158**	100	n/a	n/a	n/a	n/a	n/a	n/a	150	150.0
		KG No. 163	280	324	115.7	325	116.1	349	124.6	356	127.1
Ulaanbaatar Total			1169	577	107.6	1100	102.9	1216	113.8	1355	115.9
Total			1889	1444	115.0	1988	111.1	2090	116.8	2303	122.2

* No data for 2008-2009 enrollment at KG No. 61* in Bayanzurkh, UB was provided. The data are based on 2009-2010 figures

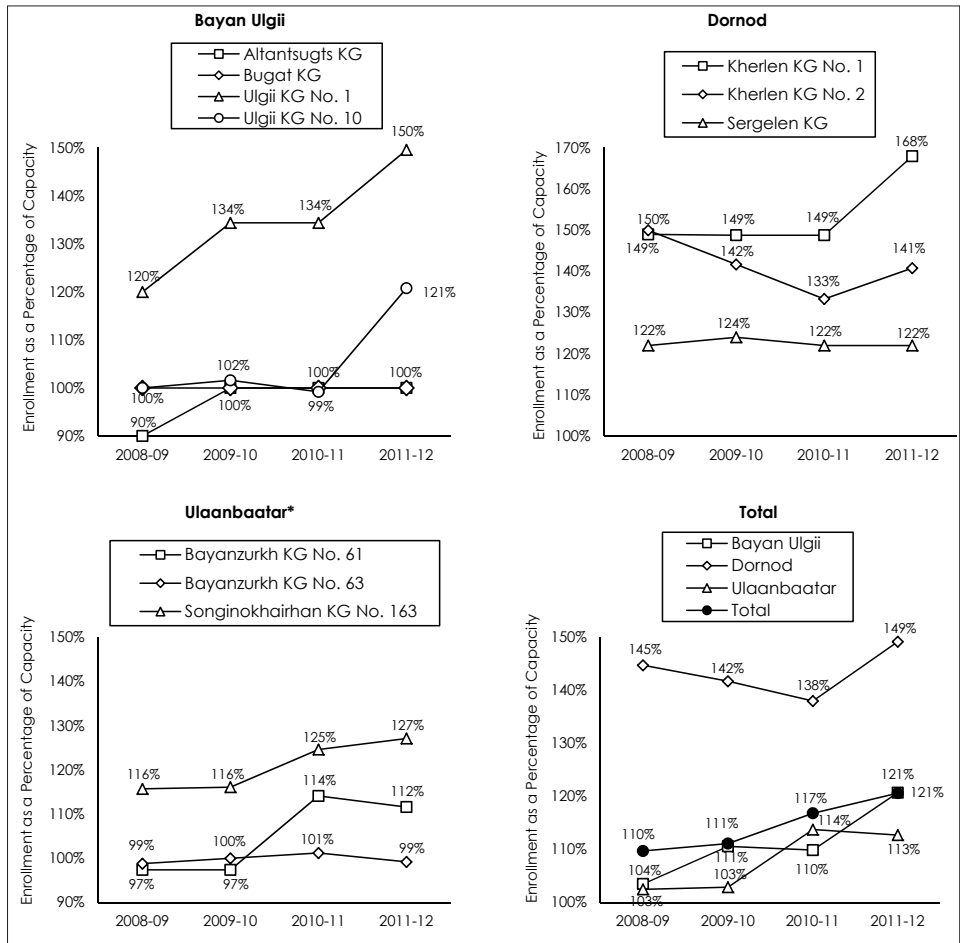
** KG No. 158 in Songinokhairhan, UB opened during the 2011-12 school year.

APPENDIX B: Respondents With Enrolled Children: Enrolled Children's Monthly Household Income 2011–2012

Aimags/ City	Soum/ District	Kindergarten	N	Very Poor (Less than 108,000 MNT)		Poor (108,000- 250,000 MNT)		Lower Middle (250,000 – 300,000 MNT)		Middle (300,000 - 400,000 MNT)		Upper Middle (400,000 – 500,000 MNT)		High (More than 500,000 MNT)	
				n	%	n	%	n	%	n	%	n	%	n	%
Bayan- Ulgii	Altantsugs	Altantsugs KG	28	6	21.4	13	46.4	5	17.9	1	3.6	2	7.1	1	3.6
	Bugat	Bugat KG	29	12	41.4	8	27.6	7	24.1	2	6.9	0	0.0	0	0.0
	Ulgii	KG No. 1	47	4	8.5	7	14.9	7	14.9	8	17.0	6	12.8	15	31.9
		KG No. 10	43	17	39.5	9	20.9	11	25.6	5	11.6	0	0.0	1	2.3
	Bayan Ulgii Total			147	39	26.5	37	25.2	30	20.4	16	10.9	8	5.4	17
Dornod	Kherlen	KG No. 1	112	9	8.0	13	11.6	11	9.8	21	18.8	24	21.4	34	30.4
		KG No. 2	111	47	42.3	28	25.2	16	14.4	12	10.8	5	4.5	3	2.7
	Sergelen	Sergelen KG	16	3	18.8	7	43.8	1	6.3	0	0.0	5	31.3		0.0
	Dornod Total			239	59	24.7	48	20.1	28	11.7	33	13.8	34	14.2	37
Ulaan- baatar	Bayanzurh	KG No. 61	109	0	0.0	2	1.8	6	5.5	18	16.5	22	20.2	61	56.0
		KG No. 63	68	12	17.6	15	22.1	19	27.9	10	14.7	4	5.9	8	11.8
	Songino- khairhan	KG No. 158	65	11	16.9	14	21.5	16	24.6	9	13.8	6	9.2	9	13.8
		KG No. 163	156	14	9.0	16	10.3	36	23.1	43	27.6	22	14.1	25	16.0
	Ulaanbaatar Total			398	37	9.3	47	11.8	77	19.3	80	20.1	54	13.6	103
Total			784	135	17.2	132	16.8	135	17.2	129	16.5	96	12.2	157	20.0
Not Reported			17												

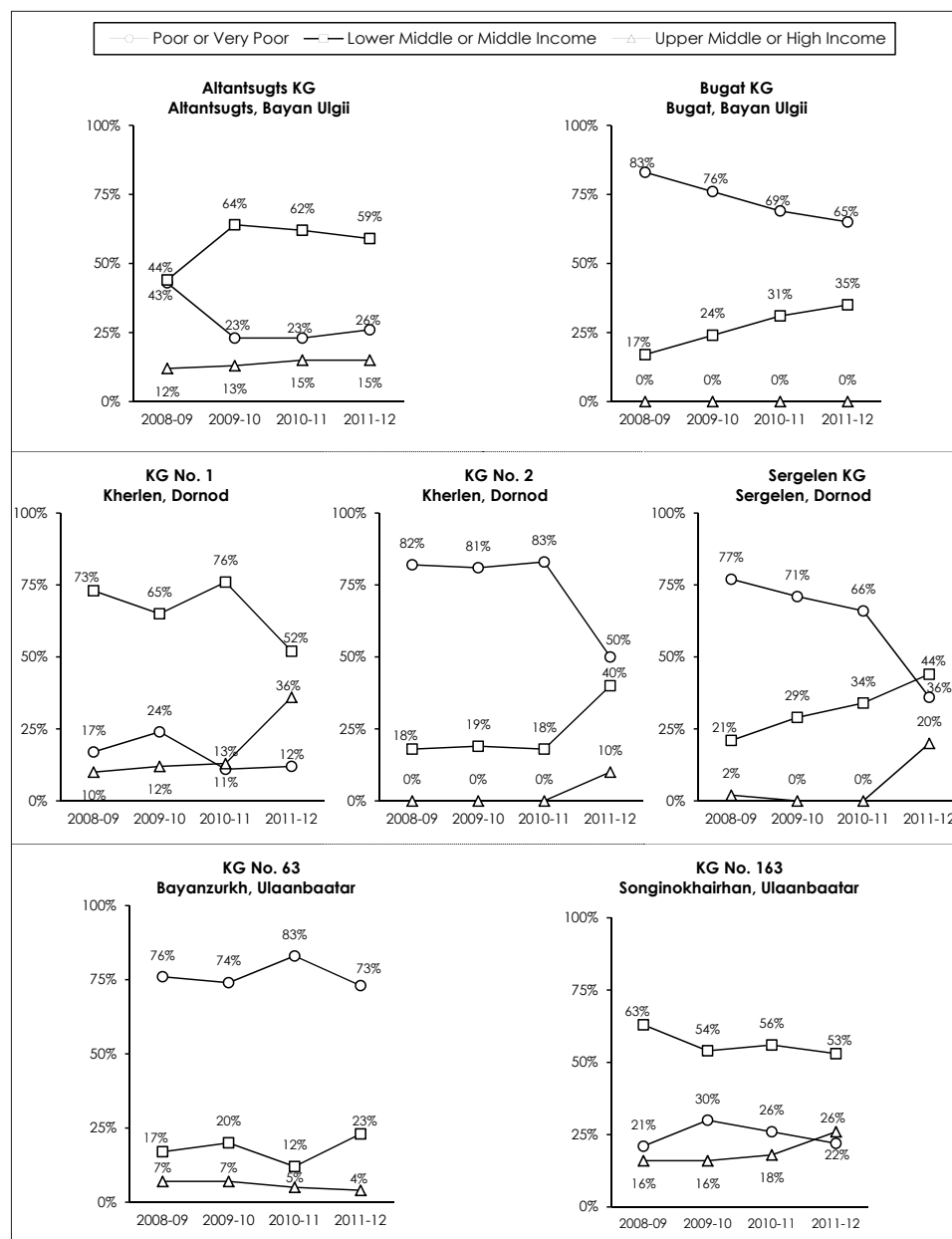
*KG No. 158 in Songinokhairhan, Ulaanbaatar opened in 2011–2012, and is excluded from this analysis.

APPENDIX C: Sample Kindergartens: Changes in Enrollment after the Free Meal Program Implementation, By School

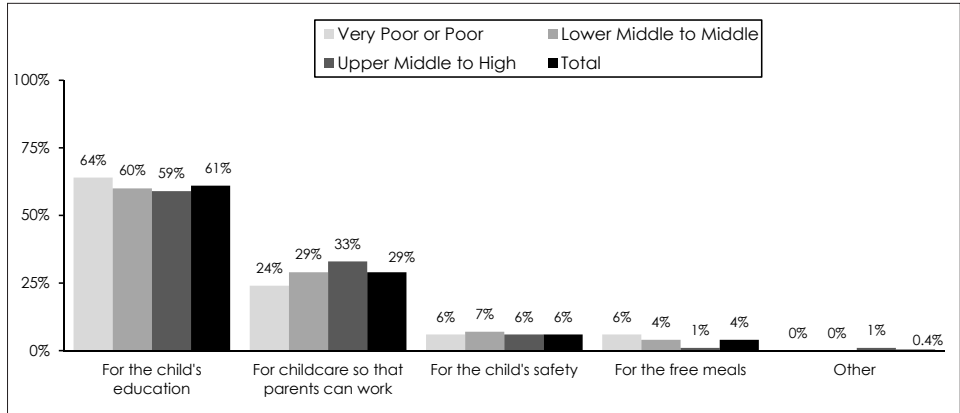


*KG No. 158 in Songinokhairhan, Ulaanbaatar opened in 2011–2012, and is excluded from this analysis.

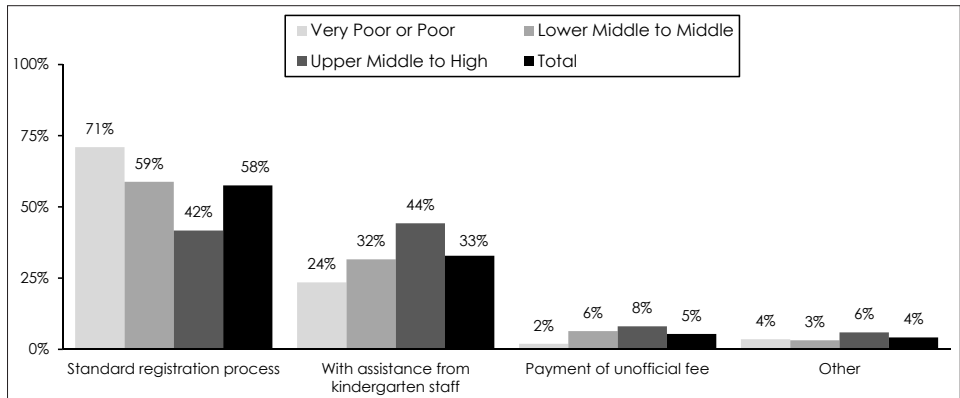
APPENDIX D: Sample Kindergartens: Changes in Enrollment by Household Income Level



APPENDIX E: Respondents with Enrolled Children: Reasons for Enrolling Child in Kindergarten by Income Level



APPENDIX F: Respondents with Enrolled Children: Method of Enrollment by Income Level



APPENDIX G: Kindergarten Director's Factsheet

Kindergarten Free Meal Program Household Survey

(Statistic fact sheet for kindergarten directors)

This survey is conducted by Kindergarten Food Monitoring and Evaluation team of the ADB– funded project “*Education for the Poor: Economic Crisis Response*” implemented by Ministry of Education, Culture and Science.

year month..... date

Please fill in the space

Aimags/City

Soum/ District

Kindergarten No./Name

The capacity of the kindergarten

1. The number of the enrolled children in the kindergarten for the past 4 years

School Year	Infant age (less than 2 years old)	Preschool age (2-5years old)
2008-2009		
2009-2010		
2010-2011		
2011-2012		

2. How does your kindergarten record the attendance?

3. The gender of the enrolled children for the past four years.

School year	Male	Female
2008-2009		
2009-2010		
2010-2011		
2011-2012		

4. The socioeconomic status of the enrolled children in the kindergarten for the past 4 years

School Year	The number of children with employed parents	The number of children from unemployed households	The number of children from herder families	The number of children from higher educated parents in higher positions
2008-2009				
2009-2010				
2010-2011				
2011-2012				

5. The household income status of the enrolled children in the kindergarten for the past 4 years

School year	The number of children from upper middle to high-income households (earning more than 400.000 MNT per month)	The number of children from middle-income households (earning between 300.000 to 400.000 MNT per month)	The number of children from lower middle income households (earning between 250.000 to 300.000 MNT per month)	The number of children from poor households (earning between 108.000 to 250.000 MNT per month)	The number of children from very poor households (earning less than 108.000 MNT per month)
2008-2009					
2009-2010					
2010-2011					
2011-2012					

Thank you very much for your support.

APPENDIX H: Survey for Households with Children Enrolled in the Sample Kindergarten

Kindergarten Free Meal Program Household Survey

(Survey questionnaire for parents with preschool-age children enrolled in kindergartens)

This survey is conducted by Kindergarten Food Monitoring and Evaluation team of the ADB-funded project “*Education for the Poor: Economic Crisis Response*” implemented by Ministry of Education, Culture and Science.

This survey is to know how you, as a parent, perceive the free meal program in kindergarten.
year __ month __ day

Aimag \city

Soum \District

Bag \Khoroo

Kindergarten No.

Please circle the appropriate answer for you or fill out the space.

1. How are you related to the child?
 - a. Father
 - b. Mother
 - c. Guardian (if the child does not live with parents)
 - Grandparent
 - Brother/sister
 - Relative
 - Other
 - d. Other
2. What is your age?
3. Gender?
4. How many members are there in your household?

Total number of children aged between 0–17

 - a. Less than 2 years old.....
 - b. 2–5 years old.....
 - c. 6–17 years old

5. What is the monthly income of your household? (monthly salary, pension, grant or other source of income)
- Up to 108 thousand tugrics
 - 108 thousand– 250 thousand tugrics
 - 250 thousand – 300 thousand tugrics
 - 300 thousand– 400 thousand tugrics
 - 400 thousand – 500 thousand tugrics
 - More than 500 thousand tugrics

6. What is the employment of the parents or custody? (Please tick the right answer in the table below)

	Father	Mother	Guardian
Student			
Public organizations			
Private organizations			
Herder			
Unemployed			
Retired			
Runs private business			
Other			

7. What is the highest education level of parents or guardian? (Please tick the right answer in the table below)

	Father	Mother	Guardian
No formal schooling			
Incomplete primary education			
Primary education			
Incomplete secondary education			
Secondary education			
Incomplete higher education			
Higher education			

8. Why do you enroll your child in the kindergarten?
- His/her mother is able to work
 - We have nobody to look after the child
 - My child is able to eat free meal in the kindergarten
 - My child will learn a lot in the kindergarten
 - My child will be safe in the kindergarten
 - Other

9. When did you enroll your child in the kindergarten?
- In the fall before the kindergarten began
 - In the spring when the kindergarten ended?
 - In the winter as we were waitlisted
 - In the summer before the kindergarten began
10. How did you enroll your child in the kindergarten?
- By getting registered in the kindergarten
 - Through the help of someone in the kindergarten we know
 - By paying an unofficial fee to the kindergarten staff.
 - Other
11. Were any of your children enrolled in kindergarten before they offered free meals?
- I did not have pre-school age children prior to the free meal program.
 - No. my children were not enrolled
 - Yes, my children were enrolled.
12. Are the meals they serve your child at the kindergarten different from the meals you serve your child at home?
- there is more variety in the meals served at the kindergarten
 - there is more variety in the meals served at home
 - there is more nutritious meals served at the kindergarten
 - there is more nutritious meals served at home
 - there is no difference in the meals served my child at home and at the kindergarten.
13. Which of the food items below does your child eat more or less in the kindergarten and at home. (Tick the answer in the appropriate box)

Food item	Eat more in the kindergarten	Eat less in the kindergarten	Eat the same amount at kindergarten and home
Meat			
Milk			
Yogurt			
Flour products			
Rice			
Sugar or sugary products			
Fruits			
Vegetables			
Peas and lettuce			

14. If the kindergarten stopped offering meals for free, would you continue to enroll your children in the kindergarten
- Yes. I would still enroll my child.
 - No. I would not enroll my child.
15. How much does the free meal program impact your household income?
- no impact
 - minimal impact
 - moderate impact
 - significant impact
16. Approximately how many tugrics does your household save per month by not having to pay for your child's kindergarten meals?
- No savings
 - 3,000 to 5,000 MNT per month
 - 5,000 to 10,000 MNT per month
 - 10,000 to 15,000 MNT per month
 - 15,000 to 20,000 MNT per month
 - 20,000 to 25,000 MNT per month
 - More than 25,000 MNT per month
 - Not sure.
17. Does sending your child to the kindergarten have any impact on the employment of your family?
- Father/mother is able to work
 - Father/mother is able to run own private business
 - Other
 - There is no impact on family employment
18. Is there anything additional about the kindergarten free meal program that you think is important for us to know?

APPENDIX I: Survey of Households with Preschool Age Children Not Enrolled in Kindergarten

"Kindergarten Free Meal Program Household Survey"

(Survey questionnaire for parents with preschool-age children who are not enrolled in kindergartens)

This survey is conducted by Kindergarten Food Monitoring and Evaluation team of the ADB-funded project "*Education for the Poor: Economic Crisis Response*" implemented by Ministry of Education, Culture and Science.

This survey is to know how you, as a parent, perceive kindergartens.

year __ month __ day

Aimag \ city

Soum \ District

Bag \ Khoroo

Kindergarten No.

Please circle the appropriate answer for you or fill out the space.

1. How are you related to the child?
 - a. Father
 - b. Mother
 - c. Guardian (if the child does not live with parents)
 - Grandparent
 - Brother/sister
 - Relative
 - Other
 - d. Other
2. What is your age?
3. Gender?
4. How many members are there in your household?

Total number of children aged between 0-17

- a. Less than 2 years old.....
- b. 2-5 years old.....
- c. 6-17 years old

5. What is the monthly income of your household? (monthly salary, pension, grant or other source of income)
- Up to 108 thousand tugrics
 - 108 thousand– 250 thousand tugrics
 - 250 thousand – 300 thousand tugrics
 - 300 thousand– 400 thousand tugrics
 - 400 thousand – 500 thousand tugrics
 - More than 500 thousand tugrics

6. What is the employment of the parents or custody? (Please tick the right answer in the table below)

	Father	Mother	Guardian
Student			
Public organizations			
Private organizations			
Herder			
Unemployed			
Retired			
Runs private business			
Other			

7. What is the highest education level of parents or guardian? (Please tick the right answer in the table below)

	Father	Mother	Guardian
No formal schooling			
Incomplete primary education			
Primary education			
Incomplete secondary education			
Secondary education			
Incomplete higher education			
Higher education			

8. Do you think it is important for children to attend kindergartens?
- Yes, I think it is important for children to attend kindergartens
 - No, I don't think it is important for children to attend kindergartens

9. Why is your child not enrolled in kindergartens?
- There is no vacancy in the kindergarten in our residential area
 - We have someone to look after our child
 - We are not registered in the district/khoroov/where we are living

(unregistered resident)

- d. Father/mother is unemployed so is able to look after the child
 - e. We don't have anyone in the kindergarten whom we know
 - f. We can't afford the unofficial fee to give to the kindergarten directors to get registered
 - g. My child has disabilities or health problems
 - h. Other
10. Are you aware that kindergartens offer meals to enrolled children at no cost to families?
- a. Yes. I am aware of the free meal program at kindergartens
 - b. No. I was not aware of the free meal program at kindergartens.
11. If your child was enrolled in kindergarten, what benefit would there be for your child?
- a. My child will be able to eat free meals in the kindergarten
 - b. My child will learn a lot
 - c. My child will be safe in the kindergarten away from any danger of fire or accident
 - d. Other
12. If your child was enrolled in kindergarten, what impact might this have on your household?
13. Is there anything additional about kindergartens that you think is important for us to know?