International Journal of Educational Research 104 (2020) 101601

Contents lists available at ScienceDirect

International Journal of Educational Research

journal homepage: www.elsevier.com/locate/ijedures

Home alone versus after-school programs: The effects of adult supervision on child academic outcomes[★]

Claudia Martínez A.[a,*], Marcela Perticará[b]

[a] Instituto de Economía, Pontificia Universidad Católica de Chile, Vicuña Mackena 4860, Macul, Santiago, Chile
[b] Universidad Alberto Hurtado, Erasmo Escala 1835, Santiago, Chile

ARTICLE INFO

JEL classification:
J13
I25

Keywords:
Childcare
Randomized control trial
After-school programs

ABSTRACT

We study the unintended effects of a "Kids Club" after school program (ASP) that introduced free adult supervision for after-school care to eligible families in Chile. We use experimental variation in children's access to this new ASP to study the impacts on children's grades and school attendance, outcomes that were not specifically targeted by the ASP. While the ASP had no average impact on these academic outcomes, we find heterogeneous treatment effects related to the nature of counterfactual care. Children randomized into the ASP had higher school attendance and higher grades if, initially, they were not supervised by a parent at baseline. The largest positive impacts on school outcomes were found for children who at baseline spent after-school hours at home alone. For this group of counterfactually unsupervised children, the ASP's effect on student attendance persisted one year after ASP enrollment. Our findings suggest that governments may want to consider criteria related to counterfactual care arrangements when designing eligibility rules for public ASPs.

1. Introduction

Female labor force participation (LFP) is on the rise in Latin America and the Caribbean (Klasen, 2019). Between 1990 and 2018, the share of women working in these areas rose from 41.4 % to 51.7 % (World Bank 2019). As women enter the labor market, the share of young children being cared for at home by a parent has fallen over time. In Chile, 64 % of first graders are cared for by one of their parents after school (Junaeb, 2018).[1] Many school-age children are supervised by older siblings or non-familial adults before their parents return home from work. And, a large share of children is simply left unsupervised.

Studies have shown that a lack of adult supervision of school-aged children is associated with antisocial behavior (Azier, 2004), poor school performance (Bettinger, Hægeland, & Rege, 2014), teen pregnancy (Dwyer, Richardon, & Daley, 1990), and abortion (Reynoso & Rossi, 2019). One policy solution to these negative effects of reduced supervision is to lengthen the school day. This directly increases adult supervision, and gives children time to devote to their academic activities. Such policies have been found to be effective in both developed and developing country settings. For example, Berthelon and Kruger (2011) find declines in teen pregnancy in Chile in response to extended school hours. Extending the school day also raises math and reading scores (e.g. Bellei,

[★] This project received funding from the Inter-American Development Bank and the Chilean Servicio Nacional de la Mujer (SERNAM). We appreciate the excellent research assistance provided by Antonia Asenjo, María Ignacia Contreras, and Sebastián Otero. We acknowledge financial support from Fondecyt nº1170730.

* Corresponding author.
E-mail addresses: clmartineza@uc.cl (C. Martínez A.), mparticara@uahurtado.cl (M. Perticará).

[1] Of these, 54.6% are cared for by their mothers, 20.9% by their grandparents, 9.8% by other family members, and 3.4% by non-family members.

https://doi.org/10.1016/j.ijer.2020.101601
Received 9 September 2019; Received in revised form 9 March 2020; Accepted 17 May 2020
0883-0355/

2009; Hincapie, 2016; Battistin & Meroni, 2016) and college enrollment rates (Lavy & Schlosser, 2005).

An alternative to extending the school day is to provide adult supervision through after school programs (ASPs). Like extended school hours, ASPs are structured, adult- supervised programs offered after school throughout the academic year. Unlike extended school hours, ASPs supervise and facilitate a variety of activities such as homework time, social interaction, snacks, sports, crafts, etc., or achieve a specific goal such as a programming camp. Evidence on these ASPs from developed country settings is mixed, but suggests that *at-risk* students (in terms of grades or socioeconomically) benefit from ASPs the most (Levine & Zimmerman, 2010) and that these benefits depend on the quality of the intervention.[2] There is scant evidence on how ASPs affect child outcomes in developing countries, where female LFP is increasing the most rapidly.[3]

In this paper, we study the effects of a new publicly provided ASP designed to facilitate women's work outside of the home in Chile. The ASP exposed children to recreational activities such as art, sports, and games and devoted very few resources to academic activities. We focus on how randomized access to adult supervision through this

ASP among children ages 6–13 years affected non-targeted school outcomes, specifically school attendance and grades. We consider both average effects among the entire sample as well as heterogeneous treatment effects related to pre-ASP after-school care arrangements. At baseline, 43 % of the study participants were supervised by one or both of their parents after school, while the remaining 57 % was distributed as: 19 % by grandmothers, 19 % by other adults, 8% by siblings, and 11 % are left alone.

On average, we find no economically meaningful impacts of the ASP on academic outcomes. However, there is significant heterogeneity in these treatment effects related to counterfactual after-school care. Among those children who were not initially being supervised by a parent during after school hours, the average GPA rises as well as the probability of ranking at the top half of the class GPA. School attendance also rises in the implementing year. The largest positive impacts are found for children who were either completely unsupervised, or cared for by non-familial adults (i.e., individuals who are not parents or grandparents) after school at baseline. For these children, the positive impacts on attendance persist into the year following the ASP.

We can rule out that our results are driven by income effects generated by the ASP. In our prior paper, we found that, although the ASP was designed to help mothers enter the labor market, there were no impacts on labor market outcomes on average nor for mothers of children who were receiving non-familial or no adult supervision at baseline. Instead, it seems that the ASP mostly shifted after-school care arrangements for children whose mothers were already working. We also show that the ASP effect depends neither on our measures of ASP quality nor on the activities implemented. However, take-up and ASP effects are larger for students enrolled in the implementing school.

Our study makes two main contributions to the literature. First, we measure the causal effect of a publicly implemented ASP on academic outcomes using an RCT in a developing country. We show that the ASP on average has no significant effects on academic outcomes. This is perhaps not surprising, given the mixed results in the empirical literature on ASPs in developed countries. Second, taking advantage of baseline information about after-school care arrangements, we compare the ASP's effects on children with and without adult supervision at baseline. We find that among children who were receiving non-parental counterfactual care after school, the ASP had positive impacts on school attendance and on grades. This effect is not the result of an income effect for mothers. Our findings have implications for the targeting of future ASPs. Specifically, governments might want to consider criteria related to counterfactual care arrangements when designing eligibility rules for public ASPs.

The following sections describe the intervention and the experimental design, data, empirical strategy, results, and conclusions.

2. The intervention and experimental design

2.1. The intervention

In 2011, the Chilean government implemented the "4 to 7 ASP" (4:00 pm to 7:00 pm) in order to support its female workforce by providing childcare to children ages 6 to 13 years. The ASP provided three hours of daily after-school care during the school week (i.e., Monday-Friday, 4:00 pm to 7:00 pm). The Ministry of Women and Gender Equity of Chile (MWGEC) oversaw the ASP in municipalities where a high demand for childcare was expected due to the number of children and high female labor force participation.

Public schools applied to host the ASP through their municipality and were selected based on the following three eligibility criteria: 1) adequate infrastructure, 2) no existing ASPs, and, if possible, 3) an improved standardized test score in the previous year. The government then transferred funds for the ASP to the municipalities, which subsequently used a bidding process to select a nongovernmental organization (NGO) to manage the ASP.

Once ASPs were established, mothers could apply for the 4 to 7 ASP through the public schools. Children were eligible to attend the ASP if their mothers met the following eligibility criteria: 1) economically active, 2) age $\geq$ 18 years, 3) working or living within the municipality where the ASP is offered, and 4) a low score on the socioeconomic targeting scale. Not all children of working mothers had to be enrolled in the ASP or in the same school that hosted the ASP. The only eligibility requirement was that children either resided in or attended a school in the same municipality where the 4 to 7 ASP was offered. Participation in the ASP was voluntary and provided free of charge.

[2] Goerlich, Sherri, & Maynard, 2006; Kremer, Maynard, Polanin, Vaughn, & Sarteschi, 2015.

[3] Dinarte and Egaña del Sol's (2019) study found that attending an ASP in El Salvador increased grades and attendance and reduced bad behavior reports among students in the implementing year.

The MWGEC established the terms of reference that designated the minimum features of the ASP. Each 4 to 7 ASP had to be established in an eligible public school and have a maximum of either 50 or 100 beneficiaries, which was determined based on potential demand. A coordinator who had to have formal training in education, psychology, or business and who supervised monitors led each ASP. Monitors were ideally chosen from among the teachers who worked at the implementing school; however, this was the case for only 85 % of the monitors in the evaluation sample. Among the participating schools, 77.3 % hosted ASPs that could oversee 50 beneficiaries each and 22.7 % hosted ASPs that could accommodate 100 beneficiaries each.

Since not all participating schools followed the same daily schedule, the times at which the ASP was offered varied across schools. However, most schools in the evaluation (18 out of 25) offered the ASP from 4:00 pm to 7:00 pm.[4] The ASP was required to follow the following schedule: arrival (10 minutes)), motivation (20 minutes), schoolwork support (30 minutes), recess with a snack provided (30 minutes), and a thematic workshop (90 minutes). During time allotted for schoolwork support, ASP monitors could help students with their homework, teach study methods, and reinforce lessons. Thematic workshops involved art, sports, or information and communication technology (ICT). Each ASP decided which thematic workshops were to be offered based on the students' interests and ages. The most common workshops offered were related to the arts (e.g., crafts, theater, dance, music, cinema, circus) followed by ICTs and sports.

2.2. Experimental design

We conducted impact evaluations at 25 schools where the ASP was implemented for the first time in 2012. The government was not involved in selecting participating schools randomly. In our companion paper (Martínez & Perticará, 2017), we reported that there were no observable differences in school size, vulnerability, or the mothers' and children's respective characteristics in experimental and comparable schools. Of course, since our analysis compares individuals within the same school, we do not rely on this comparability to estimate the ASP's causal impact.

At the beginning of the school year (i.e., March), the mothers or the legal guardians of children ages 6 to 13 years were invited to apply for the ASP. They were required to fill out an application, specifying the number of children they wished to attend, demographic information, and school data. Women were also asked to complete an extensive questionnaire about their individual and family labor and socioeconomic characteristics. These responses were used to determine whether a family met the eligibility requirements. As seen in Fig. 1, there are 2566 eligible students.

Taking ASP over-enrollment into consideration (there were 1.7 applicants for every available slot), the available vacancies were randomized between eligible applicants within each school. The mother was the unit of randomization; therefore, when a mother was selected, all of the children that she reported on her application were invited to attend the ASP. This was carried out to fulfill the ASP's main objective: to help women find employment. Randomization was stratified considering the mother's baseline work status and whether she had young children (younger than 5 years). Whichever NGO oversaw the ASP extended an invitation to attend to the mothers selected. The mothers who accepted the invitation subsequently enrolled their children in the ASP before the school year began. The ASP commenced at the beginning of the school year (i.e., March or April) and ran until the end of the school year (i.e., December).

Eligible students that made up the study sample were randomized into either the treatment group (N = 1,358) or the control group (N = 1,208). This sample was used to analyze the intervention's impact. Concurrent with the impact evaluation, an external firm conducted an independent process evaluation at 22 of the 25 schools that participated in the study. We visited each ASP twice in order to document its implementation.

3. Data and descriptive statistics

3.1. Data

We used Chile's Ministry of Education's administrative data on attendance and grades during the implementing year (2012) and the following year (2013) as outcomes. The Ministry of Education reported monthly attendance as the fraction of school days that a child attends school each month. For 2012, the Ministry of Education reported the grades as the end-of-year average by subject and overall GPA. For 2013, we only obtained the average grades. We merged the administrative data with the experimental data described below (treatment assignment, strata, and baseline characteristics), with the self-reported information on baseline childcare use that mothers provided on the ASP application form, and with the follow-up household survey, from which we obtained reported ASP use. Finally, we included data from the process evaluation to measure the ASP's quality.

Although the agencies that implemented the ASP were required to collect data on ASP attendance, this requirement was not strictly enforced. As a result, the data that we collected in this area are unreliable, so we do not include administrative attendance rate in our impact analysis. Instead, we used mothers' reports on children's use of the ASP as the measure of attendance. Table 1 reports that we have follow-up data and, therefore, can measure ASP attendance for the 2257 students who constitute the sample we used to analyze this outcome.

[4] Only one school offered the ASP in the morning. The rest of the schools offered the ASP in the afternoon, and the starting time varied from anywhere between 2:00 pm to 5:00 pm.

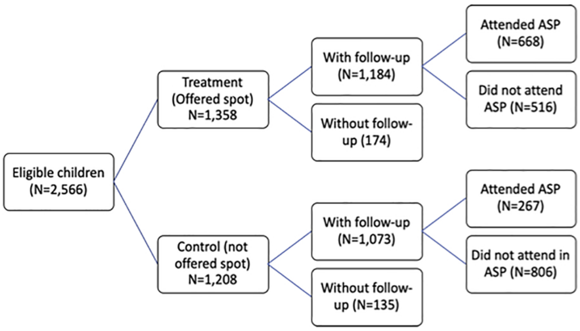

Fig. 1. Treatment Assignment and Attendance.

Table 1
Compliance Rates.

	Baseline [1]	At Follow-Up [2]	Attending [3]	Attendance Rate [4] = [3]/[2]
Control	1,208	1,073	267	0.25
Treatment	1,358	1,184	668	0.56
Total	2,566	2,257	935	

Note: Columns [1] and [2] indicate the number of applicants surveyed at the baseline and follow-up. Column [3] presents the number of applicants with follow-up data who report having attended the ASP. The follow-up survey is only used to measure attendance and not other outcomes.

3.2. Baseline characteristics and balance

Our original sample consisted of the treatment group (N = 1358) and a control group (N = 1208). Table 1 presents the data on the outcome of the randomization process. We defined ASP attendance as attending the ASP at least one day per week in any given month. Fifty-six percent of children invited to the ASP attended it (as reported by their mothers). In the follow-up survey, the main reasons that the mothers reported for their children not attending the ASP were: they were unaware that a spot was available (19.8 %), transportation (12.8 %), mother changed her mind about enrolling her children (12 %), and children did not want to attend (9.5 %). Since the NGOs were responsible for implementing the ASPs and contacting mothers to offer their children a place in the ASP, we cannot explain why almost 20 % of mothers in the treatment group reported that they were not contacted. This anomaly could be due to the fact that mothers forgot that they were contacted or that the NGOs truly did not contact them. In the control group, the take-up was 25 % (see column [4]). Attendance of children in the control group was possible because we randomized the invitation to the ASP (and not ASP access). Furthermore, the results of the process evaluation conducted in this study demonstrated that the attendance rate was low, reaching an average of 17.5 students. Consequently, we can assume that spots for children in the control group were open.

Low take-up decreases the experiment's power, making it harder for us to find the ASPs effects. To characterize participants, in Appendix Table B1, we show that those who attended the ASP were more likely to be enrolled in the school where the ASP is offered: 73 % of attendees versus 38 % of non-attendees. The mothers of the former group of children had lower income per capita (US$110 vs. US$119) and fewer years of education (8.9 vs. 9.9 years). However, when we estimate the probability of ASP attendance on all of these variables, only the measures of the ASP offered in one's school of enrollment and being completely unsupervised after school at baseline remain significant (see Appendix Table B2). In a subsequent section, we analyze whether there are heterogeneous effects by ASP site.

Table 2 reports descriptive statistics and balance. Panels A and B of Table 2 report characteristics for children and mothers, respectively. For each variable, we show the sample mean, the standard deviation, the number of observations at baseline (columns [1] to [3]), the treatment and control mean (columns [4] and [5]), and the *p*-value of the null that the treatment and control group means are equal (column [6]).[5]

On average, students were 9.7 years old and in the fourth grade. Forty-seven percent of the study population was female. Only 56 % of the students were accepted into the ASP offered at their school of enrollment. The average grade of participants in the previous academic year was 5.6 (in Chile, grades range between 1 and 7, 4 being the minimum required to pass), and their average attendance rate was 89 % (an attendance rate of 85 % is required to pass, with some exceptions). Almost 60 % of the children were not under parental supervision at baseline, and within this group: 38 % were under the care of another adult (e.g., grandmother, neighbor, other family member), and 11 % were completely unsupervised by an adult.

On average, mothers were 37 years old, had 2.2 children, received 9.4 years of education, and had a US$116 monthly household income per capita. Fifty-four percent of these mothers have a spouse or partner present in the household. Finally, 63 % of the children

[5] Note that some of these variables are missing in some observations. For this reason, the sample size varies in each row of the table.

Table 2
Balance Between Treatment and Control Groups at Baseline.

Variables	Average [1]	Standard Deviation [2]	Number of observations [3]	Treatment [4]	Control [5]	*P*-value T = C [6]
			Panel A: Students			
Age	9.72	2.26	2,566	9.76	9.68	0.424
Female	0.47	0.50	2,566	0.47	0.47	0.352
Grade	4.04	2.03	2,557	4.06	4.03	0.775
= 1 if attended school where the ASP was offered	0.56	0.50	2,379	0.55	0.57	0.689
GPA (previous year)	5.59	0.65	2,014	5.58	5.6	0.564
GPA (previous year) missing	0.22	0.41	2,566	0.22	0.21	0.671
Attendance rate (previous year)	0.89	0.13	2,379	0.89	0.89	0.656
Attendance rate (previous year) missing	0.07	0.26	2,566	0.07	0.07	0.911
= 1 if used nonparental childcare at baseline	0.57	0.50	2,105	0.55	0.59	0.73
= 1 if child was taken care of by an adult at baseline	0.38	0.49	2,105	0.38	0.38	0.41
= 1 if child was left alone at home at baseline	0.11	0.31	2,105	0.10	0.11	0.49
= 1 if child was left with siblings at baseline	0.09	0.28	2,105	0.07	0.09	0.32
			Panel B: Mothers			
Age	36.89	8.55	2,561	36.92	36.87	0.82
= 1 if household head	0.53	0.50	2,566	0.52	0.54	0.87
Number of children	2.19	1.16	2,566	2.19	2.18	0.95
Years of education	9.37	3.22	2,482	9.35	9.39	0.82
Income per capita of household (US$)	116	86	2,544	117	116	0.29
= 1 if spouse/partner is present	0.54	0.50	2,539	0.55	0.53	0.82
Works and children < 5 years old	0.20	0.40	2,566	0.20	0.20	0.25
Does not work and children < 5 years old	0.06	0.23	2,566	0.06	0.06	0.68
Works and children > 5 years old	0.63	0.48	2,566	0.63	0.62	0.34
Does not work and children > 5 years old	0.11	0.32	2,566	0.11	0.12	0.68

Note: Baseline survey data collected from March to May 2012. The sample size varies according to the amount of data without observations for each respective variable. Income variable is measured in US$ dollars (March 2013). Columns [1], [2], and [3] show the variable mean for the total of the sample, the standard deviation, and the number of observations, respectively. Columns [4] and [5] show the variable mean for the treatment and control groups, respectively. Column [6] is the *p*-value of the null hypothesis that Treatment = Control.

Table 3
Intent-to-Treat Effects in Attendance and Grade.

	Outcomes 2012									Outcomes 2013			
	School Attendance		Grades							School Attendance		Grades	
	Attend. rate May-Nov. [1]	= 1 if attend. rate is > 0.95 [2]	Art [3]	Physical Educ. [4]	Lang. and Lit. [5]	Math [6]	Science [7]	GPA [8]	= 1 if above the median [9]	Attend. rate May-Nov. [10]	= 1 if attend. rate is > 0.95 [11]	GPA [12]	= 1 if above the median [13]
Treatment	0.006	0.015	0.043	0.055**	0.010	0.030	0.012	0.020	0.017	0.008	−0.014	0.011	−0.000
	(0.005)	(0.026)	(0.029)	(0.026)	(0.032)	(0.032)	(0.027)	(0.022)	(0.023)	(0.006)	(0.025)	(0.020)	(0.015)
Observations	2,379	2,379	2,280	2,277	2,280	2,280	2,280	2,284	2,284	2,379	2,379	2,338	2,338
R-squared	0.279	0.220	0.309	0.277	0.372	0.349	0.397	0.489	0.362	0.192	0.152	0.400	0.247
Control group mean	0.907	0.365	5.926	6.250	5.134	5.149	5.231	5.532	0.494	0.888	0.315	5.532	0.497
MDE	0.031	0.159	0.251	0.205	0.294	0.303	0.284	0.210	0.177	0.041	0.152	0.196	0.174

Note: Columns [1] to [13] report the intent-to-treat (ITT) estimates and standard errors (in parentheses) of invitation to attend the ASP. The sample size varies according to the number of observations with missing values in the respective outcome variables. This sample was obtained by merging both baseline and administrative data. All regressions include school strata fixed effects and control for child's age and the presence of partner/spouse in the household. Cluster standard errors at school level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 4
Heterogeneous Effects by Childcare Use at Baseline.

	Outcomes 2012										Outcomes 2013			
	First Stage ASP Attend.	School Attendance		Grades							School Attendance		Grades	
		Attend. rate May–Nov.	= 1 if attend. rate is > 0.95	Art	Physical Educ.	Lang. and Lit.	Math	Science	GPA	= 1 if above the median	Attend. rate May–Nov.	= 1 if attend. rate is > 0.95	GPA	= 1 if above the median
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
	Panel A: Parental versus Non-parental care													
Treatment	0.255***	−0.001	−0.070**	−0.030	−0.014	−0.076	−0.030	−0.052	−0.051	−0.032	0.004	−0.066*	−0.030	0.002
	(0.057)	(0.007)	(0.027)	(0.052)	(0.045)	(0.049)	(0.068)	(0.062)	(0.038)	(0.028)	(0.008)	(0.035)	(0.038)	(0.039)
Treatment*Nonparental care at BL	0.056	0.012	0.108**	0.147**	0.100	0.129*	0.075	0.107	0.123**	0.086**	0.002	0.053	0.041	−0.019
	(0.059)	(0.009)	(0.051)	(0.055)	(0.069)	(0.072)	(0.080)	(0.079)	(0.053)	(0.037)	(0.009)	(0.047)	(0.052)	(0.047)
R-squared	0.232	0.281	0.224	0.313	0.281	0.374	0.350	0.398	0.491	0.365	0.193	0.155	0.403	0.247
Nonparental care at BL full effect	0.311	0.011	0.039	0.117	0.086	0.053	0.045	0.055	0.072	0.054	0.005	−0.013	0.011	−0.017
p-value full effect	0.000	0.112	0.359	0.001	0.069	0.237	0.330	0.169	0.043	0.123	0.492	0.728	0.614	0.317
MDE	0.147	0.031	0.159	0.251	0.205	0.293	0.303	0.283	0.209	0.177	0.041	0.152	0.195	0.174
	Panel B: By type of care													
Treatment	0.254***	−0.001	−0.070**	−0.031	−0.014	−0.076	−0.031	−0.053	−0.051	−0.032	0.004	−0.066*	−0.030	0.002
	(0.057)	(0.007)	(0.026)	(0.052)	(0.045)	(0.049)	(0.067)	(0.062)	(0.038)	(0.029)	(0.008)	(0.035)	(0.038)	(0.039)
Treatment * Other adults	0.026	0.007	0.054	0.147*	0.125	0.136	0.111	0.160*	0.144**	0.090**	−0.006	0.035	0.043	−0.027
	(0.066)	(0.009)	(0.057)	(0.071)	(0.078)	(0.080)	(0.088)	(0.090)	(0.062)	(0.041)	(0.009)	(0.050)	(0.057)	(0.055)
Treatment * Siblings	0.083	0.010	0.095	0.040	−0.016	−0.020	−0.127	−0.110	−0.044	0.007	−0.000	−0.026	0.014	−0.012
	(0.097)	(0.016)	(0.068)	(0.092)	(0.102)	(0.144)	(0.170)	(0.133)	(0.104)	(0.076)	(0.027)	(0.142)	(0.087)	(0.074)
Treatment * Alone	0.123	0.031**	0.303***	0.226***	0.110	0.219*	0.123	0.106	0.187***	0.134*	0.029*	0.171**	0.051	−0.002
	(0.089)	(0.011)	(0.074)	(0.068)	(0.089)	(0.115)	(0.097)	(0.096)	(0.056)	(0.076)	(0.016)	(0.062)	(0.082)	(0.077)
R-squared	0.234	0.284	0.229	0.314	0.282	0.374	0.352	0.401	0.493	0.366	0.194	0.158	0.403	0.248
Other adults full effect	0.281	0.006	−0.016	0.116	0.111	0.059	0.080	0.107	0.092	0.058	−0.002	−0.032	0.014	−0.025
p-value	0.000	0.441	0.747	0.024	0.038	0.324	0.186	0.053	0.050	0.176	0.773	0.501	0.670	0.400
Alone full effect	0.378	0.030	0.234	0.196	0.096	0.142	0.091	0.052	0.136	0.102	0.032	0.104	0.021	0.000
p-value	0.000	0.002	0.004	0.002	0.241	0.151	0.437	0.630	0.044	0.184	0.085	0.100	0.755	0.999
MDE	0.147	0.031	0.158	0.250	0.205	0.293	0.303	0.282	0.208	0.177	0.041	0.151	0.195	0.174
Observations	2,131	2,379	2,379	2,280	2,277	2,280	2,280	2,280	2,284	2,284	2,379	2,379	2,338	2,338
Control group mean	0.254	0.907	0.365	5.926	6.250	5.134	5.149	5.231	5.532	0.494	0.888	0.315	5.532	0.497

Note: Columns [2] to [14] report the intent-to-treat (ITT) estimates and standard errors (in parentheses) of invitation to attend the ASP. Column [1] reports the first stage of ASP participation/attendance. The sample size varies according to the number of observations with missing values in the respective outcome variables. In Panel A, non-parental care is a dummy variable that takes the value of 1 for all the children who were not taken care of by their parents at baseline and zero otherwise. In Panel B, the base category is taken care of by parents. All regressions include school strata fixed effects and control for the child's age and the presence of partner/spouse in the household. Cluster standard errors at the school level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0$.
Did not attend in ASP (N = 806).

were in the stratum characterized by mothers working at baseline and not having children younger than five years old. The *p*-values in column [6] show that the treatment and control groups were balanced in all of these variables.[6]

3.3. Attrition

The Ministry of Education compiled the two outcome variables—grades and attendance—into different datasets each year. As a result, when the experimental data is merged with the two different datasets, the resulting merge rates are different. Based on this data, we found an approximately 93 % rate of attendance at baseline in 2012 and 2013. The level of attrition is higher (almost 11 %) for grades in 2012 than it is for grades (9%) in 2013. In the final estimation sample, 2284 children comprised the grade data and 2379 made up the attendance data in 2012. In 2013, the numbers were 2,338 and 2,379, respectively.

We analyzed whether attendance and grade attrition correlated with treatment assignment and present our results in Annex Table A1. The dependent variable is the probability of being in the administrative data and the parameters of interest are the coefficients of the treatment variable. Panel A reports results for 2012 and Panel B for 2013. Columns [1] and [4] report the correlation of treatment assignment with the probability of being appearing in in final regressions for attendance and grades, respectively, without controls. Columns [2] and [5] include the control variables (child's age; if child is female; a dummy indicating if the mothers used childcare at baseline; a dummy indicating if a partner/spouse is present; mother's age and education; if mother is the head of the household; household income per capita; and number of children). Finally, in columns [3] and [6] we interact the control variables with the treatment assignment (not shown). In all cases, the coefficients of treatment assignment are not statistically significant. Furthermore, the full set of interactions is jointly not different from zero. Therefore, there is no difference in attrition by treatment arm.

We did find, however, that the older the children, the more likely they were to have follow-up data on their grades in 2012. We also find that presence of a partner/spouse increased the likelihood of locating the student in the administrative data. We controlled for age and presence of a partner/spouse in all of our regressions.[7]

4. Results

4.1. Estimated equation and interpretation

We used the following equation:

$$Y_{ij} = \propto_j + \beta T_{ij} + \delta y_{ij,t-1} + \gamma X_{ij} + v_{ij} \tag{1}$$

where *i* refers to the individual, *j* to school strata (defined by the mother's employment status and whether she had children younger than 5 years at baseline). T_{ij} is an indicator of the treatment assignment, $y_{ij,t-1}$ is the lagged value of the independent variable, and X_{ij}, which includes the student's age and an indicator that takes the value of 1 if a spouse/partner is present in the household, α_j are school strata fixed effects.[8] Whenever the baseline value of the dependent variable is missing, we impute a zero and include a dummy indicating whether the value was imputed. Standard errors are clustered at school level.[9] β represents the intent- to-treat (ITT) estimate. Since there was substantial imperfect compliance, these estimates might differ from the average treatment effect (ATE).[10]

We also investigated the existence of differential effects according to the baseline use of childcare (what we think of as counterfactual care), ASP quality, site, and the type of activities. In order to study these heterogeneities for a given subgroup, we defined a dummy variable $D_{ijk} = 1$ if individual *i* in school *j* and strata *k* belongs to this particular group and subsequently estimate the ASP effect by subgroup using a difference and difference specification.[11] Then we estimated the following equation:

$$Y_{ijk} = \propto_{jk} + \beta T_{ij} + \theta T_{ij} * D_{ijk} + \pi D_{ijk} + \delta y_{ijk,t-1} + \gamma X_{ijk} + v_{ijk} \ (2)$$

where β represents the ASP impact for students not belonging to the subgroup D_i, and θ represents the heterogeneous impact of the treatment on the subgroup with $D = 1$. The term πD_{ijk} was included to control for outcome differences by each specific subgroup. X_{ijk} includes child's age and a dummy for spouse/partner present. Since multiple hypotheses were analyzed on several different outcomes, Annex Tables D1–D4 present multiple hypothesis-adjusted *p*-values using Romano and Wolf's (2005) stepdown hypothesis testing algorithm.[12]

It is relevant to note that imperfect compliance reduces considerably the probability of finding statistical significant results.

[6] In the following section, we analyze the existence of treatment heterogeneity by baseline parental care. Every characteristic within each category of parental care in Table 2 is balanced. Our results are available in the online appendix.

[7] Results are robust to using a unique sample (all those students that had non-missing information for all grade and attendance data in 2012 and 2013). Results are available in the online appendix.

[8] Results are robust to the inclusion of age and spouse/partner present controls. Tables are available in the online appendix.

[9] We have 25 clusters that might lead to over-rejection of the null. Our results are robust to this correction (reported in Annex Tables C1 to C6) and are consistent with Cameron, Gelbach and Miller's (2008) simulations that show that, with 20 clusters and using clustered robust standard errors, the size of the tests is close to the nominal one.

[10] As the randomization was conducted within schools, there could be spillovers from treated to control students. This would bias the estimated coefficients downward.

[11] The first difference corresponds to the treatment assignment, and the second is the differential effect of the ASP on each subgroup.

[12] We used the algorithm that Clarke (2016) coded and used 1000 replications.

Considering the imperfect compliance, sample size, and distribution of the outcome variables, we are able to detect individual ITT effect sizes of at least 0.32 standard deviations. We include the minimum detectable effect (MDE) of each outcome in the main results table as well as the standardized MDEs with and without controls in Annex Tables B3 and B4. It is worth mentioning that this should not affect the external validity of the results because we present only the intention to treat estimates, which are not affected by attendance, only for the random assignment of the ASP offering

4.2. Average effects

Table 3 presents the average effects. Columns [1] and [2] report the ASP's impact on attendance rate for the implementation period (May to November 2012) and the probability of passing the 95 % attendance rate. We observed that average attendance rates are high (90.7 %) in 2012 and that the ASP had no impact on any measurement of attendance. Columns [10] and [11] show the coefficients for 2013, during which there was no increase in attendance of the ASP as well.

Regarding academic outcomes (columns [3] to [9] for 2012 and [12] to [13] for 2013), the point estimates of the ASP effects are all positive for 2012 but small in magnitude and only significant for grades for physical education. However, the effect is not robust to multiple hypothesis testing adjustments (Annex Table D1). In 2013, the coefficient is positive for average grade but negative, small for the probability of being above the median, and not statistically significant with or without multiple hypothesis testing. These results are consistent with the ASP's design, which designated only 30 minutes for homework and offered mostly workshops on the arts and sports.

4.3. Heterogeneous treatment

We investigated the presence of heterogeneous effects to shed light on how the ASP could have impacted students' outcomes. First, the literature reports that ASP effects depend on alternative childcare. Therefore, we analyzed the ASP's effects according to who took care of the children at baseline. Second, we study if the ASP's characteristics affect its effects. Since attendance to the ASP was higher for students in the same school, we explored whether there were differential effects by ASP site. We also explore if traditional measures of ASP quality and the activities that the ASP offered influence the ASP's effects. Finally, we study if the ASP has an impact through an effect on female labor supply.

4.3.1. Baseline childcare

Regarding childcare, mothers were asked at baseline about who cared for their child(ren) after school. For the purpose of this analysis, we defined the variable nonparental care, which takes the value of 1 if the children were in any way supervised by an adult after school or were completely unsupervised at baseline, and of 0 if their parent(s) took care of them after school. The results in Panel A, Table 4 report the interactive effect for children with nonparental care.

Since all reported results correspond to ITT, we look at ASP attendance in these two groups. Although attendance is slightly higher among children with nonparental care at baseline, which is consistent with families substituting the ASP for other forms of childcare, the difference between the two groups is not statistically different from zero (Table 4, column [1]). This suggests, therefore, that results are not mechanically driven by differences in use but could be driven by differences in alternative care.

The first row of Table 4, Panel A shows that ASP assignment for the base category (parental care at baseline) had a negative impact on attendance in 2012, although the coefficients were not always significant. Note, however, that only the result on attendance in 2012 is still significant when multiple hypothesis testing is considered (Table D1). For students under nonparental care at baseline, however, coefficients were always positive and significant when the outcome was attendance rate above 95 %. This significance does not hold, however, when multiple hypothesis testing adjustment methods are considered (Table D1). In 2013, these effects on attendance were not significant, even though the point estimates were still positive.

Regarding grades, the coefficients for students under parental care at baseline were insignificant in all grade outcomes in 2012 and 2013 and also always negative, suggesting that substituting institutional care for parental care did not necessarily improve children's outcomes. On the other hand, the coefficients for students under nonparental care at baseline were positive and significant for art, language, average GPA, and the probability of having a GPA above the median in the implementing year. In this group, the overall average GPA increased by 0.12 (column [9] of Table 4); the average grade in art increased by 0.15 (column [4]); and the grade in language and literature increased by 0.13 (column [6]). The ASP also increased the probability of being above the median by 8.6 percentage points (column [10]). All but the effects on language and grades are robust to multiple hypothesis testing adjustments (Table D1). The coefficients on other grade outcomes were also positive, but not significant. The bottom of Panel A depicts the full effect and its *p*-value. For example, the full effect on average GPA was a 0.07 increase, corresponding to 0.11 standard deviations from the control group. The point estimates for 2013 were also positive for children who were not taken care of by their parents after school, but the interaction was not significant. Therefore, we concluded that the ASP had a positive impact on these children.

In Table 4, Panel B, we expand "nonparental care at baseline" and distinguish the following subcategories of care by: other adults, siblings, and alone after school. Again, column [1] shows that, although take-up was higher for some categories of childcare at baseline, all of these coefficients were not statistically different from zero.

Furthermore, the positive effects in Panel A were mostly observed in children who were either completely unsupervised (alone) at home or placed under the care of another adult (e.g., relatives and nonrelatives). In fact, the greater effects were seen for children completely unsupervised after school, which could be due to the fact that the ASP provided them with a safe environment. For these children, there was a strong impact (3 percentage points) on attendance rates, suggesting that the ASP might have had a deterrent effect on absenteeism. This effect was relatively large, considering that attendance rates were high (approximately 91 % for the control group). There was also a positive effect on grades: The effect on the average GPA was 0.19 points (column [9]), and the effect on the probability of having a GPA above the median was 13.4 percentage points (column [10]). The full effect on average GPA corresponds to 0.21 standard deviations of the control group. All these effects are robust to wild cluster (Annex Table C2), but the effects on language grades, and the probability of being above the median in 2012 are not significant when multiple hypothesis testing methods are used (Annex Table D1). Still, the general conclusion does not change: The effect on attendance was still significant in 2013, indicating a 17.1 percentage point increase in the probability of attending school more than 95 % of the time.

The fact that the positive effects of ASP are restricted to nonadult or nonparental adult supervision is consistent with previous studies on the importance of counterfactual care for ASP impact. Note that, given equation (2), θ measures outcome differences between children in the treatment group with and without parental care at baseline. For these children, the ASP provided or increased institutional supervision. Thus, a positive θ could be interpreted as the value of substituting domestic care for institutional care.

The ITT effects that we found are larger than those found in Durlak, Weissberg and Pachan's (2010) meta-analysis, which reported that ASPs in the United States have an average impact of 0.12 and 0.10 standard deviations on school grades and attendance, respectively.[13]

Since we are interpreting a positive θ (from equation [2]) as the value of substituting domestic (non-parental) care for institutional care, we further study whether the ASP has any differential effects based on its characteristics.

4.3.2. ASP characteristics

We then studied the effect of ASP characteristics. If we measure quality in relation to the inputs and processes involved in the ASP: quality of the infrastructure, teachers, and ASP material; monitors' experience and whether they taught in the same school where the ASP was run; planning; and the student-monitor ratio, we find that these measures of quality do not seem to have an impact on attendance or grade outcomes (Annex Table A2).[14] Since the ASP monitors were schoolteachers at the school in which the ASP was offered and had an average of at least 3 years of teaching experience. The next two quality measures (rows 4 and 5) concern the ASP's planning and components. The first indicator reported whether the ASP's components were determined at the beginning of the school year, and the second index measured whether the 30-minute time slot dedicated to schoolwork was fixed in advance. Finally, we studied the existence of an interactive effect among the planned activities (whether the activities listed in the process evaluation were the same as those set forth in the plans at the beginning of the year) and the observed student-monitor ratio. Annex Table A2 presents the results, for which each coefficient reported corresponds to θ in equation (2), while controlling for the treatment and quality measure dummies, respectively.

ASP could directly impact academic outcomes through the provision of high-quality care and recreational activities,[15] we also investigated the impact that the type of activities that the ASP offered had on the ASP's outcomes. Annex Table A3 (and corresponding Appendix Tables C4 and D3) shows the interactive effect of the different activities measures if an ASP offered at least one course of ITC, social science, personal care, and sports.[16] We did not find differential effects for the workshop topic.[17]

Finally, we study if being exposed to a familiar environment influences the ASP's effects by analyzing the effect of applying and being assigned to an ASP in the same school in which children are already enrolled, which is the case for 56.1 % of the study sample. Annex Table A4 indicates that there was a larger take-up for students applying to an ASP offered at their school of enrollment; a large and significant effect on attendance in 2012 and 2013 of 1.6 and 2.4 percentage points, respectively; and improved grades for the same type of students in 2012. Only the effects on average GPA in 2012 are not significant when we adjust for multiple hypothesis testing (Table D4). On the other hand, the point estimates for students not enrolled in the implementing school are frequently negative and never significant.[18] We, therefore, concluded that traditional measures of quality do not seem to have an impact on the

[13] Estimated ITT coefficients can be scaled up by the treatment and control groups' differential take-up in order to estimate the treatment-on-the-treated (TOT). We focus our analysis on the ITT results because the take-up was larger among students attending the ASP in their own school, and there were heterogeneous effects by this characteristic.

[14] The above median quality index is a dummy that takes the value of 1 if the ASP was above median quality. In this instance, we measured quality by an index that captured the quality of infrastructure, teachers, and materials measured in the process evaluation. The second and third rows of Annex Table A2 present the measures of monitors' quality: a dummy that takes the value of 1 if at least 25% of the ASP monitors were schoolteachers at the school in which the ASP was offered and had an average of at least 3 years of teaching experience. The next two quality measures (rows 4 and 5) concern the ASP's planning and components. The first indicator reported whether the ASP's components were determined at the beginning of the school year, and the second index measured whether the 30-minute time slot dedicated to schoolwork was fixed in advance. Finally, we studied the existence of an interactive effect among the planned activities (whether the activities listed in the process evaluation were the same as those set forth in the plans at the beginning of the year) and the observed student-monitor ratio. Annex Table A2 presents the results, for which each coefficient reported corresponds to θ in equation (2), while controlling for the treatment and quality measure dummies, respectively. Each row of Annex Table A2 corresponds to a different measure of quality. Some coefficients in Annex Table A2 are significant; however, when multiple hypotheses are considered in Annex Table D2, this significance disappears.

[15] Recreational activities such as music, sports, and art reduce stress levels and improve creativity and, therefore, have the potential to improve children's academic outcomes (Foster & Jenkins, 2017, among others).

[16] All schools offered at least one course in the arts (dance, drama, and painting), so we could not distinguish the effects that each of these disciplines had.

[17] These results on the impact of quality should be accepted with caution because, first, our quality measures might not capture all relevant differences in quality because this study was limited by what we observed in the process evaluation, and, second, because the average quality was high. For example, 70% of ASPs determined their components by March, and 80% of ASPs decided that they would spend 30-minutes on schoolwork in the same period.

[18] The compliance rate is larger when the ASP is held at the same schools that the students attend, thereby resulting in more power to detect an impact in these schools.

ASP effects, but that the location of the ASP is relevant.

4.3.3. Female labor supply

The ASP could have an indirect and positive effect on a family's disposable income by enabling female employment and decreasing childcare cost (Black, Devereux, Loken, & Salvanes, 2014, among others). In fact, in Martínez & Perticará, 2017, we found that the ASP had a positive impact on mothers' employment. To understand if these effects drive the students' outcomes, we analyzed the existence of heterogeneous effects on female labor market outcomes (i.e., labor force participation, employment, and income) according to the children's care at baseline. To explore the potential existence of an income effect, we investigated whether the ASP had changed employment outcomes of mothers in the group of children whose academic outcomes increased the most with the ASP (i.e., children without parental care at baseline). Based on the results depicted in Annex Table A5, the ASP has no systematic impact by baseline parental care on any of the labor market outcomes. These results are not consistent with the labor market effects that drive the ASP's impact on student outcomes.

5. Conclusion

We studied the impacts of an ASP on children's academic outcomes in Chile using an experimental strategy and determined that the ASP had no average impact on grades and attendance. However, when we consider heterogeneity by different subgroups, we found large and statistically significant effects for children who were completely unsupervised or supervised by nonparental adults after school at baseline. These results show that a safe environment and adult supervision might increase children's attendance rates and academic achievement.

Furthermore, we also find that the ASP's impacts are only significant for students enrolled in the implementing school. We conjecture that the quality gap of care affects the impact of the ASP. From the household side, it is clear that the effect is larger for students whose counterfactual care was of poor quality (being alone, for example). From the ASP side, the effect is larger for students who attend the ASP in the same school in which they are enrolled. Although this is not necessarily an indicator of quality, having a more familiar environment can positively affect students' attendance and experience of the ASP. In order for future ASPs to be more effective, we think that it is necessary to recognizing that not all students will attend an ASP every day. Therefore, flexibility should be incorporated into an ASP's design so that families are able to sign up to participate in the ASP on the days of the week that suit their needs. This, in turn, would increase attendance rates and make the ASP more cost-effective. Second, the heterogeneous impact of an ASP should be considered in program targeting and prioritize students with lower-quality counterfactual care. Finally, research designs that directly address the mechanisms underlying ASPs' heterogeneous impacts would also be relevant.

Due to data constraint, our analysis was limited to academic outcomes. Further research on the effects of institutional care on children's socioeconomic outcomes is warranted. As Baker, Gruber and Milligan (2008) report, institutional care could theoretically expose children to more stressful situations (e.g., longer school days, lack of free time, bullying) that, in turn, could negate the positive impacts of an ASP. Therefore, studying these potential effects might put to rest concerns regarding the welfare of children who spend long hours at school.

Appendix A

See Tables A1–A5.

Table A1
Attrition and Base Line Characteristics.

	In Attendance Regressions			In Grades Regressions		
	[1]	[2]	[3]	[4]	[5]	[6]
			Panel A: 2012 Outcomes			
Treatment (T)	−0.001	−0.003	0.032	−0.008	−0.006	−0.086
	(0.012)	(0.012)	(0.062)	(0.012)	(0.011)	(0.083)
Age		0.004	0.004		0.017***	0.012***
		(0.003)	(0.003)		(0.003)	(0.004)
Mother's Age		−0.003**	−0.002		−0.002	−0.002
		(0.001)	(0.002)		(0.001)	(0.002)
= 1 if spouse/partner is present		0.045***	0.054**		0.025	0.025
		(0.015)	(0.019)		(0.021)	(0.023)
Constant		0.991***	0.980***		0.847***	0.891***
		(0.072)	(0.088)		(0.076)	(0.110)
Observations	2566	2006	2006	2566	2006	2006
R-squared	0.104	0.139	0.141	0.078	0.126	0.128
F-test: all interactions with T (*p*-value)			0.612			0.307
			Panel B: 2013 Outcomes			
Treatment (T)	−0.001	−0.003	0.032	0.008	0.008	0.024
	(0.012)	(0.012)	(0.062)	(0.013)	(0.013)	(0.094)
Age		0.004	0.004		−0.000	0.001
		(0.003)	(0.003)		(0.003)	(0.004)
Mother's Age		−0.003**	−0.002		−0.002*	−0.002
		(0.001)	(0.002)		(0.001)	(0.002)
= 1 if spouse/partner is present		0.045***	0.054**		0.038*	0.044*
		(0.015)	(0.019)		(0.020)	(0.024)
Constant		0.991***	0.980***		1.018***	1.013***
Observations	2566	2006	2006	2566	2006	2006
R-squared	0.104	0.139	0.141	0.091	0.130	0.131
F-test: all interactions with T (*p*-value)			0.612			0.996
Controls	No	Yes	Yes	No	Yes	Yes
Interactions of Controls and treatment	No	No	Yes	No	No	Yes

Note: The dependent variable takes a value of 1 if the individual was found on either attendance data (columns [1]-[3]) or grades data (columns [4]-[6]) in 2012 (Panel A) or 2013 (Panel B). The sample is made up of all students participating in the study (with baseline data). The sample size varies according to the missing covariate data. Only statistically significant regressors are shown. Regressions include school-strata fixed effects and other controls for child's gender, mother's age, if mother is head of the household, # of children in the household, if parents use any kind of childcare, per-capita household income. Cluster standard errors at school level are given in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A2
Heterogeneous Effects by ASP Quality.

	Outcomes 2012										Outcomes 2013			
	First Stage ASP Attend.	School Attendance		Grades							School Attendance		Grades	
		Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	Art	Physical Educ.	Lang. and Lit.	Math	Science	GPA	= 1 if above the median	Math	Science	GPA	= 1 if above the median
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
(1) Above median quality index (mean = 0.579)	0.032	0.003	0.035	0.052	−0.009	−0.017	0.039	0.031	0.031	0.054	0.011	0.035	0.003	0.020
	(0.076)	(0.011)	(0.053)	(0.058)	(0.053)	(0.071)	(0.066)	(0.052)	(0.046)	(0.045)	(0.011)	(0.048)	(0.045)	(0.022)
p-value full effect	0.000	0.220	0.526	0.136	0.225	0.908	0.414	0.652	0.359	0.283	0.202	0.895	0.852	0.806
(2) At least 25 % of monitors are school teachers (mean = 0.226)	−0.025	0.011	−0.059	−0.022	0.017	−0.025	−0.074	0.021	−0.018	−0.011	0.008	−0.036	−0.055	0.020
	(0.074)	(0.013)	(0.048)	(0.088)	(0.075)	(0.082)	(0.064)	(0.061)	(0.059)	(0.074)	(0.019)	(0.060)	(0.033)	(0.028)
p-value full effect	0.000	0.258	0.338	0.821	0.328	0.813	0.499	0.614	0.955	0.966	0.436	0.381	0.098	0.923
(3) Monitors with above the median experience (4 years) (mean = 0.497)	0.044	−0.004	−0.016	−0.045	0.023	−0.045	−0.039	0.000	−0.005	−0.010	−0.002	0.013	−0.017	0.005
	(0.081)	(0.010)	(0.053)	(0.059)	(0.058)	(0.067)	(0.067)	(0.059)	(0.049)	(0.046)	(0.012)	(0.052)	(0.039)	(0.024)
p-value full effect	0.000	0.534	0.959	0.780	0.165	0.672	0.950	0.822	0.714	0.992	0.478	0.710	0.823	0.404
(4) ASP components determined by March (mean = 0.697)	−0.019	0.006	0.013	0.097*	0.012	0.054	0.085	0.013	0.052	0.101**	0.009	0.042	0.025	0.019
	(0.096)	(0.007)	(0.056)	(0.055)	(0.051)	(0.064)	(0.067)	(0.046)	(0.044)	(0.045)	(0.007)	(0.050)	(0.045)	(0.024)
p-value full effect	0.000	0.487	0.748	0.060	0.178	0.741	0.244	0.943	0.320	0.083	0.388	0.805	0.475	0.808
(5) Fixed time slot devoted to study (mean = 0.801)	−0.002	−0.021	−0.068	−0.006	−0.057	−0.082	0.063	−0.060	−0.023	0.061	−0.024	−0.035	−0.061	0.001
	(0.098)	(0.020)	(0.052)	(0.052)	(0.054)	(0.085)	(0.082)	(0.070)	(0.054)	(0.072)	(0.019)	(0.064)	(0.070)	(0.025)
p-value full effect	0.000	0.499	0.743	0.064	0.189	0.755	0.243	0.959	0.339	0.091	0.406	0.799	0.482	0.825
(6) Plan is closely followed (mean = 0.420)	−0.006	−0.005	0.016	0.033	0.001	0.009	−0.023	−0.021	0.001	0.009	0.005	−0.002	−0.028	−0.030
	(0.087)	(0.010)	(0.057)	(0.057)	(0.056)	(0.066)	(0.067)	(0.058)	(0.046)	(0.046)	(0.013)	(0.055)	(0.039)	(0.024)
p-value full effect	0.001	0.612	0.642	0.023	0.181	0.879	0.828	0.927	0.522	0.757	0.295	0.645	0.637	0.135
(7) Students-monitor ratio is below the median (mean = 0.560)	−0.204**	−0.002	−0.050	−0.009	−0.014	−0.040	−0.091	0.013	−0.033	−0.118***	−0.003	−0.079	−0.024	−0.000
	(0.075)	(0.007)	(0.053)	(0.062)	(0.055)	(0.066)	(0.069)	(0.058)	(0.047)	(0.041)	(0.010)	(0.048)	(0.040)	(0.035)
p-value full effect	0.000	0.939	0.708	0.473	0.257	0.455	0.604	0.922	0.777	0.138	0.762	0.158	0.824	0.827
MDE (min across models)	0.151	0.03	0.166	0.258	0.211	0.301	0.316	0.295	0.216	0.185	0.04	0.16	0.202	0.182

Note: Columns [2] - [14] report the intent-to-treat (ITT) estimates and standard errors (in parentheses) of the invitation to attend the ASP interacted with different measures of ASP quality. Column [1] reports the first stage of ASP attendance. The sample size varies according to the number of observations with missing values in the respective outcomes and quality variables. The different high quality dummies are defined as follows: (1) Above median quality index. The quality index is defined including measures of infrastructure, materials, and monitor quality as reported in the process evaluation. The index does not include measures related to children's behavior. (2) At least 25 % of monitors are school teachers. (3) On average, monitors have at least 4 years (median) of teaching experience. (4) By March, the ASP components were already determined. (5) There was a fixed time slot devoted to study. (6) The plan (as describe in the original proposal) is closely followed (all the observed activities are described in the original plan). (7) The students-monitor ratio is below the median. MDE: Since MDE across regressions is almost constant, we only include the smallest MDE across regressions. All regressions include school strata fixed effects and control for child's age and the presence of a partner/spouse in the household. Cluster standard errors at the school level are given in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A3
Heterogeneous Effects by Workshop Topic.

	Outcomes 2012										Outcomes 2013			
	First Stage ASP Attend.	School Attendance		Grades							School Attendance		Grades	
		Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	Art	Physical Educ.	Lang. and Lit.	Math	Science	GPA	= 1 if above the median	Math	Science	GPA	= 1 if above the median
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[7]	[8]	[9]	[10]
(1) At least one TICs course	−0.120	−0.006	0.005	0.075	0.014	0.022	0.109	0.047	0.046	0.031	0.006	−0.013	−0.002	−0.008
(Mean = 0.286)	(0.074)	(0.009)	(0.061)	(0.046)	(0.061)	(0.054)	(0.073)	(0.053)	(0.044)	(0.042)	(0.012)	(0.056)	(0.036)	(0.028)
p-value full effect	0.001	0.766	0.734	0.004	0.232	0.399	0.114	0.295	0.156	0.183	0.264	0.633	0.683	0.772
(2) At least one science course (including social sciences)	0.016	0.006	0.027	0.052	0.026	0.068	0.017	0.020	0.024	0.050	0.006	0.007	0.012	−0.018
(Mean = 0.543)	(0.078)	(0.009)	(0.052)	(0.063)	(0.053)	(0.061)	(0.068)	(0.057)	(0.047)	(0.045)	(0.011)	(0.051)	(0.040)	(0.028)
p-value full effect	0.000	0.231	0.422	0.010	0.037	0.332	0.304	0.556	0.187	0.195	0.194	0.767	0.596	0.725
(3) At least one personal care course	−0.008	−0.004	0.009	−0.001	0.035	−0.090	0.070	0.052	0.005	0.011	0.001	0.001	−0.029	0.032
(Mean = 0.425)	(0.076)	(0.009)	(0.051)	(0.063)	(0.050)	(0.058)	(0.065)	(0.050)	(0.045)	(0.049)	(0.011)	(0.049)	(0.040)	(0.030)
p-value full effect	0.000	0.215	0.581	0.447	0.036	0.281	0.201	0.181	0.512	0.578	0.274	0.686	0.874	0.453
(4) At least one sports course	−0.026	0.000	−0.044	−0.018	−0.042	−0.087	0.034	−0.043	−0.037	0.010	0.009	0.019	−0.082	0.027
(Mean = 0.771)	(0.122)	(0.017)	(0.056)	(0.062)	(0.041)	(0.070)	(0.066)	(0.053)	(0.047)	(0.053)	(0.013)	(0.063)	(0.054)	(0.024)
p-value full effect	0.000	0.155	0.829	0.267	0.148	0.842	0.343	0.910	0.612	0.491	0.152	0.725	0.781	0.770
MDE (smallest across models)	0.147	0.031	0.159	0.251	0.205	0.294	0.303	0.284	0.21	0.177	0.041	0.152	0.196	0.174

Note: Columns [2] - [14] report the intent-to-treat (ITT) estimates and standard errors (in parentheses) of the invitation to attend the ASP interacted with workshop topic dummies. Column [1] reports the first stage of ASP attendance. The sample size varies according to the number of observations with missing values in the respective outcomes and workshop topics. Note that at each child could attend different kinds of workshops. Workshop topic dummies are defined to indicate whether the ASP offered at least one workshop from each of the following four categories: science (including social science); personal care; sports; and information and communication technology (ICT). All regressions include school strata fixed effects and control for the child's age and the presence of a partner/spouse in the household. MDE: Since MDE across regressions is almost constant, we only add the smallest MDE across regressions. Cluster standard errors at the school level are given in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A4
ASP is Offered in the Same School.

	Outcomes 2012										Outcomes 2013			
	First Stage ASP Attend.	School Attendance		Grades							School Attendance		Grades	
		Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	Art	Physical Educ.	Lang. and Lit.	Math	Science	GPA	= 1 if above the median	Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	GPA	= 1 if above the median
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
Treatment	0.214***	−0.002	−0.030	0.004	−0.013	−0.025	0.004	−0.037	−0.027	−0.032	−0.006	−0.014	−0.024	−0.028
	(0.057)	(0.004)	(0.031)	(0.059)	(0.038)	(0.044)	(0.049)	(0.050)	(0.037)	(0.031)	(0.006)	(0.037)	(0.029)	(0.023)
Treatment* Same school	0.150*	0.016***	0.082**	0.071	0.123***	0.065	0.045	0.085	0.086*	0.086*	0.024**	−0.001	0.060	0.048
	(0.073)	(0.006)	(0.033)	(0.075)	(0.043)	(0.068)	(0.059)	(0.064)	(0.045)	(0.042)	(0.009)	(0.047)	(0.043)	(0.039)
Observations	2131	2379	2379	2280	2277	2280	2280	2280	2284	2284	2379	2379	2338	2338
R-squared	0.268	0.281	0.225	0.310	0.280	0.373	0.350	0.398	0.490	0.364	0.195	0.153	0.402	0.248
Control group mean	0.254	0.907	0.365	5.926	6.250	5.134	5.149	5.231	5.532	0.494	0.888	0.315	5.532	0.497
Total effect	0.364	0.013	0.051	0.075	0.110	0.040	0.049	0.048	0.059	0.054	0.019	−0.015	0.036	0.020
F test total effect	0.000	0.039	0.052	0.029	0.000	0.402	0.220	0.140	0.017	0.070	0.013	0.652	0.201	0.426
MDE	0.145	0.031	0.158	0.251	0.205	0.294	0.303	0.283	0.210	0.177	0.041	0.152	0.196	0.174

Note: Columns [2] - [14] report the intent-to-treat (ITT) estimates and standard errors (in parentheses) of the invitation to attend the ASP. Column [1] reports the first stage of ASP attendance. The sample size varies according to the number of observations with missing values in the respective outcome variables. The variable same school is a dummy variable that takes value of 1 if the child attended a school were the ASP was offered and zero otherwise. All regressions include school strata fixed effects and control for the child's age and the presence of a partner/spouse in the household. Cluster standard errors at the school level are given in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A5
Mother's Outcomes: Heterogeneous Effects by Childcare Use at Baseline.

	Labor Force Participation			Employment			Working Hours	Income	
	Participates (at least one month during May–Dec.)	Participates (always)	Months Participating (May–Dec.)	Works (at least one month during May–Dec.)	Works (always)	Worked Months		Monthly Income	Hourly Income
	[1]	[2]	[3]	[4]		[5]	[6]	[7]	[8]
				Panel A: Parental versus Non-parental care					
Treatment	−0.050	−0.012	−0.242	−0.009	−0.019	0.053	1.231	21.377	0.101
	(0.031)	(0.038)	(0.245)	(0.029)	(0.034)	(0.293)	(1.469)	(14.988)	(0.167)
Treatment * Non-parental care at baseline	0.071	0.034	0.419	0.013	0.028	0.346	−1.648	−9.219	0.238
	(0.046)	(0.047)	(0.324)	(0.042)	(0.046)	(0.388)	(2.179)	(25.384)	(0.338)
R-squared	0.162	0.184	0.192	0.171	0.176	0.256	0.209	0.235	0.144
p-value full effect	0.554	0.631	0.574	0.897	0.850	0.251	0.831	0.472	0.167
MDE	0.172	0.180	1.327	0.177	0.184	1.654	8.529	97.842	0.887
				Panel B: By type of care					
Treatment	−0.048	−0.010	−0.228	−0.007	−0.017	0.077	1.295	22.103	0.118
	(0.030)	(0.037)	(0.237)	(0.029)	(0.034)	(0.282)	(1.457)	(14.927)	(0.168)
Treatment * Other adults	0.050	0.026	0.312	−0.015	0.003	0.139	−3.014	−10.642	0.135
	(0.061)	(0.058)	(0.444)	(0.056)	(0.055)	(0.484)	(2.240)	(25.625)	(0.344)
Treatment * Siblings	0.177*	0.082	0.995	0.118	0.062	0.958	4.305	41.597	0.744
	(0.087)	(0.106)	(0.685)	(0.085)	(0.099)	(0.711)	(4.716)	(43.632)	(0.520)
Treatment * Alone	0.056	0.025	0.321	0.025	0.078	0.484	−2.086	−43.914	0.163
	(0.050)	(0.079)	(0.461)	(0.057)	(0.102)	(0.678)	(3.623)	(37.491)	(0.493)
R-squared	0.165	0.185	0.195	0.173	0.175	0.256	0.210	0.237	0.143
p-value full effect									
Other adult	0.954	0.783	0.866	0.698	0.794	0.689	0.436	0.558	0.384
Alone	0.851	0.861	0.799	0.678	0.542	0.329	0.812	0.471	0.554
MDE	0.172	0.180	1.324	0.177	0.184	1.653	8.521	97.627	0.887
Observations	1806	1806	1806	1806	1806	1595	1537	1514	1472
Control group mean	0.680	0.544	4.867	0.647	0.473	6.216	28.293	262.683	1.819

Note: Columns [1] to [8] report the intent-to-treat (ITT) estimates and standard errors (in parentheses) of the invitation to attend the ASP. In Panel A, non-parental care is a dummy variable that takes the value of 1 for kids who were not taken care of by their parents at baseline and the value of zero otherwise. In Panel B, the base category is taken care of by parents. All regressions are run at the mother level; include school strata fixed effects and control for child's age (youngest), the presence of partner/spouse in the household, and mothers characteristics (age, education, number of children in the household, if head of the household). Results are robust to the inclusion of these control variables. Cluster standard errors at the school level are given in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Appendix B

See Tables B1–B4.

Table B1
Descriptive Statistics of Takers and Non-Takers.

Variables	Average [1]	SD [2]	Nº [3]	Non-takers [4]	Takers [5]	*P*-value Taker = Non-takers [6]
				Panel A: Children		
Age	9.68	2.23	1358	9.75	9.64	0.415
Female	0.47	0.50	1358	0.47	0.48	0.604
Grade	4.03	2.02	1354	4.14	4.00	0.349
= 1 if attend school where the ASP is offered	0.57	0.49	1261	0.38	0.73	0.000
GPA (previous year)	5.60	0.65	1067	5.66	5.57	0.126
GPA (previous year) is missing	0.21	0.41	1358	0.22	0.19	0.477
Attendance rate (previous year)	0.89	0.13	1261	0.89	0.89	0.849
Attendance rate (previous year) is missing	0.07	0.26	1358	0.06	0.06	0.245
= 1 if uses non parental childcare at baseline	0.59	0.49	1124	0.56	0.62	0.243
= 1 if child is taken care of by an adult at baseline	0.38	0.49	1124	0.38	0.37	0.852
= 1 if child is left alone at home at baseline	0.11	0.32	1124	0.10	0.14	0.140
= 1 if child is left with siblings at baseline	0.09	0.29	1124	0.08	0.11	0.312
				Panel B: Mothers		
Age	36.87	8.45	1355	36.75	37.19	0.963
= 1 if household head	0.54	0.50	1358	0.56	0.52	0.372
# of children	2.18	1.17	1358	2.13	2.21	0.147
Years of education	9.39	3.17	1314	9.87	8.91	0.043
Income per capita of household (US$)	116	78	1346	119	110	0.057
= 1 if spouse/partner is present	0.53	0.50	1344	0.54	0.52	0.596
Works and children < 5 years old	0.20	0.40	1358	0.24	0.17	0.121
Does not work and children < 5 years old	0.06	0.23	1358	0.06	0.06	0.876
Works and children > 5 years old	0.62	0.49	1358	0.59	0.65	0.352
Does not work and children > 5 years old	0.12	0.32	1358	0.11	0.12	0.535

Note: Baseline survey data collected from March to May 2012. The sample size varies according to the amount of data without observations for each respective variable. Income variable is measured in US$ dollars (March 2013). Columns [1], [2], and [3] show the variable mean for the total of the sample, the standard deviation, and the number of observations, respectively. Column [4] and [5] show the variable mean for the non-takers and takers, respectively. Column [6] shows the *p*-value of the null hypothesis that Non-Takers = Takers.

Table B2
Take-up Determinants.

	Dummy (=1 if student attends at least one day per week in any given month) [1]
Child's age	0.002
	(0.017)
Gender	−0.010
	(0.033)
Class	−0.016
	(0.021)
Same school dummy	0.304***
	(0.045)
Mother's age	−0.001
	(0.002)
Mother is head of the household	−0.034
	(0.052)
Number of Children	0.022
	(0.020)
Taken care of by other adult at baseline	0.037
	(0.058)
Alone at baseline	0.142*
	(0.072)
Taken care of by siblings at baseline	0.070
	(0.066)
Mother's education	−0.011
	(0.009)
Per-capita household income	−0.000
	(0.000)
Dummy if partner/spouse is present	−0.021
	(0.066)
Constant	0.551***
	(0.138)
Observations	878
R-squared	0.294

Note: Robust standard error in parenthesis, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table B3
Educational Outcomes - Standardized MDEs.

	Outcomes 2012									Outcomes 2013			
	First Stage Program Attend.	School Attendance		Grades						School Attendance		Grades	
		Attend rate May-Nov.	= 1 if attend rate is > 0.95	Art	Physical Educ.	Lang. and Lit.	Math	Science	GPA	Attend. rate May-Nov.	= 1 if attend rate is > 0.95	GPA	= 1 if above the median
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[11]	[12]	[13]	[14]
Base model (Table 3)													
(1) Adjusting for controls	0.337	0.329	0.330	0.335	0.327	0.340	0.340	0.335	0.326	0.336	0.328	0.321	0.348
(2) Without adjustment	0.386	0.365	0.365	0.373	0.373	0.373	0.373	0.373	0.373	0.365	0.365	0.369	0.369
Parental care (Table 4, Panel A)													
(1) Adjusting for controls	0.337	0.329	0.329	0.334	0.327	0.339	0.339	0.334	0.324	0.336	0.327	0.319	0.348
(2) Without adjustment	0.386	0.365	0.365	0.373	0.373	0.373	0.373	0.373	0.373	0.365	0.365	0.369	0.369
Parental care (Table 4, Panel B)													
(1) Adjusting for controls	0.337	0.329	0.328	0.334	0.326	0.338	0.339	0.332	0.323	0.336	0.326	0.319	0.347
(2) Without adjustment	0.386	0.365	0.365	0.373	0.373	0.373	0.373	0.373	0.373	0.365	0.365	0.369	0.369
Quality (Table A2)													
(1) Adjusting for controls	0.352	0.342	0.343	0.349	0.339	0.354	0.353	0.347	0.338	0.350	0.342	0.336	0.364
(2) Without adjustment	0.402	0.380	0.380	0.387	0.388	0.387	0.387	0.387	0.387	0.380	0.380	0.384	0.384
Workshop (Table A3)													
(1) Adjusting for controls	0.337	0.329	0.330	0.335	0.327	0.340	0.340	0.335	0.326	0.336	0.328	0.321	0.348
(2) Without adjustment	0.386	0.365	0.365	0.373	0.373	0.373	0.373	0.373	0.373	0.365	0.365	0.369	0.369
ASP Site (Table A4)													
(1) Adjusting for controls	0.334	0.329	0.329	0.335	0.326	0.340	0.340	0.334	0.325	0.335	0.328	0.320	0.347
(2) Without adjustment	0.386	0.365	0.365	0.373	0.373	0.373	0.373	0.373	0.373	0.365	0.365	0.369	0.369

Note: The first row for each model presents the MDE (in terms of the standard deviation of the dependent variable) and adjusts for the influence of covariates. The second row presents the estimated MDE (in terms of the standard deviation of the dependent variable) and does not adjust for covariates.

Table B4
Mother's Outcomes - Standardized MDEs.

	Labor Force Participation			Employment				Income	
	Participates (at least one month)	Participates (always)	Months Participating (May-Dec)	Works (at least one month)	Works (always)	Worked Months	Working Hours	Monthly Income	Hourly Income
	[1]	[2]	[3]	[4]		[5]	[6]	[7]	[8]
			Mother's outcomes (Table A5, Panel A)						
(1) Adjusting for controls	0.369	0.361	0.360	0.370	0.369	0.375	0.392	0.387	0.423
(2) Without adjustment	0.420	0.420	0.420	0.420	0.420	0.446	0.455	0.458	0.465
			Mother's outcomes (Table A5, Panel B)						
(1) Adjusting for controls	0.369	0.361	0.359	0.370	0.369	0.375	0.391	0.386	0.422
(2) Without adjustment	0.420	0.420	0.420	0.420	0.420	0.446	0.455	0.458	0.465

Appendix C

See Tables C1–C6.

Table C1
Intent-to-Treat Effects in Attendance and Grades - Wild Cluster Corrected *P*-Values.

	Outcomes 2012									Outcomes 2013			
	School Attendance		Grades							School Attendance		Grades	
	Attend. rate May-Nov.	= 1 if attendance rate is > 0.95	Art	Physical Educ.	Lang. and Lit.	Math	Science	GPA	= 1 if above the median	Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	GPA	= 1 if above the median
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
Treatment	0.006	0.015	0.043	0.055**	0.010	0.030	0.012	0.020	0.017	0.008	−0.014	0.011	−0.000
p-value	0.209	0.516	0.146	0.041	0.76	0.355	0.652	0.366	0.475	0.193	0.594	0.543	0992
Observations	2131	2379	2379	2280	2277	2280	2280	2280	2284	2284	2379	2379	2338
R-squared	0.229	0.279	0.220	0.309	0.277	0.372	0.349	0.397	0.489	0.362	0.192	0.152	0.400
Control group mean	0.254	0.907	0.365	5.926	6.250	5.134	5.149	5.231	5.532	0.494	0.888	0.315	5.532

Note: This table reproduces results in Table 3 in the text but presents wild-cluster adjusted *p*-values. Columns [1] - [13] report the intent-to-treat (ITT) estimates and the wild-cluster adjusted *p*-values of the invitation to attend the ASP. The sample size varies according to the number of observations with missing values in the respective outcome variables. This sample is obtained by merging both baseline and administrative data. All regressions include school strata fixed effects and control for age and the presence of a partner/spouse in the household. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table C2
Heterogeneous Effects by Childcare Use at Baseline - Wild Cluster Corrected *P*-Values.

	Outcomes 2012										Outcomes 2013			
	First Stage ASP Attend.	School Attendance		Grades							School Attendance		Grades	
		Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	Art	Physical Educ.	Lang. and Lit.	Math	Science	GPA	= 1 if above the median	Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	GPA	= 1 if above the median
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
	Panel A: Parental versus non-parental care													
Treatment	0.255***	−0.001	−0.070**	−0.030	−0.014	−0.076	−0.030	−0.052	−0.051	−0.032	0.004	−0.066*	−0.030	0.002
p-value	0.000	0.863	0.012	0.570	0.769	0.144	0.673	0.439	0.209	0.285	0.627	0.066	0.447	0.969
Treatment * Non-parental care at BL	0.056	0.012	0.108*	0.147**	0.100	0.129*	0.075	0.107	0.123**	0.086**	0.002	0.053	0.041	−0.019
p-value	0.322	0.188	0.061	0.012	0.160	0.084	0.358	0.204	0.039	0.028	0.867	0.240	0.452	0.675
p-value full effect	0.000	0.118	0.345	0.003	0.076	0.245	0.311	0.160	0.041	0.137	0.492	0.741	0.608	0.301
	Panel B: By type of care													
Treatment	0.254***	−0.001	−0.070**	−0.031	−0.014	−0.076	−0.031	−0.053	−0.051	−0.032	0.004	−0.066*	−0.030	0.002
p-value	0.000	0.844	0.013	0.564	0.767	0.143	0.661	0.423	0.200	0.293	0.632	0.063	0.439	0.958
Treatment * Other adults	0.026	0.007	0.054	0.147**	0.125	0.136	0.111	0.160*	0.144**	0.090**	−0.006	0.035	0.043	−0.027
p-value	0.689	0.461	0.368	0.033	0.118	0.102	0.214	0.099	0.030	0.031	0.545	0.475	0.461	0.629
Treatment * Siblings	0.083	0.010	0.095	0.040	−0.016	−0.020	−0.127	−0.110	−0.044	0.007	−0.000	−0.026	0.014	−0.012
p-value	0.427	0.567	0.147	0.663	0.894	0.912	0.546	0.507	0.703	0.935	0.999	0.838	0.881	0.879
Treatment * Alone	0.123	0.031**	0.303***	0.226***	0.110	0.219*	0.123	0.106	0.187***	0.134	0.029*	0.171**	0.051	−0.002
p-value	0.153	0.016	0.001	0.005	0.230	0.086	0.214	0.281	0.007	0.111	0.078	0.011	0.533	0.976
P-values full effect														
Other Adult	0.000	0.468	0.752	0.020	0.041	0.335	0.175	0.046	0.057	0.166	0.789	0.514	0.667	0.396
Alone	0.000	0.004	0.001	0.004	0.261	0.178	0.444	0.633	0.063	0.196	0.081	0.110	0.754	1.000

Note: This table reproduces the results in Table 4 in the text but presents wild-cluster adjusted *p*-values. Columns [2] - [14] report the intent-to-treat (ITT) estimates and wild-cluster *p*-values of the invitation to attend the ASP. Column [1] reports the first stage of ASP attendance. The sample size varies according to the number of observations with missing values in the respective outcome variables. In Panel A, non-parental care is a dummy variable that takes value of 1 for all the kids who were not taken care of by their parents at baseline and the value of zero otherwise. In Panel B, the base category is taken care of by parents. All regressions include school strata fixed effects and control for age and the presence of a partner/spouse in the household. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table C3
Heterogeneous Effects by Quality - Wild Cluster Corrected *P*-Values.

	Outcomes 2012										Outcomes 2013			
	First Stage ASP Attend	School Attendance		Grades							School Attendance		Grades	
		Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	Art	Physical Educ.	Lang. and Lit.	Math	Science	GPA	= 1 if above the median	Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	GPA	= 1 if above the median
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
(1) Above median quality index (Mean = 0.579)	0.032	0.003	0.035	0.052	−0.009	−0.017	0.039	0.031	0.031	0.054	0.011	0.035	0.003	0.020
p-value	0.678	0.815	0.549	0.473	0.853	0.838	0.552	0.544	0.530	0.303	0.359	0.487	0.945	0.364
p-value full effect	0.000	0.230	0.508	0.180	0.241	0.911	0.429	0.638	0.350	0.281	0.238	0.896	0.854	0.824
(2) At least 25 % of monitors are sch. teachers (Mean = 0.226)	−0.025	0.011	−0.059	−0.022	0.017	−0.025	−0.074	0.021	−0.018	−0.011	0.008	−0.036	−0.055	0.020
p-value	0.760	0.466	0.369	0.902	0.840	0.802	0.382	0.719	0.828	0.883	0.715	0.587	0.221	0.517
p-value full effect	0.097	0.391	0.590	0.879	0.315	0.847	0.617	0.729	0.967	0.921	0.577	0.513	0.331	0.924
(3) Monitors with above the median exp. (4 yrs) (Mean = 0.497)	0.044	−0.004	−0.016	−0.045	0.023	−0.045	−0.039	0.000	−0.005	−0.010	−0.002	0.013	−0.017	0.005
p-value	0.606	0.697	0.768	0.486	0.704	0.518	0.579	0.996	0.926	0.842	0.865	0.802	0.675	0.860
p-value full effect	0.001	0.553	0.962	0.793	0.182	0.691	0.961	0.818	0.714	0.988	0.592	0.697	0.807	0.419
(4) Prog. components defined by March (Mean = 0.697)	−0.019	0.006	0.013	0.097	0.012	0.054	0.085	0.013	0.052	0.101*	0.009	0.042	0.025	0.019
p-value	0.873	0.357	0.804	0.205	0.839	0.468	0.252	0.773	0.323	0.096	0.259	0.447	0.608	0.448
p-value full effect	0.000	0.497	0.738	0.093	0.190	0.707	0.238	0.944	0.312	0.078	0.429	0.827	0.478	0.807

(*continued on next page*)

Table C3 (*continued*)

	Outcomes 2012										Outcomes 2013			
	First Stage ASP Attend	School Attendance		Grades							School Attendance		Grades	
		Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	Art	Physical Educ.	Lang. and Lit.	Math	Science	GPA	= 1 if above the median	Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	GPA	= 1 if above the median
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
(5) Fixed time slot devoted to study (Mean = 0.801)	−0.002	−0.021	−0.068	−0.006	−0.057	−0.082	0.063	−0.060	−0.023	0.061	−0.024	−0.035	−0.061	0.001
p-value	0.987	0.472	0.263	0.910	0.391	0.416	0.474	0.455	0.687	0.453	0.415	0.616	0.406	0.975
p-value full effect	0.000	0.535	0.732	0.087	0.181	0.776	0.236	0.961	0.338	0.088	0.458	0.796	0.479	0.825
(6) Plan is closely followed (Mean = 0.420)	−0.006	−0.005	0.016	0.033	0.001	0.009	−0.023	−0.021	0.001	0.009	0.005	−0.002	−0.028	−0.030
p-value	0.941	0.685	0.801	0.588	0.982	0.892	0.732	0.728	0.993	0.852	0.692	0.962	0.476	0.253
p-value full effect	0.007	0.645	0.644	0.073	0.258	0.891	0.830	0.945	0.550	0.759	0.324	0.668	0.627	0.182
(7) Students-Monitor ratio is below the median (Mean = 0.560)	−0.204**	−0.002	−0.050	−0.009	−0.014	−0.040	−0.091	0.013	−0.033	−0.118**	−0.003	−0.079	−0.024	−0.000
p-value	0.020	0.678	0.376	0.892	0.810	0.529	0.221	0.847	0.514	0.017	0.771	0.126	0.569	0.988
p-value full effect	0.004	0.952	0.718	0.506	0.305	0.456	0.599	0.950	0.756	0.172	0.899	0.238	0.824	0.817

Note: This table reproduces the results in Annex Table A2 in the text but presents wild-cluster adjusted *p*-values. Columns [2] - [14] report the intent-to-treat (ITT) estimates and wild-cluster *p*-values of the invitation to attend the ASP interacted with different measures of ASP quality. Column [1] reports the first stage of ASP participation/attendance. The sample size varies according to the number of observations with missing values in the respective outcomes and quality variables. The different high-quality dummies are defined as follows: (1) Above median quality index. The quality index is defined including measures of infrastructure, materials, and monitor quality as reported in the process evaluation. The index does not include measures related to children's behavior. (2) At least 25 % of the monitors are school teachers. (3) On average, monitors have at least 4 years (median) of teaching experience. (4) By March, the ASP components were already determined. (5) There was a fixed time slot devoted to study. (6) Lesson plans (as described in the original proposal) are followed closely (all the observed activities are described in the original plan). (7) The Students-Monitor ratio is below the median. All regressions include school strata fixed effects and control for age and the presence of a partner/spouse in the household. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table C4
Heterogeneous Effects by Workshop Topic - Wild Cluster Corrected *P*-Values.

	Outcomes 2012										Outcomes 2013			
	First Stage ASP Attend	School Attendance		Grades							School Attendance		Grades	
		Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	Art	Physical Educ.	Lang. and Lit.	Math	Science	GPA	= 1 if above the median	Attend. rate May-Nov	= 1 if attend. rate is > 0.95	GPA	= 1 if above the median
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
(1) At least one ICTs course (Mean = 0.286)	−0.120	−0.006	0.005	0.075	0.014	0.022	0.109	0.047	0.046	0.031	0.006	−0.013	−0.002	−0.008
p-value	0.171	0.486	0.944	0.171	0.824	0.691	0.201	0.430	0.330	0.483	0.678	0.844	0.951	0.790
p-value full effect	0.049	0.640	0.718	0.082	0.330	0.392	0.166	0.383	0.259	0.213	0.414	0.823	0.633	0.801
(2) At least one science course (including social sciences) (Mean = 0.543)	0.016	0.006	0.027	0.052	0.026	0.068	0.017	0.020	0.024	0.050	0.006	0.007	0.012	−0.018
p-value	0.857	0.532	0.599	0.455	0.640	0.305	0.826	0.733	0.633	0.304	0.601	0.887	0.779	0.527
p-value full effect	0.001	0.267	0.452	0.016	0.062	0.353	0.327	0.589	0.210	0.207	0.206	0.773	0.602	0.729
(3) At least one personal care course (Mean = 0.425)	−0.008	−0.004	0.009	−0.001	0.035	−0.090	0.070	0.052	0.005	0.011	0.001	0.001	−0.029	0.032
p-value	0.935	0.631	0.870	0.978	0.506	0.161	0.316	0.337	0.895	0.842	0.920	0.970	0.486	0.286
p-value full effect	0.006	0.228	0.601	0.468	0.096	0.404	0.204	0.238	0.515	0.635	0.360	0.715	0.919	0.524
(4) At least one sport course (Mean = 0.771)	−0.026	0.000	−0.044	−0.018	−0.042	−0.087	0.034	−0.043	−0.037	0.010	0.009	0.019	−0.082	0.027
p-value	0.854	0.992	0.463	0.772	0.323	0.293	0.618	0.428	0.460	0.858	0.530	0.768	0.171	0.281
p-value full effect	0.000	0.172	0.819	0.286	0.153	0.856	0.328	0.907	0.598	0.510	0.185	0.733	0.753	0.805

Note: This table reproduces the results in Annex Table A3 but presents wild-cluster adjusted *p*-values. Columns [2] - [14] report the intent-to-treat (ITT) estimates and wild-cluster *p*-values of the invitation to attend the ASP interacted with workshop theme dummies. Column [1] reports the first stage of ASP attendance. The sample size varies according to the number of observations with missing values in the respective outcomes and workshop topics. Note that child could attend different kinds of workshops at each ASP. Workshop topic dummies are defined to indicate whether the ASP offered at least one workshop from each of the following four categories: science (including social science); personal care; sports; and ICT. All regressions include school strata fixed effects and control for age and the presence of a partner/spouse in the household. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table C5
Heterogeneous Effects by ASP Site - Wild Cluster Corrected *P*-Values.

	Outcomes 2012										Outcomes 2013			
	First Stage ASP Attend.	School Attendance		Grades							School Attendance		Grades	
		Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	Art	Physical Educ.	Lang. and Lit.	Math	Science	GPA	= 1 if above the median	Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	GPA	= 1 if above the median
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
Treatment	0.214***	−0.002	−0.030	0.004	−0.013	−0.025	0.004	−0.037	−0.027	−0.032	−0.006	−0.014	−0.024	−0.028
p-value	0.000	0.531	0.343	0.943	0.725	0.562	0.948	0.455	0.466	0.328	0.371	0.754	0.404	0.247
Treatment * Same school	0.150*	0.016***	0.082**	0.071	0.123**	0.065	0.045	0.085	0.086	0.086*	0.024***	−0.001	0.060	0.048
p-value	0.059	0.008	0.015	0.370	0.010	0.378	0.475	0.217	0.102	0.073	0.003	0.986	0.182	0.254
Observations	2131	2379	2379	2280	2277	2280	2280	2280	2284	2284	2379	2379	2338	2338
R-squared	0.268	0.281	0.225	0.310	0.280	0.373	0.350	0.398	0.490	0.364	0.195	0.153	0.402	0.248
Control group mean	0.364	0.013	0.051	0.075	0.110	0.040	0.049	0.048	0.059	0.054	0.019	−0.015	0.036	0.020
p-value full effect	0.000	0.039	0.052	0.029	0.000	0.402	0.220	0.140	0.017	0.070	0.013	0.652	0.201	0.426

Note: This table reproduces the results in Annex Table A4 but presents wild-cluster adjusted *p*-values. Columns [2] - [13] report the intent-to-treat (ITT) estimates and wild- cluster *p*-values of the ASP assignment. Column [1] reports the first stage of ASP attendance. The sample size varies according to the number of observations with missing values in the respective outcome variables. The same school is a dummy variable that takes value of 1 if the child attended a school were the ASP was given and the value of zero otherwise. All regressions include school strata fixed effects and control for age. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table C6
Mother's Outcomes by Childcare at Baseline - Wild Cluster Corrected *P*-Values.

	Labor Force Participation			Employment			Working Hours	Income	
	Participates (at least one month)	Participates (always)	Months Participating	Works (at least one month)	Works (always)	Worked Months		Monthly Income	Hourly Income
	[1]	[2]	[3]	[4]		[5]	[6]	[7]	[8]
				Panel A: Parental versus non-parental care					
Treatment	−0.048	−0.010	−0.227	−0.007	−0.017	0.073	1.274	22.204	0.115
p-value	0.119	0.782	0.361	0.812	0.604	0.797	0.359	0.137	0.648
Treatment * Non-parental care at baseline									
p-value	0.070	0.033	0.408	0.012	0.026	0.331	−1.720	−9.872	0.235
P-value full effect	0.146	0.476	0.232	0.771	0.557	0.375	0.412	0.681	0.52
				Panel B: By type of care					
Treatment	−0.048	−0.010	−0.228	−0.007	−0.017	0.077	1.295	22.103	0.118
p-value	0.116	0.777	0.354	0.812	0.601	0.787	0.349	0.144	0.644
Treatment * Other adults	0.050	0.026	0.312	−0.015	0.003	0.139	−3.014	−10.642	0.135
p-value	0.406	0.668	0.494	0.798	0.951	0.779	0.189	0.665	0.704
Treatment * Siblings	0.177*	0.082	0.995	0.118	0.062	0.958	4.305	41.597	0.744
p-value	0.065	0.438	0.17	0.175	0.518	0.181	0.368	0.341	0.193
Treatment * Alone	0.056	0.025	0.321	0.025	0.078	0.484	−2.086	−43.914	0.163
p-value	0.273	0.762	0.477	0.651	0.47	0.479	0.549	0.257	0.741
P-values full effect									
Other Adult	0.954	0.783	0.866	0.698	0.794	0.689	0.436	0.558	0.384
Alone	0.851	0.861	0.799	0.678	0.542	0.329	0.812	0.471	0.554

Note: This table reproduces results in Annex Table A5 but presents wild-cluster adjusted *p*-values. Columns [2] - [14] report the intent-to-treat (ITT) estimates and standard errors (in parentheses) of the invitation to attend the ASP. Column [1] reports the first stage of ASP attendance. The sample size varies according to the number of observations with missing values in the respective outcome variable. In Panel A, non-parental care is a dummy variable that takes value of 1 for all children who were not taken care of by their parents at baseline and the value of zero otherwise. In Panel B, the base category is taken care of by parents. All regressions include school strata fixed effects and control for child’s age (youngest), the presence of a partner/spouse in the household, and mother’s characteristics (age, education, number of children in the household, if head of the household). Results are robust to the inclusion of these control variables. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Appendix D

See Table D1–D5

Table D1
Adjusted *P*-values for Multiple Hypothesis Testing (for Tables 3 and 4 in the Text).

	Outcomes 2012									Outcomes 2013			
	School Attendance		Grades							School Attendance		Grades	
	Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	Art	Physical Educ.	Lang. and Lit.	Math	Science	GPA	= 1 if above the median	Attend. rate May-Nov.	= 1 if attend. rate is > 0.95	GPA	= 1 if above the median
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
Table 3													
Treatment	0.006	0.015	0.043	0.055	0.010	0.030	0.012	0.020	0.017	0.008	−0.014	0.011	0.000
p-value	0.432	0.796	0.494	0.179	0.944	0.835	0.944	0.835	0.922	0.432	0.796	0.944	0.989
Table 4 - Panel A													
Treatment	−0.001	−0.07**	Σ0.030	−0.014	−0.07	−0.030	−0.052	−0.051	−0.032	0.004	−0.066	−0.030	0.002
p-value	0.839	0.039	0.942	0.947	0.491	0.944	0.861	0.595	0.725	0.839	0.158	0.875	0.962
Treatment * Non-parental care at baseline	0.012	0.108	0.147**	0.100	0.129	0.075	0.107	0.123*	0.086*	0.002	0.053	0.041	−0.019
p-value	0.439	0.112	0.042	0.455	0.281	0.667	0.465	0.097	0.097	0.865	0.439	0.667	0.688
Non-parental care at baseline total effect	0.011	0.039	0.117***	0.086	0.053	0.045	0.055	0.072	0.054	0.005	−0.013	0.011	−0.017
p-value	0.268	0.594	0.002	0.243	0.593	0.643	0.487	0.154	0.393	0.677	0.850	0.643	0.643
Table 4 - Panel B													
Treatment	−0.001	−0.07**	−0.031	−0.014	−0.07	−0.031	−0.053	−0.051	−0.032	0.004	−0.066	−0.030	0.002
p-value	0.865	0.042	0.933	0.944	0.520	0.936	0.863	0.585	0.756	0.865	0.155	0.881	0.948
Treatment * Other adults	0.007	0.054	0.147	0.125	0.136	0.111	0.160	0.144	0.090	−0.006	0.035	0.043	−0.027
p-value	0.829	0.769	0.173	0.300	0.300	0.429	0.291	0.105	0.132	0.829	0.829	0.606	0.628
Treatment * Alone	0.031**	0.303***	0.226**	0.110	0.219	0.123	0.106	0.187**	0.134	0.029*	0.171***	0.051	−0.002
p-value	0.014	0.001	0.011	0.585	0.272	0.585	0.585	0.011	0.340	0.073	0.007	0.741	0.976
Other adults' total effect	0.006	−0.016	0.116*	0.111	0.059	0.080	0.107	0.092	0.058	−0.002	−0.032	0.014	−0.025
p-value	0.849	0.936	0.085	0.129	0.649	0.468	0.166	0.162	0.460	0.936	0.862	0.656	0.649
Alone total effect	0.03***	0.234***	0.196***	0.096	0.142	0.091	0.052	0.136	0.102	0.032*	0.104*	0.021	0.000
p-value	0.002	0.005	0.009	0.601	0.491	0.831	0.925	0.179	0.528	0.081	0.070	0.925	0.997

Note: This table reproduces the results contained in Tables 3 and 4 in the text, but presents multiple hypothesis adjusted *p*-values. Columns [2] - [13] report the intent-to- treat (ITT) estimates. Column [1] reports the first stage of ASP participation/attendance. The sample size varies according to the number of observations with missing values in the respective outcome variables. In Panel A, non-parental care is a dummy variable that takes value of 1 for all the kids who were not taken care of by their parents at baseline and the value of zero otherwise. In Panel B, the base category is taken care of by parents. All regressions include school strata fixed effects and control for age and the presence of a partner/spouse in the household. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table D2
Adjusted *P*-Values for Multiple Hypothesis Testing - Heterogeneous Effects by Quality (Table A2).

	Outcomes 2012									Outcomes 2013			
	School Attendance		Grades							School Attendance		Grades	
	Attend. rate May-Nov. [1]	= 1 if attend. rate is > 0.95 [2]	Art [3]	Physical Educ. [4]	Lang. and Lit. [5]	Math [6]	Science [7]	GPA [8]	= 1 if above the median [9]	Attend. rate May-Nov. [10]	= 1 if attend. rate is > 0.95 [11]	GPA [12]	= 1 if above the median [13]
(1) Above median quality index (Mean = 0.579)	0.003	0.035	0.052	−0.009	−0.017	0.039	0.031	0.031	0.054	0.011	0.035	0.003	0.020
p-value	0.776	0.743	0.877	0.987	0.987	0.959	0.959	0.933	0.735	0.682	0.743	0.987	0.877
p-value full effect	0.458	0.711	0.445	0.603	0.986	0.809	0.956	0.759	0.691	0.458	0.943	0.986	0.986
(2) At least 25 % of monitors are school teachers (Mean = 0.226)	0.011	−0.059	−0.022	0.017	−0.025	−0.074	0.021	−0.018	−0.011	0.008	−0.036	−0.055	0.020
p-value	0.657	0.438	0.977	0.977	0.977	0.589	0.977	0.977	0.977	0.676	0.657	0.235	0.886
p-value full effect	0.406	0.422	0.978	0.615	0.978	0.798	0.893	0.997	0.997	0.438	0.407	0.169	0.995
(3) Monitors with above the median experience (4 yrs) (Mean = 0.497)	−0.004	−0.016	−0.045	0.023	−0.045	−0.039	0.000	−0.005	−0.010	−0.002	0.013	−0.017	0.005
p-value	0.946	0.946	0.956	0.989	0.972	0.980	0.997	0.997	0.997	0.946	0.915	0.989	0.997
p-value full effect	0.869	0.993	0.997	0.464	0.986	0.997	0.997	0.987	0.997	0.863	0.993	0.997	0.859
(4) ASP components defined by March (Mean = 0.697)	0.006	0.013	0.097	0.012	0.054	0.085	0.013	0.052	0.101	0.009	0.042	0.025	0.019
p-value	0.651	0.817	0.315	0.939	0.849	0.590	0.939	0.634	0.141	0.454	0.724	0.900	0.849
p-value full effect	0.814	0.908	0.228	0.502	0.967	0.598	0.967	0.682	0.279	0.760	0.908	0.847	0.967
(5) Fixed time slot devoted to study (Mean= 0.801)	−0.021	−0.068	−0.006	−0.057	−0.082	0.063	−0.060	−0.023	0.061	−0.024	−0.035	−0.061	0.001
p-value	0.428	0.425	0.991	0.775	0.805	0.821	0.821	0.943	0.821	0.425	0.691	0.821	0.991
p-value full effect	0.816	0.917	0.239	0.536	0.978	0.598	0.978	0.718	0.307	0.782	0.917	0.865	0.978
(6) Lesson plan is followed closely (Mean= 0.420)	−0.005	0.016	0.033	0.001	0.009	−0.023	−0.021	0.001	0.009	0.005	−0.002	−0.028	−0.030
p-value	0.961	0.961	0.982	0.998	0.998	0.994	0.994	0.998	0.998	0.961	0.983	0.940	0.698
p-value full effect	0.913	0.913	0.090	0.417	0.991	0.991	0.991	0.918	0.984	0.596	0.913	0.966	0.360
(7) Students-Monitor ratio is below the median (Mean= 0.560)	−0.002	−0.050	−0.009	−0.014	−0.040	−0.091	0.013	−0.033	−0.118**	−0.003	−0.079	−0.024	−0.000
p-value	0.896	0.663	0.996	0.996	0.978	0.610	0.996	0.965	0.022	0.896	0.359	0.978	0.996
p-value full effect	0.955	0.955	0.912	0.669	0.912	0.963	0.992	0.991	0.443	0.95504	0.5015	0.99201	0.99201

Note: This table reproduces results in Annex Table A2, but presents multiple hypothesis adjusted *p*-values. Columns [2] - [10] report the intent-to-treat (ITT) estimates of the invitation to attend the ASP interacted with different measures of the ASP quality. Column [1] reports the first stage of ASP participation/attendance. The sample size varies according to the number of observations with missing values in the respective outcomes and quality variables. The different high-quality dummies are defined in the following way: (1) Above median quality index. The quality index includes measures of infrastructure as well as materials and monitor quality as reported in the process evaluation. The index does not include measures related to children's behavior. (2) At least 25 % of the monitors are school teachers. (3) On average, monitors have at least 4 years (median) of teaching experience. (4) By March, the ASP components were already determined. (5) There was a fixed time slot devoted to study. (6) Lesson plans (as described in the original proposal) are followed closely (all the observed activities are described in the original plan). (7) The students-monitor ratio is below the median.

Table D3
Adjusted *P*-Values for Multiple Hypothesis/ Testing - Heterogeneous Effects by Workshop Topic (Table A3).

	Outcomes 2012									Outcomes 2013			
	School Attendance		Grades							School Attendance		Grades	
	Attend. rate May-Nov. [1]	= 1 if attend. rate is > 0.95 [2]	Art [3]	Physical Educ. [4]	Lang. and Lit. [5]	Math [6]	Science [7]	GPA [8]	= 1 if above the median [9]	Attend. rate May-Nov. [10]	= 1 if attend. rate is > 0.95 [11]	GPA [12]	= 1 if above the median [13]
(1) At least one TICs course (Mean = 0.286)	−0.006	0.005	0.075	0.014	0.022	0.109	0.047	0.046	0.031	0.006	−0.013	−0.002	−0.008
p-value	0.856	0.993	0.421	0.983	0.983	0.492	0.851	0.781	0.896	0.911	0.993	0.983	0.983
p-value full effect	0.917	0.917	0.020	0.498	0.647	0.317	0.563	0.401	0.439	0.501	0.917	0.821	0.821
(2) At least one science course (including social sciences) (Mean = 0.543)	0.006	0.027	0.052	0.026	0.068	0.017	0.020	0.024	0.050	0.006	0.007	0.012	−0.018
p-value	0.891	0.891	0.896	0.955	0.792	0.964	0.964	0.955	0.792	0.891	0.891	0.964	0.934
p-value full effect	0.431	0.612	0.038	0.146	0.684	0.684	0.858	0.534	0.534	0.395	0.618	0.858	0.858
(3) At least one personal care course (Mean = 0.425)	−0.004	0.009	−0.001	0.035	−0.090	0.070	0.052	0.005	0.011	0.001	0.001	−0.029	0.032
p-value	0.947	0.947	0.987	0.886	0.470	0.752	0.752	0.987	0.984	0.996	0.996	0.886	0.752
p-value full effect	0.462	0.750	0.778	0.121	0.595	0.489	0.449	0.778	0.778	0.475	0.750	0.868	0.778
(4) At least one sport course (Mean = 0.771)	0.000	−0.044	−0.018	−0.042	−0.087	0.034	−0.043	−0.037	0.010	0.009	0.019	−0.082	0.027
p-value	0.985	0.832	0.951	0.698	0.659	0.917	0.793	0.793	0.951	0.832	0.958	0.469	0.690
p-value full effect	0.323	0.879	0.708	0.465	0.992	0.789	0.992	0.966	0.917	0.323	0.879	0.992	0.992

Note: This table reproduces the results in Annex Table A3, but presents multiple hypothesis adjusted *p*-values. Columns [2] - [14] report the intent-to-treat (ITT) estimates of the invitation to attend the ASP interacted with workshop topic dummies. Column [1] reports the first stage of ASP participation/attendance. The sample size varies according to the number of observations with missing values in the respective outcomes and workshop topics. Note that children could attend different kind of workshops at each ASP. Workshop topic dummies are defined to indicate whether the ASP offered at least one workshop from each of the following four categories: science (including social science); personal care; sports; and ICT. All regressions include school strata fixed effects and control for age.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table D4
Adjusted *P*-Values for Multiple Hypothesis Testing - Heterogeneous Effects by ASP Site (Table A4).

	Outcomes 2012									Outcomes 2013			
	School Attendance		Grades							School Attendance		Grades	
	Attend. rate May-Nov. [1]	= 1 if attend. rate is > 0.95 [2]	Art [3]	Physical Educ. [4]	Lang. and Lit. [5]	Math [6]	Science [7]	GPA [8]	= 1 if above the median [9]	Attend. rate May-Nov. [10]	= 1 if attend. rate is > 0.95 [11]	GPA [12]	= 1 if above the median [13]
Treatment * Same School	0.016**	0.082**	0.071	0.123**	0.065	0.045	0.085	0.086	0.086	0.024**	−0.001	0.060	0.048
p-value	0.017	0.036	0.558	0.036	0.558	0.558	0.503	0.257	0.205	0.019	0.992	0.482	0.558
Same school total effect	0.013*	0.051*	0.075	0.11***	0.040	0.049	0.048	0.059*	0.054	0.019**	−0.015	0.036	0.020
p-value	0.093	0.093	0.117	0.000	0.658	0.534	0.433	0.072	0.242	0.033	0.654	0.534	0.658

Note: This table reproduces the results in Annex Table A4, but presents multiple hypothesis adjusted *p*-values. Columns [2] - [10] report the intent-to-treat (ITT) estimates of the ASP assignment interacted with the ASP site. Same school is an indicator that takes the value of 1 if the student applied to the ASP in his or her school. Large share is an indicator that takes the value of 1 if the student applied to the ASP with more than the median share of students at his or her school. All regressions include school strata fixed effects and control for age. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table D5
Mother's Outcomes by Parental Care at Baseline. Adjusted *P*-Values for Multiple Hypothesis Testing (for Annex Table A5).

	Labor Force Participation			Employment			Working Hours	Income	
	Participates (at least one month during May-Dec)	Participates (always)	Months Participating (May-Dec)	Works (at least one month during May-Dec)	Works (always)	Worked Months		Monthly Income	Hourly Income
Panel A: Parental versus Non-parental care									
Treatment * Non-parental care at baseline	−0.048	−0.010	−0.227	−0.007	−0.017	0.073	1.274	22.204	0.115
p-value	0.444	0.899	0.602	0.899	0.899	0.864	0.889	0.899	0.899
Non-parental care at baseline total effect	0.070	0.033	0.408	0.012	0.026	0.331	−1.720	−9.872	0.235
p-value	0.833	0.880	0.842	0.976	0.976	0.534	0.976	0.812	0.451
Panel B: By Type of care									
Treatment * Other adults	−0.048	−0.010	−0.228	−0.007	−0.017	0.077	1.295	22.103	0.118
p-value	0.887	0.988	0.933	0.988	0.988	0.988	0.551	0.988	0.988
Treatment * Alone	0.050	0.026	0.312	−0.015	0.003	0.139	−3.014	−10.642	0.135
p-value	0.693	0.947	0.912	0.947	0.912	0.912	0.946	0.691	0.947
Other adults total effect	0.177	0.082	0.995	0.118	0.062	0.958	4.305	41.597	0.744
p-value	0.970	0.961	0.961	0.926	0.961	0.926	0.777	0.869	0.742
Alone total effect	0.056	0.025	0.321	0.025	0.078	0.484	−2.086	−43.914	0.163
p-value	0.985	0.985	0.985	0.957	0.933	0.778	0.985	0.933	0.933

Note: This table reproduces results in Annex Table A5 but presents multiple hypothesis adjusted *p*-values. Columns [2] - [10] report the intent-to-treat (ITT) estimates and wild-cluster p-values of the ASP assignment. Column [1] reports the first stage of ASP attendance. The sample size varies according to the number of observations with missing values in the respective outcome variables. In Panel A, non-parental care is a dummy variable that takes value of 1 for all the kids who were not taken care of by their parents at baseline and the value of zero otherwise. In Panel B, the base category is taken care of by parents. All regressions include school strata fixed effects and control for child's age (youngest), the presence of a partner/spouse in the household, and mother's characteristics (age, education, number of children in the household, if head of the household). Results are robust to the inclusion of these control variables. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Appendix B. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:https://doi.org/10.1016/j.ijer.2020.101601.

References

Azier, A. (2004). Home alone: Supervision after school and child behavior. *Journal of Public Economics, 88*, 1835–1848.
Baker, M., Gruber, J., & Milligan, K. (2008). Universal child care, maternal labor supply, and family well-being. *Journal of Political Economy, 116*(4), 709–745.
Battistin, E., & Meroni, E. C. (2016). Should we increase instructional time in low achieving schools? Evidence from Southern Italy. *Economics of Education Review, 55*, 39–56.
Bellei, C. (2009). Does lengthening the school day increase students' academic achievement? Results from a natural experiment in Chile. *Economics of Education Review, 28*, 629–640.
Berthelon, M. E., & Kruger, D. I. (2011). Risky behavior among youth: Incapacitation effects of school on adolescent motherhood and crime in Chile. *Journal of Public Economics, 95*(1–2), 41–45.
Bettinger, E., Hægeland, T.ørn, & Rege, M. (2014). Home with mom: The effects of stay-at-home parents on children's long-run educational outcomes. *Journal of Labor Economics, 32*(3), 443–467.
Black, S. E., Devereux, P. J., Loken, K. V., & Salvanes, K. (2014). Care or cash? The effect of childcare subsidies on student performance. *The Review of Economics and Statistics, 9*(5), 824–837.
Cameron, A. C., Gelbach, J. B., & Miller, D. L. (2008). Bootstrap-based improvements for inference with clustered errors. *The Review of Economics and Statistics, 90*(3), 414–427.
Clarke, D. (2016). *RWOLF: Stata module to calculate romano-wolf stepdown p- values for multiple hypothesis testing." statistical software components.* Boston, MA: Boston College Department of Economics.
Dinarte, L., & Egaña del Sol, P. (2019). *Preventing violence in the most violent contexts: Behavioral and neurophysiological evidence.* World Bank Policy Research Working Paper 8862Washington, DC: World Bank.
Durlak, J. A., Weissberg, R. P., & Pachan, M. (2010). A meta-analysis of after-school programs that seek to promote personal and social skills in children and adolescents. *American Journal of Community Psychology, 45*, 294–309.
Dwyer, K. M., Richardon, J. L., Daley, K. L., et al. (1990). Characteristics of eighth grade students who initiate self-care in elementary and junior high school. *Pediatrics, 86*, 448–454.
Foster, E. M., & Jenkins, J. V. M. (2017). Does participation in music and performing arts influence child development? *American Educational Research Journal, 54*(3), 399–433.
Goerlich, S., Sherri, L., & Maynard, R. A. (2006). Impacts of after-school programs on students outcomes. *Campbell Systematic Reviews, 2*(1), 1–51.
Hincapie, D. (2016). *Do longer school days improve students achievement? Evidence from Colombia." IDB working paper no. 679.* Washington, DC: Inter-American Development Bank.
Junaeb (2018). *Santiago,Chile:Junaeb.Retrievedfrom.* https://sistemaencuestas.junaeb.cl/encuestasjunaeb/index.jsp.
Klasen, S. (2019). What explains uneven female labor force participation levels and trends in developing countries? *The World Bank Research Observer, 34*(2), 161–197. https://doi.org/10.1093/wbro/lkz005.
Kremer, K. P., Maynard, B. R., Polanin, J. R., Vaughn, M. G., & Sarteschi, C. M. (2015). Effects of after-school programs with at-risk youth on attendance and externalizing behaviors: A systematic review and meta-analysis. *Journal of Youth and Adolescence, 44*(3), 616–636.
Lavy, V., & Schlosser, A. (2005). Targeted remedial education for underperforming teenagers: Costs and benefits. *Journal of Labor Economics, 23*(4), 839–874.
Levine, P. B., & Zimmerman, D. J. (Eds.). (2010). *Targeting investments in children: Fighting poverty when resources are limited*. Chicago, IL: University of Chicago Press.
Martínez, A. C., & Perticará, M. (2017). Childcare effects on maternal employment: Evidence from Chile. *Journal of Development Economics, 126*, 127–137.
Reynoso, A., & Rossi, M. A. (2019). Teenage risky behavior and parental supervision: The unintended consequences of multiple shifts school systems. *Economic Inquiry, 75*(2), 774–791.
Romano, J., & Wolf, M. (2005). Stepwise multiple testing as formalized data snooping. *Econometrica, 73*(4), 1237–1282.