SUPPLEMENTARY ONLINE MATERIAL FOR

Public School Access or Stay-at-Home Partner: Factors Mitigating the
Adverse Effects of the COVID-19 Pandemic on Academic Parents

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A. Descriptive Statistics

Table A.1 shows the number of survey responses by country (ordered from largest to smallest) and provides the corresponding school openness measure, when available.

Table A.1: Response Rates and School Openness by Country

Country	Num. Responses	Percent Open	Country	Num. Responses	Percent Open	Country	Num. Responses	Percent Open
United States	6,890	46.7%	Malaysia	54	41.3%	Bosnia & Herz.	6	14.4%
Italy	1,172	13.8%	Hungary	52	17.4%	Jamaica	6	15.6%
United Kingdom	899	37.7%	Romania	49	14.4%	Algeria	5	15.0%
Canada	830	16.8%	Serbia	42	17.4%	Latvia	5	26.9%
Germany	762	53.3%	Hong Kong SAR	39	N/A	USSR	5	N/A
Brazil	756	22.8%	Slovenia	39	45.5%	Venezuela	5	17.4%
Spain	569	35.3%	Singapore	34	67.1%	Brunei	4	53.3%
France	443	47.9%	Croatia	31	47.9%	Faroe Islands	4	60.5%
Australia	442	90.4%	Pakistan	29	16.2%	Morocco	4	17.4%
Netherlands	338	48.5%	Nigeria	28	23.4%	North Macedonia	4	14.4%
Sweden	314	77.2%	Saudi Arabia	27	13.2%	Qatar	4	13.8%
Japan	302	79.0%	Slovak Republic	21	35.3%	Uganda	4	19.8%
Mexico	249	21.6%	Uruguay	20	59.3%	Ethiopia	3	16.2%
China	246	41.9%	Peru	19	32.9%	Iraq	3	12.0%
India	238	22.8%	Indonesia	18	22.8%	Kuwait	3	8.4%
Switzerland	229	47.9%	Estonia	17	45.5%	Macao SAR	3	N/A
Portugal	220	41.3%	Thailand	17	18.6%	Malawi	3	32.3%
Argentina	218	17.4%	Egypt	16	17.4%	Netherlands Ant.	3	N/A
Chile	199	35.9%	Luxembourg	16	38.9%	Albania	2	34.1%
Austria	184	57.5%	Bangladesh	15	18.0%	Armenia	2	9.0%
Norway	183	53.9%	Vietnam	15	42.5%	Belarus	2	62.9%
Poland	164	39.5%	Lebanon	14	9.0%	Montenegro	2	17.4%
Israel	133	50.3%	Bulgaria	13	23.4%	Paraguay	2	14.4%
Greece	132	42.5%	Ecuador	13	15.6%	UAE	2	12.6%
Denmark	123	63.5%	Philippines	12	17.4%	Zimbabwe	2	22.2%
Turkey	117	17.4%	Costa Rica	10	18.0%	Bolivia	1	15.0%
South Africa	113	52.1%	Cyprus	9	38.3%	Fiji	1	40.7%
Finland	108	28.7%	Lithuania	9	39.5%	Kazakhstan	1	17.4%
New Zealand	108	68.9%	Iceland	8	77.8%	Mauritius	1	37.7%
Czech Republic	103	44.9%	Malta	8	15.6%	Monaco	1	47.9%
Russia	102	68.9%	Sri Lanka	8	15.6%	Nepal	1	19.2%
Belgium	101	47.9%	Ghana	7	45.5%	Nicaragua	1	92.8%
Korea, DPR	94	52.1%	Jordan	7	16.8%	Palestine	1	17.4%
Colombia	85	17.4%	Kenya	7	17.4%	Panama	1	15.0%
Ireland	74	15.0%	Oman	7	16.8%	Senegal	1	39.5%
Taiwan	70	N/A	Tunisia	7	17.4%	Uzbekistan	1	17.4%
Iran	67	6.0%	Ukraine	7	15.0%	Zambia	1	55.7%

Our main source of data for the "Percent Open" variable is the 2021 UNESCO COVID-19 education response dashboard.[1] To construct the variable, we count the number of days the dataset lists as "Closed due to COVID-19" or "Academic break," divide by 167 (the total number of days between Jan 1 and July 31, 2020), and subtract from 1 to get the openness measure. For the United States, we use the Center for Global Development database for the number of COVID-19-related school closures through July 1, 2020 as only academic breaks are listed in the UNESCO data.[2] Finally, the UNESCO database appears to have some errors for Finland, Greece, and South Africa. We use more recent local news sources to correct these. The specific modifications are as follows:

1. According to the UNESCO dataset, Finland's schools were fully closed from 18 March to 14 May, 2020, and had an academic break from 15 May to 12 August, 2020. However, we found news articles stating that Finnish schools fully opened from 14 May to 30 May, 2020 and incorporated this information into our openness measure.[3]

2. According to the UNESCO dataset, Greek schools had an academic break starting on June 16, 2020. However, we found news articles stating that the school year was extended to June 26, 2020, and updated our openness measure to reflect this.[4]

3. According to the UNESCO dataset, South Africa's schools were partially open starting on June 1, 2020 and fully closed before this date. However, we found new articles stating that the government postponed school re-openings until June 8, 2020, and updated our openness measure to reflect this.[5]

Table A.2 shows the gender differences in partner employment measures. Partners of men spent significantly less time daily (over 2 hours less) in paid employment both pre- and post-COVID-19. Men are also significantly more likely to have a partner who does not work in paid employment

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[1] Available from http://covid19.uis.unesco.org/global-monitoring-school-closures-covid19. Accessed December 1, 2021. Note that Taiwan is not listed in the UNESCO database, and we therefore omit these respondents from our analysis of school openness. We also omit respondents from Hong Kong due to possible differences between its closure policies and that of mainland China.

[2] Available from https://www.cgdev.org/media/covid-19-education-policy-tracker. Accessed December 1, 2021.

[3] See https://www.helsinkitimes.fi/finland/finland-news/domestic/17695-thl-schools-will-have-some-coronavirus-cases-but-risk-of-wide-spread-is-low.html. Accessed December 13, 2021. We thus code Finnish schools as fully closed from 18 March to 13 May, 2020, fully open from 13 May to 30 May, 2020, and on academic break from 31 May to 12 August, 2020.

[4] See https://www.thenationalherald.com/greek-primary-schools-kindergartens-will-be-in-session-june-1-26-extending-the-usual-academic-year/. Accessed December 13, 2021.

[5] See https://www.africanews.com/2020/06/10/95-percent-of-schools-reopen-in-south-africa-after-virus-lockdown/. Accessed December 13, 2021.

(stay-at-home partner) both pre- and past-pandemic. Since the pandemic, the gender gap in the probability of having a stay-at-home partner has increased significantly (see the last row).

Table A.2: Summary Statistics of Partner Employment Variables, by Gender

Variable	Men	Women	t-test p-value
Partner Employment (daily hours pre-COVID)	5.709	8.043	<0.001
Partner Employment (daily hours post-COVID)	4.333	6.459	<0.001
Share with Stay-at-Home Partner (pre-COVID)	0.210	0.052	<0.001
Share with Stay-at-Home Partner (post-COVID)	0.278	0.091	<0.001
Change in stay-home probability of partner	0.068	0.039	<0.001

B. Analysis of Other Time Use Variables

Tables B.1 and B.2 provide estimates of Equation (1) in the paper for the other time use variables. Relative to the pre-pandemic average, we find that both fathers and mothers with a stay-at-home partner increased time spent on other job-related activities, sleep, and other activities relative to those without (Table B.1, Columns 1, 3, and 4). The change in time spent commuting is unaffected by the presence of a stay-at-home partner (Column 2). There was no significant difference in this change between men and women with stay-at-home partners. However, academic mothers had on average larger decreases in commute time, sleep time, and time spent on other activities compared to academic fathers.

Table B.1: Effects of Having a Stay at Home Partner on the Change in Time Use by Gender

Variable	ΔOtherJob	ΔCommute	ΔSleep	ΔOther
	(1)	(2)	(3)	(4)
Female	-0.0813	-0.0907***	-0.143***	-0.104***
	(0.0548)	(0.0247)	(0.0267)	(0.0400)
Home Partner	0.195**	0.0382	0.0976**	0.176**
	(0.0838)	(0.0383)	(0.0382)	(0.0717)
Female + Home Partner	-0.0934	0.0146	-0.0286	-0.0810
	(0.180)	(0.0815)	(0.0887)	(0.143)
Dep. Var. Mean	-0.539	-1.050	-0.152	-0.395
R-squared	0.0276	0.0247	0.0316	0.0262
No. Observations	5553	5553	5553	5553

Notes: Sample restricted to respondents with youngest child under 12 years of age in the household. Estimates from OLS regressions with controls for PhD year and date of survey completion FE. Significance levels: * $p<0.10$; **$p<0.05$; ***$p<0.01$.

Access to public school is associated with a statistically equal increase in time spent on other job-related activities for mothers and fathers of young children (Table B.2, Column 1). Columns 2 and 3 of Table B.2 indicate that parents in countries where schools were open experienced greater commute times and slept less than parents in countries where schools were closed. School openness does not have a statistically different effect on academic mothers compared to academic fathers on these three dimensions. Finally, Column 4 shows that fathers of young children are more likely to engage in other activities when schools are open than mothers of young children.

Table B.2: Effects of Primary School Openness on the Change in Time Use by Gender

Variable	ΔOtherJob	ΔCommute	ΔSleep	ΔOther
	(1)	(2)	(3)	(4)
Female	-0.0382	-0.0326	-0.207***	0.141
	(0.142)	(0.0661)	(0.0688)	(0.112)
Openness	0.803***	0.467***	-0.204**	0.525***
	(0.201)	(0.0960)	(0.0924)	(0.171)
Female + Openness	-0.227	-0.153	0.122	-0.632***
	(0.306)	(0.143)	(0.143)	(0.243)
Dep. Var. Mean	-0.514	-1.048	-0.172	-0.407
R-squared	0.0290	0.0294	0.0319	0.0241
No. Observations	5773	5773	5773	5773

Notes: Sample restricted to respondents with youngest child under 12 years of age in the household. Estimates from OLS regressions with controls PhD year and date of survey completion. Significance levels: * $p<0.10$; **$p<0.05$; ***$p<0.01$.

C. Additional Specifications and Robustness Checks

Table C.1 replicates the analysis in Table 1 in the paper, but defines the stay-at-home partner variable as 1 when the respondent's partner had zero hours in paid employment post-COVID-19 and 0 otherwise. We find broadly similar results as with the definition based on pre-COVID employment status. The only difference is that the post-COVID measure indicates that mothers of young children with a stay-at-home partner benefit significantly less in terms of childcare reductions than do fathers with a stay-at-home partner (Column 2).

Table C.1: Effects of Having a Stay at Home Partner Post-COVID on the Change in Time Use by Gender

Variable	ΔResearch	ΔChildcare	ΔHousework
	(1)	(2)	(3)
Female	-0.422***	0.679***	0.143***
	(0.0600)	(0.0626)	(0.0294)
Home Partner	0.350***	-0.866***	-0.00398
	(0.0865)	(0.0767)	(0.0396)
Female + Home Partner	0.00275	0.381**	-0.281***
	(0.165)	(0.166)	(0.0771)
Dep. Var. Mean	-1.576	2.903	0.809
R-squared	0.0393	0.101	0.0264
No. Observations	5551	5551	5551

Notes: Partner employment measured post-COVID. Sample restricted to respondents with youngest child under 12 years of age in the household. Estimates from OLS regressions with controls for PhD year and date of survey completion FE. Significance levels: * $p<0.10$; **$p<0.05$; ***$p<0.01$.

Table C.2 replicates the analysis in Table 1 in the paper, but defines the stay-at-home partner variable as 1 when the respondent's partner worked two or fewer hours in paid employment pre-COVID-19 and 0 otherwise. We again find similar results as reported in Table 1. The only noteworthy difference is that having a stay-at-home partner is now associated with a significant reduction in housework for fathers, but the reduction is still larger for mothers, on average.

Table C.2: Effects of Having a Stay at Home or Partly Employed Partner on the Change in Time Use by Gender

Variable	ΔResearch	ΔChildcare	ΔHousework
	(1)	(2)	(3)
Female	-0.403***	0.688***	0.115***
	(0.0590)	(0.0618)	(0.0291)
Home Partner	0.495***	-0.953***	-0.0843**
	(0.0892)	(0.0762)	(0.0395)
Female + Home Partner	0.138	0.223	-0.214**
	(0.189)	(0.179)	(0.0946)
Dep. Var. Mean	-1.576	2.902	0.809
R-squared	0.0432	0.104	0.0263
No. Observations	5553	5553	5553

Table C.3 replicates the analysis in Table 2 and confirms that the results do not change substantially when we omit respondents from the United States.

Variable	ΔResearch	ΔChildcare	ΔHousework
	(1)	(2)	(3)
Female	-0.853***	0.804***	0.107
	(0.157)	(0.148)	(0.0762)
Openness	0.221	-1.017***	-0.934***
	(0.222)	(0.204)	(0.103)
Female + Openness	0.685**	-0.0366	0.0315
	(0.327)	(0.330)	(0.151)
Dep. Var. Mean	-1.478	2.656	0.836
R-squared	0.0476	0.0840	0.0691
No. Observations	3496	3496	3496

Tables C.4 and C.5 replicate the analysis in Tables 1 and 2, respectively, for parents with the youngest child in the household younger than 8 years of age. The results are not substantively different, but the magnitudes of the effects increase when we look at younger children.

Table C.4: Effects of Having a Stay at Home Partner on the Change in Time Use (Youngest Child under 8)

Variable	ΔResearch	ΔChildcare	ΔHousework
	(1)	(2)	(3)
Female	-0.426***	0.771***	0.130***
	(0.0666)	(0.0715)	(0.0334)
Home Partner	0.563***	-1.038***	-0.00382
	(0.108)	(0.0944)	(0.0480)
Female + Home Partner	0.223	0.151	-0.453***
	(0.222)	(0.215)	(0.0948)
Dep. Var. Mean	-1.751	3.197	0.815
R-squared	0.0472	0.106	0.0354
No. Observations	4230	4230	4230

Table C.5: Effects of Primary School Openness on the Change in Time Use (Youngest Child under 8)

Variable	ΔResearch	ΔChildcare	ΔHousework
	(1)	(2)	(3)
Female	-0.995***	0.999***	0.125
	(0.182)	(0.187)	(0.0901)
Openness	0.0620	-0.644**	-0.917***
	(0.263)	(0.257)	(0.123)
Female + Openness	1.051***	-0.0583	-0.00839
	(0.387)	(0.414)	(0.185)
Dep. Var. Mean	-1.764	3.240	0.805
R-squared	0.0454	0.0840	0.0593
No. Observations	4312	4312	4312

Finally, Table C.6 reports estimates from a specification where we include both school openness and stay-at-home partner variables and their interactions with gender. The results are not substantively different from when we analyze the influence of each factor separately.

Table C.6: Effects of Having a Stay at Home Partner and Primary School Openness on the Change in Time Use

Variable	ΔResearch	ΔChildcare	ΔHousework
	(1)	(2)	(3)
Female	-0.773***	0.732***	0.0976
	(0.164)	(0.161)	(0.0815)
Home Partner	0.500***	-0.986***	-0.0488
	(0.0999)	(0.0836)	(0.0432)
Openness	-0.0610	-0.625***	-1.040***
	(0.231)	(0.220)	(0.110)
Female + Home Partner	0.106	0.284	-0.245**
	(0.205)	(0.199)	(0.103)
Female + Openness	0.841**	-0.0960	0.109
	(0.347)	(0.354)	(0.167)
Dep. Var. Mean	-1.570	2.926	0.798
R-squared	0.0464	0.106	0.0572
No. Observations	5093	5093	5093

Notes: Sample restricted to respondents with youngest child under 12 years of age in the household. Estimates from OLS regressions with controls for PhD year and date of survey completion FE. Significance levels: * $p<0.10$; **$p<0.05$; ***$p<0.01$.