Appendix for Heat Exposure and Youth Migration in Central America and the Caribbean

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Table 1—Summary Statistics

Sample	Women		Men	
	Mean	SD	Mean	SD
Urban	0.594	0.491	0.584	0.493
Male	0.000	0.000	1.000	0.000
Migrate	0.044	0.204	0.043	0.203
After	0.566	0.496	0.563	0.496
Age 15-25	0.348	0.476	0.356	0.479
Age 26-35	0.242	0.428	0.233	0.423
Age 36-45	0.191	0.393	0.189	0.391
Age 46-55	0.131	0.338	0.132	0.338
Age 56-65	0.088	0.283	0.090	0.286
Five-year precipitation average	1312.086	652.232	1314.937	663.910
Has primary education	0.687	0.464	0.715	0.451
Lives in provincial capital	0.010	0.101	0.010	0.099
Lives in country capital	0.007	0.084	0.006	0.077
After × Age 15-25	0.190	0.392	0.196	0.397
After × Age 26-35	0.132	0.339	0.126	0.332
After × Age 36-45	0.111	0.314	0.108	0.310
After × Age 46-55	0.080	0.272	0.079	0.270
Temp	0.750	0.593	0.736	0.593
Temp × After × Age 15-25	0.145	0.396	0.148	0.399
Temp × After × Age 26-35	0.100	0.334	0.092	0.321
Temp × After × Age 36-45	0.085	0.311	0.080	0.302
Temp × After × Age 46-55	0.062	0.270	0.060	0.265
Temp × After	0.434	0.586	0.422	0.581
Temp × Age 15-25	0.262	0.501	0.264	0.501
Temp × Age 26-35	0.179	0.430	0.168	0.417
Temp × Age 36-45	0.143	0.392	0.138	0.385
Temp × Age 46-55	0.099	0.334	0.098	0.332
N	8,599,759		7,883,317	

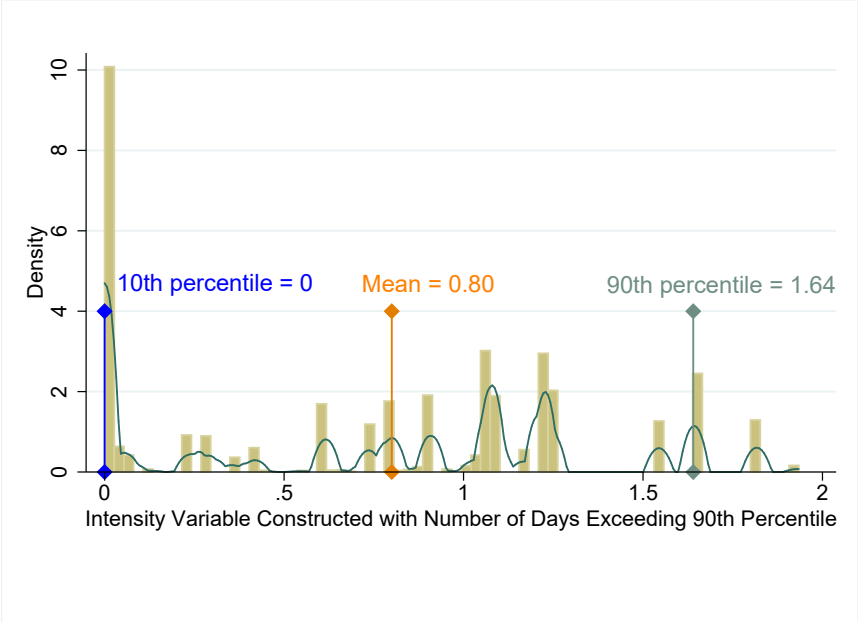

Figure 1. Distribution of Heat Exposure

Table 2—Double-Difference Regression

	Women Parameter (SE)	Men Parameter (SE)
Age 15-25	0.02899	0.01845
	(0.00141)	(0.00155)
Age 26-35	0.02631	0.02714
	(0.00137)	(0.00136)
Age 36-45	0.00959	0.01422
	(0.00116)	(0.00126)
Age 46-55	0.00184	0.00395
	(0.00116)	(0.00112)
Age 15-25 × After	-0.01033	-0.00964
	(0.00187)	(0.00202)
Age 26-35 × After	-0.00333	-0.00423
	(0.00172)	(0.00175)
Age 36-45 × After	-0.00003	-0.00189
	(0.00172)	(0.00174)
Age 46-55 × After	-0.00124	-0.00179
	(0.00193)	(0.00190)
Constant	-0.00319	-0.00942
	(0.01356)	(0.01472)
R-squared	0.063	0.052
Observations	8,599,759	7,883,317

Note: The sample used for the regressions include the following seven countries: Costa Rica, Dominican Republic, El Salvador, Haiti, Mexico, Nicaragua and Panama. Covariates include primary education, 5-year average rainfall, 5-year average rainfall squared, year and province origin fixed-effects. Origin province by birth year clustered standard errors in parentheses.

Table 3—Balancing Table for Male Sample

Age Provinces	15-35 Affected	36-65 Affected	Diff.1	15-35 Unaffected	36-65 Unaffected	Diff.2	Diff.1- Diff.2	P-value
Migrate 15-25	0.068	0.050	0.018	0.048	0.036	0.013	0.005	0.926
Primary education	0.820	0.609	0.211	0.795	0.583	0.212	-0.001	0.963
Precipitation	1168.637	1144.389	24.247	1389.310	1419.278	-29.968	54.215	0.487

Note: N=7,883,317. Precipitation=five-year precipitation average. Origin province by birth year clustered standard errors in parentheses.

Table 4—Balancing Table for Female Sample

Age Provinces	15-35 Affected	36-65 Affected	Diff.1	15-35 Unaffected	36-65 Unaffected	Diff.2	Diff.1- Diff.2	P-value
Migrate 15-25	0.073	0.046	0.026	0.051	0.030	0.020	0.006	0.510
Primary education	0.797	0.540	0.257	0.806	0.533	0.273	-0.016	0.515
Precipitation	1179.222	1141.894	37.328	1362.077	1396.440	-34.362	71.690	0.390

Note: N=8,599,759. Precipitation=five-year precipitation average. Origin province by birth year clustered standard errors in parentheses.

Table 5—Heat-Induced Migration Patterns of the Skilled

Sample estination	Any	Women National Capital	Provincial Capital	Any	Men National Capital	Provincial Capital
Temp × After × Age 15-25	-0.00341	-8.54e-05	0.00219	-0.00344	0.00128	0.00154
	(0.00714)	(0.00133)	(0.00267)	(0.00691)	(0.00109)	(0.00240)
Temp × After × Age 26-35	-0.000726	0.00178	0.00155	-0.00304	0.000928	0.000621
	(0.00792)	(0.00138)	(0.00281)	(0.00838)	(0.00128)	(0.00263)
Temp × After × Age 36-45	-0.000593	0.00129	0.000867	-0.00317	0.00103	-0.000190
	(0.00701)	(0.00128)	(0.00285)	(0.00757)	(0.00117)	(0.00263)
Temp × After × Age 46-55	0.00242	0.00115	0.00111	-0.00357	0.00116	-0.000474
	(0.00812)	(0.00159)	(0.00353)	(0.00851)	(0.00136)	(0.00317)
Constant	-0.0155	-0.0222	-0.0271	-0.0128	-0.0171	-0.0201
	(0.0155)	(0.00359)	(0.00539)	(0.0168)	(0.00305)	(0.00538)
Mean temp	0.737	0.738	0.734	0.737	0.738	0.735
Mean control migration rate	0.028	0.002	0.011	0.032	0.001	0.011
R-squared	0.06	0.22	0.09	0.06	0.25	0.09
Observations	5,911,671	5,671,182	5,691,381	5,637,068	5,404,629	5,427,480

Note: Same variables included as the specifications in Table 1, except education is omitted. Skilled includes those who have completed their primary education. Origin province by birth year clustered standard errors in parentheses.

Table 6—Impact of Cumulative Heat Exposure on the Natural Logarithm of GDP

Unit of Analysis	Province	Country
Temp	-0.00957	-0.0263
	(0.0300)	(0.0252)
Constant	4.336	4.107
	(0.333)	(1.124)
Observations	123	147

Note: Temp represents the standardized number of excessive heat days experienced over five-year period. GDP is adjusted by PPP in 2011 international dollars and scaled by a billion. All regressions include 5-year average rainfall, 5-year average rainfall squared, province(country), and year fixed effects. Province(country)-clustered standard errors in parentheses.