## A hedonic valuation of sanitation services in Guatemala

William F. Vásquez<sup>1</sup> and Laura Beaudin<sup>2\*</sup>

## **ONLINE APPENDIX**

<sup>&</sup>lt;sup>1</sup>Department of Economics, Fairfield University, Fairfield, CT, USA and <sup>2</sup>Department of Economics, Bryant University, Smithfield, RI, USA

<sup>\*</sup>Corresponding author. E-mail: <a href="mailto:lbeaudin@bryant.edu">lbeaudin@bryant.edu</a>

Table A1. Observations by department and year

Department	2006	2011	2014	Total
Guatemala	146	189	219	554
El Progreso	45	48	24	117
Sacatepéquez	79	66	92	237
Chimaltenango	16	25	22	63
Escuintla	42	50	63	155
Santa Rosa	33	22	6	61
Sololá	20	11	11	42
Totonicapán	8	19	8	35
Quetzaltenango	45	81	51	177
Suchitepéquez	37	35	41	113
Retalhuleu	60	32	19	111
San Marcos	13	8	15	36
Huehuetenango	9	12	12	33
Quiché	21	18	20	59
Baja Verapaz	10	8	9	27
Alta Verapaz	8	12	4	24
Peten	21	17	22	60
Izabal	37	35	9	81
Zacapa	42	42	23	107
Chiquimula	31	25	21	77
Jalapa	18	20	22	60
Jutiapa	38	35	19	92
Total	779	810	732	2,321

**Table A2.** Definition and descriptive statistics of identifying variables (n = 2,318)

Variable	Description	Mean	S.D.
NONPOOR	If the household is non poor $(1 = Yes; 0 = Otherwise)$	0.651	0.477
HHSIZE	Household size		1.977
AGE	Age of the household head (in years)	40.312	13.498
FEMALE	If the household head is female $(1 = Yes; 0 = Otherwise)$	0.295	0.456
INDIGENOUS	If the household head self-identified as indigenous $(1 = Yes; 0 = Otherwise)$	0.168	0.374
EDUCATED	If household head completed at least high school $(1 = Yes; 0 = Otherwise)$	0.168	0.374

Table A3. Estimated coefficients on identifying variables in the selection equation

Variable	Model 1	Model 2	
NONPOOR	-0.1691***	-0.3199***	
	[0.0605]	[0.1035]	
HHSIZE	-0.0223*	-0.0346	
	[0.0120]	[0.0225]	
AGE	-0.0187***	-0.0186***	
	[0.0016]	[0.0032]	
FEMALE	0.1379***	0.0442	
	[0.0447]	[0.0746]	
INDIGENOUS	-0.2555***	-0.1318	
	[0.0549]	[0.1014]	
EDUCATED	-0.171**	-0.3978***	
	[0.0662]	[0.0963]	

*Notes:* \*\*\*, \*\*, \* imply significance at 1%, 5%, and 10% levels respectively. Robust standard errors are reported in parentheses.

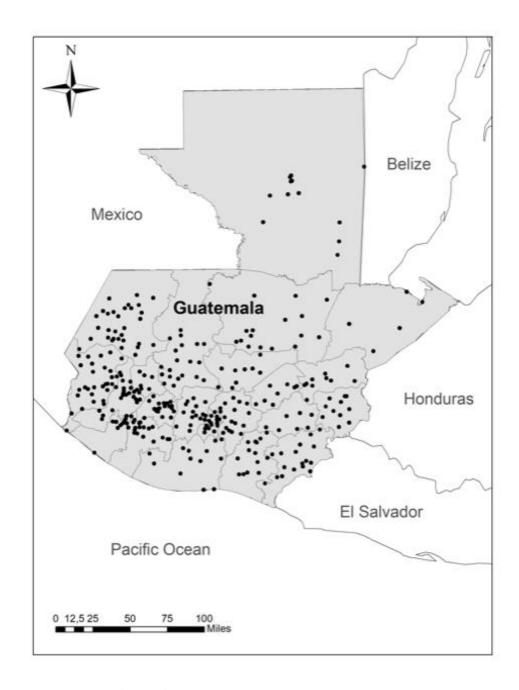


Figure A1. Municipal capitals of Guatemala