

Local-Continuity Validity Tests

PEP-RAMV RD design – Wave 1 (2020) and Wave 2 (2021)

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Overview. This appendix tests the two main identifying assumptions of the RD design at the RAMV deadline (June 8, 2018): no manipulation of the running variable and continuity of pre-treatment characteristics. The running variable is reflected days from the deadline; eligible (PEP-eligible) households are those whose first member arrived strictly before the deadline. The sample is restricted to JEEA's analysis sample (orden in {1,2}, sample_reg=1).

1. McCrary density test

Tests for endogenous sorting (manipulation) of the running variable at the cutoff. Under valid identification the density of arrival dates is continuous at the deadline (large p-value = no manipulation).

Wave	T statistic	p-value	Verdict
Wave 1 (2020)	0.905	0.365	PASS
Wave 2 (2021)	0.657	0.511	PASS

Notes: 'PASS' = $p > 0.10$ (no evidence of manipulation); 'marginal' = $0.05 < p < 0.10$; 'FAIL' = $p < 0.05$. Estimated using *rddensity* with the local-quadratic, jackknife-variance defaults.

2. Covariate balance at the cutoff

Sharp RD on each predetermined characteristic, separately by wave. Under continuity of potential outcomes none should jump significantly. The covariates are JEEA's full pre-migration set: demographics (age, sex, education, time in Colombia, child born in VZ), pre-migration economic conditions (job offer in CO, work in VZ, occupation type, written contract, days worked, smartphone, homeownership, utilities), and family/migration network (parents/spouse/other HH born in VZ, healthy at migration, friends/family in CO).

Variable	W1 coef	W1 SE	W1 p	W2 coef	W2 SE	W2 p
Female [=1]	0.011	0.075	0.881	-0.026	0.086	0.764
Age (years)	-1.092	1.785	0.541	-0.560	2.164	0.796
Years of education	1.254**	0.399	0.002	1.827**	0.405	0.000
Years in Colombia	-0.732	1.017	0.471	-1.632	1.244	0.190
Had a job offer in Colombia [=1]	-0.107+	0.064	0.095	-0.089	0.084	0.286
Worked in Venezuela [=1]	0.015	0.018	0.396	0.023	0.032	0.463
Worked in agric./manual (VZ) [=1]	-0.055	0.071	0.440	0.183+	0.107	0.088
Worked in services (VZ) [=1]	0.109*	0.052	0.037	0.087	0.060	0.149
Worked in skilled occ. (VZ) [=1]	-0.071	0.067	0.289	-0.080	0.074	0.280

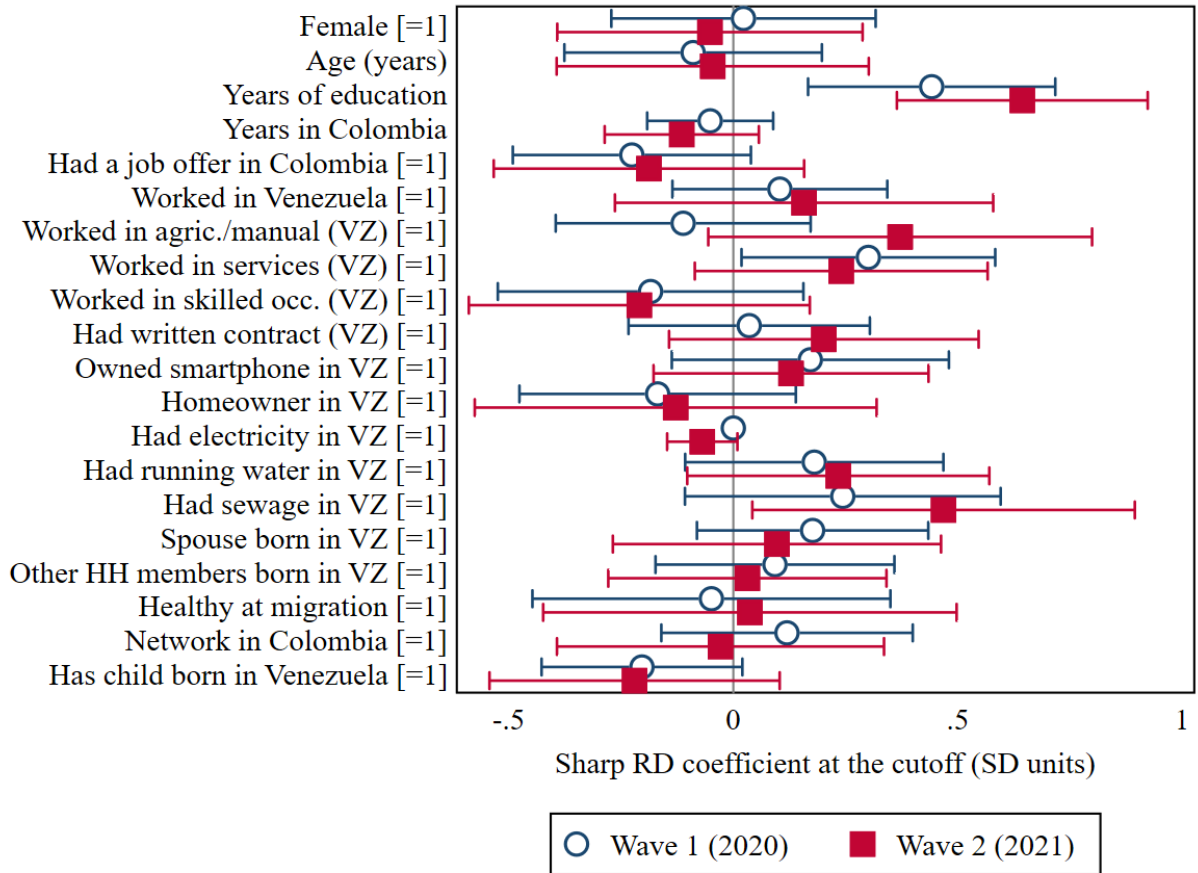
Had written contract (VZ) [=1]	0.018	0.068	0.797	0.100	0.088	0.252
Owned smartphone in VZ [=1]	0.085	0.078	0.276	0.064	0.077	0.411
Homeowner in VZ [=1]	-0.058	0.054	0.283	-0.044	0.078	0.574
Had electricity in VZ [=1]	0.000	0.000	.	-0.005+	0.003	0.083
Had running water in VZ [=1]	0.062	0.050	0.219	0.080	0.059	0.173
Had sewage in VZ [=1]	0.060	0.044	0.174	0.115*	0.053	0.031
Spouse born in VZ [=1]	0.088	0.065	0.179	0.048	0.093	0.603
Other HH members born in VZ [=1]	0.028	0.041	0.495	0.009	0.048	0.843
Healthy at migration [=1]	-0.015	0.061	0.810	0.011	0.071	0.875
Network in Colombia [=1]	0.053	0.063	0.403	-0.013	0.082	0.878
Has child born in Venezuela [=1]	-0.304+	0.170	0.074	-0.329	0.246	0.182
Notes: + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Sharp rdrobust at MSE-optimal bw, triangular kernel.						

Rejections at $p < 0.05$: W1 = 2 / 20 W2 = 2 / 20 (chance ≈ 1)

2b. Balance coefficient plot (standardized)

Sharp-RD jump at the cutoff for each predetermined covariate, expressed in within-sample standard-deviation units. Hollow circles are Wave-1 (2018) estimates and filled squares are Wave-2 (2022) estimates; horizontal bars are 95% CIs (conventional rdrobust SE). A confidence interval that covers the dashed zero line indicates the covariate is balanced at the cutoff.

Covariate balance at the RAMV cutoff



Notes: Each row is a sharp RD on a predetermined characteristic measured at the time of arrival in Colombia. Markers are point estimates from rdrobust (MSE-optimal bw, triangular kernel); horizontal bars are 95% CIs (conventional). All variables are standardized to mean 0 / SD 1 within the JEEA analysis sample, so the coefficient is the jump at the cutoff in SD units. CIs that cover zero indicate the covariate is balanced. '[=1]' denotes binary indicators.