Permutation tests using o800 == 1

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Group level mean as a unit of observation. Use coin package's independence_test: Approximate permutation tests by randomly resampling 100000 times.

TABLE 1: PERMUTATION TEST RESULTS

Variables	*P* values (%)			
	Traditional	Large	LargeGrace	Cattle
HeadLiteracy	30.0	56.1	92.0	92.0
HeadAge	98.8	98.8	94.2	89.7
HHsize	75.3	53.2	75.3	58.2
FloodInRd1	99.1	99.1	35.6	31.2
HAssetAmount	97.6	87.8	97.6	97.6
PAssetAmount	39.9	68.2	5.8	97.8
NumCows	75.7	75.7	76.9	47.8
NetValue	57.0	61.2	61.2	48.7
BroadNetValue	57.9	58.8	58.8	48.7
RiskPrefVal	89.8	73.7	89.8	78.2
TimePref1Val	21.5	51.7	86.4	85.3
TimePref2Val	18.3	72.6	71.6	73.4
PresentBias	97.9	97.9	93.6	97.9
Attrition	93.8	33.8	93.8	30.3
N	176	200	200	200

Source: Estimated with GUK administrative and survey data.

Notes: R's package coin is used on the baseline group mean covariates to conduct approximate permutation tests at the group level. Number of repetition is set to 100000. Number of groups is 72. Holm's step-down method is used to adjust for multiple testing of a multi-factor grouping variable. For example, for the traditional arm, comparisons are made against other three arms, while the same comparisons are made in other arms against traditional. Specifically, independence_test function is used for permutation tests and pvalue function is applied with an option method = "step-down". HeadLiteracy is an indicator variable of household head literacy. HeadAge is age of household head. HHsize is total number of household members. FloodInRd1 is an indicator variable of flood exposure. HAssetAmount and PAssetAmount are amount of household and productive assets, respectively, in BDT, NumCows is cattle holding per household. NetValue is net asset values in BDT per housheold using asset items observed in all 4 rounds. BroadNetValue is net asset values in BDT per housheold for all asset items. Attrited indicates attrition rates in the household survey, and GRejected and IRejected show group rejection rates and individual rejection rates to the lending program. Non-attriting borrowers indicates the ratio of non-attriting borrowers to all borrowers. Because attrition and rejection are separate events, a household can reject and attrit, so non-attrited borrowers ⩾ total - (rejected members + attrited members). USD 1 is about BDT 80. RiskPrefIndex is an index where a larger number is associated with more risk tolerance. TimePref1Index is an index where a larger number is associated with greater future discounting in a 3 month time frame, and TimePref2Index is in a 1 year and 3 month time frame. RiskPrefVal is the minimum expected monetary value of the risky option that a respondent chose over a certainty option. Lower values indicate a greater risk tolerance. TimePref1val is the respondent's choice of the minimum expected monetary value of future benefits in a 3 month time frame over the present monetary benefit, and TimePref2Val is in a 1 year and 3 month time frame. Lower values indicate a greater patience. If a respondent's TimePref1val is greater than TimePref2val, the respondent is considered to be present-biased. PresentBias is an indicator function that takes the value of 1 if the respondent is considered to be present-biased, 0 otherwise.

Household as a unit of observation.

TABLE 2: PERMUTATION TEST RESULTS AT HOUSEHOLD LEVEL

Variables	Means and p values (%)			
	Traditional	Large	LargeGrace	Cattle
HeadLiteracy	0.097	0.110	0.105	0.155
	(19.5)	(65.5)	(84.0)	(84.0)
HeadAge	38.43	37.47	38.41	38.02
	(93.5)	(91.0)	(91.0)	(72.4)
HHsize	4.091	4.295	4.245	4.115
	(64.2)	(64.1)	(64.2)	(59.3)
FloodInRd1	0.463	0.618	0.407	0.497
	(100.0)	(48.8)	(1.0)	(0.0)
HAssetAmount	726	768	761	780
	(97.5)	(94.1)	(98.6)	(98.6)
PAssetAmount	985	1208	1949	768
	(34.0)	(78.1)	(5.1)	(94.3)
NumCows	0.217	0.325	0.270	0.206
	(46.1)	(58.0)	(73.8)	(23.0)
NetValue	5272	7613	6770	4716
	(24.7)	(58.1)	(58.1)	(24.7)
BroadNetValue	5876	8285	7449	5338
	(24.1)	(55.6)	(55.6)	(24.1)
RiskPrefVal	115	108	113	110
	(65.8)	(28.1)	(65.8)	(28.1)
TimePref1Val	374	373	376	407
	(2.7)	(57.9)	(57.9)	(57.9)
TimePref2Val	483	485	476	512
	(3.2)	(72.2)	(36.5)	(72.2)
PresentBias	0.470	0.450	0.479	0.458
	(97.0)	(97.0)	(96.3)	(96.3)
N	176	200	200	200

Source: stimated with GUK administrative and survey data.

Notes: R's package coin is used on baseline covariates to conduct approximate permutation tests. For each variable, the first row indicates means and the second row indicates p values in percentages of permutation tests. Number of repetition is set to 100000. Step-down method is used to adjust for multiple testing of a multi-factor grouping variable. P values for observed test statistic and the null distribution are expressed in per centage units.