Permutation tests

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Seiro Ito

Contents

Use the 'trimmed' sample (has all 800 members) rather than the 'initial' sample (has only 776 members after dropping members who received loans only twice). To set to the trimmed sample, set the parameter UseTrimmedSample to T.

```
UseTrimmedSample ← T
TestMedian ← F
```

```
ar ← readRDS(paste0(pathsaveHere, DataFileNames[3], "Trimmed.rds"))
arA ← readRDS(paste0(pathsaveHere, DataFileNames[2], "Trimmed.rds"))
ass ← readRDS(paste0(pathsaveHere, DataFileNames[4], "Trimmed.rds"))
lvo ← readRDS(paste0(pathsaveHere, DataFileNames[5], "Trimmed.rds"))
NeA ← readRDS(paste0(pathsaveHere, "NetAssetsANCOVATrimmed.rds"))
rkL ← readRDS(paste0(pathsaveHere, "RiskPreferences.rds"))
if (Only800) ar ← ar[o800 == 1L, ]
```

There are 92 members who attrited.

```
addmargins(table0(ar[tee==1 & o800==1 & AttritIn<9, .(BStatus,AttritIn)]))
```

	AttritIn			
BStatus	2	3	4	Sum
borrower	8	6	8	22
pure saver	0	0	0	0
individual rejection	10	4	1	15
group rejection	11	4	0	15
rejection by flood	12	0	28	40
Sum	41	14	37	92

```
#addmargins(table(ar[mid == 1 & Time == 1, .(BStatus, Arm)]), 1:2, sum, T)
#addmargins(table(ar[mid == 1 & Time == 4, .(BStatus, Arm)]), 1:2, sum, T)
# "ar" is roster
# AttritIn is created as below in read_cleaned_data.rnw
# (465): xid[, AttritIn := 9L]
# (466): xid[grepl("^En|^2nd and 4", missing_followup), AttritIn := 4L]
# (467): xid[grepl("^3rd and 4", missing_followup), AttritIn := 3L]
# (468): xid[grepl("^2.*3.*4", missing_followup), AttritIn := 2L]
```

```
ar[, Tee := max(survey), by = hhid]
arA[, Tee := max(survey), by = hhid]
ass[, Tee := max(survey), by = hhid]
lvo[, Tee := max(survey), by = hhid]
```

Correct AttritIn for these 24 members. Keep only the 1st obs for all members.

```
addmargins(table(ar[tee == 1 & grepl("tw|dou", TradGroup), AttritIn]))
```

```
  9 Sum
 24  24
```

```
#ar[Tee == 1 & AttritIn == 9 & grepl("tw|dou", TradGroup), AttritIn := 2L]
```

There are 24 members with TradGroup = twice, double. They were dropped from estimation sample. If UseTrimmedSample==T, attrition is based on all 800 members, if F, attrition is analysed using 786 members.

```
if (!UseTrimmedSample) ar ← ar[!grepl("tw|dou", TradGroup), ]
addmargins(table0(ar[o800 == 1L & tee == 1, .(Tee, AttritIn)]))
```

```
# psas: asset data
psas ← ass[tee == 1, .(hhid, tee, HAssetAmount, PAssetAmount)]
pslv ← lvo[tee == 1, .(hhid, tee, TotalImputedValue, NumCows)]
pne ← NeA[tee == 1, .(hhid, tee, NetValue)]
setkey(pslv, hhid, tee)
setkey(pne, hhid, tee)
# pslv: livestock data + net assets data
pslv ← pne[pslv]
```

```
source(paste0(pathprogram, "AttritionPermutationTableHeaders.R"))
armerge ← ar[, c("hhid", "mid", "o800", "TradGroup", "BStatus", "AttritIn", "survey", "te
  vartobetested[1:5]), with = F]
armerge[, En := 1:.N, by = .(hhid, Time)]
armerge[, Tee := .N, by = .(hhid, mid, Time)]
armerge ← armerge[En == 1 & Time == 1 & o800 == 1, ]
as ← merge(armerge, psas, by = c("hhid", "tee"), all.x = T)
asv0 ← merge(as, pslv, by = c("hhid", "tee"), all.x = T)
addmargins(table0(asv0[!grepl("tw|dou", TradGroup), .(Arm, AttritIn)]))
```

```
             AttritIn
Arm             2   3   4   9 Sum
  traditional   8   4  20 144 176
  large         5   2   1 192 200
  large grace  23   3   3 171 200
  cow           5   5  13 177 200
  Sum          41  14  37 684 776
```

```
# add risk preferences
rsk ← rkL[, c("hhid", "respondent_mid", grepout("Ch|Val", colnames(rkL))), with = F]
setnames(rsk, c("respondent_mid", grepout("Ch", colnames(rsk))),
  c("rskmid", gsub("Change.", "", grepout("Ch", colnames(rsk)))))
ToNum ← grepout("^.p", colnames(rsk))
rsk[, (ToNum) := lapply(.SD, function(x) as.numeric(as.character(x))), .SDcols = ToNum]
setnames(rsk, ToNum, c("RiskPrefIndex", "TimePref1Index", "TimePref2Index"))
# keep only rational respondents of risk preferences
rsk ← rsk[RiskPref ≥ 0, ]
```

```
Error: オブジェクト 'RiskPref' がありません
```

```
asv ← merge(asv0, rsk, "hhid", all.x = T)
```

```
# use tee==4 to define attrition, where tee is survey round in asset and livestock
# while tee in roster is meeting number (must rename survey to tee)
asv[, Attrited := 0L]
asv[hhid %in% hhid[AttritIn < 9], Attrited := 1L]
addmargins(table0(asv[!grepl("tw|dou", TradGroup), .(Arm, Attrited)]))
```

```
             Attrited
Arm             0   1 Sum
  traditional 144  32 176
  large       192   8 200
  large grace 171  29 200
  cow         177  23 200
  Sum         684  92 776
```

```
asv[, c("Rejected", "GRejected", "IRejected") := 0L]
asv[grepl("^[ig].*rej", BStatus), Rejected := 1L]
asv[grepl("^i.*rej", BStatus), IRejected := 1L]
asv[grepl("^g.*rej", BStatus), GRejected := 1L]
asv[, Survived := 1L]
asv[Attrited == 1 | Rejected == 1, Survived := 0L]
```

Attrition of members who were not affected by floods.

```
addmargins(table0(asv[!grepl("flo", BStatus) & Rejected == 0, .(Attrited, Arm)]))
```

```
        Arm
Attrited traditional large large grace cow Sum
     0          107   164         160 147 578
     1            2     7           7   6  22
     Sum        109   171         167 153 600
```

```
# these are HHs with two disbursements under traditional; read_admin_data.rnw(472)
# adw[(loanamount1st == 5600 & loanamount2nd == 5600 & loanamount3rd == 5600) |
#   (!is.na(DisDate1) & !is.na(DisDate2) & !is.na(DisDate3)),
#   TradGroup := "planned"]
# adw[loanamount1st == 5600 & loanamount2nd == 11200,
#   TradGroup := "double"]
# adw[(loanamount1st == 7840 & loanamount2nd == 8960) |
#   (!is.na(DisDate1) & !is.na(DisDate2) & is.na(DisDate3)),
#   TradGroup := "twice"]
# adw[, TradGroup := factor(TradGroup, levels = c("planned", "twice", "double"))]
```

```
# data to use in each tests: TradNonTradAttrited, AttritedInTrad, TradNonTradRejected, IRe
# drop 2 loan receivers
asv1 ← asv[!grepl("tw|dou", TradGroup), ]
# drop group rejecters
asv2 ← asv[!grepl("gr", BStatus), ]
# drop 2 loan receivers and group rejecters
asv3 ← asv[!grepl("gr", BStatus) & !grepl("tw|dou", TradGroup), ]
asvT ← asv[grepl("tra", Arm), ]
asvNT ← asv[!grepl("tra", Arm), ]
# data to be used for each tested variable
datalist ← rep("asv", length(vartobetested))
datalist1 ← paste0(datalist, 1) # drop 2 loan receivers
datalist2 ← paste0(datalist, 2) # drop group rejecters
datalist3 ← paste0(datalist, 3) # drop 2 loan receivers and group rejecters
datasets ← "asv"
```

```
datasets1 ← paste0(datasets, 1)
datasets2 ← paste0(datasets, 2)
datasets3 ← paste0(datasets, 3)
for (k in 1:3) {
  addchar ← c("f", "t", "j")[k]
  Datasets ← get(paste0("datasets", c("", 1, 2)[k]))
  for (dd in Datasets) {
    xdd ← get(dd)
    # all members all arms: attrited vs. nonattrited
    xa ← xdd
    assign(paste0(dd, "a", addchar), xa)
    # all in trad: attrition vs. nonattrition
    xTa ← xdd[grepl("trad", Arm), ]
    assign(paste0(dd, "Ta", addchar), xTa)
    # all in nontrad: attrition vs. nonattrition
    xNTa ← xdd[!grepl("trad", Arm), ]
    assign(paste0(dd, "NTa", addchar), xNTa)
    # attrited members in all arms: trad vs. nontrad
    xTNTa ← xdd[Attrited == 1L, ]
    xTNTa[, TradArm := 1L]; xTNTa[!grepl("trad", Arm), TradArm := 0L]
    assign(paste0(dd, "TNTa", addchar), xTNTa)
    # all members except flood victims: attrited vs. nonattrited
    xNFa ← xdd[!grepl("floo", BStatus), ]
    assign(paste0(dd, "NFa", addchar), xNFa)
    # all except flood victims in trad: attrition vs. nonattrition
    xNFTa ← xdd[!grepl("floo", BStatus) & grepl("trad", Arm), ]
    assign(paste0(dd, "NFTa", addchar), xNFTa)
    # all except flood victims in nontrad: attrition vs. nonattrition
    xNFNTa ← xdd[!grepl("floo", BStatus) & !grepl("trad", Arm), ]
    assign(paste0(dd, "NFNTa", addchar), xNFNTa)
    # attrited members except flood victims in all arms: trad vs. nontrad
    xNFTNTa ← xdd[!grepl("floo", BStatus) & Attrited == 1L, ]
    xNFTNTa[, TradArm := 1L]; xNFTNTa[!grepl("trad", Arm), TradArm := 0L]
    assign(paste0(dd, "NFTNTa", addchar), xNFTNTa)
    # attrited members except flood victims in all arms: cow vs. noncow
    xNFCNCa ← xdd[!grepl("floo", BStatus) & Attrited == 1L, ]
    xNFCNCa[, CowArm := 1L]; xNFCNCa[!grepl("cow", Arm), CowArm := 0L]
    assign(paste0(dd, "NFCNCa", addchar), xNFCNCa)
    # attrited members except flood victims: cow vs. large grace
    xNFCGa ← xdd[!grepl("floo", BStatus) & grepl("cow|gr", Arm) & Attrited == 1L, ]
    xNFCGa[, CowArm := 1L]; xNFCGa[!grepl("cow", Arm), CowArm := 0L]
    assign(paste0(dd, "NFCGa", addchar), xNFCGa)
    # surviving (neither attrited nor rejected) members except flood victims
    # (these people are considered not fit for the offered program)
    # survival in all arms
    xs ← xdd
    assign(paste0(dd, "s", addchar), xs)
    # survival in trad: attrition vs. nonattrition
    xTs ← xdd[grepl("trad", Arm), ]
    assign(paste0(dd, "Ts", addchar), xTs)
    # survival in nontrad: attrition vs. nonattrition
    xNTs ← xdd[!grepl("trad", Arm), ]
    assign(paste0(dd, "NTs", addchar), xNTs)
    # survived members in all arms: trad vs. nontrad
    xTNTs ← xdd[Survived == 1L, ]
    xTNTs[, TradArm := 1L]; xTNTs[!grepl("trad", Arm), TradArm := 0L]
```

```
assign(paste0(dd, "TNTs", addchar), xTNTs)
# survived members: cow vs. noncow
xCNCs ← xdd[!grepl("floo", BStatus) & Survived == 1L, ]
xCNCs[, CowArm := 1L]; xCNCs[!grepl("cow", Arm), CowArm := 0L]
assign(paste0(dd, "CNCs", addchar), xCNCs)
# survived members: cow vs. lsge grace
xCGs ← xdd[!grepl("floo", BStatus) & grepl("cow|gr", Arm) & Survived == 1L, ]
xCGs[, CowArm := 1L]; xCGs[!grepl("cow", Arm), CowArm := 0L]
assign(paste0(dd, "CGs", addchar), xCGs)
# all rejection all arms: rejected vs. nonrejected
xr ← xdd
assign(paste0(dd, "r", addchar), xr)
# all rejection in trad: rejected vs. nonrejected
xTr ← xdd[grepl("trad", Arm), ]
assign(paste0(dd, "Tr", addchar), xTr)
# all rejection in nontrad: rejected vs. nonrejected
xNTr ← xdd[!grepl("trad", Arm), ]
assign(paste0(dd, "NTr", addchar), xNTr)
# all rejection: trad rejecetd vs. nontrad rejected
xTNTr ← xdd[Rejected == 1L, ]
xTNTr[, TradArm := 1L]; xTNTr[!grepl("trad", Arm), TradArm := 0L]
assign(paste0(dd, "TNTr", addchar), xTNTr)
# all rejection: cow rejecetd vs. noncow rejected
xCNCr ← xdd[Rejected == 1L, ]
xCNCr[, CowArm := 1L]; xCNCr[!grepl("cow", Arm), CowArm := 0L]
assign(paste0(dd, "CNCr", addchar), xCNCr)
# all rejection: cow rejecetd vs. large grace rejected
xCLGr ← xdd[grepl("cow|gr", Arm) & Rejected == 1L, ]
xCLGr[, CowArm := 1L]; xCLGr[!grepl("cow", Arm), CowArm := 0L]
assign(paste0(dd, "CLGr", addchar), xCLGr)
# all acceptance: cow accepted vs. noncow accepted
xCNCa ← xdd[Rejected == 0L, ]
xCNCa[, CowArm := 1L]; xCNCa[!grepl("cow", Arm), CowArm := 0L]
assign(paste0(dd, "CNCa", addchar), xCNCa)
# all acceptance: cow accepted vs. large grace accepted
xCLGa ← xdd[grepl("cow|gr", Arm) & Rejected == 0L, ]
xCLGa[, CowArm := 1L]; xCLGa[!grepl("cow", Arm), CowArm := 0L]
assign(paste0(dd, "CLGa", addchar), xCLGa)
# group rejection in all arms: rejected vs. nonrejected
xgr ← xdd
assign(paste0(dd, "gr", addchar), xgr)
# group rejection in trad: rejecters vs. nonrejecters
xTgr ← xdd[grepl("tra", Arm), ]
assign(paste0(dd, "Tgr", addchar), xTgr)
# group rejection in nontrad: rejecters vs. nonrejecters
xNTgr ← xdd[!grepl("tra", Arm), ]
assign(paste0(dd, "NTgr", addchar), xNTgr)
# group rejection: trad rejecters vs. nontrad rejecters
xTNTgr ← xdd[GRejected == 1L, ]
xTNTgr[, TradArm := 1L]; xTNTgr[!grepl("trad", Arm), TradArm := 0L]
assign(paste0(dd, "TNTgr", addchar), xTNTgr)
# individual rejection in all arms: rejected vs. nonrejected
# individual rejecters vs. all except group rejecters
# group rejecters are excluded because they preceded indiv rejection
xir ← xdd[!grepl("gr", BStatus), ]
assign(paste0(dd, "ir", addchar), xir)
```

```
    # individual rejection in trad: rejecters vs. nonrejecters
    xTir ← xdd[grepl("tra", Arm) & !grepl("gr", BStatus), ]
    assign(paste0(dd, "Tir", addchar), xTir)
    # individual rejection in nontrad: rejecters vs. nonrejecters
    xNTir ← xdd[!grepl("tra", Arm) & !grepl("gr", BStatus), ]
    assign(paste0(dd, "NTir", addchar), xNTir)
    # individual rejection: trad rejecters vs. nontrad rejecters
    xTNTir ← xdd[!grepl("gr", BStatus) & Rejected == 1L, ]
    xTNTir[, TradArm := 1L]; xTNTir[!grepl("trad", Arm), TradArm := 0L]
    assign(paste0(dd, "TNTir", addchar), xTNTir)
    # trad group rejecters vs. nontrad participants
    xTNTgrp ← xdd[(grepl("gr", BStatus) & grepl("trad", Arm) & Rejected == 1L) |
      (grepl("bo", BStatus) & !grepl("trad", Arm)), ]
    xTNTgrp[, TradArm := 1L]; xTNTgrp[!grepl("trad", Arm), TradArm := 0L]
    assign(paste0(dd, "TNTgrp", addchar), xTNTgrp)
    # trad group vs. nontrad group
    xTNTrandom ← xdd
    xTNTrandom[, TradArm := 1L]; xTNTrandom[!grepl("trad", Arm), TradArm := 0L]
    assign(paste0(dd, "TNTrandom", addchar), xTNTrandom)
  }
}

# data names: ..af, ..rf  (full), ..at, ..rt (drop 2 loan receivers), ..aj, ..rj (drop gro
# data to use: datalist (full), datalist1 (drop 2 loan receivers), datalist2 (drop group n
library(coin)
PM ← vector(mode = "list", length = 3)
for (k in 1:3) {
  addchar ← c("f", "t", "j")[k]
  dataList ← eval(parse(text=paste0("datalist", c("", 1:2))[k]))
  if (addchar == "j") M ← 9 else M ← length(selection.criteria)
  Pm ← vector(mode = "list", length = M)
  for (m in 1:M) {
    set.seed(100+m)
    if (grepl("^Attrited$", addtofilename[m]))
      DataList ← gsub("$", paste0("a", addchar), dataList) else
    if (grepl("^AttritedInTrad", addtofilename[m]))
      DataList ← gsub("$", paste0("Ta", addchar), dataList) else
    if (grepl("^AttritedInNonTrad", addtofilename[m]))
      DataList ← gsub("$", paste0("NTa", addchar), dataList) else
    if (grepl("^TradNonTradAttrited$", addtofilename[m]))
      DataList ← gsub("$", paste0("TNTa", addchar), dataList) else
    if (grepl("^NonFloodAttrited$", addtofilename[m]))
      DataList ← gsub("$", paste0("NFa", addchar), dataList) else
    if (grepl("^NonFloodAttritedInTrad$", addtofilename[m]))
      DataList ← gsub("$", paste0("NFTa", addchar), dataList) else
    if (grepl("^NonFloodAttritedInNonTrad$", addtofilename[m]))
      DataList ← gsub("$", paste0("NFNTa", addchar), dataList) else
    if (grepl("^NonFloodTradNonTradAttrited$", addtofilename[m]))
      DataList ← gsub("$", paste0("NFTNTa", addchar), dataList) else
    if (grepl("^NonFloodAttritedCowN", addtofilename[m]))
      DataList ← gsub("$", paste0("NFCNCa", addchar), dataList) else
    if (grepl("^NonFloodAttritedCowL", addtofilename[m]))
      DataList ← gsub("$", paste0("NFCGa", addchar), dataList) else
    if (grepl("^Survived$", addtofilename[m]))
      DataList ← gsub("$", paste0("s", addchar), dataList) else
    if (grepl("^SurvivedInTrad", addtofilename[m]))
```

```
      DataList ← gsub("$", paste0("Ts", addchar), dataList) else
    if (grepl("^SurvivedInNonTrad", addtofilename[m]))
      DataList ← gsub("$", paste0("NTs", addchar), dataList) else
    if (grepl("^SurvivingTradNonTrad", addtofilename[m]))
      DataList ← gsub("$", paste0("TNTs", addchar), dataList) else
    if (grepl("^SurvivingCowN", addtofilename[m]))
      DataList ← gsub("$", paste0("CNCs", addchar), dataList) else
    if (grepl("^SurvivingCowL", addtofilename[m]))
      DataList ← gsub("$", paste0("CGs", addchar), dataList) else
    if (grepl("^Random", addtofilename[m]))
      DataList ← gsub("$", paste0("TNTrandom", addchar), dataList) else
    if (grepl("^Rejected$", addtofilename[m]))
      DataList ← gsub("$", paste0("r", addchar), dataList) else
    if (grepl("^Rej.*InTrad$", addtofilename[m]))
      DataList ← gsub("$", paste0("Tr", addchar), dataList) else
    if (grepl("^Rej.*InNonTrad$", addtofilename[m]))
      DataList ← gsub("$", paste0("NTr", addchar), dataList) else
    if (grepl("^TradNonTradR", addtofilename[m]))
      DataList ← gsub("$", paste0("TNTr", addchar), dataList) else
    if (grepl("^GRejected$", addtofilename[m]))
      DataList ← gsub("$", paste0("gr", addchar), dataList) else
    if (grepl("^GRej.*InTrad$", addtofilename[m]))
      DataList ← gsub("$", paste0("Tgr", addchar), dataList) else
    if (grepl("^GRej.*InNonTrad$", addtofilename[m]))
      DataList ← gsub("$", paste0("NTgr", addchar), dataList) else
    if (grepl("^TradNonTradGR", addtofilename[m]))
      DataList ← gsub("$", paste0("TNTgr", addchar), dataList) else
    if (grepl("^IRejected$", addtofilename[m]))
      DataList ← gsub("$", paste0("ir", addchar), dataList) else
    if (grepl("^IRej.*InTrad$", addtofilename[m]))
      DataList ← gsub("$", paste0("Tir", addchar), dataList) else
    if (grepl("^IRej.*InNonTrad$", addtofilename[m]))
      DataList ← gsub("$", paste0("NTir", addchar), dataList) else
    if (grepl("^TradNonTradIR", addtofilename[m]))
      DataList ← gsub("$", paste0("TNTir", addchar), dataList) else
    if (grepl("^GRejectedTradPar", addtofilename[m]))
      DataList ← gsub("$", paste0("TNTgrp", addchar), dataList) else
    if (grepl("^RejectedCowN", addtofilename[m]))
      DataList ← gsub("$", paste0("CNCr", addchar), dataList) else
    if (grepl("^RejectedCowLa", addtofilename[m]))
      DataList ← gsub("$", paste0("CLGr", addchar), dataList) else
    if (grepl("^AcceptedCowN", addtofilename[m]))
      DataList ← gsub("$", paste0("CNCa", addchar), dataList) else
    if (grepl("^AcceptedCowLa", addtofilename[m]))
      DataList ← gsub("$", paste0("CLGa", addchar), dataList) else
      DataList ← gsub("$", addchar, dataList)
    pmresults ← permmedian ← vector(mode = "list", length(vartobetested))
    for (i in 1:length(vartobetested)) {
      # if specific arm is selected, Arm is not compared in permutation
      if (grepl("Trad$|TradArm|Cow", addtofilename[m]) &
        vartobetested[i] == "Arm") next
      pmdata ← get(DataList[i])
      # drop NAs in vartobetested[i]
      pmdata ← pmdata[!is.na(eval(parse(text=vartobetested[i]))), ]
      # NULL if vartobetested[i] has uniform values (otherwise returns an error)
      if (length(unique(unlist(pmdata[, vartobetested[i], with = F]))) == 1)
```

```
      pmresults[[i]] ← NULL else
      pmresults[[i]] ← independence_test(eval(parse(text=
        paste(vartobetested[i], "~ as.factor(", selection.criteria[m], ")")
        )),
        data = pmdata,
        distribution = approximate(nresample=PermRepTimes))
    if (!TestMedian) next
    if (vartobetested[i] == "Arm" | length(unique(unlist(pmdata[, vartobetested[i], with
      permmedian[[i]] ← NULL else
      permmedian[[i]] ← median_test(eval(parse(text=
        paste(vartobetested[i], "~ as.factor(", selection.criteria[m], ")"))),
        data = pmdata,
        mid.score = "0.5",
        distribution = approximate(nresample=PermRepTimes))
  }
  #pmresults[[1]]@statistic@teststatistic
  Pmtresults ← NULL
  for (i in 1:length(vartobetested))
  {
    if (grepl("Trad$|TradArm|Cow", addtofilename[m]) &
      vartobetested[i] == "Arm") next
    z ← get(DataList[i])
    z ← z[!is.na(eval(parse(text=vartobetested[i]))), ]
    if (vartobetested[i] == "Arm") {
      Pmtresults ← rbind(Pmtresults,
        c(vartobetested[i],
          sum(!grepl("trad", unlist(z[eval(parse(text = selection.criteria[m])) == 0L,
            vartobetested[i], with = F])))/
            nrow(z[eval(parse(text = selection.criteria[m])) == 0L, ]),
          sum(!grepl("trad", unlist(z[eval(parse(text = selection.criteria[m])) == 1L,
            vartobetested[i], with = F])))/
            nrow(z[eval(parse(text = selection.criteria[m])) == 1L, ]),
          midpvalue(pmresults[[i]]),
          pvalue_interval(pmresults[[i]])))
    } else if (length(unique(unlist(z[, vartobetested[i], with = F]))) == 1)
    {
      # if both groups have no different values,
      # use 0 for all zero entries or 1 for unique nonzero entries
      if (allzerovalues ← unique(unlist(z[, vartobetested[i], with = F])) == 0)
        Pmtresults ← rbind(Pmtresults,
          c(vartobetested[i], 0, 0, rep(NA, 3))) else
        Pmtresults ← rbind(Pmtresults,
          c(vartobetested[i], 1, 1, rep(NA, 3)))
    } else {
      Pmtresults ← rbind(Pmtresults,
        c(vartobetested[i],
          mean(unlist(z[eval(parse(text = selection.criteria[m])) == 0L,
            vartobetested[i], with = F]), na.rm = T),
          mean(unlist(z[eval(parse(text = selection.criteria[m])) == 1L,
            vartobetested[i], with = F]), na.rm = T),
          midpvalue(pmresults[[i]]),
          pvalue_interval(pmresults[[i]])))
      if (TestMedian)
        Pmtresults ← rbind(Pmtresults,
          c("",
            median(unlist(z[eval(parse(text = selection.criteria[m])) == 0L,
```

```
                vartobetested[i], with = F]), na.rm = T),
              median(unlist(z[eval(parse(text = selection.criteria[m])) == 1L,
                vartobetested[i], with = F]), na.rm = T),
              midpvalue(permmedian[[i]]),
              pvalue_interval(permmedian[[i]])
            ))
      }
    }
    Pmtresults ← data.table(Pmtresults)
    setnames(Pmtresults, c("variables", paste0(c("Non", ""), selection.criteria[m]),
      "p-value.mid", "p-value.lower", "p-value.upper"))
    Pmtresults[grepl("Impute", variables),
      variables := gsub("To.*", "LivestockValue", variables)]
    cols ← grepout("p|er|ttr|eje|TradArm|CowA|Surv", colnames(Pmtresults))
    Pmtresults[, (cols) := lapply(.SD, as.numeric), .SDcols = cols]
    Pmtresults[, (cols) := lapply(.SD, formatC, digits = 3, format = "f"), .SDcols = cols
    cols ← grepout("ed$|TradArm|CowA", colnames(Pmtresults))
    Pmtresults[grepl("Ass|Liv|NetV", variables),
      (cols) := lapply(.SD, function(x) formatC(as.numeric(x), digits = 0, format = "f")),
      .SDcols = cols]
    setcolorder(Pmtresults, c("variables", paste0(c("Non", ""), selection.criteria[m]),
      "p-value.lower", "p-value.mid", "p-value.upper"))
    obs0L ← nrow(get(DataList[1])[eval(parse(text = selection.criteria[m])) == 0L, ])
    obs1L ← nrow(get(DataList[1])[eval(parse(text = selection.criteria[m])) == 1L, ])
    nobs ← t(c(NA, obs0L, obs1L, NA, obs1L/(obs0L+obs1L), NA))
    Pmtresults[, variables := paste0("\\makebox[2.5cm]{\\hfill ", variables, "}")]
    Pmtresults0 ← rbind(Pmtresults, nobs, use.names = F)
    Pmtresults0[nrow(Pmtresults0), variables := "\\makebox[2.5cm]{\\hfill n}"]
    Pm[[m]] ← Pmtresults0
    if (grepl("InNon|InTra|^TradNon|Cow", addtofilename[m]))
      Pmtresults ← Pmtresults[!grepl("Arm", variables), ]
    pmt ← latextab(as.matrix(Pmtresults),
      hleft = "\\scriptsize\\hfil$",
      hcenter = c(3, rep(1.5, ncol(Pmtresults)-1)),
      hright = "$",
      headercolor = "gray80", adjustlineskip = "-.2ex", delimiterline= NULL,
      alternatecolor = "gray90")
    pmt ← rbind(pmt[1:(nrow(pmt)-1), , drop = F],
        paste(c("\\makebox[2.5cm]{\\hfill n}",
          obs0L, obs1L, paste0("\\multicolumn{3}{1}{\\makebox[4.5cm]{\\scriptsize (rate: "
          formatC(obs1L/(obs0L+obs1L), digits = 3, format = "f"), ")\\hfill}}")),
          collapse = " & "),
        pmt[nrow(pmt), , drop = F]
      )
    write.tablev(pmt,
      paste0(pathsaveHere, addtofilename[m],
        c("Full", "", "DropGroupRejecters")[k], "PermutationTestResultso800.tex")
    , colnamestrue = F)
  }
  names(Pm) ← addtofilename[1:M]
  PM[[k]] ← Pm
}
names(PM) ← c("Full", "Drop2LoanReceivers", "DropGroupRejecters")
saveRDS(PM, paste0(pathsaveHere, "AllPermutationTestResults.rds"))
PM ← readRDS(paste0(pathsaveHere, "AllPermutationTestResults.rds"))
# indiv rejecters
```

```
Irej ← c("IRejectedInTrad", "IRejectedInNonTrad", "^IRejected$")
ir12 ←  cbind(
    PM[[2]][[grep(Irej[1], addtofilename)]][, c(1:3, 5)],
    PM[[2]][[grep(Irej[2], addtofilename)]][, c(2:3, 5)])
setnames(ir12, c("variables", 1:(ncol(ir12)-1)))
ir3 ← PM[[2]][[grep(Irej[3], addtofilename)]][, c(1:3, 5)]
setnames(ir3, c("variables", 10+1:(ncol(ir3)-1)))
ir3rows ← data.table(variables = ir3[, variables])
setkey(ir12, variables)
setkey(ir3, variables)
ir123 ← ir12[ir3]
ir123 ← ir123[ir3rows]
setnames(ir123, c("variables", paste0("v", 1:(ncol(ir123)-1))))
for (i in paste0("v", c(3, 6, 9)))
  ir123[nrow(ir123), (i) :=
    paste0("(\\mbox{rate }", formatC(as.numeric(eval(parse(text=i))), digits = 3, format =
#cnm ← t(c("\\makebox[3cm]{\\hfil variables}",
#  paste0("\\makebox[1.5cm]{\\hfil ", rep(c("Yes", "No", "$p$ value"), 3), "}")))
cnm ← t(c("\\makebox[2.5cm]{\\hfil }",
  paste0("\\makebox[1.2cm]{(", 1:(ncol(ir123)-1), ")}")))
irj ← as.matrix(rbind(cnm, ir123, use.names = F))
irj[is.na(irj)] ← ""
colnames(irj) ← c("variables", rep(c("Not rejected", "Rejected", "$p$ value"), 3))
irj ← latextab(irj,
  hleft = "\\scriptsize\\hfil$",
  hcenter = c(2.5, rep(1.2, ncol(Pmtresults)-1)),
  hright = "$",
  headercolor = "gray80", adjustlineskip = "-.2ex", delimiterline= NULL,
  alternatecolor = "gray90",
  addseparatingcols = c(3, 6),
  separatingcolwidth = rep(.1, 2),
  separatingcoltitle = c("\\textsf{Traditional} arm", "non-\\textsf{Traditional} arms", "A
  addsubcoltitlehere = T
  )
write.tablev(irj,
  paste0(pathsaveHere, "IndividualRejectionTestResults.tex")
, colnamestrue = F)
# survivors
Suv ← c("Ac.*NonCow", "Sur.*NonCow")
sv12 ←  cbind(
    PM[[2]][[grep(Suv[1], addtofilename)]][, c(1, 3, 2, 5)],
    PM[[2]][[grep(Suv[2], addtofilename)]][, c(3, 2, 5)])
setnames(sv12, c("variables", paste0("v", 1:(ncol(sv12)-1))))
for (i in paste0("v", c(3, 6)))
  sv12[nrow(sv12), (i) :=
    paste0("(\\mbox{rate }", formatC(as.numeric(eval(parse(text=i))), digits = 3, format =
cnm ← t(c("\\makebox[2.5cm]{\\hfil }",
  paste0("\\makebox[1.2cm]{(", 1:(ncol(sv12)-1), ")}")))
suv ← as.matrix(rbind(cnm, sv12, use.names = F))
colnames(suv) ← c("variables", rep(c("Cattle arm", "Other arms", "$p$ value"), 2))
suv ← latextab(suv,
  hleft = "\\scriptsize\\hfil$",
  hcenter = c(2.5, rep(1.2, ncol(suv)-1)),
  hright = "$",
  headercolor = "gray80", adjustlineskip = "-.2ex", delimiterline= NULL,
  alternatecolor = "gray90",
```

```
  addseparatingcols = 3,
  separatingcolwidth = .1,
  separatingcoltitle = c("Borrowers", "Non-attriting borrowers"),
  addsubcoltitlehere = T
  )
write.tablev(suv,
  paste0(pathsaveHere, "CowVsNonCowTestResults.tex")
, colnamestrue = F)

# data names: ..af, ..rf
# data to use: datalist
library(coin)
for (m in 1:length(selection.criteria)) {
  set.seed(100+m)
  if (grepl("^Attrited$", addtofilename[m]))
    DataList ← gsub("$", "af", datalist) else
  if (grepl("^AttritedInTrad", addtofilename[m]))
    DataList ← gsub("$", "Taf", datalist) else
  if (grepl("^AttritedInNonTrad", addtofilename[m]))
    DataList ← gsub("$", "NTaf", datalist) else
  if (grepl("^TradNonTradAttrited$", addtofilename[m]))
    DataList ← gsub("$", "TNTaf", datalist) else
  if (grepl("^Random", addtofilename[m]))
    DataList ← gsub("$", "TNTrandomf", datalist) else
  if (grepl("^Rejected$", addtofilename[m]))
    DataList ← gsub("$", "rf", datalist) else
  if (grepl("^Rej.*InTrad$", addtofilename[m]))
    DataList ← gsub("$", "Trf", datalist) else
  if (grepl("^Rej.*InNonTrad$", addtofilename[m]))
    DataList ← gsub("$", "NTrf", datalist) else
  if (grepl("^TradNonTradR", addtofilename[m]))
    DataList ← gsub("$", "TNTrf", datalist) else
  if (grepl("^GRejected$", addtofilename[m]))
    DataList ← gsub("$", "grf", datalist) else
  if (grepl("^GRej.*InTrad$", addtofilename[m]))
    DataList ← gsub("$", "Tgrf", datalist) else
  if (grepl("^GRej.*InNonTrad$", addtofilename[m]))
    DataList ← gsub("$", "NTgrf", datalist) else
  if (grepl("^TradNonTradGR", addtofilename[m]))
    DataList ← gsub("$", "TNTgrf", datalist) else
  if (grepl("^IRejected$", addtofilename[m]))
    DataList ← gsub("$", "irf", datalist) else
  if (grepl("^IRej.*InTrad$", addtofilename[m]))
    DataList ← gsub("$", "Tirf", datalist) else
  if (grepl("^IRej.*InNonTrad$", addtofilename[m]))
    DataList ← gsub("$", "NTirf", datalist) else
  if (grepl("^TradNonTradIR", addtofilename[m]))
    DataList ← gsub("$", "TNTirf", datalist) else
  if (grepl("^GRejectedTradPar", addtofilename[m]))
    DataList ← gsub("$", "TNTgrpf", datalist) else
  if (grepl("^AcceptedCowN", addtofilename[m]))
    DataList ← gsub("$", "CNCaf", datalist) else
  if (grepl("^AcceptedCowLa", addtofilename[m]))
    DataList ← gsub("$", "CLGaf", datalist) else
    DataList ← gsub("$", "f", datalist)
  pmresults ← vector(mode = "list", length(vartobetested))
```

```
for (i in 1:length(vartobetested)) {
  # if specific arm is selected, Arm is not compared in permutation
  if (grepl("Trad$|TradArm|Cow", addtofilename[m]) &
    vartobetested[i] == "Arm") next
  pmresults[[i]] ← independence_test(eval(parse(text=
    paste(vartobetested[i], "~ as.factor(", selection.criteria[m], ")"))),
    data = get(DataList[i]),
    distribution = approximate(nresample=PermRepTimes))
}
#pmresults[[1]]@statistic@teststatistic
Pmtresults ← NULL
for (i in 1:length(vartobetested))
{
  if (grepl("Trad$|TradArm|Cow", addtofilename[m]) &
    vartobetested[i] == "Arm") next
  z ← get(DataList[i])
  if (vartobetested[i] == "Arm")
    Pmtresults ← rbind(Pmtresults,
      c(vartobetested[i],
        sum(!grepl("trad", unlist(z[eval(parse(text = selection.criteria[m])) == 0L,
          vartobetested[i], with = F]))/
          nrow(z[eval(parse(text = selection.criteria[m])) == 0L, ]),
        sum(!grepl("trad", unlist(z[eval(parse(text = selection.criteria[m])) == 1L,
          vartobetested[i], with = F]))/
          nrow(z[eval(parse(text = selection.criteria[m])) == 1L, ]),
        midpvalue(pmresults[[i]]),
        pvalue_interval(pmresults[[i]])
        )) else
    Pmtresults ← rbind(Pmtresults,
      c(vartobetested[i],
        mean(unlist(z[eval(parse(text = selection.criteria[m])) == 0L,
          vartobetested[i], with = F]), na.rm = T),
        mean(unlist(z[eval(parse(text = selection.criteria[m])) == 1L,
          vartobetested[i], with = F]), na.rm = T),
          midpvalue(pmresults[[i]]),
        pvalue_interval(pmresults[[i]])
        ))
}
Pmtresults ← data.table(Pmtresults)
setnames(Pmtresults, c("variables", paste0(c("Non", ""), selection.criteria[m]),
  "p-value.mid", "p-value.lower", "p-value.upper"))
Pmtresults[grepl("Impute", variables),
  variables := gsub("To.*", "LivestockValue", variables)]
cols ← grepout("p|er|ttr|eje|TradArm|CowA", colnames(Pmtresults))
Pmtresults[,  (cols) := lapply(.SD, as.numeric), .SDcols = cols]
Pmtresults[,  (cols) := lapply(.SD, formatC, digits = 3, format = "f"), .SDcols = cols]
cols ← grepout("ed$|TradArm|CowA", colnames(Pmtresults))
Pmtresults[grepl("Ass|Liv|NetV", variables),
  (cols) := lapply(.SD, function(x) formatC(as.numeric(x), digits = 0, format = "f")),
  .SDcols = cols]
setcolorder(Pmtresults, c("variables", paste0(c("Non", ""), selection.criteria[m]),
  "p-value.lower", "p-value.mid", "p-value.upper"))
Pmtresults[, variables := paste0("\\makebox[3cm]{\\hfill ", variables, "}")]
if (grepl("InNon|InTra|^TradNon|Cow", addtofilename[m]))
  Pmtresults ← Pmtresults[!grepl("Arm", variables), ]
pmt ← latextab(as.matrix(Pmtresults),
```

```
    hleft = "\\scriptsize\\hfil$",
    hcenter = c(3, rep(1.5, ncol(Pmtresults)-1)),
    hright = "$",
    headercolor = "gray80", adjustlineskip = "-.2ex", delimiterline= NULL,
    alternatecolor = "gray90")
  obs0L ← nrow(get(DataList[1])[eval(parse(text = selection.criteria[m])) == 0L, ])
  obs1L ← nrow(get(DataList[1])[eval(parse(text = selection.criteria[m])) == 1L, ])
  pmt ← rbind(pmt[1:(nrow(pmt)-1), , drop = F],
      paste(c("\\makebox[3cm]{\\hfill n}",
       obs0L, obs1L, paste0("\\multicolumn{3}{1}{\\makebox[4.5cm]{\\scriptsize (rate: ",
       formatC(obs1L/(obs0L+obs1L), digits = 3, format = "f"), ")\\hfill}}")),
       collapse = " & "),
      pmt[nrow(pmt), , drop = F]
    )
  write.tablev(pmt,
    paste0(pathsaveHere, addtofilename[m], "FullPermutationTestResultso800.tex")
  , colnamestrue = F)
}
```

```
# data names: ..aj, ..rj
# data to use: datalist2
library(coin)
for (m in 1:7) {
  set.seed(100+m)
  if (grepl("^Attrited$", addtofilename[m]))
    DataList ← gsub("$", "aj", datalist2) else
  if (grepl("^AttritedInTrad", addtofilename[m]))
    DataList ← gsub("$", "Taj", datalist2) else
  if (grepl("^AttritedInNonTrad", addtofilename[m]))
    DataList ← gsub("$", "NTaj", datalist) else
  if (grepl("^TradNonTradAttrited$", addtofilename[m]))
    DataList ← gsub("$", "TNTaj", datalist2) else
  if (grepl("^Random", addtofilename[m]))
    DataList ← gsub("$", "TNTrandomj", datalist2) else
  if (grepl("^Rejected$", addtofilename[m]))
    DataList ← gsub("$", "rj", datalist2) else
  if (grepl("^Rej.*InTrad$", addtofilename[m]))
    DataList ← gsub("$", "Trj", datalist2) else
  if (grepl("^Rej.*InNonTrad$", addtofilename[m]))
    DataList ← gsub("$", "NTrj", datalist2) else
  if (grepl("^TradNonTradR", addtofilename[m]))
    DataList ← gsub("$", "TNTrj", datalist2) else
  if (grepl("^GRejected$", addtofilename[m]))
    DataList ← gsub("$", "grj", datalist2) else
  if (grepl("^GRej.*InTrad$", addtofilename[m]))
    DataList ← gsub("$", "Tgrj", datalist2) else
  if (grepl("^GRej.*InNonTrad$", addtofilename[m]))
    DataList ← gsub("$", "NTgrj", datalist2) else
  if (grepl("^TradNonTradGR", addtofilename[m]))
    DataList ← gsub("$", "TNTgrj", datalist2) else
  if (grepl("^IRejected$", addtofilename[m]))
    DataList ← gsub("$", "irj", datalist2) else
  if (grepl("^IRej.*InTrad$", addtofilename[m]))
    DataList ← gsub("$", "Tirj", datalist2) else
  if (grepl("^IRej.*InNonTrad$", addtofilename[m]))
    DataList ← gsub("$", "NTirj", datalist2) else
```

```
  if (grepl("^TradNonTradIR", addtofilename[m]))
    DataList ← gsub("$", "TNTirj", datalist2) else
  if (grepl("^GRejectedTradPar", addtofilename[m]))
    DataList ← gsub("$", "TNTgrpj", datalist2) else
  if (grepl("^AcceptedCowN", addtofilename[m]))
    DataList ← gsub("$", "CNCaj", datalist2) else
  if (grepl("^AcceptedCowLa", addtofilename[m]))
    DataList ← gsub("$", "CLGaj", datalist2) else
    DataList ← datalist2
  pmresults ← vector(mode = "list", length(vartobetested))
  for (i in 1:length(vartobetested)) {
    # if specific arm is selected, Arm is not compared in permutation
    if (grepl("Trad$|TradArm|Cow", addtofilename[m]) &
      vartobetested[i] == "Arm") next
    pmresults[[i]] ← independence_test(eval(parse(text=
      paste(vartobetested[i], "~ as.factor(", selection.criteria[m], ")"))),
      data = get(DataList[i]),
      distribution = approximate(nresample=PermRepTimes))
  }
  #pmresults[[1]]@statistic@teststatistic
  Pmtresults ← NULL
  for (i in 1:length(vartobetested))
  {
    if (grepl("Trad$|TradArm|Cow", addtofilename[m]) &
      vartobetested[i] == "Arm") next
    z ← get(DataList[i])
    if (vartobetested[i] == "Arm")
      Pmtresults ← rbind(Pmtresults,
        c(vartobetested[i],
          sum(!grepl("trad", unlist(z[eval(parse(text = selection.criteria[m])) == 0L,
            vartobetested[i], with = F])))/
            nrow(z[eval(parse(text = selection.criteria[m])) == 0L, ]),
          sum(!grepl("trad", unlist(z[eval(parse(text = selection.criteria[m])) == 1L,
            vartobetested[i], with = F])))/
            nrow(z[eval(parse(text = selection.criteria[m])) == 1L, ]),
          midpvalue(pmresults[[i]]),
          pvalue_interval(pmresults[[i]])
          )) else
      Pmtresults ← rbind(Pmtresults,
        c(vartobetested[i],
          mean(unlist(z[eval(parse(text = selection.criteria[m])) == 0L,
            vartobetested[i], with = F]), na.rm = T),
          mean(unlist(z[eval(parse(text = selection.criteria[m])) == 1L,
            vartobetested[i], with = F]), na.rm = T),
            midpvalue(pmresults[[i]]),
          pvalue_interval(pmresults[[i]])
          ))
  }
  Pmtresults ← data.table(Pmtresults)
  setnames(Pmtresults, c("variables", paste0(c("Non", ""), selection.criteria[m]),
    "p-value.mid", "p-value.lower", "p-value.upper"))
  Pmtresults[grepl("Impute", variables),
    variables := gsub("To.*", "LivestockValue", variables)]
  cols ← grepout("p|er|ttr|eje|TradArm|CowA", colnames(Pmtresults))
  Pmtresults[,  (cols) := lapply(.SD, as.numeric), .SDcols = cols]
  Pmtresults[,  (cols) := lapply(.SD, formatC, digits = 3, format = "f"), .SDcols = cols]
```

```
  cols ← grepout("ed$|TradArm|CowA", colnames(Pmtresults))
  Pmtresults[grepl("Ass|Liv|NetV", variables),
    (cols) := lapply(.SD, function(x) formatC(as.numeric(x), digits = 0, format = "f")),
    .SDcols = cols]
  setcolorder(Pmtresults, c("variables", paste0(c("Non", ""), selection.criteria[m]),
    "p-value.lower", "p-value.mid", "p-value.upper"))
  Pmtresults[, variables := paste0("\\makebox[3cm]{\\hfill ", variables, "}")]
  if (grepl("InNon|InTra|^TradNon|Cow", addtofilename[m]))
    Pmtresults ← Pmtresults[!grepl("Arm", variables), ]
  pmt ← latextab(as.matrix(Pmtresults),
    hleft = "\\scriptsize\\hfil$",
    hcenter = c(3, rep(1.5, ncol(Pmtresults)-1)),
    hright = "$",
    headercolor = "gray80", adjustlineskip = "-.2ex", delimiterline= NULL,
    alternatecolor = "gray90")
  obs0L ← nrow(get(DataList[1])[eval(parse(text = selection.criteria[m])) == 0L, ])
  obs1L ← nrow(get(DataList[1])[eval(parse(text = selection.criteria[m])) == 1L, ])
  pmt ← rbind(pmt[1:(nrow(pmt)-1), , drop = F],
      paste(c("\\makebox[3cm]{\\hfill n}",
       obs0L, obs1L, paste0("\\multicolumn{3}{1}{\\makebox[4.5cm]{\\scriptsize (rate: ",
       formatC(obs1L/(obs0L+obs1L), digits = 3, format = "f"), ")\\hfill}}")),
       collapse = " & "),
      pmt[nrow(pmt), , drop = F]
    )
  write.tablev(pmt,
    paste0(pathsaveHere, addtofilename[m], "DropGroupRejectersPermutationTestResultso800.t
  , colnamestrue = F)
}
```

```
# data names: ..at, ..rt
# data to use: datalist1
library(coin)
for (m in 1:length(selection.criteria)) {
  set.seed(100+m)
  if (grepl("^Attrited$", addtofilename[m]))
    DataList ← gsub("$", "at", datalist1) else
  if (grepl("^AttritedInTrad", addtofilename[m]))
    DataList ← gsub("$", "Tat", datalist1) else
  if (grepl("^TradNonTradAttrited$", addtofilename[m]))
    DataList ← gsub("$", "TNTat", datalist1) else
  if (grepl("^AttritedInNonTrad", addtofilename[m]))
    DataList ← gsub("$", "NTat", datalist) else
  if (grepl("^Random", addtofilename[m]))
    DataList ← gsub("$", "TNTrandomt", datalist1) else
  if (grepl("^Rejected$", addtofilename[m]))
    DataList ← gsub("$", "rt", datalist1) else
  if (grepl("^Rej.*InTrad$", addtofilename[m]))
    DataList ← gsub("$", "Trt", datalist1) else
  if (grepl("^Rej.*InNonTrad$", addtofilename[m]))
    DataList ← gsub("$", "NTrt", datalist1) else
  if (grepl("^TradNonTradR", addtofilename[m]))
    DataList ← gsub("$", "TNTrt", datalist1) else
  if (grepl("^GRejected$", addtofilename[m]))
    DataList ← gsub("$", "grt", datalist1) else
  if (grepl("^GRej.*InTrad$", addtofilename[m]))
    DataList ← gsub("$", "Tgrt", datalist1) else
```

```
  if (grepl("^GRej.*InNonTrad$", addtofilename[m]))
    DataList ← gsub("$", "NTgrt", datalist1) else
  if (grepl("^TradNonTradGR", addtofilename[m]))
    DataList ← gsub("$", "TNTgrt", datalist1) else
  if (grepl("^IRejected$", addtofilename[m]))
    DataList ← gsub("$", "irt", datalist1) else
  if (grepl("^IRej.*InTrad$", addtofilename[m]))
    DataList ← gsub("$", "Tirt", datalist1) else
  if (grepl("^IRej.*InNonTrad$", addtofilename[m]))
    DataList ← gsub("$", "NTirt", datalist1) else
  if (grepl("^TradNonTradIR", addtofilename[m]))
    DataList ← gsub("$", "TNTirt", datalist1) else
  if (grepl("^GRejectedTradPar", addtofilename[m]))
    DataList ← gsub("$", "TNTgrpt", datalist1) else
  if (grepl("^AcceptedCowN", addtofilename[m]))
    DataList ← gsub("$", "CNCat", datalist1) else
  if (grepl("^AcceptedCowLa", addtofilename[m]))
    DataList ← gsub("$", "CLGat", datalist1) else
    DataList ← datalist1
  pmresults ← vector(mode = "list", length(vartobetested))
  for (i in 1:length(vartobetested)) {
    # if specific arm is selected, Arm is not compared in permutation
    if (grepl("Trad$|TradArm|Cow", addtofilename[m]) &
      vartobetested[i] == "Arm") next
    pmresults[[i]] ← independence_test(eval(parse(text=
      paste(vartobetested[i], "~ as.factor(", selection.criteria[m], ")"))),
      data = get(DataList[i]),
      distribution = approximate(nresample=PermRepTimes))
  }
  #pmresults[[1]]@statistic@teststatistic
  Pmtresults ← NULL
  for (i in 1:length(vartobetested))
  {
    if (grepl("Trad$|TradArm|Cow", addtofilename[m]) &
      vartobetested[i] == "Arm") next
    z ← get(DataList[i])
    if (vartobetested[i] == "Arm")
      Pmtresults ← rbind(Pmtresults,
        c(vartobetested[i],
          sum(!grepl("trad", unlist(z[eval(parse(text = selection.criteria[m])) == 0L,
            vartobetested[i], with = F])))/
            nrow(z[eval(parse(text = selection.criteria[m])) == 0L, ]),
          sum(!grepl("trad", unlist(z[eval(parse(text = selection.criteria[m])) == 1L,
            vartobetested[i], with = F])))/
            nrow(z[eval(parse(text = selection.criteria[m])) == 1L, ]),
          midpvalue(pmresults[[i]]),
          pvalue_interval(pmresults[[i]])
          )) else
      Pmtresults ← rbind(Pmtresults,
        c(vartobetested[i],
          mean(unlist(z[eval(parse(text = selection.criteria[m])) == 0L,
            vartobetested[i], with = F]), na.rm = T),
          mean(unlist(z[eval(parse(text = selection.criteria[m])) == 1L,
            vartobetested[i], with = F]), na.rm = T),
            midpvalue(pmresults[[i]]),
          pvalue_interval(pmresults[[i]])
```

```
        ))
  }
  Pmtresults ← data.table(Pmtresults)
  setnames(Pmtresults, c("variables", paste0(c("Non", ""), selection.criteria[m]),
    "p-value.mid", "p-value.lower", "p-value.upper"))
  Pmtresults[grepl("Impute", variables),
    variables := gsub("To.*", "LivestockValue", variables)]
  cols ← grepout("p|er|ttr|eje|TradArm|CowA", colnames(Pmtresults))
  Pmtresults[, (cols) := lapply(.SD, as.numeric), .SDcols = cols]
  Pmtresults[, (cols) := lapply(.SD, formatC, digits = 3, format = "f"), .SDcols = cols]
  cols ← grepout("ed$|TradArm|CowA", colnames(Pmtresults))
  Pmtresults[grepl("Ass|Liv|NetV", variables),
    (cols) := lapply(.SD, function(x) formatC(as.numeric(x), digits = 0, format = "f")),
    .SDcols = cols]
  setcolorder(Pmtresults, c("variables", paste0(c("Non", ""), selection.criteria[m]),
    "p-value.lower", "p-value.mid", "p-value.upper"))
  Pmtresults[, variables := paste0("\\makebox[3cm]{\\hfill ", variables, "}")]
  if (grepl("InNon|InTra|^TradNon|Cow", addtofilename[m]))
    Pmtresults ← Pmtresults[!grepl("Arm", variables), ]
  pmt ← latextab(as.matrix(Pmtresults),
    hleft = "\\scriptsize\\hfil$",
    hcenter = c(3, rep(1.5, ncol(Pmtresults)-1)),
    hright = "$",
    headercolor = "gray80", adjustlineskip = "-.2ex", delimiterline= NULL,
    alternatecolor = "gray90")
  obs0L ← nrow(get(DataList[1])[eval(parse(text = selection.criteria[m])) == 0L, ])
  obs1L ← nrow(get(DataList[1])[eval(parse(text = selection.criteria[m])) == 1L, ])
  pmt ← rbind(pmt[1:(nrow(pmt)-1), , drop = F],
      paste(c("\\makebox[3cm]{\\hfill n}",
       obs0L, obs1L, paste0("\\multicolumn{3}{1}{\\makebox[4.5cm]{\\scriptsize (rate: ",
       formatC(obs1L/(obs0L+obs1L), digits = 3, format = "f"), ")\\hfill}}")),
       collapse = " & "),
      pmt[nrow(pmt), , drop = F]
    )
  write.tablev(pmt,
    paste0(pathsaveHere, addtofilename[m], "PermutationTestResultso800.tex")
  , colnamestrue = F)
}
```

```
ar ← readRDS(paste0(pathsaveHere, DataFileNames[3], "Trimmed.rds"))
if (!UseTrimmedSample) ar ← ar[!grepl("tw|dou", TradGroup), ]
if (Only800) ar ← ar[o800 == 1L, ]
# "ar" is roster
# below is what was processed in AttritionTestsContents2.rnw
ar[, Attrited := 1L]
ar[hhid %in% hhid[Time == 4], Attrited := 0L]
ar[, c("Rejected", "GRejected", "IRejected") := 0L]
ar[grepl("^[ig].*rej", BStatus), Rejected := 1L]
ar[grepl("^i.*rej", BStatus), IRejected := 1L]
ar[grepl("^g.*rej", BStatus), GRejected := 1L]
ar[, En := 1:.N, by = .(hhid, Time)]
ar[, Tee := .N, by = .(hhid, mid, Time)]
ar ← ar[En == 1 & Time == 1, ]
```

Among 800 observations, there are 4 whose villages are washd away and 70 who by group rejected the assigned arms which are traditional, large, large grace with 40, 20, 10, 0 individuals, respectively.

There are 31, 9, 13, 37 individuals who individually rejected traditional, large, large grace, cow, respectively. Among attrited HHs, when were they lost?

```
table(ar[Attrited == 1L, Tee])
```

```
 1
92
```

Reasons for attrition and relation to flood damage.

```
table0(ar[Attrited == 1L, .(FloodInRd1, BStatus)])
```

```
          BStatus
FloodInRd1 borrower individual rejection group rejection rejection by flood
      0          11                    7               2                  23
      1          11                    7              13                  17
      <NA>        0                    1               0                   0
```

```
table0(ar[Attrited == 1L, .(AssignOriginal, BStatus)])
```

```
              BStatus
AssignOriginal borrower individual rejection group rejection rejection by flood
   traditional        2                    6               0                  0
   large              7                    0               0                  0
   large grace        7                    2               0                  0
   cow                6                    7               0                  0
   <NA>               0                    0              15                 40
```

Use coin package's independence_test: Approximate permutation tests by randomly resampling 100000 times.

```
tb1 ← "\\hfil\\begin{minipage}[t]{14cm}\\hfil\\textsc{\\normalsize Table \\refstepcounter
tb2 ← "}\\\\\\\setlength{\\tabcolsep}{.5pt}\\setlength{\\baselineskip}{8pt}\\renewcommand{
tb3 ← "}};\\end{tikzpicture}\\\\\\\begin{tabular}{>{\\hfill\\scriptsize}p{1cm}<{}>{\\hfill
#tb4 ← ". Step-down method is used to adjust for multiple testing of a multi-factor group
\\\\& 3. & See the footnote of \\textsc{Table \\ref{tab MainTextIRjecters}} for descriptio
tb41 ← ". Step-down method is used to adjust for multiple testing of a multi-factor group
\\\\& 3. & See the footnote of \\textsc{Table \\ref{tab MainTextIRjecters}} for descriptio
tb42 ← ". Step-down method is used to adjust for multiple testing of a multi-factor group
tb43 ← ".\\\\& 2. &  See footnotes of \\textsc{Table \\ref{tab1 Permutation test results
tb44 ← ".\\\\& 2. &  See footnotes of \\textsc{Table \\ref{tab1 Permutation test results
for (k in 1:3)
  for (i in 1:length(HeaderDescription))
    assign(paste0("Tb", k, i),
      paste0(
        tb1
        ,
        HeaderDescription[i]
        ,
        paste0("\\label{", get(paste0("TabLabel", k))[i], "}")
        ,
        tb2
        ,
        paste0(pathsaveHere, addtofilename[i], c("", "Full", "DropGroupRejecters")[k],
          "PermutationTestResultso800.tex")
        ,
        tb3
        ,
```

```
        PermRepTimes
        ,
        #if (i %in% c(1, 5, 11, 17, 21, 25)) tb42 else tb41
        if (i==17) tb42 else if (i==18) tb41 else if (i %in% c(1, 5, 11, 21, 25)) tb43 els
        )
    )
```

.1 Trimmed sample

```
for (i in 1:length(HeaderDescription))
cat(eval(parse(text=paste0("Tb1", i))))
```

TABLE 1: PERMUTATION TEST RESULTS OF ATTRITION

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.115	0.130	0.609	0.670	0.731
HeadAge	37.996	38.598	0.591	0.593	0.595
HHsize	4.178	4.272	0.542	0.555	0.568
Arm	0.789	0.652	0.000	0.000	0.000
FloodInRd1	0.493	0.527	0.502	0.540	0.577
RiskPrefIndex	3.061	2.755	0.043	0.047	0.051
TimePref1Index	3.809	4.020	0.124	0.135	0.145
TimePref2Index	3.380	3.429	0.610	0.648	0.686
RiskPrefVal	110.248	127.660	0.000	0.000	0.001
TimePref1Val	381.639	404.082	0.280	0.292	0.304
TimePref2Val	490.000	485.714	0.826	0.870	0.913
HAssetAmount	763	741	0.832	0.834	0.836
PAssetAmount	1109	2181	0.105	0.105	0.105
LivestockValue	5124	5000	0.923	0.962	1.000
NumCows	0.256	0.250	0.924	0.962	1.000
NetValue	6786	7446	0.694	0.694	0.694
n	684	92	(rate: 0.119)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 17.

TABLE 2: PERMUTATION TEST RESULTS OF ATTRITION AMONG TRADITIONAL ARM

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.118	0.000	0.018	0.032	0.046
HeadAge	38.497	38.125	0.848	0.852	0.856
HHsize	4.167	3.750	0.137	0.147	0.156
FloodInRd1	0.479	0.387	0.326	0.377	0.428
RiskPrefIndex	3.028	2.696	0.112	0.127	0.142
TimePref1Index	3.804	3.957	0.303	0.347	0.391
TimePref2Index	3.406	3.348	0.556	0.628	0.700
RiskPrefVal	112.772	130.682	0.012	0.016	0.019
TimePref1Val	371.127	391.304	0.499	0.546	0.593
TimePref2Val	485.315	469.565	0.477	0.541	0.605
HAssetAmount	702	842	0.467	0.469	0.471
PAssetAmount	997	926	0.814	0.814	0.814
LivestockValue	4722	2581	0.283	0.335	0.386
NumCows	0.236	0.129	0.283	0.334	0.386
NetValue	6206	4343	0.442	0.442	0.442
n	144	32	(rate: 0.182)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 3: PERMUTATION TEST RESULTS OF ATTRITION AMONG NON-TRADITIONAL ARM

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.115	0.200	0.036	0.051	0.065
HeadAge	37.862	38.850	0.470	0.472	0.474
HHsize	4.181	4.550	0.061	0.064	0.067
FloodInRd1	0.497	0.600	0.102	0.120	0.138
RiskPrefIndex	3.070	2.808	0.165	0.180	0.195
TimePref1Index	3.810	4.077	0.162	0.181	0.200
TimePref2Index	3.373	3.500	0.358	0.399	0.441
RiskPrefVal	109.560	125.000	0.023	0.029	0.035
TimePref1Val	384.526	415.385	0.271	0.290	0.308
TimePref2Val	491.296	500.000	0.664	0.717	0.771
HAssetAmount	779	688	0.473	0.475	0.477
PAssetAmount	1139	2829	0.090	0.090	0.090
LivestockValue	5232	6531	0.499	0.531	0.563
NumCows	0.262	0.327	0.498	0.531	0.564
NetValue	6941	9409	0.256	0.256	0.256
n	540	60	(rate: 0.100)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 4: PERMUTATION TEST RESULTS OF ATTRITERS OF TRADITIONAL AND NON-TRADITIONAL ARMS

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.200	0.000	0.003	0.005	0.007
HeadAge	38.850	38.125	0.768	0.772	0.776
HHsize	4.550	3.750	0.021	0.023	0.026
FloodInRd1	0.600	0.387	0.048	0.062	0.075
RiskPrefIndex	2.808	2.696	0.681	0.730	0.780
TimePref1Index	4.077	3.957	0.505	0.576	0.647
TimePref2Index	3.500	3.348	0.293	0.360	0.427
RiskPrefVal	125.000	130.682	0.390	0.484	0.578
TimePref1Val	415.385	391.304	0.508	0.579	0.651
TimePref2Val	500.000	469.565	0.294	0.359	0.424
HAssetAmount	688	842	0.521	0.524	0.527
PAssetAmount	2829	926	0.835	0.835	0.835
LivestockValue	6531	2581	0.175	0.208	0.242
NumCows	0.327	0.129	0.173	0.206	0.238
NetValue	9409	4343	0.308	0.308	0.308
n	60	32	(rate: 0.348)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 5: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITION

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.115	0.096	0.650	0.736	0.823
HeadAge	37.996	38.769	0.588	0.590	0.593
HHsize	4.178	4.077	0.617	0.635	0.654
Arm	0.789	0.769	0.153	0.159	0.165
FloodInRd1	0.493	0.608	0.114	0.131	0.148
RiskPrefIndex	3.061	3.045	0.921	0.960	1.000
TimePref1Index	3.809	4.136	0.117	0.130	0.143
TimePref2Index	3.380	3.455	0.546	0.603	0.660
RiskPrefVal	110.248	122.159	0.062	0.081	0.101
TimePref1Val	381.639	427.273	0.130	0.144	0.159
TimePref2Val	490.000	490.909	0.876	0.938	1.000
HAssetAmount	763	678	0.537	0.539	0.541
PAssetAmount	1109	720	0.187	0.187	0.187
LivestockValue	5124	1500	0.057	0.066	0.075
NumCows	0.256	0.075	0.058	0.066	0.075
NetValue	6786	2570	0.042	0.042	0.042
n	684	52	(rate: 0.071)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 17.

TABLE 6: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITION AMONG TRADITIONAL ARM

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.118	0.000	0.126	0.245	0.364
HeadAge	38.497	34.083	0.140	0.142	0.144
HHsize	4.167	3.417	0.067	0.076	0.084
FloodInRd1	0.479	0.455	0.758	0.879	1.000
RiskPrefIndex	3.028	3.167	0.515	0.657	0.800
TimePref1Index	3.804	3.833	0.756	0.878	1.000
TimePref2Index	3.406	3.167	0.286	0.379	0.473
RiskPrefVal	112.772	114.583	0.649	0.824	1.000
TimePref1Val	371.127	366.667	0.753	0.877	1.000
TimePref2Val	485.315	433.333	0.316	0.407	0.497
HAssetAmount	702	1027	0.280	0.283	0.285
PAssetAmount	997	819	0.602	0.603	0.603
LivestockValue	4722	3636	0.597	0.707	0.817
NumCows	0.236	0.182	0.597	0.706	0.815
NetValue	6206	5483	0.882	0.882	0.882
n	144	12	(rate: 0.077)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 7: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITION AMONG NON-TRADITIONAL ARM

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.115	0.125	0.810	0.905	1.000
HeadAge	37.862	40.175	0.160	0.161	0.163
HHsize	4.181	4.275	0.695	0.715	0.736
FloodInRd1	0.497	0.650	0.048	0.060	0.071
RiskPrefIndex	3.070	3.000	0.736	0.776	0.815
TimePref1Index	3.810	4.250	0.078	0.088	0.099
TimePref2Index	3.373	3.562	0.310	0.355	0.401
RiskPrefVal	109.560	125.000	0.058	0.076	0.095
TimePref1Val	384.526	450.000	0.067	0.079	0.091
TimePref2Val	491.296	512.500	0.463	0.522	0.580
HAssetAmount	779	582	0.193	0.194	0.195
PAssetAmount	1139	693	0.193	0.193	0.193
LivestockValue	5232	690	0.043	0.048	0.054
NumCows	0.262	0.034	0.043	0.049	0.055
NetValue	6941	1466	0.027	0.027	0.027
n	540	40	(rate: 0.069)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 8: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITERS OF TRADITIONAL AND NON-TRADITIONAL ARMS

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.125	0.000	0.076	0.202	0.328
HeadAge	40.175	34.083	0.127	0.128	0.130
HHsize	4.275	3.417	0.076	0.085	0.095
Arm	1.000	0.000	0.000	0.000	0.000
FloodInRd1	0.650	0.455	0.166	0.235	0.305
RiskPrefIndex	3.000	3.167	0.333	0.485	0.637
TimePref1Index	4.250	3.833	0.141	0.202	0.264
TimePref2Index	3.562	3.167	0.104	0.168	0.231
RiskPrefVal	125.000	114.583	0.335	0.486	0.637
TimePref1Val	450.000	366.667	0.140	0.202	0.264
TimePref2Val	512.500	433.333	0.105	0.168	0.232
HAssetAmount	582	1027	0.279	0.282	0.285
PAssetAmount	693	819	0.676	0.677	0.679
LivestockValue	690	3636	0.016	0.097	0.178
NumCows	0.034	0.182	0.017	0.098	0.178
NetValue	1466	5483	0.052	0.052	0.052
n	40	12	(rate: 0.231)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 9: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITERS OF CATTLE AND ALL OTHER ARMS

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.026	0.308	0.000	0.006	0.011
HeadAge	37.487	42.615	0.185	0.189	0.193
HHsize	4.000	4.308	0.454	0.524	0.594
FloodInRd1	0.632	0.538	0.529	0.636	0.744
RiskPrefIndex	3.071	3.000	0.671	0.835	1.000
TimePref1Index	4.000	4.375	0.176	0.236	0.296
TimePref2Index	3.357	3.625	0.276	0.370	0.463
RiskPrefVal	120.536	125.000	0.671	0.835	1.000
TimePref1Val	400.000	475.000	0.178	0.239	0.301
TimePref2Val	471.429	525.000	0.279	0.374	0.468
HAssetAmount	613	869	0.545	0.550	0.554
PAssetAmount	670	867	0.486	0.487	0.488
LivestockValue	2222	0	0.242	0.391	0.539
NumCows	0.111	0.000	0.240	0.389	0.539
NetValue	3657	313	0.103	0.103	0.103
n	39	13	(rate: 0.250)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 10: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITERS OF CATTLE AND LARGE GRACE

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.000	0.308	0.000	0.010	0.020
HeadAge	41.263	42.615	0.783	0.788	0.793
HHsize	4.368	4.308	0.913	0.956	1.000
FloodInRd1	0.684	0.538	0.267	0.371	0.475
RiskPrefIndex	3.000	3.000	0.273	0.637	1.000
TimePref1Index	4.167	4.375	0.467	0.594	0.720
TimePref2Index	3.500	3.625	0.721	0.860	1.000
RiskPrefVal	125.000	125.000	0.274	0.637	1.000
TimePref1Val	433.333	475.000	0.467	0.594	0.721
TimePref2Val	500.000	525.000	0.717	0.859	1.000
HAssetAmount	426	869	0.265	0.269	0.274
PAssetAmount	595	867	0.414	0.415	0.416
LivestockValue	0	0	*NA*	*NA*	*NA*
NumCows	0.000	0.000	*NA*	*NA*	*NA*
NetValue	1175	313	0.521	0.522	0.522
n	19	13	(rate: 0.406)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 11: PERMUTATION TEST RESULTS OF SURVIVAL

variables	NonSurvived	Survived	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.104	0.123	0.389	0.427	0.465
HeadAge	37.835	38.159	0.688	0.690	0.691
HHsize	4.072	4.236	0.149	0.153	0.157
Arm	0.581	0.850	0.000	0.000	0.000
FloodInRd1	0.548	0.477	0.066	0.072	0.079
RiskPrefIndex	2.965	3.064	0.277	0.286	0.295
TimePref1Index	3.807	3.828	0.786	0.804	0.822
TimePref2Index	3.345	3.395	0.440	0.457	0.474
RiskPrefVal	120.135	108.659	0.000	0.000	0.000
TimePref1Val	388.024	381.701	0.604	0.615	0.626
TimePref2Val	476.471	493.878	0.137	0.146	0.155
HAssetAmount	707	781	0.323	0.323	0.324
PAssetAmount	1440	1154	0.550	0.550	0.550
LivestockValue	3714	5642	0.051	0.056	0.060
NumCows	0.186	0.282	0.052	0.056	0.060
NetValue	5521	7362	0.108	0.108	0.108
n	222	554	(rate: 0.714)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 17.

TABLE 12: PERMUTATION TEST RESULTS OF SURVIVAL AMONG TRADITIONAL ARM

variables	NonSurvived	Survived	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.075	0.120	0.324	0.384	0.444
HeadAge	38.370	38.494	0.935	0.938	0.941
HHsize	3.957	4.241	0.192	0.201	0.210
FloodInRd1	0.370	0.566	0.006	0.008	0.010
RiskPrefIndex	2.904	3.060	0.301	0.339	0.376
TimePref1Index	3.807	3.843	0.704	0.776	0.848
TimePref2Index	3.386	3.410	0.683	0.787	0.892
RiskPrefVal	120.312	110.156	0.024	0.039	0.054
TimePref1Val	376.829	371.084	0.771	0.792	0.813
TimePref2Val	479.518	486.747	0.629	0.719	0.809
HAssetAmount	803	641	0.275	0.276	0.277
PAssetAmount	967	1004	0.956	0.956	0.956
LivestockValue	2174	6747	0.005	0.007	0.008
NumCows	0.109	0.337	0.005	0.007	0.008
NetValue	3741	8241	0.012	0.012	0.012
n	93	83	(rate: 0.472)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 13: PERMUTATION TEST RESULTS OF SURVIVAL AMONG NON-TRADITIONAL ARMS

variables	NonSurvived	Survived	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.124	0.123	0.880	0.940	1.000
HeadAge	37.444	38.100	0.516	0.518	0.520
HHsize	4.155	4.236	0.564	0.575	0.587
FloodInRd1	0.674	0.462	0.000	0.000	0.000
RiskPrefIndex	3.023	3.065	0.698	0.718	0.738
TimePref1Index	3.807	3.825	0.864	0.886	0.908
TimePref2Index	3.307	3.392	0.336	0.354	0.373
RiskPrefVal	119.971	108.390	0.003	0.003	0.004
TimePref1Val	398.824	383.624	0.379	0.390	0.401
TimePref2Val	473.563	495.175	0.178	0.192	0.206
HAssetAmount	638	806	0.070	0.070	0.070
PAssetAmount	1777	1180	0.241	0.241	0.241
LivestockValue	4915	5447	0.635	0.665	0.695
NumCows	0.246	0.272	0.634	0.664	0.695
NetValue	6909	7206	0.846	0.846	0.846
n	129	471	(rate: 0.785)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 14: PERMUTATION TEST RESULTS OF SURVIVING MEMBERS OF TRADITIONAL AND NON-TRADITIONAL ARMS

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.123	0.120	0.857	0.928	1.000
HeadAge	38.100	38.494	0.731	0.733	0.735
HHsize	4.236	4.241	0.966	0.983	1.000
FloodInRd1	0.462	0.566	0.074	0.085	0.095
RiskPrefIndex	3.065	3.060	0.956	0.978	1.000
TimePref1Index	3.825	3.843	0.852	0.877	0.902
TimePref2Index	3.392	3.410	0.812	0.844	0.875
RiskPrefVal	108.390	110.156	0.651	0.692	0.733
TimePref1Val	383.624	371.084	0.471	0.483	0.495
TimePref2Val	495.175	486.747	0.603	0.633	0.664
HAssetAmount	806	641	0.151	0.151	0.152
PAssetAmount	1180	1004	0.652	0.652	0.652
LivestockValue	5447	6747	0.364	0.388	0.411
NumCows	0.272	0.337	0.365	0.389	0.412
NetValue	7206	8241	0.538	0.538	0.538
n	471	83	(rate: 0.150)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 15: PERMUTATION TEST RESULTS OF SURVIVING MEMBERS OF CATTLE AND ALL OTHER ARMS

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.113	0.150	0.246	0.275	0.304
HeadAge	38.226	37.973	0.786	0.788	0.790
HHsize	4.285	4.102	0.166	0.171	0.177
FloodInRd1	0.484	0.459	0.561	0.595	0.629
RiskPrefIndex	3.045	3.116	0.478	0.493	0.507
TimePref1Index	3.778	3.966	0.039	0.042	0.044
TimePref2Index	3.372	3.459	0.224	0.237	0.250
RiskPrefVal	109.008	107.713	0.646	0.680	0.713
TimePref1Val	370.781	411.806	0.004	0.005	0.005
TimePref2Val	486.146	515.493	0.028	0.031	0.034
HAssetAmount	780	785	0.956	0.956	0.957
PAssetAmount	1298	753	0.029	0.029	0.029
LivestockValue	6437	3425	0.015	0.016	0.018
NumCows	0.322	0.171	0.014	0.016	0.017
NetValue	8315	4702	0.007	0.007	0.007
n	407	147	(rate: 0.265)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 16: PERMUTATION TEST RESULTS OF SURVIVING MEMBERS OF CATTLE AND LARGE GRACE ARMS

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.106	0.150	0.236	0.271	0.306
HeadAge	38.481	37.973	0.644	0.647	0.649
HHsize	4.181	4.102	0.573	0.589	0.604
FloodInRd1	0.352	0.459	0.046	0.055	0.063
RiskPrefIndex	2.878	3.116	0.078	0.082	0.087
TimePref1Index	3.724	3.966	0.043	0.046	0.049
TimePref2Index	3.327	3.459	0.174	0.185	0.197
RiskPrefVal	112.500	107.713	0.244	0.265	0.286
TimePref1Val	372.549	411.806	0.021	0.022	0.023
TimePref2Val	478.710	515.493	0.022	0.025	0.028
HAssetAmount	798	785	0.906	0.907	0.908
PAssetAmount	1480	753	0.003	0.003	0.003
LivestockValue	5375	3425	0.127	0.140	0.154
NumCows	0.269	0.171	0.127	0.140	0.154
NetValue	7448	4702	0.045	0.045	0.045
n	160	147	(rate: 0.479)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 17: PERMUTATION TEST RESULTS OF REJECTION

variables	NonRejected	Rejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.127	0.081	0.096	0.112	0.128
HeadAge	38.145	37.763	0.669	0.671	0.673
HHsize	4.255	3.938	0.014	0.015	0.015
Arm	0.830	0.556	0.000	0.000	0.000
FloodInRd1	0.475	0.585	0.013	0.015	0.017
RiskPrefIndex	3.037	3.053	0.854	0.873	0.891
TimePref1Index	3.842	3.740	0.275	0.285	0.296
TimePref2Index	3.397	3.321	0.265	0.279	0.293
RiskPrefVal	110.098	117.248	0.020	0.023	0.026
TimePref1Val	383.305	382.677	0.945	0.959	0.972
TimePref2Val	493.264	473.846	0.136	0.145	0.155
HAssetAmount	780	682	0.239	0.240	0.240
PAssetAmount	1324	889	0.292	0.292	0.292
LivestockValue	5700	2685	0.007	0.007	0.008
NumCows	0.285	0.134	0.007	0.007	0.008
NetValue	7518	4125	0.008	0.008	0.008
n	616	160	(rate: 0.206)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate 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. The second and third columns show means of each group. For Arm, proportions of non-traditional arm between two groups are tested.
2. Standard errors are clustered at group (village) level. p-value.lower, p-value.mid, p-value.upper indicate lower-bound, mid p value, and upper-bound of the observed test statistic and the null distribution.
3. See the footnote of TABLE **??** for description of variables.

TABLE 18: PERMUTATION TEST RESULTS OF REJECTION AMONG TRADITIONAL ARM

variables	NonRejected	Rejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.095	0.099	0.795	0.897	1.000
HeadAge	38.848	37.800	0.498	0.503	0.508
HHsize	4.181	3.958	0.318	0.331	0.344
FloodInRd1	0.514	0.386	0.090	0.106	0.122
RiskPrefIndex	2.970	3.000	0.821	0.851	0.881
TimePref1Index	3.871	3.754	0.321	0.347	0.373
TimePref2Index	3.406	3.385	0.781	0.835	0.889
RiskPrefVal	114.691	116.071	0.744	0.807	0.870
TimePref1Val	376.238	370.312	0.774	0.793	0.811
TimePref2Val	485.149	480.000	0.710	0.758	0.806
HAssetAmount	714	744	0.841	0.843	0.845
PAssetAmount	996	967	0.958	0.958	0.959
LivestockValue	6095	1714	0.007	0.008	0.010
NumCows	0.305	0.086	0.007	0.008	0.010
NetValue	7685	3161	0.013	0.013	0.013
n	105	71	(rate: 0.403)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate 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. The second and third columns show means of each group.

2. Standard errors are clustered at group (village) level. p-value.lower, p-value.mid, p-value.upper indicate lower-bound, mid p value, and upper-bound of the observed test statistic and the null distribution.

3. See the footnote of TABLE **??** for description of variables.

TABLE 19: PERMUTATION TEST RESULTS OF REJECTION AMONG NON-TRADITIONAL ARM

variables	NonRejected	Rejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.133	0.067	0.083	0.099	0.115
HeadAge	38.000	37.733	0.819	0.821	0.823
HHsize	4.270	3.921	0.036	0.038	0.039
FloodInRd1	0.467	0.742	0.000	0.000	0.000
RiskPrefIndex	3.051	3.106	0.660	0.685	0.710
TimePref1Index	3.835	3.727	0.406	0.423	0.440
TimePref2Index	3.395	3.258	0.182	0.195	0.207
RiskPrefVal	109.140	118.371	0.027	0.032	0.038
TimePref1Val	384.792	395.238	0.586	0.602	0.618
TimePref2Val	494.979	467.692	0.127	0.140	0.153
HAssetAmount	794	633	0.131	0.131	0.132
PAssetAmount	1392	828	0.216	0.216	0.216
LivestockValue	5619	3544	0.158	0.175	0.193
NumCows	0.281	0.177	0.155	0.172	0.189
NetValue	7483	4979	0.155	0.155	0.155
n	511	89	(rate: 0.148)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.

2. See footnotes of TABLE 18.

TABLE 20: PERMUTATION TEST RESULTS OF REJECTERS, TRADITIONAL VS. NON-TRADITIONAL ARM

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.067	0.099	0.386	0.474	0.562
HeadAge	37.733	37.800	0.967	0.969	0.972
HHsize	3.921	3.958	0.881	0.901	0.920
FloodInRd1	0.742	0.386	0.000	0.000	0.000
RiskPrefIndex	3.106	3.000	0.423	0.457	0.490
TimePref1Index	3.727	3.754	0.875	0.907	0.938
TimePref2Index	3.258	3.385	0.287	0.317	0.347
RiskPrefVal	118.371	116.071	0.557	0.628	0.698
TimePref1Val	395.238	370.312	0.253	0.268	0.283
TimePref2Val	467.692	480.000	0.517	0.609	0.701
HAssetAmount	633	744	0.390	0.392	0.394
PAssetAmount	828	967	0.329	0.329	0.329
LivestockValue	3544	1714	0.168	0.202	0.235
NumCows	0.177	0.086	0.170	0.204	0.238
NetValue	4979	3161	0.209	0.209	0.209
n	89	71	(rate: 0.444)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.

2. See footnotes of TABLE 18.

Table 21: Permutation test results of group rejection

variables	NonGRejected	GRejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.123	0.057	0.077	0.098	0.119
HeadAge	38.188	36.841	0.287	0.288	0.290
HHsize	4.201	4.071	0.464	0.478	0.492
Arm	0.807	0.429	0.000	0.000	0.000
FloodInRd1	0.490	0.571	0.168	0.190	0.212
RiskPrefIndex	3.042	3.017	0.848	0.873	0.898
TimePref1Index	3.842	3.610	0.068	0.074	0.080
TimePref2Index	3.395	3.254	0.140	0.153	0.167
RiskPrefVal	111.199	114.035	0.511	0.554	0.597
TimePref1Val	382.389	392.727	0.590	0.608	0.626
TimePref2Val	492.923	454.237	0.037	0.041	0.046
HAssetAmount	766	705	0.607	0.607	0.608
PAssetAmount	1259	994	0.627	0.627	0.627
LivestockValue	5377	2000	0.040	0.044	0.049
NumCows	0.269	0.100	0.039	0.044	0.048
NetValue	7141	3509	0.053	0.053	0.053
n	706	70	(rate: 0.090)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.

2. See footnotes of Table 17.

Table 22: Permutation test results of group rejection among traditional arm

variables	NonGRejected	GRejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.110	0.050	0.222	0.293	0.365
HeadAge	38.257	39.026	0.674	0.677	0.680
HHsize	4.059	4.200	0.577	0.599	0.620
FloodInRd1	0.519	0.275	0.003	0.005	0.007
RiskPrefIndex	2.984	2.974	0.932	0.966	1.000
TimePref1Index	3.835	3.795	0.730	0.772	0.814
TimePref2Index	3.417	3.333	0.336	0.383	0.429
RiskPrefVal	116.362	111.486	0.346	0.398	0.450
TimePref1Val	369.291	389.474	0.399	0.432	0.464
TimePref2Val	486.614	471.795	0.473	0.522	0.570
HAssetAmount	677	892	0.218	0.219	0.221
PAssetAmount	964	1054	0.782	0.782	0.782
LivestockValue	5481	500	0.010	0.011	0.012
NumCows	0.274	0.025	0.009	0.010	0.012
NetValue	7029	1984	0.019	0.019	0.019
n	136	40	(rate: 0.227)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.

2. See footnotes of Table 18.

Table 23: Permutation test results of group rejection among non-traditional arm

variables	NonGRejected	GRejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.126	0.067	0.247	0.330	0.413
HeadAge	38.171	34.000	0.028	0.028	0.028
HHsize	4.235	3.900	0.196	0.208	0.221
FloodInRd1	0.483	0.967	0.000	0.000	0.000
RiskPrefIndex	3.056	3.100	0.835	0.877	0.920
TimePref1Index	3.844	3.250	0.012	0.014	0.017
TimePref2Index	3.389	3.100	0.077	0.091	0.105
RiskPrefVal	109.956	118.750	0.199	0.244	0.288
TimePref1Val	385.551	400.000	0.665	0.703	0.742
TimePref2Val	494.455	420.000	0.015	0.018	0.021
HAssetAmount	786	455	0.054	0.054	0.054
PAssetAmount	1329	914	0.543	0.543	0.543
LivestockValue	5352	5000	0.859	0.930	1.000
NumCows	0.268	0.250	0.859	0.930	1.000
NetValue	7167	6557	0.855	0.855	0.855
n	570	30	(rate: 0.050)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.

2. See footnotes of Table 18.

TABLE 24: PERMUTATION TEST RESULTS OF GROUP REJECTERS, TRADITIONAL VS. NON-TRADITIONAL ARM

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.067	0.050	0.627	0.814	1.000
HeadAge	34.000	39.026	0.027	0.027	0.028
HHsize	3.900	4.200	0.342	0.366	0.390
FloodInRd1	0.967	0.275	0.000	0.000	0.000
RiskPrefIndex	3.100	2.974	0.626	0.671	0.717
TimePref1Index	3.250	3.795	0.162	0.174	0.186
TimePref2Index	3.100	3.333	0.074	0.106	0.137
RiskPrefVal	118.750	111.486	0.232	0.313	0.395
TimePref1Val	400.000	389.474	0.567	0.674	0.781
TimePref2Val	420.000	471.795	0.119	0.148	0.177
HAssetAmount	455	892	0.025	0.025	0.026
PAssetAmount	914	1054	0.592	0.593	0.593
LivestockValue	5000	500	0.001	0.007	0.014
NumCows	0.250	0.025	0.001	0.007	0.013
NetValue	6557	1984	0.010	0.010	0.010
n	30	40	(rate: 0.571)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 25: PERMUTATION TEST RESULTS OF INDIVIDUAL REJECTION

variables	NonIRejected	IRejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.127	0.100	0.387	0.443	0.499
HeadAge	38.145	38.494	0.762	0.764	0.767
HHsize	4.255	3.833	0.009	0.010	0.011
Arm	0.830	0.656	0.000	0.000	0.000
FloodInRd1	0.475	0.596	0.030	0.035	0.040
RiskPrefIndex	3.037	3.083	0.718	0.741	0.765
TimePref1Index	3.842	3.847	0.946	0.973	1.000
TimePref2Index	3.397	3.375	0.806	0.837	0.869
RiskPrefVal	110.098	119.792	0.019	0.022	0.025
TimePref1Val	383.305	375.000	0.640	0.656	0.672
TimePref2Val	493.264	490.141	0.854	0.890	0.927
HAssetAmount	780	664	0.280	0.280	0.281
PAssetAmount	1324	807	0.196	0.196	0.196
LivestockValue	5700	3146	0.077	0.085	0.092
NumCows	0.285	0.157	0.075	0.083	0.090
NetValue	7518	4540	0.069	0.069	0.069
n	616	90	(rate: 0.127)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 17.

TABLE 26: PERMUTATION TEST RESULTS OF INDIVIDUAL REJECTION AMONG TRADITIONAL ARM

variables	NonIRejected	IRejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.095	0.161	0.190	0.261	0.331
HeadAge	38.848	36.258	0.212	0.213	0.215
HHsize	4.181	3.645	0.061	0.066	0.072
FloodInRd1	0.514	0.533	0.839	0.919	1.000
RiskPrefIndex	2.970	3.038	0.753	0.794	0.834
TimePref1Index	3.871	3.692	0.178	0.210	0.241
TimePref2Index	3.406	3.462	0.554	0.625	0.695
RiskPrefVal	114.691	122.596	0.169	0.216	0.263
TimePref1Val	376.238	342.308	0.238	0.247	0.257
TimePref2Val	485.149	492.308	0.723	0.790	0.857
HAssetAmount	714	547	0.429	0.431	0.434
PAssetAmount	996	851	0.720	0.720	0.721
LivestockValue	6095	3333	0.238	0.280	0.321
NumCows	0.305	0.167	0.237	0.280	0.322
NetValue	7685	4731	0.296	0.296	0.296
n	105	31	(rate: 0.228)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 27: PERMUTATION TEST RESULTS OF INDIVIDUAL REJECTION AMONG NON-TRADITIONAL ARM

variables	NonIRejected	IRejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.133	0.068	0.149	0.181	0.212
HeadAge	38.000	39.732	0.223	0.224	0.225
HHsize	4.270	3.932	0.092	0.096	0.101
FloodInRd1	0.467	0.627	0.021	0.024	0.028
RiskPrefIndex	3.051	3.109	0.718	0.747	0.775
TimePref1Index	3.835	3.935	0.473	0.501	0.529
TimePref2Index	3.395	3.326	0.562	0.593	0.624
RiskPrefVal	109.140	118.207	0.062	0.075	0.088
TimePref1Val	384.792	393.478	0.681	0.701	0.720
TimePref2Val	494.979	488.889	0.738	0.781	0.824
HAssetAmount	794	724	0.587	0.589	0.592
PAssetAmount	1392	784	0.180	0.180	0.180
LivestockValue	5619	3051	0.135	0.152	0.169
NumCows	0.281	0.153	0.135	0.153	0.170
NetValue	7483	4443	0.130	0.130	0.130
n	511	59	(rate: 0.104)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 28: PERMUTATION TEST RESULTS OF INDIVIDUAL REJECTERS, TRADITIONAL VS. NON-TRADITIONAL ARM

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.068	0.161	0.157	0.211	0.265
HeadAge	39.732	36.258	0.219	0.220	0.222
HHsize	3.932	3.645	0.445	0.465	0.484
FloodInRd1	0.627	0.533	0.369	0.432	0.495
RiskPrefIndex	3.109	3.038	0.399	0.490	0.581
TimePref1Index	3.935	3.692	0.093	0.117	0.142
TimePref2Index	3.326	3.462	0.483	0.534	0.584
RiskPrefVal	118.207	122.596	0.400	0.491	0.582
TimePref1Val	393.478	342.308	0.103	0.131	0.159
TimePref2Val	488.889	492.308	0.865	0.932	1.000
HAssetAmount	724	547	0.329	0.332	0.336
PAssetAmount	784	851	0.678	0.678	0.678
LivestockValue	3051	3333	0.825	0.912	1.000
NumCows	0.153	0.167	0.824	0.912	1.000
NetValue	4443	4731	0.903	0.904	0.904
n	59	31	(rate: 0.344)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 29: PERMUTATION TEST RESULTS OF GROUP REJECTION IN TRADITIONAL ARM VS. PARTICIPANTS IN NON-TRADITIONAL ARM

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.124	0.050	0.121	0.163	0.206
HeadAge	38.073	39.026	0.558	0.560	0.563
HHsize	4.236	4.200	0.858	0.881	0.905
FloodInRd1	0.465	0.275	0.013	0.017	0.021
RiskPrefIndex	3.063	2.974	0.598	0.623	0.648
TimePref1Index	3.836	3.795	0.808	0.839	0.870
TimePref2Index	3.395	3.333	0.587	0.623	0.659
RiskPrefVal	108.827	111.486	0.638	0.695	0.751
TimePref1Val	385.319	389.474	0.865	0.888	0.910
TimePref2Val	495.299	471.795	0.279	0.309	0.339
HAssetAmount	789	892	0.497	0.499	0.501
PAssetAmount	1159	1054	0.815	0.815	0.815
LivestockValue	5235	500	0.019	0.020	0.021
NumCows	0.262	0.025	0.019	0.020	0.022
NetValue	6933	1984	0.023	0.023	0.023
n	491	40	(rate: 0.075)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 30: PERMUTATION TEST RESULTS OF REJECTERS, CATTLE VS. NON-CATTLE ARMS

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.081	0.081	0.735	0.867	1.000
HeadAge	37.183	39.694	0.243	0.244	0.246
HHsize	3.951	3.892	0.814	0.837	0.860
FloodInRd1	0.566	0.649	0.345	0.396	0.448
RiskPrefIndex	3.020	3.172	0.309	0.354	0.399
TimePref1Index	3.686	3.931	0.243	0.270	0.297
TimePref2Index	3.294	3.414	0.384	0.430	0.475
RiskPrefVal	118.125	114.224	0.489	0.563	0.638
TimePref1Val	380.612	389.655	0.686	0.706	0.726
TimePref2Val	462.745	514.286	0.055	0.068	0.082
HAssetAmount	650	786	0.368	0.370	0.373
PAssetAmount	923	777	0.387	0.387	0.387
LivestockValue	2679	2703	0.821	0.910	1.000
NumCows	0.134	0.135	0.824	0.912	1.000
NetValue	4083	4253	0.917	0.917	0.917
n	123	37	(rate: 0.231)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 31: PERMUTATION TEST RESULTS OF REJECTERS, CATTLE VS. LARGE GRACE ARMS

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.043	0.081	0.290	0.473	0.655
HeadAge	36.810	39.694	0.391	0.395	0.398
HHsize	4.261	3.892	0.428	0.449	0.471
FloodInRd1	0.739	0.649	0.396	0.485	0.574
RiskPrefIndex	3.111	3.172	0.711	0.855	1.000
TimePref1Index	4.000	3.931	0.759	0.880	1.000
TimePref2Index	3.111	3.414	0.338	0.377	0.417
RiskPrefVal	118.056	114.224	0.711	0.856	1.000
TimePref1Val	400.000	389.655	0.731	0.840	0.948
TimePref2Val	422.222	514.286	0.034	0.057	0.080
HAssetAmount	604	786	0.456	0.461	0.466
PAssetAmount	708	777	0.723	0.724	0.724
LivestockValue	6154	2703	0.187	0.254	0.320
NumCows	0.308	0.135	0.189	0.254	0.320
NetValue	7383	4253	0.360	0.360	0.360
n	23	37	(rate: 0.617)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 32: PERMUTATION TEST RESULTS OF BORROWERS, CATTLE VS. NON-CATTLE ARMS

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.110	0.172	0.039	0.047	0.054
HeadAge	38.325	37.642	0.444	0.446	0.447
HHsize	4.287	4.166	0.333	0.341	0.350
FloodInRd1	0.479	0.463	0.717	0.751	0.785
RiskPrefIndex	3.023	3.075	0.614	0.629	0.645
TimePref1Index	3.793	3.969	0.040	0.042	0.045
TimePref2Index	3.376	3.453	0.235	0.248	0.261
RiskPrefVal	110.412	109.274	0.662	0.695	0.728
TimePref1Val	372.986	410.692	0.006	0.006	0.006
TimePref2Val	486.256	512.102	0.040	0.043	0.047
HAssetAmount	781	779	0.979	0.980	0.981
PAssetAmount	1526	765	0.117	0.117	0.117
LivestockValue	6150	4444	0.147	0.158	0.168
NumCows	0.308	0.222	0.146	0.156	0.167
NetValue	8204	5603	0.059	0.059	0.059
n	453	163	(rate: 0.265)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 33: PERMUTATION TEST RESULTS OF BOROWERS, CATTLE VS. LARGE GRACE ARMS

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.113	0.172	0.122	0.141	0.160
HeadAge	38.599	37.642	0.361	0.363	0.364
HHsize	4.243	4.166	0.577	0.591	0.605
FloodInRd1	0.364	0.463	0.061	0.069	0.077
RiskPrefIndex	2.883	3.075	0.144	0.150	0.157
TimePref1Index	3.741	3.969	0.049	0.052	0.055
TimePref2Index	3.333	3.453	0.180	0.192	0.203
RiskPrefVal	112.997	109.274	0.302	0.330	0.357
TimePref1Val	374.843	410.692	0.028	0.031	0.033
TimePref2Val	479.503	512.102	0.039	0.043	0.047
HAssetAmount	781	779	0.979	0.980	0.981
PAssetAmount	2110	765	0.005	0.005	0.005
LivestockValue	5341	4444	0.475	0.504	0.532
NumCows	0.267	0.222	0.476	0.506	0.535
NetValue	7864	5603	0.163	0.163	0.163
n	177	163	(rate: 0.479)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 34: PERMUTATION TEST RESULTS OF ARM ASSIGNMENT, TRADITIONAL VS. NON-TRADITIONAL ARMS

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.123	0.097	0.285	0.319	0.354
HeadAge	37.961	38.429	0.586	0.588	0.589
HHsize	4.218	4.091	0.299	0.306	0.313
FloodInRd1	0.508	0.463	0.264	0.284	0.303
RiskPrefIndex	3.058	2.982	0.394	0.406	0.418
TimePref1Index	3.822	3.825	0.963	0.981	1.000
TimePref2Index	3.379	3.398	0.763	0.787	0.810
RiskPrefVal	110.287	115.234	0.087	0.096	0.104
TimePref1Val	386.004	373.939	0.339	0.347	0.355
TimePref2Val	491.713	483.133	0.472	0.493	0.514
HAssetAmount	770	726	0.593	0.593	0.593
PAssetAmount	1308	985	0.473	0.473	0.474
LivestockValue	5340	4343	0.334	0.354	0.373
NumCows	0.267	0.217	0.337	0.357	0.376
NetValue	7147	5876	0.297	0.297	0.297
n	600	176	(rate: 0.227)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

.2 Full sample

```
for (i in 1:length(HeaderDescription))
cat(eval(parse(text=paste0("Tb2", i))))
```

TABLE 35: PERMUTATION TEST RESULTS OF ATTRITION

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.113	0.130	0.612	0.670	0.727
HeadAge	38.098	38.598	0.654	0.656	0.658
HHsize	4.181	4.272	0.569	0.582	0.595
Arm	0.763	0.652	0.000	0.001	0.001
FloodInRd1	0.489	0.527	0.433	0.469	0.504
RiskPrefIndex	3.078	2.755	0.029	0.032	0.036
TimePref1Index	3.814	4.020	0.141	0.152	0.163
TimePref2Index	3.395	3.429	0.685	0.724	0.763
RiskPrefVal	109.562	127.660	0.000	0.000	0.000
TimePref1Val	382.138	404.082	0.281	0.294	0.307
TimePref2Val	492.982	485.714	0.665	0.707	0.748
HAssetAmount	760	741	0.849	0.850	0.852
PAssetAmount	1103	2181	0.101	0.101	0.101
LivestockValue	5064	5000	0.924	0.962	1.000
NumCows	0.253	0.250	0.924	0.962	1.000
NetValue	6609	7446	0.609	0.609	0.609
n	708	92	(rate: 0.115)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.

2. See footnotes of TABLE 17.

TABLE 36: PERMUTATION TEST RESULTS OF ATTRITION AMONG TRADITIONAL ARM

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.107	0.000	0.046	0.065	0.084
HeadAge	38.856	38.125	0.707	0.711	0.714
HHsize	4.179	3.750	0.119	0.128	0.137
FloodInRd1	0.464	0.387	0.327	0.385	0.443
RiskPrefIndex	3.102	2.696	0.049	0.058	0.067
TimePref1Index	3.826	3.957	0.370	0.419	0.468
TimePref2Index	3.467	3.348	0.339	0.390	0.440
RiskPrefVal	109.568	130.682	0.002	0.002	0.003
TimePref1Val	374.699	391.304	0.522	0.569	0.616
TimePref2Val	498.204	469.565	0.302	0.346	0.390
HAssetAmount	700	842	0.438	0.440	0.443
PAssetAmount	988	926	0.812	0.812	0.813
LivestockValue	4524	2581	0.283	0.338	0.392
NumCows	0.226	0.129	0.283	0.338	0.394
NetValue	5545	4343	0.604	0.604	0.604
n	168	32	(rate: 0.160)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.

2. See footnotes of TABLE 18.

TABLE 37: PERMUTATION TEST RESULTS OF ATTRITION AMONG NON-TRADITIONAL ARM

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.115	0.200	0.036	0.051	0.065
HeadAge	37.862	38.850	0.470	0.472	0.474
HHsize	4.181	4.550	0.061	0.064	0.067
FloodInRd1	0.497	0.600	0.102	0.120	0.138
RiskPrefIndex	3.070	2.808	0.165	0.180	0.195
TimePref1Index	3.810	4.077	0.162	0.181	0.200
TimePref2Index	3.373	3.500	0.358	0.399	0.441
RiskPrefVal	109.560	125.000	0.023	0.029	0.035
TimePref1Val	384.526	415.385	0.271	0.290	0.308
TimePref2Val	491.296	500.000	0.664	0.717	0.771
HAssetAmount	779	688	0.473	0.475	0.477
PAssetAmount	1139	2829	0.090	0.090	0.090
LivestockValue	5232	6531	0.499	0.531	0.563
NumCows	0.262	0.327	0.498	0.531	0.564
NetValue	6941	9409	0.256	0.256	0.256
n	540	60	(rate: 0.100)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.

2. See footnotes of TABLE 18.

TABLE 38: PERMUTATION TEST RESULTS OF ATTRITERS OF TRADITIONAL AND NON-TRADITIONAL ARMS

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.200	0.000	0.003	0.005	0.007
HeadAge	38.850	38.125	0.768	0.772	0.776
HHsize	4.550	3.750	0.021	0.023	0.026
FloodInRd1	0.600	0.387	0.048	0.062	0.075
RiskPrefIndex	2.808	2.696	0.681	0.730	0.780
TimePref1Index	4.077	3.957	0.505	0.576	0.647
TimePref2Index	3.500	3.348	0.293	0.360	0.427
RiskPrefVal	125.000	130.682	0.390	0.484	0.578
TimePref1Val	415.385	391.304	0.508	0.579	0.651
TimePref2Val	500.000	469.565	0.294	0.359	0.424
HAssetAmount	688	842	0.521	0.524	0.527
PAssetAmount	2829	926	0.835	0.835	0.835
LivestockValue	6531	2581	0.175	0.208	0.242
NumCows	0.327	0.129	0.173	0.206	0.238
NetValue	9409	4343	0.308	0.308	0.308
n	60	32	(rate: 0.348)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 39: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITION

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.113	0.096	0.649	0.737	0.825
HeadAge	38.098	38.769	0.644	0.646	0.649
HHsize	4.181	4.077	0.583	0.601	0.619
Arm	0.763	0.769	0.131	0.159	0.187
FloodInRd1	0.489	0.608	0.081	0.097	0.112
RiskPrefIndex	3.078	3.045	0.841	0.879	0.917
TimePref1Index	3.814	4.136	0.112	0.126	0.139
TimePref2Index	3.395	3.455	0.647	0.706	0.765
RiskPrefVal	109.562	122.159	0.064	0.081	0.098
TimePref1Val	382.138	427.273	0.129	0.145	0.161
TimePref2Val	492.982	490.909	0.872	0.936	1.000
HAssetAmount	760	678	0.546	0.548	0.550
PAssetAmount	1103	720	0.185	0.185	0.185
LivestockValue	5064	1500	0.056	0.065	0.074
NumCows	0.253	0.075	0.056	0.064	0.073
NetValue	6609	2570	0.049	0.049	0.049
n	708	52	(rate: 0.068)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 17.

TABLE 40: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITION AMONG TRADITIONAL ARM

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.107	0.000	0.105	0.239	0.374
HeadAge	38.856	34.083	0.113	0.115	0.116
HHsize	4.179	3.417	0.062	0.071	0.080
FloodInRd1	0.464	0.455	0.755	0.877	1.000
RiskPrefIndex	3.102	3.167	0.728	0.864	1.000
TimePref1Index	3.826	3.833	0.757	0.879	1.000
TimePref2Index	3.467	3.167	0.153	0.221	0.290
RiskPrefVal	109.568	114.583	0.678	0.839	1.000
TimePref1Val	374.699	366.667	0.761	0.881	1.000
TimePref2Val	498.204	433.333	0.198	0.266	0.333
HAssetAmount	700	1027	0.254	0.257	0.259
PAssetAmount	988	819	0.595	0.595	0.596
LivestockValue	4524	3636	0.778	0.889	1.000
NumCows	0.226	0.182	0.780	0.890	1.000
NetValue	5545	5483	0.988	0.988	0.988
n	168	12	(rate: 0.067)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 41: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITION AMONG NON-TRADITIONAL ARM

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.115	0.125	0.810	0.905	1.000
HeadAge	37.862	40.175	0.160	0.161	0.163
HHsize	4.181	4.275	0.695	0.715	0.736
FloodInRd1	0.497	0.650	0.048	0.060	0.071
RiskPrefIndex	3.070	3.000	0.736	0.776	0.815
TimePref1Index	3.810	4.250	0.078	0.088	0.099
TimePref2Index	3.373	3.562	0.310	0.355	0.401
RiskPrefVal	109.560	125.000	0.058	0.076	0.095
TimePref1Val	384.526	450.000	0.067	0.079	0.091
TimePref2Val	491.296	512.500	0.463	0.522	0.580
HAssetAmount	779	582	0.193	0.194	0.195
PAssetAmount	1139	693	0.193	0.193	0.193
LivestockValue	5232	690	0.043	0.048	0.054
NumCows	0.262	0.034	0.043	0.049	0.055
NetValue	6941	1466	0.027	0.027	0.027
n	540	40	(rate: 0.069)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 42: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITERS OF TRADITIONAL AND NON-TRADITIONAL ARMS

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.125	0.000	0.076	0.202	0.328
HeadAge	40.175	34.083	0.127	0.128	0.130
HHsize	4.275	3.417	0.076	0.085	0.095
Arm	1.000	0.000	0.000	0.000	0.000
FloodInRd1	0.650	0.455	0.166	0.235	0.305
RiskPrefIndex	3.000	3.167	0.333	0.485	0.637
TimePref1Index	4.250	3.833	0.141	0.202	0.264
TimePref2Index	3.562	3.167	0.104	0.168	0.231
RiskPrefVal	125.000	114.583	0.335	0.486	0.637
TimePref1Val	450.000	366.667	0.140	0.202	0.264
TimePref2Val	512.500	433.333	0.105	0.168	0.232
HAssetAmount	582	1027	0.279	0.282	0.285
PAssetAmount	693	819	0.676	0.677	0.679
LivestockValue	690	3636	0.016	0.097	0.178
NumCows	0.034	0.182	0.017	0.098	0.178
NetValue	1466	5483	0.052	0.052	0.052
n	40	12	(rate: 0.231)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 43: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITERS OF CATTLE AND ALL OTHER ARMS

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.026	0.308	0.000	0.006	0.011
HeadAge	37.487	42.615	0.185	0.189	0.193
HHsize	4.000	4.308	0.454	0.524	0.594
FloodInRd1	0.632	0.538	0.529	0.636	0.744
RiskPrefIndex	3.071	3.000	0.671	0.835	1.000
TimePref1Index	4.000	4.375	0.176	0.236	0.296
TimePref2Index	3.357	3.625	0.276	0.370	0.463
RiskPrefVal	120.536	125.000	0.671	0.835	1.000
TimePref1Val	400.000	475.000	0.178	0.239	0.301
TimePref2Val	471.429	525.000	0.279	0.374	0.468
HAssetAmount	613	869	0.545	0.550	0.554
PAssetAmount	670	867	0.486	0.487	0.488
LivestockValue	2222	0	0.242	0.391	0.539
NumCows	0.111	0.000	0.240	0.389	0.539
NetValue	3657	313	0.103	0.103	0.103
n	39	13	(rate: 0.250)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 44: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITERS OF CATTLE AND LARGE GRACE

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.000	0.308	0.000	0.010	0.020
HeadAge	41.263	42.615	0.783	0.788	0.793
HHsize	4.368	4.308	0.913	0.956	1.000
FloodInRd1	0.684	0.538	0.267	0.371	0.475
RiskPrefIndex	3.000	3.000	0.273	0.637	1.000
TimePref1Index	4.167	4.375	0.467	0.594	0.720
TimePref2Index	3.500	3.625	0.721	0.860	1.000
RiskPrefVal	125.000	125.000	0.274	0.637	1.000
TimePref1Val	433.333	475.000	0.467	0.594	0.721
TimePref2Val	500.000	525.000	0.717	0.859	1.000
HAssetAmount	426	869	0.265	0.269	0.274
PAssetAmount	595	867	0.414	0.415	0.416
LivestockValue	0	0	*NA*	*NA*	*NA*
NumCows	0.000	0.000	*NA*	*NA*	*NA*
NetValue	1175	313	0.521	0.522	0.522
n	19	13	(rate: 0.406)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 45: PERMUTATION TEST RESULTS OF SURVIVAL

variables	NonSurvived	Survived	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.104	0.119	0.456	0.498	0.539
HeadAge	37.835	38.277	0.581	0.582	0.583
HHsize	4.072	4.237	0.152	0.155	0.159
Arm	0.581	0.815	0.000	0.000	0.000
FloodInRd1	0.548	0.473	0.058	0.063	0.069
RiskPrefIndex	2.965	3.084	0.176	0.182	0.189
TimePref1Index	3.807	3.834	0.719	0.736	0.753
TimePref2Index	3.345	3.413	0.289	0.302	0.315
RiskPrefVal	120.135	107.892	0.000	0.000	0.000
TimePref1Val	388.024	382.301	0.647	0.658	0.668
TimePref2Val	476.471	497.336	0.073	0.078	0.084
HAssetAmount	707	777	0.341	0.341	0.341
PAssetAmount	1440	1144	0.518	0.518	0.518
LivestockValue	3714	5546	0.060	0.064	0.069
NumCows	0.186	0.277	0.060	0.065	0.070
NetValue	5521	7121	0.154	0.154	0.154
n	222	578	(rate: 0.723)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 17.

TABLE 46: PERMUTATION TEST RESULTS OF SURVIVAL AMONG TRADITIONAL ARM

variables	NonSurvived	Survived	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.075	0.103	0.466	0.544	0.622
HeadAge	38.370	39.056	0.638	0.640	0.643
HHsize	3.957	4.243	0.168	0.175	0.183
FloodInRd1	0.370	0.523	0.022	0.028	0.033
RiskPrefIndex	2.904	3.168	0.066	0.072	0.078
TimePref1Index	3.807	3.869	0.581	0.612	0.644
TimePref2Index	3.386	3.505	0.131	0.149	0.168
RiskPrefVal	120.312	105.769	0.001	0.002	0.002
TimePref1Val	376.829	376.636	0.954	0.977	1.000
TimePref2Val	479.518	506.542	0.143	0.160	0.176
HAssetAmount	803	652	0.255	0.256	0.257
PAssetAmount	967	988	0.968	0.968	0.968
LivestockValue	2174	5981	0.012	0.015	0.017
NumCows	0.109	0.299	0.012	0.014	0.016
NetValue	3741	6747	0.064	0.064	0.064
n	93	107	(rate: 0.535)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 47: PERMUTATION TEST RESULTS OF SURVIVAL AMONG NON-TRADITIONAL ARMS

variables	NonSurvived	Survived	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.124	0.123	0.880	0.940	1.000
HeadAge	37.444	38.100	0.516	0.518	0.520
HHsize	4.155	4.236	0.564	0.575	0.587
FloodInRd1	0.674	0.462	0.000	0.000	0.000
RiskPrefIndex	3.023	3.065	0.698	0.718	0.738
TimePref1Index	3.807	3.825	0.864	0.886	0.908
TimePref2Index	3.307	3.392	0.336	0.354	0.373
RiskPrefVal	119.971	108.390	0.003	0.003	0.004
TimePref1Val	398.824	383.624	0.379	0.390	0.401
TimePref2Val	473.563	495.175	0.178	0.192	0.206
HAssetAmount	638	806	0.070	0.070	0.070
PAssetAmount	1777	1180	0.241	0.241	0.241
LivestockValue	4915	5447	0.635	0.665	0.695
NumCows	0.246	0.272	0.634	0.664	0.695
NetValue	6909	7206	0.846	0.846	0.846
n	129	471	(rate: 0.785)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 48: PERMUTATION TEST RESULTS OF SURVIVING MEMBERS OF TRADITIONAL AND NON-TRADITIONAL ARMS

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.123	0.103	0.508	0.567	0.626
HeadAge	38.100	39.056	0.359	0.360	0.362
HHsize	4.236	4.243	0.941	0.955	0.970
FloodInRd1	0.462	0.523	0.238	0.260	0.283
RiskPrefIndex	3.065	3.168	0.341	0.354	0.368
TimePref1Index	3.825	3.869	0.652	0.673	0.694
TimePref2Index	3.392	3.505	0.152	0.163	0.174
RiskPrefVal	108.390	105.769	0.418	0.449	0.480
TimePref1Val	383.624	376.636	0.639	0.652	0.666
TimePref2Val	495.175	506.542	0.438	0.462	0.485
HAssetAmount	806	652	0.133	0.133	0.133
PAssetAmount	1180	988	0.542	0.542	0.542
LivestockValue	5447	5981	0.683	0.712	0.741
NumCows	0.272	0.299	0.679	0.710	0.740
NetValue	7206	6747	0.757	0.757	0.757
n	471	107	(rate: 0.185)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 49: PERMUTATION TEST RESULTS OF SURVIVING MEMBERS OF CATTLE AND ALL OTHER ARMS

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.109	0.150	0.188	0.213	0.238
HeadAge	38.381	37.973	0.665	0.667	0.669
HHsize	4.283	4.102	0.176	0.181	0.186
FloodInRd1	0.478	0.459	0.630	0.665	0.700
RiskPrefIndex	3.073	3.116	0.656	0.673	0.689
TimePref1Index	3.788	3.966	0.051	0.054	0.057
TimePref2Index	3.398	3.459	0.372	0.390	0.408
RiskPrefVal	107.955	107.713	0.928	0.964	1.000
TimePref1Val	372.209	411.806	0.006	0.006	0.007
TimePref2Val	491.211	515.493	0.069	0.074	0.079
HAssetAmount	775	785	0.910	0.911	0.911
PAssetAmount	1278	753	0.030	0.030	0.030
LivestockValue	6265	3425	0.022	0.024	0.026
NumCows	0.313	0.171	0.022	0.024	0.026
NetValue	7940	4702	0.013	0.013	0.013
n	431	147	(rate: 0.254)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 50: PERMUTATION TEST RESULTS OF SURVIVING MEMBERS OF CATTLE AND LARGE GRACE ARMS

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.106	0.150	0.236	0.271	0.306
HeadAge	38.481	37.973	0.644	0.647	0.649
HHsize	4.181	4.102	0.573	0.589	0.604
FloodInRd1	0.352	0.459	0.046	0.055	0.063
RiskPrefIndex	2.878	3.116	0.078	0.082	0.087
TimePref1Index	3.724	3.966	0.043	0.046	0.049
TimePref2Index	3.327	3.459	0.174	0.185	0.197
RiskPrefVal	112.500	107.713	0.244	0.265	0.286
TimePref1Val	372.549	411.806	0.021	0.022	0.023
TimePref2Val	478.710	515.493	0.022	0.025	0.028
HAssetAmount	798	785	0.906	0.907	0.908
PAssetAmount	1480	753	0.003	0.003	0.003
LivestockValue	5375	3425	0.127	0.140	0.154
NumCows	0.269	0.171	0.127	0.140	0.154
NetValue	7448	4702	0.045	0.045	0.045
n	160	147	(rate: 0.479)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 51: PERMUTATION TEST RESULTS OF REJECTION

variables	NonRejected	Rejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.123	0.081	0.127	0.146	0.164
HeadAge	38.252	37.763	0.589	0.590	0.592
HHsize	4.255	3.938	0.013	0.013	0.014
Arm	0.798	0.556	0.000	0.000	0.000
FloodInRd1	0.471	0.585	0.010	0.012	0.013
RiskPrefIndex	3.057	3.053	0.963	0.982	1.000
TimePref1Index	3.846	3.740	0.251	0.261	0.270
TimePref2Index	3.414	3.321	0.170	0.180	0.191
RiskPrefVal	109.322	117.248	0.013	0.015	0.017
TimePref1Val	383.802	382.677	0.919	0.933	0.946
TimePref2Val	496.517	473.846	0.076	0.082	0.088
HAssetAmount	777	682	0.252	0.252	0.253
PAssetAmount	1310	889	0.293	0.293	0.293
LivestockValue	5611	2685	0.008	0.009	0.010
NumCows	0.281	0.134	0.008	0.009	0.010
NetValue	7294	4125	0.012	0.012	0.012
n	640	160	(rate: 0.200)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate 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. The second and third columns show means of each group. For Arm, proportions of non-traditional arm between two groups are tested.
2. Standard errors are clustered at group (village) level. p-value.lower, p-value.mid, p-value.upper indicate lower-bound, mid p value, and upper-bound of the observed test statistic and the null distribution.
3. See the footnote of TABLE **??** for description of variables.

TABLE 52: PERMUTATION TEST RESULTS OF REJECTION AMONG TRADITIONAL ARM

variables	NonRejected	Rejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.085	0.099	0.607	0.703	0.799
HeadAge	39.248	37.800	0.338	0.340	0.341
HHsize	4.194	3.958	0.275	0.286	0.297
FloodInRd1	0.488	0.386	0.135	0.158	0.180
RiskPrefIndex	3.080	3.000	0.604	0.629	0.653
TimePref1Index	3.888	3.754	0.241	0.262	0.282
TimePref2Index	3.488	3.385	0.236	0.263	0.290
RiskPrefVal	110.021	116.071	0.173	0.202	0.231
TimePref1Val	380.000	370.312	0.601	0.621	0.641
TimePref2Val	502.400	480.000	0.239	0.265	0.290
HAssetAmount	709	744	0.805	0.807	0.809
PAssetAmount	984	967	0.965	0.965	0.965
LivestockValue	5581	1714	0.013	0.016	0.018
NumCows	0.279	0.086	0.013	0.016	0.019
NetValue	6549	3161	0.045	0.045	0.045
n	129	71	(rate: 0.355)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate 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. The second and third columns show means of each group.
2. Standard errors are clustered at group (village) level. p-value.lower, p-value.mid, p-value.upper indicate lower-bound, mid p value, and upper-bound of the observed test statistic and the null distribution.
3. See the footnote of TABLE **??** for description of variables.

TABLE 53: PERMUTATION TEST RESULTS OF REJECTION AMONG NON-TRADITIONAL ARM

variables	NonRejected	Rejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.133	0.067	0.083	0.099	0.115
HeadAge	38.000	37.733	0.819	0.821	0.823
HHsize	4.270	3.921	0.036	0.038	0.039
FloodInRd1	0.467	0.742	0.000	0.000	0.000
RiskPrefIndex	3.051	3.106	0.660	0.685	0.710
TimePref1Index	3.835	3.727	0.406	0.423	0.440
TimePref2Index	3.395	3.258	0.182	0.195	0.207
RiskPrefVal	109.140	118.371	0.027	0.032	0.038
TimePref1Val	384.792	395.238	0.586	0.602	0.618
TimePref2Val	494.979	467.692	0.127	0.140	0.153
HAssetAmount	794	633	0.131	0.131	0.132
PAssetAmount	1392	828	0.216	0.216	0.216
LivestockValue	5619	3544	0.158	0.175	0.193
NumCows	0.281	0.177	0.155	0.172	0.189
NetValue	7483	4979	0.155	0.155	0.155
n	511	89	(rate: 0.148)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 54: PERMUTATION TEST RESULTS OF REJECTERS, TRADITIONAL VS. NON-TRADITIONAL ARM

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.067	0.099	0.386	0.474	0.562
HeadAge	37.733	37.800	0.967	0.969	0.972
HHsize	3.921	3.958	0.881	0.901	0.920
FloodInRd1	0.742	0.386	0.000	0.000	0.000
RiskPrefIndex	3.106	3.000	0.423	0.457	0.490
TimePref1Index	3.727	3.754	0.875	0.907	0.938
TimePref2Index	3.258	3.385	0.287	0.317	0.347
RiskPrefVal	118.371	116.071	0.557	0.628	0.698
TimePref1Val	395.238	370.312	0.253	0.268	0.283
TimePref2Val	467.692	480.000	0.517	0.609	0.701
HAssetAmount	633	744	0.390	0.392	0.394
PAssetAmount	828	967	0.329	0.329	0.329
LivestockValue	3544	1714	0.168	0.202	0.235
NumCows	0.177	0.086	0.170	0.204	0.238
NetValue	4979	3161	0.209	0.209	0.209
n	89	71	(rate: 0.444)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 55: PERMUTATION TEST RESULTS OF GROUP REJECTION

variables	NonGRejected	GRejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.121	0.057	0.074	0.096	0.119
HeadAge	38.281	36.841	0.256	0.257	0.258
HHsize	4.203	4.071	0.469	0.481	0.494
Arm	0.781	0.429	0.000	0.000	0.000
FloodInRd1	0.486	0.571	0.171	0.191	0.211
RiskPrefIndex	3.060	3.017	0.746	0.770	0.794
TimePref1Index	3.846	3.610	0.065	0.070	0.076
TimePref2Index	3.410	3.254	0.118	0.128	0.139
RiskPrefVal	110.467	114.035	0.435	0.474	0.513
TimePref1Val	382.866	392.727	0.591	0.609	0.626
TimePref2Val	495.846	454.237	0.022	0.025	0.028
HAssetAmount	763	705	0.618	0.619	0.619
PAssetAmount	1248	994	0.638	0.638	0.638
LivestockValue	5309	2000	0.039	0.043	0.048
NumCows	0.265	0.100	0.039	0.044	0.049
NetValue	6957	3509	0.062	0.062	0.062
n	730	70	(rate: 0.087)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 17.

TABLE 56: PERMUTATION TEST RESULTS OF GROUP REJECTION AMONG TRADITIONAL ARM

variables	NonGRejected	GRejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.100	0.050	0.209	0.294	0.380
HeadAge	38.669	39.026	0.841	0.845	0.848
HHsize	4.088	4.200	0.638	0.659	0.680
FloodInRd1	0.497	0.275	0.008	0.011	0.014
RiskPrefIndex	3.073	2.974	0.540	0.567	0.594
TimePref1Index	3.854	3.795	0.647	0.686	0.725
TimePref2Index	3.483	3.333	0.119	0.141	0.164
RiskPrefVal	112.245	111.486	0.860	0.930	1.000
TimePref1Val	373.510	389.474	0.487	0.518	0.549
TimePref2Val	500.662	471.795	0.214	0.241	0.268
HAssetAmount	679	892	0.196	0.197	0.198
PAssetAmount	959	1054	0.727	0.728	0.728
LivestockValue	5157	500	0.017	0.018	0.020
NumCows	0.258	0.025	0.016	0.018	0.020
NetValue	6206	1984	0.034	0.034	0.034
n	160	40	(rate: 0.200)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 57: PERMUTATION TEST RESULTS OF GROUP REJECTION AMONG NON-TRADITIONAL ARM

variables	NonGRejected	GRejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.126	0.067	0.247	0.330	0.413
HeadAge	38.171	34.000	0.028	0.028	0.028
HHsize	4.235	3.900	0.196	0.208	0.221
FloodInRd1	0.483	0.967	0.000	0.000	0.000
RiskPrefIndex	3.056	3.100	0.835	0.877	0.920
TimePref1Index	3.844	3.250	0.012	0.014	0.017
TimePref2Index	3.389	3.100	0.077	0.091	0.105
RiskPrefVal	109.956	118.750	0.199	0.244	0.288
TimePref1Val	385.551	400.000	0.665	0.703	0.742
TimePref2Val	494.455	420.000	0.015	0.018	0.021
HAssetAmount	786	455	0.054	0.054	0.054
PAssetAmount	1329	914	0.543	0.543	0.543
LivestockValue	5352	5000	0.859	0.930	1.000
NumCows	0.268	0.250	0.859	0.930	1.000
NetValue	7167	6557	0.855	0.855	0.855
n	570	30	(rate: 0.050)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 58: PERMUTATION TEST RESULTS OF GROUP REJECTERS, TRADITIONAL VS. NON-TRADITIONAL ARM

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.067	0.050	0.627	0.814	1.000
HeadAge	34.000	39.026	0.027	0.027	0.028
HHsize	3.900	4.200	0.342	0.366	0.390
FloodInRd1	0.967	0.275	0.000	0.000	0.000
RiskPrefIndex	3.100	2.974	0.626	0.671	0.717
TimePref1Index	3.250	3.795	0.162	0.174	0.186
TimePref2Index	3.100	3.333	0.074	0.106	0.137
RiskPrefVal	118.750	111.486	0.232	0.313	0.395
TimePref1Val	400.000	389.474	0.567	0.674	0.781
TimePref2Val	420.000	471.795	0.119	0.148	0.177
HAssetAmount	455	892	0.025	0.025	0.026
PAssetAmount	914	1054	0.592	0.593	0.593
LivestockValue	5000	500	0.001	0.007	0.014
NumCows	0.250	0.025	0.001	0.007	0.013
NetValue	6557	1984	0.010	0.010	0.010
n	30	40	(rate: 0.571)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 59: PERMUTATION TEST RESULTS OF INDIVIDUAL REJECTION

variables	NonIRejected	IRejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.123	0.100	0.489	0.548	0.607
HeadAge	38.252	38.494	0.831	0.833	0.835
HHsize	4.255	3.833	0.010	0.011	0.011
Arm	0.798	0.656	0.002	0.002	0.002
FloodInRd1	0.471	0.596	0.024	0.027	0.031
RiskPrefIndex	3.057	3.083	0.810	0.835	0.859
TimePref1Index	3.846	3.847	0.945	0.973	1.000
TimePref2Index	3.414	3.375	0.615	0.644	0.674
RiskPrefVal	109.322	119.792	0.010	0.012	0.014
TimePref1Val	383.802	375.000	0.610	0.626	0.641
TimePref2Val	496.517	490.141	0.650	0.684	0.718
HAssetAmount	777	664	0.289	0.290	0.291
PAssetAmount	1310	807	0.192	0.192	0.192
LivestockValue	5611	3146	0.073	0.082	0.090
NumCows	0.281	0.157	0.073	0.082	0.090
NetValue	7294	4540	0.088	0.088	0.088
n	640	90	(rate: 0.123)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 17.

TABLE 60: PERMUTATION TEST RESULTS OF INDIVIDUAL REJECTION AMONG TRADITIONAL ARM

variables	NonIRejected	IRejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.085	0.161	0.201	0.257	0.312
HeadAge	39.248	36.258	0.145	0.146	0.148
HHsize	4.194	3.645	0.058	0.063	0.068
FloodInRd1	0.488	0.533	0.544	0.617	0.691
RiskPrefIndex	3.080	3.038	0.839	0.879	0.918
TimePref1Index	3.888	3.692	0.141	0.166	0.191
TimePref2Index	3.488	3.462	0.702	0.776	0.851
RiskPrefVal	110.021	122.596	0.056	0.073	0.089
TimePref1Val	380.000	342.308	0.181	0.193	0.204
TimePref2Val	502.400	492.308	0.609	0.673	0.738
HAssetAmount	709	547	0.406	0.409	0.411
PAssetAmount	984	851	0.670	0.671	0.671
LivestockValue	5581	3333	0.307	0.358	0.409
NumCows	0.279	0.167	0.308	0.359	0.410
NetValue	6549	4731	0.486	0.486	0.486
n	129	31	(rate: 0.194)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 61: PERMUTATION TEST RESULTS OF INDIVIDUAL REJECTION AMONG NON-TRADITIONAL ARM

variables	NonIRejected	IRejected	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.133	0.068	0.149	0.181	0.212
HeadAge	38.000	39.732	0.223	0.224	0.225
HHsize	4.270	3.932	0.092	0.096	0.101
FloodInRd1	0.467	0.627	0.021	0.024	0.028
RiskPrefIndex	3.051	3.109	0.718	0.747	0.775
TimePref1Index	3.835	3.935	0.473	0.501	0.529
TimePref2Index	3.395	3.326	0.562	0.593	0.624
RiskPrefVal	109.140	118.207	0.062	0.075	0.088
TimePref1Val	384.792	393.478	0.681	0.701	0.720
TimePref2Val	494.979	488.889	0.738	0.781	0.824
HAssetAmount	794	724	0.587	0.589	0.592
PAssetAmount	1392	784	0.180	0.180	0.180
LivestockValue	5619	3051	0.135	0.152	0.169
NumCows	0.281	0.153	0.135	0.153	0.170
NetValue	7483	4443	0.130	0.130	0.130
n	511	59	(rate: 0.104)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 62: PERMUTATION TEST RESULTS OF INDIVIDUAL REJECTERS, TRADITIONAL VS. NON-TRADITIONAL ARM

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.068	0.161	0.157	0.211	0.265
HeadAge	39.732	36.258	0.219	0.220	0.222
HHsize	3.932	3.645	0.445	0.465	0.484
FloodInRd1	0.627	0.533	0.369	0.432	0.495
RiskPrefIndex	3.109	3.038	0.399	0.490	0.581
TimePref1Index	3.935	3.692	0.093	0.117	0.142
TimePref2Index	3.326	3.462	0.483	0.534	0.584
RiskPrefVal	118.207	122.596	0.400	0.491	0.582
TimePref1Val	393.478	342.308	0.103	0.131	0.159
TimePref2Val	488.889	492.308	0.865	0.932	1.000
HAssetAmount	724	547	0.329	0.332	0.336
PAssetAmount	784	851	0.678	0.678	0.678
LivestockValue	3051	3333	0.825	0.912	1.000
NumCows	0.153	0.167	0.824	0.912	1.000
NetValue	4443	4731	0.903	0.904	0.904
n	59	31	(rate: 0.344)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 63: PERMUTATION TEST RESULTS OF GROUP REJECTION IN TRADITIONAL ARM VS. PARTICIPANTS IN NON-TRADITIONAL ARM

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.124	0.050	0.121	0.163	0.206
HeadAge	38.073	39.026	0.558	0.560	0.563
HHsize	4.236	4.200	0.858	0.881	0.905
FloodInRd1	0.465	0.275	0.013	0.017	0.021
RiskPrefIndex	3.063	2.974	0.598	0.623	0.648
TimePref1Index	3.836	3.795	0.808	0.839	0.870
TimePref2Index	3.395	3.333	0.587	0.623	0.659
RiskPrefVal	108.827	111.486	0.638	0.695	0.751
TimePref1Val	385.319	389.474	0.865	0.888	0.910
TimePref2Val	495.299	471.795	0.279	0.309	0.339
HAssetAmount	789	892	0.497	0.499	0.501
PAssetAmount	1159	1054	0.815	0.815	0.815
LivestockValue	5235	500	0.019	0.020	0.021
NumCows	0.262	0.025	0.019	0.020	0.022
NetValue	6933	1984	0.023	0.023	0.023
n	491	40	(rate: 0.075)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 64: PERMUTATION TEST RESULTS OF REJECTERS, CATTLE VS. NON-CATTLE ARMS

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.081	0.081	0.735	0.867	1.000
HeadAge	37.183	39.694	0.243	0.244	0.246
HHsize	3.951	3.892	0.814	0.837	0.860
FloodInRd1	0.566	0.649	0.345	0.396	0.448
RiskPrefIndex	3.020	3.172	0.309	0.354	0.399
TimePref1Index	3.686	3.931	0.243	0.270	0.297
TimePref2Index	3.294	3.414	0.384	0.430	0.475
RiskPrefVal	118.125	114.224	0.489	0.563	0.638
TimePref1Val	380.612	389.655	0.686	0.706	0.726
TimePref2Val	462.745	514.286	0.055	0.068	0.082
HAssetAmount	650	786	0.368	0.370	0.373
PAssetAmount	923	777	0.387	0.387	0.387
LivestockValue	2679	2703	0.821	0.910	1.000
NumCows	0.134	0.135	0.824	0.912	1.000
NetValue	4083	4253	0.917	0.917	0.917
n	123	37	(rate: 0.231)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

Table 65: Permutation test results of rejecters, cattle vs. large grace arms

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.043	0.081	0.290	0.473	0.655
HeadAge	36.810	39.694	0.391	0.395	0.398
HHsize	4.261	3.892	0.428	0.449	0.471
FloodInRd1	0.739	0.649	0.396	0.485	0.574
RiskPrefIndex	3.111	3.172	0.711	0.855	1.000
TimePref1Index	4.000	3.931	0.759	0.880	1.000
TimePref2Index	3.111	3.414	0.338	0.377	0.417
RiskPrefVal	118.056	114.224	0.711	0.856	1.000
TimePref1Val	400.000	389.655	0.731	0.840	0.948
TimePref2Val	422.222	514.286	0.034	0.057	0.080
HAssetAmount	604	786	0.456	0.461	0.466
PAssetAmount	708	777	0.723	0.724	0.724
LivestockValue	6154	2703	0.187	0.254	0.320
NumCows	0.308	0.135	0.189	0.254	0.320
NetValue	7383	4253	0.360	0.360	0.360
n	23	37	(rate: 0.617)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.

2. See footnotes of Table 18.

Table 66: Permutation test results of borrowers, cattle vs. non-cattle arms

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.107	0.172	0.027	0.033	0.038
HeadAge	38.459	37.642	0.357	0.359	0.360
HHsize	4.285	4.166	0.341	0.350	0.358
FloodInRd1	0.474	0.463	0.785	0.820	0.856
RiskPrefIndex	3.051	3.075	0.800	0.817	0.833
TimePref1Index	3.802	3.969	0.049	0.052	0.055
TimePref2Index	3.400	3.453	0.418	0.437	0.455
RiskPrefVal	109.339	109.274	0.932	0.966	1.000
TimePref1Val	374.215	410.692	0.007	0.007	0.008
TimePref2Val	491.031	512.102	0.090	0.097	0.104
HAssetAmount	776	779	0.977	0.978	0.979
PAssetAmount	1496	765	0.125	0.125	0.125
LivestockValue	6008	4444	0.191	0.203	0.215
NumCows	0.300	0.222	0.187	0.199	0.212
NetValue	7870	5603	0.092	0.092	0.092
n	477	163	(rate: 0.255)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.

2. See footnotes of Table 18.

Table 67: Permutation test results of borowers, cattle vs. large grace arms

variables	NonCowArm	CowArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.113	0.172	0.122	0.141	0.160
HeadAge	38.599	37.642	0.361	0.363	0.364
HHsize	4.243	4.166	0.577	0.591	0.605
FloodInRd1	0.364	0.463	0.061	0.069	0.077
RiskPrefIndex	2.883	3.075	0.144	0.150	0.157
TimePref1Index	3.741	3.969	0.049	0.052	0.055
TimePref2Index	3.333	3.453	0.180	0.192	0.203
RiskPrefVal	112.997	109.274	0.302	0.330	0.357
TimePref1Val	374.843	410.692	0.028	0.031	0.033
TimePref2Val	479.503	512.102	0.039	0.043	0.047
HAssetAmount	781	779	0.979	0.980	0.981
PAssetAmount	2110	765	0.005	0.005	0.005
LivestockValue	5341	4444	0.475	0.504	0.532
NumCows	0.267	0.222	0.476	0.506	0.535
NetValue	7864	5603	0.163	0.163	0.163
n	177	163	(rate: 0.479)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.

2. See footnotes of Table 18.

TABLE 68: PERMUTATION TEST RESULTS OF ARM ASSIGNMENT, TRADITIONAL VS. NON-TRADITIONAL ARMS

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.123	0.090	0.159	0.204	0.249
HeadAge	37.961	38.739	0.347	0.349	0.350
HHsize	4.218	4.110	0.360	0.367	0.374
FloodInRd1	0.508	0.452	0.165	0.179	0.192
RiskPrefIndex	3.058	3.053	0.935	0.951	0.968
TimePref1Index	3.822	3.842	0.795	0.812	0.829
TimePref2Index	3.379	3.453	0.229	0.241	0.252
RiskPrefVal	110.287	112.092	0.517	0.543	0.569
TimePref1Val	386.004	376.720	0.428	0.437	0.445
TimePref2Val	491.713	494.737	0.757	0.781	0.805
HAssetAmount	770	722	0.528	0.529	0.529
PAssetAmount	1308	978	0.457	0.457	0.457
LivestockValue	5340	4221	0.259	0.274	0.290
NumCows	0.267	0.211	0.258	0.274	0.289
NetValue	7147	5357	0.118	0.118	0.118
n	600	200	(rate: 0.250)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

.3 Without group rejection sample

```
for (i in 1:7)
cat(eval(parse(text=paste0("Tb3", i))))
```

TABLE 69: PERMUTATION TEST RESULTS OF ATTRITION

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.116	0.156	0.271	0.313	0.355
HeadAge	38.106	39.753	0.179	0.180	0.181
HHsize	4.181	4.390	0.236	0.244	0.252
Arm	0.798	0.636	0.003	0.003	0.003
FloodInRd1	0.489	0.461	0.628	0.672	0.716
RiskPrefIndex	3.085	2.711	0.018	0.020	0.022
TimePref1Index	3.834	4.022	0.174	0.188	0.202
TimePref2Index	3.408	3.444	0.679	0.719	0.759
RiskPrefVal	109.146	129.360	0.000	0.000	0.000
TimePref1Val	381.329	404.444	0.290	0.303	0.316
TimePref2Val	496.343	488.889	0.651	0.694	0.737
HAssetAmount	755	828	0.525	0.526	0.528
PAssetAmount	1099	2532	0.067	0.067	0.067
LivestockValue	5337	5067	0.848	0.886	0.924
NumCows	0.267	0.253	0.849	0.886	0.924
NetValue	6875	7668	0.653	0.653	0.653
n	653	77	(rate: 0.105)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 17.

Table 70: Permutation test results of attrition among traditional arm

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.121	0.000	0.038	0.058	0.078
HeadAge	38.424	39.821	0.511	0.515	0.518
HHsize	4.106	4.000	0.728	0.755	0.781
FloodInRd1	0.523	0.370	0.145	0.175	0.205
RiskPrefIndex	3.145	2.600	0.015	0.019	0.024
TimePref1Index	3.840	3.950	0.468	0.525	0.581
TimePref2Index	3.504	3.350	0.199	0.244	0.288
RiskPrefVal	108.887	134.868	0.001	0.001	0.001
TimePref1Val	370.992	390.000	0.497	0.545	0.594
TimePref2Val	505.344	470.000	0.180	0.221	0.262
HAssetAmount	620	967	0.083	0.084	0.084
PAssetAmount	938	1061	0.688	0.688	0.688
LivestockValue	5606	2963	0.289	0.336	0.384
NumCows	0.280	0.148	0.286	0.333	0.380
NetValue	6456	4983	0.584	0.584	0.585
n	132	28	(rate: 0.175)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of Table 18.

Table 71: Permutation test results of attrition among non-traditional arm

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.115	0.245	0.005	0.009	0.014
HeadAge	38.025	39.714	0.263	0.265	0.267
HHsize	4.200	4.612	0.060	0.063	0.067
FloodInRd1	0.481	0.510	0.654	0.709	0.764
RiskPrefIndex	3.069	2.800	0.203	0.219	0.234
TimePref1Index	3.832	4.080	0.198	0.219	0.240
TimePref2Index	3.383	3.520	0.354	0.394	0.434
RiskPrefVal	109.215	125.000	0.021	0.027	0.033
TimePref1Val	384.032	416.000	0.274	0.294	0.313
TimePref2Val	493.976	504.000	0.659	0.713	0.768
HAssetAmount	790	751	0.778	0.781	0.784
PAssetAmount	1140	3343	0.068	0.068	0.068
LivestockValue	5269	6250	0.565	0.603	0.641
NumCows	0.263	0.312	0.566	0.604	0.642
NetValue	6982	9178	0.324	0.324	0.324
n	521	49	(rate: 0.086)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of Table 18.

Table 72: Permutation test results of attriters of traditional and non-traditional arms

variables	NonTradArm	TradArm	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.245	0.000	0.004	0.006	0.007
HeadAge	39.714	39.821	0.966	0.971	0.975
HHsize	4.612	4.000	0.110	0.119	0.127
FloodInRd1	0.510	0.370	0.240	0.289	0.339
RiskPrefIndex	2.800	2.600	0.523	0.563	0.604
TimePref1Index	4.080	3.950	0.503	0.577	0.651
TimePref2Index	3.520	3.350	0.279	0.343	0.408
RiskPrefVal	125.000	134.868	0.225	0.298	0.372
TimePref1Val	416.000	390.000	0.502	0.576	0.649
TimePref2Val	504.000	470.000	0.280	0.344	0.408
HAssetAmount	751	967	0.414	0.417	0.420
PAssetAmount	3343	1061	0.894	0.894	0.894
LivestockValue	6250	2963	0.297	0.344	0.390
NumCows	0.312	0.148	0.294	0.342	0.389
NetValue	9178	4983	0.467	0.467	0.467
n	49	28	(rate: 0.364)		

Source: Estimated with GUK administrative and survey data.

Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of Table 18.

TABLE 73: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITION

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.116	0.135	0.608	0.699	0.790
HeadAge	38.106	41.243	0.067	0.067	0.068
HHsize	4.181	4.243	0.771	0.794	0.816
Arm	0.798	0.784	0.595	0.617	0.638
FloodInRd1	0.489	0.500	0.865	0.932	1.000
RiskPrefIndex	3.085	3.000	0.753	0.791	0.829
TimePref1Index	3.834	4.167	0.115	0.131	0.148
TimePref2Index	3.408	3.500	0.510	0.571	0.633
RiskPrefVal	109.146	125.000	0.045	0.057	0.069
TimePref1Val	381.329	433.333	0.118	0.135	0.151
TimePref2Val	496.343	500.000	0.863	0.931	1.000
HAssetAmount	755	836	0.611	0.613	0.616
PAssetAmount	1099	853	0.486	0.486	0.487
LivestockValue	5337	1143	0.051	0.057	0.063
NumCows	0.267	0.057	0.049	0.055	0.061
NetValue	6875	2349	0.043	0.043	0.043
n	653	37	(rate: 0.054)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 17.

TABLE 74: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITION AMONG TRADITIONAL ARM

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.121	0.000	0.227	0.411	0.595
HeadAge	38.424	38.000	0.901	0.907	0.913
HHsize	4.106	4.125	0.900	0.950	1.000
FloodInRd1	0.523	0.429	0.444	0.578	0.712
RiskPrefIndex	3.145	3.000	0.628	0.814	1.000
TimePref1Index	3.840	3.667	0.366	0.524	0.682
TimePref2Index	3.504	3.000	0.155	0.227	0.299
RiskPrefVal	108.887	125.000	0.199	0.398	0.596
TimePref1Val	370.992	333.333	0.365	0.520	0.674
TimePref2Val	505.344	400.000	0.060	0.131	0.203
HAssetAmount	620	1614	0.017	0.017	0.018
PAssetAmount	938	1277	0.348	0.348	0.348
LivestockValue	5606	5714	0.771	0.886	1.000
NumCows	0.280	0.286	0.774	0.887	1.000
NetValue	6456	8606	0.707	0.708	0.708
n	132	8	(rate: 0.057)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 75: PERMUTATION TEST RESULTS OF NON-FLOOD ATTRITION AMONG NON-TRADITIONAL ARM

variables	NonAttrited	Attrited	p-value.lower	p-value.mid	p-value.upper
HeadLiteracy	0.115	0.172	0.236	0.304	0.372
HeadAge	38.025	42.138	0.033	0.034	0.034
HHsize	4.200	4.276	0.744	0.770	0.795
FloodInRd1	0.481	0.517	0.567	0.638	0.710
RiskPrefIndex	3.069	3.000	0.728	0.768	0.809
TimePref1Index	3.832	4.267	0.079	0.091	0.102
TimePref2Index	3.383	3.600	0.230	0.273	0.316
RiskPrefVal	109.215	125.000	0.050	0.070	0.089
TimePref1Val	384.032	453.333	0.063	0.075	0.087
TimePref2Val	493.976	520.000	0.460	0.515	0.570
HAssetAmount	790	648	0.423	0.426	0.428
PAssetAmount	1140	751	0.265	0.266	0.266
LivestockValue	5269	0	0.021	0.030	0.039
NumCows	0.263	0.000	0.021	0.029	0.037
NetValue	6982	785	0.017	0.017	0.017
n	521	29	(rate: 0.053)		

Source: Estimated with GUK administrative and survey data.
Notes: 1. R's package coin is used for baseline mean covariates to conduct approximate permutation tests. Number of repetition is set to 100000.
2. See footnotes of TABLE 18.

TABLE 1 to TABLE 34: Trimmed sample.
TABLE 35 to TABLE 68: Full sample.

TABLE 69 to TABLE 75: Without group rejecter sample.

TABLE 1 shows results from tests of independence between attriters and non-attriters. We see the moderate rate of attrition is not correlated with household level characteristics at the conventional p value level. Productive asset amounts seem to differ between attriters and non-attriters, with the former being larger than the latter. This positive attrition selection can cause underestimation of impacts, if the asset values are positively correlated with entrepreneurial capacity. TABLE **??** shows attrition in the traditional arm. Household heads of attriters are relatively less literate than non-attriters. TABLE **??** compares attriters and non-attriters in the non-traditional arm. Unlike traditional arm attriters, non-traditional arm attriters have more literate household heads, have a larger household size, are more exposed to floods, and have larger productive assets. The traditional arm attriters may be less entrepreneurial, if anything, so their attrition may upwardly bias the positive gains of the arm, hence understate the impacts of non-traditional arm. These are explicitly shown in TABLE **??** where we compare attriters of traditional and non-traditional arms. Overall, attrition may have attenuated the impacts but is not likely to have inflated them.[†]

TABLE 17 shows test results of independence between loan receivers and nonreceivers (group, individual rejecters) on the analysis sample of 776 members. It shows that lower head literacy, smaller household size, being affected by flood at the baseline, smaller livestock holding, and smaller net assets are correlated with opting out the offered type of lending. TABLE 18 indicates that lower asset and livestock holding is more pronounced among traditional rejecters relative to loan receivers. It also shows that flood exposure is less frequent, contrary to TABLE 17, among the rejecters. TABLE 19 indicates that lower head literacy, smaller household size, higher flood exposure, are more pronounced among non-traditional rejecters relative to loan receivers. It also shows that asset and livestock holding is no different relative to the receivers. Comparing rejecters of traditional arm, lower flood exposure may be the only stark difference against non-traditional arm members, and smaller asset and livestock holding is merely suggestive (TABLE **??**).

Group rejecters and non-group rejecters are compared in TABLE 21. Marked differences are found in arm (traditional vs. non-traditional) and net asset values and head literacy are noted. TABLE 22 compares group rejecters in traditional arm and finds smaller flood exposure and lower livestock and net asset holding are associated with group rejection. Group rejecters in non-traditional arm are examined in TABLE 23 and younger head age, flood at baseline, and smaller household asset holding are correlated with rejection. Comparing group rejecters between traditional and non-traditional arms in TABLE 24, younger head age, higher flood exposure, larger net asset values and livestock holding are noted among the non-traditional group rejecters. These hint that for non-traditional arm group rejecters, it is the smaller household size and the baseline flood that may have constrained them from participation, and for traditional group rejecters, it is the low asset levels.

Acknowledging the reasons for rejection can be different, we tested the independence of each characteristics for individual rejecters (vs. non-individual rejeceters) in TABLE 25. Smaller HHsize, being affected with FloodInRd1, and smaller LivestockValue, NumCows, and NetValue are associated with individual rejecters. Individual decisions not to participate may be more straightforward: Smaller household size may indicate difficulty in securing the cattle production labour in a household, being hit with a flood may have resulted in lower livestock levels that would prompt them to reconsider partaking in another livestock project.

TABLE 26 and TABLE 27 compare individual rejecters and nonrejecters in traditional arm and non-traditional arms, respectively. For traditional rejecters, livestock and other asset values are not correlated with rejection, but the values are similar to non-traditional and higher p values may be due to smaller sample size. For non-traditional arm rejecters, household size and flood exposure are correlated. Comparison of individual rejecters between traditional and non-traditional arms show no

[†] So one can employ the Lee bounds for stronger results, but doing so will give us less precision and require more assumptions. We will not use the Lee bounds [we can show them if necessary].

TABLE 76: INDIVIDUAL REJECTERS

	Traditional arm			non-Traditional arms			All arms		
variables	Not rejected	Rejected	*p* value	Not rejected	Rejected	*p* value	Not rejected	Rejected	*p* value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
HeadLiteracy	0.095	0.161	0.261	0.133	0.068	0.181	0.127	0.100	0.443
HeadAge	38.848	36.258	0.213	38.000	39.732	0.224	38.145	38.494	0.764
HHsize	4.181	3.645	0.066	4.270	3.932	0.096	4.255	3.833	0.010
Arm							0.830	0.656	0.000
FloodInRd1	0.514	0.533	0.919	0.467	0.627	0.024	0.475	0.596	0.035
RiskPrefIndex	2.970	3.038	0.794	3.051	3.109	0.747	3.037	3.083	0.741
TimePref1Index	3.871	3.692	0.210	3.835	3.935	0.501	3.842	3.847	0.973
TimePref2Index	3.406	3.462	0.625	3.395	3.326	0.593	3.397	3.375	0.837
RiskPrefVal	114.691	122.596	0.216	109.140	118.207	0.075	110.098	119.792	0.022
TimePref1Val	376.238	342.308	0.247	384.792	393.478	0.701	383.305	375.000	0.656
TimePref2Val	485.149	492.308	0.790	494.979	488.889	0.781	493.264	490.141	0.890
HAssetAmount	714	547	0.431	794	724	0.589	780	664	0.280
PAssetAmount	996	851	0.720	1392	784	0.180	1324	807	0.196
LivestockValue	6095	3333	0.280	5619	3051	0.152	5700	3146	0.085
NumCows	0.305	0.167	0.280	0.281	0.153	0.153	0.285	0.157	0.083
NetValue	7685	4731	0.296	7483	4443	0.130	7518	4540	0.069
n	105	31	(rate 0.228)	511	59	(rate 0.104)	616	90	(rate 0.127)

Note:

TABLE 77: CONTRASTING CATTLE ARM AND OTHER ARMS, BORROWERS AND NON-ATTRITING BORROWERS

	Borrowers			Non-attriting borrowers		
variables	Cattle arm	Other arms	*p* value	Cattle arm	Other arms	*p* value
	(1)	(2)	(3)	(4)	(5)	(6)
HeadLiteracy	0.172	0.110	0.047	0.150	0.113	0.275
HeadAge	37.642	38.325	0.446	37.973	38.226	0.788
HHsize	4.166	4.287	0.341	4.102	4.285	0.171
FloodInRd1	0.463	0.479	0.751	0.459	0.484	0.595
RiskPrefIndex	3.075	3.023	0.629	3.116	3.045	0.493
TimePref1Index	3.969	3.793	0.042	3.966	3.778	0.042
TimePref2Index	3.453	3.376	0.248	3.459	3.372	0.237
RiskPrefVal	109.274	110.412	0.695	107.713	109.008	0.680
TimePref1Val	410.692	372.986	0.006	411.806	370.781	0.005
TimePref2Val	512.102	486.256	0.043	515.493	486.146	0.031
HAssetAmount	779	781	0.980	785	780	0.956
PAssetAmount	765	1526	0.117	753	1298	0.029
LivestockValue	4444	6150	0.158	3425	6437	0.016
NumCows	0.222	0.308	0.156	0.171	0.322	0.016
NetValue	5603	8204	0.059	4702	8315	0.007
n	163	453	(rate 0.265)	147	407	(rate 0.265)

Note:

detectable difference (TABLE 28). This suggests that indvidual rejecters in all arms were constrained with small household size and small asset holding.

TABLE 11 picks up only program surviving members (nonattrited and loan recepients) have greater asset values than non-survivors. Comparing the surviving members, characteristics are similar except that the traditional members are more exposed to the flood than the non-traditional members. Comparing against the large grace arm, survivors in the cattle arm are more exposed to the flood, have fewer productive assets, and have less livestock with *p* value at .124 (TABLE **??**). This shows that the smaller livestock holders are encouraged to participate and continue to operate in the cattle arm that has a managerial support program with all other features being equal. This underscores our intrepretation that the current impact estimates may be downward biased, if any, as people who would otherwise attrit or reject in cattle arm stayed on.