

Tech 1. Data Prep.

This workflow file takes the source data, recodes variables and prepares descriptive tables for comparison.

The original Tables 1-3 were extracted from the original study PDF using Adobe Acrobat ‘copy with formatting’ function and placed into the document ‘orig_tables.xlsx’.

```
pacman::p_load("tidyverse", "readxl", "foreign", "skimr", "fastDummies", "kableExtra", "MASS", "sjPlot", "webshot", "knitr")
```

Import Data

Datafile acquired after emails to Horvat then to Evans then to the ultimate source of this aggregate file “Mass_Public_Surveys_1993-2007.dta” with Ksenia Northmore-Ball (Nov. 8th, 2020)

```
# original data
df_origa <- readstata13::read.dta13("data/Mass_Public_Surveys_1993-2007.dta")
df_orig_labels <- readstata13::read.dta13("data/Mass_Public_Surveys_1993-2007.dta", generate.factors = T)

# original tables 1 & 2 from the article
Tbl1_orig <- read_xlsx("data/orig_tables.xlsx", sheet = "Tbl1", col_names = F)
Tbl2_orig <- read_xlsx("data/orig_tables.xlsx", sheet = "Tbl2", col_names = F)
Tbl3_orig <- read_xlsx("data/orig_tables.xlsx", sheet = "Tbl3", col_names = F)

# codebook
codebook <- read.csv("data/codebook.csv", header = T)
```

v270 Main source of income	Code
Earnings from employment (own or partner’s)	1
Pensions and benefits	2
Student stipend	3
Other state benefit	4
Interest from savings or property	5
Dependent on family/relatives	6

v200 Work Status	Code
in paid work (including self-employment)	1
full-time student	2
in military service	3
unemployed	4

permanently sick or disabled	5
completely retired from work	6
looking after the home	7
other	8
NA	9
demobilized	10
vacation without salary	11

Education = “Education is measured by three categories: low, middle, and higher education. Low education means no educational qualifications beyond the compulsory level. Middle education corresponds to completed secondary education and higher education corresponds to completed further or university education.” (p. 713)

ISCED-97 0 pre-primary 1 primary/1st stage basic ed 2 lower secondary 3 upper secondary 4 post-secondary non-tertiary 5 1st stage tertiary 6 2nd stage tert

v269 income per month Income recoded into terciles by country-year (see footnote 3)

Class

“Social class is measured by a six-category version of the Erikson–Goldthorpe class schema (Erikson and Goldthorpe, 1992), based on occupational measures of class position: service class, routine non-manual workers, self-employed workers, manual supervisors and skilled manual workers, semi-skilled and unskilled manual workers, and farmers or agricultural workers. A residual category ‘never had a paying job’ denotes respondents whose social class was ambiguous or missing but who reported never having been in paid employment elsewhere in the survey. Women with missing social class data were classified according to their husband’s class. Previous research on Eastern Europe suggests that occupational measures of class position perform adequately in the Eastern European context and successfully differentiate individuals in terms of their level of income, their degree of economic security, and chances of economic advancement (Evans, 1997; Evans and Mills, 1999).”

Students dropped

Age cat_age: cross-temporally and cross-nationally consistent age categories: 1: -29; 2: 30-44; 3: 45-59; 4: 60+

Recode Analysis Variables

```
df_orig <- df_origa %>%
  mutate(stdliv_past5 = car::recode(v272, "8 = 3"), # don't knows were recoded into middle cat
    in original study
    stdliv_past5_di = car::recode(stdliv_past5, "c(1,2) = 1; c(4,5) = 2; c(3) = 3"),
    stdliv_next5 = car::recode(v273, "8 = 3"),
    stdliv_next5_di = car::recode(stdliv_next5, "c(1,2) = 1; c(4,5) = 2; c(3) = 3"),
    noway_future_improve = as.numeric(as.character(iffelse(v276 == "no any way", 1, 0))),
    mkt_econ_eval = car::recode(v4, "'dont know' = 3"),
    mkt_econ_eval_di = car::recode(mkt_econ_eval, "c('very positively','positively') = 1;
    c('negatively','very negatively') = 2; c('neither positively nor negatively') = 3"),
    student = iffelse(v200 == 2 | v200 == 9, NA, 0), # remove students and NA's
    wave = as.numeric(car::recode(year, "c('1993','1994','1995','1996') = '1993'; c('2007
    ') = '2007'; c('1997','1998','2001','2002','2003','2004','2005','2006') = NA))),
    female = as.numeric(v298) - 1,
```

```

pensions = ifelse(is.na(v270), NA, ifelse(v270==2, 1, 0)),
unemployed = ifelse(v200 == 8, NA, ifelse(v200==4, 1, 0)),
car_owner = ifelse(v262 ==1, 1, 0),
education = car::recode(std_education, "c(0,1,2) = 1; c(3,4) = 2; c(5,6) = 3; c(99) =
NA"), # some had 99 in the std_education variable still, made into primary
education_a = car::recode(std_education, "c(1,2,95,96) = 1; c(3,4,5,6,8) = 2; c(7,9,1
0,11,12) = 3; c(98,99,14) = NA"), # 4 and 5 are questionable categories here
education = ifelse(cntry == "russia" & year == 1996, education_a, education),
# There is a problem with Russia in 1996, seems that it was not recoded into ISCED
EGP6 = car::recode(rclass10, "'Missing in 93-03 data' = 8; 'semi-unskilld manual' = 5;
'skilled manual' = 4; 'higher controllers' = 1; 'lo controllers' = 1; 'routine nonmanual'= 2;
'sempl without empl' = 3; 'seml with emp' = 4; 'selfempl farm' = 6; 'farm labor'=6; 'manual
supervisor' = 4; 'Missing Occupation Code 07' = 8; 'Not ISKO codes' = 8; 'ISKO Coded - no matc
h' = 8; 'Never had a paying job' = 7"),
EGP6 = ifelse(EGP6 == 8 & r2class10 == "never had a paying job", "7", EGP6),
EGP6 = ifelse(is.na(v201), EGP6, ifelse(v201 == "no", "7", EGP6)), # never had a paid
job
EGP6 = ifelse(EGP6 == 8, NA, EGP6)
) %>%
group_by(cntry, year) %>%
mutate(income = ifelse(is.na(v269), 4, ntile(v269, 3))) %>%
ungroup()

```

Weights

There are some curiosities with the weights. There are no weights for 1993 and other weights are NA meaning that full weighting is not possible. I recode NA to 1 for now to simply preserve cases.

```

# some weights are NA, replace with 1 (actually there are no weights for 1993, so this is not
really helpful)
df_orig$weight <- ifelse(is.na(df_orig$v461), 1, df_orig$v461)

```

Complete Dataframe

And generate group descriptive means

```

# create complete cases df
df_orig_complete <- df_orig[!is.na(df_orig["education"]),]
# df_orig_complete <- df_orig_complete[!is.na(df_orig_complete["income"]),]
df_orig_complete <- df_orig_complete[!is.na(df_orig_complete["EGP6"]),]
df_orig_complete <- df_orig_complete[!is.na(df_orig_complete["female"]),]
df_orig_complete <- df_orig_complete[!is.na(df_orig_complete["wave"]),]
df_orig_complete <- df_orig_complete[!is.na(df_orig_complete["student"]),]
df_orig_complete <- df_orig_complete[!is.na(df_orig_complete["pensions"]),]
df_orig_complete <- df_orig_complete[!is.na(df_orig_complete["unemployed"]),]
df_orig_complete <- df_orig_complete[!is.na(df_orig_complete["car_owner"]),]
df_orig_complete <- df_orig_complete[!is.na(df_orig_complete["stdliv_past5"]),]
df_orig_complete <- df_orig_complete[!is.na(df_orig_complete["stdliv_next5"]),]
df_orig_complete <- df_orig_complete[!is.na(df_orig_complete["mkt_econ_eval"]),]
df_orig_complete <- df_orig_complete[!is.na(df_orig_complete["noway_future_improve"]),]
# create factor dummies

```

```
df_orig_complete <- dummy_cols(df_orig_complete, select_columns = c("EGP6", "income", "education", "stdliv_past5_di", "stdliv_next5_di", "mkt_econ_eval_di"))

#create new group ID
df_orig_complete$group <- df_orig_complete$cat_age + (100*df_orig_complete$wave)

# cases per group

cases <- df_orig_complete %>%
  group_by(group) %>%
  count() %>%
  ungroup() %>%
  dplyr::select(-group) %>%
  t()

#df_orig <- select(df_orig, v201, rclass10, EGP6, everything())
```

Replicate Table 1

```
# get weighted means by group
Tbl1_rep <- apply(df_orig_complete[,c("education_1", "education_2", "education_3", "income_1", "income_2", "income_3", "EGP6_1", "EGP6_2", "EGP6_3", "EGP6_4", "EGP6_5", "EGP6_6", "EGP6_7", "female")], 2, function(x) {sapply(split(data.frame(df_orig_complete[, "weight"], x), df_orig_complete$group), function(y) weighted.mean(y[,2], w = y$weight))})

Tbl1_rep <- as.data.frame(t(round(Tbl1_rep*100, 0)))

Tbl1_rep_unw <- apply(df_orig_complete[,c("education_1", "education_2", "education_3", "income_1", "income_2", "income_3", "EGP6_1", "EGP6_2", "EGP6_3", "EGP6_4", "EGP6_5", "EGP6_6", "EGP6_7", "female")], 2, function(x) {sapply(split(data.frame(df_orig_complete[, "weight"], x), df_orig_complete$group), function(y) mean(y[,2], w = y$weight))})

Tbl1_rep_unw <- as.data.frame(t(round(Tbl1_rep_unw*100, 0)))

Tbl1_rep[nrow(Tbl1_rep)+1,] <- cases

Tbl1_rep_unw[nrow(Tbl1_rep_unw)+1,] <- cases

rownames(Tbl1_rep)[15] <- "N"
rownames(Tbl1_rep_unw)[15] <- "N"

# create csv for easy importing in final report
write.csv(Tbl1_rep, here::here("results", "Tbl1_rep_unw.csv"), row.names = F)

Tbl1_rep_out <- kable_styling(kable(Tbl1_rep, col.names = c("Wave 1, Age 18-29", "Wave 1, Age 30-49", "Wave 1, Age 50-59", "Wave 1, Age 60+", "Wave 2, Age 18-29", "Wave 2, Age 30-49", "Wave 2, Age 50-59", "Wave 2, Age 60+")), caption = "Table 1R. Replicated Weighted. Age and socio-demographic outcomes weighted in percentages by age group")
save_kable(Tbl1_rep_out, file = "results/Tbl1_rep.htm")

Tbl1_rep_out_unw <- kable_styling(kable(Tbl1_rep, col.names = c("Wave 1, Age 18-29", "Wave 1, Age 30-49", "Wave 1, Age 50-59", "Wave 1, Age 60+", "Wave 2, Age 18-29", "Wave 2, Age 30-49", "Wave 2, Age 50-59", "Wave 2, Age 60+")), caption = "Table 1R. Replicated Weighted. Age and socio-demographic outcomes weighted in percentages by age group")
save_kable(Tbl1_rep_out_unw, file = "results/Tbl1_rep_unw.htm")
```

```
2, Age 50-59", "Wave 2, Age 60+"), caption = "Table 1R. Replicated Unweighted. Age and socio-demographic outcomes weighted in percentages by age group"))

#webshot("results/Tbl1_rep.htm", file = "results/Tbl1_rep.png")
```

Table 1R Weighted

Tbl1_rep_out

Table 1R. Replicated Weighted. Age and socio-demographic outcomes weighted in percentages by age group

	Wave 1, Age 18-29	Wave 1, Age 30-49	Wave 1, Age 50-59	Wave 1, Age 60+	Wave 2, Age 18-29	Wave 2, Age 30-49	Wave 2, Age 50-59	Wave 2, Age 60+
education_1	29	26	39	62	26	42	38	72
education_2	54	48	39	25	24	35	48	15
education_3	17	25	22	13	50	23	15	12
income_1	26	24	30	56	16	32	38	39
income_2	34	35	34	31	27	31	42	45
income_3	39	41	36	13	57	37	20	15
EGP6_1	22	31	32	24	14	23	18	24
EGP6_2	15	13	11	10	7	22	15	13
EGP6_3	4	3	2	1	2	4	14	0
EGP6_4	23	22	21	18	55	26	16	19
EGP6_5	18	20	20	21	9	17	32	31
EGP6_6	8	10	12	22	0	4	4	10
EGP6_7	10	1	1	5	11	4	2	3
female	52	52	54	57	38	66	65	58
N	3827	7325	5766	5226	2086	3596	3876	3946

Table 1R Unweighted

Tbl1_rep_out_unw

Table 1R. Replicated Unweighted. Age and socio-demographic outcomes weighted in percentages by age group

	Wave 1, Age 18-29	Wave 1, Age 30-49	Wave 1, Age 50-59	Wave 1, Age 60+	Wave 2, Age 18-29	Wave 2, Age 30-49	Wave 2, Age 50-59	Wave 2, Age 60+
education_1	29	26	39	62	26	42	38	72
education_2	54	48	39	25	24	35	48	15
education_3	17	25	22	13	50	23	15	12
income_1	26	24	30	56	16	32	38	39
income_2	34	35	34	31	27	31	42	45
income_3	39	41	36	13	57	37	20	15
EGP6_1	22	31	32	24	14	23	18	24
EGP6_2	15	13	11	10	7	22	15	13
EGP6_3	4	3	2	1	2	4	14	0
EGP6_4	23	22	21	18	55	26	16	19
EGP6_5	18	20	20	21	9	17	32	31
EGP6_6	8	10	12	22	0	4	4	10
EGP6_7	10	1	1	5	11	4	2	3
female	52	52	54	57	38	66	65	58
N	3827	7325	5766	5226	2086	3596	3876	3946

Table 1 Original

```
Tbl1_orig <- Tbl1_orig[-c(1:3),]
colnames(Tbl1_orig) <- c("Variable","y93-96 a18-29","y93-96 a30-44","y93-96 a 45-59","y93-96 a
60+","y07 18-29","y07 30-44","y07 45-59","y07 60+")

Tbl1_orig[,2:9] <- lapply(Tbl1_orig[,2:9], function (x) ifelse(is.na(x), "", x))

Tbl2_orig <- Tbl2_orig[-c(1:2),]

colnames(Tbl2_orig) <- c("Variable","y93-96 a18-29","y93-96 a30-44","y93-96 a 45-59","y93-96 a
60+","y07 18-29","y07 30-44","y07 45-59","y07 60+")

Tbl2_orig[,2:9] <- lapply(Tbl2_orig[,2:9], function (x) ifelse(is.na(x), "", x))

Tbl1_orig$Variable <- c(NA, "Education_1_Low", "Education_2_Mid", "Education_3_Hi", NA, "Incom
```

```
e_1_Low", "Income_2_Mid", "Income_3_Hi", NA, "EGP6_1_Service", "EGP6_2_Rtn_NonMan", "EGP6_3_SelfEmp", "EGP6_4_SkilMan", "EGP6_5_Unskilled", "EGP6_6_Farmers", "EGP6_7_NeverHadJob", "Female", "N")

Tbl1_orig <- subset(Tbl1_orig, !is.na(Variable))

kable_styling(kable(Tbl1_orig, caption = "Table 10. Original. Age and socio-demographic outcomes weighted in percentages by age group"))
```

Table 10. Original. Age and socio-demographic outcomes weighted in percentages by age group

Variable	y93-96 a18-29	y93-96 a30-44	y93-96 a 45-59	y93-96 a60+	y07 18- 29	y07 30- 44	y07 45- 59	y07 60+
Education_1_Low	13	14	29	56	11	9	13	40
Education_2_Mid	75	66	51	31	66	69	67	45
Education_3_Hi	13	21	20	13	23	22	19	15
Income_1_Low	18	16	20	42	19	14	21	32
Income_2_Mid	53	54	52	49	44	47	50	59
Income_3_Hi	29	31	28	9	37	39	29	9
EGP6_1_Service	21	30	32	23	30	32	29	27
EGP6_2_Rtn_NonMan	16	14	11	10	18	17	14	12
EGP6_3_SelfEmp	6	5	3	2	4	5	5	2
EGP6_4_SkilMan	21	20	20	17	14	17	18	16
EGP6_5_Unskilled	19	20	20	21	18	20	24	24
EGP6_6_Farmers	9	10	13	23	3	5	8	15
EGP6_7_NeverHadJob	9	1	1	4	14	4	2	4
Female	51	52	53	55	54	56	57	59
N	3800	6897	5542	5019	2107	3667	3945	4045

The results do not match very well, especially in the education category. Actually it appears that only 2007 has weights. Running Table 1 without weights changes very little. Therefore, a proper test requires hand coding by country; however, the country-specific education codes in the codebook for v198 are incorrect, e.g., I tested Bulgaria and Belarus 1993. Belarus looks ok except two missing codes are not present, but Bulgaria has several extra codes than what is listed in the codebook provided (values 8-12). Therefore, this hand coding is not possible. Russia has different codes altogether, therefore I had to guess how to code it under the assumption the variable was similarly ordinal.

Education Peculiarities

ISCED in all countries except Russia

```
unique(df_orig$std_education[df_orig$cntry != "russia"])
```

```
## [1] 5 6 3 4 1 0 2 NA 99
```

Russia not in ISCED

Extra categories not in ISCED-97 or in other countries

```
unique(df_orig$std_education[df_orig$cntry == "russia"])
```

```
## [1] 3 4 2 1 NA 5 0 9 10 7 8 6 11 12 96 95
```

Check original education variable

Russia

Not coded following original codebook (see “data” folder). At least one category is present in data (“14”) that is not in codebook

RUSSIA 1993 V198 highest education level 1 primary school 2 secondary school 3 high school 4 professional courses 5 vocational school 6 technical secondary school 7 vocational post-school 8 technical college 9 incomplete high education(institute,university,academy) 10 high education(institute,university,academy) 11 additional training courses 12 degree 95 no educational qualifications 96 never went to school 98 don’t know

```
unique(df_orig$vl98[df_orig$cntry == "russia"])
```

```
## [1] 3 10 7 6 2 9 8 5 1 4 11 NA 12 96 95 99 14
```

Belarus

BELARUS 1993 V198 education 1 elementary school 2 junior high school 3 high school 4 professional training courses 5 regular factory-and-workshop school,industrial training scho 6 industrial training high school 7 college (for nurses, elementary school teachers, musicians) 8 technical college 9 bachelor’s degree 10 master’s degree (university, academy etc) 11 postgraduate courses 12 Ph. Degree 95 no certificates of education of any kind 96 never went to school 98 don’t know

```
unique(df_orig$vl98[df_orig$cntry == "belarus"])
```

```
## [1] 8 10 3 6 7 4 11 9 5 1 95 2 NA 12
```

Bulgaria

BULGARIA 1993 V198 education 1 NO COMPLETED ED. 2 ELEMENTARY 3 PRIMARY 4 HIGH SCHOOL 5 SECONDARY VOCATIONAL 6 COLLEGE 7 HIGHER 98 DON T KNOW


```
unique(df_orig$vl98[df_orig$cntry == "belarus"])
```

```
##      [1]      8 10      3      6      7      4 11      9      5      1 95      2 NA 12
```

Table 2 Replicated

```
# get weighted means by group
Tbl2_rep <- apply(df_orig_complete[,c("pensions","unemployed","car_owner")], 2, function(x) {s
apply(split(data.frame(df_orig_complete[, "weight"], x), df_orig_complete$group), function(y) w
eighted.mean(y[,2], w = y$weight))})

Tbl2_rep <- as.data.frame(t(round(Tbl2_rep, 3)))

Tbl2_rep[nrow(Tbl2_rep)+1,] <- cases

rownames(Tbl2_rep)[4] <- "N"

# create csv for easy importing in final report
write.csv(Tbl2_rep, here::here("results", "Tbl2_rep.csv"), row.names = F)

Tbl2_rep[1,] <- round(as.numeric(Tbl2_rep[1,])*100,0)
Tbl2_rep[2,] <- round(as.numeric(Tbl2_rep[2,])*100,0)
Tbl2_rep[3,] <- round(as.numeric(Tbl2_rep[3,])*100,0)
Tbl2_rep[4,] <- round(as.numeric(Tbl2_rep[4,]),0)

kable_styling(kable(Tbl2_rep, caption = "Table 2R. Replicated. Age-based inequality in resourc
es in percentage", col.names = c("Wave 1, Age 18-29", "Wave 1, Age 30-44", "Wave 1, Age 45-59"
, "Wave 1, 60+", "Wave 2, Age 18-29", "Wave 2, Age 30-44", "Wave 2, Age 45-59", "Wave 2, 60+")
))
```

Table 2R. Replicated. Age-based inequality in resources in percentage

	Wave 1, Age 18-29	Wave 1, Age 30-44	Wave 1, Age 45-59	Wave 1, 60+	Wave 2, Age 18-29	Wave 2, Age 30-44	Wave 2, Age 45-59	Wave 2, 60+
pensions	2	3	22	86	2	5	22	94
unemployed	16	9	6	0	8	11	10	1
car_owner	37	44	40	22	37	53	62	28
N	3827	7325	5766	5226	2086	3596	3876	3946

Table 2. Original

```
kable_styling(kable(Tbl2_orig, caption = "Table 20. Original. Age-based inequality in resource
s in percentage"))
```

Table 2O. Original. Age-based inequality in resources in percentage

Variable	y93-96 a18-29	y93-96 a30-44	y93-96 a45-59	y93-96 a60+	y07 18-29	y07 30-44	y07 45-59	y07 60+
Pensions and benefits	2	3	22	86	5	6	21	88
Unemployed	12	10	6	0.4	8	7	8	0.7
Car-ownership	43	47	43	24	58	61	53	28
N	3800	6897	5542	5019	2107	3667	3945	4045

Table 3R. Replicated Weights.

```
Tbl3_rep <- apply(df_orig_complete[,c("stdliv_past5_di_1","stdliv_past5_di_2","stdliv_next5_di_1","stdliv_next5_di_2","noway_future_improve","mkt_econ_eval_di_1","mkt_econ_eval_di_2")], 2, function(x) {sapply(split(data.frame(df_orig_complete[, "weight"], x), df_orig_complete$group), function(y) weighted.mean(y[,2], w = y$weight))})

Tbl3_rep <- as.data.frame(t(round(Tbl3_rep, 3)))

Tbl3_rep[nrow(Tbl3_rep)+1,] <- cases

rownames(Tbl3_rep)[8] <- "N"

Tbl3_rep[1,] <- round(as.numeric(Tbl3_rep[1,])*100,0)
Tbl3_rep[2,] <- round(as.numeric(Tbl3_rep[2,])*100,0)
Tbl3_rep[3,] <- round(as.numeric(Tbl3_rep[3,])*100,0)
Tbl3_rep[4,] <- round(as.numeric(Tbl3_rep[4,])*100,0)
Tbl3_rep[5,] <- round(as.numeric(Tbl3_rep[5,])*100,0)
Tbl3_rep[6,] <- round(as.numeric(Tbl3_rep[6,])*100,0)
Tbl3_rep[7,] <- round(as.numeric(Tbl3_rep[7,])*100,0)
Tbl3_rep[8,] <- round(as.numeric(Tbl3_rep[8,]),0)

kable_styling(kable(Tbl3_rep, caption = "Table 3R. Replicated Weights. Age-based inequality in economic experience in percentages", col.names = c("Wave 1, Age 18-29", "Wave 1, Age 30-44", "Wave 1, Age 45-59", "Wave 1, 60+", "Wave 2, Age 18-29", "Wave 2, Age 30-44", "Wave 2, Age 45-59", "Wave 2, 60+")))
```

Table 3R. Replicated Weights. Age-based inequality in economic experience in percentages

	Wave 1, Age 18-29	Wave 1, Age 30-44	Wave 1, Age 45-59	Wave 1, 60+	Wave 2, Age 18-29	Wave 2, Age 30-44	Wave 2, Age 45-59	Wave 2, 60+
stdliv_past5_di_1	57	66	75	81	21	43	52	58
stdliv_past5_di_2	20	16	9	5	68	31	25	11

stdliv_next5_di_1	19	25	33	32	11	29	42	38
stdliv_next5_di_2	37	29	22	16	71	32	24	13
noway_future_improve	10	16	35	74	12	16	29	81
mkt_econ_eval_di_1	24	20	17	15	65	17	18	23
mkt_econ_eval_di_2	47	54	57	54	22	57	55	51
N	3827	7325	5766	5226	2086	3596	3876	3946

Here I can reproduce Table 3 almost exactly, but only when I **do not use weights**, therefore, it is unclear what it means in the text when they claim that the descriptives are weighted.

```
Tbl3_rep_n <- apply(df_orig_complete[,c("stdliv_past5_di_1","stdliv_past5_di_2","stdliv_next5_di_1","stdliv_next5_di_2","noway_future_improve","mkt_econ_eval_di_1","mkt_econ_eval_di_2")],
2, function(x) {sapply(split(data.frame(df_orig_complete[, "weight"], x), df_orig_complete$group), function(y) mean(y[,2], w = y$weight))})

Tbl3_rep_n <- as.data.frame(t(round(Tbl3_rep_n, 3)))

Tbl3_rep_n[nrow(Tbl3_rep_n)+1,] <- cases

rownames(Tbl3_rep_n)[7] <- "N"

Tbl3_rep_n[1,] <- round(as.numeric(Tbl3_rep_n[1,])*100,0)
Tbl3_rep_n[2,] <- round(as.numeric(Tbl3_rep_n[2,])*100,0)
Tbl3_rep_n[3,] <- round(as.numeric(Tbl3_rep_n[3,])*100,0)
Tbl3_rep_n[4,] <- round(as.numeric(Tbl3_rep_n[4,])*100,0)
Tbl3_rep_n[5,] <- round(as.numeric(Tbl3_rep_n[5,])*100,0)
Tbl3_rep_n[6,] <- round(as.numeric(Tbl3_rep_n[6,])*100,0)
Tbl3_rep_n[7,] <- round(as.numeric(Tbl3_rep_n[7,])*100,0)
Tbl3_rep_n[8,] <- round(as.numeric(Tbl3_rep_n[8,]),0)

# create csv for easy importing in final report
write.csv(Tbl3_rep_n, here::here("results", "Tbl3_rep_n.csv"), row.names = F)

kable_styling(kable(Tbl3_rep_n, caption = "Table 3R. Replicated No Weights. Age-based inequality in economic experience in percentages", col.names = c("Wave 1, Age 18-29", "Wave 1, Age 30-44", "Wave 1, Age 45-59", "Wave 1, 60+", "Wave 2, Age 18-29", "Wave 2, Age 30-44", "Wave 2, Age 45-59", "Wave 2, 60+")))
```

Table 3R. Replicated No Weights. Age-based inequality in economic experience in percentages

	Wave 1, Age 18- 29	Wave 1, Age 30- 44	Wave 1, Age 45- 59	Wave 1, 60+	Wave 2, Age 18- 29	Wave 2, Age 30- 44	Wave 2, Age 45- 59	Wave 2, 60+
stdliv_past5_di_1	57	66	75	81	19	24	34	39

stdliv_past5_di_2	20	16	9	5	48	42	30	20
stdliv_next5_di_1	19	25	33	32	7	11	18	24
stdliv_next5_di_2	37	29	22	16	52	43	31	19
noway_future_improve	10	16	35	74	4	8	24	67
mkt_econ_eval_di_1	24	20	17	15	38	35	30	25
N	47	54	57	54	33	36	42	43
8	3827	7325	5766	5226	2086	3596	3876	3946

Table 3O. Original

```
colnames(Tbl3_orig) <- c("Variable", "Wave 1, Age 18-29", "Wave 1, Age 30-44", "Wave 1, Age 45-59", "Wave 1, 60+", "Wave 2, Age 18-29", "Wave 2, Age 30-44", "Wave 2, Age 45-59", "Wave 2, 60+")

Tbl3_orig$Variable <- c(NA, "stdliv_past5_fallen", "stdliv_past5_risen", NA, "stdliv_next5_fallen", "stdliv_next5_risen", "noway_future_improve", NA, "mkt_econ_eval_pos", "mkt_econ_eval_neg", "N")

Tbl3_orig <- subset(Tbl3_orig, !is.na(Variable))

kable_styling(kable(Tbl3_orig, caption = "Table 3O. Original. Age-based inequality in economic experience in percentages"))
```

Table 3O. Original. Age-based inequality in economic experience in percentages

Variable	Wave 1, Age 18-29	Wave 1, Age 30-44	Wave 1, Age 45-59	Wave 1, 60+	Wave 2, Age 18-29	Wave 2, Age 30-44	Wave 2, Age 45-59	Wave 2, 60+
stdliv_past5_fallen	57	66	75	80	19	24	34	40
stdliv_past5_risen	19	15	9	5	49	42	31	19
stdliv_next5_fallen	19	26	34	34	7	12	19	25
stdliv_next5_risen	37	30	23	17	53	43	31	19
noway_future_improve	10	15	35	74	6	10	31	79
mkt_econ_eval_pos	24	20	17	17	42	35	29	24
mkt_econ_eval_neg	45	53	56	52	31	36	42	43
N	3800	6897	5542	5019	2107	3667	3945	4045

Table A.1

Just to check the sample

```
TblA1_repa <- df_orig_complete %>%
  subset(year == 1993) %>%
  group_by(cntry) %>%
  count(cntry) %>%
  ungroup()

TblA1_repb <- df_orig_complete %>%
  subset(year == 1994) %>%
  group_by(cntry) %>%
  count(cntry) %>%
  ungroup()

TblA1_repc <- df_orig_complete %>%
  subset(year == 1996) %>%
  group_by(cntry) %>%
  count(cntry) %>%
  ungroup()

TblA1_repd <- df_orig_complete %>%
  subset(year == 2007) %>%
  group_by(cntry) %>%
  count(cntry) %>%
  ungroup()

TblA1_rep <- left_join(TblA1_repd, TblA1_repa, by = "cntry")
TblA1_rep <- left_join(TblA1_rep, TblA1_repb, by = "cntry")
TblA1_rep <- left_join(TblA1_rep, TblA1_repc, by = "cntry")

TblA1_rep[,1:5] <- TblA1_rep[,c(1,3,4,5,2)]

colnames(TblA1_rep) <- c("country", "1993 N", "1994 N", "1996 N", "2007 N")

TblA1r <- kable_styling(kable(TblA1_rep))

save_kable(TblA1r, file = "results/TblA1_rep.htm")

webshot("results/TblA1_rep.htm", file = "results/TblA1_rep.png")
```

country	1993 N	1994 N	1996 N	2007 N
belarus	1026	NA	NA	918
bulgaria	1671	NA	NA	878
czech	NA	1278	NA	835
estonia	1874	NA	NA	918
hungary	1226	NA	NA	853
latvia	NA	NA	1843	912
lithuania	1794	NA	NA	770
moldova	NA	NA	1536	944
poland	1410	NA	NA	1237
romania	1481	NA	NA	1119
russia	1597	NA	1827	1864
slovakia	NA	1307	NA	915
ukraine	2274	NA	NA	1341

```
kable_styling(kable(TblA1_rep, caption = "Table 1.A Replicated"))
```

Table 1.A Replicated

country	1993 N	1994 N	1996 N	2007 N
belarus	1026	NA	NA	918
bulgaria	1671	NA	NA	878
czech	NA	1278	NA	835
estonia	1874	NA	NA	918
hungary	1226	NA	NA	853
latvia	NA	NA	1843	912
lithuania	1794	NA	NA	770
moldova	NA	NA	1536	944
poland	1410	NA	NA	1237

romania	1481	NA	NA	1119
ruusia	1597	NA	1827	1864
slovakia	NA	1307	NA	915
ukraine	2274	NA	NA	1341

```
# remove some unused variables to save filesize
df_orig_complete <- df_orig_complete %>%
  dplyr::select(stdliv_next5, stdliv_next5_di, stdliv_past5, stdliv_past5_di, cat_age, wave, f
emale, education, EGP6, income, pensions, unemployed, car_owner, cntry)

write.csv(df_orig_complete, here::here("data/df_orig_complete.csv"))
```