

* Decomposition of income changes

* The code produces descriptive data and the decomposition of age-specific income changes as published in:

* Article Title : Age-Specific Income Trends in Europe: The Role of Employment, Wages, and Social Transfers

* Journal: Social Indicators Research

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* Input: Merged EU-SILC cross-section data

* Content

* 0. Merge the data delivered by Eurostat and transform it to STATA format

* 1. Generate needed variables

* 1.1 Needed non-income variables

* 1.2 Needed income variables

* 2. Descriptive statistics: age-specific income means & change

* 3. Descriptive statistics: age-specific income percentiles & change

* 4. Means and percentiles: Copy and paste to Excel file; Table 2,3,5,6 and 7

* 5. Decomposition of age-specific income changes: Table 4

* 6. Graphs of age-specific income changes, Fig. 1

* Working directory

local wdir "C:\Users\bhammer\EUSILC\data"

cd `wdir'

* Folder with the original SILC data

global data_original "D:\EUSILCdata\Cross\"

* Folder for graphs

global graphslocation "C:\Users\bhammer\EUSILC\graphs"

global country AT IT FR SE SI PL EE EL ES

global year 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19

* 0. Merge the data delivered by Eurostat and transform it to STATA format

foreach x in \$country {

```

foreach y in $year {

*****
* 0.1 Read csv files, convert the into stata files
*****

* Household register file
  clear all
  cap noi insheet using "$data_original\`x'\20`y'\UDB_c`x``y'D.csv", names case
delim(",")
  cap noi clonevar HHID = DB030
  gen YEAR = 1999 + `y' // YEAR refers to income reference period
  cap noi sort HHID
  cap noi save "UDB_c`x``y'D", replace

* Personal register
  clear all
  cap noi insheet using "$data_original\`x'\20`y'\UDB_c`x``y'R.csv", names case
delim(",")
  cap noi clonevar PID = RB030 // personal ID
  cap noi gen HHID = RX030
  cap noi sort HHID PID
  cap noi save "UDB_c`x``y'R", replace

* Household data
  clear all
  cap noi insheet using "$data_original\`x'\20`y'\UDB_c`x``y'H.csv", names case
delim(",")
  cap noi save "UDB_c`x``y'H", replace
  cap noi clonevar HHID = HB030
  cap noi sort HHID
  cap noi save "UDB_c`x``y'H", replace

* Personal data
  clear all
  cap noi insheet using "$data_original\`x'\20`y'\UDB_c`x``y'P.csv", names case
delim(",")
  cap noi destring PB120, ignore ("**")replace // in Poland there is **
instead of number
  cap noi clonevar PID = PB030
  cap noi gen HHID = PX030
  * Alternative if PX030 missing
  cap noi gen HHID_1 = PID/100 // last two numbers is the personal identifier
within the household
  cap noi gen HHID1 = floor(HHID_1)
  cap noi replace HHID = HHID1 if HHID==.
  cap noi sort HHID PID
  cap noi save "UDB_c`x``y'P", replace
  display "`x'"
}

```

```
display "`y'"
```

```
*****
```

```
* 0.2. Merge the files for a given year and a given country
```

```
*****
```

```
* Start with register data
```

```
clear all
```

```
cap noi use "UDB_c`x``y'R", clear
```

```
cap noi sort HHID PID
```

```
* merge personal data
```

```
cap noi merge HHID PID using UDB_c`x``y'P.dta
```

```
cap noi tab _merge // children below 16 are only in register data
```

```
cap drop _merge
```

```
* merge household data
```

```
cap noi sort HHID
```

```
cap noi merge m:1 HHID using UDB_c`x``y'H.dta
```

```
cap noi tab _merge
```

```
cap drop _merge
```

```
* merge household register data
```

```
cap noi sort HHID
```

```
cap noi merge m:1 HHID using UDB_c`x``y'D.dta
```

```
cap noi tab _merge
```

```
cap drop _merge
```

```
* Save data by country and year
```

```
cap noi sort HHID PID
```

```
cap noi save silc`x``y', replace
```

```
display "`x'"
```

```
display "`y'"
```

```
* Erase the single data files
```

```
cap noi erase UDB_c`x``y'H.dta
```

```
cap noi erase UDB_c`x``y'P.dta
```

```
cap noi erase UDB_c`x``y'R.dta
```

```
cap noi erase UDB_c`x``y'D.dta
```

```
}
```

```
*****
```

```
* 0.3 Cross-section data; create dataset with all years for each country
```

```
*****
```

```
local firstyear = "0"
```

```
* Append the yearly data for each country
```

```

        foreach y of global year {
            capture confirm file silc`x``y'.dta // is there a data set for the year
and country
                if (_rc==0 & `firstyear'==0) {          // if it is the first year in
the survey, load the data
                    use silc`x``y'.dta, clear
                    *erase silc`x``y'.dta
                    local firstyear = `y'                // generate a local indicating
the first year
                }
            if (_rc==0 & `firstyear'!=`y') { // append the later years
                append using silc`x``y'.dta, force
            }
            if (_rc==0) {
                erase silc`x``y'.dta
            }
        }
    save silc`x'0_1, replace
    display "`x'"
    display "`y'"
}

```

```

*****
*****
* 1. Generate needed variables
*****
*****

```

```

foreach x in $country {
    use silc`x'0_1, clear

```

```

*****
* 1. Needed non-income variables
*****

```

```

    * Country
    gen CNT2 = "`x'"

```

```

    * Age at end of income reference period
    gen AGE = RX020
    label var AGE "Age at end of inc reference period"

```

```

    * Age groups
    gen AGEGR20 = 0 if AGE<20
    replace AGEGR20 = 2 if AGE>=20 & AGE<40
    replace AGEGR20 = 4 if AGE>=40 & AGE<60
    replace AGEGR20 = 6 if AGE>=60

```

```

label define AGEGR20 0 "<20" 2 "20-39" 4 "40-59" 6 ">60"
label val AGEGR20 AGEGR20

* Sex
gen SEX = RB090
label define SEX 0 "Total" 1 "male" 2 "female"
label val SEX SEX

* Personal weight
gen WEIGHT = RB050 // personal cross-sectional weight

* Household size
bysort YEAR HHID: egen HHSIZE = count(PID)
label var HHSIZE "no. of hh members"

* Within household ID
// Ranging from 1 to number of household members
// Within household ID is used to avoid problems with the large numbers of the
personal ID
gen hhid = PID/100 // last two numbers is the personal identifier within the
household
replace hhid = floor(hhid) // cut the hid off the pid
gen PIDHH = PID - hhid*100 // number within household
label var PIDHH "ID of HH-member within household"
drop hhid

*****
* Identify adult persons: those most likely to own assets and generate income
*****

* If person below 35, he/she must be in employment (PL031: 1-4) or doing
domestic work (PL031: 10)
gen ADULT = 0
replace ADULT = 1 if (((PL031>=1 & PL031<=4) | PL031==10) & AGE>=16) |
AGE>=35

* If there is not working adult, also younger non-working persons are
treated as adult
bysort YEAR HHID: egen NADULT = total(ADULT)
replace ADULT = 1 if AGE>=16 & NADULT==0

drop NADULT
bysort YEAR HHID: egen NADULT = total(ADULT)

// In Italy or Austria there are no households with only persons below 16
replace ADULT = 1 if AGE>14 & NADULT==0

```

```

* Households without adult persons (15+) are dropped
drop NADULT
bysort YEAR HHID: egen NADULT = total(ADULT)
drop if NADULT==0

```

```

*****

```

```

* Activity status

```

```

*****

```

```

gen ACTIVITY = .

```

```

* Value labels for activity variable

```

```

label define ACTIVITY 0 "missing" 1 "education" 2 "parttime" 3 "fulltime" ///
4 "unemployed" 5 "domestic work and care" 6 "retired"

```

```

///

```

```

7 "inactive, other"

```

```

label values ACTIVITY ACTIVITY

```

```

* Use information from PL031, self-defined economic status after 2008

```

```

replace ACTIVITY = 1 if PL031==6 | PL031==9 | AGE<=15 // education and unpaid
work experience, military service
replace ACTIVITY = 2 if PL031==2 | PL031==4 // employed and self-employed part
time

```

```

replace ACTIVITY = 3 if PL031==1 | PL031==3 // employed and self-employed
fulltime; compulsory military and civil service

```

```

replace ACTIVITY = 4 if PL031==5 // unemployed

```

```

replace ACTIVITY = 5 if PL031==10 // domestic work

```

```

replace ACTIVITY = 6 if PL031==7 | PL031==8 // retired or disabled

```

```

replace ACTIVITY = 7 if PL031==11 // inactive other

```

```

* Use information from PL030, self-defined economic status before 2009

```

```

capture replace ACTIVITY = 1 if PL030==4 | PL030==7 | AGE<=15 // education and
unpaid work experience, military service

```

```

capture replace ACTIVITY = 2 if PL030==2 // working part time

```

```

capture replace ACTIVITY = 3 if PL030==1 // working fulltime; compulsory
military and civil service

```

```

capture replace ACTIVITY = 4 if PL030==3 // unemployed

```

```

capture replace ACTIVITY = 5 if PL030==8 // domestic work

```

```

capture replace ACTIVITY = 6 if PL030==5 | PL030==6 // retired or disabled

```

```

capture replace ACTIVITY = 7 if PL030==9 // inactive other

```

```

* Complement info and replace missing values using other variables

```

```

* (RB170 main activity status during income reference period)

```

```

replace ACTIVITY = 1 if PE010==1 & ACTIVITY==. // current education activity:
in education

```

```

replace ACTIVITY = 3 if RB210==1 & ACTIVITY==. // at work (no info about
full-time and part-time)

```

```

replace ACTIVITY = 4 if RB210==2 & ACTIVITY==. // unemployed

```

```

replace ACTIVITY = 6 if RB210==3 & ACTIVITY==. // retired

```

```

replace ACTIVITY = 7 if RB210==4 & ACTIVITY==. // inactive, other

```

```

        replace ACTIVITY = 6 if ACTIVITY==. & AGE>=60 // retired if age>60 and
missing
        replace ACTIVITY = 6 if AGE>=60 & ACTIVITY!=2 & ACTIVITY!=3

        replace ACTIVITY = 3 if ACTIVITY==. & (PY010G>=8000 | PY050G>=8000)

*****
* Person responsible for accomodation
*****

        gen ACCOMODATION = 0
        replace ACCOMODATION = 1 if HB080==PID // Person 1
        replace ACCOMODATION = 1 if HB090==PID // Person 2 responsible for
accomodation
        label var ACCOMODATION "Persons responsible for accomodation"

        * In each household there has to be at least one person responsible for
accomodation
        bysort YEAR HHID: egen NACCOMOD = total(ACCOMODATION)
        egen ACCOTAG = tag(YEAR HHID ADULT)
        replace ACCOMODATION = 1 if ACCOTAG==1 & ADULT==1 & NACCOMOD==0
        drop NACCOMOD ACCOTAG

*****
* Characteristics of partner
*****

        preserve

        drop if RB240==. // drop if partner is not living in the same household

        * Choose partner-characteristics of interest
        local partnerchar "AGE ACTIVITY ACCOMODATION PIDHH"
        keep `partnerchar' RB030 RB240 YEAR
        rename RB240 PID // for merging with main data partner-ID is ID, and ID
becomes partner-ID
        rename RB030 PID_P

        * Partner-variables are are named as [variable]_P
        foreach var of local partnerchar {
                rename `var' `var'_P
        }

        * Save the file with partner-data
        sort YEAR PID
        tempfile partnerdata
        save `partnerdata'

        restore

```

```

* Merge full dataset with the partner dataset
    sort YEAR PID
    merge YEAR PID using `partnerdata'
    drop _merge

*****
* Couple ID: Identify and number persons living within couples within HH
*****

// Numbering of couples within household:
// Each couple within the household gets a number ranging from 1
// to the number of couples in the HH

gen COUPLEID = .
    label var COUPLEID "Couple ID within HH"

sum HHSIZE
    global hhsizemax `r(max)'

* Assign to each couple the personal ID with the lowest value (couple PIDHH==2 and
PIDHH==4 gets COUPLEID = 2)
    forvalues i = 1/$hhsizemax {
        replace COUPLEID = `i' if (PIDHH==`i' | PIDHH_P==`i') & COUPLEID==.
        replace COUPLEID = . if PIDHH_P==.
    }

* Ensure that COUPLEID is a sequence without holes
    egen COUPLETAG = tag(YEAR HHID COUPLEID)
    bysort YEAR HHID: egen COUPLEIDSEQ = seq() if COUPLETAG==1
    rename COUPLEID COUPLEIDtemp
    bysort YEAR HHID COUPLEIDtemp: egen COUPLEID = total(COUPLEIDSEQ)
    replace COUPLEID = . if COUPLEIDtemp==.
    drop COUPLEIDtemp COUPLEIDSEQ

*****
* Survey design: strata and primary sampling units
*****

* Generates the variables with the primary sampling unit and strata
* Approach:
* PSUs are identified by DB060
* DB040 (NUTS1/NUTS2 regions) are used as a proxy for for the stratum variable

* DB040 underestimates the number of strata in BE CZ GR ES FR IT RO

* Italy has self-representing PSUs: In this case there should be only one PSU
within the Stratum

```

```
    browse YEAR HHID DB040 DB060
```

```
* Number of observations
  bysort YEAR: egen NOBS = count(PID)

* Identifier of STRATA
  capture confirm numeric variable DB040
  if !_rc {
    gen DB040miss1 = 1 if DB040==.
  }
  else {
    gen DB040miss1 = 1 if DB040==" "
  }
  bysort YEAR: egen DB040miss = total(DB040miss1)
  drop DB040miss1
  *egen DB040miss = count(DB040)
  if DB040miss==0 {
    encode DB040, gen(DB040n)
    gen STRATA = DB040n
  }
  else {
    gen STRATA = 1
  }
  * If DB040 is missing we assume a single stratum
  // cap noi egen STRATAMISS = count(DB040n)
  // cap noi replace STRATA = 1 if STRATAMISS==0
  // cap noi drop STRATAMISS

* Generate one Stratum for those with missing Strata
  sum STRATA
  replace STRATA = `r(sum)'+1 if STRATA==.

* Identifier of PSUs
  gen PSU = DB060

* Number of PSUs
  sort YEAR PSU
  gen PSU1 = 1 if (PSU[_n]!=PSU[_n-1]) & PSU!=.
  bysort YEAR: egen NPSU = sum(PSU1)
  drop PSU1

* Number of observ. with missing PSU
  bysort YEAR: egen NPSUMISS = total(PSU==.)

* Number of strata
  sort YEAR STRATA
  gen STRATA1 = 1 if (STRATA[_n]!=STRATA[_n-1]) & STRATA!=.
  bysort YEAR: egen NSTRATA = sum(STRATA1)
  drop STRATA1
```

* Number of observations with missing strata
bysort YEAR: egen NSTRATAMISS = total(STRATA==.)

* Strata not unique within PSUs
bysort YEAR PSU: egen STRATAmin = min(STRATA)
bysort YEAR PSU: egen STRATAmix = max(STRATA)
 gen STRATA_PSU1 = 1 if STRATAmin!=STRATAmix
bysort YEAR: egen STRATA_PSU = sum(STRATA_PSU1)
drop STRATA_PSU1

* PSU not unique within HHID
bysort YEAR DB030: egen PSUmin = min(PSU)
bysort YEAR DB030: egen PSUmax = max(PSU)
 gen PSU_HHID1 = 1 if PSUmin!=PSUmax
bysort YEAR: egen PSU_HHID = sum(PSU_HHID1)
drop PSU_HHID1

egen YEARTAG = tag(YEAR)

drop NPSU NPSUMISS NSTRATA NSTRATAMISS PSUmin PSUmax STRATAmin STRATAmix
STRATA_PSU PSU_HHID

* If DB060 is missing or a large share of them we take households as PSUs
 bysort YEAR: egen PSUMISS = sum(PSU==.)
 gen PSUMISSsh = PSUMISS/NOBS
 replace PSU = DB030 if PSUMISSsh>0.5
 replace PSU = DB030 if PSU==.
 drop PSUMISS PSUMISSsh

* Replace missing PSU with household ID
replace PSU = HHID if PSU==.

* Assign Split-PSUs to one Stratum
bysort YEAR PSU: egen MEDSTRAT = mode(STRATA)
 replace STRATA = MEDSTRAT if STRATA!=MEDSTRAT

* Number of PSUs
sort YEAR PSU
gen PSU1 = 1 if (PSU[_n]!=PSU[_n-1]) & PSU!=.
bysort YEAR: egen NPSU = sum(PSU1)
drop PSU1

* Number of observ. with missing PSU
bysort YEAR: egen NPSUMISS = total(PSU==.)

* Number of strata
sort YEAR STRATA
gen STRATA1 = 1 if (STRATA[_n]!=STRATA[_n-1]) & STRATA!=.
bysort YEAR: egen NSTRATA = sum(STRATA1)
drop STRATA1

```

* Number of observations with missing strata
bysort YEAR: egen NSTRATAMISS = total(STRATA==.)

* Strata not unique within PSUs
bysort YEAR PSU: egen STRATAmin = min(STRATA)
bysort YEAR PSU: egen STRATAmax = max(STRATA)
    gen STRATA_PSU1 = 1 if STRATAmin!=STRATAmax
    bysort YEAR: egen STRATA_PSU = sum(STRATA_PSU1)
    drop STRATA_PSU1

* PSU not unique within HHID
bysort YEAR DB030: egen PSUmin = min(PSU)
bysort YEAR DB030: egen PSUmax = max(PSU)
    gen PSU_HHID1 = 1 if PSUmin!=PSUmax
    bysort YEAR: egen PSU_HHID = sum(PSU_HHID1)
    drop PSU_HHID1

```

```

*****
* 1.2 Needed income variables
*****

```

```

*****
* Replace missing values
*****

```

```

* Labour income and asset income (primary income)

```

```

local income "PY010G PY020G PY021G PY030G PY050G PY010N PY020N PY021N PY050N"
// PY010 employee cash or near cash income
// PY020 non-cash employee income; PY021 company car
// PY030 employers' social contributions (only gross)
// PY050 income and losses from self-employment
foreach var of local income {
    replace `var' = 0 if `var'==.
}

gen PYPG = PY010G + PY020G + PY050G
    label var PYPG "Personal primary income gross"

gen PYPN = PY010N + PY020N + PY050N
    label var PYPN "Personal primary income net"

```

```

* Public transfers

```

```

    local income "PY090G PY100G PY110G PY120G PY130G PY140G PY090N PY100N PY110N
PY120N PY130N PY140N"
    foreach var of local income {

```

```

        replace `var' = 0 if `var'==.
    }
    // PY090 Unemployment benefits
    // PY100 Old age benefits
    // PY110 Survivor benefits
    // PY120 Sickness benefits
    // PY130 Disability benefits
    // PY140 Education related allowances

* Other income components

    local income "PY035G PY080G PY035N PY080N"
    foreach var of local income {
        replace `var' = 0 if `var'==.
    }
    // PY035 contributions to private pension plan (net values available only for
some years)
    // PY080 income from private pension plan (net values available only for some
years)

* Primary income

    local income "HY030G HY040G HY090G HY110G HY170G HY030N HY040N HY090N HY110N
HY170N"
    foreach var of local income {
        replace `var' = 0 if `var'==.
    }
    // HY030 Imputed rent
    // HY040 Income from rental of property or land
    // HY090 Income from capital investments
    // HY110 Income received by persons below 16
    // HY170G Value of goods produced for own consumption

    gen HYPG = HY040G + HY090G + HY110G
    label var HYPG "HH primary income gross"

    gen HYPN = HY040N + HY090N + HY110N
    label var HYPN "HH primary income net"

* Transfers at household level

    local income "HY050G HY060G HY070G HY080G HY050N HY060N HY070N HY080N"
    foreach var of local income {
        replace `var' = 0 if `var'==.
    }
    // HY050 Family and child allowances
    // HY060 Social exclusion n.e.c.
    // HY070 Housing allowances
    // HY080 Inter-household cash transfer received

```

```

    gen HYTG = HY050G + HY060G + HY070G + HY080G
    label var HYTG "HH transfers gross"

    gen HYTN = HY050N + HY060N + HY070N + HY080N
    label var HYTN "HH transfers net"

* Expenditures

    local expenditure "HY100G HY120G HY130G HY140G HY100N HY120N HY130N HY140N
HY145N"
    foreach var of local expenditure {
        replace `var' = 0 if `var'==.
    }
    // HY100 Interest repayment on mortgage
    // HY120 Regular taxes on wealth
    // HY130 inter household cash transfer paid
    // HY140 Tax on income and social contributions
    // HY145 Repayments/receipts from tax adjustments (only net)

* Disposable income
    replace HY020 = 0 if HY020==.

*****
* Individualize family and child benefits
* (goes to parents of children in education)
*****

    gen PYG = PY010G + PY020G + PY050G + PY080G + PY090G + PY100G + PY110G + PY120G
+ PY130G + PY140G

    tempfile data
    save `data', replace

* Information on the children of fathers (RB220): number and education status
*****
    // generate the desired information for children, save data, and merge it
with the data of the father

* Education status
    gen EDUC = 0
    replace EDUC = 1 if ACTIVITY==1 & AGE<35
    label var EDUC "in education and younger than 35"

* Keep the information for children whose father is identified in the
survey
    keep EDUC RB220 HHID YEAR
    drop if RB220==. // drop if father is not living in the same household
    rename RB220 PID // father ID becomes ID - for merging

```

```

* Identify siblings (children of a certain person)
egen SIBLING = group(YEAR HHID PID) // group all children of a person who
live in the HH
sort SIBLING

* Number of children in education
by SIBLING: egen EDUCHILD=total(EDUC==1)
label var EDUCHILD "number of children in education"

* Number of children
bysort YEAR HHID SIBLING: egen NCHILD=count(PID)
label var NCHILD "number of children"

* Select "representative" sibling
egen SIBLINGTAG = tag(SIBLING)
keep if SIBLINGTAG==1

* Save child dataset
sort YEAR PID
tempfile fatherdata
save `fatherdata'

* Information on children of mothers (RB230) *****

use `data', clear

* Education status
gen EDUC = 0
replace EDUC = 1 if ACTIVITY==1 & AGE<35
label var EDUC "in education an younger than 35"

* Keep data for those persons whose mother is in the survey
keep EDUC RB230 HHID YEAR
drop if RB230==. // drop if mother is not living in the same household
rename RB230 PID // mothers ID becomes ID - for merging

* Identify siblings (children of a certain person)
egen SIBLING = group(YEAR HHID PID) // group all children of a person who
live in the HH
sort SIBLING

* Number of children in education
by SIBLING: egen EDUCHILD=total(EDUC==1)
label var EDUCHILD "number of children in education"

* Number of children
bysort YEAR HHID SIBLING: egen NCHILD=count(PID)
label var NCHILD "number of children"

* Select "representative"

```

```

egen SIBLINGTAG = tag(SIBLING)
keep if SIBLINGTAG==1

* Save child dataset
sort YEAR PID
tempfile motherdata
save `motherdata'

* Merge datasets *****

use `data', clear

sort YEAR PID
merge YEAR PID using `fatherdata', update

drop _merge

sort YEAR PID
merge YEAR PID using `motherdata', update

drop _merge

* Distribute family benefits *****
// Family benefits are distributed to parents with children in education
// inverse to their labour income; otherwise to all adults in equal shares

* Share of primary income within couples
bysort YEAR HHID COUPLEID: egen inc_couple = sum(PYG) if COUPLEID!=.
gen incshare_couple = PYG/inc_couple
replace incshare_couple = -incshare_couple if incshare_couple<0
// Negative income is treated as if it were positive because it also
indicates labour market activity
// Family benefits should be assigned to the person who carries
out most of the childcare

* Number of children in education is the maximum within couples, assuming
that couples care together for children
* even if one of the partners is not father/mother
bysort YEAR HHID COUPLEID: egen NEDUCHILD = max(EDUCHILD) if
COUPLEID!=.
replace NEDUCHILD = EDUCHILD if COUPLEID==.

* Children are distributed within couples according to inverse of income
share
// the indicator serves as weight to distribute family benefits
replace NEDUCHILD = NEDUCHILD*(1-incshare_couple) if
incshare_couple!=.

* Generation of weights summing up to 1 within the household
bysort YEAR HHID: egen NEDUCHILDHH = sum(NEDUCHILD)

```

```

        replace NEDUCHILD = NEDUCHILD/NEDUCHILDHH

    * If children cannot be identified the family transfers are assigned to
all adults
        drop NEDUCHILDHH
        bysort YEAR HHID: egen NEDUCHILDHH = sum(NEDUCHILD)
        replace NEDUCHILD = 1/NADULT if ADULT==1 & NEDUCHILDHH==0

    gen HY050Gp = HY050G*NEDUCHILD
    replace HY050Gp = 0 if HY050Gp==.
    label var HY050Gp "Individualized family benefits, gross"

    gen HY050Np = HY050N*NEDUCHILD
    replace HY050Np = 0 if HY050Np==.
    // gen HY050Np = 0 // alternative assignment to all households
    //replace HY050Np = HY050N/NADULT if ADULT==1
    label var HY050Np "Individualized family benefits, net"

    * Control if values add up
    bysort YEAR HHID: egen cHY050Gp = sum(HY050Gp)
    bysort YEAR HHID: egen cHY050Np = sum(HY050Np)
    browse YEAR HHID AGE SEX HY050N HY050Gp cHY050Np cHY050Gp HY050Np

        sum HY050N cHY050N

*****
* Individualize imputed rent
*****

    * Imputed rent assigned to the couple responsible for accomodation
    replace ACCOMODATION=1 if ACCOMODATION_P==1
    bysort YEAR HHID: egen NACCOMOD = total(ACCOMODATION==1)

    * Imputed rent is calculated as imputed rent less interest payments on mortgage
    gen HYRGp = (HY030G - HY100G)/NACCOMOD
    label var HYRGp "Individualized imputed rent"

    gen HYRNp = (HY030N - HY100N)/NACCOMOD
    // gen HYRNp = (HY030N - HY100N)/NADULT if ADULT==1 // alternative
assignment to all adults
    label var HYRNp "Individualized imputed rent"

    * We do not allow negative imputed rents
    // There are even persons not owning the home but paying interest on mortgage
    replace HYRGp = 0 if HYRGp<0 | ACCOMODATION==0
    replace HYRNp = 0 if HYRNp<0 | ACCOMODATION==0

    * If net values not available, use gross

```

```

bysort YEAR: egen RNSUM = total(HYRNp)
replace HYRNp = HYRGp if RNSUM==0
drop RNSUM

```

```

* Control if it adds up to total
bysort YEAR HHID: egen cHYRNp = sum(HYRNp)

```

```

*****
* Income of persons below 16
*****

```

```

* Number of children in older child ages (most income of children is generated
by 15 year olds)
bysort YEAR HHID: egen NCHILD16 = total(AGE==16)
bysort YEAR HHID: egen NCHILD15 = total(AGE==15)
bysort YEAR HHID: egen NCHILD14 = total(AGE<15 & AGE>6)

```

```

gen HYCHGp = 0
gen HYCHNp = 0

```

```

* If possible income is assigned to 15 year old (they are most likely to receive
income)
replace HYCHGp = HY110G/NCHILD15 if NCHILD15>=1 & AGE==15
replace HYCHNp = HY110N/NCHILD15 if NCHILD15>=1 & AGE==15

```

```

* If there is no 15 year old, also younger children above age 6 are considered
to receive income
replace HYCHGp = HY110G/NCHILD14 if NCHILD15==0 & NCHILD14>=1 & AGE<15 & AGE>6
replace HYCHNp = HY110N/NCHILD14 if NCHILD15==0 & NCHILD14>=1 & AGE<15 & AGE>6

```

```

* It is possible that 16 year old receive child-income if no younger children
are in the HH
replace HYCHGp = HY110G/NCHILD16 if NCHILD15==0 & NCHILD14==0 & NCHILD16>=1 &
AGE==16
replace HYCHNp = HY110N/NCHILD16 if NCHILD15==0 & NCHILD14==0 & NCHILD16>=1 &
AGE==16

```

```

* If no children older than 6, we assume that the value for child income is a
mistake and set it to zero
replace HYCHGp = 0 if NCHILD15==0 & NCHILD14==0 & NCHILD16==0
replace HYCHNp = 0 if NCHILD15==0 & NCHILD14==0 & NCHILD16==0

```

```

* Control if it adds up to total
bysort YEAR HHID: egen cHYCHGp = sum(HYCHGp)
bysort YEAR HHID: egen cHYCHNp = sum(HYCHNp)

```

```

*****
* Household income components assigned to adults

```

```
*      p indicates personalized components of household income
*****
```

```
* Asset income
```

```
  gen HYAGp = 0
```

```
    replace HYAGp = (HY040G + HY090G - HY120G)/NADULT if ADULT==1
```

```
  // Income from rent of property, from investments in incorporated businesses
  less taxes on wealth
```

```
  gen HYANp = 0
```

```
    replace HYANp = (HY040N + HY090N - HY120N)/NADULT if ADULT==1
```

```
* Public transfers at household level
```

```
  gen HYTGGp = 0
```

```
    replace HYTGGp = (HY060G + HY070G)/NADULT if ADULT==1
```

```
  // social exclusion, housing
```

```
    replace HYTGGp = HYTGGp + HY050Gp
```

```
  gen HYTGNp = 0
```

```
    replace HYTGNp = (HY060N + HY070N)/NADULT if ADULT==1
```

```
    replace HYTGNp = HYTGNp + HY050Np
```

```
* Private transfers at household level (received - paid)
```

```
  gen HYTFGp = 0
```

```
    replace HYTFGp = (HY080G - HY130G)/NADULT if ADULT==1
```

```
  // social, exclusion, housing, inter-household transfers
```

```
  gen HYTFNp = 0
```

```
    replace HYTFNp = (HY080N - HY130N)/NADULT if ADULT==1
```

```
* Total household level transfers
```

```
  gen HYTGp = HYTFGp + HYTGGp
```

```
  gen HYTNp = HYTFNp + HYTGNp
```

```
*****
```

```
* Total personalized income
```

```
*****
```

```
* Labour income
```

```
  gen YLG = PY010G + PY021G + PY050G + HYCHGp
```

```
  gen YLN = PY010N + PY021N + PY050N + HYCHNp
```

```
  replace YLG = PY010G + PY020G + PY050G + HYCHGp if YEAR<2006
```

```
  replace YLN = PY010N + PY020N + PY050N + HYCHNp if YEAR<2006
```

```
  gen YEMPLN = PY010N + PY021N + HYCHNp
```

```
  gen YEMPLG = PY010G + PY021G + HYCHGp
```

```

replace YEMPLN = PY010N + PY020N + HYCHNp
replace YEMPLG = PY010G + PY020G + HYCHGp
// PY010G, PY020G: labour income, cash, in-kind
// PY050: income form self-employment

* Asset income
gen YAG = HYAGp
gen YAN = HYANp
replace YAG = HYAGp + PY080G if YEAR>=2011
replace YAN = HYANp + PY080N if YEAR>=2011
// PY080: income from private pension plans

* Imputed rent
gen YRG = HYRGp
gen YRN = HYRNp

* Total primary income (labour + asset income, no transfers)
gen YPG = YLG + YAG // + YRG
gen YPN = YLN + YAN // + YRN

// HYR is defined as the positive values of HY030 - HY100
// HYCH is HY110 if there is a child in the household
// HYAG is HY040G + HY090G - HY120G

* Comments:
// In Austria PY021 (company car) is always 0

* Public transfers
gen YTGG = PY090G + PY100G + PY110G + PY120G + PY130G + PY140G + HYTGGp
gen YTGN = PY090N + PY100N + PY110N + PY120N + PY130N + PY140N + HYTGNp

gen YTGGOLD = PY100G + PY110G + PY120G + PY130G
gen YTGNOLD = PY100N + PY110N + PY120N + PY130N

gen YTGGOTH = PY090G + PY140G + HYTGGp
gen YTGNOTH = PY090N + PY140N + HYTGNp

* Private transfers
gen YTFG = HYTFGp
gen YTFN = HYTFNp

* Total transfers
gen YTG = YTGG + YTFG
gen YTN = YTGN + YTFN
// PY090 Unemployment benefits
// PY100 Old age benefits
// PY110 Survivor benefits
// PY120 Sickness benefits
// PY130 Disability benefits
// PY140 Education related allowances

```

```

        // YTGN is HY060N + HY070N, YTFN is HY080N - HY130N
        // = social exclusion n.e.c., housing, inter-household received,
inter-household paid

```

```

* Total income (primary income + transfers)

```

```

    gen YG = YPG + YTG // + YRG

```

```

    gen YN = YPN + YTN // + YRN

```

```

        gen YN1 = YN + YRN

```

```

            label var YN1 "Net income incl. imputed rent"

```

```

    gen YG1 = YG + YRG

```

```

            label var YG1 "Gross income incl. imputed rent"

```

```

* Compare with household income

```

```

    bysort YEAR HHID: egen YGh = sum(YG)

```

```

    bysort YEAR HHID: egen YNh = sum(YN)

```

```

* Imputed rent at household level

```

```

    bysort YEAR HHID: egen YRGh = sum(YRG)

```

```

    bysort YEAR HHID: egen YRNh = sum(YRN)

```

```

* Taxes

```

```

    capture gen TAX = HY140N

```

```

        replace TAX = 0 if CNT2=="SE" | CNT2=="PL" | CNT2=="BG" | CNT=="CZ" |
CNT2=="IE" | CNT2=="LV" | CNT2=="RO" | CNT2=="SI"

```

```

        replace TAX = 0 if CNT2=="ES" & YEAR<=2006

```

```

        replace TAX = 0 if CNT2=="PL" & YEAR==2004

```

```

    replace YGh = YGh - HY140G // + HY110G

```

```

    replace YNh = YNh - HY140N - HY145N // + HY110N

```

```

        gen dYh = YGh - YNh

```

```

    // HY140 tax on income and social contributions

```

```

        gen YGh_diff = HY020 - YGh

```

```

*****

```

```

* Aggregate indicators based on individual income

```

```

*****

```

```

* Median individual income

```

```

    gen YN1MED = .

```

```

        label var YN1MED "Median, individual income"

```

```

            sum YEAR

```

```

            forvalues y = `r(min)'/`r(max)' {

```

```

                sum YN1 [aw=WEIGHT] if YEAR==`y' & AGE>=20, det

```

```

                replace YN1MED=`r(p50)' if YEAR==`y'

```

```

            }

```

```

gen YG1MED = .
    label var YG1MED "Median, individual income"
    sum YEAR
    forvalues y = `r(min)'/`r(max)' {
        sum YG1 [aw=WEIGHT] if YEAR==`y' & AGE>=20, det
        replace YG1MED=`r(p50)' if YEAR==`y'
    }

```

```

gen YNMED = .
    label var YNMED "Median, individual income"
    sum YEAR
    forvalues y = `r(min)'/`r(max)' {
        sum YN [aw=WEIGHT] if YEAR==`y' & AGE>=20, det
        replace YNMED=`r(p50)' if YEAR==`y'
    }

```

```

gen YGMED = .
    label var YGMED "Median, individual income"
    sum YEAR
    forvalues y = `r(min)'/`r(max)' {
        sum YG [aw=WEIGHT] if YEAR==`y' & AGE>=20, det
        replace YGMED=`r(p50)' if YEAR==`y'
    }

```

* Share of Persons above median income

```

gen YN1MEDPLUS = 0
    replace YN1MEDPLUS = 1 if YN1>=YN1MED

```

```

gen YG1MEDPLUS = 0
    replace YG1MEDPLUS = 1 if YG1>=YG1MED

```

* Real income

```

sort CNT2 YEAR
merge CNT2 YEAR using hicp
drop if _merge!=3

```

```

gen HICP17t = HICP if YEAR==2017
bysort CNT2: egen HICP17 = mean(HICP17t)
replace HICP = HICP/HICP17*100

```

```

local incomes "YN1 YN YNMED YN1MED YG1 YG YGMED YG1MED YPN YTN YTGN YTFN YTGG
YLN YEMPLN YAN YRN YPG YTG YLG YAG YRG"

```

```

foreach var of local incomes {
    gen R`var' = `var'/HICP*100
}

```

```

    }

    save silc_allyears_`x', replace

}

/*
*****
* 0. Aggregate income (for control with ESA data)
*****

foreach x in $country {
    use data/silc`x'0_3, clear

    local indic "RYN1 RYRN RYTGN RYTFN RYLN RYAN RYEMPLN"
    keep YEAR CNT2 `indic' WEIGHT
    gen ONE = 1
    collapse (sum) `indic' ONE [pw=WEIGHT], by(CNT2 YEAR)
    keep if YEAR==2008 | YEAR==2017
    tempfile aggr`x'
    save `aggr`x''
}

use `aggrAT'
gen temp=1
foreach x in $country {
    append using `aggr`x''
}
drop if temp==1
drop temp
sort YEAR CNT2
browse YEAR CNT2 RYN1 RYTGN RYEMPLN
*/

```

```

*****
*****
* 2. Descriptive statistics: age-specific means
*****
*****

```

```

*****
* Calculate mean and confidence intervals for the mean
*****

```

```

local indic "RYN1" // indicator
local lstage "AGEGR20" // life stage variable (AGE or LIFESTAGE)

```

```

local stat "mean" // statistic: mean, proportion, ratio, total

foreach x in $country {

*****
* Total (no age)
*****

use silc_allyears_`x', clear
replace PSU = HHID
drop if AGEGR20==0

    keep YEAR CNT2 `indic' PSU WEIGHT STRATA

    gen SUBPOP = YEAR
    svyset PSU [pw=WEIGHT], strata(STRATA)

    tempfile silc
    save `silc', replace

    sum YEAR
    local min = `r(min)''
    local max = `r(max)''

    forvalues i = `r(min)'/`r(max)' {
        use `silc', clear
        svy, subpop(if SUBPOP==`i'): `stat' `indic'
        // matrix list r(table) // list content of matrix
        xsvmat, from(r(table)') rownames(rname) names(col) norestore // convert matrix
to output data

        gen year = `i'
        tempfile t`i'
        save `t`i'', replace
    }

    use `t`min'', clear
    local min = `min'+1
    forvalues i = `min'/'max' {
        append using `t`i''
    }

    gen SEX = 0
    gen `lstage' = 99 // total adult population

    tempfile `x't
    save ``x't'

*****

```

```
* Total by age (m+f)
```

```
*****
```

```
use silc_allyears_`x', clear
drop if AGEGR20==0
replace PSU = HHID
```

```
keep YEAR CNT2 `indic' `lstage' PSU WEIGHT STRATA
```

```
gen SUBPOP = YEAR
svyset PSU [pw=WEIGHT], strata(STRATA)
```

```
tempfile silc
save `silc', replace
```

```
sum YEAR
local min = `r(min)'  
local max = `r(max)'
```

```
forvalues i = `r(min)'/`r(max)' {  
    use `silc', clear  
    svy, subpop(if SUBPOP==`i'): `stat' `indic' , over(`lstage')  
    matrix list r(table)  
    xsvmat, from(r(table)') rownames(rname) names(col) norestore
```

```
    gen year = `i'  
    tempfile t`i'  
    save `t`i'', replace  
}
```

```
use `t`min'', clear  
local min = `min'+1  
forvalues i = `min'/'`max' {  
    append using `t`i''  
}
```

```
gen SEX = 0
```

```
tempfile `x'  
save ``x''
```

```
*****
```

```
* Men by age
```

```
*****
```

```
use silc_allyears_`x', clear  
keep if SEX==1  
drop if AGEGR20==0  
replace PSU = HHID
```

```
keep YEAR CNT2 `indic' `lstage' PSU WEIGHT STRATA
```

```
gen SUBPOP = YEAR  
svyset PSU [pw=WEIGHT], strata(STRATA)
```

```
tempfile silc  
save `silc', replace
```

```
sum YEAR  
local min = `r(min)'  
local max = `r(max)'
```

```
forvalues i = `r(min)'/`r(max)' {  
    use `silc', clear  
    svy, subpop(if SUBPOP==`i'): `stat' `indic' , over(`lstage')  
    matrix list r(table)  
    xsvmat, from(r(table)') rownames(rname) names(col) norestore  
  
    gen year = `i'  
    tempfile t`i'  
    save `t`i'', replace  
}
```

```
use `t`min'', clear  
local min = `min'+1  
forvalues i = `min'/'max' {  
    append using `t`i''  
}
```

```
gen SEX = 1
```

```
tempfile `x'm  
save ``x'm'
```

```
*****  
* Women by age  
*****
```

```
use silc_allyears_`x', clear  
keep if SEX==2  
drop if AGEGR20==0  
replace PSU = HHID
```

```
keep YEAR CNT2 `indic' `lstage' PSU WEIGHT STRATA
```

```
gen SUBPOP = YEAR  
svyset PSU [pw=WEIGHT], strata(STRATA)
```

```
tempfile silc  
save `silc', replace
```

```

sum YEAR
local min = `r(min)'
local max = `r(max)'

forvalues i = `r(min)'/`r(max)' {
    use `silc', clear
    svy, subpop(if SUBPOP==`i'): `stat' `indic' , over(`lstage')
    matrix list r(table)
    xsvmat, from(r(table)') rownames(rname) names(col) norestore

    gen year = `i'
    tempfile t`i'
    save `t`i'', replace
}

use `t`min'', clear
local min = `min'+1
forvalues i = `min'/'max' {
    append using `t`i''
}

    gen SEX = 2

    * Merge sex-specific data

    append using ``x't'
    append using ``x''
    append using ``x'm'

rename b VAL
rename se SE
rename ll CI95L
rename ul CI95U
rename year YEAR
gen CNT2 = ``x'"
gen STAT = ``stat'"
gen INDIC = ``indic'"

    replace AGEGR20 = 2 if rname=="c.`indic'@2.`lstage'"
    replace AGEGR20 = 4 if rname=="c.`indic'@4.`lstage'"
    replace AGEGR20 = 6 if rname=="c.`indic'@6.`lstage'"
label val AGEGR20 AGEGR20

    keep YEAR CNT2 `lstage' SEX INDIC STAT VAL SE CI95L CI95U
    sort CNT2 YEAR `lstage' SEX

    tempfile `x'
    save ``x'"

```

```

}
```

```
*****
```

```
* Merge country means
```

```
*****
```

```
use `AT', clear
gen temp = 1
foreach x in $country {
    append using ``x'
}
drop if temp==1
drop temp
```

```
save age3_`indic'_mean, replace
```

```
/*
```

```
* Data for paper
```

```
gen SEX = 0
```

```
order SEX CNT2 YEAR AGEGR20 VAL SE CI95L CI95U INDIC          STAT
```

```
sort SEX YEAR AGEGR20 CNT2
```

```
keep if YEAR==2008 | YEAR==2017
```

```
*/
```

```
*****
```

```
*****
```

```
* 3. Descriptive statistics: Percentiles of age-specific means
```

```
*****
```

```
*****
```

```
local indic "RYN1" // indicator
```

```
local lstage "AGEGR20"
```

```
foreach x in $country {
```

```
    use silc_allyears_`x', clear
```

```
    keep YEAR `lstage' WEIGHT STRATA PSU `indic' AGE SEX
```

```
    svyset PSU [pw=WEIGHT], strata(STRATA) singleunit(scaled)
```

```
    keep if AGEGR20>0
```

```
    tempfile silc
```

```
    save `silc'
```

```
*****
```

```
* Total, no age
```

```
*****
```

```
use `silc', clear
```

```

sum YEAR
local yearmin = `r(min)'
local yearmax = `r(max)'

forvalues y = `yearmin'/'`yearmax' {
    display `y'
    use `silc', clear
    keep YEAR WEIGHT STRATA PSU `indic'
    keep if YEAR==`y'
    epctile `indic', percentiles(25 50 75) svy
    // matrix list r(table)
    xsvmat, from(r(table)') rownames(rname) names(col) norestore

    gen YEAR = `y'
    gen `lstage' = 99

    tempfile t`y'
    save `t`y'', replace
}

use `t`yearmin'', clear
gen DROP = 1
forvalues y = `yearmin'/'`yearmax' {
    append using `t`y''
}

drop if DROP==1
gen SEX = 0

tempfile `x't
save ``x't'

```

```

*****
* Total (m+f)
*****

```

```

use `silc', clear
sum YEAR
local yearmin = `r(min)'
local yearmax = `r(max)'
sum `lstage'
local submin = `r(min)'
local submax = `r(max)'

```

```

forvalues y = `yearmin'/'`yearmax' {
    forvalues s = `submin'(2)`submax' {
        display("Hello")
    }
}

```

```

        display(`s')
        display(`y')
        count
        display("Here we are")
    use `silc', clear
        keep if YEAR==`y' & `lstage'==`s'
            count
            epctile `indic', percentiles(25 50 75) svy
        // matrix list r(table)
        xsvmat, from(r(table)') rownames(rname) names(col) norestore

        gen YEAR = `y'
        gen `lstage' = `s'

        tempfile t`y'`s'
        save `t`y'`s'', replace
    }
}

```

```

use `t`yearmin'`submin'', clear
gen DROP = 1
forvalues y = `yearmin' / `yearmax' {
    forvalues s = `submin'(2) `submax' {
        append using `t`y'`s''
    }
}
drop if DROP==1
gen SEX = 0

tempfile `x'
save ``x''

```

* Men

```

use `silc', clear
    keep if SEX==1
sum YEAR
local yearmin = `r(min)'
local yearmax = `r(max)'
sum `lstage'
local submin = `r(min)'
local submax = `r(max)'

forvalues y = `yearmin' / `yearmax' {
    forvalues s = `submin'(2) `submax' {
        use `silc', clear
    }
}

```

```

        keep if YEAR==`y' & `lstage'==`s'
        epctile `indic', percentiles(25 50 75) svy
        // matrix list r(table)
        xsvmat, from(r(table)') rownames(rname) names(col) norestore

        gen YEAR = `y'
        gen `lstage' = `s'

        tempfile t`y``s'
        save `t`y``s'', replace
    }
}

use `t`yearmin``submin'', clear
gen DROP = 1
forvalues y = `yearmin'/'`yearmax' {
    forvalues s = `submin'(2)`submax' {
        append using `t`y``s''
    }
}

drop if DROP==1
gen SEX = 1

tempfile `x'm
save ``x'm'

```

* Women

```

use `silc', clear
    keep if SEX==2
sum YEAR
local yearmin = `r(min)'
local yearmax = `r(max)'
sum `lstage'
local submin = `r(min)'
local submax = `r(max)'

forvalues y = `yearmin'/'`yearmax' {
    forvalues s = `submin'(2)`submax' {
        use `silc', clear
            keep if YEAR==`y' & `lstage'==`s'
            epctile `indic', percentiles(25 50 75) svy
            // matrix list r(table)
            xsvmat, from(r(table)') rownames(rname) names(col) norestore

            gen YEAR = `y'

```

```

        gen `lstage' = `s'

        tempfile t`y'`s'
        save `t`y'`s'', replace
    }
}

use `t`yearmin'`submin'', clear
gen DROP = 1
forvalues y = `yearmin' / `yearmax' {
    forvalues s = `submin'(2) `submax' {
        append using `t`y'`s''
    }
}
drop if DROP==1
gen SEX = 2

* Merge sex-specific data

    append using ``x't'
    append using ``x''
    append using ``x'm'

* Name variables

rename b VAL
rename rname STAT
rename se SE
rename ll CI95L
rename ul CI95U
gen CNT2 = ``x''
gen INDIC = ``indic''

keep CNT2 YEAR `lstage' SEX STAT INDIC VAL SE CI95L CI95U

tempfile `x'
save ``x''

}

*****
* Merge countries
*****

use `AT', clear
gen temp = 1
foreach x in $country {
    append using ``x''
}
drop if temp==1

```

```
drop temp
```

```
save age3_`indic'_perc, replace
```

```
*****
*****
* 4. Means and percentiles: Copy and paste to Excel file
*****
*****
```

```
local indic RYN1
```

```
use age3_`indic'_perc, clear
```

```
append using age3_`indic'_mean
```

```
save age3_`indic', replace
```

```
* Data for paper: Copy and paste to Tables_age_specific_income_trends
```

```
* Means and percentiles by age and sex
```

```
use age3_RYN1, replace
```

```
order SEX CNT2 YEAR AGEGR20 VAL CI95L CI95U INDIC STAT
```

```
sort YEAR AGEGR20 CNT2
```

```
browse if (YEAR==2008 | YEAR==2017) & SEX==1 & STAT=="mean" // For Table 3:
```

```
Tab3_mean_inc_gender
```

```
browse if (YEAR==2008 | YEAR==2017) & SEX==2 & STAT=="mean" // For Table 3:
```

```
Tab3_mean_inc_gender
```

```
browse if (YEAR==2008 | YEAR==2017) & SEX==0 & STAT=="mean" // For Table 2:
```

```
Tab2_mean_inc_gender
```

```
browse if (YEAR==2008 | YEAR==2017) & SEX==0 & STAT=="p25" // For Table 6
```

```
browse if (YEAR==2008 | YEAR==2017) & SEX==0 & STAT=="p50" // For Table 5
```

```
browse if (YEAR==2008 | YEAR==2017) & SEX==0 & STAT=="p75" // For Table 7
```

```
*****
*****
* 4. Decompositiopn of income changes
*****
*****
```

```
local indic "RYN1 RYRN RYTGn RYTFN RYLN RYAN EMPL RYOTH"
```

```
local lstage "AGEGR20"
```

```
local country AT
```

```
foreach x in $country {
```

```
use silc_allyears_`x', clear
```

```
keep if AGEGR20==2 | AGEGR20==4 | AGEGR20==6
```

```

* Employment status
    egen PARTT = rowtotal(PL074 PL076) // Number of months working parttime
    egen FULLT = rowtotal(PL073 PL075)
    egen RETIR = rowtotal(PL085 PL086) // retirement, disability
    *browse YEAR HHID SEX AGE ACTIVITY YLN PARTT FULLT RETIR

```

```

    gen EMPL = 0
    tempvar EMPLMONTHS
    gen `EMPLMONTHS' = (PARTT + FULLT)/12
    replace EMPL = `EMPLMONTHS'

```

```

    * If labour is above threshold and infor an employment missing
    browse YEAR AGE HHID YLN PARTT FULLT EMPL
    replace EMPL = 1 if YLN>YNMED & EMPL==0 & YEAR>=2008
    replace EMPL = 0.5 if YLN>YNMED/3 & EMPL==0 & YEAR>=2008
    replace EMPL = 0 if YLN<500 & YEAR>=2008 & EMPL>0.1

```

```

* Income category other
    gen RYOTH = RYTFN + RYAN + RYRN

```

```

* Population
    gen POP = 1

```

```

*****

```

```

* Total (not lifestage-specific)
*****

```

```

preserve
collapse (mean) `indic' (sum) POP [pw=WEIGHT], by(CNT2 YEAR)
gen STAT = "MEAN"
gen SEX = 0
gen `lstage' = 99
tempfile tttotal
save `tttotal'
restore

```

```

preserve
collapse (mean) `indic' (sum) POP [pw=WEIGHT], by(CNT2 YEAR SEX)
gen STAT = "MEAN"
gen `lstage' = 99
tempfile stotal
save `stotal'
restore

```

```

preserve
collapse (mean) `indic' (sum) POP [pw=WEIGHT], by(CNT2 YEAR `lstage')
gen STAT = "MEAN"
gen SEX = 0
tempfile total

```

```

save `total'
restore

preserve
keep if SEX==1
collapse (mean) `indic' (sum) POP [pw=WEIGHT], by(CNT2 YEAR SEX `lstage')
gen STAT = "MEAN"
tempfile men
save `men'
restore

keep if SEX==2
collapse (mean) `indic' (sum) POP [pw=WEIGHT], by(CNT2 YEAR SEX `lstage')
gen STAT = "MEAN"

append using `men'
append using `total'
append using `stotal'
append using `ttotal'

save mean_`x', replace
}

* Combine data for all countries

use mean_AT, clear
gen TEMP = 1
foreach x in $country {
    append using mean_`x'
}
drop if TEMP==1
drop TEMP

save decomp_SILC, replace

*****
* Calculate difference 2008 - 2017
*****

use decomp_SILC, clear

local variables "RYN1 RYRN RYTGN RYTFN RYLN RYAN RYOTH EMPL" // EMPLY
WORKHOURSempl WAGEHOUR"
local lstage "AGEGR20"

tempfile data
sort CNT2 SEX `lstage'
save `data'

```

```

keep if YEAR==2008
foreach var of local variables {
    rename `var' `var'08
}
sort CNT2 SEX `lstage'
tempfile data08
save `data08'

use `data'
sort CNT2 SEX `lstage'
merge CNT2 SEX `lstage' using `data08'
drop _merge

* Changes relative to 2008 income
local variables "RYN1 RYRN RYTGN RYTFN RYLN RYAN RYOTH" // EMPLY WORKHOURSempl
WAGEHOUR"
foreach var of local variables {
    gen D`var' = (`var' - `var'08)/RYN108
}

save decomp_SILC_diff, replace

*****
* Decompose changes in income men and women
*****

use decomp_SILC_diff, clear

keep if YEAR==2008 | YEAR==2017
replace DRYN1 = . if YEAR==2008
gen POP08t = POP if SEX==0 & YEAR==2008
gen POP08f = POP if SEX==2 & YEAR==2008
gen POP08m = POP if SEX==1 & YEAR==2008

gen POP17t = POP if SEX==0 & YEAR==2017
gen POP17f = POP if SEX==2 & YEAR==2017
gen POP17m = POP if SEX==1 & YEAR==2017

gen D = DRYN1 if SEX==0
gen Dm = DRYN1 if SEX==1
gen Df = DRYN1 if SEX==2

collapse POP08t POP08m POP08f POP17t POP17m POP17f D Dm Df, by(CNT2 AGEGR20)
gen DIFF = Dm*(POP17m+POP08m)/(POP17t+POP08t) + Df*(POP17f+POP08f)/(POP17t+POP08t)

*****
* Decompose changes in income by employment status
*****

```

```

use decomp_SILC_diff, clear

* Decomposition labour income
gen DRYLNp = log(RYLN) - log(RYLN08)
gen DEMPLp = log(EMPL) - log(EMPL08)
gen DWAGEp = DRYLNp - DEMPLp

gen DEMPL = DRYLN*DEMPLp/DRYLNp
gen DWAGE = DRYLN*DWAGEp/DRYLNp

* Decomposition transfer income
gen DRYTGNp = log(RYTGN) - log(RYTGN08)
gen DNEMPLp = log(1-EMPL) - log(1-EMPL08)
gen DRECp = DRYTGNp - DNEMPLp

gen DNEMPL = DRYTGN*DNEMPLp/DRYTGNp
gen DREC = DRYTGN*DRECp/DRYTGNp

*****
* Table for paper; Table 4
*****

sort CNT2 YEAR SEX AGEGR20
order CNT2 YEAR SEX AGEGR20 RYN1 RYLN RYTGN RYOTH DRYN1 DRYLN DEMPL DWAGE DRYTGN
DNEMPL DREC DRYOTH RYN108

browse if YEAR==2017 & SEX==0

*****
*****
* 6. Graphs of age-specific income changes, Fig. 1
*****
*****

local variables "DRYLN DEMPL DWAGE DRYTGN DNEMPL DREC DRYOTH"
browse YEAR AGEGR20 `variables'
foreach var of local variables {
    gen `var'neg = 0
    replace `var'neg = `var'*100 if `var'<0
    gen `var'pos = 0
    replace `var'pos = `var'*100 if `var'>=0
}
replace DRYN1 = DRYN1*100

gen DRYN0pos = DEMPLpos + DWAGEpos + DNEMPLpos + DRECpos + DRYOTHpos
gen DRYN1pos = DWAGEpos + DNEMPLpos + DRECpos + DRYOTHpos
gen DRYN2pos = DNEMPLpos + DRECpos + DRYOTHpos

```

```

gen DRYN3pos = DRECpos + DRYOTHpos
gen DRYN4pos = DRYOTHpos

```

```

gen DRYN0neg = DEMPLneg + DWAGEneg + DNEMPLneg + DRECneg + DRYOTHneg
gen DRYN1neg = DWAGEneg + DNEMPLneg + DRECneg + DRYOTHneg
gen DRYN2neg = DNEMPLneg + DRECneg + DRYOTHneg
gen DRYN3neg = DRECneg + DRYOTHneg
gen DRYN4neg = DRYOTHneg

```

```

label drop AGEGR20
gen AGEVAR = 1 if AGEGR20==2
replace AGEVAR = 2 if AGEGR20==4
replace AGEVAR = 3 if AGEGR20==6
replace AGEVAR = 4.6 if AGEGR20==99

```

```

keep if YEAR==2017

```

```

*****

```

```

* Austria

```

```

*****

```

```

local cnt "AT"
local sex = 0
local bw = 0.6
local ysc1 = -6
local yscu = 20
local ylab1 = -5
local ylablu = 20
local xs = 8
local ys = 6
local lc = "gs2"

```

```

graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`0
29 74") lcol(`lc') ///
|| bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`48 122
133") lcol(`lc') ///
|| bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`255
180 0") lcol(`lc') ///
|| bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
|| bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`190
190 190") lcol(`lc') ///
|| bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`0 29
74") lcol(`lc') ///
|| bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`48 122
133") lcol(`lc') ///
|| bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`255
180 0") lcol(`lc') ///
|| bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')

```

```

col("orange") lcol(`lc`) ///
    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
    yline(0, lcol(gs5)) ///
    graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
    plotregion(margin(tiny)) ///
    title("`cnt', men and women", size(med) margin(tiny)) ///
    ytitle("Income change 2008 - 2017 in %", size(medsmall)) ///
    ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
    ylabel(`ylabl'(5)`ylablu') ///
    xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///

    xtitle("", margin(0 0 0 2)) ///
    legend(cols(2) label(1 "Employment rates (l)") label(2 "Income per employed
(y1)") label(3 "Share of beneficiaries (n)") ///
    label(4 "Benefits per beneficiary (yb)") label(5 "Other income (Y0)")
label(11 "Total change") order(1 2 3 4 5 11) rowgap(*0.8) ///
    bmargin(small) size(small) ring(1) position(11) symx(*0.5))
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.tif, replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

gen D0pos = DRYLNpos + DRYTGNpos + DRYOTHpos
gen D1pos = DRYTGNpos + DRYOTHpos
gen D2pos = DRYOTHpos

gen D0neg = DRYLNneg + DRYTGNneg + DRYOTHneg
gen D1neg = DRYTGNneg + DRYOTHneg
gen D2neg = DRYOTHneg

local cnt "AT"
local sex = 0
local bw = 0.6
local ysc1 = -6
local yscu = 12
local ylabl = -5
local ylablu = 12
local xs = 8
local ys = 5

graph twoway bar D0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("50 80
100") ///
    || bar D1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("230 120 0")
///
    || bar D2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("230 210
80") ///
    || bar D0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("50 80 100")

```

```

///
|| bar D1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("230 120 0")
///
|| bar D2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("230 210
80") ///
|| scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
yline(0, lcol(gs5)) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny)) ///
ytile("Einkommensänderung 2008 - 2017 in %", size(med)) ///
ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
ylabel(`ylabl'(5)`ylablu', labsize(med)) ///
xlabel(1 "Alter 20-39" 2 "Alter 40-59" 3 "Alter 60+" 4.6 "Gesamt",
labsize(med)) ///
xtile("", margin(0 0 0 2)) ///
legend(cols(1) label(1 "Erwerbseinkommen") label(2 "Transfereinkommen")
label(3 "Andere Einkommen") ///
label(7 "Gesamtänderung") order(1 2 3 7) rowgap(*0.8) ///
bmargin(small) size(med) ring(0) position(11) symx(*0.8))
graph display, xsize(`xs') ysize(`ys')
graph export $graphslocation/diff_inc_AT.tif, replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

browse AGEVAR DRYN1 D0pos D1pos D2pos D0neg D1neg D2neg
order AGEVAR DRYN1 D0pos D1pos D2pos D0neg D1neg D2neg

local sex = 1
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
|| bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
|| bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
|| bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
|| bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
|| bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
|| bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
|| bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
|| bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
|| bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
|| scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
yline(0, lcol(gs5)) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///

```

```

        plotregion(margin(tiny)) ///
title("`cnt', men", size(med) margin(tiny)) ///
ytittle("", size(medsmall)) ///
    ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
    ylabel(`ylabl'(5)`ylablu') ///
    xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///
    xtitle("", margin(0 0 0 2)) ///
legend(off)
graph display, xsize(`xs') ysize(`ys')
    graph save $graphslocation/dec_`cnt'`sex', replace
    graph export $graphslocation/dec_`cnt'`sex'.png, replace

local sex = 2
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
    || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
    || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
    yline(0, lcol(gs5)) ///
    graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
    plotregion(margin(tiny)) ///
title("`cnt', women", size(med) margin(tiny)) ///
ytittle("", size(medsmall)) ///
    ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
    ylabel(`ylabl'(5)`ylablu') ///
    xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///
    xtitle("", margin(0 0 0 2)) ///
legend(off)
graph display, xsize(`xs') ysize(`ys')
    graph save $graphslocation/dec_`cnt'`sex', replace
    graph export $graphslocation/dec_`cnt'`sex'.png, replace

grc1leg $graphslocation/dec_AT_0.gph $graphslocation/dec_AT_1.gph
$graphslocation/dec_AT_2.gph, ///

```

```

legendfrom($graphslocation/dec_AT_0.gph) cols(3) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny))

```

```

*****

```

```

* Estonia

```

```

*****

```

```

local cnt "EE"
local sex = 0
local bw = 0.6
local ysc1 = -25
local yscu = 43
local ylab1 = -20
local ylablu = 40

```

```

graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
    || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
    || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
    yline(0, lcol(gs5)) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny)) ///
title("`cnt', men and women", size(med) margin(tiny)) ///
yttitle("Income change 2008 - 2017 in %", size(medsmall)) ///
ysc(r(`ysc1' `yscu')) xsc(r(0.5 3.5)) ///
ylabel(`ylab1'(10)`ylablu') ///
xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///
xtitle("", margin(0 0 0 2)) ///
legend(cols(2) label(1 "Labour income: Employment") label(2 "Labour income:
Wages") label(3 "Benefits: share of receivers") ///
    label(4 "Benefits per beneficiary") label(5 "Other income") label(11

```

```

"Total change") order(1 2 3 4 5 11) rowgap(*0.8) ///
    bmargin(small) size(small) ring(1) position(11) symx(*0.5))
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

local sex = 1
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
    || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
    || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
yline(0, lcol(gs5)) ///
graphregion(margin(l-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny)) ///
title("`cnt', men", size(med) margin(tiny)) ///
yttitle("", size(medsmall)) ///
ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
ylabel(`ylabl'(10)`ylablu') ///
xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///
xtitle("", margin(0 0 0 2)) ///
legend(off)
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

local sex = 2
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
    || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')

```

```

col("orange") lcol(`lc`) ///
    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
    || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
    yline(0, lcol(gs5)) ///
    graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
    plotregion(margin(tiny)) ///
    title("`cnt', women", size(med) margin(tiny)) ///
    ytitle("", size(medsmall)) ///
    ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
    ylabel(`ylabl'(10)`ylablu') ///
    xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///
    xtitle("", margin(0 0 0 2)) ///
    legend(off)
    graph display, xsize(`xs') ysize(`ys')
    graph save $graphslocation/dec_`cnt'_`sex', replace
    graph export $graphslocation/dec_`cnt'_`sex'.png, replace

    grc1leg $graphslocation/dec_`cnt'_0.gph $graphslocation/dec_`cnt'_1.gph
$graphslocation/dec_`cnt'_2.gph, ///
    legendfrom($graphslocation/dec_`cnt'_0.gph) cols(3) ///
    graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
    plotregion(margin(tiny))

*****
* Greece
*****

local cnt "EL"
local sex = 0
local bw = 0.6
local yscl = -46
local yscu = 5
local ylabl = -45
local ylablu = 5

graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
    || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///

```

```

|| bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
|| bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
|| bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
|| bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
|| bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
|| bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
|| bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
|| bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
|| scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
yline(0, lcol(gs5)) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny)) ///
title("`cnt', men and women", size(med) margin(tiny)) ///
ytile("Income change 2008 - 2017 in %", size(medsmall)) ///
ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
ylabel(`ylabl'(10)`ylablu') ///
xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///

xtitle("", margin(0 0 0 2)) ///
legend(cols(2) label(1 "Employment rates (l)") label(2 "Income per employed
(yl)") label(3 "Share of beneficiaries (n)") ///
label(4 "Benefits per beneficiary (yb)") label(5 "Other income (Y0)")
label(11 "Total change") order(1 2 3 4 5 11) rowgap(*0.8) ///
bmargin(small) size(small) ring(1) position(11) symx(*0.5))
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

local sex = 1
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
|| bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
|| bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
|| bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
|| bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
|| bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
|| bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122

```

```

133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
    yline(0, lcol(gs5)) ///
    graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
    plotregion(margin(tiny)) ///
    title("`cnt', men", size(med) margin(tiny)) ///
    ytitle("", size(medsmall)) ///
    ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
    ylabel(`ylabl'(10)`ylablu') ///
    xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsz(medsmall)) ///
    xtitle("", margin(0 0 0 2)) ///
    legend(off)
    graph display, xsize(`xs') ysize(`ys')
    graph save $graphslocation/dec_`cnt'_`sex', replace
    graph export $graphslocation/dec_`cnt'_`sex'.png, replace

local sex = 2
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
    || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
    || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
    yline(0, lcol(gs5)) ///
    graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
    plotregion(margin(tiny)) ///
    title("`cnt', women", size(med) margin(tiny)) ///
    ytitle("", size(medsmall)) ///
    ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///

```

```

        ylabel(`ylabl'(10)`ylablu') ///
        xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///

        xtitle("", margin(0 0 0 2)) ///
        legend(off)
        graph display, xsize(`xs') ysize(`ys')
        graph save $graphslocation/dec_`cnt'_`sex', replace
        graph export $graphslocation/dec_`cnt'_`sex'.png, replace

        grc1leg $graphslocation/dec_`cnt'_0.gph $graphslocation/dec_`cnt'_1.gph
$graphslocation/dec_`cnt'_2.gph, ///
        legendfrom($graphslocation/dec_`cnt'_0.gph) cols(3) ///
        graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
        plotregion(margin(tiny))

*****
* Spain
*****

        local cnt "ES"
        local sex = 0
        local bw = 0.6
        local ysc1 = -25
        local yscu = 20
        local ylabl = -25
        local ylablu = 20

        graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
        || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
        || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
        || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
        || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
        || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
        || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
        || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
        || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
        || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
        || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///

```

```

        yline(0, lcol(gs5)) ///
        graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
        plotregion(margin(tiny)) ///
    title("`cnt', men and women", size(med) margin(tiny)) ///
    ytitle("Income change 2008 - 2017 in %", size(medsmall)) ///
        ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
        ylabel(`ylabl'(10)`ylablu') ///
        xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///

        xtitle("", margin(0 0 0 2)) ///
        legend(cols(2) label(1 "Labour income: Employment") label(2 "Labour income:
Wages") label(3 "Benefits: share of receivers") ///
        label(4 "Benefits per beneficiary") label(5 "Other income") label(11
"Total change") order(1 2 3 4 5 11) rowgap(*0.8) ///
        bmargin(small) size(small) ring(1) position(11) symx(*0.5))
    graph display, xsize(`xs') ysize(`ys')
        graph save $graphslocation/dec_`cnt'_`sex', replace
        graph export $graphslocation/dec_`cnt'_`sex'.png, replace

    local sex = 1
    graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`0
29 74") lcol(`lc') ///
        || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`48 122
133") lcol(`lc') ///
        || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`255
180 0") lcol(`lc') ///
        || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("`orange") lcol(`lc') ///
        || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`190
190 190") lcol(`lc') ///
        || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`0 29
74") lcol(`lc') ///
        || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`48 122
133") lcol(`lc') ///
        || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`255
180 0") lcol(`lc') ///
        || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("`orange") lcol(`lc') ///
        || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`190
190 190") lcol(`lc') ///
        || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
        yline(0, lcol(gs5)) ///
        graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
        plotregion(margin(tiny)) ///
    title("`cnt', men", size(med) margin(tiny)) ///
    ytitle("", size(medsmall)) ///
        ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
        ylabel(`ylabl'(10)`ylablu') ///
        xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///
        xtitle("", margin(0 0 0 2)) ///

```

```

legend(off)
graph display, xsize(`xs') ysize(`ys')
    graph save $graphslocation/dec_`cnt'_`sex', replace
    graph export $graphslocation/dec_`cnt'_`sex'.png, replace

local sex = 2
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///  

    || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///  

    || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///  

    || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///  

    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///  

    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///  

    || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///  

    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///  

    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///  

    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///  

    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///  

    yline(0, lcol(gs5)) ///  

    graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///  

    plotregion(margin(tiny)) ///  

    title("`cnt', women", size(med) margin(tiny)) ///  

    ytitle("", size(medsmall)) ///  

    ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///  

    ylabel(`ylabl'(10)`ylablu') ///  

    xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///  


    xtitle("", margin(0 0 0 2)) ///  

legend(off)
graph display, xsize(`xs') ysize(`ys')
    graph save $graphslocation/dec_`cnt'_`sex', replace
    graph export $graphslocation/dec_`cnt'_`sex'.png, replace

    grc1leg $graphslocation/dec_`cnt'_0.gph $graphslocation/dec_`cnt'_1.gph
$graphslocation/dec_`cnt'_2.gph, ///  

    legendfrom($graphslocation/dec_`cnt'_0.gph) cols(3) ///  

    graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///  

    plotregion(margin(tiny))

```

* France

```
local cnt "FR"
local sex = 0
local bw = 0.6
local ysc1 = -15
local yscu = 23
local ylab1 = -15
local ylablu = 20

graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
|| bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
|| bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
|| bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
|| bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
|| bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
|| bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
|| bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
|| bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
|| bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
|| scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
yline(0, lcol(gs5)) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny)) ///
title("`cnt', men and women", size(med) margin(tiny)) ///
ytitle("Income change 2008- 2017 in %", size(medsmall)) ///
ysc(r(`ysc1' `yscu')) xsc(r(0.5 3.5)) ///
ylabel(`ylab1'(5) `ylablu') ///
xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///

xtitle("", margin(0 0 0 2)) ///
legend(cols(2) label(1 "Labour income: Employment") label(2 "Labour income:
Wages") label(3 "Benefits: share of receivers") ///
label(4 "Benefits per beneficiary") label(5 "Other income") label(11
"Total change") order(1 2 3 4 5 11) rowgap(*0.8) ///
bmargin(small) size(small) ring(1) position(11) symx(*0.5))
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace
```

```

local sex = 1
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
    || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
    || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
    yline(0, lcol(gs5)) ///
    graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
    plotregion(margin(tiny)) ///
    title("`cnt', men", size(med) margin(tiny)) ///
    ytitle("", size(medsmall)) ///
    ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
    ylabel(`ylabl'(5)`ylablu') ///
    xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///
    xtitle("", margin(0 0 0 2)) ///
    legend(off)
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

```

```

local sex = 2
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
    || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///

```

```

|| bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
|| bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
|| bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
|| bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
|| scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
yline(0, lcol(gs5)) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny)) ///
title("`cnt', women", size(med) margin(tiny)) ///
yttitle("", size(medsmall)) ///
ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
ylabel(`ylabl'(5)`ylablu') ///
xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labszsize(medsmall)) ///

xtitle("", margin(0 0 0 2)) ///
legend(off)
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'`sex', replace
graph export $graphslocation/dec_`cnt'`sex'.png, replace

grc1leg $graphslocation/dec_`cnt'_0.gph $graphslocation/dec_`cnt'_1.gph
$graphslocation/dec_`cnt'_2.gph, ///
legendfrom($graphslocation/dec_`cnt'_0.gph) cols(3) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny))

*****
* Italy
*****

local cnt "IT"
local sex = 0
local bw = 0.6
local yscl = -22
local yscu = 12
local ylavl = -20
local ylablu = 10

graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
|| bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
|| bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
|| bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')

```

```

col("orange") lcol(`lc`) ///
    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
    || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
    yline(0, lcol(gs5)) ///
    graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
    plotregion(margin(tiny)) ///
    title("`cnt', men and women", size(med) margin(tiny)) ///
    ytitle("Income change 2008 - 2017 in %", size(medsmall)) ///
    ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
    ylabel(`ylabl'(10)`ylablu') ///
    xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///

    xtitle("", margin(0 0 0 2)) ///
    legend(cols(2) label(1 "Employment rates (l)") label(2 "Income per employed
(y1)") label(3 "Share of beneficiaries (n)") ///
    label(4 "Benefits per beneficiary (yb)") label(5 "Other income (Y0)")
label(11 "Total change") order(1 2 3 4 5 11) rowgap(*0.8) ///
    bmargin(small) size(small) ring(1) position(11) symx(*0.5))
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

local sex = 1
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
    || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
    || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///

```

```

        || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
        || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
        || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
yline(0, lcol(gs5)) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny)) ///
title("`cnt', men", size(med) margin(tiny)) ///
yttitle("", size(medsmall)) ///
ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
ylabel(`ylabl'(10)`ylablu') ///
xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsz(medsmall)) ///
xttitle("", margin(0 0 0 2)) ///
legend(off)
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

local sex = 2
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
        || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
        || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
        || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
        || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
        || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
        || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
        || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
        || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
        || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
        || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
yline(0, lcol(gs5)) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny)) ///
title("`cnt', women", size(med) margin(tiny)) ///
yttitle("", size(medsmall)) ///
ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
ylabel(`ylabl'(10)`ylablu') ///
xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsz(medsmall)) ///

```

```

        xtitle("", margin(0 0 0 2)) ///
    legend(off)
    graph display, xsize(`xs') ysize(`ys')
        graph save $graphslocation/dec_`cnt'`sex', replace
        graph export $graphslocation/dec_`cnt'`sex'.png, replace

    grc1leg $graphslocation/dec_`cnt'_0.gph $graphslocation/dec_`cnt'_1.gph
    $graphslocation/dec_`cnt'_2.gph, ///
    legendfrom($graphslocation/dec_`cnt'_0.gph) cols(3) ///
    graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
    plotregion(margin(tiny))

*****
* Poland
*****

    local cnt "PL"
    local sex = 0
    local bw = 0.6
    local ysc1 = -15
    local yscu = 15
    local ylab1 = -15
    local ylablu = 15

    graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
        || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
        || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
        || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
        || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
        || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
        || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
        || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
        || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
        || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
        || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
        yline(0, lcol(gs5)) ///
        graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
        plotregion(margin(tiny)) ///
    title("`cnt', men and women", size(med) margin(tiny)) ///

```

```

ytitle("Income change 2008 - 2017 in %", size(medsmall)) ///
    ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
    ylabel(`ylabl'(5)`ylablu') ///
    xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labszsize(medsmall)) ///

    xtitle("", margin(0 0 0 2)) ///
    legend(cols(2) label(1 "Labour income: Employment") label(2 "Labour income:
Wages") label(3 "Benefits: share of receivers") ///
        label(4 "Benefits per beneficiary") label(5 "Other income") label(11
"Total change") order(1 2 3 4 5 11) rowgap(*0.8) ///
        bmargin(small) size(small) ring(1) position(11) symx(*0.5))
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

local sex = 1
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`0
29 74") lcol(`lc') ///
    || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`48 122
133") lcol(`lc') ///
    || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`255
180 0") lcol(`lc') ///
    || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("`orange") lcol(`lc') ///
    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`190
190 190") lcol(`lc') ///
    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`0 29
74") lcol(`lc') ///
    || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`48 122
133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`255
180 0") lcol(`lc') ///
    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("`orange") lcol(`lc') ///
    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("`190
190 190") lcol(`lc') ///
    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
    yline(0, lcol(gs5)) ///
    graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
    plotregion(margin(tiny)) ///
    title("`cnt', men", size(med) margin(tiny)) ///
ytitle("", size(medsmall)) ///
    ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
    ylabel(`ylabl'(5)`ylablu') ///
    xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labszsize(medsmall)) ///
    xtitle("", margin(0 0 0 2)) ///
    legend(off)
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

```

```

local sex = 2
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
    || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
    || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
yline(0, lcol(gs5)) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny)) ///
title("`cnt', women", size(med) margin(tiny)) ///
yttitle("", size(medsmall)) ///
ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
ylabel(`ylabl'(5)`ylablu') ///
xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///

xtitle("", margin(0 0 0 2)) ///
legend(off)
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

grc1leg $graphslocation/dec_`cnt'_0.gph $graphslocation/dec_`cnt'_1.gph
$graphslocation/dec_`cnt'_2.gph, ///
legendfrom($graphslocation/dec_`cnt'_0.gph) cols(3) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny))

*****
* Sweden
*****

local cnt "SE"
local sex = 0

```

```

local bw = 0.6
local ysc1 = -8
local yscu = 24
local ylab1 = -5
local ylablu = 20

graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
|| bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
|| bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
|| bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
|| bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
|| bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
|| bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
|| bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
|| bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
|| bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
|| scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
yline(0, lcol(gs5)) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny)) ///
title("`cnt', men and women", size(med) margin(tiny)) ///
yttitle("Income change 2008 - 2017 in %", size(medsmall)) ///
ysc(r(`ysc1' `yscu')) xsc(r(0.5 3.5)) ///
ylabel(`ylab1'(5)`ylablu') ///
xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsize(medsmall)) ///

xtitle("", margin(0 0 0 2)) ///
legend(cols(2) label(1 "Labour income: Employment") label(2 "Labour income:
Wages") label(3 "Benefits: share of receivers") ///
label(4 "Benefits per beneficiary") label(5 "Other income") label(11
"Total change") order(1 2 3 4 5 11) rowgap(*0.8) ///
bmargin(small) size(small) ring(1) position(11) symx(*0.5))
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

local sex = 1
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
|| bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122

```

```

133") lcol(`lc') ///
    || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
    || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
    yline(0, lcol(gs5)) ///
    graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
    plotregion(margin(tiny)) ///
    title("`cnt', men", size(med) margin(tiny)) ///
    ytitle("", size(medsmall)) ///
    ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
    ylabel(`ylabl'(5) `ylablu') ///
    xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsz(medsmall)) ///
    xtitle("", margin(0 0 0 2)) ///
    legend(off)
    graph display, xsize(`xs') ysize(`ys')
    graph save $graphslocation/dec_`cnt'_`sex', replace
    graph export $graphslocation/dec_`cnt'_`sex'.png, replace

local sex = 2
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
    || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
    || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')

```

```

col("orange") lcol(`lc`) ///
|| bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
|| scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
yline(0, lcol(gs5)) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny)) ///
title("`cnt', women", size(med) margin(tiny)) ///
yttitle("", size(medsmall)) ///
ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
ylabel(`ylabl'(5)`ylablu') ///
xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labsz(medsmall)) ///
xttitle("", margin(0 0 0 2)) ///
legend(off)
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

grc1leg $graphslocation/dec_`cnt'_0.gph $graphslocation/dec_`cnt'_1.gph
$graphslocation/dec_`cnt'_2.gph, ///
legendfrom($graphslocation/dec_`cnt'_0.gph) cols(3) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny))

```

* Slovenia

```

local cnt "SI"
local sex = 0
local bw = 0.6
local yscl = -6
local yscu = 15
local ylabl = -5
local ylablu = 15

graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
|| bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
|| bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
|| bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
|| bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
|| bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
|| bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122

```

```

133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
yline(0, lcol(gs5)) ///
graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny)) ///
title("`cnt', men and women", size(med) margin(tiny)) ///
yttitle("Income change 2008 - 2017 in %", size(medsmall)) ///
ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
ylabel(`ylabl'(5)`ylablu') ///
xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labszsize(medsmall)) ///

xttitle("", margin(0 0 0 2)) ///
legend(cols(2) label(1 "Employment rates (l)") label(2 "Income per employed
(y1)") label(3 "Share of beneficiaries (n)") ///
    label(4 "Benefits per beneficiary (yb)") label(5 "Other income (Y0)")
label(11 "Total change") order(1 2 3 4 5 11) rowgap(*0.8) ///
    bmargin(small) size(small) ring(1) position(11) symx(*0.5))
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

local sex = 1
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
    || bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
    || bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
    || bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
    || bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
    || bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
    || scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
yline(0, lcol(gs5)) ///

```

```

graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny)) ///
title("`cnt', men", size(med) margin(tiny)) ///
yttitle("", size(medsmall)) ///
ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
ylabel(`ylabl'(5)`ylablu') ///
xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labszsize(medsmall)) ///
xttitle("", margin(0 0 0 2)) ///
legend(off)
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

local sex = 2
graph twoway bar DRYN0pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0
29 74") lcol(`lc') ///
|| bar DRYN1pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
|| bar DRYN2pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
|| bar DRYN3pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
|| bar DRYN4pos AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
|| bar DRYN0neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("0 29
74") lcol(`lc') ///
|| bar DRYN1neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("48 122
133") lcol(`lc') ///
|| bar DRYN2neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("255
180 0") lcol(`lc') ///
|| bar DRYN3neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw')
col("orange") lcol(`lc') ///
|| bar DRYN4neg AGEVAR if SEX==`sex' & CNT2=="`cnt'", barw(`bw') col("190
190 190") lcol(`lc') ///
|| scatter DRYN1 AGEVAR if SEX==`sex' & CNT2=="`cnt'", col(black) ///
yline(0, lcol(gs5)) ///
graphregion(margin(1-3r-2 t+0 b-3) color(white)) ///
plotregion(margin(tiny)) ///
title("`cnt', women", size(med) margin(tiny)) ///
yttitle("", size(medsmall)) ///
ysc(r(`yscl' `yscu')) xsc(r(0.5 3.5)) ///
ylabel(`ylabl'(5)`ylablu') ///
xlabel(1 "20-39" 2 "40-59" 3 "60+" 4.6 "Total", labszsize(medsmall)) ///
xttitle("", margin(0 0 0 2)) ///
legend(off)
graph display, xsize(`xs') ysize(`ys')
graph save $graphslocation/dec_`cnt'_`sex', replace
graph export $graphslocation/dec_`cnt'_`sex'.png, replace

grc1leg $graphslocation/dec_`cnt'_0.gph $graphslocation/dec_`cnt'_1.gph

```

```

$graphslocation/dec_`cnt'_2.gph, ///  

    legendfrom($graphslocation/dec_`cnt'_0.gph) cols(3) ///  

    graphregion(margin(1-3 r-2 t+0 b-3) color(white)) ///  

    plotregion(margin(tiny))

*****

* Total
*****

/*
    grc1leg $graphslocation/dec_AT_0.gph $graphslocation/dec_EE_0.gph
$graphslocation/dec_EL_0.gph ///  

    $graphslocation/dec_ES_0.gph $graphslocation/dec_FR_0.gph
$graphslocation/dec_IT_0.gph ///  

    $graphslocation/dec_PL_0.gph $graphslocation/dec_SE_0.gph
$graphslocation/dec_SI_0.gph, ///  

    iscale(*0.8) cols(2) ///  

    legendfrom($graphslocation/dec_AT_0.gph) ring(0) position(5) ///  

    graphregion(margin(1-3 r-2 t+0 b-0) color(white)) ///  

    plotregion(margin(tiny))
graph display, xsize(6) ysize(9)
graph export $graphslocation/dec_1.eps, replace
*/

    grc1leg $graphslocation/dec_AT_0.gph $graphslocation/dec_AT_1.gph
$graphslocation/dec_AT_2.gph ///  

    $graphslocation/dec_FR_0.gph $graphslocation/dec_FR_1.gph
$graphslocation/dec_FR_2.gph ///  

    $graphslocation/dec_SI_0.gph $graphslocation/dec_SI_1.gph
$graphslocation/dec_SI_2.gph ///  

    $graphslocation/dec_EL_0.gph $graphslocation/dec_EL_1.gph
$graphslocation/dec_EL_2.gph ///  

    $graphslocation/dec_ES_0.gph $graphslocation/dec_ES_1.gph
$graphslocation/dec_ES_2.gph, ///  

    legendfrom($graphslocation/dec_AT_0.gph) cols(3) ///  

    graphregion(margin(1-3 r-2 t+0 b-1) color(white)) ///  

    plotregion(margin(tiny))
graph display, xsize(6) ysize(10)
graph export $graphslocation/dec_1.eps, replace

    grc1leg $graphslocation/dec_IT_0.gph $graphslocation/dec_IT_1.gph
$graphslocation/dec_IT_2.gph ///  

    $graphslocation/dec_EE_0.gph $graphslocation/dec_EE_1.gph
$graphslocation/dec_EE_2.gph ///  

    $graphslocation/dec_PL_0.gph $graphslocation/dec_PL_1.gph
$graphslocation/dec_PL_2.gph ///  

    $graphslocation/dec_SE_0.gph $graphslocation/dec_SE_1.gph
$graphslocation/dec_SE_2.gph, ///  

    legendfrom($graphslocation/dec_IT_0.gph) cols(3) ///  


```

```
graphregion(margin(1-3 r-2 t+0 b-1) color(white)) ///  
plotregion(margin(tiny))  
graph display, xsize(6) ysize(9)  
graph export $graphslocation/dec_2.eps, replace
```