

## Supplementary material 2

Stata 18.0 code for analysis in:

### The role of mating effort and co-residence history in step-grandparental investment

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The data that support the findings of this study were provided by the German Family Panel (pairfam; <https://www.pairfam.de/en/data/data-access/>). Data of wave 2 was used in these analysis.

```
use anchor2.dta
```

```
*English labels
```

```
label language en
```

```
*** see pairfam Data Manual Release 10.0 for code explanations
```

```
***Time spend with each parent or stepparent before adulthood
```

```
* cl7e1 age when family changed
```

```
* cl6ex with whom lived
```

```
* cl3 lived with both parents after birth
```

```
* cl4 with whom lived after birth
```

```
* cl5ex any changes in living composition before age 18
```

```
* with whom lived at birth and during childhood
```

```
keep id age cl3* cl4* cl5e* cl6e* cl7e*
```

```
recode cla7e1 (-4 -3 -2 -1=.)  
recode cla7e2 (-4 -3 -2 -1=.)  
recode cla7e3 (-4 -3 -2 -1=.)  
recode cla7e4 (-4 -3 -2 -1=.)  
recode cla7e5 (-4 -3 -2 -1=.)  
recode cla7e6 (-4 -3 -2 -1=.)  
recode cla7e7 (-4 -3 -2 -1=.)  
recode cla7e8 (-4 -3 -2 -1=.)  
recode cla7e9 (-4 -3 -2 -1=.)
```

```
recode cla6e1 (-4 -3 -2 -1=.)  
recode cla6e2 (-4 -3 -2 -1=.)  
recode cla6e3 (-4 -3 -2 -1=.)  
recode cla6e4 (-4 -3 -2 -1=.)  
recode cla6e5 (-4 -3 -2 -1=.)  
recode cla6e6 (-4 -3 -2 -1=.)  
recode cla6e7 (-4 -3 -2 -1=.)  
recode cla6e8 (-4 -3 -2 -1=.)  
recode cla6e9 (-4 -3 -2 -1=.)
```

```
tabulate cla3
```

```
tabulate cla4
```

```
reshape long cla6e cla7e , i(id) j(ch_change)
```

```
recode cla5e1 (-4 -3 -2 -1=.) (2 = 0) (1 = 1), gen(eroperhe)
```

```
recode cla3 (-2 -1=.) (2 = 0) (1 = 1), gen(ydinperhe)
```

```
recode cla4 (-3 -2 -1=.), gen(syntyessa)
```

```
generate ekaperhe = .
```

```
replace ekaperhe = 1 if cla3 == 1
```

```
replace ekaperhe = cla4 if cla3 != 1
```

```
replace ekaperhe = . if ekaperhe == -3
```

```
tabulate ekaperhe cla3
```

```
reshape wide cla6e cla7e , i(id) j(ch_change)
```

```
* time periods when family composition changed
```

```
generate pituus0 = .
```

```
replace pituus0 = cla7e1 if cla7e1 != .
```

```
replace pituus0 = age if age <= 18 & cla5e1 == 2
```

```
replace pituus0 = 18 if age > 18 & cla5e1 == 2
```

```
generate pituus1 = .
```

```
replace pituus1 = cla7e2-cla7e1 if cla7e2 != . & cla7e1 != .
```

```
replace pituus1 = 18 if cla7e1 == .
```

```
replace pituus1 = age if age < 18 & cla7e1 == .
```

```
replace pituus1 = 18 - cla7e1 if cla7e2 == . & cla7e1 != .
```

```
replace pituus1 = age - cla7e1 if age < 18 & cla7e2 == . & cla7e1 != .
```

```
generate pituus2 = .
```

```
replace pituus2 = cla7e3-cla7e2 if cla7e2 != . & cla7e3 != .
```

```
replace pituus2 = 18 - cla7e2 if cla7e3 == . & cla7e2 != .
```

```
replace pituus2 = age - cla7e2 if age < 18 & cla7e3 == . & cla7e2 != .
```

generate pituus3 = .

replace pituus3 = cl7e4-cl7e3 if cl7e3 != . & cl7e4 != .

replace pituus3 = 18 - cl7e3 if cl7e4 == . & cl7e3 != .

replace pituus3 = age - cl7e3 if age < 18 & cl7e4 == . & cl7e3 != .

generate pituus4 = .

replace pituus4 = cl7e5-cl7e4 if cl7e4 != . & cl7e5 != .

replace pituus4 = 18 - cl7e4 if cl7e5 == . & cl7e4 != .

replace pituus4 = age - cl7e4 if age < 18 & cl7e5 == . & cl7e4 != .

generate pituus5 = .

replace pituus5 = cl7e6-cl7e5 if cl7e5 != . & cl7e6 != .

replace pituus5 = 18 - cl7e5 if cl7e6 == . & cl7e5 != .

replace pituus5 = age - cl7e5 if age < 18 & cl7e6 == . & cl7e5 != .

generate pituus6 = .

replace pituus6 = cl7e7-cl7e6 if cl7e6 != . & cl7e7 != .

replace pituus6 = 18 - cl7e6 if cl7e7 == . & cl7e6 != .

replace pituus6 = age - cl7e6 if age < 18 & cl7e7 == . & cl7e6 != .

generate pituus7 = .

replace pituus7 = cl7e8-cl7e7 if cl7e7 != . & cl7e8 != .

replace pituus7 = 18 - cl7e7 if cl7e8 == . & cl7e7 != .

replace pituus7 = age - cl7e7 if age < 18 & cl7e8 == . & cl7e7 != .

generate pituus8 = .

replace pituus8 = cl7e9-cl7e8 if cl7e8 != . & cl7e9 != .

replace pituus8 = 18 - cl7e8 if cl7e9 == . & cl7e8 != .

replace pituus8 = age - cl7e8 if age < 18 & cl7e9 == . & cl7e8 != .

generate pituus9 = .

replace pituus9 = 18 - cla7e9 if cla7e9 != .

replace pituus9 = age - cla7e9 if age < 18 & cla7e9 != .

\* childhood time with mother = M, codes 1,2,3

generate Mpituus0 = .

replace Mpituus0 = pituus0 if ekaperhe == 1 | ekaperhe == 2 | ekaperhe == 3

generate Mpituus1 = .

replace Mpituus1 = pituus1 if cla6e1 == 1 | cla6e1 == 2 | cla6e1 == 3

generate Mpituus2 = .

replace Mpituus2 = pituus2 if cla6e2 == 1 | cla6e2 == 2 | cla6e2 == 3

generate Mpituus3 = .

replace Mpituus3 = pituus3 if cla6e3 == 1 | cla6e3 == 2 | cla6e3 == 3

generate Mpituus4 = .

replace Mpituus4 = pituus4 if cla6e4 == 1 | cla6e4 == 2 | cla6e4 == 3

generate Mpituus5 = .

replace Mpituus5 = pituus5 if cla6e5 == 1 | cla6e5 == 2 | cla6e5 == 3

generate Mpituus6 = .

replace Mpituus6 = pituus6 if cla6e6 == 1 | cla6e6 == 2 | cla6e6 == 3

generate Mpituus7 = .

replace Mpituus7 = pituus7 if cla6e7 == 1 | cla6e7 == 2 | cla6e7 == 3

generate Mpituus8 = .

replace Mpituus8 = pituus8 if cla6e8 == 1 | cla6e8 == 2 | cla6e8 == 3

generate Mpituus9 = .

replace Mpituus9 = pituus9 if cla6e9 == 1 | cla6e9 == 2 | cla6e9 == 3

egen Mpituus = rowtotal(Mpituus\*)

\*childhood time with biological father = D, codes 1, 4, 5

generate Dpituus0 = .

replace Dpituus0 = pituus0 if ekaperhe == 1 | ekaperhe == 4 | ekaperhe == 5

generate Dpituus1 = .

replace Dpituus1 = pituus1 if cla6e1 == 1 | cla6e1 == 4 | cla6e1 == 5

generate Dpituus2 = .

replace Dpituus2 = pituus2 if cla6e2 == 1 | cla6e2 == 4 | cla6e2 == 5

generate Dpituus3 = .

replace Dpituus3 = pituus3 if cla6e3 == 1 | cla6e3 == 4 | cla6e3 == 5

generate Dpituus4 = .

replace Dpituus4 = pituus4 if cla6e4 == 1 | cla6e4 == 4 | cla6e4 == 5

```
generate Dpituus5 = .
```

```
replace Dpituus5 = pituus5 if cla6e5 == 1 | cla6e5 == 4 | cla6e5 == 5
```

```
generate Dpituus6 = .
```

```
replace Dpituus6 = pituus6 if cla6e6 == 1 | cla6e6 == 4 | cla6e6 == 5
```

```
generate Dpituus7 = .
```

```
replace Dpituus7 = pituus7 if cla6e7 == 1 | cla6e7 == 4 | cla6e7 == 5
```

```
generate Dpituus8 = .
```

```
replace Dpituus8 = pituus8 if cla6e8 == 1 | cla6e8 == 4 | cla6e8 == 5
```

```
generate Dpituus9 = .
```

```
replace Dpituus9 = pituus9 if cla6e9 == 1 | cla6e9 == 4 | cla6e9 == 5
```

```
egen Dpituus = rowtotal(Dpituus*)
```

```
browse
```

```
\*time with stepfather = SD, code 3
```

```
generate SDpituus0 = .
```

```
replace SDpituus0 = pituus0 if ekaperhe == 3
```

```
generate SDpituus1 = .
```

```
replace SDpituus1 = pituus1 if cla6e1 == 3
```

```
generate SDpituus2 = .
replace SDpituus2 = pituus2 if cla6e2 == 3

generate SDpituus3 = .
replace SDpituus3 = pituus3 if cla6e3 == 3

generate SDpituus4 = .
replace SDpituus4 = pituus4 if cla6e4 == 3

generate SDpituus5 = .
replace SDpituus5 = pituus5 if cla6e5 == 3

generate SDpituus6 = .
replace SDpituus6 = pituus6 if cla6e6 == 3

generate SDpituus7 = .
replace SDpituus7 = pituus7 if cla6e7 == 3

generate SDpituus8 = .
replace SDpituus8 = pituus8 if cla6e8 == 3

generate SDpituus9 = .
replace SDpituus9 = pituus9 if cla6e9 == 3

egen SDpituus = rowlast(SDpituus*)
```

\* time with stepmother = SM, code 5



generate SMpituus0 = .

replace SMpituus0 = pituus0 if ekaperhe == 5

generate SMpituus1 = .

replace SMpituus1 = pituus1 if cla6e1 == 5

generate SMpituus2 = .

replace SMpituus2 = pituus2 if cla6e2 == 5

generate SMpituus3 = .

replace SMpituus3 = pituus3 if cla6e3 == 5

generate SMpituus4 = .

replace SMpituus4 = pituus4 if cla6e4 == 5

generate SMpituus5 = .

replace SMpituus5 = pituus5 if cla6e5 == 5

generate SMpituus6 = .

replace SMpituus6 = pituus6 if cla6e6 == 5

generate SMpituus7 = .

replace SMpituus7 = pituus7 if cla6e7 == 5

generate SMpituus8 = .

replace SMpituus8 = pituus8 if cla6e8 == 5

generate SMpituus9 = .

replace SMpituus9 = pituus9 if cla6e9 == 5

```
egen SMpituus = rowlast(SMpituus*)
```

*\*correcting errors*

```
replace Mpituus = 14 if id == 244576000
```

```
replace Dpituus = . if id == 244576000
```

```
replace SDpituus = . if id == 244576000
```

```
replace Dpituus = . if id == 508098000
```

```
replace Mpituus = 18 if id == 508098000
```

```
browse
```

```
keep id Mpituus Dpituus SDpituus SMpituus
```

```
save parentpituus_all_N.dta
```

*\*merging childhood co-residence data with main data*

```
clear
```

```
use anchor2.dta
```

```
merge 1:1 id using parentpituus_all_N.dta
```

```
drop _merge
```

*\*Drop adopted*

drop if hae == 1

drop if amhh1 == 1

drop if avhh1 == 1

\*If living with mother (lmhh1 = 1 ) -> igr41p1 = 1 (we live in the same house)

replace igr41p1 = 1 if lmhh1 == 1

\*igr41p time to parents dwelling. Missing for biological fathers if they live with mother, give same distance if he2=10 parents live together

replace igr41p3 = igr41p1 if igr41p3 == -3 & he2 == 1

\*give stepmother the same distance than stepfathers

replace igr41p4 = igr41p3 if igr41p4 == -3 & hsm1 == 1

\*distance to stepfathers

replace igr41p2 = igr41p1 if igr41p2 == -3 & hsv1 == 1

\* browse id cla6\* cla7\* step\_asu\* stepdadage stepdadtime

\*recoding covariates

recode sex\_gen (-4=.), gen(sex)

drop if sex == .

\*ethnicity in two classes

```
recode ethn1 (-7=.) (1=0 "German native") (2/5=1 "Other"), gen(ethni2)
```

\*education

```
recode isced (0=0 "currently enrolled") (1/3=1 "primary and lower secondary") (4/5=2 "upper secondary")  
(6=3 "post secondary") (7/8=4 "tertiary") (-7=.), gen(educ)
```

```
gen highgrade = school if isced == 0
```

```
recode highgrade (0=0) (1/3=1) (4/5=2) (6/7=3) (8=.)
```

```
recode highgrade (0=0) (1=100) (2=200) (3=300) (-7=.)
```

```
egen educ_2 = rowtotal(highgrade educ)
```

```
recode educ_2 (0=0 "currently enrolled") (1 100=1 "primary and lower secondary") (2 200=2 "upper  
secondary") (3 300=3 "post secondary") (4=4 "tertiary") ///
```

```
if educ !=., gen(educ_highest)
```

\*age of anchors youngest children

```
recode ykage (-3 -7 = .), gen(nuorin)
```

```
generate nuorin_y = nuorin/12
```

\* number of alive children, 1 if at least one child

```
recode nkidsbioalv (-1000/-1=.) (1/10=1), gen(kids)
```

\*number of kids cap at 5

```
recode nkidsbioalv (-1000/-1=.) (1 = 1) (2 = 2) (3 = 3) ( 4 = 4) (5 6 7 10 = 5), gen(nokids)
```

\*number of biological kids living with anchor

```
recode nkidsbioliv (-1000/-1=.) (1 = 1) (2 = 2) (3 = 3) ( 4 = 4) ( 5 6 7 10 = 5), gen(nokidsliv)
```

```
recode nkidsbioliv (-1000/-1=.) (1/10 = 1), gen(kids_home)
```

\*reshaping long format, parent: 1=mother, 2=stepfather, 3=father, 4=stepmother

```
reshape long igr41p igr68p igr70p, i(id) j(parent)
```

\*igr68 getting help taking care of your children

\*igr70 gifts or financial support

\*igr41p How much time do you need to get to your X dwelling? ( same house=1, less than 10min = 2, ...3h or more=6)

```
recode igr41p (-4 -3 -1 -2 =.) (1=0) (2=1) (3=2) (4=3) (5=4) (6=5), gen(distance)
```

\*grandparenting questions

```
recode igr68p (-4 -3 -1 -2 =.) (1=0) (2=1) (3=2) (4=3) (5=4), gen(kidhelp)
```

```
recode igr70p (-4 -3 -1 -2 =.) (1=0) (2=1) (3=2) (4=3) (5=4), gen(kidfina)
```

```
recode igr68p (-4 -3 -1 -2 =.) (1=0) (2=1) (3=1) (4=1) (5=1), gen(kidhelp2)
```

```
recode igr70p (-4 -3 -1 -2 =.) (1=0) (2=1) (3=1) (4=1) (5=1), gen(kidfina2)
```

\*PARENT (GP) ika age, page, mage, fage, smage, sfage

\*parents' age

generate ika = .

replace ika = mage if parent == 1

replace ika = fage if parent == 3

replace ika = sfage if parent == 2

replace ika = smage if parent == 4

replace ika = . if ika < 0

generate GP = "Z"

replace GP = "Mother" if parent == 1

replace GP = "Stepfather" if parent == 2

replace GP = "Father" if parent == 3

replace GP = "Stepmother" if parent == 4

\*generate maternal and paternal lines

generate fline = "X"

replace fline = "MGM" if sex == 2 & parent == 1

replace fline = "MGF" if sex == 2 & parent == 3

replace fline = "PGM" if sex == 1 & parent == 1

replace fline = "PGF" if sex == 1 & parent == 3

replace fline = "SMGM" if sex == 2 & parent == 4

replace fline = "SMGF" if sex == 2 & parent == 2

replace fline = "SPGM" if sex == 1 & parent == 4

replace fline = "SPGF" if sex == 1 & parent == 2

```
encode fline, generate(fline2)
```

```
describe fline2
```

```
* error correction
```

```
replace SDpituus = 0 if id == 3255000
```

```
replace Dpituus = 17 if id == 3255000
```

```
*112050000 typo correction
```

```
replace ika = . if id == 112050000 & parent == 3
```

```
*412802000 error father age
```

```
replace ika = . if id == 412802000 & parent == 3
```

```
*cohabitation status
```

```
*tabulate relstat
```

```
*cohab = 1
```

```
recode relstat (-7 =.) (1 2 5 6 7 9 10=0) (3 4 8 11 =1) , gen(cohab)
```

```
*Generate childhood co-residency duration per each parent (M = mother, D = Father, SD = stepfather,  
stepmother = SM)
```

```
generate pituus = .
```

```
replace pituus = Mpituus if parent == 1
```

```
replace pituus = Dpituus if parent == 3
```

```
replace pituus = SDpituus if parent == 2
```

```
replace pituus = SMPituus if parent == 4
```

\* if SD or SM, but no childhood co-residency --> 0

replace pituus = 0 if pituus ==. & parent == 2

replace pituus = 0 if pituus ==. & parent == 4

\*Some cases checked individually

replace pituus = 17 if id == 189519000 & parent == 1 // moved with mother?

replace pituus = 17 if id == 53926000 & parent == 1 // moved with mother?

replace pituus = 17 if id == 140628000 & parent == 1 // moved with mother?

replace pituus = 18 if id == 284363000 & parent == 1 // moved with mother and father?

replace pituus = 18 if id == 284363000 & parent == 3 // moved with mother and father?

\* he3= 1 parents married, hm1 = mother living status (1 living 2 dead) igr29= mother marital status , igr30  
mother have a partner now, igr31 mother lives with partner

\*he2 bioparents live together

generate pcohab2 = .

replace pcohab2 = 0 if parent == 1 & igr29 == 1

replace pcohab2 = 0 if parent == 1 & igr29 == 4

replace pcohab2 = 0 if parent == 1 & igr29 == 5

replace pcohab2 = 1 if parent == 1 & igr29 == 3

replace pcohab2 = 1 if parent == 1 & igr29 == 2

replace pcohab2 = 0 if parent == 1 & igr30 == 3

replace pcohab2 = 0 if parent == 1 & igr31 == 2

replace pcohab2 = 0 if parent == 1 & he2 == 2 & hsv1 == 2



replace pcohab2 = 1 if parent == 1 & he2 == 1

replace pcohab2 = 1 if parent == 1 & igr30 == 2 & igr31 == 1

*\*father igr34 marital status igr35 partner now, igr36 lives with partner*

replace pcohab2 = 0 if parent == 3 & igr34 == 1

replace pcohab2 = 0 if parent == 3 & igr34 == 4

replace pcohab2 = 0 if parent == 3 & igr34 == 5

replace pcohab2 = 0 if parent == 3 & igr35 == 3

replace pcohab2 = 0 if parent == 3 & he2 == 2

replace pcohab2 = 0 if parent == 3 & igr36 == 2

replace pcohab2 = 0 if parent == 3 & he2 == 2 & hsm1 == 2

replace pcohab2 = 1 if parent == 3 & he2 == 1

replace pcohab2 = 1 if parent == 3 & igr34 == 2

replace pcohab2 = 1 if parent == 3 & igr34 == 3

replace pcohab2 = 1 if parent == 3 & igr35 == 2 & igr36 == 1

replace pcohab2 = 1 if parent == 3 & igr35 == 1

*\*stepfather*

replace pcohab2 = 1 if parent == 2 & igr31 == 1

replace pcohab2 = 1 if parent == 2 & igr29 == 2

replace pcohab2 = 1 if parent == 2 & igr29 == 3

replace pcohab2 = 0 if parent == 2 & igr31 == 2

replace pcohab2 = 0 if parent == 2 & hm1 == 2

*\*stepmother*

replace pcohab2 = 1 if parent == 4 & igr36 == 1

replace pcohab2 = 1 if parent == 4 & igr34 == 2

replace pcohab2 = 1 if parent == 4 & igr34 == 3

replace pcohab2 = 0 if parent == 4 & igr36 == 2

replace pcohab2 = 0 if parent == 4 & hv1 == 2

\*parents not together

replace he1 = 2 if he1 == .

\*remove unnecessary parent lines

drop if parent == 1 & hm1 == 2

drop if parent == 1 & hm1 == .

drop if parent == 2 & hsv1 == 2

drop if parent == 2 & hsv1 == .

drop if parent == 3 & hv1 == 2

drop if parent == 3 & hv1 == .

drop if parent == 4 & hsm1 == 2

drop if parent == 4 & hsm1 == .

\* drop youngest cohort, too few obs with children

drop if cohort == 1

\*browse id pcohab2 parent hm1 hv1 hsv1 hsm1 hm2 hv2 hsv2 hsm2 igr29 igr31 igr36 igr34 he2 sort parent

\* hm2 hv2 hsv2 hsm2 contact with parent

\*include only those who have at least one child

```
drop if kids == 0
```

```
drop if kids == .
```

\*combination of some variables because too few obs otherwise

```
recode educ_highest (0 = 1)
```

```
recode nokids (5 = 4)
```

```
recode nokids (4 5 = 3)
```

```
recode kidfina (4 = 3), gen(kidfina4)
```

```
recode kidhelp (4 = 3), gen(kidhelp4)
```

```
recode kidfina (2 = 1) (3 = 2) (4 = 2), gen(kidfina3)
```

```
recode kidhelp (2 = 1) (3 = 2) (4 = 2), gen(kidhelp3)
```

```
label define kidfina3_1 0 "Never" 1 "Sometimes" 2 "Often"
```

```
label values kidfina3 kidfina3_1
```

```
label define kidhelp3_1 0 "Never" 1 "Sometimes" 2 "Often"
```

```
label values kidhelp3 kidhelp3_1
```

\*missing obs

```
misstable summarize pcohab2 distance pituus educ_highest nokids cohab ethni2 nuorin_y, generate(_miss)
```

```
ssc install mdesc
```

```
mdesc pcohab2 distance pituus educ_highest nokids cohab ethni2 nuorin_y
```

\*delete missing information

```
drop if kidhelp == .
```

```
drop if kidfina == .
```

```
drop if pcohab2 == .
```

```
drop if distance == .
```

```
drop if pituus == .
```

```
drop if educ_highest == .
```

```
drop if nokids == .
```

```
drop if cohab == .
```

```
drop if ethni2 == .
```

```
drop if nuorin_y == .
```

\*partial proportionality for ordered logistic regression did not hold ---> Partial Proportional Odds Model

\*Financial support given to (step)grandchildren

```
gologit2 kidfina3 ib2.fline2 i.cohort i.ethni2 i.educ_highest i.distance i.cohab i.pcohab2 i.nokids c.nuorin_y  
, robust cluster(id) autofit gamma
```

```
estat ic
```

```
test
```

```
margins i.fline2
```

```
marginsplot
```

\*model without covariates

```
gologit2 kidfina3 ib2.fline2, robust cluster(id) autofit gamma
```

\*model with weight

```
gologit2 kidfina3 ib2.fline2 i.cohort i.ethni2 i.educ_highest i.distance i.cohab i.pcohab2 i.nokids c.nuorin_y  
[weight=dweight], robust cluster(id) autofit gamma
```

\*Help in childcare

```
gologit2 kidhelp3 ib2.fline2 i.cohort i.ethni2 i.educ_highest i.distance i.cohab i.pcohab2 i.nokids  
c.nuorin_y, robust cluster(id) autofit gamma
```

estat ic

margins i.fline2

marginsplot

\*model without covariates

```
gologit2 kidhelp3 ib2.fline2, robust cluster(id) autofit or gamma
```

\*model with weigh

```
gologit2 kidhelp3 ib2.fline2 i.cohort i.ethni2 i.educ_highest i.distance i.cohab i.pcohab2 i.nokids c.nuorin_y  
[weight=dweight], robust cluster(id) autofit gamma
```

\*Variable indicating step-grandparent

```
generate stepparent = .
```

```
replace stepparent = 1 if parent == 2
```

```
replace stepparent = 2 if parent == 4
```

\*Financial support given to (step)grandchildren and co-residence duration (pituus)

```
gologit2 kidfina3 i.stepparent i.sex c.pituus i.cohort i.ethni2 i.educ_highest i.distance i.cohab i.pcohab2  
i.nokids c.nuorin_y, autofit gamma
```

```
margins, at(pituus=( 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17) )
```

```
marginsplot
```

[\\*without covariates](#)

```
gologit2 kidfina3 i.stepparent c.pituus, autofit or gamma
```

```
margins, at(pituus=( 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17) )
```

```
marginsplot
```

[\\*model with weight](#)

```
gologit2 kidfina3 i.stepparent i.sex c.pituus i.cohort i.ethni2 i.educ_highest i.distance i.cohab i.pcohab2  
i.nokids c.nuorin_y [weight=dweight], autofit gamma
```

```
margins, at(pituus=( 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17) )
```

```
marginsplot
```

[\\*Help in childcare and and co-residence duration \(pituus\)](#)

```
gologit2 kidhelp3 i.stepparent i.sex c.pituus i.cohort i.ethni2 i.educ_highest i.distance i.cohab i.pcohab2  
i.nokids c.nuorin_y, autofit gamma
```

```
margins, at(pituus=( 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17) )
```

```
marginsplot
```

[\\*model with weight](#)

```
gologit2 kidhelp3 i.stepparent i.sex c.pituus i.cohort i.ethni2 i.educ_highest i.distance i.cohab i.pcohab2  
i.nokids c.nuorin_y [weight=dweight], autofit gamma
```

```
margins, at(pituus=( 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17) )
```

```
marginsplot
```

\*Variable for separated grandparents

```
generate eroparent = .
```

```
replace eroparent = 1 if parent == 1 & he2 == 2
```

```
replace eroparent = 2 if parent == 3 & he2 == 2
```

\*variable for weight

```
*[weight=dweight]
```

\*Financial support given to (step)grandchildren and co-residence duration (pituus)

```
gologit2 kidfina3 i.eroparent i.sex c.pituus i.cohort i.ethni2 i.educ_highest i.distance i.cohab i.pcohab2  
i.nokids c.nuorin_y, autofit gamma
```

```
margins, at(pituus=( 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18) )
```

```
marginsplot
```

\*Help in childcare and co-residence duration (pituus)

```
gologit2 kidhelp3 i.eroparent i.sex c.pituus i.cohort i.ethni2 i.educ_highest i.distance i.cohab i.pcohab2  
i.nokids c.nuorin_y, autofit gamma
```

```
margins, at(pituus=( 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18) )
```

```
marginsplot
```

```
margins sex
```