

Why not stay home?
Nest-leaving behavior in Western Europe*

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Summary.

Nest-leaving describes the process of young adults leaving their parental home, a process in the course of which they continuously acquire independence, predominantly in terms of financial and residential autonomy. Nest-leaving is accompanied by transitions in various aspects of life, often coinciding with singular lifecycle events, such as commencement or completion of studies, integration in the labor market, and formation of a family. Over the last two decades, the average age at leaving home has increased in most Western countries. Besides this common recent trend there exist pronounced north-south differences within Europe, as the fraction of young adults living with their parents is substantially larger in southern Europe than in central or northern Europe.

This paper investigates these intra-European differences – in the current version exemplified by the Netherlands and Denmark for Northern Europe, and Spain and Italy for Southern Europe. We describe the patterns of nest-leaving, discuss the determinants of living at home, and assess the effects of the child leaving home on parental health and happiness. To this end, we utilize an unusually rich data source, waves 1 through 5 (1994-1998) of the European Community Household Panel. While previous research has focused on the determinants of nest-leaving only, we investigate the effects that the moving of the child has on their fathers and mothers. Our outcome variables capture general health and mental health, as well as satisfaction with the financial and housing situation, for both parents. We assess the effects of the "treatment", i.e. the child moving out, by matching "treated" households to a comparison group of "identical" households in which the child remains at home. Identicalness is expressed through a set of covariates characterizing the parents (age, education, employment status, among others), the child (age at moving out, sex), and the household (income, size, living standards).

With respect to the patterns of nest-leaving our analysis finds that the proportion of young adults staying at home is consistently higher for Southern Europe than for Northern Europe, and that the fraction of women living at home is lower than that of men for all age groups in all countries. Marriage appears to be the single factor most strongly associated with leaving the parental home across Europe. In the Netherlands, high education shows a strong negative correlation with living at home. Whereas employment status does not seem to be influential in the decision to leave home in Northern Europe, in both Italy and Spain being unemployed is positively associated with staying home.

Regarding trends in the outcome variables of interest, both general and mental health do not show any consistent patterns across countries. We also do not find significant treatment effects on health, with the exception of Italy, where the results indicate that mothers suffer mentally when their son moves out. The patterns of financial satisfaction show an upward trend in the Netherlands, in Denmark and in Spain, whereas only in Italy the degree of financial satisfaction decreases after the child leaves. Treatment effect estimates confirm this result, which may be due to a strong decline in total household income down to levels below those before the child moved out. Parental satisfaction with the housing situation is generally increasing after the child has left. Interestingly, the degree of happiness displays pronounced 'dips' right before the child moves in all countries, except Spain. Treatment effect estimates underscore the positive effect of nest-leaving on parents' housing satisfaction.

Structure

1. Motivation and Background
2. Data
3. Patterns of Nest-leaving
4. Effects of Nest-leaving

1. Motivation and Background

Stylized facts:

- Over last two decades, average age at leaving home has increased in most Western countries
- Age at first marriage, age at first birth
- There exist pronounced north-south differences within Europe
- Not much known about reasons for and consequences of these patterns

Why should we care?

- Reflects important demographic developments
- Causes + effects why kids stay at home, or move out, important
 - In particular, because literature argues:
 - Family acts as "safety net" (but for whom?)
 - Local labor demand drives nest-leaving patterns
 - Southern European parents might "bribe" children

This study:

- Investigate intra-European differences using data from the European Community Household Panel ECHP
- Currently: Denmark, Netherlands, Spain, Italy
- ⇒ extension to all EU countries

- Previous research: Determinants of Nest-leaving (e.g. model simultaneous decision of work, living arrangement, studying)
- Consider determinants
- Describe patterns
- Assess effects of Nest-leaving (captured by parental health and happiness)

1a. Sociological perspectives on nest-leaving

- Nest-leaving (NL) describes process of young adults leaving the parental home, a process in the course of which they continuously acquire independence, predominantly in terms of financial and residential autonomy
 - Expected normal step in relationship between parents (P) & youth (Y)
 - NL usually accompanied by transitions in various aspects of life, often coinciding with singular lifecycle events, e.g. commencement/completion of studies, integration in labor market, formation of family
 - Since NL process requires neither occurrence of all events simultaneously nor any one in particular, patterns of NL potentially diverse across and within countries, depending on economic, family, cultural situation
 - Well-recognized factors in soc.lit.: Importance of public goods nature of HH consumption making it cheaper for Y to cohabit w/ P; P's ability/ willingness to provide financial/other subsidies for Y's continuing in school or marrying
- ⇒ Goldscheider and DaVanzo (1985)

1b. Economic perspectives on household formation

McElroy (1985)

- Model of family behavior to examine joint determination of market work + family status for young men in the US
- ⇒ Family provides nonemployment insurance, i.e. P insure Y a minimal level of utility when he faces poor market opportunities

Rosenzweig and Wolpin (1993)

- Dynamic overlapping generations model: Choices by P of coresidence and transfer provision, and HC investment decision of Y
- ⇒ interhousehold transfers play important role ⇒ Y more likely to receive P transfer when residing apart, and to coreside when earnings are low
- ⇒ P appear to subsidize all forms of HC investment

Martínez-Granado and Juiz-Castillo (2002)

- Extension of McElroy: Model for joint decisions of working, leaving the parental HH and studying by young people in Spain
- ⇒ Rich pattern of interdependencies between 3 decisions, both individual characteristics/economic variables significant explanatory role
- (1) P help Y through coresidence when Y have no job or are studying (2) living independently has + effect on prop. to work (3) housing conditions significantly affect living arrangements of Y (4) unemployment ⇒ neg. effect on prop. to work and study ⇒ + effect on living at home

Ermisch and DiSalvo (1997), Ermisch (1999) ⇒ housing prices

Card and Lemieux (2000)

- Responses of Y to external labor market forces in US/Canada over past 25 yrs. Key hypothesis: Y adjust to changes in labor market opportunities through changes in living arrangements, school enrollment & work effort
- ⇒ Depressed local labor market conditions ⇒ Y adapt by staying w/ P and by attending school ⇒ Empirical obs. that family acts as "safety net"

Manacorda and Moretti (2001)

- Det. of living arrangements of young Italian men (18-35 yrs): 2/3 live w/ P
- Model: cohabitation "good" for P and "bad" for Y: increase in P income ⇒ higher transfer to cohabiting Y ⇒ raises number of Y willing to live home
- (1) P's income key det. of Y's propensity to live home: 1 million liras (~US\$ 500) increase ⇒ 1.4 percentage points increase in proportion of Y living at home (2) Favorable labor market conditions reduce prob of living w/ P

2. The ECHP Data

- Waves 1-5 (1994-98) of the European Household Panel Survey ECHP
- Longitudinal database, started w/ sample of 60,500 representative HHs in 1994 from then 12 member states of EU: Germany, Denmark, Netherlands, Belgium, Luxembourg, France, UK, Ireland, Italy, Greece, Spain, Portugal
- Austria, Finland, Sweden incorporated 1995, 1996, and 1997, respectively
- Specific EU survey to harmonize information. In 1997 original surveys discontinued in UK, DE, LU ⇒ existing national panels used + converted into ECHP shape
- Information on demographics, income/financial situation, and accommodation on HH level, as well as information on employment, jobseeking, income, education, health, social relations and satisfaction on individual level.

Table 1. Sample sizes in the ECHP

| | Wave 1 1994 | Wave 2 1995 | Wave 3 1996 | Wave 4 1997 | Wave 5 1998 |
|--------------------|----------------|----------------|----------------|----------------|----------------|
| <u>Denmark</u> | | | | | |
| Individuals | 7,693 | 7,200 | 6,568 | 6,204 | 5,665 |
| w/ questionnaire | 5,903 | 5,503 | 4,994 | 4,628 | 4,187 |
| Households | 3,482 | 3,223 | 2,955 | 2,745 | 2,512 |
| <u>Netherlands</u> | | | | | |
| Individuals | 13,029 | 12,791 | 12,897 | 12,584 | 12,373 |
| w/ questionnaire | 9,407 | 9,151 | 9,277 | 9,089 | 8,826 |
| Households | 5,187 | 5,110 | 5,179 | 5,049 | 4,963 |
| <u>Spain</u> | | | | | |
| Individuals | 23,025 | 20,687 | 19,712 | 18,167 | 16,728 |
| w/ questionnaire | 17,893 | 16,245 | 15,640 | 14,819 | 13,779 |
| Households | 7,206 | 6,512 | 6,267 | 5,794 | 5,485 |
| <u>Italy</u> | | | | | |
| Individuals | 21,934 | 21,757 | 21,506 | 20,074 | 19,310 |
| w/ questionnaire | 17,729 | 17,780 | 17,736 | 16,594 | 15,934 |
| Households | 7,115 | 7,128 | 7,132 | 6,713 | 6,571 |

3. Patterns of Nest-leaving

Figure 1. Proportion of young adults living at home by age

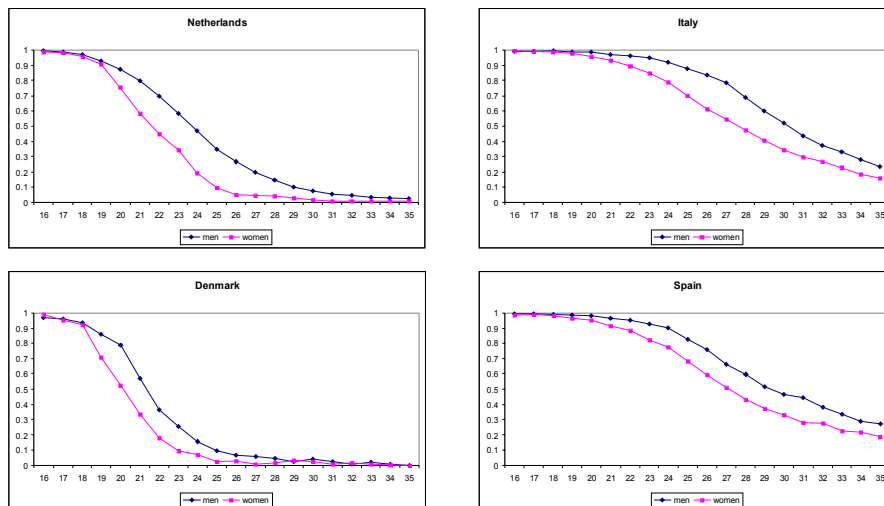


Figure 2. Five-year sequences of leaving home – by age group

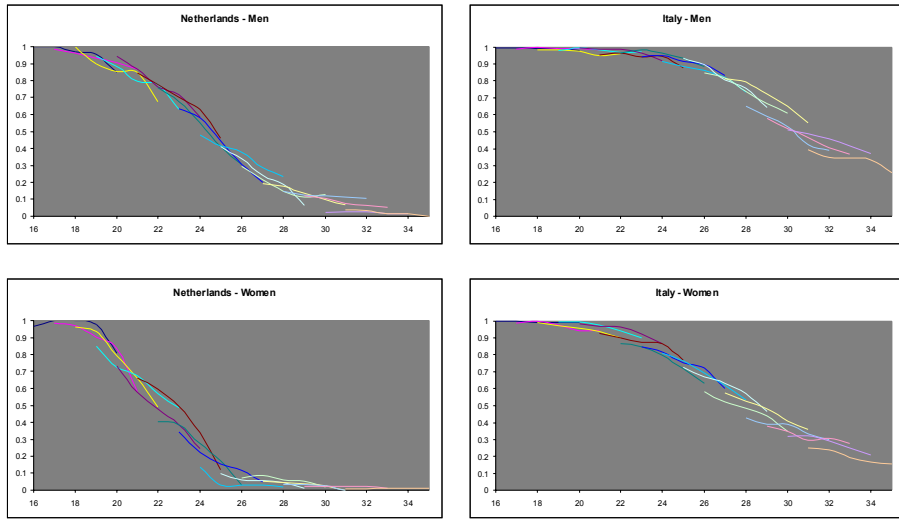


Figure 2 (ctd)

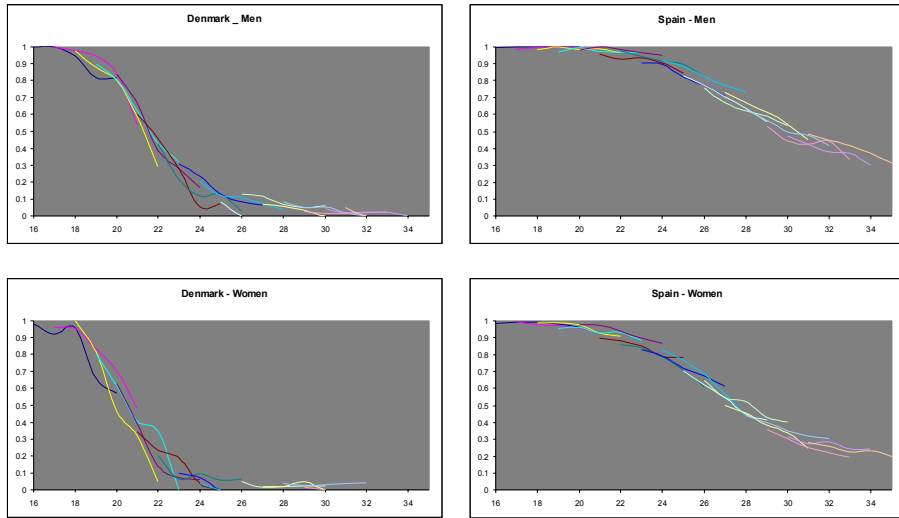


Table 2. Determinants of living at home - Random Effects Probit

| | Netherlands | Denmark | Spain | Italy |
|------------------|------------------------|-------------------------|----------------------------|------------------------|
| Age | -1.222*** (.223) | -1.957*** (.341) | -.417*** (.134) | -.277** (.130) |
| Age squared | .010*** (.004) | .029*** (.007) | .003 (.002) | .000 (.002) |
| Female | -1.983*** (.219) | -1.913*** (.277) | -1.339*** (.130) | -1.036*** (.152) |
| Employed | -.004 (.179) | .171 (.248) | .066 (.113) | .083 (.128) |
| Unemployed | .325 (.328) | .183 (.360) | .302*** (.117) | .307*** (.118) |
| Personal income | -.0001*** (.000006) | -.00002*** (.000002) | -.000001*** (.00000007) | -.0001*** (.000005) |
| Household income | .00006*** (.000003) | .00002*** (.000001) | .000001*** (.00000003) | .00008*** (.000002) |
| Satisf. finances | -.009 (.054) | -.027 (.061) | -.068*** (.025) | -.124*** (.035) |
| Satisf. housing | .123** (.058) | .054 (.062) | -.016 (.024) | .011 (.031) |
| Married | -7.98*** (.651) | -3.498*** (.908) | -5.597*** (.173) | -6.461*** (.205) |
| High education | -1.376*** (.386) | -.227 (.383) | -.015 (.132) | .202 (.207) |
| Low education | -.213 (.178) | .609** (.270) | .213* (.125) | .173 (.117) |
| Education compl. | - (.249) | -.331 (.249) | -.073 (.275) | -.430* (.253) |
| Constant | 21.818*** (2.881) | 25.822*** (4.313) | 11.742*** (1.856) | 10.655*** (1.742) |
| No. observations | 9,810 | 5,669 | 20,791 | 23,820 |
| No. of groups | 2,460 | 1,486 | 5,242 | 5,406 |

4. Effects of Nest-leaving on parental health and happiness

Outcome variables of interest, for both father and mother:

- General health
- Mental health
- Satisfaction w/ financial situation
- Satisfaction w/ housing situation

⇒ Figures 3a – 3h: Development of outcome variables over time, by country and parent, dependent on years since child left home

Figure 3a. Netherlands - Fathers

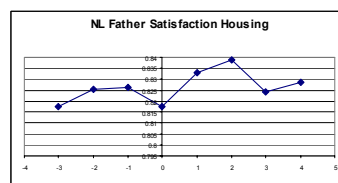
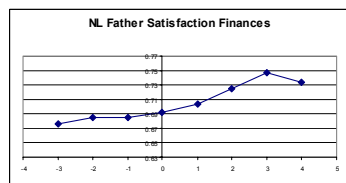
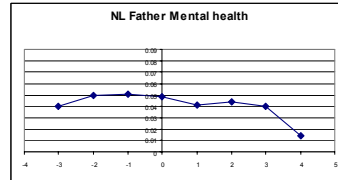
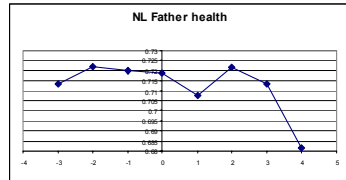


Figure 3b. Netherlands - Mothers

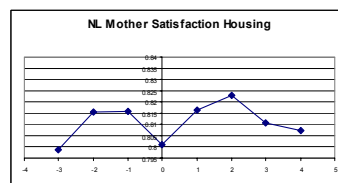
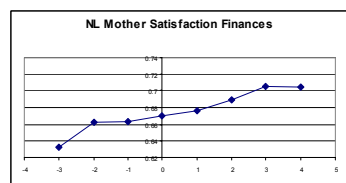
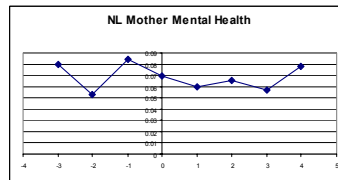
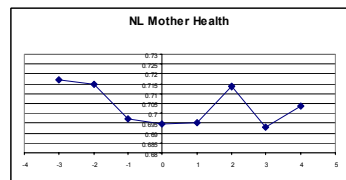


Figure 3c. Denmark - Fathers

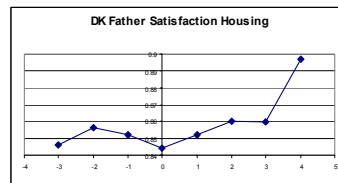
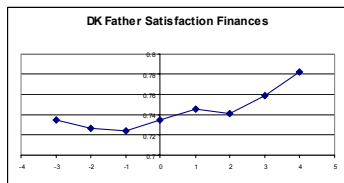
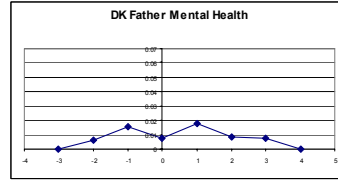
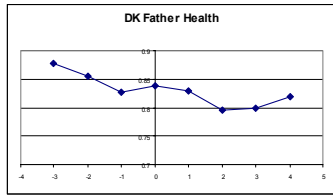
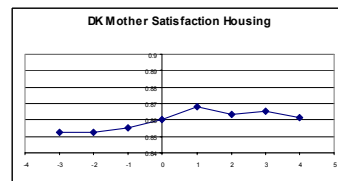
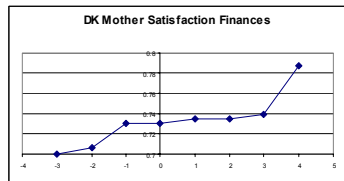
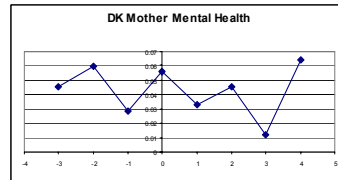
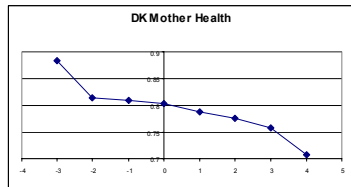


Figure 3d. Denmark - Mothers



Northern Europe:

- Upward trend in financial satisfaction
- Dip in housing satisfaction preceding NL (strong in Netherlands, exception: Danish mothers)
- No clear health effects

Figure 3e. Spain - Fathers

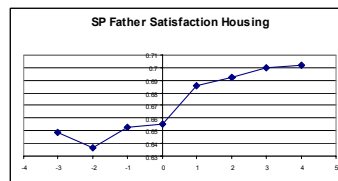
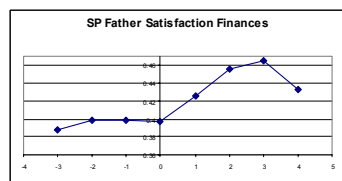
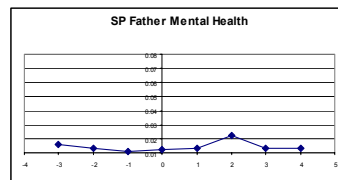
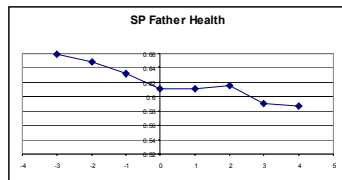


Figure 3f. Spain - Mothers

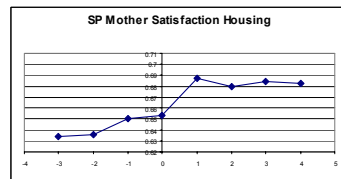
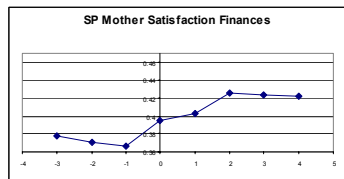
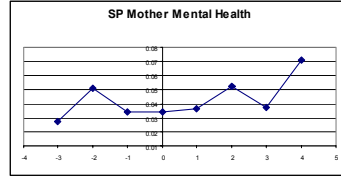
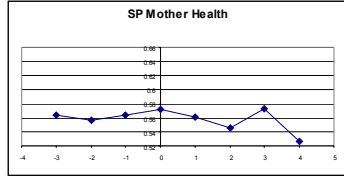


Figure 3g. Italy - Fathers

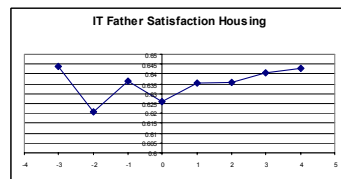
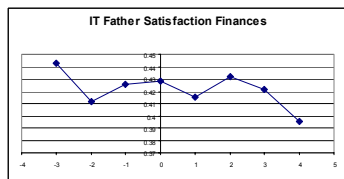
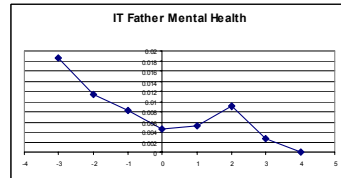
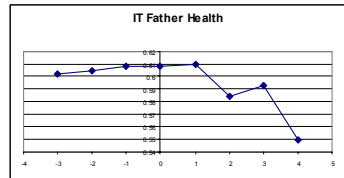
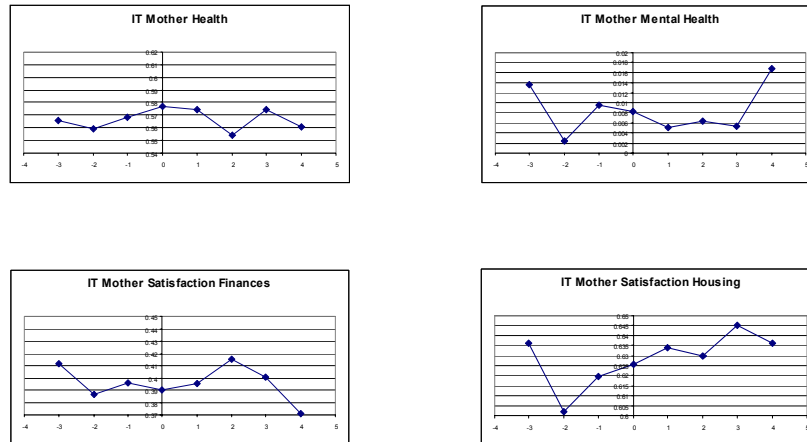


Figure 3h. Italy - Mothers



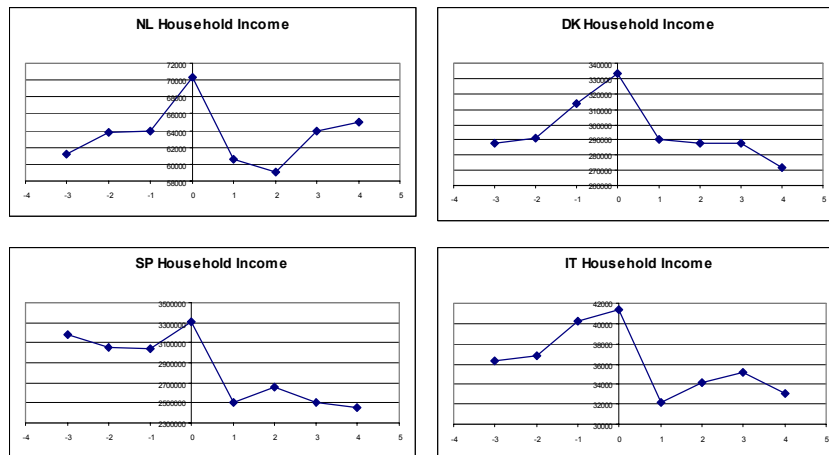
Southern Europe:

- Upward trend in housing satisfaction, no dip directly preceding NL (exception: Italian fathers)
- Upward trend in financial satisfaction in Spain (like Netherlands, Denmark)
- But: downward in Italy!
- No clear health patterns

Levels:

- Self-rep. health status better in Netherlands (.68-.73) and esp. Denmark (.70-.90) than in Spain (.52-.66) or Italy (.55-.62)
- Mothers more frequently report mental health problems than fathers (except Italy)
- Satisfaction levels higher in Northern than Southern Europe:
 - Finances: NL .62-.75, DK .70-.80 – SP .36-.46, IT .32-.45
 - Housing: NL .79-.84, DK .84-.90 – SP .63-.71, IT .60-.65
 - (no gender patterns)

Figure 4. Household income by country, years since child left home



⇒ Next step: Assess "treatment" effects of NL

- Potential Outcome Model

⇒ Counterfactual: What would have happened to parents if their child had not moved out?

- Matching Approach:

⇒ Match household in which child left with 'identical' household in which child stayed

⇒ 'identical' in terms of covariates

⇒ binary "treatment": leaving the parental home 1/0

⇒ treatment group and comparison group

Covariates

Father + Mother: Age
 Employment Status
 Education
 General Health
 Mental Health
 Satisfaction w/ financial situation
 Satisfaction w/ housing situation

Kid: Age at moving out
 Sex

Household: Total household income
 Household size
 Household quality

Algorithm: exact matching w/ replacement
 varying restrictions imposed

Table 3. Pre-match Samples

| | Denmark | | Netherlands | | Spain | | Italy | |
|------------------|---------|---------|-------------|---------|---------|---------|---------|---------|
| | Leavers | Stayers | Leavers | Stayers | Leavers | Stayers | Leavers | Stayers |
| No. Obs. | 323 | 1,019 | 526 | 2,947 | 756 | 11,759 | 824 | 14,001 |
| fatherage | 49.01 | 47.32 | 51.40 | 49.24 | 57.24 | 53.40 | 57.62 | 54.03 |
| motherage | 46.80 | 45.23 | 49.08 | 46.92 | 54.19 | 50.42 | 53.48 | 50.17 |
| Fatheremployed | 0.95 | 0.95 | 0.81 | 0.87 | 0.55 | 0.68 | 0.54 | 0.69 |
| Motheremployed | 0.85 | 0.85 | 0.56 | 0.56 | 0.19 | 0.26 | 0.25 | 0.33 |
| Fatherhealth | 0.84 | 0.84 | 0.72 | 0.72 | 0.61 | 0.65 | 0.61 | 0.62 |
| Motherhealth | 0.80 | 0.81 | 0.70 | 0.71 | 0.58 | 0.63 | 0.59 | 0.61 |
| Fathermental | 0.00 | 0.01 | 0.05 | 0.04 | 0.01 | 0.01 | 0.00 | 0.01 |
| Mothermental | 0.05 | 0.03 | 0.06 | 0.06 | 0.03 | 0.02 | 0.01 | 0.01 |
| Fatherhigheduc | 0.37 | 0.41 | 0.26 | 0.18 | 0.13 | 0.14 | 0.04 | 0.06 |
| Motherhigheduc | 0.40 | 0.36 | 0.14 | 0.11 | 0.05 | 0.07 | 0.03 | 0.04 |
| Fatherloweduc | 0.21 | 0.20 | 0.14 | 0.17 | 0.79 | 0.75 | 0.70 | 0.67 |
| Motherloweduc | 0.30 | 0.29 | 0.28 | 0.28 | 0.88 | 0.85 | 0.73 | 0.71 |
| Fathersatfinance | 0.74 | 0.71 | 0.70 | 0.68 | 0.40 | 0.41 | 0.43 | 0.44 |
| Mothersatfinance | 0.77 | 0.73 | 0.71 | 0.70 | 0.41 | 0.42 | 0.40 | 0.42 |
| Fathersathouse | 0.86 | 0.85 | 0.82 | 0.83 | 0.66 | 0.67 | 0.63 | 0.65 |
| Mothersathouse | 0.87 | 0.86 | 0.81 | 0.82 | 0.66 | 0.67 | 0.63 | 0.65 |
| kidage | 20.57 | 18.45 | 21.73 | 19.50 | 25.45 | 21.79 | 26.05 | 22.40 |
| Kid&female | 0.51 | 0.44 | 0.48 | 0.41 | 0.51 | 0.45 | 0.49 | 0.45 |
| Hhsize | 3.93 | 4.07 | 3.97 | 4.16 | 5.08 | 4.86 | 4.55 | 4.47 |
| Hhtotalincome | 354610 | 334777 | 75496 | 65641 | 3427430 | 3092376 | 43975 | 40180 |
| Hhbath | 1.00 | 1.00 | 1.00 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |

| | Denmark | | Netherlands | | Spain | | Italy | |
|-----------------------|---------|--------|-------------|-------|-------|-------|-------|-------|
| | Alg.1 | Alg.2 | Alg.1 | Alg.2 | Alg.1 | Alg.2 | Alg.1 | Alg.2 |
| General Health | | | | | | | | |
| No. matches | 229 | 120 | 454 | 269 | 686 | 362 | 777 | 480 |
| (%) | (71%) | (37%) | (86%) | (51%) | (91%) | (48%) | (94%) | (58%) |
| Effect – Father | -.008 | -.031* | -.004 | -.008 | -.003 | -.013 | .001 | .003 |
| Effect - Mother | -.009 | -.019 | .002 | .001 | -.002 | -.036 | -.006 | -.001 |
| Mental Health | | | | | | | | |
| No. matches | 293 | 198 | 504 | 379 | 748 | 630 | 814 | 704 |
| (%) | (91%) | (61%) | (96%) | (72%) | (99%) | (83%) | (99%) | (85%) |
| Effect – Father | .013* | .0003 | -.0003 | .005 | -.001 | .002 | .003 | .004 |
| Effect - Mother | .012 | -.0008 | -.011 | -.01 | .004 | .002 | -.002 | .001 |

Table 5. Effects of Nest-leaving on parental happiness

| | Denmark | | Netherlands | | Spain | | Italy | |
|--|---------|-------|-------------|-------|--------|--------|---------|--------|
| | Alg.1 | Alg.2 | Alg.1 | Alg.2 | Alg.1 | Alg.2 | Alg.1 | Alg.2 |
| Satisfaction w/ financial situation | | | | | | | | |
| No. matches | 238 | 94 | 432 | 232 | 686 | 327 | 795 | 455 |
| (%) | (74%) | (29%) | (82%) | (44%) | (91%) | (43%) | (96%) | (55%) |
| Effect – Father | .007 | -.014 | .007 | .004 | -.002 | .002 | -.024** | -.021* |
| Effect – Mother | .004 | .004 | .001 | -.007 | -.003 | -.004 | -.012 | -.022* |
| Satisfaction w/ housing situation | | | | | | | | |
| No. matches | 258 | 103 | 454 | 247 | 696 | 336 | 796 | 463 |
| (%) | (80%) | (32%) | (86%) | (47%) | (92%) | (44%) | (97%) | (56%) |
| Effect – Father | .020* | .025* | .005 | .008* | .002 | .003 | .002 | -.015 |
| Effect - Mother | -.003 | .010 | .004 | .011 | .023** | -.0002 | .0004 | -.009 |

Where do we go from here?

- extend to all countries in the ECHP
- Effects of child moving out combined w/ employment and marriage:
 - ⇒ Child moves out + finds employment / does not find employment
 - ⇒ Child moves out + gets married/ does not get married
- Income effects: who contributes what to household total income before/after NL
- analysis of determinants: include "external" factors ⇒ e.g. labor market conditions, housing prices, cultural factors etc.
- analysis of effects: health next period, check sensitivity to different algorithms

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