

IATUR Budapest 2018

Teenage Time Use and Educational Attainment in Adulthood in Finland

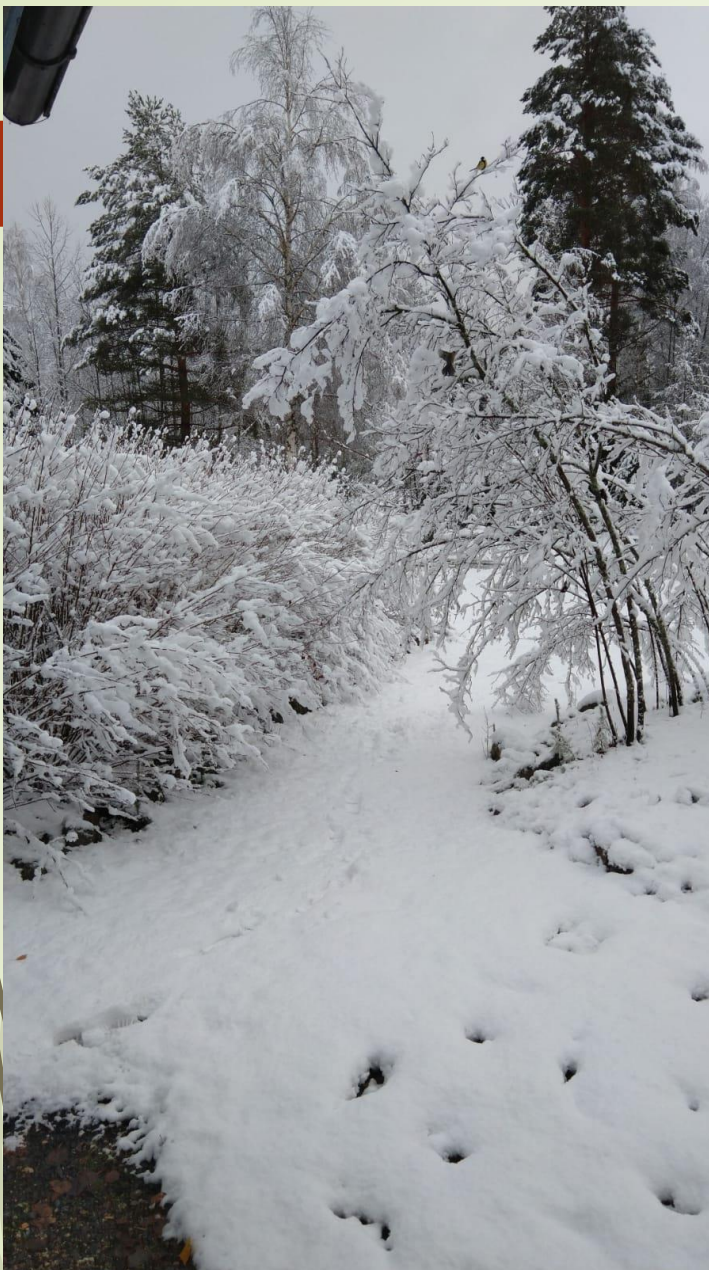
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Greetings from Finland 26/10/2018



"Heavy snow brings chaos to roadways near Jyväskylä" (E63), YLE <https://yle.fi/uutiset/osasto/news/>

From Kuhmoinen, small village 200 km north from Helsinki, photo: Liisa Häkkinen



10–18 children and young people in focus

- ▶ We look at **time with mother and father** and whether it is associated with how children achieve tertiary education later in their lives
 - ▶ i.e. **intergenerational transmission of education**
- ▶ And we look at how other time use connects to educational attainment
 - ▶ **Study time**
 - ▶ **Social connectedness ie. having peers and social activity**
- ▶ **Finnish time use diaries in 1979 and registered tertiary education at 40**

Education as one of the 'milestones'

- In young adults' lives, the milestones that need to be reached relate to education, work, peer groups, and their own family (e.g. Settersten & Ray 2010).
- A successful transitional period adds 'blocks of social capital' (Romer *et al.* 2009) and enables autonomy in terms of financial and social independence (Bynner 2013).

Intergenerational mobility research

- Research on intergenerational mobility has looked at many potential factors affecting children's life courses:
 - the biology (genes), childhood health and nutrition,
 - cognitive and non-cognitive skills of both children and their parents,
 - the childhood family socio-economic position,
 - the neighborhood and community,
 - as well as the institutional (schooling, welfare institutions and policies) effects (Nolan et al. 2011; Ermisch et al. 2012). ... The degree of intergenerational transmission of education between countries reflects 'the equality of opportunity' (Burger 2016)

Intergenerational transmission of education


- ▶ According to Nolan et al. (2011), most importantly, family origin contributes to children's futures. In many countries, social institutions such as educational system, can only *mediate* the family effects on children.
- ▶ Nolan et al. (2011, p. 344): "Parental education is a significant predictor of the level a child will attain, and education in turn is a key predictor of earnings and income, occupation and social class."
- ▶ Parents' **economic capital** (direct investments in tuition fees, indirect investments in subsidizing the children), **cultural capital** (knowledge and "know-how") and **social capital** (extent and quality of social networks) are transmitted to their children (Bourdieu, cited in Jaeger & Holm 2007)

Intergenerational transmission of education: the mechanisms

- There's plenty of research showing that *family time use* is a key mechanism in *HOW* parents' high education turn to child's high education.
- Milkie *et al.* (2015) have shown how family time investments become important in adolescence, both in terms of decreased delinquent behaviour and increased pro-social action.
- In Lawrence 2016, the following mechanisms are discussed:
 - 1. Highly educated parents may take more **responsibility over their children's school achievements and educational progress**
 - 2. Another important mechanism are **discussions, guidance and explicit information** sharing on how to apply and prepare to exams
 - 3. **Parents help choosing (select) which higher education institutions** the children would consider


Earlier findings on girls and boys; mothers and fathers

- **As for transmission of education**, there seems to be more evidence that daughters follow their mothers' educational patterns, and "fathers' education a stronger determinant of the education of their sons" (Schneebaum *et al.* 2015; Daouli *et al.* 2010; Amin *et al.* 2015)
 - Dependent on culture/country/social context!!
- **As for time use**, "gender of child may be associated with a wide range of child outcomes and parental behaviors" (Raley & Bianchi 2006):
 - Mothers care their children in an egalitarian manner; fathers go play football with their sons.
 - **As for time use, it seems that especially boys gain more advantage if there are more committed fathers - "How to be a man" --- "Role model effect"**
 - also siblings' gender matters



Social connectedness i.e. time and activity with peers and in leisure are core elements in children's and young peoples' lives

- Peers can provide mutual support and importantly shape the building of one's own capacity (Aaboen Sletten 2010; Morrow 1999; Korkiamäki 2011; Ravanera *et al.* 2003; Smith & Skrbiš 2016).
- Hobbies and civic and political participation are considered to enhance social trust and relate to other active time use, such as sports and reading (Romer *et al.* 2009).



We use Finnish Time Use Surveys 1979 to estimate family time, peer ties, social activity, study time and overall leisure time among 10–18 year-old children and young people (Cohorts 1961–1969)

**Follow-up: Registered tertiary education of the child at 40
(In 2001...2009)**

Data collected and combined by Statistics Finland

Finnish Time Use Surveys and Diaries

Year	1979	1987–1988	1999–2000	2009–2010
Time frame of the data collection	Sep – Oct – Nov	Entire year	Entire year	Entire year
Age	10–64	+10	+10	+10
Sample	Individual	Individual	Household	Household
Interview protocol	Face-to-Face	Face-to-Face	Face-to-Face	Face-to-Face / Telephone
Days studied	2 consecutive days	2 consecutive days	1 weekday / 1 weekend day	1 weekday / 1 weekend day
Respondents (N)	6,057	7,800	5,322	3,795
Diary days (N)	12,057	15,352	10,561	7,480
EU harmonised	No	No	Yes	Yes
Weekly work grid	No	No	Yes	Yes

Register-based follow-up data

Merged to each individual in FTUS rounds 1979, 1987/1988, and 1999/2000.

- Census data 1970, 1975, 1980, 1985;
- Annual register information 1987–2011.

Annual information on e.g.:

- Main activity: at school / studying, employed, unemployed, outside labour market, retired
- Education: achieved levels, age & year of graduating
- Employment: stability of employment, income, status
- Family composition: Marital status, couple, children
- Pension: Old-age, disability, unemployment, part-time pension
- Health: Long-term sickness absences, mortality.

Measures

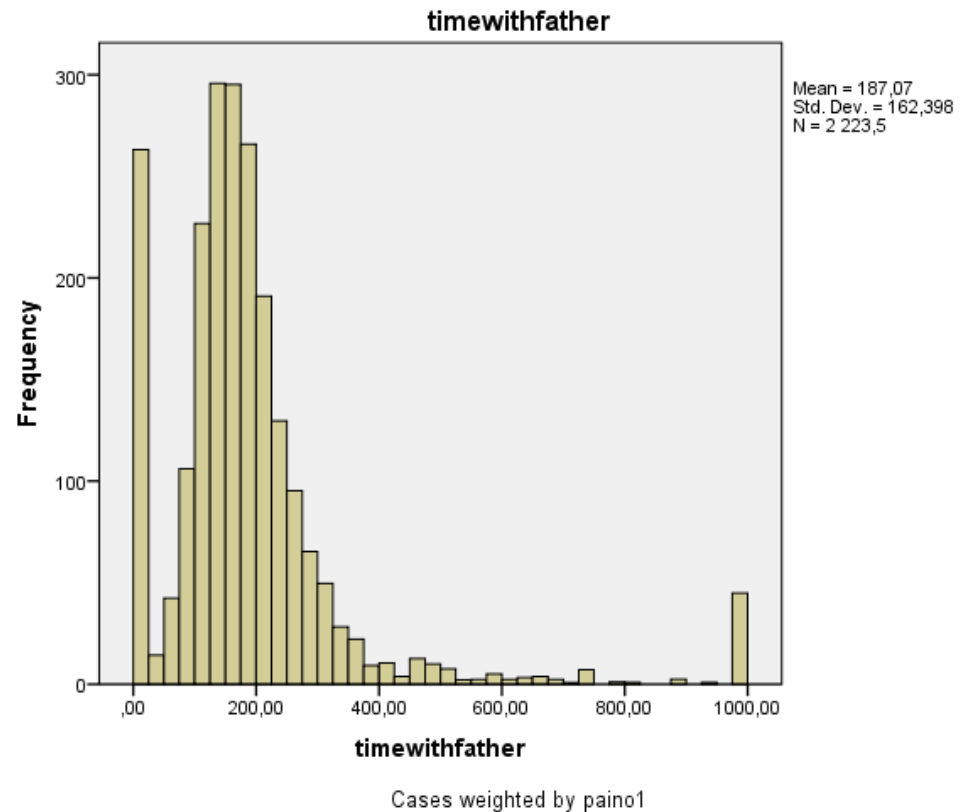
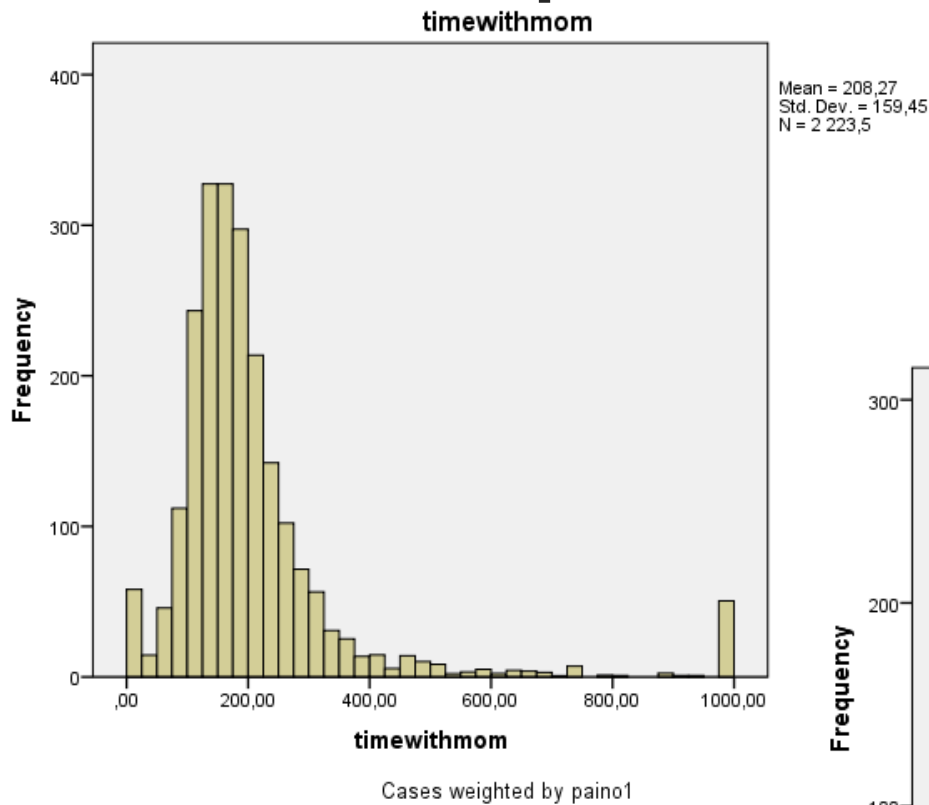
► Family time:

- Time with mother, Time with father
- Interaction: Education mother/father X Time with mother/father
- Controls: Education mother/father, Employment of mother/father, No present father, Amount of siblings, Type of diary day, Age (10 ... 18), Long-term illness.
- Data I: FTUS 1979, 10–18 year-old youths who live with parent/s
 - 473 boys and 456 girls, Cohorts 1961–1969
 - Population-representative data
- Data II: Registered level of education at age 40 (2001–2009)
- Method: Linear probability model (how many % become tertiary educated)

What do we expect to find?

- H1. Increased time with a parent > child attains higher education.
- H2. More time with a high-educated parent > the more probable is H1
- H3. Fathers' role model effect for their sons
- H4. Being academically and socially active in teenage increases the probability of attaining a tertiary level education

Family time as independent predictor: linear vs. nonlinear measures



LPM on child's tertiary education at 40: Family time

	Mean 0-1 (SE)	Partial Eta sq	Mean 0-1 (SE)	Partial Eta sq
Corrected Model		12.7%		13.2%
Intercept		2.4%		2.6%
Gender: Girl	.51 (.04)	0.1%	.52 (.04)	0.2%
Boy	.44 (.03)		.45 (.04)	
Mother's education: Primary	.38 (.03)	2.6%	.39 (.04)	2.2%
Higher	.56 (.03)		.57 (.04)	
Gender X Mother's education	Ns		Not included	
Father's education: Primary	.40 (.03)	1.2%	.40 (.03)	0.8%
Higher	.54 (.04)		.56 (.05)	
Gender X Father's education:	.49 (.03)	0.7%	.49 (.03)	0.7%
Girl X Primary				
Boy X Primary	.32 (.03)		.32 (.03)	
Girl X Higher	.53 (.05)		.55 (.07)	
Boy X Higher	.55 (.05)		.57 (.07)	
Time with mother (minutes)	+	0.6%	+	1.1%
Gender X Time with mother	Ns	0.0%	Ns	0.0%
Time with father: 0 time or no father	.39 (.06)	1.1%	Ns	0.7%
≤Median time	.47 (.03)			
>Median time	.56 (.03)			
Gender X Time with father			Ns	0.1%
Mother's education X Time with mother			+	0.5%
Father's education X Time with father			Ns	0.0%

LPM on study time

	Mean 0-1 (SE)	F(df)Sig.	Partial Eta sq
Corrected Model		9.74(14)0.000	13.1%
Intercept		11.04(1)0.001	1.2%
Gender	Ns	1.20(1)0.274	0.1%
Mother's education: Primary	.45 (.03)	21.74(1)0.000	2.3%
Higher	.62 (.03)		
Father's education: Primary	.46 (.03)	12.31(1)0.000	1.3%
Higher	.60 (.04)		
Gender X Father's education:	.55 (.03)	5.25(1)0.022	0.6%
Girl X Primary			
Boy X Primary	.37 (.03)		
Girl X Higher	.60 (.05)		
Boy X Higher	.60 (.05)		
Study time (minutes)	+	16.56(1)0.000	1.8%
Gender X Study time		0.23(1)0.633	0.0%
N=920, Adjusted R sq 11.7%			

LPM on peer time and social activity

	Mean 0-1 (SE)	F(df)Sig.	Partial Eta sq
Corrected Model		5.35(26)0.000	13.5%
Intercept		10.37(1)0.001	1.1%
Gender	Ns	1.83(1)0.176	0.2%
Mother's education: Primary	.41 (.06)	17.62(1)0.000	1.9%
Higher	.56 (.06)		
Father's education: Primary	.42 (.06)	10.75(1)0.001	1.2%
Higher	.56 (.06)		
Gender X Father's education: Girl X Primary	.55 (.07)	7.76(1)0.005	0.9%
Boy X Primary	.29 (.09)		
Girl X Higher	.58 (.08)		
Boy X Higher	.54 (.10)		
Number of friends	Ns	0.89(2)0.412	0.2%
Gender X Number of friends	Ns	0.02(2)0.998	0.0%
How often meets friends	Ns	1.41(2)0.244	0.3%
Gender X How often meets friends	Ns	0.61(2)0.542	0.1%
Hobby: Less often	.44 (.06)	5.71(1)0.017	0.6%
Weekly	.53 (.06)		
Gender X Hobby	Ns	1.39(1)0.239	0.2%
Sports	Ns	3.30(1)0.073	0.4%
Gender X Sports	Ns	0.46(1)0.496	0.1%
Societal activity	Ns	0.70(1)0.403	0.1%
Gender X Societal activity	Ns	1.23(1)0.267	0.1%
N=920, Adjusted R sq 10.9%			

What did we expect to find?

- ▶ H1. Increased time with a parent > child attains higher education.
 - ▶ YES, each minute matters (mothers and fathers)
 - ▶ Time with father until H2
- ▶ H2. More time with a high-educated parent > the more probable is H1
 - ▶ YES, with highly educated mother
 - ▶ NOT, fathers
- ▶ H3. Fathers' role model effect for their sons
 - ▶ Nothing very strong is found
- ▶ H4. Being academically YES and socially active > the higher the child's education **HOBBIES**



Discussion

- **Intergenerational pattern of educational attainment can be partly explained by time used with the parents.**
- As for academic and social activity:
 - **Study time** contributes to achieving a tertiary education
 - **Social activity in hobbies – more support in many other studies addressing how extra-curricular activities become significant over the life course**
 - Using this data, there are no associations with the social time use with peers and education later in life.
- Next: using other time use survey time points, estimating 'quality' of time together.



Thank you!

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