

# MPRA

Munich Personal RePEc Archive

## **Alone at home**

Pääkkönen, Hannu

November 2008

Online at <https://mpra.ub.uni-muenchen.de/11653/>  
MPRA Paper No. 11653, posted 20 Nov 2008 01:13 UTC



electronic **International Journal** of  
**Time Use Research**

volume 5  
number 1  
november 2008  
ISSN 1860–9937

## **contents**

Viktor Artemov and Olga Novokhatskaya: Changes in the use of time and the state of health of the Russian population in the 1980s-1990s	1
Rainer Hufnagel: Entropy and stability in time use – An empirical investigation based on the German Time Use Survey	26
Hannu Pääkkönen: Alone at home	43
David Deal: Time for play – An exploratory analysis of the changing consumption contexts of digital games	65
Joachim Merz and Henning Stolze: Representative time use data and new harmonised calibration of the American Heritage Time Use Data (AHTUD) 1965-1999	90
Time-pieces	127
▪ New developments in time-technology – projects, data, computing, services	127
▪ Book notes by Kimberly Fisher	130



# Alone at home

Hannu Pääkkönen

Hannu Pääkkönen  
Statistics Finland, Culture, Media, Time Use  
P.O.Box 5B  
FI-00022 Statistics Finland, Helsinki, Finland  
e-mail: hannu.paakkonen@stat.fi

## Abstract

Recently there has been much public discussion about children spending long afternoons alone at home. It has been claimed that spending a lot of time alone makes children vulnerable to many kinds of risk behaviour, such as smoking, use of alcohol and drugs, depression and poor school performance. Concerns have also been voiced about children's unsupervised television watching, playing of computer games and surfing on the Internet. Yet, do we actually know how long the times are that children do spend alone at home and what do they do during that time? The purpose of this paper is to study how much time youngsters in Finland spend alone at home, who are the youngsters who are alone and what do they do when they are alone. The research data are data relating to households from the 1999–2000 Time Use Survey of Statistics Finland. The data cover the shared days of families with children on which all family members aged 10 or over kept a time use diary. The respondents recorded into the diaries at 10-minute accuracy whether they were alone or together with children aged under 10 belonging to the same household, other members of the household, or with other people they knew. Besides the data concerning being alone or together with somebody, the paper also exploits diary information on whether other members of the household were at home at the time in question. The scope of the study is limited to school students aged from 10 to 18. The material contains data on 191 schooldays and 229 days off school.

**JEL-Codes:** D13, J13

**Keywords:** Intra-family time use, “with whom” context

# 1 Introduction

Recently there has been much public discussion about children's lonely afternoons at home. It has been said that spending a lot of time alone exposes children and young people to various kinds of risk behaviour, such as smoking, drinking and drug abuse, depression and poor school performance. The risk limit has been found to be daily loneliness of over two hours. There has also been concern about children's unsupervised TV watching, computer game playing and Internet surfing (e.g. Pulkkinen, 2002, 29; Hochschild, 1997, 10–11, 221–229; Suoninen, 2004, 51–53). Is it known, though, how long children actually are at home alone and what do they do during that time?

Children in Finland usually start school at the age of seven. It has been socially acceptable that even the youngest schoolchildren can spend time alone at home after school and there is no legislation preventing this. Children's parents usually go to work. It has been very usual since the 1960s for mothers to go to work. Mothers and fathers in Finland generally work full-time (Hulkko, 2007). Children receive a free, hot meal at school and families' living environments have generally been safe in Finland (e.g. Strandell and Forsberg, 2005; Pulkkinen and Launonen, 2005). Nevertheless, around the mid-1990s, public debate arose in Finland about the lonely afternoons of small schoolchildren. Indeed, in consequence of the debate, legislation entered into force as of the beginning of 2004 giving municipal authorities the possibility to provide state-subsidised morning and afternoon activities for children at the first and second grade of school and obliges municipalities to provide morning and afternoon care for children with special needs at any grade of school (Pulkkinen et al., 2006).

A few studies have been conducted in Finland into how the very smallest schoolchildren spend their afternoons. Spending time alone in the mornings and afternoons without the company of adults was studied in connection with the Integrated School Day trial among children attending school grades one to nine in four localities in different parts of Finland in 2002–2005. The study was funded by the Finnish National Fund for Research and Development (SITRA) and conducted by the University of Jyväskylä. The project was devising a school-centred operating model with a restructured school day inclusive of provision of hobby activities as part of it (Pulkkinen and Launonen, 2005). According to the study results, 42% of schoolchildren attending grades one to nine spent time alone without any adults present during at least one morning and 62% on at least some afternoon during the survey week in 2005. The majority of children did not spend more than one hour alone in mornings. In the afternoons, the length of the time alone did not exceed two hours with most of the children. The proportion of children spending time alone diminished during the Integrated School Day trial (Pulkkinen and Launonen, 2005, 94–101). The study also identified possible risk pupils, who were those spending more than 10 hours per week alone or with friends and with no regular

hobbies. In the course of the study from 2003 to 2004, the number of such risk pupils fell from 77 to 23 (Pulkkinen and Launonen, 2005, 111).

A study of the National Research Centre for Welfare and Health, STAKES, examined how children under the age of 10 of employed parents spent their afternoons. According to this study the commonest place where schoolchildren spend their afternoons is their own home. The children of nearly one-half of the respondents had been alone at home after the school day during the past six months either often or always. Only one-fifth of the respondents said that their child had never been alone at home (Lammi-Taskula, 2004, 59–60). The main focus of this study was on parents' experiences relating to organised afternoon activity, not on possible risks experienced by children.

A study funded by the Academy of Finland used qualitative methods to examine descriptions of 8-year-old children of their afternoons in a large Finnish town (N=32). The children spent their afternoons mostly at home, sometimes alone, sometimes with their own parents or with some other adult person. Some spent their afternoons with an older sibling. Very few of the children were completely alone at home for long time periods. The children's descriptions emphasised being alone as more of a positive than a negative experience: spending time alone was not always regarded as nice but was occasionally perceived as necessary and as a desired state (Strandell and Forsberg, 2005; Forsberg and Strandell, 2006).

The Finnish studies referred to above concern only a few localities. Thus far nationally representative studies specifically on the aloneness of schoolchildren have not been done in Finland. The data on aloneness and its duration are based on estimates obtained by interviews in the studies by Pulkkinen and Launonen (2005) as well as Lammi-Taskula (2004). Additionally, the latter study did not ask the schoolchildren themselves about their aloneness, but instead directed the questions at their parents. Strandell and Forsberg (2005) applied in their study not only interviews but also other qualitative research methods, such as diary forms.

The objective of this article is to find out how much time young people spend at home completely alone and what they do when they are alone. Unlike in previous Finnish studies, the data are based on national data. In addition, the data have been recorded by the children themselves in time use diaries. The use of the household data makes it possible to use, for the first time, also the diaries of other members of the family. Previously aloneness among schoolchildren has been studied with the Finnish Time Use Survey without separating being all alone from being alone e.g. in one's own room while other members of the family may be at home, and being alone at home has not been studied separately (Pääkkönen, 2006).

The article first examines how much time children spend at home on the whole and at what time they are at home. Next we will see how much and at what time schoolchildren are at home by themselves or in the company of others. We will then examine what kinds of schoolchildren are alone at home. Finally, the article studies what children do when all alone and how much of their activities they do alone or with others.

## 2 Data

### 2.1 Individual and household data

The research data were the individual and household data from the 1999–2000 Time Use Survey of Statistics Finland. The data were collected between 1 March 1999 and 12 March 2000 by household in accordance with the recommendation of Eurostat, the Statistical Office of the European Communities. Finland's previous Time Use Surveys have been conducted on individual samples. All household members aged ten or over were interviewed and diaries were left for them to fill in. Household members kept a diary on two same days drawn by lot in advance, of which one was a weekday and the other a weekend day.

The respondents wrote in the diary in their own words at the accuracy of ten minutes what they did primarily and possibly simultaneously. In addition, the time spent together with family members and other friends was recorded in the diary. The location of activity was determined in connection with coding. Statistical interviewers collected the data. The primary and secondary activities were coded into 185 categories, from which tabulation classifications with different accuracy were formed. The data were coded and stored at Statistics Finland. Appendix contains a diary.

The diary was returned by 56% of the households and 52% of the persons. The response rates were average by European standards, but clearly lower than in Statistics Finland's previous individual-based surveys (for more about household and person non-response, see Väisänen, 2002; 2005).

The individual data for the Time Use Survey include 10,561 survey days. A diary was kept at least on one day by 5,332 persons from 2,623 different households. All accepted days were collected to the individual data, regardless of whether or not all the household members kept a diary on both days. The household data include all those households with at least one common survey day for all members aged 10 or over. The data contain 4,420 household days from 2,240 different households.

In this article, the time spent at home is first examined on the basis of the individual data. In this case only the location data is used from the diaries, in addition to the main activity data. The household data are used later when analysing the aloneness of schoolchildren. Included are the common days of families with children when all the family members aged 10 or over have kept a diary. In this case both the being together ("with whom") data recorded by the respondent and the location data on all members of the household are used.

The respondents recorded in their diaries during waking hours at the accuracy of ten minutes whether they were alone, with children aged under ten belonging to their own household, with other household members (mother, father, siblings aged at least ten), or with friends (see the diary in the Appendix). The "with whom" data are, however, not available for the whole year.

To speed up the coding, the “with whom” data was checked and coded only for seven months from March to July and from November to December 1999.

The lower age limit of the Time Use Survey was 10 years. Hence the subjects examined are limited to schoolchildren aged 10 to 18. The youngest schoolchildren, that is, children aged 7 to 9 are excluded from this examination. Consequently, the schoolchildren in this study are slightly older than those included in earlier Finnish studies (Pulkkinen and Launonen, 2005; Lammi-Taskula, 2004; Strandell and Forsberg, 2005). These data represent the whole country, but do not include the youngest schoolchildren. The students included are students from comprehensive school (aged 10 to 16), upper secondary school and vocational school or college (aged 16 to 18). As time is used differently on schooldays and days off, they are studied separately. Summer holidays are not included in days off. In all, the household data contain information on 191 schooldays and on 229 days off. In the broader individual data the number of schooldays is 514 and that of days off 600.<sup>1</sup>

## **2.2 Constructing variables for being alone and being together**

In this article, being alone at a given point in time is defined by using the data recorded by the respondent him/herself on “with whom” time was spent and in what location. In addition, household data are utilised by using the location data from the diaries of other household members older than 10 years of age to check if they were at home simultaneously with the respondents.

Time spent together (“with whom”) recorded in the time use diaries means not only doing things together, but also being in the company of someone else. Being alone can also refer to retiring to one’s own room, even if there were other persons present at home.

Being alone and being together at home are defined in the article as follows:

1. Being all alone when no other household members are at home,
2. Being alone “on one’s own” when there are only siblings at home,
3. Being together only with friends,
4. Being alone “on one’s own” when the mother or father are also at home,
5. Being together with family members (also with friends in addition to family members).

The connection between aloneness and risk behaviour varies in the categories of being alone thus defined. Spending time completely alone may generate loneliness or boredom if no activity is on offer. Watching X-rated videos, playing violent computer games or surfing on adult Internet pages become possible being alone and without supervision. On the other hand, being

---

<sup>1</sup> The individual data also contain the months for which information on being together was not coded. By comparing the individual and household data from the same months we can determine the attrition due to missing diaries of some household members and missing “with whom” information in the accepted diaries. 60% (420 days in the household data) of the temporally identically defined (total of 701 days in individual data during the same months) population are included when being together is examined.

alone also gives the possibility for a needed period of rest after the school day. For many, the opportunity to spend time alone keeping oneself to oneself is only possible in the afternoons (Strandell and Forsberg, 2005). Just being with siblings or friends has its own risks, such as increased risk of smoking or drug abuse. On the other hand, spending time with friends without the supervision of parents is a normal part of young people's development from childhood to adulthood. The chance of risks is the lowest when the parents are at home (cf. Osgood et al., 2005).

### 3 Time spent at home

First we look at how much time children spend at home in general and what they do during that time. The examination is done on the basis of individual data concerning the school year. In all, schoolchildren are at home 14 to 15 hours on schooldays and around 17 hours on days off (Table 1).

**Table 1**  
**Time spent by schoolchildren at home by school level and gender**  
**on schooldays and days off, minutes per day (standard errors in parenthesis)<sup>2</sup>**

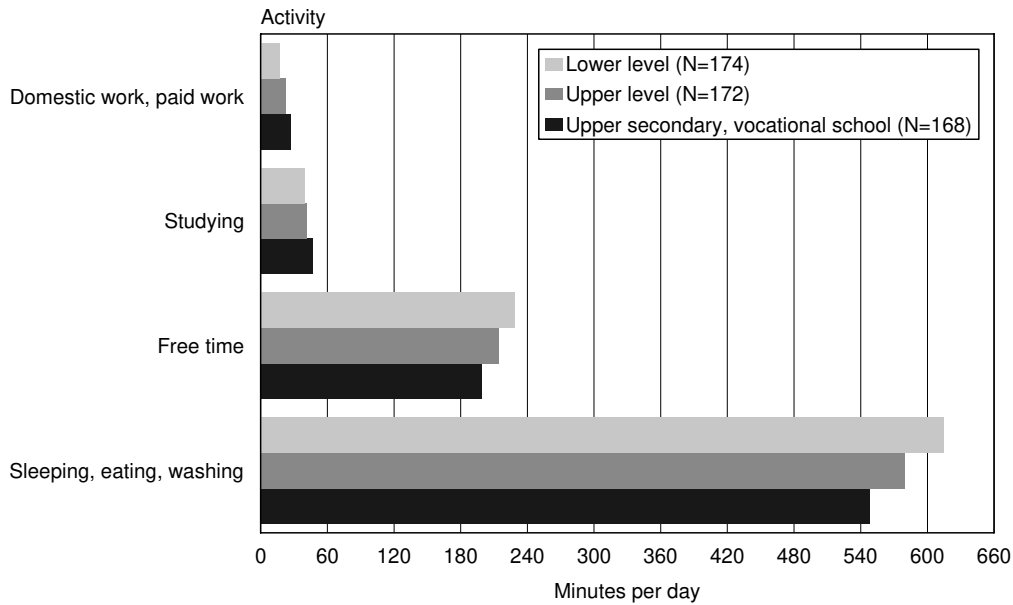
	Minutes per day					
	Schooldays			Days off		
	All	Boys	Girls	All	Boys	Girls
	Mean (SE)	Mean (SE)	Mean (SE)	Mean (SE)	Mean (SE)	Mean (SE)
All	869.9 (10.1)	879.3 (14.5)	860.9 (13.2)	1016.8 (22.8)	1023.6 (30.0)	1010.9 (33.7)
Lower level of comprehensive school (aged 10 to 13)	906.9 (17.7)	932.9 (21.9)	879.3 (27.6)	985.6 (38.1)	991.5 (49.8)	980.4 (56.6)
Upper level of comprehensive school (aged 14 to 16)	863.8 (13.5)	876.6 (20.2)	854.0 (18.1)	1029.8 (36.6)	1029.1 (42.0)	1030.3 (55.6)
Upper secondary school, vocational school (aged 16 to 18)	826.6 (18.4)	808.7 (30.0)	845.8 (19.3)	1051.3 (29.4)	1064.9 (41.2)	1037.1 (42.1)
Diary days (whole school year)	514	250	264	600	283	317

Source: Time Use Survey, Statistics Finland, 1999–2000.

<sup>2</sup> In this article, the standard errors of the means have been calculated with the SURVEYMEANS procedure of SAS 9 software while taking the sampling design into consideration. There are two types of intra-class correlation of the diaries: between the household members and between each individual's two diaries. The statistical tests of this article are adjusted for those design complexities. Due to the small volume of data, original strata could not be utilised. Thus the tests were slightly conservative. For the same reason we also used a 10% significance level (on the sampling design of the survey see Väisänen, 2002; 2005).

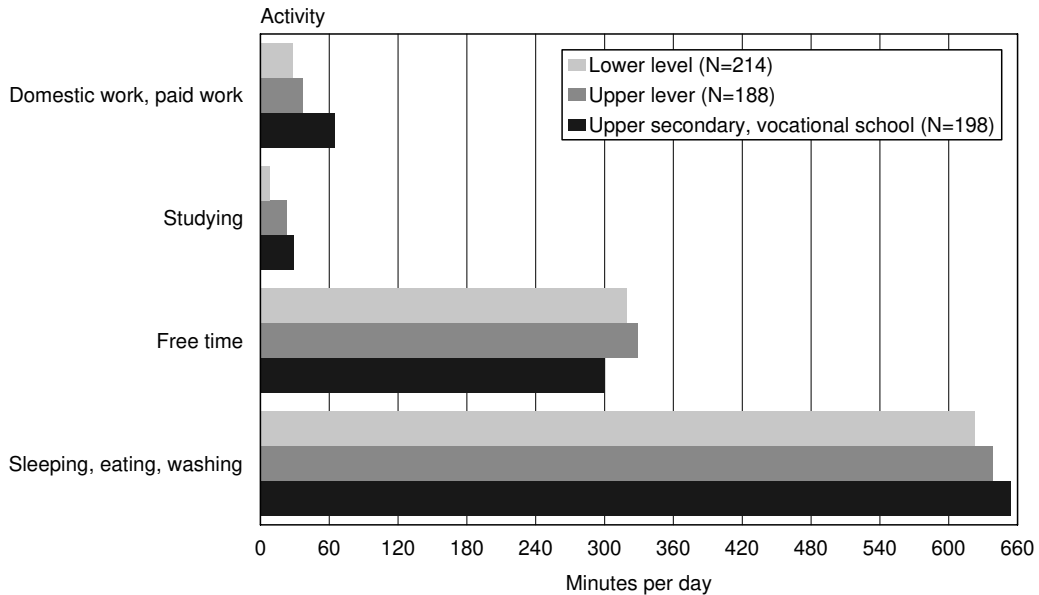


**Figure 1**  
**Time use of schoolchildren at home on schooldays, minutes per day**



Source: Time Use Survey, Statistics Finland, 1999–2000.

**Figure 2**  
**Time use of schoolchildren at home on days off, minutes per day**



Source: Time Use Survey, Statistics Finland, 1999–2000.

Comprehensive school students aged 10 to 13 are more at home on schooldays than older students. On days off, the differences between students of different ages in the lengths of time they are at home are not statistically significant.

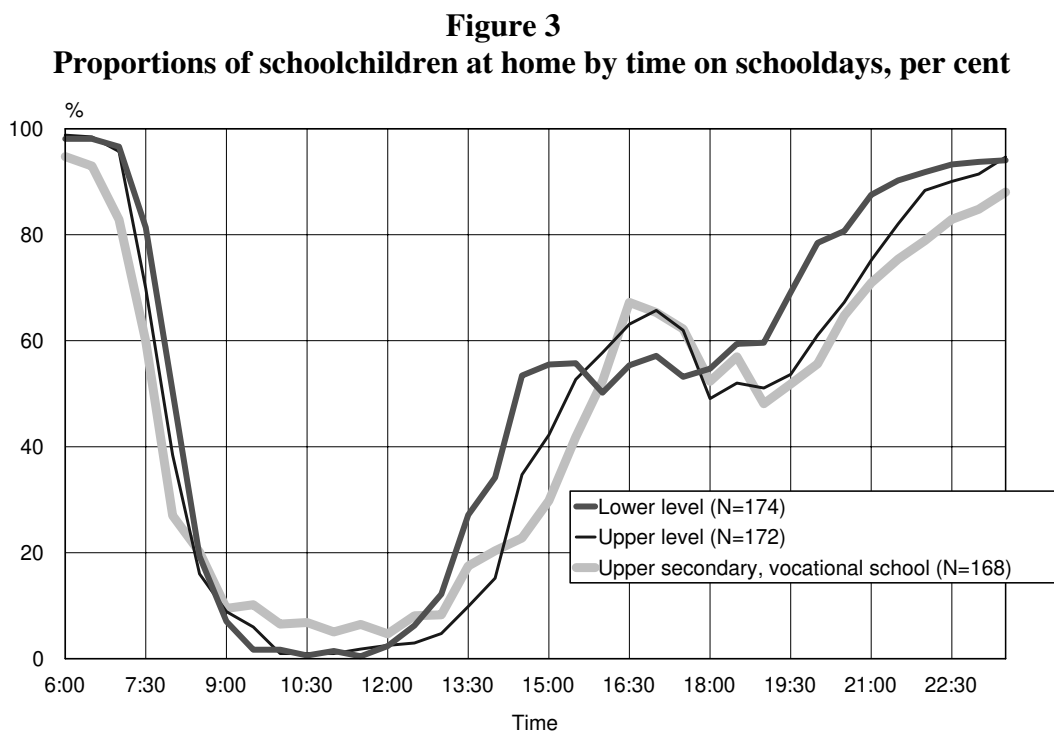
Two-thirds of the time spent at home is used for sleeping and other personal needs. There is a large difference between schooldays and days off school in the duration of sleep. Sleep is

“caught up” on days off school. At the lower level of comprehensive school, the difference in the time used for sleeping on schooldays and days off is around one hour. At the upper secondary level it has already grown to two hours (see Pääkkönen (2006, p. 431)).

On schooldays around 40 minutes are spent on homework. On days off studying takes up over 20 minutes per day at the upper level of comprehensive school, upper secondary school and vocational school. Those at the lower level of comprehensive school (aged 10 to 13) can spend their weekends mostly free from homework. On schooldays one-quarter of the time at home is free time and on days off nearly one-third (Figures 1 and 2).

## 4 At what time at home?

At what time are children at home? On schooldays the timetables of schools determine when children are at home. Schooldays begin early in Finland. Figure 3 shows that the time of going to school in the morning is almost the same, but it follows the inverse order of age so that upper secondary school and vocational school students leave for school first and those at the lower level of comprehensive school are the last to go. By 8 am over one-half of schoolchildren have left home (see also Pääkkönen and Niemi, 2002, 19–21).



Source: Time Use Survey, Statistics Finland, 1999–2000.

In the afternoon, the youngest schoolchildren come home first. Among comprehensive school students aged 10 to 13, one-half have returned home by 2.30 pm. Those studying at the upper level of comprehensive school (aged 14 to 16) come home one hour later. Upper secondary

school and vocational school students aged 16 to 18 arrive at home last, one-half of them being at home by 4 pm.

The proportion of those away from home on schooldays grows again, except for the youngest schoolchildren, between 5 and 8 pm, when they do sports and meet friends. Comprehensive school students watch the most TV at around 8 pm, whereas older schoolchildren do so a few hours later (Pääkkönen and Niemi, 2002, 21).

Upper secondary school and vocational school students are absent from home later in the evening than younger schoolchildren. However, on schooldays around 90% of comprehensive school students and nearly 80% of those in upper secondary school are at home by 10 pm.

## **5 Being alone at home on schooldays and days off**

### **5.1 Timing of being alone**

Schoolchildren spend more than one-half of the day at home. How much of this time are they all alone? Next we will first examine the timing of being alone on schooldays and days off (Figures 4 and 5). The examination is restricted to afternoons and evenings. Being alone is studied separately at given points in time during the afternoon and evening. The figures only reveal the proportions of those being alone at each specific point in time. The same schoolchildren are not alone for the whole evening.

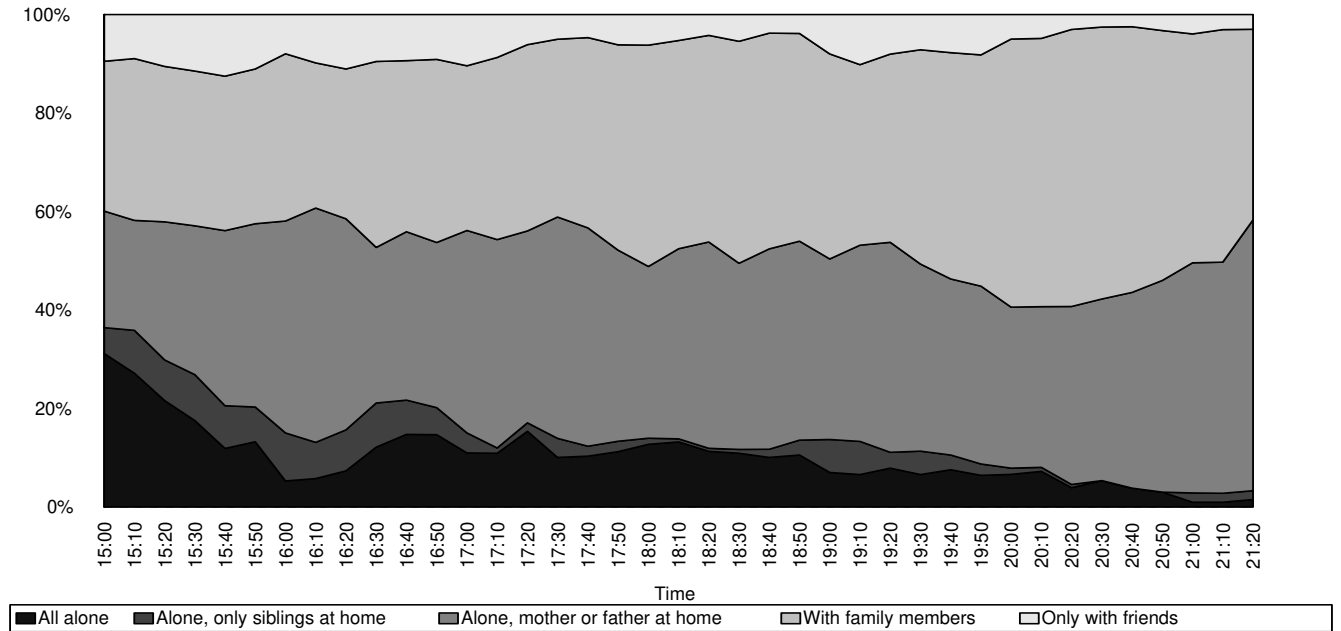
The proportion of schoolchildren alone at home is at its highest in the afternoon right after they come back from school. At 3 pm nearly one-third of schoolchildren are at home on their own. After that parents start to come home and the proportion of those all alone decreases. After 4.30 pm a good one-tenth of schoolchildren are at home alone at each studied moment until 7 pm, after which the proportion falls evenly.

Until around 5 pm one-tenth of schoolchildren are at home on their own, e.g. in their own rooms so that only other siblings are at home. Later during the evening at each studied moment, nearly one-half of schoolchildren spend time at home on their own so that their mother or father is at home.

At least one-third of schoolchildren are in the company of their family members at each point in time between the afternoon and evening. Most time is spent with family members between 8 and 9 pm.

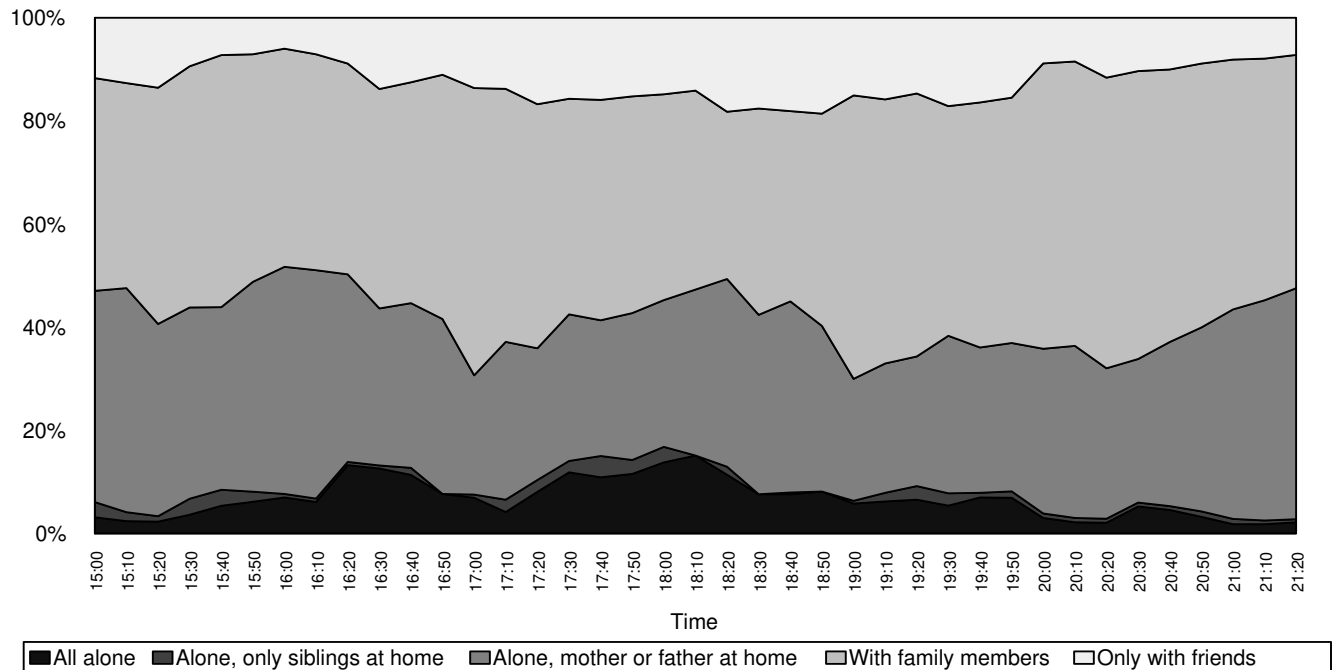
Time use at home is more sociable on days off than on schooldays. On days off being alone is most common in early evening at around 6 pm, when 15% of schoolchildren are on their own. Around one-half of them spend time with other family members at each examined moment during the afternoon and evening. On days off more time is spent at home with friends than on schooldays. During the early evening, hours about 15% have a friend visiting them.

**Figure 4**  
**Time spent alone and together at home by schoolchildren on schooldays**  
**by time between 3 and 9.30 pm**



The proportions were calculated from those at home at each time.  
 Source: Time Use Survey, Statistics Finland, 1999–2000.

**Figure 5**  
**Time spent alone and together at home by schoolchildren on days off**  
**by time between 3 and 9.30 pm**



The proportions were calculated from those at home at each time.  
 Source: Time Use Survey, Statistics Finland, 1999–2000.

## 5.2 Length of time alone

How long are they at home all alone without anyone else present? On an average schoolday around one-half of schoolchildren were not at all alone at home, one-fifth were alone for under one hour and one-sixth from one to two hours. Every tenth had been alone for at least two hours. Daily aloneness of over two hours has been found to be the limit which, if exceeded, raises the risk of problem behaviour (Pulkkinen, 2002, 29, 150).

On an average day off, over two-thirds were not alone at home at all. Similarly to schooldays, a good one-tenth had then been alone for at least two hours, too.

Schoolchildren spent an average of 38 minutes alone at home on schooldays, which represents 4% of the total time spent at home (Tables 2 and 3). This average includes all schoolchildren. However, those who were at home alone, spent nearly one-and-a-half hours alone (1 hour and 20 minutes). On days off the corresponding figures were 46 minutes and 2.5 hours. Fewer children were alone at home on days off than on schooldays (31% vs. 48%), but their aloneness lasted longer on days off than on schooldays (the significance of the difference is  $p < 0.05$ ).<sup>3</sup>

In addition to being alone, schoolchildren spent unsupervised time with siblings and friends. The lengths of time spent at home with siblings but without parents were 17 minutes on schooldays and 16 minutes on days off. Around 20 minutes was spent at home with friends on schooldays. On weekends the time spent with friends doubled. All in all, schoolchildren spent around one-tenth of the time they were at home without the company of their parents (Table 3).

Schoolchildren spent around 2.5 hours of their time at home with family members on schooldays and about three hours on days off. Tables 2 and 3 show that the vast majority of time at home is spent alone so that at least one parent is at home. This also includes time used for sleeping. The rest of the time is time spent alone in ones' own room, for example.

## 5.3 What kinds of schoolchildren are alone at home?

According to the averages in Table 2, boys were at home on their own on schooldays more than girls were. Boys spent double the time alone compared to girls. On days off there was no statistically significant difference in the aloneness of girls and boys. Because of the limited data, no statistically significant difference between boys and girls was found in the proportions of those exceeding the two-hour risk limit.

In addition to the above descriptive analysis, being alone at home was modelled with logit models by using gender, as well as age, existence of siblings<sup>4</sup> (yes/no), number of parents,

---

<sup>3</sup> These averages underestimate somewhat the time spent alone, because around ten minutes of the time spent at home was not specified due to insufficient information on time spent together. It is probable that some of this time was spent all alone.

<sup>4</sup> The regressor has been constructed with the help of data on the size of the household and number of parents. In addition to siblings, the "yes" class may include also other members of the household.

mother's and father's employment, type of area (urban/scattered settlement area) and household income (quintiles 1–3/4–5) as the regressors.

**Table 2**  
**Time spent by schoolchildren at home according to being together and gender on schooldays and days off, minutes per day (standard errors in parenthesis)**

	Minutes per day					
	Schooldays			Days off		
	All	Boys	Girls	All	Boys	Girls
	Mean (SE)	Mean (SE)	Mean (SE)	Mean (SE)	Mean (SE)	Mean (SE)
All alone, nobody else at home	38.2 (5.3)	49.5 (9.0)	24.9 (5.1)	46.3 (11.3)	58.3 (17.6)	32.0 (12.9)
Alone, only siblings at home	17.3 (3.1)	21.0 (4.3)	12.8 (3.2)	15.9 (3.8)	16.5 (5.1)	15.2 (5.3)
Only with friends	22.8 (4.1)	21.3 (6.1)	24.7 (5.8)	50.1 (11.2)	42.7 (11.5)	58.9 (20.1)
Alone, mother or father at home	639.9 (16.7)	639.0 (23.4)	640.9 (22.5)	633.2 (29.4)	629.0 (38.2)	638.4 (43.5)
With family members	147.0 (11.9)	158.1 (16.2)	133.9 (15.3)	178.2 (13.4)	186.4 (19.9)	168.3 (17.0)
Diary days	191	102	89	229	120	109

Source: Time Use Survey, Statistics Finland, 1999–2000.

**Table 3**  
**Percentage distribution of time spent by schoolchildren at home according to being together and gender on schooldays and days off, per cent**

	Schooldays			Days off		
	All	Boys	Girls	All	Boys	Girls
All alone, nobody else at home	4	6	3	5	6	4
Alone, only siblings at home	2	2	2	2	2	2
Only with friends	3	2	3	5	5	6
Alone, mother or father at home	74	71	76	69	67	70
With family members	17	18	16	19	20	18
Total (%)	100	99	100	100	100	100
Diary days	191	102	89	229	120	109

Source: Times Use Survey, Statistics Finland, 1999–2000.

The dependent variables were (1) aloneness in general (0= not alone, 1= all alone at least 10 minutes) as well as (2) being alone for at least 60 minutes (0= not alone, 1= all alone at least 60 minutes). The models were estimated separately for schooldays and days off<sup>5</sup>. It would have been interesting to model also the factors influencing being alone for at least 120 min-

<sup>5</sup> The estimation was produced using the SURVEYLOGISTIC procedure of SAS 9 software, which takes the survey sampling design into consideration, see footnote 2.

utes. The number of such cases in the data was, however, so small (19 schooldays and 19 days off) that this variable could not be used in modelling.

The parameter estimates of the models and their standard errors are presented in Tables 4 and 5. The odds ratio estimates and the corresponding 90% Wald confidence intervals are presented in Tables 6 and 7. The confidence interval expresses the range of the odds ratio among the population. Due to the small volume of data, a 10% significance level was chosen (see footnote 2). The odds ratio is obtained by exponentiating the value of the parameter estimate associated with the factor. For each regressor the value of the parameter estimate of the category (last category of the variable) selected as the reference category is 0, and the value of the corresponding odds ratio estimate is 1. If the odds ratio estimate of the variable's category is greater than 1, the category's odds of being alone at home are greater than that of the reference category, when other regressors are kept constant. Correspondingly, if the odds ratio estimate of the category is smaller than 1, the category's odds of being alone at home are smaller than those of the reference category. However, if the 90% confidence limits contain the value 1, no conclusion can be made about being alone based on these data (Liao, 1994; SAS Institute Inc. 2004).

When the dependent variable was being alone for at least 10 minutes, the only statistically significant regressors on schooldays were gender, age, siblings and number of parents (Table 4). On days off the significant regressors were age, siblings and mother's employment. When explaining being alone for at least 60 minutes on schooldays, gender, siblings and number of parents were significant regressors (Table 5). On days off, only age and siblings were significant regressors. In the broad model, which included all regressors, also gender was significant (Model 2 in Table 5).

According to the results, on schooldays the odds for boys to be alone at home were more than twice as high as for girls, given age, siblings, family type and mother's employment status. On days off the estimated difference between boys and girls was not statistically significant at the 0.10 level. Young schoolchildren (aged 10 to 14) were less likely to be alone than their seniors (aged 15 to 18) on both schooldays and days off. As could be expected, the existence of siblings significantly lowered the odds of being alone both on schooldays and days off. On schooldays children of one-parent families were alone more often than children of two-parent families, whereas on days off the difference was no longer statistically significant. Mother's employment has a significant impact on being alone only on days off. Even though Table 6 seems to indicate that a child of an employed mother has higher odds of being alone on schooldays than a child of a non-employed mother, the result is not statistically significant ( $p=0.13$ ). On days off a child of an employed mother had lower odds of being alone than a child of a non-employed mother. It is, however, difficult to interpret the impact. Schoolchildren's days off include also weekends. As the mother will, in general, have a day off then as well, the variable shows the impact of also other factors than employment.

**Table 4**  
**Logit models of being all alone (at least 10 minutes) at home**  
**on schooldays and days off, parameter estimates**

	Model 1				Model 2			
	Schooldays		Days off		Schooldays		Days off	
	Est.	Std. Err.	Est.	Std. Err.	Est.	Std. Err.	Est.	Std. Err.
Intercept	-0.04	0.65	1.10 *	0.62	0.49	0.87	0.71	0.83
Sex (Boy=1)	0.79 **	0.38	0.30	0.36	0.81 **	0.40	0.32	0.36
10 to 14 years (Reference: 15 to 18 years)	-0.60 *	0.35	-1.10 ***	0.35	-0.61 *	0.37	-1.11 ***	0.35
Siblings (Yes=1)	-1.23 ***	0.44	-0.91 **	0.39	-1.21 ***	0.44	-0.91 **	0.39
One-parent family	0.83 *	0.49	-0.12	0.49	0.43	0.61	-0.08	0.66
Mother employed	0.79	0.52	-1.03 **	0.47	0.73	0.54	-0.96 *	0.50
Father employed <sup>1</sup>					-0.53	0.49	0.45	0.56
Rural (Reference: Urban)					-0.24	0.53	-0.88 *	0.52
Household income: Quintiles 1–3 (Reference: Quintiles 4–5)					-0.11	0.50	0.62	0.50
Likelihood Ratio:								
Chi-Square	12707.47		6658.37		13456.04		7930.88	
DF	5		5		8		8	
N	191		229		191		229	

<sup>1</sup> The reference (father employed = 0) includes those without a father in the family.

Note: \*\*\* Statistically significant at the 0.01 level, \*\* at the 0.05 level, and \* at the 0.10 level.

Source: Time Use Survey, Statistics Finland, 1999-2000.

When modelling, the impact of variables explaining being alone for at least 60 minutes were broadly similar than those presented above. The effect of age was, however, no longer significant on schooldays. Mother's employment did not have a significant impact to being alone for at least 60 minutes on schooldays or days off. Age and mother's employment did, however, interact so that on days off only the 15 to 18-year-old children of employed mothers were more likely to be alone for at least 60 minutes than the children of non-employed mothers. By contrast, the 10 to 14-year-old children of non-employed mothers were more likely to be alone than those of employed mothers.<sup>6</sup>

Father's employment did not have a significant impact on aloneness after controlling for number of parents and mother's employment. The variable category "Father non-employed" also contained the children without a father in the family.

<sup>6</sup> The model (not shown) included as regressors gender, siblings, number of parents and the interaction of age and mother's employment.



**Table 5**  
**Logit models of being all alone at least one hour at home**  
**on schooldays and days off, parameter estimates**

	Model 1				Model 2			
	Schooldays		Days off		Schooldays		Days off	
	Est.	Std. Err.	Est.	Std. Err.	Est.	Std. Err.	Est.	Std. Err.
Intercept	-1.67 **	0.71	-0.38	0.74	-1.79 *	1.05	-0.17	0.86
Sex (Boy=1)	0.98 **	0.48	0.76	0.50	0.91 *	0.49	0.97 **	0.04
10 to 14 years (Reference: 15 to 18 years)	-0.52	0.41	-0.99 **	0.44	-0.52	0.44	-0.94 **	0.04
Siblings (Yes=1)	-0.95 **	0.47	-1.06 **	0.43	-0.99 **	0.48	-1.03 **	0.02
One-parent family	1.23 **	0.51	0.16	0.58	1.45 *	0.85	-0.64	0.43
Mother employed	0.87	0.66	-0.58	0.60	0.81	0.71	-0.38	0.57
Father employed <sup>1</sup>					0.47	0.70	-0.58	0.38
Rural (Reference: Urban)					-0.91	0.72	-1.49 *	0.07
Household income: Quintiles 1–3 (Reference: Quintiles 4–5)					0.02	0.69	0.70	0.26
Likelihood Ratio:								
Chi-Square	10988.92		5414.57		12355.37		7542.93	
DF	5		5		8		8	
N	191		229		191		229	

<sup>1</sup> The reference (father employed = 0) includes those without a father in the family.  
 Note: \*\*\* Statistically significant at the 0.01 level, \*\* at the 0.05 level, and \* at the 0.10 level.  
 Source: Time Use Survey, Statistics Finland, 1999-2000.

**Table 6**  
**Being all alone at home on schooldays and days off,**  
**odds ratio estimates**

	Schooldays			Days off		
	Odds Ratio	Lower 90 % Limit	Upper 90 % Limit	Odds Ratio	Lower 90 % Limit	Upper 90 % Limit
Boys vs Girls	2.21	1.18	4.11	1.35	0.75	2.42
Aged 10 to 14 vs Aged 15 to 18	0.55	0.31	0.97	0.33	0.19	0.59
Siblings vs No siblings	0.29	0.14	0.60	0.40	0.21	0.76
One-parent family vs Two-parent family	2.29	1.03	5.08	0.89	0.40	1.98
Mother employed vs Mother not employed	2.21	0.94	5.17	0.36	0.17	0.77

Source: Times Use Survey, Statistics Finland, 1999–2000.

**Table 7**  
**Being all alone at least one hour at home on schooldays and days off,**  
**odds ratio estimates**

	Schooldays			Days off		
	Odds Ratio	Lower 90 % Limit	Upper 90 % Limit	Odds Ratio	Lower 90 % Limit	Upper 90 % Limit
Boys vs Girls	2.66	1.21	5.86	2.15	0.94	4.90
Aged 10 to 14 vs Aged 15 to 18	0.59	0.30	1.16	0.37	0.18	0.76
Siblings vs No siblings	0.39	0.18	0.83	0.35	0.17	0.70
One-parent family vs Two-parent family	3.42	1.48	7.92	1.17	0.45	3.04
Mother employed vs Mother not employed	2.39	0.81	7.03	0.56	0.21	1.52

Source: Times Use Survey, Statistics Finland, 1999–2000.

Likewise, type of area and household income had no significance on aloneness on schooldays. These variables have been excluded from the final models (Model 1 in Tables 4 and 5). The type of area variable was, however, significant in the broad model concerning days off, which included all regressors. It indicated that schoolchildren living in urban areas were more likely to be alone at home on days off than those living in rural areas (Model 2 in Tables 4 and 5).

## 6 What is done when alone?

Next we will examine what schoolchildren do when there is nobody else at home. The examination includes only those who were alone at home during schooldays and days off. The data are thus based on quite a small number of respondents (diary days 154). The results are only indicative and the examination is limited to waking hours.

Clearly the most common activity when alone was watching TV (Figure 6). On schooldays 20 minutes (a good one-quarter) and on days off 26 minutes (over one-third) of all time spent at home alone was made up of TV watching. Watching TV is in general the most common leisure activity among schoolchildren in Finland (Pääkkönen and Niemi, 2002, 25). When tired after a schoolday, it is easy to switch on the TV. According to a survey on young people from Central Finland, young people regarded television and video as the most important ways of filling empty moments (Luukka et al., 2001, 41; Suoninen, 2004, 81–82).

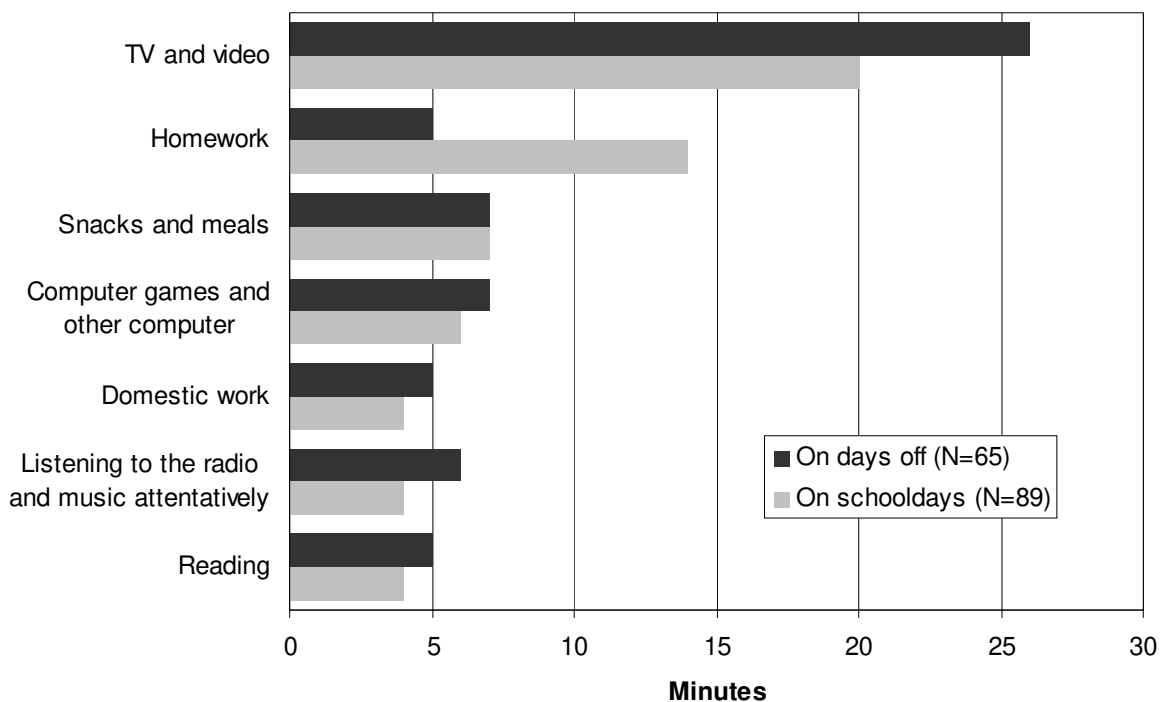
Still, only a good one-third of all children who were alone had watched TV, and only a few (5%) spent the entire time alone by watching TV. Watching TV took up a higher proportion of the time spent alone from those who spent more than 60 minutes alone (32%) than from

those who spent less time alone (17%). No difference was found to exist between boys and girls and schoolchildren of different ages in how much time was dedicated to watching TV.<sup>7</sup>

Children also did homework, especially on schooldays. Homework took nearly 15 minutes (one-fifth) of all time spent alone. By comparison, only one-tenth of the time alone was spent at the computer. This includes playing with video game consoles as well. Other clearly minor activities were domestic work, listening to the radio and music, reading and washing oneself and getting dressed. These activities are largely the same that emerged in the study of Pulkkinen and Launonen (2005, 101).

Of the different kinds of risk behaviour, the data examined here included information only on the use of alcohol. Alcohol use was not mentioned in a single diary, although according to the interview data of the Time Use Survey, 50% of boys between the ages of 15 and 18 reported that they drink alcohol at least once a month. The corresponding proportion among girls of the same age was 29%. It is fair to assume that alcohol drinking takes place mainly outside the home in the company of friends.

**Figure 6**  
**Schoolchildren's most common activities alone at home during waking hours on schooldays and days off, minutes**



Source: Time Use Survey, Statistics Finland, 1999–2000.

<sup>7</sup> Due to the limited data, these figures include both schooldays and days off. The figures refer to the waking hours.

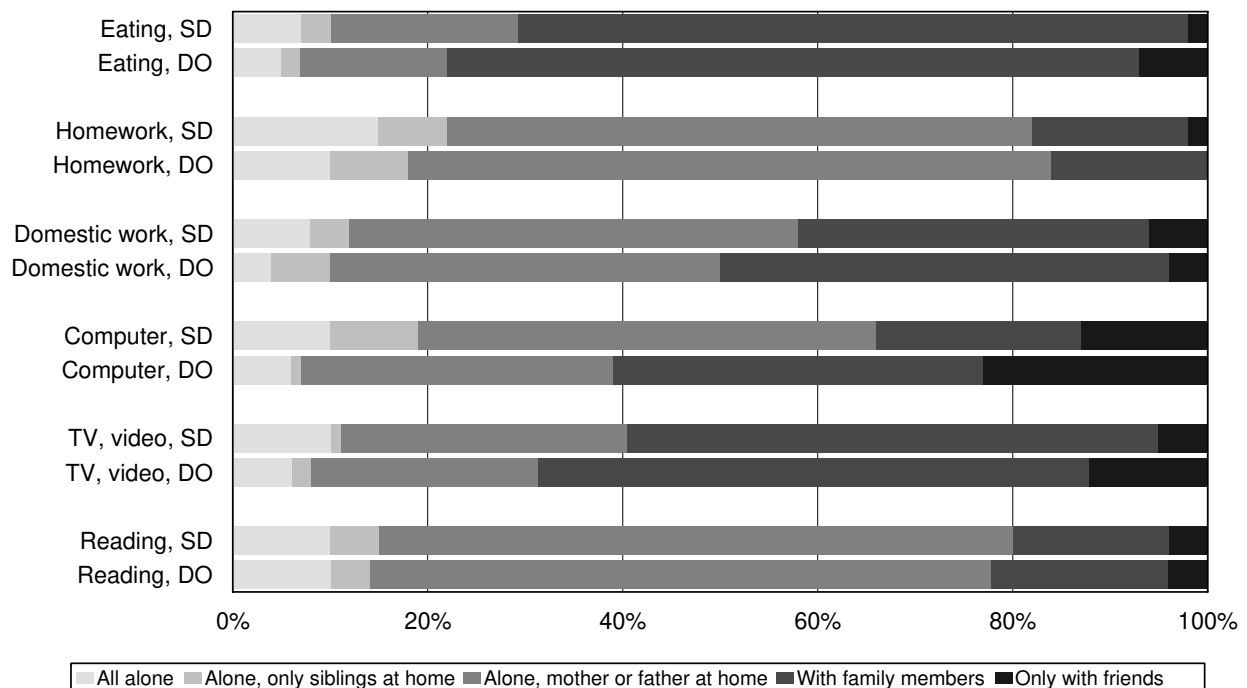
## 7 Alone or together?

Above we examined what is done when at home alone. Next we will see how much of their different activities schoolchildren did at home alone and how much together with others. Figure 7 presents a distribution of the time used for each activity by category of aloneness. The examination is limited to primary activities. Possible simultaneous activities were disregarded.

Taking meals and watching the TV were the most family-centred activities among schoolchildren (cf. Livingstone and Bovill, 1999, Ch.10, 3). Having meals at home mainly takes place together with family members, which means around 70 % of all eating time. Even when eating alone, there are usually other family members at home. Thus, schoolchildren's eating has not as yet become individualised.

The TV is also watched mostly with other family members. Although TV watching dominates the time spent alone at home, only very little of all TV watching is done completely alone. TV is watched together with friends especially at weekends.

**Figure 7**  
**Schoolchildren's time use at home according to time spent together on schooldays (SD) and days off (DO), per cent**



N=420: schooldays=191; days off=229.  
 Source: Time Use Survey, Statistics Finland, 1999–2000.

One-quarter of TV watching takes place alone when other family members are at home. Many schoolchildren also have the possibility to watch the TV in their own room. The Time Use Survey did not ask about the location of the TV set(s) in the home. According to the TV

Household Survey, we do, however, know that during the survey period 1999–2000 around every tenth household had a TV set in the children's bedroom as well (Mass Media, 2002, 148). More than half of the young people, 62% of boys and 57% of girls, aged 13 to 19 in Central Finland had a TV in their own room in 1999 (Luukka et al., 2001, 48).

Over one-half of the total time is spent at the computer with family members or friends on days off, one-third on schooldays. Of all leisure use of the home computer, only under one-tenth takes place all alone. The results thus support the view that the use of the media is socialising rather than isolating from other people (see also Livingstone and Bovill, 1999, Ch.4, 7; Suoninen, 2004, 89–93).

In families, in addition to the TV, also the computer is often placed in children's room. Nearly one-half of the boys and one-fourth of the girls aged 13 to 19 in Central Finland had a computer in their own room in 1999 (Luukka et al., 2001, 80). According to a British survey, children with a TV or computer in their own room also use them more than others do (Livingstone and Bovill, 1999, Ch.4, 20–21).

Homework is done mainly alone, but mostly when either of the parents is at home. One-sixth of the time spent on homework was reported to happen with family members. Although homework was not done together all the time, advice could be asked from family members when needed.

Music and the radio are also mainly listened to alone. Reading is mostly done alone in peace and quiet. Washing oneself and getting dressed are naturally private activities. Schoolchildren go to the sauna mainly with their family members; two-thirds of the sauna time at weekends is spent together with family members.

Domestic work is done quite often with family members, a good one-third on schooldays and nearly one-half at weekends. Cleaning and arranging are household chores most often done by schoolchildren at home.

## **8 Conclusions**

On the basis of the Time Use Survey it appears that despite all fears, schoolchildren's aloneness is not that widespread. Schoolchildren spend a relatively small portion of their day alone at home. Most of the schoolchildren aged 10 to 18 were not at all alone at home during the survey day. One-tenth of schoolchildren spent at least two hours alone at home, which is the perceived limit for risk behaviour. The number of children belonging to the risk group of children alone for more than two hours was so small that the composition of the group could not be examined in more detail. An earlier Finnish study (Pulkkinen and Launonen, 2005) did not identify a large group of schoolchildren in the risk group either.

According to the results, boys spend more time on their own than girls on schooldays. The odds for boys to be alone at home were more than twice as high as for girls. The youngest

schoolchildren were less likely to be alone than their seniors. Only children were more likely to be at home alone than children with siblings. The children of single parents are also more likely than other children to spend time alone during schooldays.

Mother's or father's employment had no significant impact on the aloneness of children on schooldays. This is probably influenced by the fact that in Finland both parents generally work full-time. Household income did not have an independent impact on the aloneness of schoolchildren. Similarly, the likelihood of being alone on schooldays did not differ between rural and urban areas.

TV is watched most often when alone at home. However, only a few schoolchildren spent their entire time alone by watching TV.

Only one-tenth of the time alone is spent in front of the computer. Since the survey period, computers and Internet access have become more common in Finnish homes, so the time spent alone may now be more computer-centred than around the millennium. During the recent years, different instant messaging services, such as the Messenger, have become popular among young people. In addition to email and playing computer games, using such messaging services belongs to the most common uses of the Internet (Pääkkönen, 2007). Even when the computer is used alone, the ways of using it are becoming increasingly social.

The risks relating to unsupervised use of the television and computer arise more from contents than from the amount of time used for them. Because of the explosive growth in the supply of television programmes brought on by cable, satellite and digital broadcasting, decisions concerning their contents are no longer made at the national level. Likewise, the nature of the Internet is global. However, parents do, to a certain degree, have at their disposal technical means for preventing access to undesirable channels or web pages. Regardless of this, it is difficult to monitor the contents of Internet pages popular among young people.

Schoolchildren's most family-centred activities at home were having meals and TV watching. Over two-thirds of the time spent on meals takes place in the company of family members. Even if other family members were not eating at the same table, they are still at home. Despite much debate, families' eating habits have thus not yet individualised. Listening to music, homework and reading mostly take place on one's own.

This article has examined only staying alone at home. However the time spent at home is not the most prone to risks. Children spend time without their parents outside their homes as well, alone or with their friends, which may also expose them to risk behaviour. Some US studies have observed that the afternoon hours from 3 to 6 pm between the end of the school day and the family dinner pose the highest risk to young people. The highest numbers of young people are arrested and many teenage pregnancies are started between these hours (Larson, 1998; Osgood et al., 2005). This is also the time period during which Finnish children most often are at home alone.

The main means adopted in Finland for the prevention of schoolchildren's aloneness is municipally organised morning and afternoon activity. At the moment the related legislation

concerns pupils attending grades one and two of the comprehensive school. These children are younger than the schoolchildren included in this study. Demands have been made to extend to activity also to pupils attending grades three to nine (Ombudsman for Children et al., 2006). On the other hand, the Integrated School Day project has also aroused criticism. Strandell and Forsberg (2005) are of the opinion that the project redefines free time as learning. Increasing areas of children’s environment are specified as learning environments and activities in them as learning or learning-like activities. “(T)he foundation of children’s after-school activities is relocated in the public sphere; childhood thus becomes removed from the realm of home and family” (Strandell and Forsberg, 2005, 623).

## Appendix Diary

Time, am	<b>What were you doing?</b> Record your main activity for each 10-minute period from 07.00 to 10.00 am.  Only one main activity on each line! Distinguish between travel and the activity that is the reason for travelling Do not forget the mode of transportation. Distinguish between first and second job, if any.	<b>What else were you doing?</b> Record the most important parallel activity.	<b>Were you alone or together with somebody you know?</b> Mark "yes" by crossing				
			Alone	Children up to 9 living in your household	Other household members	Other persons that you know	
07.00-07.10			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07.10-07.20			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07.20-07.30			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07.30-07.40			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07.40-07.50			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07.50-08.00			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## References

- Forsberg, H. and H. Strandell (2006), After-school hours - A risk of being alone?, in: Oksanen, A., Paavilainen, E. and T. Pösö (eds.), *Comparing children, families and risks*, Childhood and Family Research Unit Net Series, Tampere University Press, Tampere, <http://tampub.uta.fi/childhood/951-44-6654-3.pdf>.
- Hochschild, A. R. (1997), *The time bind - When work becomes home and home becomes work*, Metropolitan Books, New York.
- Hulkko, L. (2007), Lasten vanhemmat ja työ (Children’s parents and work), in: *Suomalainen lapsi 2007* (Children in Finland 2007, in Finnish only), Population 2007, Statistics Finland and STAKES, Helsinki, 245-267.
- Lammi-Taskula, J. (2004), Pienet koululaiset (Small children), in: Salmi, M. and J. Lammi-Taskula (eds.), *Puhelin, mummo vai joustava työaika? Työn ja perheen yhdistämisen arkea* (Telephone, granny or flexi-time? Everyday reconciling of work and family, in Finnish only), STAKES, Saarijärvi, 58-74.
- Larson, R. (1998), Implications for policy and practise - Getting adolescents, families, and communities in sync, in: Crouter, A. and R. Larson (eds.), *Temporal rhythms in adolescence - Clocks, calendars and the coordination of daily life*, New Directions in Child Development, No. 82, Jossey-Bass, San Francisco.

- Liao, F.T. (1994), *Interpreting probability models - Logit, probit, and other generalized linear models*, Sage University Paper series on Quantitative Applications in the Social Sciences, Series No. 07-101, Sage, Thousand Oaks.
- Livingstone, S. and M. Bovill (1999), *Young people new media - Report of the research project - Children, young people and the changing media environment*, London School of Economics and Political Science, [http://www.psych.lse.ac.uk/young\\_people/](http://www.psych.lse.ac.uk/young_people/).
- Luukka, M.-R., Hujanen, J., Lokka, A., Modinos, T., Pietikäinen, S. and A. Suoninen (2001), *Mediat nuorten arjessa - 13–19-vuotiaiden nuorten mediakäytöt vuosituhaten vaihteessa* (Media in the everyday lives of the youth - The uses of the media by 13–19 year-old youth at the turn of the millennium, with English Summary), Centre for Applied Language Studies, University of Jyväskylä, Jyväskylä.
- Mass Media (2002), in: *Culture and Media 2002:3*, Statistics Finland, Helsinki.
- Ombudsman for Children et al. (2006), *Ehdotus lasten ja nuorten hallitusohjelmaksi* (Proposal for a government programme for children and young people, in Finnish only), October 2006, [http://www.lapsiasia.fi/Resource.phx/lapsiasia/ajankohtaista/tiedotteet/tied2006/lastenjanuortenhallitu\\_sohjelma.htx.i1651.pdf](http://www.lapsiasia.fi/Resource.phx/lapsiasia/ajankohtaista/tiedotteet/tied2006/lastenjanuortenhallitu_sohjelma.htx.i1651.pdf).
- Osgood, D.W., Anderson, A.L. and J. Shaffer, (2005), *Unstructured leisure in the after-school hours*, in: Mahoney, J.L., Larson, R., W. and J.S. Eccles (eds.), *Organized activities as contexts of development - Extracurricular activities, after-school and community programs*, Lawrence Erlbaum Associates, Mahwah, New Jersey, 45-64.
- Pulkkinen, L. (2002), *Mukavaa yhdessä - Sosiaalinen alkupääoma ja lapsen sosiaalinen kehitys* (Nice together - Initial social capital and the child's socioemotional development, in Finnish only), PS-kustannus, Keuruu.
- Pulkkinen, L. and L. Launonen (2005), *Ehetytty koulupäivä - Lapsilähtöinen näkökulma koulupäivän uudistamiseen* (Integrated School Day - A child-oriented perspective to the redefining of a school day, in Finnish only), Edita, Helsinki.
- Pulkkinen, L., Pohjola, K., Kotamäki, N. and L. Launonen (2006), *First steps in the municipal morning and afternoon activities of schoolchildren* (in Finnish with an English abstract), Reports from the Family Research Centre 16, University of Jyväskylä, Jyväskylä.
- Pääkkönen, H. (ed.) (2005), *Perheiden ajankäyttö* (Time use of families, in Finnish only), Statistics Finland, Helsinki.
- Pääkkönen, H. (2006), *What do schoolchildren in Finland do with their time?*, in: *Loisir et Société / Society and Leisure*, Vol. 28, No. 2, 425-442.
- Pääkkönen, H. (2007), *Lasten ajankäyttö ja harrastukset* (Children's time use and hobbies), in: *Suomalainen lapsi 2007* (Children in Finland 2007, in Finnish only), Population 2007, Statistics Finland and STAKES, Helsinki, 221-244.
- Pääkkönen, H. and I. Niemi (2002), *Suomalainen arki - Ajankäyttö vuosituhaten vaihteessa* (Everyday life in Finland - Time use at the turn of the millennium, with English Summary) in: *Culture and Media 2002:2*, Statistics Finland, Helsinki.
- SAS Institute Inc. (2004), *SAS OnlineDoc® 9.1.3*, Cary, SAS Institute Inc.
- Strandell, H. and H. Forsberg (2005), *Towards a disciplined childhood? - (Re)defining the after-school hours of small schoolchildren* (in Finnish with an English abstract), in: *Yhteiskuntapolitiikka*, Vol. 70, No. 6, 610–623, <http://yp.stakes.fi/NR/rdonlyres/7CC711E9-72EC-49F4-A918-879760BE64C2/0/yp62005.pdf>
- Suoninen, A. (2004), *Mediakielitaidon jäljillä - Lapset ja nuoret valikoivina mediankäyttäjinä* (On the trail of media proficiency - Children and young people as selective users of the media, in Finnish only), Publications of the Research Centre for Contemporary Culture 81, University of Jyväskylä, Saarijärvi.
- Väisänen, P. (2002), *Sampling design of the 1999–2000 Finnish time use survey*, in: Niemi, I and H. Pääkkönen, *Time use changes in Finland through the 1990s*, in: *Culture and Media 2002:2*, Statistics Finland, Helsinki.
- Väisänen, P. (2005), *Ajankäyttötutkimuksen 1999–2000 otanta-asetelma ja kotitaloustietojen painottaminen* (Sampling design of the 1999–2000 Finnish Time Use Survey and weighting procedures for the household data), in: Pääkkönen, H. (ed.), *Perheiden ajankäyttö* (Time use of families, in Finnish only), Statistics Finland, Helsinki, 131-133.