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Allocation of expenditures within the household: A new Danish survey*

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Abstract

We report on a new data initiative that is designed to address the question of “who gets what” within the household. The data consists of supplements to the Danish Expenditure Survey (DES) which is a traditional nationally representative, diary based survey of expenditures. We collect supplementary data of two kinds for all couples (with or without children) in the survey. The first addition is that respondents report on the intra-household allocation of each item of expenditure (‘joint’, ‘her’, ‘him’, ‘children’ and ‘outside’). The second addition is an extra set of ‘sociological’ questions concerning household management, autonomy and family background. These types of information for the same respondents may facilitate research bridging the divergent views of economist and sociologists concerning the allocation of resources within the household.

The paper focuses on the survey design and gives some descriptive statistics from the survey. We also show how the distribution of expenditure on clothing, which is investigated in most expenditures surveys, is related to the distribution of expenditure on other goods.

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Keywords: Household Production, Intra-Household Allocation, Household Survey methodology.

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1. Introduction

The paper describes a new data source that is designed to throw light on intra-household allocation. That is, for the first time respondents in a conventional family expenditure survey are asked to state for whom the goods purchased are bought. Moreover, information on decision processes for the same households are collected. We hope that having both types of information for the same households may facilitate more economic research on the allocation of resources within the family, see for example Lundberg and Pollak (2003) and Browning et al (2006), as well as sociological research, see for example Pahl (1995) and Heimdahl and Houseknecht (2003), and a synthesis of economic and sociological research in this area.

First we report on a pilot-study validating the formulation of questions used in the survey. Then we describe the data collection procedure in detail and make comparisons with other investigations. We also present some descriptive statistics from the data gathered up until 2002. Finally, we present an analysis of how expenditures on men and women's clothing are correlated with the distribution of spending on other goods. The former is often taken as a proxy for within household allocation so that it is important to investigate how reliable it is as a proxy. The problem of infrequency of purchase of some goods (such as clothing) is addressed in Browning and Bonke (2006), and the analyses of the distributional regime phenomenon in Bonke and Uldall-Poulsen (2006).

The formal empirical tests of the various allocation models will be addressed in other papers. However, we hope that this paper will be of interest to other researchers who are contemplating doing similar data exercises for research in intra-household issues.

2. The data.

2.1. The sample

Our data are collected in conjunction with the Danish Household Expenditure Survey (DES). This is a continuous survey of approximately 1,000 households per year. It is administered by Danmarks Statistik (DS). The DES includes a questionnaire and an accounting book ('diary'), the latter being self-administered and registering the purchases of each adult household member during a two weeks period (Danmarks Statistik, 1999). We began by establishing a pilot study with DS to find the most appropriate formulation

of extra questions and methods to be used in the project. We only sample households 'headed' by a married or co-habiting couple. Furthermore, to diminish heterogeneity only couples with both spouses between 18 and 59 years old are included in our sample.

The supplementary data collection has two aspects (described in more detail in the two sub-sections below). In the DES, all members keep a diary of their purchases. In the diary we append five columns in which respondents record for each good bought (except food stuffs), for whom it was bought. Specifically they can respond one of: 'mainly for her', 'mainly for him', 'mainly for the household', 'mainly for any children' or 'mainly for someone outside the household'. To our knowledge such information has never been collected before for a wide range of expenditure categories.

To supplement this extra information and the information routinely gathered in the DES we also ask a set of extra questions at the end of the final DES interview. Basically there are three types of questions. First, there are questions on the background of the respondents. These include how long they have been living together and their mothers' labour market status when they were 14. The latter have been successfully used in, for example, analyses of French budget surveys (see Browning and Lechene (2003)). Second, we have a small suite of questions concerning the management of household finances and how much autonomy husband and wife feel they have. These are modelled on questions asked in other surveys that have been conducted by sociologists. Finally we have some new questions about the effect of a hypothetical transfer of income from one person to the other in the household. This is to address directly the income 'pooling' question and to test whether we can obtain direct evidence on intra-household allocations.

The pilot study was conducted in September to November 1998, and the results collected were used in preparing the final questions for the DES. Surveying began in early 2000 and, given our sample selection, we had information on 1372 couples by the end of 2002. One notable feature of survey data in Denmark is that we can use personal numbers to link the survey information to a very wide range of administrative data for each respondent over the period 1980 to 2002. The latter includes labour force status, marital status, earnings and asset income (from tax returns) and housing information. This greatly expands the possible analyses that can be conducted with our data.

In the rest of this section we report on the specific questions asked. An analysis of responses is given in the later sections.

2.2. The accounting book information

At the start of the survey period each adult member of the household is given an accounting book (diary) in which she/he is asked to record all expenditures during the survey period of two weeks. At this time some demographic information is collected and also retrospective information on expenditures on large, infrequently purchased items such as cars and electrical goods. At the end of the survey period the interviewer returns to the household and the respondents go through the diary and for each item record who the good was bought for. A code-description is displayed on a card to the household indicating the possible for whom-categories, and for the interviewer the concurrent values are given, see question 1.

QUESTION 1: EXPENDITURE DISTRIBUTION

For whom is the good bought?

- 1 Mostly for the husband
- 2 For the whole family
- 3 Mostly for the wife
- 4 To the child(ren) in the household
- 5 To persons outside the household (ex. gifts)
- 6 Do not know

If only one spouse participates in this interview an indication should be given by the interviewer in a specific question about this matter. However, this does not prevent the respondent answering on behalf of the spouse, although it might cause some problems for specific items in which case an indication is given to us by the interviewer. Below we report in detail on the outcome of this procedure, but for now we merely report that this step did not present any problems for most goods and most respondents.

2.3. The interview information

After having filled out the booklets the respondents are given a questionnaire. This includes questions on how they perceive their own distributional system and the expected consequences of changes in the income-distribution within the family. The regime question - question 2, given below - includes 9 categories inclusive of an unspecified and a do not know category. Most of them follows the categories used in other investigations (see, Vogler & Pahl, 1994) although some minor changes are to be

found. Thus, the regimes saying that the husband/wife has the disposal of some of the housekeeping money and that the wife/husband manages the rest of these money are presumed to be similar to the female/male whole wage systems (Pahl, 1989). The regime stating that some money are conceived as ones own and other as joint money is placed between the pooling and the independent management regimes, a regime not present in the Pahl-system.

It has to be emphasized that the regime question as well as some of the other additional questions are asked to both the husband and wife for which reason the interviewer has to be attentive to who responds to every specific question.

The third question is about autonomy in the spending of money and asks in general terms if the wife and the husband have to discuss their individual buying with their partner beforehand, and if this happens if there is a lower limit of autonomy indicated by a certain amount of money that can be spent without discussion.

QUESTION 2: DISTRIBUTIONAL REGIME

I want to ask you some questions about the way your household organize the economy. Which one of the following ways, as indicated on the card, do you think fits best to the way, your household perform?

- 1 All money are shared, we do not distinguish between "my" or "your" money
- 2 Some money are conceived as ones own and other as joint money
- 3 What we earn individually belongs to ourselves
- 4 The husband manages the money and the wife receives an allowance, when she is in need of
- 5 The wife manages the money and the husband receives an allowance, when he is in need of
- 6 The husband has the disposal of some of the housekeeping money, the wife manages the rest of these money
- 7 The wife has the disposal of some of the housekeeping money, the husband manages the rest of these money
- 8 Some other arrangement
- 9 Do not know

QUESTION 3: AUTONOMY IN BUYING - ASKED TO THE WIFE AND THE HUSBAND INDIVIDUALLY

How much can you buy for yourself without discussing it with your partner beforehand? Indicate an amount or the way, which fits best.

- 1 No matter what I buy, I usually discuss it with my partner, if it costs more than
DKK
- 2 It depends on what I am going to buy. However, if I find it to a reasonable price, I usually do not discuss it with my partner
- 3 It does not matter what it costs, I always discuss all my buying with my partner - except small things as newspapers or tobacco
- 4 Do not know

QUESTION 4: INCOME-DISTRIBUTION AND SPENDING - TRADE-OFF I - ASKED TO THE WIFE AND THE HUSBAND INDIVIDUALLY

If you were earning 1.000 DKK more per month (net of tax) and your spouse 1.000 DKK less, would you then spend more money on yourself? It is assumed that you and your partner work the same number of hours as now. It is only the distribution of income, which has changed.

- 1 Yes
- 2 No

QUESTION 5: INCOME-DISTRIBUTION AND SPENDING - TRADE-OFF II - ASKED TO THE WIFE AND THE HUSBAND INDIVIDUALLY

If you were earning 1.000 DKK less per month (net of tax) and your spouse 1.000 DKK more, would you then spend less money on yourself? It is assumed that you and your partner work the same number of hours as now. It is only the distribution of income, which has changed.

- 1 Yes
- 2 No

Questions 4 and 5 deal with the hypothetical distributional effect of a change in the income distribution. Specifically we ask about the consequences of a redistribution of income between the two partners, the first favouring the respondent and the second the spouse. These two questions are asked to each spouse individually.

In the interview we also ask some socio-economic questions. The first of these is on the length of the current marriage/cohabiting relationship (question 6). Another dimension asked for in the DES interview is the family background of the respondent when she/he was a child, see questions 7 and 8.

QUESTION 6: MARRIAGE/CO-HABITING CAREER

For how long time have you been living together with your present partner?
years

QUESTION 7: ADOLESCENCE CONDITIONS I - ASKED TO THE WIFE AND THE HUSBAND INDIVIDUALLY

When you were about 14 years old did you then live together with your mother and father?

- 1 Both my mother and father
- 2 Only my mother
- 3 Only my father
- 4 Do not know

QUESTION 8: ADOLESCENCE CONDITIONS II - ASKED TO THE WIFE AND THE HUSBAND INDIVIDUALLY

When you were about 14 years did your mother then work at the labour market?

- 1 Yes, full-time
- 2 Yes, part-time
- 3 No
- 4 Do not know

QUESTION 9: THE INTERVIEW SITUATION (INTERVIEWER INFORMATION)

Who replied to the question?

- 1 Both
- 2 Only the wife
- 3 Only the husband

Finally, we ask the interviewer to record who was present at the interview, question 9, because the information level about consumption is not necessarily the same among spouses.

2.4. The pilot study.

The DES follows a well-documented data-collecting procedure and the validity and reliability of the expenditure information have been subject to different investigations. However, the additional questions asked here, including the ‘for whom’ diary questions, are novel so that a pilot study was performed. In the pilot-study 14 households were interviewed by 4 interviewers (see Table 1 for details). The purpose was to investigate if the questions asked were suitable as well as to examine if the ‘for whom’ questions made sense to the respondents in respect to all the different items bought during the two week diary period.

Table 1.

Interview-time per interview and interviewer in the pilot-study

INTERVIEWER	INTERVIEW-TIME						AVERAGE
	Minutes						
a (39 years old)	12	15	14	10	10	8	11.5
b (42 years old)	25	20	20	20			21.3
c (34 years old)	10	15	15				13.3
d (40 years old)	20						20

The interviewers reported that the ‘for whom’ question did not appear to raise any significant problems for most of the respondents. In general no discrepancy was found between the two spouses in how and what to respond to the questions nor in how to fill out the booklet. It was emphasized that the interviewers had to try to persuade both partners to participate in the interview, and if they did not succeed a note should be given in the booklet. If only one spouse was present and he/she was not the one doing everyday shopping, which happened in two out of the 14 families, severe problems were encountered. Nonetheless, some families gave examples of purchases, which were not easy to categorize. For example, a bottle of wine which was mostly consumed by one partner but the other had one glass. A curious example of non-response was the buying of Christmas gifts, which the respondent did not want to tell for whom they were bought when sitting in front of a potential receiver! Also the buying of pet-food was found dubious, because pets do not necessarily belong to the “the whole family”-category.

The general instruction was that all goods except foodstuff should be classified in the ‘for whom’ question. However, some foodstuffs, such as ice cream and hotdogs, are consumed immediately where it is bought. In this case the ‘for whom’ classification is appropriate. Foodstuffs not to be classified are thus those brought home to be consumed as they are or after further preparations. All other foodstuffs and other items have to be classified by whom it is bought for, see question 1. Some respondents, however, found it easier to classify all foodstuffs as well, which they were allowed to do. The general attitude among the respondents to the questions was that they were interesting and a nice supplement to the other questions in the Household Expenditure Survey. They were found to fit naturally into the context and nobody were puzzled over the formulations for which reason it was not necessary to stress that it was voluntary to reply to these questions, because they “are outside the aim of this investigation”, as the interviewer-instruction said. Of course, participation in the DES is voluntary as are responses to every individual question.

Even though the list of recorded expenditure items is long, the ‘for whom’ categorisation went quickly. The interview-time in the pilot-study was calculated as 5-10 minutes for the survey-questions and another 10-15 minutes for the supplement to the diary, which gives an overall average of 15.3 minutes. The variation was modest, and even the over 60 years old respondents did not spend more time in replying to the

questions and in filling out the booklet than did other respondents. Nonetheless, it was decided to introduce an upper age limit on 59 years for the main investigation - and a lower limit on 18 years.

Concerning the interview questions the interviewers reported that they were easily understood and even understood in the same way by different respondents. Nonetheless, it was decided to employ more cards to be shown to the respondents, namely one for each of the questions Q1, Q2 and Q3.

Furthermore, some interviewers reported that the autonomy question (Q3) caused some interpretational troubles. The first version of the question, thus, said that for how much one usually can buy for personal purposes without asking the partner, and four intervals were given - 0; 1-199; 200-1.000; >1.000 DKK. Some respondents thought that the question referred to the household budget constraint and not to the perception of autonomy, while other respondents found that the upper level was too low and that responding to given intervals *per se* was inappropriate. For that reason the wordings were changed and an open interval introduced, see the final outcome in Q3.

Question 4 and 5 about the relationships between income-distribution and spending pattern - trade-off - were easily understood, and this holds even though the amount of money referred to was net of tax (a natural income concept for Danes). Finally, it was proposed to change the order of regimes in question 2, so the individual regime (value 3) was mentioned before the partly pooling (value 2) and pooling (value 1) regimes. As the majority of families was expected to belong to the pooling regime the order was kept intact.

3. The results

We now report on some results from the survey from 1999 to 2002. Table 2 presents the details of the numbers of people interviewed. As can be seen, in 77% of cases both husband and wife responded but in about a quarter of households we could only obtain responses to survey questions from one partner. Even when only one partner was present at the final interview, all household members kept diaries. In the following all the information on spending behaviour refers to the account book ('diary'). This means that low-frequency purchases are included for a small number of households whereas no registrations are done for other households even though such items might have been

bought within the year referred to in the interviews. In Browning and Bonke (2006) a statistical model is developed to account for this infrequency problem.

Table 2.

Number of interview persons present in the interview

	FREQ	PERCENT
Both	1050	76.6
Husband	176	12.8
Wife	145	10.6
Missing	1	0.1
Total	1372	100

3.1. Distribution of consumption

In Table A.1 in the Appendix we present results for detailed categories using the DS categorisation of goods. We found it best to focus on potentially assignable (non-public) goods, to exclude durables and to re-categorise specific items to broad categories that more closely approximate those found in other expenditure surveys. Thus we concentrate on the seven commodities: food at home, ‘vices’ (alcohol, tobacco and eating out), clothing, services (household operations), transportation, recreation and personal services. In table 3 we present the proportion of goods distributed among the household members; the proportion of expenditures for which respondents report an allocation; the number of non zero-respondents and, finally, the budget share for each good (as a share of total expenditure on potentially assignable goods).

Table 3.

The distribution of assignable goods within couples. Percent

	FOR WHOM					Not distributed	Non zero respondents	Expenditures
	The husband	House hold	The wife	The children	Others			
Food	3.4	87.4	2.6	5.5	1.1	9.9	99.9	29.7
Vices	23.0	59.4	11.8	3.1	2.7	2.2	97.1	14.8
Cloth	21.7	3.4	35.5	28.5	10.8	1.3	85.9	13.7
Services	8.7	73.0	3.8	2.7	11.9	2.3	98.3	4.9
Transportation	18.1	68.8	10.1	2.3	0.6	2.5	89.1	13.5
Recreation	13.5	48.8	9.8	15.8	12.0	1.6	98.3	16.0
Personal	11.0	19.6	44.5	16.1	8.7	7.4	95.3	7.4
Total	13.5	56.5	14.1	10.3	5.5	4.3		100.0

¹For a more detailed distribution of goods, see table A1 in appendix.

As can be seen from column 6, respondents were willing to report allocations for most of their expenditures the exception being foodstuffs. This latter is undoubtedly because

we did not require interviewers to ask for the allocation of this good in the first few months of the survey. To be frank, that respondents were willing to allocate expenditures was a major relief for us: even after the pilot it was not altogether certain that respondents would be willing to assign goods. As we might expect, most foodstuffs are reported being bought for the household (87%), and for the remaining part the spouses get the same proportion as the child(ren).

The results on the ‘vices’ category hide many interesting details which are worth reporting, see Tables 4 to 6. From Table 4 we give the distribution of smokers. Half of households have no-one smoking. Of those with at least one smoker, the numbers of ‘both smokers’ are the biggest followed by ‘only husband smoking’, whereas the number of ‘wife only smoking’ are considerably lower. For drinking the pattern is somewhat different (see table 5). About one third of households report no alcoholic beverage expenditures in the two weeks reporting period. Of those reporting some expenditure, the great majority is for the household as a whole, with a significant minority reporting for the husband only. Households in which only the wife consumes alcoholic beverages are rare. Table 6 presents statistics on the allocation of expenditures on alcoholic beverages, tobacco and eating out. As can be seen, more than half of expenditures are for both partners but the ‘husband only’ is considerable and twice as great as the ‘wife only’ share.

Table 4.

Smoking pattern for couples. Accounting information.

	Husband:	
Wife:	Smokes	Does not smoke
Smokes	311 (23%)	121 (9%)
Does not smoke	211 (15%)	729 (53%)

Table 5.

Consumption of alcoholic beverages for couples.

	Husband:	
Wife:	Consumes.	Does not consume.
Consumes.	799 (58%)	23 (2%)
Does not consume.	110 (8%)	440 (32%)

Table 6.
The distribution of expenditures on alcohol beverages, tobacco and eating out within households. Percent

	FOR WHOM					Not distributed	Non zero respondents	Expenditures
	The husband	Both adults	The wife	The children	Others			
Alcohol	14.0	78.1	2.0	1.1	4.8	1.2	74.8	27.4
Tobacco	37.5	36.6	24.3	0.9	0.7	1.2	48.0	27.5
Eating out	18.2	64.7	9.4	5.4	2.4	1.2	82.7	45.1
Total	22.4	60.6	11.5	3.0	2.6	1.2	94.3	100.0

Turning to clothing, we first note that in the DES respondents have always been asked for whom clothing is bought, and therefore used in empirical analyses of for example the sharing rule, see Lundberg et al (1997). We have made comparisons between the responses to these questions and the responses to our new questions on allocation. Not surprisingly, the two sets of information give very similar results, see Table 7. Thus the additional information we collect on clothing is not likely to significantly improve on the previous information we had available. Referring to Table 3, we see that, as in most surveys, expenditures on women's clothing are higher than for men's. Furthermore, the child(ren)'s share is also considerable being bigger than that of men but smaller than that of women. We find the proportion of expenditures that are reported 'for others' (11%) surprisingly high.

Table 7.
The distribution of clothes and footwear in couples

	FOR WHOM					Not distributed
	The husband	Both adults	The wife	The children	Others	
	Total number of purchases (N)					
Male ¹	607	12	6	9	89	1
Female ²	4	27	1319	19	90	13
Children ³	9	28	13	1717	201	28
Total	620	67	1338	1745	380	42

¹Male (age \geq 18), ²Female (age \geq 18), ³Male or female (age $<$ 18)

Household services are mostly reported as being for the household as is transport. Recreation expenditures is a high budget share category, being passed only by food at home. The major recipients of assigned goods are children; this is not surprising since this category includes toys and cd's. Finally, personal services are mostly assigned to one member, with the wife receiving far and away the largest share.

When we aggregate all potentially assignable goods, we find that the shares of husband

and wife are very similar (13.5% and 14.1% respectively). This is extremely interesting given that the allocations of individual goods are often quite skewed. In Browning and Bonke (2006) a more detailed analysis of the distribution of relative shares across households is given.

3.2. Distributional regimes

In the sociological literature different distributional regimes are used to analyse the decision making processes concerning the allocation of economic resources within the family. Among other Pahl (1983, 1989) employs the following distributional regimes;

- *the whole wage regime*, where one of the spouses, usually the wife, is responsible for the management of the total income of the household and the paying of nearly all expenditures, i.e. the husband hands over his income except a minor part dedicated to personal expenditures, or he takes some money back after having handed over the full income to the wife. If the wife earns money herself these will be put on top and used for the best of the household.
- *the household allowance regime*, where the husband hands over a fixed amount of money every week or month for the buying of specific everyday goods. The rest of the income remains in the household for the paying of goods of which he is responsible.
- *the pooling regime*, where both spouses ‘pool’ earning.
- *the independent regime*, where the spouses keep his/her money for own consumption and management. None of the spouses has access to the full income and they are each responsible for the paying of specific joint goods, the decision of which has been taken beforehand.

The interpretation of these regimes is problematic. For example, the term ‘pooling’ referring to the management regime is not necessarily synonymous with ‘income pooling’ as economists understand it. In the sociological literature the regimes are often identified with particular ‘power’ regimes. It could be, however, that they refer only to ‘technological’ features of the household with particular regimes being chosen because they are the most efficient for the household. In such a case one person could be an effective dictator but delegate all of the implementation of the desired outcomes to the other person. One goal of our data initiative is to assess the relationship between the responses to questions regarding management regime and actual distribution within the

household. In this paper we shall simply report on the responses and leave the difficult issue of interpretation and inference for future work.

In this investigation we apply similar categories by asking the interviewed persons, which regime they believe they belong to if any, the different possibilities are given in Question 2 above and include a) All money are shared, we do not distinguish between “my” or “your” money, i.e. the pooling regime, b) Some money are conceived as ones own and other as joint money, i.e. The partly pooling regime, c) What we earn individually belong to ourselves, i.e. The independent regime, d) The husband manages the money and the wife receives an allowance, when she is in need of, i.e. The allowance regime, the husband manages, e) The wife manages the money and the husband receives an allowance, when he is in need of, i.e. The allowance regime, the wife manages, f) The husband has the disposal of some of the housekeeping money, the wife manages the rest of these money, i.e. The whole wage system, the wife manages, and g) The wife has the disposal of some of the housekeeping money, the husband manages the rest of these money, i.e. the whole wage system, the husband manages.

Table 8.
Distributional regimes.

	PAHL (1983)	FAMILY GROUP (1983)	VOGLER (1989)	BIRDS EYE (1983)	GRAHA M (1985)	DOBBEL TSTEEN & KOOORE MAN (1996) HUSB/ WIFE	AHRNE & ROMAN (1997)	THIS SURVEY (1999-02)
Regimes:								
the whole wage regime								
- the wife manages	14	18	26	14	17	27/26	5	0.2
- the husband manages	-	-	10	5	8	11/10	-	1.0
the household allowance regime	22	24	12	26	41		3	
- the wife manages						9/12	-	0.8
- the husband manages						0	-	2.1
Pooling	56	54	50	51	31	52/52	59	67.4
Partly pooling							19	21.4
Independent	9	4	2	1	3	./.	14	6.0
Other			-		5			1.1
All	100	100	100	100	100	100/100	100	100
N:	102	250	11211	711	64	2811		1382

Table 8 gives the findings from some earlier surveys and from our survey. Most investigations find that the pooling system is the most widely distributed with among 50 per cent of all households belonging to that regime. In this investigation the proportion is even bigger, with two thirds (67%) of all households pooling their resources. Furthermore, in Denmark 6 per cent belong to the individual regime and in Sweden 14 per cent, as opposed to only 2-4 per cent in the other investigations, the exception being the Pahl study (102 cases) in which 9 per cent represent the independent regime. Between the pooling and the independent regime the Swedish and the present investigation operate a hybrid - the partly pooling regime - to which 19 and 21 per cent, respectively, state they belong to. The remaining regimes - the allowance and the whole wage regimes - appear very infrequently opposite to what is found in most other investigations, where between one third and two-thirds of all households report they belong to either the whole wage regime or the allowance regime.

One possible explanation for the differences is that the Danish and Swedish surveys are for later periods and simply reflect changes over time. Whilst this is certainly possible we do not believe that it can be a full explanation for such large differences. There are other plausible explanations as to why Denmark and Sweden are so different to UK, the Netherlands and US. One is that the proportion of dual-earner families is higher in the two Scandinavian Countries than in the other countries implying that the spouses' contributions to family resources are more equal and the pooling regime thus more appropriate. Another is that the family institution is more unstable with more marriages ending up with divorce in the former countries than in the latter countries for which reason the independent regime is also more likely than other regimes (Pahl, 1989). Tables 9 to 11 presents more results on the management/distributional regime.

In Table 9 we see that households who pool are older and have longer partnerships. There are several possible explanations for the latter correlation. One is that good matches at the beginning of a partnership, or the expectation of such a partnership, are likely to lead to both pooling and to longer marriages, see Stratton et al (2005). It could also be, however, that as marriages evolve the pooling regime becomes more attractive. Without panel data (so that we could observe if long lasting marriages adopt pooling earlier) it is difficult to see how we might distinguish between these alternative explanations. Another notable feature of Table 9 is that the regime does not seem to be correlated with the wife's share of income. Finally, the pooling regime and the individual

regime families are the richest the total household income being 19 to 24 per cent higher than among partly pooling regime families. This is probably due to the differences in age between the different households.

Table 9.

Regime characteristics

	Age husband	Age wife	Years of marriage/ cohabiting	Wife's share of total income	Mean household income (1000 DKK)
Regimes:					
Pooling	41.5	39.1	15.3	40.8	598
Partly pooling	35.6	33.7	8.8	41.7	510
Individual	37.5	35.3	7.8	39.6	581
Others ¹	42.4	40.6	15.2	39.4	569
Total	40.0	37.8	13.5	40.8	576

¹Includes the regimes 4-8 in question 2.

Table 10.

Mothers labour market participation. Percent

	Husband				Wife			
	Full time	Part time	Not working	Not know	Full time	Part time	Not working	Not know
Pooling	38.4	24.8	36.5	0.3	39.7	26.3	33.1	0.9
Partly pooling	49.3	25.7	25.0	0.0	54.3	24.5	20.9	0.4
Individual	45.8	23.6	29.2	1.4	43.2	27.0	27.0	2.7
Others ¹	39.7	19.1	41.3	0.0	49.2	18.0	32.8	0.0
Total	41.2	24.7	33.8	0.3	43.5	25.6	30.1	0.8

¹Includes the regimes 4-8 in question 2.

To investigate if belonging to a specific distributional regime is partly an inheritance from the parents' behaviour we asked about the labour market participation of the mother of the respondent when they were 14 (see question 8 above). Table 10 indicates that every third husband and wife pooling their incomes had a full time working mother, whereas nearly half of the husbands and more than half of the wives partly or not pooling their incomes are descendants from full time working mothers. Being brought up by part-time mothers, on the other side, means that sons choose partly pooling regimes more than pooling and individual regimes, whereas daughters choose individual regimes more often than pooling and partly pooling regimes. Furthermore, if the mother was not working at the labour market when the respondent was 14 years old, the pooling regime is by far the most often chosen for men as well as for women.

3.3. Income-distribution trade offs.

Table 11 depicts the prevalence of income distribution trade-offs within different distributional regimes. The question is, thus, to what extent personal spending is assumed to be influenced by redistribution of incomes between the spouses. First of all, more women than men claim that their spending would increase, if they themselves earned another 1.000 DKK a month net of tax and the spouse 1.000 DKK less a month, and, vice versa, that less income would decrease women's spending more than men's, the latter effect being bigger than the former indicating that spouses benefit less of personal time of prosperity than they offer in case of personal recessions. Furthermore, due to expectations the gendered effect is more pronounced within individual regime families than within pooling regime families. About one fourth of all women within individual regime families declare that they would increase their spending and every second decrease theirs in case they household income were distributed in favour of or in disadvantage to them, while the same proportions for men are one fifth and one third, respectively. For partly pooling regime families the proportions are considerably smaller, and for pooling regime families only a small proportion of women and men would change their individual spending if their personal income changed relatively to their spouse's. The conclusion is that women seem to be more affluent in their personal spending than men, the more individualistic oriented distributional regime they suppose to belong to.

If the responses to the trade-off questions are coherent is investigated in table 12, where the expected spending behaviour due to more earnings for the one spouse and less for the other spouse is compared. The general result is that in most families a redistribution of income does not influence the aggregate level of consumption either because no changes in the spending behaviour occurs, which 82 per cent of the families claim, or because "symmetric" changes are proclaimed, which occurs within 5 per cent of the families. The spouses within the remaining families behave "asymmetrically" in the sense that the one spouse does not change her/his spending in spite of the fact that the other spouse claims that he/she expects to do so, i.e. in most of the interviews both spouses were present (table 2). The implication might be that redistribution of income within 2-4 per cent of the families means an increasing consumption level, and in 7-11 per cent of the families a decreasing consumption level.

Table 11.

The income-distribution trade-off within different distributional regimes. Percent.

	More spending on one selves if 1000 DKK more and spouse 1000 DKK less				Less spending on one selves if 1000 DKK less and spouse 1000 DKK more			
	Husband		wife		Husband		wife	
	Yes	no	yes	no	yes	no	Yes	No
Pooling	2.6	97.4	3.6	96.4	4.8	95.2	7.1	92.9
Partly pooling	15.2	84.8	21.2	78.8	26.6	73.4	35.0	65.0
Individual	24.0	76.0	28.0	72.0	36.0	64.0	49.3	50.7
Others ¹	4.6	95.4	7.6	92.4	4.6	95.4	19.7	80.3
Total	6.6	93.4	9.0	91.0	11.2	88.8	16.1	83.9

¹Includes the regimes 4-8 in question 2.

Table 12.

The income-distribution trade-off combinations

Less spending on oneself if 1000 DKK less and spouse 1000 DKK more	More spending on ones self if 1000 DKK more spouse 1000 DKK less				
		husband		wife	
		Yes	No	yes	No
Wife	Yes	63 (5%)	157 (11%)		
	No	27 (2%)	1124 (82%)		
Husband	Yes			64 (5%)	90 (7%)
	No			59 (4%)	1159 (84%)

3.4. Autonomy in buying

The degree of autonomy in buying is investigated by asking a question on possibly discussions before the spending of money on different goods (see question Q3). Table 13 shows that every fourth man and woman have what might be interpreted as full autonomy in the sense that they themselves decide what to be bought for own purposes, while every second man or woman usually discuss the buying if it amounts to around 1.400 DKK on average (table 14). The number of non-autonomic spouses, who always discuss personal buying with their partner, makes up nearly every fifth husband and wife. From table 13 we also find that for 4 per cent of all the families the husband has more autonomy than the wife, while in 7 per cent the opposite appears, i.e. the wife has more autonomy in the spending of money than has the husband. If this is in accordance to individual preferences or enforced by the other spouse, the present investigation cannot reply to.

Table 13.
Autonomy in buying.

	Husband				
	Full	Partial	No	Do not	
	autonomy	autonomy	autonomy	know	Total
Wife					
Full autonomy	329	35	19	5	388
Partial autonomy	30	692	36	5	763
No autonomy	5	15	178	2	200
Do not know	0	2	1	18	21
Total	364	744	234	30	1374

Table 14.
Partial autonomy in buying

	Limit of autonomy		
	Average	St.dev.	N
Wife	1354.9	1898.9	690
Husband	1624.4	4729.9	690
All	1489.6	3314.4	1380

Table 15.
Autonomy in buying within regimes. Percent

	Full autonomy		Partial autonomy		No autonomy		Do not know	
	husband	wife	husband	wife	husband	wife	husband	Wife
Pooling	18.6	21.1	59.7	60.3	19.7	17.3	2.0	1.3
Partly pooling	39.4	39.4	47.5	50.8	9.8	6.7	3.4	3.0
Individual	69.3	68.0	25.3	25.3	5.5	6.7	0.0	0.0
Other ¹	31.8	34.9	39.4	45.5	25.8	19.7	3.0	0.0
Total	26.5	28.3	54.2	55.6	17.1	14.6	2.2	1.5

¹Includes the regimes 4-8 in question 2.

Finally, table 15 shows the autonomy in buying within the different distributional regime, and, surprisingly not, we find that more husbands and wives within the individual regime are autonomous than within the pooling regime with the partly pooling regime to be found in between these two regimes. Moreover, within the individual regime we also find some gendered autonomy differentials, as more men than women are found to have full autonomy and more women than men partial no autonomy in

buying. Within the pooling and partly pooling distributional regimes we find the opposite pattern with more autonomy among women than among men in spending behaviour. Further investigations will show if these patterns are different for different social groups and other classifications of the population.

4. Conclusions.

This study describes a new data initiative designed to provide more information on within household allocation. Specifically, we collect supplementary data in the ongoing Danish household expenditure survey on 'who gets what' within the household. To supplement this extra information and the information routinely gathered in the DES some extra questions are asked on the background of the respondents, the management of household finances and how much autonomy husband and wife are supposed to have, and, finally, on the hypothetical effect of transferring income from one person to the other in the household.

We find that respondents are willing to assign more than 90 per cent of expenditures to our recipient groups. Only foodstuffs have a lower proportion of distributed expenditures, which is certainly due to the fact that the interviewers were not asked to get that information in the early months of the survey. Some goods, such as household services, are mostly assigned to the household jointly, but large proportions of other categories of goods are assigned to either the husband, the wife or the children. For many of these goods, the relative shares are quite different. For example, the husband wife share for vices is about 23%/12% whereas the relative share for personal services is 11%/44%. Despite these differences the mean share in total expenditure assignable expenditure is about the same for men and women (about 14% in both cases). We also report on the responses to 'sociological' questions concerning the management of household finances. In accordance with most international investigations we find that the pooling system is the most widely distributed with a proportion of two third of all Danish households pooling their resources. Furthermore, 6 per cent belong to the individual regime. Between the pooling and independent regime we find the partly pooling regime to which every fifth state they belong to. The remaining regimes - the allowance and the whole wage regimes - appear very infrequently. This contrasts with earlier surveys for other countries in which between one third and two-thirds of all

households claim they belong to either the whole wage regime or the allowance regime. Finally, we report on the responses to some hypothetical questions concerning the effects of changing the distribution of income within the household, and the degree of autonomy in buying within households by asking a question on possibly discussions before the spending of money on different goods.

We draw four main conclusions from the analysis presented above. First, it does seem to be feasible to collect information on ‘who gets what’ within the household. Second, preliminary results suggest that although the relative share of husband and wife for particular goods is quite different, the mean share for men and women is about the same. Third, the household management regimes used in Denmark in the late 1990’s seems to be markedly different than those found for other non-Scandinavian countries in earlier periods.

In forthcoming papers we present empirical tests of the various allocation models and draw together the economic and the sociological aspects of the new data. Hereby, we expect to contribute to further exchanges between social scientists interested in within family interactions.

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Appendix

Table A1.

The distribution of goods within couples. Accounting information.

	For whom						Not distributed	Non zero respondents	Expenditures
	The husband	Both adults	The wife	The children	Others				
(A) Foodstuff	2,7	88,8	2,2	5,2	1,1		10,6	99,9	15,3
(B) Non alcoholic beverage	9,4	75,5	6,5	8,0	0,6		4,0	97,1	1,7
(B) Alcoholic beverage	14,0	78,1	2,0	1,1	4,8		1,2	74,8	2,2
(B) Tobacco	37,5	36,6	24,3	0,9	0,7		1,2	48,0	2,2
(C) Clothes	21,9	3,8	35,7	26,8	11,8		1,1	83,1	6,6
(C) Footwear	21,1	1,2	34,6	37,4	5,7		2,3	27,4	1,3
(D) Rent	xxx	xxx	xxx	xxx	xxx		100.0	38,8	6,1
(D) Calculated rent	xxx	xxx	xxx	xxx	xxx		100.0	66,1	1,9
(D) Maintenance of house	xxx	xxx	xxx	xxx	xxx		100.0	24,3	1,7
(D) Water and other services	xxx	xxx	xxx	xxx	xxx		100.0	77,6	2,7
(E) Electricity, gas and other fuels	xxx	xxx	xxx	xxx	xxx		100.0	99,6	6,5
(F) Furniture	xxx	xxx	xxx	xxx	xxx		100.0	59,2	1,8
(F) Soft furnishings	xxx	xxx	xxx	xxx	xxx		100.0	33,8	0,0
(F) Household machines	xxx	xxx	xxx	xxx	xxx		100.0	40,9	1,1
(F) Service and tools for household	1,9	52,4	6,5	4,0	35,1		2,7	45,9	0,7
(F) Tools and equipment for house	21,6	65,7	2,6	2,1	7,9		1,5	46,6	0,9
(F) Other goods / services for household	2,8	90,6	3,0	2,4	1,2		2,8	96,3	1,2
(G) Medical products	23,6	22,6	45,4	8,2	0,2		0,7	45,3	1,2
(G) Out-patient treatment	26,6	10,5	59,4	0,0	3,6		2,0	2,0	0,1
(G) Services from hospital	xxx	xxx	xxx	xxx	xxx		100.0	1,5	0,1
(H) Purchase of vehicles	xxx	xxx	xxx	xxx	xxx		100.0	37,3	7,9
(I) Petrol and maintaining of vehicles	17,8	72,7	7,5	1,7	0,3		2,7	77,7	6,7
(I) Transport services	19,7	46,2	25,6	6,2	2,2		1,0	40,1	1,1
(I) Postal- services	10,5	61,6	13,5	4,5	10,0		2,0	21,8	0,1
(I) Buying telephones	xxx	xxx	xxx	xxx	xxx		100.0	32,1	0,1

(I) Use of phone	xxx	xxx	xxx	xxx	xxx		100.0	96,9	2,1
(J) Electronic leisure-time equipment	19,4	46,8	3,9	18,8	11,0		1,1	49,9	1,6
(J) Other major durable consumer goods	xxx	xxx	xxx	xxx	xxx		100.0	8,2	0,5
(J) Sports equipment, toy, pets etc.	8,2	45,0	4,4	21,4	21,0		2,4	85,2	3,1
(J) Services related to leisure	17,3	60,4	11,2	9,1	2,0		1,3	72,4	2,5
(J) Newspaper, books, etc.	13,0	41,2	22,6	10,2	13,0		1,1	85,3	1,8
(J) Travels	6,1	46,4	8,2	39,3	0,0		1,6	3,6	0,2
(K) Education	xxx	xxx	xxx	xxx	xxx		100.0	26,6	0,6
(K) Restaurants, hotels etc.	19,9	61,7	10,4	5,3	2,7		3,2	84,5	4,1
(K) Personal hygiene etc.	11,5	24,4	45,1	14,4	4,6		1,7	94,5	3,1
(K) Other personal services	6,4	3,1	61,1	13,3	16,1		2,5	2,8	0,1
(K) Personal effects	9,9	6,6	41,6	21,4	20,5		2,2	38,6	1,1
(K) Social benefits	xxx	xxx	xxx	xxx	xxx		100.0	39,4	3,1
(K) Insurances	xxx	xxx	xxx	xxx	xxx		100.0	97,5	4,6
(K) Financial services	xxx	xxx	xxx	xxx	xxx		100.0	69,0	0,3
(K) Other services	xxx	xxx	xxx	xxx	xxx		100.0	21,2	0,2