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Study topic 1

**ESTABLISHING A DWELLING REGISTER IN NORWAY:
THE MISSING LINK**

Supporting paper submitted by Statistics Norway²

I. Introduction

1. Statistics Norway has a history of integrating statistical information from registers in population and housing censuses. The Norwegian Population Census for the Year 2000 will be entirely based on administrative and statistical registers³. There is no information on dwellings or households available from registers. Therefore the Housing Census will be a traditional survey using a questionnaire for every occupied dwelling. During the past years Statistics Norway has been arguing for the establishment of a dwelling register. Information from the Housing Census might be used as data input for the dwelling register. This makes the 2000-census a highly relevant survey

1 The papers which are prepared for this work session will be treated in the same manner, as papers that are prepared for seminars.

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3 An administrative register or data-processing system is understood to be information which state agencies and nationwide municipal organisations collect and store in such a manner that the information may be retrieved for use in connection with the activities of the agency or the organisation. A statistical register is understood to be information which Statistics Norway uses for official statistical purposes only. Information from statistical registers may not be published in such a way that identification of single observations is possible. Other use of information from statistical registers is to be approved by the Data Inspectorate.

for a future dwelling register. The final decision is yet to be made, but extensive planning has been done in recent years.

2. A dwelling register is a register for all dwellings in which:

- i) Every dwelling is registered by a unique identification key in the Register for Ground Properties, Addresses and Buildings (GAB-register)
- ii) There is registered information on every dwelling in the GAB-register
- iii) Every dwelling has a unique address in GAB-register
- iv) The address for each dwelling is the same in the GAB-register and the Central Population Register (CPR)

3. In fact a new register will not be established in Norway, but two existing registers will be completed and made compatible. For statistical purposes only the existing GAB-register and the CPR may be linked by means of a unique dwelling address.

4. The paper describes the current state of the process towards establishing a dwelling register in Norway. It starts with a brief history of the use of registers in Norwegian censuses. The concept of the dwellings register and the planning process towards the dwelling register are described. Benefits from a future dwelling register for the Norwegian statistical system are presented. A dwelling register should facilitate annual, updated dwelling and household statistics from register. Interests from other parties than Statistics Norway are mentioned briefly. The method for establishing the dwelling register is explained. Finally the paper gives a breakdown of the estimated costs for the project.

II. A brief history of the use of registers in Norwegian censuses⁴

5. In recent years it has been the policy of Statistics Norway to collaborate with various governmental agencies in order to use administrative registers for statistical purposes. This policy has been supported politically by means of the new Statistics Act of 1989.

6. The first Norwegian population census dates back more than 200 years. The first censuses were to a large extent based on administrative registers, namely personal records maintained by the church. Up until the 1960s the censuses are considered to be the main sources of social and demographic statistics. By that time an official personal identification number had been introduced. Simultaneously electronic data processing progressed rapidly. This opened for the use of the 1960 census to establish the CPR⁵. In the CPR, residential addresses, births, deaths and other vital events are recorded. The 1960 census provided the

⁴ Based on Longva et.al. 1998

⁵ Whenever information from a census, or any other statistical survey, is transferred to an administrative register, it requires an explicit legal basis and approval from the Norwegian Data Inspectorate.

basis for allocating the official personal identification number, while the 1970 census was used to check and update the CPR. After the CPR was established it became the major source for demographic statistics in Norway. The 1970 census was also used by Statistics Norway to establish the Register of the Level of Education in collaboration with the Ministry of Education. The first steps were taken during the 1960s to establish a register of dwellings. However, such a register was never established satisfactorily. During the sixties and seventies a number of other administrative registers were established, all using the personal identification number. This resulted in the increased use of household sample surveys, changing the role of the census from being the main source of social and demographic statistics to just one of several sources.

7. During the 1980 census, administrative registers were used to rationalise the data collection. Data capture by postal mail only was introduced in 1980. The questionnaires were substantially shortened and only sent to people aged 16 years or older. Registers were also used during coding and editing of the data. The result was a substantial reduction in the costs of data collection without significantly reducing the quality of the census.

8. Since the 1960s, when the first registers using the personal identification number were introduced, it was expected that the traditional questionnaires would be replaced by registers as the sources of the population and housing censuses. In Denmark and Finland this has actually happened. In Norway several studies investigated the feasibility of a 1990-census based on registers only (e.g. the Central Population Register, Employer and Employee register, Income Register, Register on the Level of Education, Central Register of Establishments and Enterprises). As an experiment existing registers were used to produce census statistics for 1980. The results from the experiment were compared with the results from the ordinary census of 1980. The conclusions from these comparisons were as follows:

- i) For demographic data, income and education, information from the registers had sufficient coverage and quality to form the basis for census statistics.
- ii) Labour market data available in existing registers, did not have sufficient quality for statistical purposes.
- iii) There was little or no information on households and housing available from existing registers.

9. Based on these conclusions it was decided that for the 1990-census, questionnaires would be collected from a 10 percent sample of the population. The sample fraction varied from full coverage for the smallest municipalities to 8.5 percent samples for the largest, urban municipalities. The information from the sample survey was combined with information from various administrative and statistical registers, resulting in a high quality statistical register.

10. The 1990 census was the first Norwegian census ever in which questionnaires were collected from a sample of individuals. This is why Statistics Norway in 1993 invited a group of producers of the administrative data and census users to evaluate the results of the census. The main conclusions and recommendations were as follows (Statistisk sentralbyrå 1994):

- i) Statistics in general, particularly on housing and households, was not presented for sufficiently small areas. Use of sampling should be avoided in the future. Statistics Norway had expected this critique, but the strength of the argument was underestimated. Some municipalities even started to establish dwelling registers locally, for municipal planning purposes.
- ii) Inconsistency between regular statistics from registers and statistics from the census. This critique was more surprising. Between 1980 and 1990 various statistical series had been produced based on available registers. When the results from the 1990 census were published, users were irritated and confused by the discrepancies between the results.
- iii) Substantial improvements of the quality and coverage of administrative registers is needed if the Population and Housing Census for the year 2000 is to be based on administrative registers only.
- iv) Statistics Norway should intensify its efforts in developing standards and quality criteria when producing statistics from administrative registers.
- v) Statistics Norway should take an initiative to explore the establishment of a dwelling register.

11. The main goal of the Norwegian Population and Housing Census for the year 2000 is to produce census statistics through effective use of, and interaction between administrative and statistical registers. The population census will be entirely based on registers. The household and dwelling census will be a full coverage survey with a questionnaire for every occupied dwelling. A key-question is whether a dwelling register can be established with a link to the CPR. A dwelling register will be extremely important for future statistics. It will improve central parts of census-statistics which in previous censuses were criticised for low quality. Furthermore a dwelling register will give the opportunity to produce household statistics whenever necessary, not only at the time of census.

III. The concept of the dwelling register

12. Both in connection with the 1980 and 1990 census it was proposed that housing statistics should be produced from registers. However, this was considered to be impossible at that time. The committee which evaluated the 1990 census urged Statistics Norway to take further action to get the responsible authorities to establish an adequate dwelling register.

13. The proposals to produce housing statistics from administrative registers were based on an extension of the existing Register for Ground Properties, Addresses and Buildings (GAB-register). Until 1983 "building" was the smallest observation unit in the register. There was no information on dwellings in multi-dwelling buildings. As from 1983 new multi-dwelling buildings are registered in GAB including information on dwellings. The idea was to use this information as input for the censuses. In fact the dwelling information from the GAB-register is being used for statistical purposes already, but there are certain limitations. The register does not cover dwellings in buildings built before 1983. This makes it difficult to produce

statistics on the absolute number of dwellings. Information on dwellings from the GAB-register is being used to compile annual and quarterly building statistics. Building statistics provide information on buildings started, buildings under construction and buildings completed. The statistics give the volume of new buildings, including dwellings, not the total number of dwellings.

14. There is another limitation in using the GAB-register for the Population and Housing Census. The GAB-register and the CPR do not have a mutual and unique identification key for linking persons and dwellings. This can be explained by the following figure. The GAB-register has information on all buildings in the country. Buildings are located by street address, more specifically by a numeric code for the name of the road, the house number and the number of the entrance in case of a multi-dwelling building with several entrances. Information on newer dwellings is registered in the GAB-register, but not in such a way that it can be used to establish households or produce dwelling statistics. In the CPR persons are registered by birth number and address. As a rule, addresses in the CPR are registered in the same way as addresses in the GAB-register (name of the street, house number and entrance). For persons living in multi-dwelling buildings we can link persons to the building they are living in, but we cannot link persons to dwellings in order to establish household as a statistical unit. This would be achieved by extending the (numerical) addresses in the GAB-register and the CPR with an identification for each dwelling.

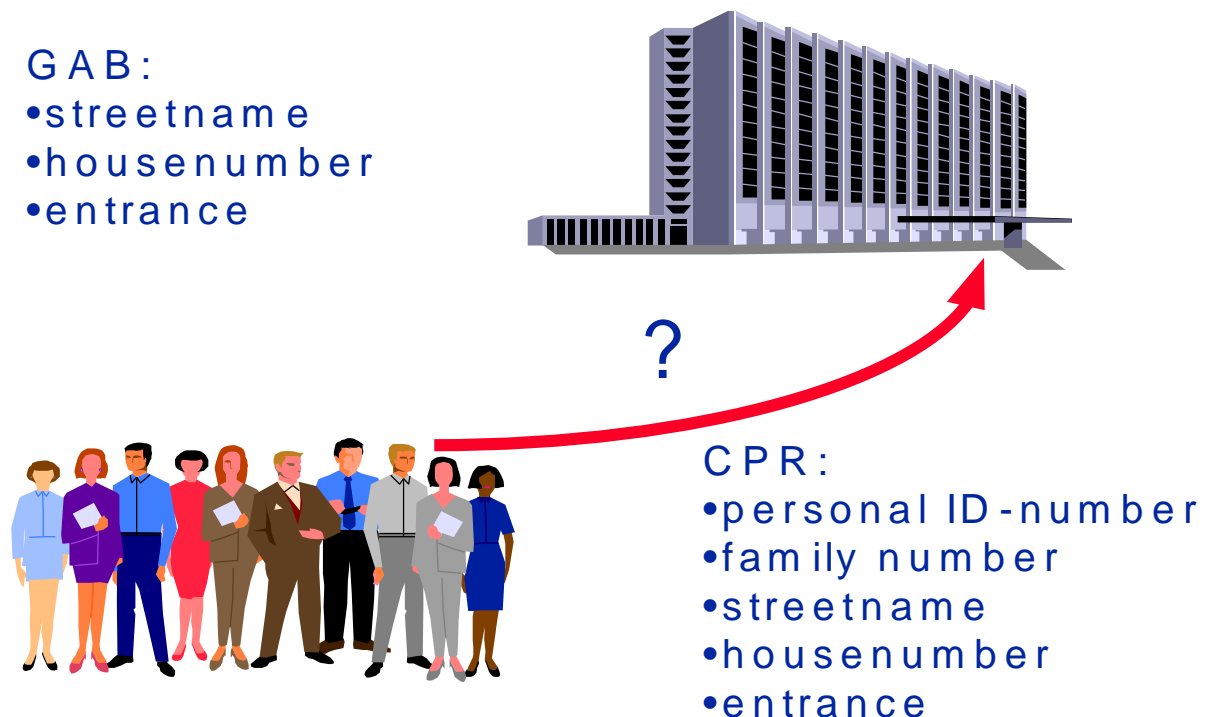


Figure A Who is sharing a dwelling with whom?

15. There is a great potential for the statistical use of the GAB-register and CPR. However the coverage of the GAB-register first needs to be extended

to include information on dwellings built before 1983. Secondly a mutual identification key for dwelling addresses in the GAB-register and the CPR must be introduced.

IV. History and state of the project

16. In October 1994 a meeting took place between the Ministry of Finance, the Tax Inspectorate (in charge of the CPR), the Norwegian Mapping Authority (in charge of the GAB-register), the Ministry of the Environment and Statistics Norway. At the meeting it was decided that a committee would be established. The mandate of the committee was to consider the possibilities of producing household and dwelling statistics by means of a dwelling register and by introducing dwelling numbers in the CPR. The committee presented its report late, in the summer of 1995 (Statistisk sentralbyrå 1995b). The committee advocated a dwelling and household census combined with the establishment of a dwelling register that can be updated by existing notification routines from the municipalities. It was proposed that a dwelling number be assigned to every dwelling. The dwelling number is then registered as a part of the official addresses in GAB-register. The dwelling number will also be entered into the CPR as an extended part of every person's residential address. Dwelling information from the dwelling census of the year 2000 was proposed to be entered into the GAB and updated by existing notification routines from the municipalities. The Tax Inspectorate had reservations about this. The dwelling number was not necessary to execute the duties of the Tax Inspectorate. Furthermore the Tax Inspectorate had doubts about the feasibility of the project. Costs for establishing the dwelling register were estimated at 60 million Nok (approx. 7,2 million ECU).

17. In December 1995 a report was presented from a joint committee with representatives from the Ministry of Local Government and Labour, the Ministry of the Environment and the Ministry of Finance. The idea of extending the GAB-register and the CPR with a mutual identification key for dwellings was strongly supported. The committee argued that the Tax Inspectorate should look beyond its own interests when important users of the CPR express the need for changes in the CPR. The committee recommended a pilot study.

18. In 1996 the Ministry of Finance ordered Statistics Norway, the Tax Inspectorate and the Norwegian Mapping Authority to investigate all aspects of the project. The results of the investigation were to be presented in a document which could be the basis for a decision on the dwelling register and the Housing Census for the Year 2000. Three sub-committees were established. One was to investigate alternative approaches for the Housing Census. Another sub-committee was to do the pilot study. The third sub-committee was to advise on the issue of labelling each dwelling.

19. By January 1997 the document (Statistisk sentralbyrå 1997) was handed over to the Ministry of Finance. A new estimate of the costs was 127 million Nok (approx. 15 million ECU). It was proposed that the local authorities be involved in order to identify every dwelling. The Ministry of Finance turned down the request for finances for the project on the 1998 national budget.

20. In August 1997, Statistics Norway took a new initiative. A seminar on the dwelling register was held with representatives from all parties involved. The main item on the agenda was a strategy for further work on the dwelling register issue. The method for establishing the dwelling register was reviewed critically. This involved an evaluation of alternative sources, e.g. registers from building societies, and an estimate of the costs. Statistics Norway put forward a proposal to appoint a committee with representatives from the Tax Inspectorate, the Norwegian Mapping Authority and Statistics Norway. The reason for this initiative is that no funds had been allocated to the project for 1998. Trial surveys in Norway and Sweden had given increased insight. Finally there had been a slow-down in the establishment of a similar dwelling register for taxation purposes. Consequently, it was natural to take a more detailed look into the methods recommended, in order to reduce costs, assess the quality of the method and other features. Participants of the seminar adhered to the proposal.

21. A new committee was appointed by the Ministry of Finance in the autumn of 1997. It updated the plans for the dwelling register, both with regards to the method and to the estimated costs. The cost estimate was now reduced to 105 million Nok (approx. 12,7 ECU). This would include 33,7 million Nok (approx. 4,1 million ECU) which was already assigned for the Housing Census, leaving a net sum of 71,4 million Nok (8,6 million ECU). The reduction in costs can be attributed to two factors. The role of the housing census in the project is expanded and work related to the numbering of houses is simplified. The updated plan was finished in January 1998 and sent to the Ministry of Finance (Statistisk sentralbyrå 1998).

22. During the summer of 1998 the Ministry of Finance circulated the updated plan for comments among the other ministries involved. The letter of dispatch caught the eye of a journalist in one of the national newspapers, causing quite a bit of publicity on the matter.

23. The question of establishing a dwelling register in Norway has been on the agenda for a long time, without being of particular interest to the media. This changed dramatically during the summer of 1998. It made the headline on the front-page of Aftenposten, one of Norway's leading newspapers. In our opinion, the article was very biased. The main emphasis was that "the State wants to know whom you are living with". It was suggested that a dwelling register would lead to a situation in Norway where "Big Brother is watching you". Starting out with this, the media contacted well-known politicians and asked them to comment on the project. Their statements were, of course, negative. Among others, the deputy leader of the Conservative Party said that the establishment of a new dwelling register "means that the private lives of Norwegians will be increasingly monitored by the State". The leader of the Liberal Party emphatically said "whom one lives with is an example of information that is of no business to the authorities. Politically, this is absolutely untenable and it is unthinkable for the Liberal Party to lend its support to such a project".

24. Statistics Norway tried to get the issue back onto the right track with a press release on 15 July 1998. In the press release Statistics Norway emphasised that the issue at stake is not the establishment of a new public register but the expansion and completion of two existing registers (GAB and CPR). Information on all detached houses in the country is already available in the GAB-register, as well as information on all flats in blocks built after 1983. The project aims to enter information on flats in blocks built before 1983. Furthermore, the project aims to complete the CPR, so that people living in flats in blocks, will be registered with the same precision as people living in detached houses. At the same time, we tried to lessen the fear of "Big brother is watching you" by pointing out that the proposed registration of information on the individual is no more comprehensive than what is stipulated in the provisions of the Population Registration Act. Furthermore, we explained that information about dwellings and persons shall be registered in two different registers and that linking of these two registers will be regulated by existing laws on the protection of privacy.

25. Statistics Norway also sent a reader contribution article to the Aftenposten newspaper in which we tried to give factual information about the project.

26. What is going to happen next is uncertain. It is obvious that the case has weakened its chances of getting through. This is primarily because a number of influential politicians have opposed the register, be it on weak grounds. Even though it has gradually been made clear that the project is less comprehensive and not as "dangerous" as it was first presumed to be, it takes more for politicians to change their opinion. On the other hand, we know that officialdom adheres to the register. While the Ministry of Finance is circulating the updated plan for comments, Statistics Norway has registered that officialdom in these ministries adheres to the register and is making efforts to formulate positive statements about it. The problem for officialdom is to persuade politicians to forward the case to the Storting (the Norwegian Parliament). If the case proceeds chances are good that the proposal will be adopted. Norway's largest party, the Labour Party, has not made any negative statements about the register and may be presumed to support the project.

27. It is not certain when we can expect a final decision. The case will probably proceed in connection with the budget for 1999. If the result is positive, Statistics Norway will have to postpone the housing census to November 2001 at the latest. There will not be enough time to carry out the phases of the project that have to be completed before the housing census. If the result is negative, Statistics Norway will carry out an ordinary housing census in November 2000.

V. More and better statistics, and other potential

28. The need for a dwelling register has been documented in several reports during the last two decades. Statistics Norway has two main considerations. A dwelling register will facilitate updated dwelling statistics on a yearly basis. Statistics based on the new register will give statistical information on the volume of dwellings in absolute and relative numbers. In addition the new register will be used to establish household as a statistical unit in population, income and other personal statistics. In recent years household has become increasingly important, as more and more people live as cohabitants.

29. As a statistical unit, household is a very important supplement to family in population statistics. Presently, Statistics Norway has to rely on the Population and Housing Census every tenth year or on minor sample surveys. Lacking household as a statistical unit causes several problems. According to the CPR nearly every second child born in Norway in 1997 was given birth to by an unmarried mother. Statistics from the Medical Birth Register show that every tenth child born in 1997 was given birth to by a single mother. One should bear in mind that the figures are not directly comparable, but they indicate the extent of the problem. Statistics on cohabitants have become increasingly important in population statistics. In general, statistics from registers which cover the whole population allow far more detailed breakdowns, geographically, by type of household or other characteristics, than statistics from surveys. Future housing and population censuses might be entirely based on administrative and statistical registers. In short Statistics Norway expects to produce better statistics, more often, and at an overall cheaper price.

30. It is expected that the national dwelling register will be used in local planning. In a brief survey, eight out of ten local authorities were positive to the register. A dwelling register will increase understanding of how a local housing market functions. Local authorities will be offered the opportunity to measure the effect of specific housing policies. Detailed and updated statistical information on housing and households will be of great value, especially in local planning. In fact some of the larger municipalities, like the City of Oslo, have already initiated local dwelling registers. A national dwelling register will meet national and local needs, making local dwelling registers obsolete. It is expected that a national dwelling register will be cost effective.

31. Although not depending on a dwelling register, it is expected that the CPR will benefit from the register. Every notice of change of address will include the new dwelling identification. This allows for better quality control of the CPR. Quite often the CPR is requested to confirm common law marriage (long-term relationships) for administrative reasons. In the present situation the CPR can't provide that service.

32. The police, fire brigades, ambulance personal and postal services are expected to increase accuracy when looking for a specific dwelling. In general all services and activities in connection to dwellings (e.g.

telephone and electricity supplies) will benefit from a dwelling identification.

33. House building co-operatives, which are quite common in Norway, have registers for dwellings under their administration. All co-operative dwellings are numbered, but there is not a standardised way of doing this. It is expected that house building co-operatives will gradually adapt the identification from the dwelling register.

VI. The method for establishing the register

34. In January 1998 the revised method for establishing the dwelling register (Statistisk sentralbyrå 1998) was presented for the Ministry of Finance. There is a general consensus that the following conditions should be met.

- i) All dwellings, both occupied and unoccupied, must be identified and numbered. The dwelling number together with the official address will give each dwelling a unique identification.
- ii) The dwelling identifications must be entered into the GAB-register.
- iii) Relevant information on each dwelling must be collected and stored in the GAB-register.
- iv) A link has to be established between dwellings in the GAB-register and persons in the CPR. This is done by extending personal addresses in the CPR by the dwelling number.
- v) A routine has to be established for updating the information on dwellings in the GAB-register. Local authorities already provide most of the necessary information.
- vi) A routine has to be established for updating the information from the local population registers. Every notice of change of address must include the new dwelling number.

35. Five main activities are identified in the project:

1. Identifying the dwellings
2. Labelling the dwellings
3. Establish a link between dwellings and persons
4. Collect information on dwellings and transfer to relevant registers
5. Keeping the register updated

VI.1 Identifying the dwellings

36. Initially it was proposed that the processes of identifying the dwellings and establishing a link between dwelling and persons, should be combined in one activity. The idea was to combine information from the CPR and the GAB-register on families, addresses and type of building on pre-printed lists. The lists were to be confirmed, corrected and completed at municipal level. This could be done by actually visiting dwellings in multi-dwelling buildings. At the same time dwellings in multi-dwelling buildings could be labelled. Detached houses, which don't need labelling, could be identified automatically.

37. According to the revised method of 1998 identifying the dwellings and establishing a link between dwelling and persons will be two separate activities. It was recommended from the pilot study of 1996 that municipalities should feel free to choose their own method for identifying the dwellings. In some cases all dwellings could be identified from existing local registers. In other cases the municipalities actually visited every building for identification of the dwellings. In most cases a combination of the two methods was sufficient, especially when local knowledge was put to use.

38. The municipalities will get lists over all the local multi-dwelling buildings in advance. The names of the heads of family will also be pre-printed on the lists as an indication of the number of dwellings in the building. Note that in the present situation persons can be linked to buildings, but not to dwellings (refer to figure 1).

39. The lists will be pre-printed as follows.

Code for the name of the street	House-number	Entrance	Name of the head of family	Dwelling number^{*)}
1200	4	A	Per Hansen	H0101
			Olav Pedersen	H0102
			Anders Helgenes	H0201
			Laurits Lauritsen	H0202
			Eva Børresen	H0202

*) The column for dwelling number will be filled out as a result of the identification process. In this example there are four dwellings and five heads of family in the building. This shows that the couple living in dwelling H0202 are cohabitants.

40. When the municipalities are finished, the lists will be sent to the Norwegian Mapping Authority. From the lists the dwelling numbers will be entered into the GAB-register. The names on the lists are only to help during the identification of the dwellings. The numbering of dwellings will follow an existing standard. The first digit is given by the type of floor the dwelling is situated on (main or lower floor, basement or attic). The second and third digits are given by the number of the floor, while the last two digits give a serial number of the dwelling on the floor.

41. The Norwegian Mapping Authority will be responsible for the activity, working closely with local authorities.

VI.2 Labelling the dwellings

42. All dwellings in multi-dwelling buildings will be labelled on a unified and easy to reach spot in the dwellings, preferably the electric meter. Initially the idea was to let the municipalities be responsible for the labelling by handing out the labels, but this would lead to many more visits than necessary. According to the latest proposal the labels will be sent to

the owners of the dwellings. The owner of the dwelling will be responsible for the labelling. It is assumed that owners will be more conscientious about labelling than tenants.

43. It has been proposed that the front door of each dwelling in a multi-dwelling building should be labelled. This would be a great help in finding the dwelling in case of an emergency (e.g. fire brigade or ambulance). For establishing the dwelling register it will be sufficient to label more discreetly on the electric meter. In the case of moving to another dwelling, the dweller can consult the label when filling out the notice of change of address.

44. The Norwegian Mapping Authority will be responsible for the activity, working closely with local authorities.

VI.3 Establish a link between dwellings and persons

45. Initially the activities of identifying the dwellings and linking dwellings and persons were combined into one activity. This approach was abandoned. Instead it is proposed that the Housing Census for the Year 2000 should be used to link dwellings and persons. Statistics Norway will be responsible for the Housing Census.

46. According to the latest proposal informing respondents in the Housing Census is crucial. The respondents must be informed on the dwelling register and on what to do with the questionnaire. Every family will receive one. A family will be defined as persons with the same family number and street address in the CPR. Statistics Norway will appoint one person in every family who will be responsible for filling out the questionnaire.

47. A list of the members in the family will be pre-printed on the questionnaire. The list will show all the members in one family living at the same street-address, according the CPR. The member of the family responsible for filling out the questionnaire must check and update the list. This means mark the persons no longer living there, and write down new persons living in the dwelling. In addition one must write down the new dwelling number from the label on the electric meter. Finally the questions on the dwelling must be answered.

<i>Preprinted name and address of the respondent</i>		Please write down the dwelling number _ _ _ _ _ _ _				
Residents in the dwelling (according to the Central Population Register by 1st October 2000)	Actually living in the dwelling by 1st November 2000? Yes/No	For persons not actually living in the dwelling, please give the reason (tick the appropriate reason)				
		Unmarried student living elsewhere	Compulsory- military service	Institu- tiona- lized	Other reason	
Hans Pedersen	<input checked="" type="checkbox"/> <input type="checkbox"/> →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ingrid Hansen Pedersen	<input type="checkbox"/> <input checked="" type="checkbox"/> →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Peder Pedersen	<input type="checkbox"/> <input checked="" type="checkbox"/> →	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Tuppen Pedersen	<input checked="" type="checkbox"/> <input type="checkbox"/> →	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Johanna Pedersen	<input type="checkbox"/> <input checked="" type="checkbox"/> →	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
 <u>Persons who are actually living in the dwelling, but not listed above</u> (please include persons who are renting a room or a bed-sitter)						
<i>Name</i>		<i>Personal ID-number</i>				
Kirsten Jansen.....		12345678910				
.....					
.....					
.....					
<hr/>						
Questions on the dwelling						

Figure 2 Draft questionnaire for the Housing Census for the Year 2000

48. The questionnaire will be returned to Statistics Norway and used for the following activities:

- i) Production of population and housing statistics from the census. Household statistics will be a supplement to family statistics.
- ii) Enter the dwelling number into the CPR. Birth number and street address will be used as a key for linking.
- iii) Transfer the dwelling information to the GAB-register.
- iv) If necessary, correct addresses in the CPR. This will be up to the Tax Inspectorate to follow up. Strictly speaking this will not be a part of the project.

VI.4 Collect information on dwellings and transfer to relevant registers

49. Information on dwellings will be collected through the Housing Census. Statistics Norway will register, check and correct the answers. After sorting by address (street address extended by dwelling number) the information will be transferred to the Norwegian Mapping Authority. The Norwegian Mapping Authority will link the information to the GAB-register, using the new dwelling address as a key.

50. Similarly the Housing Census gives information on the dwellers in every occupied dwelling. Statistics Norway will compile a file of all residents sorted by address. The address will be extended by the new dwelling number. The file will be transferred to the Tax Inspectorate for linking to the CPR. The new dwelling number can be entered into the CPR by using birth number and address (code for the name of the street, house number and entrance) as a key.

VI.5 Keeping the register updated

51. After the dwelling information is registered in the GAB-register the Norwegian Mapping Authority will be responsible for updating. This will be done by the form of application for a building license. The municipalities send a copy of every application to the Norwegian Mapping Authority. The form of application already has some information on dwellings.

52. Updating the CPR will be done by extending the address on the notice of change of address with the new dwelling number. The dwelling number must be made part of the official addresses in the CPR.

VI.6 Essential conditions for the project

53. The committee, which formulated the latest proposal, strongly believes that the method is feasible. However there are some essential conditions to be met.

54. A one-to-one relationship must be established between addresses in the GAB-register and addresses in the CPR. From the housing questionnaire all buildings will be located by the addresses from the CPR and the addresses will carry information on all dwellings. The addresses will be used as a key for transferring information on dwellings to the GAB-register. Previous research has shown that there is a serious discrepancy between addresses in the GAB-register and the CPR. Once a one-to-one relationship is established between addresses in the two registers, measures must be taken to prevent future discrepancies.

55. Every building with dwellings must have an address. The Norwegian Mapping Authority has recently completed a project on this issue, but some final work remains to be done. In some larger municipalities this seems to be quite a bit of work.

56. All owners of dwellings must be registered by an updated address. In most cases this is not a problem, but there are some cases left to be solved. In the case of a building being owned by a non-private owner the owner's address in the GAB-register might be outdated. In other cases the owner might have died recently. The estate of the deceased person must be reached.

57. As mentioned previously the notice of change of address must be extended to include the new dwelling number.

58. In addition to the essential conditions described above there are some other conditions which are important but not essential.

59. It would be advantageous to have all residents registered in the CPR at their actual address. According to the provisions of the Population Registrations Act unmarried students are to be registered at the address of their parents, regardless of the actual place of residence. A recent estimate shows that 90.000-100.000 students (approx. every sixth student) may have a different actual address than the official address in the CPR. There is a similar problem for people living in institutions. This is especially the case for elderly, married couples where one person is institutionalised while the other is still living at the original address. The provisions of the Population Registrations Act are unclear as to where to register persons in this situation, thus causing a problem for the population statistics.

60. The described method depends heavily on the Housing Census for collecting information on dwellings. Statistics Norway expects approx. 95 percent of the questionnaires to be returned. This means that there will be a gap in the new dwelling register, both with regards to information on dwellings and linking persons and dwellings. Furthermore the method does not cover unoccupied dwellings. Since there will be no one registered in the CPR at the address of an unoccupied dwelling, there will simply not be a dweller to fill out the questionnaire.

VII. Estimated costs

61. During the autumn of 1996 there was a pilot study. One of the aims of the pilot study was to calculate the costs for the main project. The costs for the updated method have been estimated in the year of 1997 as accurately as was possible at that time. Costs for updating the register are not taken into account.

Activity	Nok, million	Ecu, million
Identifying the dwellings	57,7	7,0
Labelling the dwellings		
Establish a link between dwellings and persons	47,4	5,7
Collect information on dwellings		
Total	105,1	12,7
- Housing Census	- 33,7	- 4,1
Net total	70,4	8,6

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