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STRUCTURAL SURVEYS BASED ON REGISTERS OF AGRICULTURAL HOLDINGS

Invited paper submitted by Ireland*

Summary

This paper briefly reviews the development of an agricultural register by the CSO in Ireland and outlines a different approach to the use of registers for handling agricultural crop and livestock surveys in the farm structures survey Regulation period 1999-2007. The need to maintain two parallel farm registers, one for administration and the other for statistical purposes is questioned. An ideal situation of a national administrative register of all farmers held in one file and containing links to administrative data files is suggested as the next development before the next Census of Agriculture round of structure surveys.

Historical situation

1. Up to 1987-1988 CSO farm surveys in Ireland were conducted by personal interview at the farm. Enumerators were each allocated a specific

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enumeration area consisting of around 100 farms. The enumerator was given a list of land owners relating to his/her enumeration district. Some of these land owners rented out all of their land and hence had no involvement in farming. The list was maintained in paper format only and was not fully up-to-date. Hence it was used only as a guide and the interviewer was required to account for all land in the enumeration district.

Initial postal surveys

2. Around 1987 a change to postal sample surveys was introduced. The change was introduced both for cost reasons and because of increasing administrative difficulties in maintaining the traditional system. The latter mainly arose because the police were unable to continue acting as enumerator recruiters and supervisors.

3. The postal surveys undertaken in the period leading up to the 1991 Census of Agriculture posed particular difficulties. Samples in this changeover period were selected from the farmers who were recorded in the last interview of the sample enumeration districts. There was no facility or attempt in this period to broaden the sample register to cover the whole country or to initiate procedures that would allow the sample register to be updated through a system of register enquiries. Instead work focused on maintaining an intermediate statistical system while preparing for the census.

Census of Agriculture 1991 and subsequent postal surveys

4. The 1991 census was used to construct a statistical register of all farmers. It was conducted by interview at the farm using a specially recruited and trained field force. After the June 1991 census, the samples for the postal surveys were selected from this register. Procedures were introduced to enable the statistical register to be updated. These centered around new register enquiry surveys of potential new farms identified from analyses of the main Department of Agriculture administrative register and from information returned in the sample postal surveys.

5. In the 1991 census there were an estimated 170,600 farms. By 1998 this number had decreased to around 146,000, a net loss of around 3,500 farms per annum. This net loss figure is the difference between farms going out of business and new farms commencing. In tracking these movements through the register enquiry surveys and the sample survey returns, it became apparent that the process had its difficulties. The main problem was that some of the effort involved in trying to maintain a register of the name and address of every farmer in Ireland was wasted. For example, a new farm added to the register might subsequently be identified as having been already on the register with a variation in farmer's name or address. If a duplication was

subsequently identified, the register and data files had to be amended again. A difficulty, not unique to Ireland, arises from the clustering of surnames in local areas. This phenomenon adds considerably to the difficulties involved in maintaining a statistical register. On the other hand, farmers on administrative registers usually have an incentive to ensure that they use a version of their name and address that ensures the post is delivered to them. They are typically given a personal reference number that is unique to them and used in correspondence.

6. At that time there was not a sufficiently well-developed administrative framework to efficiently maintain a fully up-to-date statistical register of names and addresses. Ireland does not have national population identity cards nor were farms obliged to register with any official body. In the late 1980s when plans were being laid for the 1991 census, the agricultural administrative systems were primarily focused on the administration of single schemes as CAP reform had not yet adopted a broader perspective. The absence of this adequate administrative backup was one of the principal reasons for constructing a separate statistical register but at the same time, it was one of the reasons why after the 1991 census it proved difficult to maintain a fully up-to-date statistical register.

7. In reviewing the situation in the mid-1990s, a decision was made to reduce the number of sources used to track the demography of farms since the resources involved in trying to achieve perfection were excessive. The Department of Agriculture registers were becoming more comprehensive and contained the names of almost all farmers in Ireland. While different definitions were used and some specialist and small farmers may not have been included, the main register was considered to be a sufficient source for the bi-annual register enquiry surveys. Supplemental information on specialist pig and poultry producers was also available. In pursuing this policy, it was considered that the register enquiries would still support the objectives of producing reliable estimates of the numbers of farms, areas under crops, livestock numbers and farm workforce counts. Meeting these objectives required a register sufficiently reliable to select representative samples and to produce a farm population profile for calculating grossing factors. It was not considered necessary to know the name of every farmer in the country.

Census of Agriculture 2000

8. Under the farm structures survey Regulation each EU country is obliged to undertake another census in 1999/2000 and in Ireland the census will take place in June 2000. A decision has been made to conduct this survey in Ireland by post, both for cost reasons and because the administrative registers situation has changed sufficiently to make it unnecessary to conduct a field operation of the type conducted in 1991. Instead the census will be done by post with administrative registers being the primary source

and administrative data used as necessary to assist in any full or partial non-response problems.

9. In the context of register maintenance, the Department of Agriculture has a number of advantages over a national statistical office. Farmers often have a financial incentive to be included in an administrative register. It could be argued that premia schemes have had the effect of producing more harmonised administrative data collection methods than the harmonisation of statistical survey methods! The key administrative bodies tend to be represented at local area level and the routine work often involves direct contact with farmers. Thus register quality can be supported by greater local knowledge and amendments tend to occur on a more continuous basis. An efficiently working CSO should be taking advantage of these amendments rather than maintaining duplicate procedures to independently identify them.

10. Of course there are some disadvantages. Definitional and coverage differences have to be overcome. Livestock administrative schemes may collect animal numbers at a period in the year when they peak. CSO needs will have to be given some priority in the administrative systems. It is also possible that farmers may prefer the CSO to be more visibly independent.

11. The overall conclusion is that the overlap between the administrative and statistical systems is now too great to justify the maintenance of separate systems both from a register viewpoint and for the user striving to reconcile the figures emanating from both systems. The resources freed by not having to maintain a statistical register will be directed towards further developing the good co-operation that already exists between the CSO and the various administrative agricultural organisations and to encouraging adaptation (such as including phone numbers) and integration of the various administrative registers.

12. In preparing for the 2000 census the CSO will develop a statistical system to uniquely integrate the various administrative registers into one register suitable for issuing just one census questionnaire to every farmer in the country. The system must also allow access to the associated administrative data files. Developments in area aid, animal movement monitoring and other premia schemes have all improved the coverage of farmers in the administrative systems. The CSO will move with the 2000 census to take this on board and intend to discontinue separately maintaining a statistical register in the post-census situation. It should also permit an increase in the resources devoted to examining the complementarity of statistical and administrative farm data. At present, the fit between administrative farm data and CSO farm statistics is not being sufficiently monitored at small area or farm level. The intention is for the CSO to compare these different data sources more thoroughly making allowance for methodological differences.

Post-Census situation

13. In the post-census situation, the CSO will obtain new copies of the administrative registers in the months preceding each sample survey. Computer matching programs will filter through these and linkages established from previous surveys to produce a frame to support sampling and grossing.

14. The CSO will continue to collect independent farm data through direct postal surveys of farmers but will be in a better position to cross-check the statistics against broadly similar data from administrative sources to ensure that reliable results are being produced in a cost-effective manner.

15. It is not being proposed that administrative data is extracted into the statistical data file rather than collected a second time from the farmer. This development would add greater complexity to the system even though the farmer response burden would be reduced. There are already movements towards this dual collection methodology in some EU countries and perhaps by the 2010 census, a comprehensive analysis of administrative data will be all that is necessary to produce census results! Between now and then much of the work will concentrate on measures to reduce costs and response burdens and to help users to reconcile the multitude of figures that already exist. In adopting this new strategy, the CSO will be obliged to work more closely with the various agricultural administrations and to be involved at an early stage of new administrative developments that can contribute to the statistical process. Hopefully also similar increased prior consultations will occur between Brussels and Luxembourg!
