

Chilean experience on Census of Agriculture, and Census of Manufacturing

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Census of Agriculture

Administrative arrangements and costs

- ✓ The VI National Agricultural Census was conducted in 1997 and surveyed approximately 320.000 agricultural exploitations and cost \$US 10 millions. Most of the budget was spent in enumerators.
- ✓ The general administrative management was conducted by the Financial Resources Department of NSI but the payment system was decentralized and the responsibility was assigned to Regional Directors of NSI.
- ✓ In terms of minimize cost there were some alternatives but difficult to adopt, like reducing public campaign or publications. Another option could be to increase the minimum size of exploitations but there were particular requirements of Minister of Agriculture to focus on small producers.
- ✓ Some countries have tried to use samples but there have been not adequate international experiences.

Methods of data collection

- ✓ In Chile there are not administrative registers to elaborate the Agriculture Census.
- ✓ The directory used was the real estate database of the Internal Taxes Service.
- ✓ To elaborate inter Census statistics, NSI use samples that are normally originated from Census data. This are used as sample framework and they are actualised with new Census.
- ✓ These surveys have only regional representativeness due to statistic error. However, Census data are available at smaller levels, like censal district.

Response rate and treatment of non-response

- ✓ Having a directory with roles and surface facilitated a detailed coverage control.
- ✓ A special software was developed to discount the surveyed surface, so the response rate was around 95%.
- ✓ The courses of action for non-response where basically two:
 - To insist with the interview
 - Applying a fine, which is a faculty available for NSI

Data quality assurance

- ✓ There was a Validation Plan oriented to assure data consistency, that focused on relating questions from Census.
- ✓ However, in small informal business the producer could not know his-her own information. In this case, NSI offers help to get the answer explaining Census definitions.

Issues of data consistency over several census cycles

- ✓ Information of Agriculture Census is classified using ISIC Rev. 3 to assure data consistency.
- ✓ Additionally, Census is insert in a inter Census programme of agricultural statistics that assure the continuity of information.

Dissemination of results

- ✓ The preliminary results were published four months after finishing the field work.
- ✓ The final results were published eight months after finishing the field work.
- ✓ The information was also reproduced in a special CD and it was published in the internet web page of NSI.

www.ine.cl

- ✓ Finally, NSI elaborate special databases generated from Census general database oriented to particular clients.

Most common shortcomings and how to deal with them

- ✓ Because Census is a major enterprise a good coordination and control is crucial. In Chilean case this effort was shared with Regional Directors.
- ✓ Also important is to use good enumerators, ideally people that know the particular places. In Chilean case the enumerators were agricultural technicians.
- ✓ It is also important to have a good control of data quality. In Chilean case there were created small Census Areas, which account for around 7.000 surveys.
- ✓ Census areas were in charge of a Chief of Census Areas and four supervisors, all of them agricultural engineer.
- ✓ In each area there were two computers, two digitisers and a transmission line connected with Central Office. The computers had special software that allowed data entry, validation and getting results in line. All of these operations were supervised by agricultural engineer. If necessary the producers were asked again.

Census of Manufacturing (ENIA)

Administrative arrangements and costs

- ✓ ENIA is a Census oriented to plants over ten employees, and it has been conducted regularly since 1979.
- ✓ The last ENIA (2003) covered around 5.150 plants in the whole country.
- ✓ It is conducted by the Department of Manufacturing, where around 20 people work.
- ✓ The main costs are related with data collection and analysis.
- ✓ There are continuous training activities in order to maximize the experience of analysts.

Methods of data collection

- ✓ The method of collection is based in a set of forms that the informant must answer.
- ✓ NSI has a directory that is constantly actualised.
- ✓ These forms are sent by traditional mailing and there are established terms to answer. Additionally, informants are asked to attach complementary information, like financial reports and annual reports, to validate the information.
- ✓ The informants have the option to answer by electronic form (internet) however, this option does not exempt the informants to send the paper forms)

Response rate and treatment of non-response

- ✓ Non-response is related mainly to a lack of cooperation. Normally this conduct is treated with fines procedures.
- ✓ However, the informants are not exempted to answer further forms, because they are still considered part of the directory.

Data quality assurance

- ✓ ENIA is validated through several validation processes:
- ✓ Accountable validation against tax balances and financial reports
- ✓ Direct validation with informants by phone or e-mail.
- ✓ Validation using internet resources, like institutional web pages, or public information like Office Controllers, Stock Market, Internal Taxes Services, etc.)
- ✓ Computer validation during data entry.
- ✓ Computer validation after data entry.

Issues of data consistency over several census cycles

- ✓ ENIA actually uses ISIC Rev.3 and C.P.C. 1.0 after a work that implied homologate classifiers used previously, like ISIC Rev.2.
- ✓ There has been a process of increasing the number of variables published because of modification of the form which improve the quality of data collection.
- ✓ The former processes has allowed to keep certain stability in temporary series for users and to give more detailed information for specific studies.

Dissemination of results

- ✓ ENIA is available in a yearly term publication, which has a selected group of variables.
- ✓ This publication is also available in internet, and it is possible to download it.
- ✓ Clients could buy special information of ENIA
- ✓ Information of ENIA is available at region, province and local (commune) level

Most common shortcomings and how to deal with them

- ✓ Tendency to more complex organizational forms, like holdings, which make more difficult the process of information control.

This problem is being worked out by means of elaboration of an individual technical archive for main Chilean holdings, which try to keep actualised information.

- ✓ Tendency to increase externalisation and subcontracting, which implied a distorted information of manufacturing employment.

This problem is being worked out adding questions on employment and salaries of subcontracted workers.