

Sources of Data for Vital Statistics in the Republic of Korea*

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I . Introduction

It is well known that vital statistics including migration statistics are of great importance as basic data for making population projections, for monitoring and evaluation of family planning programs, for construction life tables, and for studying various aspects of the society. Especially, the making of population projections is important as basic inputs to the preparation of plans for many sectors of the economy such as for forecasting the demands of housing, education, manpower and health.

In principle, the registration system is the main source that can provide relatively cost-effective vital statistics at both national and sub-national levels. It is, however, still observed

that there are some limitations in utilizing fully the registration system to produce accurate vital statistics due to the inherent problems in the registration system such as problems in its coverage, accuracies in contents and timeliness in reporting the vital events and publishing the results.

Thus, as an alternative many countries carry out survey on vital statistics in order to supplement or complement the registration system and to obtain in depth data. The Republic of Korea is no exception in this aspect. The National Statistical Office carries out the so-called Continuous Demographic Survey, This is a kind of multi-round retrospective survey, covering 32,000 households and having reference period of one month. In the following chapters, the sources of data to produce vital statis-

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tics in the Republic of Korea will be examined.

II . Vital Statistics Registration System

1. Background

In Korea, there exist two kinds of registration systems. One is the Civil registration System(CRS) which was started in 1909, while the other is the Resident Registration System (RRS) which was set up in 1962.

This means the CRS only had been maintained in Korea before 1962. At the beginning when CRS was set up, CRS only is believed to have played its role well since most people kept their addresses in thier usual places of residence. However, the identification between the addresses in CRS and the usual places of residence became deviated as the society became complexed and people maigrated to cities.

The Korean government, thus, established RRS in 1962 apart from CRS in order to maintain the registration system with the usual places of residence¹⁾.

2. Relationship between CRS and RRS

The main features of both systems are shown in Table 1. As implied in this table, main functions of the two systems complete each other. Therefore, the limit between the two registration systems can fade and the two systems are integrable.

However, some differences are found between CRS and RRS. The most difference is found to be that the former is operated with the permanent domicile(initial registration of native place) where legal family register is kept, while the latter is organized according to the current address where resident register is kept.

Meanwhile, the legal basis and agency responsible for administrative works are also found to be different. The agency responsible for CRS is the Ministry of Court Administration which is a judiciary body , while RRS is under the control of the Ministry of Home Affairs.

As for the agency responsible for producing statistics, the National Statistical Office utilizes both systems to produce vital statistics from CRS and migration statistics from RRS on an annual basis²⁾.

¹⁾ Although Japan introduced the civil registration system in Korea and Taiwan early in the twentieth century, the evolvment is somewhat different. In Taiwan, there exists only one system called the Household Registration System which is under the responsibility of the Ministry of Interior. Thus, judiciary body is not involoved in the Household Registration system. In this system, the following five categories are included:① registration of native place, ② registration of personal status such as birth, death, marriage and divorce, ③ registration of movement, ④ registration of profession and occupation, and ⑤ registration of educational attainment. Thus, records of highly accurate and complete population and vital statistics are continuously produced in Taiwan.

²⁾ NSO compiles vital statistics with original copies of the registration forms from CRS, but migration statistics with summary sheets from RRS.

Table 1. Comparison of Civil and Resident Registration System

	Civil Registration	Resident Registration
Purpose	To maintain legal family registers for establishing legal status of individuals	To maintain up-to-date records of inhabitants for facilitating administrative work of local governments and survey current population and its movements
Legal Basis	Civil Registration Law	Resident Registration Law
Start year	1909	1962
Agency responsible for administrative works	Ministry of Court Administration	Ministry of Home Affairs
Topics to be Registered	Birth, death, marriage, divorce, adoption, and other topics relevant to personal or family status	Birth, death, marriage, divorce and other personal characteristics, and change of residence
Registration Units	Gu (ward), Si (city), Eup (town), Myeon (township), Dong (sub-word)	Eup, Myeon and Dong
Type of Statistics Derived	Vital statistics only	Migration statistics and other population statistics can be derived
Agency responsible for producing statistics	National Statistical Office	National Statistical Office

3. Issues in the Registration

There has been a fairly gradual improvement in the coverage of the births and deaths registration in Korea as time passes³⁾.

As shown in Table 2, the registration rate of births in the year of occurrence among total number of births occurred in a year increased from 42.7 percent early in 1960s to 91.2 percent in the middle of 1980s. The registration

³⁾ The medical insurance system was firstly introduced in July 1977 in big establishments, and expanded to cover all nationals in July 1989.

rate of deaths in the year of occurrence also showed an increase from 41.9 percent in 1960 to 92.1 percent in 1989. Of course, these rates become lower if we consider the vital events which occurred and registered within the legal specified time period of one month.

This implies that there are still some por-

tion of delayed or non-registration of births and deaths. Especially, the registration rate of infant deaths is found to be very low since deaths occurring in the neonatal period and prior to the registration of the birth leave little incentive for the registration of either the birth or the death⁴⁾.

Table 2. Registration Rate of Births and Deaths in the year of Occurrence

Year	Estimates	Registered	Registration rate(%)
Births			
1956-60	4,845,125	1,409,332	20.1
1961-65	4,928,125	2,104,650	42.7
1966, 69, 70	2,846,900	1,306,908	45.9
1971-75	4,589,311	2,226,997	48.5
1976-80	4,127,011	2,894,461	70.1
1981-83	2,491,229	2,018,341	81.0
1984-89	3,967,710	3,619,949	91.2
Deaths			
1960	303,000	127,098	41.9
1970	306,000	157,644	51.5
1980	255,000	221,629	86.9
1985	253,000	231,771	91.6
1989	250,000	230,207	92.1

Sources: 1) National Statistical Office, Annual Reports on Vital Statistics based on registration

2) National Statistical Office, Population Projection Report: 1990-2021, 1991. 4

Note: From 1984, the tabulation takes into account the vital events occurred from January through December among total number of registered cases from January in the current year to January in the next year.

It is also reported that there are many cases certified by layman who can not provide the accurate information on the cause of death and also many cases which are not provided with

the information on the cause of death at all in the death registration forms. Moreover, death certificates are not available at the National Statistical Office since local offices do not send

⁴⁾ The delayed registration beyond the legal specified time period of one month is largely due to the informants' being busy with works, according to the 1987 Special Retrospective Demographic Survey.

them because of no regulation in the Civil Registration Law. These are the major reasons of distorting the cause of death structure inadequately⁵⁾.

As for marriages and divorces, the timely registration rate is revealed to be relatively low since the registration of these events are not compulsory by the law. It is, also, found that there are many cases such as cohabitation and separation which are not reported in the registration system.

In case of the Resident Registration System, there are two types of errors. One is the non-registration of actual movements, and the other is the falsified registration which may lead to the over-count in calculating migrants from the registration. Furthermore, the reasons for address changes are not available from the registration system.

Another problem lies in the lack of comparability of compilation procedures between vital statistics and population. In order to calculate vital rates, we need both vital statistics as numerator and population statistics as denominator. However, vital statistics is compiled on the basis of the legal address in the registration system, while population statistics such as census on the basis of the usual place of residence which may differ with the legal address. This is the barrier in the analysis of vital rates for geographical areas.

It is concluded for this chapter that the registration systems in Korea gradually improved over the last few decades but vital statistics based on the registration still are not sufficiently complete in terms of its coverage, accuracy and timeliness. Accordingly, this is the reason

for adoption and maintenance of the Continuous Demographic Survey as shown in the next chapter.

III. Continuous Demographic Survey

1. Historical Background

As shown in Table 3, this survey was started in 1963 under the National Statistical Office. When the survey was launched, enumerators were instructed to make quarterly visits to sample households. But, this survey was abolished in 1969 due to the weakness of administrative supports. After Dr. E. S. Marks suggested the revitalization of sample household survey for measuring the vital statistics in his paper "Vital Statistics and Population Growth Measurement; Recommendation on 1970 Population and Housing Census and Vital Statistics" published in 1970, the Continuous Demographic Survey has been again conducted since 1972.

Then, CDS was reshaped as a monthly reporting system starting from January 1977, instead of quarterly, so as to reduce the possibility of reference period errors. Moreover, the range of information collected was increased to cover marriages and divorces in addition to births and deaths.

In the meantime, single-round special retrospective survey was conducted in 1971 and 1987 respectively.

2. objectives of the Survey

The primary purpose of the survey is the

⁵⁾ Furthermore, the burial permit is not related with the death registration in Korea.

Table 3. Historical Perspective

Period	Sampling fraction rate	No. of sample EDS	No. of sample households	Survey periodicity	Others
1963–1968	1/1,000	786	5,100	Quarterly	
1969.1/4–2/4	1/1,000	126 (Urban:46 Rural:80)	5,600	Quarterly	
1969.3/4–1972.4					No conducting
1971.10	1/250	306	23,000	Ad–hoc	Special Retrospective Demographic Survey
1972.5–1976	1/500	165 (Urban:72 Rural:93)	12,000	Quarterly	
1977–1981	1/349	422 (Urban:284 Rural:138)	21,000	Monthly	
1982–1988.4	1/547	540 (Urban:447 Rural:93)	16,000	Monthly	
1987. 11	1/158	1,084	60,054	Ad–hoc	Special Retrospective Demographic Survey
1988.5–Present	1/306	961 (Urban:730 Rural:231)	32,000	Monthly	

Sources: 1) The Korean Statistical Association, Multi–purpose Sample Design for Household Survey (in Korean), 1987.11

2) National Bureau of Statistics, 1966 Vital Statistics in Korea, 1968.3

estimate the vital rates by obtaining reliable data on births, deaths, marriages, divorces and migration for Korea as a whole and at the same time for urban and rural areas separately, for use in the formulation of national population policies. A subsidiary aim of the CDS is to as-

sess the level of completeness of vital registration.

3. Sampling Design

The CDS covers the same sample popula-

tion as the monthly labor force survey, namely, the Economically Active Population Survey. It is, in essence part of a multi-purpose sample design. The list of EDs for the 1985 Population and Housing Census was utilized in defining the sample frame for the CDS. Since the CDS is a kind of household survey, the sample frame consists only of ordinary EDs, excluding special Eds such as dormitories, social welfare institutions, military camps, penitentiaries, diplomatic offices abroad and foreigners' residence.

The sample is the nationwide probability sample, using a stratified three stage sampling with the two or three contiguous ED's as the primary sampling units (PSU's), the ED's as the secondary sampling units and the segments as the ultimate sampling units(USU's).

Every PSU has more than 100 census households and one segment refer to a part consisting of about 10 households into which the ED was divided.

The PSU's were classified into 15 strata according to their major administrative districts—six special cities and nine provinces and the PSU's in each province were further classified into two strata by urban and rural.

A total of 961 sample PSU's with the different number of sample PSU's in each stratum were selected. In each stratum, the sample PSU's were systematically selected with probability proportional to its measure of size, the measure of size being the number of census households divided by 10.

In each sample PSU, one ED was selected with probability proportional to its measure of size and the selected ED was divided into the corresponding number of segments with its

measure of size.

Three contiguous segments were selected in the urban sample ED and four in the rural sample ED.

The sample is self-weighting sample in each stratum while the sampling rates are different from stratum to stratum. As a result, a total of 31,000 households in terms of the 1985 Population Census count were included in the sample with the overall sampling rate of about 1/306. The average number of households in the 1990 monthly survey were about 32,900 households.

4. Survey Items

The CDS is proposed to get vital events such as birth, death, marriage, divorce and migration. There are three kinds of questionnaires for the survey as follows; ① household record form, ② record form for vital events and ③ record form on migration. These forms are presented in appendix tables.

5. Organizational Structure and Time Schedule

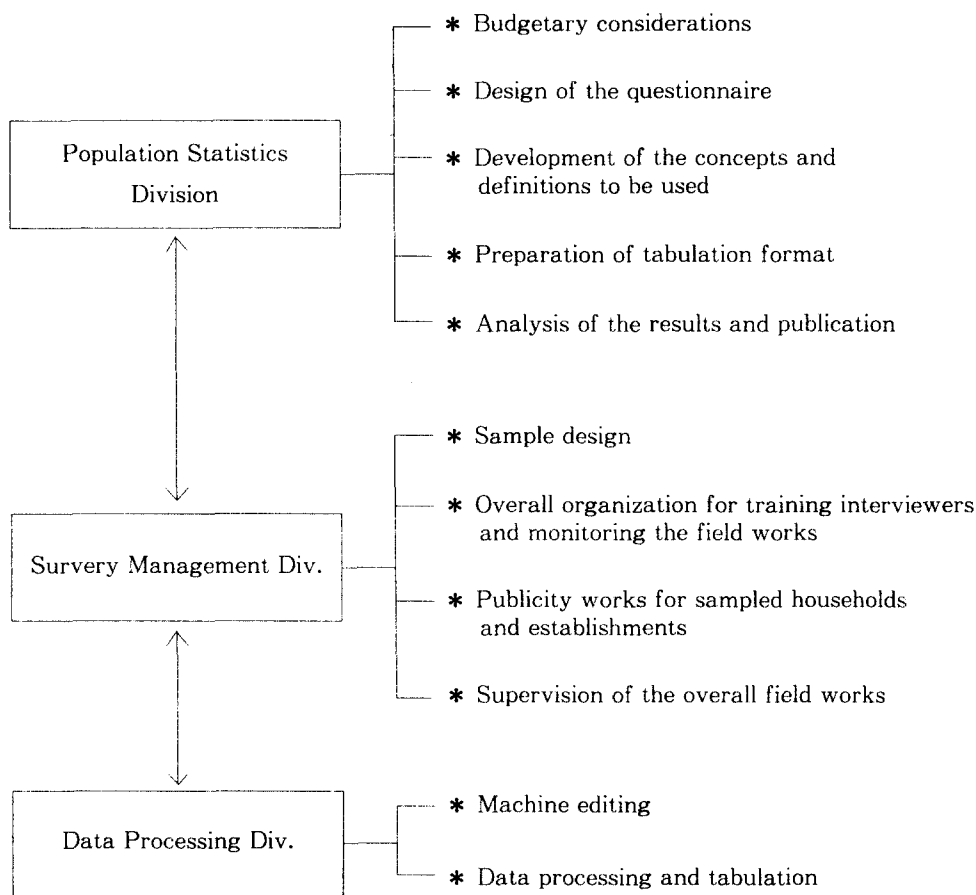
The staff responsible for conducting the CDS are members of a permanent field work force, directed by the Survey Management Division of the NSO, and spread throughout 12 provincial offices. Some of the larger provinces contained more than one sub-offices within which there is a team of full-time enumerators, led by a field supervisor. In these offices, 800 interviewers are working now as regular workers. Among 800 interviewers, 474 are involved in the CDS.

After investigating household changes and

vital events every month, field interviewers should arrange the report forms and hand them to supervisors till the end of every month. The supervisors check the quality of response, resolve obvious discrepancies and carry out some basic field editing. And one of the qualified staff inputs the data into computer using CRT in-

stalled in each provincial office still the 10th of next month. On receiving the data via computer system, headquarters check them over again, and carry out machine editing, and finally put them into tabulation.

The relationship among divisions involved in the CDS is as follows:



6. Field Work

On an average, 67 household scattered in 2 EDs were assigned to an interviewer for the CDS. Interviewers for this survey make visit to every household within their enumeration dis-

tricts and complete two copies of Household Record Form, Among two copies, one copy is kept in the local offices and the other copy is kept by interviewers themselves.

If migration occurs or any record in Household Record Form needs to be corrected, the in-

interviewer should fill in the Record Form on Migration and send it to the headquarters. And if the events such as birth, death, marriage and divorce occurs, the interviewer also fills in Record Form on Vital Events and sends it to the headquarters. NSO and interviewers correct or revise the Household Record Forms according to these two reports.

During the period of one week just after the 15th of every month, the interviewers should visit every household and check whether any event occurred or not. If they find any events, they have to fill in the forms through interview.

7. Control of Field and Data Processing

The supervisors and interviewers are trained by the professional staff of the Population Statistics Division once a year at the beginning of every year in a special place. This training covers the technical aspects of the survey as well as the importance of demographic data. There is also a continuous use of refresher training through several meetings with chiefs of provincial offices.

Besides, a reinterview procedure is carried out by the staff of headquarters on the average of once a year for specific local offices. Interviewers will be aware some of them are subject to reinterview, but the checks will be randomized in such a fashion that no one will know precisely when his/her work is scheduled for reinterview.

Aside from the preliminary field edit by the supervisors, there will be virtually no manual edit of the completed questionnaire. Instead, a

computer edit is made to identify omissions, inconsistencies, or highly irregular entries. Computer listings will be made of these errors for review and disposition by the staff of the Survey Management Division. In addition to this processing need, error rates are compiled by item for the survey as a whole and for individual interviewer. Records of errors are kept so that persons doing poor work can be identified; they are either retrained or given a disadvantage in promotion.

8. Difficulties Encountered in CDS Operation

There are five major problems encountered in the CDS.

The Design Problem: We faced the main difficulty in achieving a good compromise sample design which can be claimed to be moderately efficient for estimating parameters such as totals, means, ratios, percentages of different characteristics of interests based on the same set of master (multi-purpose) samples. The problem occurred at almost every stage of the sample design namely: the stratification stage, the determination of the sample size, the selection of the ultimate sampling units and the choice of estimation procedures. For example, with the use of the same sample households three surveys (CDS, Economically Active Population Survey and Urban Family Income & Expenditure Survey) are carried out presently. However, every stage of the sample design was for the Economically Active Population Survey.

The Organization Problem: Among 14 divisions in NSO, four divisions are involved in household surveys. The divisions responsible for

the population and the social statistics are the Population Statistics Division and the Social Statistics Division respectively, whereas the sampling and field managing is under the responsibility of Survey Management Division and data processing is under the Data Processing Division. These four divisions work in a somewhat self-contained, independent and uncoordinated fashion because of the staff within each division is more or less of a project-team type.

The Quality Control Problem: This is perhaps the most serious and the most difficult problem to overcome when we try to adopt a multi-purpose sample design. Firstly, the training which we can provide to the enumerators and the field supervisors are generally less sufficient than that of the uni-subject survey project because emphases are normally given to admittedly more important topics at the expense of others for a limited period of training.

Secondly, field interviewing are normally done with less professional effort from both the field interviewers and their field supervisors because of the lack of focus in interviewing. Thirdly, the situation will become worse when the respondents become bored and less cooperative with frequent visit by interviewers.

The Data Processing Problem: Since EDP staff process many subjects with insufficient knowledge in the subject-matter areas, this problem normally results in more delay in the completion of the data processing, the analysis, and the publication of the survey result.

The Environment Problem: Furthermore, most of the data collected through CDS are not properly analyzed and utilized, partly due to the

lack of appreciation among high-level officials of the need for vital statistics from the survey and the lack qualified staff.

9. Statistical Tables Prepared and Analysis Carried Out

The following 26 tables are tabulated by the NSO, although they are not published.

- Number of population and households by ED
- Population by age, sex and marital status
- Population by age and educational attainment
- Ever-married women by age and educational attainment
- Age at first marriage by year
- Number of births by month
- Number of births by age of mother
- Births by birth order and age of mother
- Births by age and educational attainment of mother
- Number of deaths by month
- Deaths by age and educational attainment of the deceased
- Deaths by age and occupation of the deceased
- Deaths by diagnoser
- Deaths by age and marital status
- Deaths by cause of death
- Infant deaths by days and sex
- Infant deaths by attendants
- Marriages by month
- Age at marriage by bride and groom
- Divorces by month
- Divorces by age and duration of marriage
- Divorces by number of children surviving
- Migrants by month and sex
- Migrants by origin and designation
- Migrants by age and sex

– Reasons for migration

presented in table 4.

10. Main Findings from the Survey

Vital rates from CDS and estimates are

With an estimate of crude birth rate and death rate, made separately, of 15.6 and 5.8 per thousand population in 1990 and a sample of 32,867 households surveyed (115,374 popu-

Table 4: Vital Rates from CDS and Estimates

	Unit	C D S ¹⁾		Estimates ²⁾
		1989	1990	1990
EDs	No.	961	961	
Households	No.	32,322	32,867	
Population	Person	115,479	115,374	42,869,283
Births	No.	1,598	1,638	671,000
(CRB)	%	(13.8)	(14.2)	(15.6)
Deaths	No.	675	632	250,000
(CDR)	%	(5.8)	(5.5)	(5.8)
Infant Deaths	No.	20	21	8,610 ¹⁾
(IMR)	%	(12.5)	(12.8)	(12.8)
Marriages	No.	1,471	1,446	415,000 ¹⁾
(CMR)	%	(12.7)	(12.5)	(9.8)
Divorces	No.	161	131	47,000 ¹⁾
(CDR)	%	(1.4)	(1.1)	(1.1)
Migrants	No.	37,230	36,506	
(Rate)	%	(32.2)	(31.6)	

Note :1) For 1989

Sources: 2) Unpublished results from the survey

3) Data derived from the population production works in 1991.

lation), it is expected that during the year 1990 about 1,800 births and 669 deaths will be reported in the survey. However, it was revealed that about 1,638 births and 632 deaths were reported in the survey. Using twice the sampling error, the number of births reported should be between 1,717 and 1,882 and the number of deaths reported should be between 619 and 720.

The above fact can imply that the number of births reported in CDS fall below the lower limit, and the number of deaths reported in CDS fall between the upper and lower limit.

Meanwhile, the crude marriage rates from the survey is shown to be higher than that of estimates. This phenomenon is due to the overcount of marriages both from bride and from bride-groom in cases of their moving-out for marriage from the EDs.

These are some of the reasons that the results of the survey are not published and are utilized only for internal purposes.

VI. Concluding Remarks

As presented in the previous chapters, there exists three kinds of data sources which can produce vital statistics, namely Civil Registration System, Resident Registration System and Continuous Demographic Sample survey. However, these systems are found not to function well to produce an accurate and timely vital statistics.

The summarization of problems in the registration systems is as follows; ① policy priority is not given on the program of improving the

registration systems, ② there is a substantial degree of overlap in terms of laws and agencies concerned, thus supervision can not be done systematically, ③ civil servants in charge of the registration are lacking of conception on vital statistics.

It is, therefore, needed that an improvement program dealing with the problems be prepared and implemented urgently with a high political priority by a strong body in the government.

Meanwhile, as for the continuous demographic sample survey conducted by the National Statistical Office, the survey itself is also found to have some quality problems due to sampling and non-sampling errors.

It is, however, believed that there are still very great possibilities in the survey for developing extremely valuable statistics in Korea.

References

- Choi, Bong-Ho, "An Overview of Data Sources for Population Statistics", (in Korean), *Journal of the Korea Statistical Association*, Vol. 16, No. 1, 1990, pp.12-20
- Choi Bong-Ho, "A Study on Vital Statistics Survey : its Type, Source of Errors and Improvement Scheme," *Journal of the Population Association of Korea*, Vol.12, No.1, 1989, pp.1-11
- Choi, Bong-Ho, Civil Registration and Vital Statistics System in the Republic of Korea, *Paper presented at the Asian Seminar on Civil Registration and Vital Statistics organized by ESCAP*, Dec. 1985, Bangkok

- ESCAP, *Review of Demographic Sample Surveys in Asia and the Pacific : 1970--79, 1980*
- ESCAP, *Household Surveys in Asia : Organization and Methods, 1981*
- International Institute for Vital Registration & Statistics, *Improving civil Registration, 1984, Bethesda*
- Kim, Il Hyun and bong-Ho choi, "A Study on Infant Mortality in Korea : 1981-86", *Journal of the Population Association of Korea, Vol.11, No.1, 1988, pp.76-86*
- Kiregyera, B., "Some Sources of Non-sampling Errors in African Census and Survey Work: A Review", *International Statistical Review, Vol.50, No.3, 1982, pp.305-316*
- Kish, L., *Survey Sampling, John Wiley & Sons, New York, 1965*
- Ministry of the Interior, *1988 Taiwan-Fukien Demographic Factbook, 1989, Taipei*
- Murthy, M. N., "Evaluation of Multi-Subject Sample Survey Systems", *International Statistical Review, Vol.42, No.2, 1974, pp.175-191*
- Purakam, N., "Problems in Designing an Integrated Sample Survey System in Thailand", *Proceedings of the 42nd Session, Book 3, 1979, pp.177-181*
- Redefern, P., "The different Roles of Population Censuses and Interview Surveys Particularly in the UK Context", *International Statistical Review, Vol.42, No.2, 1974, pp.131-146*
- UN, *Non-sampling Errors in Household Surveys : Sources, Assessment and Control, Preliminary Version, NHSCP, 1982*
- UN. *Handbook of Household Surveys (Revised Edition), Studies in Methods, Series F, No.31*

〈國文要約〉

人口動態統計 資料源의 考察

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現在 우리나라에서 人口動態(出生, 死亡, 婚姻, 離婚, 移動) 統計를 生産할 수 있는 制度로는 戶籍 申告, 住民登錄에 의한 轉出入申告, 그리고 標本家口를 대상으로 하는 人口動態標本調査의 세가지로 볼 수 있다.

원칙적으로 人口動態統計는 申告制度로 부터 作成되는 것이 가장 바람직한 것으로 알려져 있다. 우리나라는 經濟·社會發展 및 最近 醫療保險制度의 도입 등으로 申告의 質的 水準이 크게 向上되 었지만, 申告로부터 완벽한 人口動態統計를 作成하기에는 다음과 같은 事由로 다소 미흡한 것으로 볼 수 있다.

첫째로, 嬰兒死亡의 경우 出生 및 死亡申告를 안하는 比率이 상당히 높다.

둘째로, 死亡申告時 死亡診斷書를 첨부하지 않고 인우보증으로 대신하는 比重이 높기 때문에 정 확한 死因統計作成에 지장을 주고 있다.

셋째로, 婚姻·離婚의 경우 婚前同居나 同居하다가 헤어지는 경우 申告에서 파악되지 못하고 있 다.

넷째로, 移動의 경우 無斷轉出入 또는 書類上으로만 轉出入申告를 하는 경우 移動量 및 흐름을 歪曲시킬 수 있다.

다섯째, 人口動態率 計算時 申告資料는 住所地로 集計되는 반면, 分母가 되는 人口센서스 資料는 常住地로 集計되기 때문에 地域別로 動態率을 分析함에 있어 어려움을 주고 있다.

따라서, 이와같은 問題點을 補完하고 정확한 人口動態統計의 作成에 기여하고자 統計廳에서는 全 國에서 32,000 標本家口를 대상으로 人口動態標本調査를 實施하고 있다. 同 標本調査에서는 調査員 이 每月 標本家口를 訪問하여 지난 한달 동안 發生한 出生, 死亡, 婚姻, 離婚, 移動에 관한 事項을 調査하는 바, 標本誤差를 제외하고 非標本誤差는 거의 없는 중요한 資料源이 되고 있다.

結果的으로 人口動態統計와 관련하여서, 關聯機關에서는 그 重要性을 認識, 申告 制度의 問題點을 계속 補完하고 改善하기 위한 方案이 만들어져 施行되어야 하며, 人口動態標本調査도 더욱 發展시 켜야 될것으로 思料된다.

Appendix Table 2. Questionnaire Form for Vital Events

							ED No.	Household No.	Name of Household head
1. Birth Record							Address		
Name of mother	Serial No. in household record form	Name of baby	Date of birth	Sex	Age of mother	Birth order	Pregnancy duration	Educational attainment of mother	Attendent

2. Death Record

Name of deceased	Serial No. in household record form	Sex	Date of birth	Date of decease	Educational attainment of deceased	Occupation	Marital status	Diag-noser	Cause of death

3. Marriage Record

For bride - groom				For bride				Date of marriage
Name	Serial No. in household record form	Age	Educational attainment	Name	Serial No. in household record form	Age	Educational attainment	

4. Divorce Record

Name of husband	Age of husband	Name of wife	Age of wife	No. of children born surviving	Date of marriage	Date of divorce

Appendix Table 3. Questionnaire Form for Migration

Ed No.	For HH Move—in						For HH Move—out					
	HH No.	Name of HH head	No. of HH members	Date of move—in	Place of previous residence	Reasons of move—in	HH No.	Name of HH head	No. of HH members	Date of move—out	Place of destination	Reasons of move—out

※ For individual in — migrants, the same information appeared on the household questionnaire from together with the reasons and the place of previous residence are collected.