

CHAPTER 16 OTHER SERVICES

Coverage

16.1 The economic activities covered under this sector are, (i) educational services, (ii) research and scientific services, (iii) medical and health services including veterinary services, (iv) sanitary services, (v) religious and other community services, (vi) legal services, (vii) recreation and entertainment services including T.V. and Radio broadcasting, (viii) personal services (domestic, laundry, dyeing and dry cleaning, barbers and beauty shops and others), (ix) international and extra territorial bodies and (x) services n.e.c. Schools, hospitals, research and scientific institutions, cultural and recreational services which are operated by the government or non-profit institutions are also included. Domestic services and other personal services rendered by one household to another are also included in this sector (Table 16.1).

Methodology and Source material

16.2 The method generally followed for estimation of value added from different categories of services is to use the total number of persons engaged and value added/earnings per person. To the extent necessary, the profits and dividends earned by the organised/corporate enterprises engaged in these activities is added to account for the factor incomes generated in the forms other than labour income.

Sources of Data

16.3 The major sources of data are (i) the population census giving the estimates of working force, (ii) the follow-up sample surveys of EC concerned with services, (iii) the publication 'Education in India' and (iv) budget documents for data relating to activities of these services covered under government.

16.4 **Population census:** The details of data available in population census and estimation of working force therefrom are already discussed in the chapter on Working Force.

16.5 **Follow up surveys of EC:** The first follow-up survey on 'services' was conducted by the CSO and the NSSO in 1979-80. The second follow-up survey called the Enterprise Survey conducted in 1983-84 by the CSO covered the service industries also. The complete results of both these follow-up surveys relating to services are available. The GVA, employment, output, GVA per worker etc., as obtained from these surveys were examined and were found to be usable.

16.6 **Education in India:** Ministry of Human Resource Development (HRD) publishes details on wages and salaries alongwith other items like number of teachers, students etc., in their annual publication 'Education in India'. The publication has considerable time lag of about 4 to 5 years. Data on wages and salaries with a less time lag are, however, supplied by the Ministry on request.

Estimates at Current Prices

16.7 The estimates of GVA are prepared separately for the various categories mentioned in paragraph 16.1. For this purpose, the number of workers available from 1971 and 1981 population censuses are used. The number of workers as on 1st October, 1980 and for subsequent years are estimated generally assuming the geometric growth rate between 1971 and 1981 census results. The census main working force has also been adjusted for subsidiary and marginal workers, as value added per worker from follow-up

surveys of ECs is based on total workers. These adjustments are described in the chapter on Working Force.

Educational services

16.8 Recognised institutions: The estimates are prepared separately for the recognised and unrecognised institutions. For the recognised institutions, GVA is taken to be the sum of total wages and salaries of teachers and other staff employed in educational institutions and the secondary income arising from educational services plus consumption of fixed capital. Wages and salaries of teachers and other staff working in recognised educational institutions are available from the 'Education in India' published annually by the Ministry of HRD. As there is considerable time lag in the publication, the necessary data are directly collected from the Ministry of HRD. There is, however, some time lag in the availability of these data also. Therefore, for the more recent years, necessary data for the latest available year are carried forward using the rate of increase in the government expenditure on wages and salaries of educational services which is available from government budgets.

16.9 Unrecognised institutions: As the Ministry of Education provides data relating to recognised institutions, these have to be further adjusted for the contribution of the unrecognised institutions as well as the income earned by those having educational service as a secondary occupation. From the data available from the results of Enterprise Survey, 1983-84, it has been observed that the contribution of persons working in the unrecognised educational institutions and those having secondary occupation in educational services, form 4.5 per cent of GVA from recognised institutions. This proportion has been used uniformly in all the years for the necessary adjustment.

Research and scientific services

16.10 For this sub-sector, GVA per worker is assumed to be the same as the average value added per person in public administration and defence. The number of workers for the years have been estimated on the basis of 1971 and 1981 population census results, details of which are furnished in the chapter on Working Force. The total GVA is obtained by using the total number of workers and GVA per worker.

Medical and health services

16.11 Public sector: For medical and health services, the value added is estimated separately for public and private sectors. For the public sector medical and health services, GVA is taken to be equivalent to the budget expenditure on salaries and wages of doctors and other medical staff plus consumption of fixed capital.

16.12 Private sector: The estimates for the private sector have been obtained as a product of estimated working force and the corresponding GVA per worker. The estimates are prepared separately for rural and urban areas.

16.13 The number of workers in the private sector is estimated by deducting the number engaged in public sector from the corresponding total. The annual estimates of total working force is obtained by using the base year figure estimated from 1981 population census and the current growth rate in the number of medical personnel available from the Ministry of Health and Family Welfare. The annual figures for the number of persons engaged in the public sector are obtained from DGET. Since public sector includes medical and health services in railways also, deduction has been made for estimated working force engaged in railway medical services as DGET data used does not include their services. The residual working force in the private sector is for rural and urban areas combined and has been further bifurcated into the rural and urban areas in the ratio of rural and urban working force in the total working force under medical and health services in 1980-81.

16.14 GVA per worker by rural and urban areas for 1980-81, 1981-82 and 1982-83 for private medical and health services has been arrived at by interpolating the results of the follow-up surveys of EC conducted by CSO and NSSO in 1979-80 and by CSO in 1983-84. The interpolation is done by using the compound growth rate method between the estimates of value added per worker obtained for the years 1979-80 and 1983-84. The GVA per worker for 1983-84 has been taken directly from the survey for 1983-84. For the years 1984-85 and onwards, the GVA per worker for the year 1983-84 has been carried forward with the growth in index of wage rate of rural skilled workers for rural areas and with the growth in CPI number for urban non-manual employees for urban areas.

Recreation and entertainment services

16.15 GVA by recreation and entertainment services other than radio and T.V. broadcasting has been estimated on the basis of value of output of these services as estimated for PFCE, details of which are given in the relevant chapter. To obtain GVA from these services, the ratio of GVA to value of output in entertainment services as observed from the results of Enterprise Survey, 1983-84 has been used. GVA for radio and T.V. broadcasting, which are in public sector, has been estimated on the basis of budget analysis of Ministry of Information and Broadcasting.

Sanitary services

16.16 The estimates for sanitary services are prepared separately for public and private sectors and for urban and rural areas.

16.17 **Public sector:** For public sector, only wages and salaries are considered as value added and these are based on analysis of budget documents for all the years.

16.18 **Private sector:** Estimates of wages and salaries relating to private sector are obtained as a product of estimated number of workers and the per head wages and salaries. Account is then taken of factor incomes other than wages and salaries. The working force in private sector for the base year 1980-81 is estimated by subtracting the estimates of working force in public sector from the total estimated working force. While the total working force is estimated from population census working force (details given in chapter on Working Force) the estimate relating to public sector is obtained from data compiled by DGET. It is further assumed that the working force in public sector relates to urban areas only.

16.19 Data on number of workers engaged in sanitary services in various municipalities and their wages and salaries are obtained annually by the CSO from the DESs. Since the returns are not received from all municipalities, these have to be used in combination with the census data on working force. These data are compiled statewise for each of the five classifications (based upon population) of towns i.e., (i) towns with population 5 lakhs and above, (ii) towns with population 1 to 5 lakhs, (iii) towns with population 75,000 to 1 lakh, (iv) towns with population 50,000 to 75,000, and (v) towns with population less than 50,000. The wages and salaries per person are also calculated for each of these categories as well as for all municipalities together.

16.20 The total wages and salaries in the private sector in the urban areas for each state for the year 1980-81 is worked out by multiplying the corresponding working force with the average wages and salaries obtained for all the categories of municipalities put together.

16.21 For the subsequent years, the estimates are prepared using the total employment and average wages and salaries per person. These are determined applying growth in employment and wages and salaries respectively over the previous year (as revealed by the data from the responding municipalities) on the total enhanced working force and wages and salaries relating to the previous year.

16.22 The same approach is followed for rural areas. The annual estimates of number of workers are based on the base year figures from 1981 population census and the minimum growth rate in employment observed among the five categories of urban municipalities of each state. Similarly the per capita earning is taken to be the lowest average observed in the five categories of municipalities.

16.23 To account for factor incomes other than compensation to employees in the organised sector, the data on rent, interest, profits and dividends available from ASI for enterprises engaged in such services are used.

International and extra territorial bodies

16.24 Working force in international and extra-territorial bodies as revealed by the Population census 1981 has been kept separate unlike the earlier practice of keeping this category with "other services" n.e.c. In the absence of any direct data on value added per worker relating to this sub-sector, the value added per person relating to public administration and defence has been used to estimate the value added.

Religious and other community services, legal services, personal services and services n.e.c.

16.25 The general approach in all these services is to estimate the annual working force in each category using 1981 population census data with either the geometric rate of growth between 1971 and 1981 as revealed by population census results or any independent indicator to measure the change in the number of persons engaged and GVA/gross earnings per worker.

16.26 In the new series attempts have been made to search for physical indicators highly correlated with the activities for projecting 1980-81 census working force to other years for as many subsectors as possible. Thus, in case of legal services, 1980-81 census working force (for rural and urban areas combined) has been moved to other years with the help of the index based on number of advocates in India as obtained from the Bar Council of India who keep a record of such statistics. In case of Laundry, dyeing and dry cleaning services, an indicator of index of industrial production of detergent comprising (i) soap of all kinds, (ii) detergent of all kinds, (iii) tally acid and (iv) glycerine has been used to project the 1980-81 total census working force in rural and urban areas together. For the rest of the individual services the bench mark year estimates of working force have been extrapolated on the basis of average annual compound growth rate revealed by estimates of working force in respective services by population censuses of 1971 and 1981 separately for rural and urban areas.

16.27 GVA per worker for all these services, namely, legal services, religious and other community services, personal services (domestic, laundry, dyeing and dry cleaning, barbers, beauty shops, and others) and services n.e.c., is estimated using the same approach and source material as for "medical and health services" as discussed in para 16.14. The estimates of GVA is thus obtained by using the GVA per worker and number of persons engaged for rural and urban areas separately. However, in case of laundry, dyeing and dry-cleaning services, since working force has been projected in subsequent years with the help of index of industrial production of detergent which is not available separately for rural and urban areas, the working force estimate is a combined one for Rural and Urban. As such, GVA per worker in rural and urban areas have been combined in the ratio of rural and urban working force in 1980-81 for estimating the total value added. Similar method is used in the case of legal services also.

Business profit of joint stock companies

16.28 The sum of the estimates for education, medical and health, and the rest of the services (excluding sanitary services) cover all the incomes generated in the sector except for business profits of joint stock companies engaged in such activities. These figures are, therefore, added to the above estimate to obtain the aggregate figure inclusive of both

corporate and non-corporate sectors. The data on business profits of joint stock companies engaged in other services (excluding sanitary services) are available annually from the All India Tax Statistics, Directorate of Inspection, Ministry of Finance. In the case of sanitary services, the estimates already include the business profits also.

Estimates at Constant Prices

16.29 For some of the sub groups the base year estimates of value added (excluding profits and dividends of the corporate sector) are moved by physical indicators to arrive at the annual estimate at constant prices. In some other cases, the estimates at current prices are deflated by CPI number for industrial workers to derive the estimates at constant prices. Thus, for educational services as a whole, medical and health services in public sector, T.V. & Radio broadcasting and for the part of sanitary services, estimates for which are based on the budget data, the estimates at current prices are deflated by the CPI number for industrial workers to derive estimates at constant prices. For the rest of the services the base year estimates have been moved with the growth in working force in corresponding services. The profits and dividends of the corporate sector are deflated by index number of wholesale prices of all commodities to obtain the constant price estimates.

Quality and limitations of Data base

16.30 Till regular annual surveys are undertaken to enumerate working force engaged in the individual services and their average earnings, the estimates in this sector will continue to be based on only the decennial population census data and limited information on average earnings. At present data available in respect of per head earnings in 'Other services' sector (except education and public sector medical and health and sanitary services) are based on periodical follow-up surveys of EC conducted by the CSO and NSSO. In case of scientific and research services and international and extra-territorial bodies, in the absence of direct data on per person earnings, the per head earnings relating to public administration and defence are used.

TABLE 16.1: Value Added from Other Services, 1980-81

(Rs. crore)	
Item	Value added
(1)	(2)
1. Community services	4514
1.1 Education	3147
1.2 Research & scientific	180
1.3 Medical & health	1023
1.4 Religious & other community	164
2. Legal services	208
3. Recreation & entertainment services	358
4. Radio & TV broadcasting	21
5. Personal services	885
5.1 Domestic	198
5.2 Laundry, dyeing & dry cleaning	173
5.3 Barbers & beauty shops	230
5.4 Others	284
6. Sanitary services	289
7. Services/activities n.e.c	749
8. International & other extra-territorial bodies	13
9. Add gross operating surplus of joint stock companies	4
10. Gross value added	7041
11. Less consumption of fixed capital	264
12. Net value added	6777