

of the cost of living ; or, in other words, the prices of each commodity and service must be weighted according to the relative importance of it in the total consumption of the individual. In this respect the information available is particularly meagre. Such data might have been obtained from the production and consumption statistics of these articles in the Dominion, but no statistics of the kind exist of sufficient range and detail. Such material as we could get has been used in order to check the results obtained by other methods.

Another method is to derive these percentages from an examination of a number of workmen's budgets, each showing detailed expenditure of income over a period under certain main heads—*e.g.*, food, rent, clothing, fuel and light, and other expenses. The Commission was able to apply this method also only in an incomplete form, as no statistics of this nature existed before the Labour Department's recent inquiry into the cost of living in 1910–11. It had therefore to be assumed that the distribution of expenditure over the main classes of goods consumed remained constant throughout the period at the ratios shown in the Department's report,* though undoubtedly the general rise in incomes, the fall in the size of the average family, and the rise in the standard of comfort must have changed it to some extent. In interpreting the results an attempt has been made to allow for these factors.

9. The results obtained from index numbers have also been checked, as far as the data given us would allow, by making up a representative or standard budget of consumption, and estimating its total cost at the prices of different years. This method is trustworthy only when a great many accurate samples of actual budgets have been collected relating to a series of years, giving the actual prices paid and the actual quantities consumed. A representative budget may then be deduced for each date. To compare them in order to get the index of the rise or fall in prices the method described by Bowley† may be adopted. Suppose there are two budgets from the series for two separate years. Price the second year's budget at the first year's prices ; the ratio of the two amounts may be 8s. 3d. to 10s. 11d. ; therefore the index number of retail prices equals $\frac{8s. 3d.}{10s. 11d.}$ of 100, equal to 75·6. Price the first year's budget at the second year's prices ; the ratio may be 5s. 10d. to 6s. 10d., and the index number 85·4. Since the first overstates and the second understates the fall, some number between them, preferably their mean (80·5) may be assumed to describe it approximately. Rent presents a serious difficulty, because the influence exerted by improvement in the general quality of the houses and sites, through the expenditure of the rates, cannot be disentangled from that of other factors. Then, since most budgets available relate only to necessities, and even to food only, there is the difficulty of measuring changes in the purchasing-power of the money left over after paying for these ; but for reasons already noticed these changes are fairly well indicated by movements in the wholesale prices index number.

The results arrived at by these various methods are summarized in the following tables and commentaries upon them. The relation of the changes discovered to the incomes of the people is discussed in the chapter on the standard of living.

10. Table 1 summarizes the index numbers of the eight groups of commodities on which Dr. McIlraith's index number of wholesale prices in New Zealand is based, and is intended to show the general trend of average prices over the period under review, as well as the trend between 1860 and 1890, which is added for the purpose of comparison. It will be seen that the average falls, with but slight upward fluctuations, till 1895, since when there has been a rise. The level in 1911 is almost half what it was in 1866, and much the same height as in the late eighties.

* See Inquiry, pp. 15, 23, and 26.

† Elements of Statistics, p. 226.