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Appendix D

Methods of Estimating the Number and Value of Chickens, by States, Census Years, 1870–1920

Number of Chickens

For 1870, when no enumeration of poultry was made by the census, the number of chickens was estimated for the United States by extending to 1870 a curvilinear regression line drawn through the United States totals for 1910, 1900, 1890, and 1880 after these had been adjusted as described below. This estimate for the United States was prorated to the states on the basis of the 1880 distribution.

For 1880, 1890, and 1900 the number of chickens reported by the census for each state were adjusted to make them comparable to the Bureau of Agricultural Economics estimate for January 1 of 1925 and subsequent years. The census-reported numbers of 1880 were increased 38 per cent, those of 1890 were decreased 25 per cent, and those of 1900 were increased 12 per cent.¹ These adjustments, made necessary by differences in census dates and in the wording of the inquiries, presumably affected the enumeration in one state much the same as in any other.

For 1910 and 1920 the numbers of chickens in each state reported by the census were adjusted by applying a factor derived by relating the BAE estimate of the number of chickens in the United States on January 1 of these years to the number reported by census.

Value of Chickens

For the census years 1870–1900 a value per head was estimated for each state and this was multiplied by the estimated numbers. The value per head was estimated by striking an average of the United States price per pound for the year immediately preceding and following January 1 of the census year, multiplying this by the United States average weight of chickens for that year, and applying to this product factors that represented for each state the average percentage that the price of chickens was of the United States price in

¹ Percentages are from estimates in S. A. Jones, *Farm Value, Gross Income and Cash Income from Farm Production*, Part II, *Method and Procedure in Estimating Production Disposition and Income from Poultry and Eggs*, Bureau of Agricultural Economics, December 1930.

1925-1929, the earliest five-year period for which this information is available.²

For 1910 and 1920, BAE estimates of the value of chickens in the United States on January 1 are available. These totals were distributed to the states in the same proportions that the census-reported state values were of the respective United States values.

² United States average prices and weights from Frederick Strauss and Louis H. Bean, *Gross Farm Income and Indices of Farm Production and Prices in the United States, 1869-1937*, Dept. of Agriculture Tech. Bull. 703, 1940, p. 101. State and United States prices for 1925-1929 from which the factors were derived, from *Farm Production and Disposition of Chickens and Eggs, 1925-1937*, Bureau of Agricultural Economics, 1938.