

RESEARCH NOTE

REGIONAL ANALYSIS OF INDIAN AGGREGATE INCOME, NORTHERN MANITOBA: 1896-1935

Frank Tough

Department of Native Studies
University of Saskatchewan
Saskatoon, Saskatchewan
Canada, S7N 0 W 0

Abstract/Resume

This is a description and partial analysis of changes in the Aboriginal economy of northern Manitoba from 1896-1935 using income data from the Department of Indian Affairs.

En se servant des informations de revenu reçues du Département des Affaires Autochtones, cet article est une description et une analyse partielle des changements dans l'économie des Autochtones du nord du Manitoba de 1896-1935.

Introduction¹

This research note will describe and where possible, explain changes which occurred in the Native economy between 1896-1935 by analyzing income data collected by the Department of Indian Affairs. These data provide some insights about Indian income and "capital" accumulation for the Interlake and Northern Manitoba. This source of published data does not allow for an examination of types and value of incomes at the Band level, but it is feasible to interpret regional variation in the Native economy. The lack of useful information in the annual reports after 1917 and the overall paucity of archival records for the Department of Indian Affairs in the 1920s suggests that these data are potentially more significant than many researchers have acknowledged. This data set is also useful in bridging the early and late Reserve transition periods (1870-1914 and 1915-1940).² Apparently the detailed nature of this numerical data, and the potential to check interpretations based on descriptive sources seems to have been overlooked or viewed sceptically by previous researchers. There is a line of thought in revisionist Native history which, while relying on descriptive sources from Journals and diaries kept by Europeans, dismisses numerical records as ethnocentric.³

Two noteworthy studies have made use of the tabular statement data on Indian incomes. One example of the use of economic data to reflect on debates concerning Indian/White relations is Burrows (1986). Burrows uses archival and published income data from the Department of Indian Affairs on the sources and value of income. Although only 13 years of data are used, he was able to compare the various southern interior plateau Bands and to compare other British Columbia Indian agencies with the southern interior plateau. His use of numerical data was supplemented by other sources. Burrows examined local variations by considering trends in economic activities, the supply of European labour and the quality of land. He concluded that: "The fact that they [Indians] had nonetheless been able to function at least for a period within the frame work of an economy based on wage labour suggests, however, that their capacity to adapt to new social and economic realities was not as limited as is frequently supposed" (Ibid.:46). Ray made use of tabular statement data to examine Indian incomes from 1922-1935 (1990:200-209). He aggregated agency level data and then converted total dollar figures to constant dollars. This data shows that, in the Canadian subarctic, Indian incomes declined in the 1920s and remained low during the Depression. An examination of these trends lead Ray to examine the numerical data on government relief to Indians and he noted: "As the native economic situation deteriorated, government expen-

diture for relief, medical assistance and education increased until the onset of the depression..." (Ibid.:205). The use of these data by Burrows and Ray demonstrate that important understandings about the Native economy and Native participation in regional incomes can be made.

This note not only provides some background information on the economic history of Native people, but also a method for using a data source which reported on Indians across Canada for several decades.⁴

Tabular Returns on Indians Published by the Department of Indian Affairs, 1896-1935: Method of Analysis

Indians, as wards of the government, were one of the most monitored groups in Canada.⁵ Indian agents living on Indian Reserves and the inspectors of Indian Agencies on their annual visits collected considerable data on Indian Bands. The annual reports for the Department of Indian Affairs appended detailed statistical returns by Indian Agency on the demographic, religious, educational and economic characteristics of Indians. These published returns made a remarkably consistent set of variables covering the period from 1896 to 1935. The data seems to have been aggregated since it was published as totals for each Indian Agency. For the purposes of this study information which reflected the economic condition of Indians was tabulated. Data were selectively abstracted from tables titled: 1) Grain, Vegetable and Root Production; 2) Land: Private and Public Buildings and Property; 3) Livestock and Poultry: General Effects; 4) Value of Real and Personal Property and Progress During the Year; and 5) Sources and Value of Income. Variables selected from these tables were organized into three data sets which emphasized income, agriculture and property. Income variables included: total income, agricultural income, wages, fishing income, hunting income, and other income. Hunting and fishing income was described as including the estimated value of fish and meat used for food. Variables which reflected the agricultural economy of Indian Agencies consisted of: total acres of Reserve land, acres cultivated, value of new agricultural land, acres of grain harvested, bushels of grain harvested, bushels of potatoes harvested, acres of potatoes harvested, number of cattle, tons of hay harvested and the value of livestock. Data on Indian property and general effects included the following variables: total value of property, value of Reserve land, value of private buildings, value of general effects, as well as, the number of each category of general effects (steel traps, canoes, tents, rifles and shotguns, motor and sail boats, and nets).

Although this source of information has not been used extensively, the reliability and validity of this data source has not been considered by most

historians seeking to revise Native history. This study did not begin with any assumptions concerning the reliability and the validity of the published tabular statements. Understanding this data is complicated because the archival and published records of the Department of Indian Affairs do not indicate the guidelines or data reporting procedures. Additionally, the archival records of the Department do not reveal any disaggregated returns for this part of Manitoba and consequently the tabular statement can only be examined at the level of Indian Agency. Apparently, collecting this data was taken seriously, as Inspector McColl stated: "I endeavoured to obtain from every possible source of Information ... the carefully prepared statistics contained in the tabular statement and supplement herewith enclosed."⁶ The validity of this source can be considered by plotting the data as line graphs. Erratic trends or wild fluctuations in the line graph presentations of the data would suggest that the tabular statements were largely conjecture; that returns were simply forwarded to Ottawa by Indian agents as a formality. This would not be a valid reflection of the economic conditions of the Indians. Most of the data in the tabular statements were probably estimates and guestimates provided by Indian agents and superintendents who were familiar with these Indian Bands.

One problem in using the data from the tabular statements is that the administrative area represented by the various agencies changed several times in the period from 1896 to 1935.⁷ The extension of Treaty Five to include new Bands, the surrender of the St. Peter's Reserve and the establishment of Peguis Reserve, resulted in a major reorganization of the Indian Agencies. Clearly, the reorganization of Indian Agencies, which resulted in the transfer of Indian Bands from one agency to another, means that the aggregate figures represent areas and populations which have changed. Line graphs over a 40 year period would be meaningless if major reorganization of Indian Agencies had resulted in changing the number of Bands (population base) composing the Indian Agency. However, this aggregate or total figure could be meaningful if reasonably standard administrative areas could be established for the period from 1896 to 1935. The first step in developing standardized regions was to reconstruct the administrative history of the study area. In 1896, the study area was represented by four Indian Agencies (Manitowapah, The Pas, Clandeboye and Berens River, renamed Norway House), but by 1911 five Indian Agencies (Manitowapah, The Pas, Clandeboye, Norway House and Fisher River) existed. This change reflected the addition of northern Bands whose land was ceded with the extension of Treaty Five and the surrender of the St. Peter's Reserve and the transfer of this Band to the Peguis Reserve. During 1917-1918, the Fisher River Agency was reduced from ten to three Bands

and two Bands were transferred from the Norway House Agency to The Pas Agency. The Manitowapah Agency, in contrast to the other agencies, remained remarkably consistent.

All the Indian Agencies which existed between 1896 and 1935 can be grouped into three regions. This effort to standardize the geographical aspects of the data resulted in the following regions: Clandeboye, Norway House and Fisher River agencies made up the Lake Winnipeg Region; The Pas Agency became The Pas Region and the Manitowapah Agency made up the Manitowapah Region. The Bands making up these regions are indicated in Map 1. The transfer of Split Lake and Nelson House from the Norway House Agency to The Pas Agency has the effect of significantly altering the demographic and economic characteristics of The Pas Region. While the merging of agencies into three regions does not remove all geographical inconsistencies, an awareness of the effects of the addition or transfer of Bands on a particular regions' economy provides an adequate framework for interpreting the data. The most difficult problem is not that data cannot be reasonably interpreted, but that there is a loss of specific regional detail as a result of the merging of the agencies into the lake Winnipeg region. Consequently, the detail on the somewhat differentiated economies (farming and wage labor at St. Peter's, lumbering and fishing for the Lake Winnipeg Bands and trapping among the Bands in the northeast) was lost.

Map 1 indicates the reorganization of the agencies and the remaining spatial/temporal irregularities in regional boundaries. Consequently, changes in line graph data may simply reflect the expansion or contraction of a region. To further standardize the data and ameliorate the possible effects of changing regional boundaries, all variables were converted to per capita indices. Thus the numerical effect of the addition of Band populations to a region was reduced by converting aggregate values to per capita indices. The annuity pay lists provided population data to merge annual Band population figures into aggregate regional totals on the same basis as the three economic regions. Therefore, the reorganization of the tabular statements into three regions and the conversion of total values to per capita figures has generated data which provides a realistic basis to interpret the economic trends between 1896 and 1935.

The Initial line graphs of the data indicated that a very few values in particular years were not reliable. These line graphs confirmed that during the 1910-1913 reorganization of the Fisher Agency some data were omitted from the tabular statements. Obvious typographical errors also occur in the published tabular statements. Since the data most probably was based on estimates, erroneous estimates and impossible values may have been

submitted by Indian agents. In these few instances, it was necessary to substitute an aggregate value with means. Means were generated by averaging data from the years before and after the erroneous value. Because many of the variables had a logical interlocking quality—for example, potato production and the area harvest—it was sometimes possible to cross-examine one variable against another before substituting the value with a mean.

The main objective in using this data is not to develop an inferential analysis based on highly reliable values for any particular year. Instead, the interpretation of trends is the most useful form of analysis of this data. The variability in the area of each of the regions has been controlled to the point that it is possible to interpret the data. The standardization of regions, the use of per capita indices and the substitution of suspicious values with means makes it possible to use the tabular statements on Indians. These descriptive statistics are a valuable source of information on the Native economy for the period 1896 to 1935.

The Manitowapah Region

The Manitowapah region was in geographical terms, relatively stable and includes Bands around lakes Manitoba, St. Martin and Winnipegosis (Map 1). Figures 1 to 6 describe the agricultural productivity of this region. Figure 1 indicates cyclical fluctuations in the per capita acres cultivated. The slight downward trend suggests that agricultural productivity did not keep pace with population growth. Figure 2 shows per capita potato productivity. While per capita production of potatoes fluctuates from about one to six bushels, there is little indication of a changing trend. However, from the peak in production in 1920 there is a downward trend. Grain production is indicated by Figure 3 and it suggests a short intense period of grain farming. Figure 4 indicates the per capita number of cattle owned by the Manitowapah Indians and that the relative size of herds in 1931 was similar to 1896. Two periods of building up of the herds are apparent (1903-1905, 1919-1925) in Figure 4. The decline in per capita cattle ownership corresponds to reports from Indian agents that: "unscrupulous character...advise them [the Indians] to sell their stock."⁸ With increasing war time prices, the size of herds declined because "our home buyers, also the Americans were scouring the country for cattle, and very high prices were paid."⁹ Hay production for Indian Reserves was largely based on wild swamp grasses and this would explain the fluctuations in hay production shown by Figure 5. The per capita value of livestock is indicated by Figure 6. The abrupt change in the value of cattle between 1913 and 1914 indicates the effect of

war time prices. Although the relative size of herds was no greater in 1931 than in 1896 (Figure 4), there is an overall trend for per capita value of cattle to increase between 1896 and 1931. The data on the agricultural economy of the Manitowapah region suggests that an effort at grain farming was unsuccessful and the real productivity in potatoes and the size of cattle herds remained constant in spite of fluctuations. Nonetheless, the agricultural productivity indicated by these line graphs indicates that efforts to diversify the Native economy after 1870 had long term results.

The income data for Manitowapah Indians are displayed by Figures 7 to 12. Total per capital income is presented in Figure 7; this graph represents only earned and subsistence income. Annuity payments or relief are not included. Total per capita income rose from the turn of the century at a level of about 20 dollars per person to over 60 dollars per person in 1913. Thus by the close of the early Reserve transition era, incomes reached a level somewhat higher than the average for the first few decades of the later Reserve transition era. Per capita income declined in the 1920s. Clearly, the First World War seemed to have had the effect of increasing per capita apparent income. During the war, inflation severely reduced purchasing power. Thus the higher per capita incomes between 1914 and 1920 do not represent greatly increased purchasing power. Figures 8 to 12 indicate that the sources of income and agricultural and fishing income are the most important sources of income. Agricultural incomes increased rapidly after 1910 suggesting an expansion of that sector, re-valuation of production or increasing prices. The general trend for wage incomes is to increase up until 1920, after which this source of income implies that it was seasonal work or that very few engaged in regular wage work. Figure 11 indicates per capita hunting and trapping income. Clearly from 1906 to 1923 this source of income was not only relatively insignificant, but also declined. The trend from 1923 through to the depression is towards an increase in per capita income. This either reflected an increase in the value of hunting and trapping production or it may suggest that with a marginalization of wage income, Indian efforts at hunting and trapping were intensified. Other income, although not a major source of income, tends to increase after 1914 (Figure 12). Again this implies that the Manitowapah Indians sought other sources of income with declining wage and fishing incomes in the 1920s. Overall, the income data indicates that in the period from 1897 to 1935 the Native economy of the Manitowapah Indians was based on a variety of incomes with agriculture and fishing being the most important components.

The tabular statements appended to the annual reports of the Department of Indian Affairs classified steel traps, rifles and shot guns, tents, nets, canoes, and motor and sailboats as general effects. Clearly these are the

most important features of a means of production associated with a "bush" way of life. Figures 13 to 19 display the Manitowapah Indians' per capita ownership of these general effects. Steel traps, rifles and shotguns, tents and canoes all display a similar trend toward a drop in per capita ownership after 1914 (Figures 13 to 18). The drop in per capita ownership of motor and sailboats is largely the effect of population growth (Figure 15). The per capita ownership of nets increases up until the end of the First World War after which it declines and does not increase again until the late 1920's (Figure 16). The trend in per capita ownership of nets corresponds to changes in per capita fishing income (see Figure 10). The per capita value of general effects is indicated in Figure 19; the decline from 1911 corresponds to the decline in per capita ownership of various general effects (Figures 13 to 19). The decline in the value of general effects after 1911 implies that the investment in the "traditional" sector of the economy did not keep pace with population growth.

Indications of capital accumulation are displayed in Figures 20 to 22. The total value of property (including the value of Reserve land), the value of private buildings and the value of nonland property (total property less value of Reserve land) are presented in Figure 20 to 22.

Changes in total property suggest a reasonable growth in capital accumulation, although this growth is not consistent with fluctuations in per capita income (Figure 7). Abrupt changes in the per capita value of private buildings are probably anomalies that result from estimating this type of capital investment. The estimates for the per capita value of private buildings seem reasonable since the total value of a cabin would be equal to the product of the average family size and the per capita value of private buildings. The best indication of capital accumulation is the per capita value of nonland property. The per capita value of nonland property grew from 72.43 dollars in 1911 to 129.74 dollars in 1931. On average, 2.87 dollars were added each year to the per capita stock between 1911 and 1931. In general, the trend in per capita capital accumulation between 1911 and 1931 corresponds to the trend in per capita income in the same period (Figure 7). The level of capital accumulation and the annual growth in per capita capital accumulation are within the means of the income earned by the Manitowapah Indians.

The Pas Region

The Pas region originally consisted of Reserves on the lower Saskatchewan River until 1917, when the population nearly doubled with the addition of the northern Reserves of Nelson House and Split Lake (see Map 1). The

agricultural economy of this region is described by Figures 23 to 27. The decline in per capita acres cultivated after the peak in 1913 is partly influenced by the increase in the region's population. Although the level of potato production fluctuates, as indicated by Figure 24, potatoes were not insignificant to The Pas Indians. Figure 25 indicates no pronounced trend in the ownership of cattle and Figure 26 displays cyclical fluctuations that are expected from the harvesting of swamp grasses. After 1917, both per capita cattle and per capita tons of hay harvested tend to increase which could indicate more intensive cattle operations in the lower Saskatchewan area or the spread of subsistence farming to Nelson House and Split Lake. Figure 27 indicates that the per capita value of livestock tended towards an overall increase between 1896 and 1931.

The per capita income and the sources of income are indicated by Figures 28 to 33. With the exception of a pre-First World War drop, a trend in increasing incomes occurs until the onset of the depression (Figure 28). The expansion in wage income was probably related to mining activities and to the completion of the Hudson Bay Railroad from Mile 350 to Churchill. Figure 31 represents fishing income and, with the exception of certain erratic high points which may indicate participation in the commercial industry, this source of income displays no trend. The absolutely low level of per capita dollar income from this resource implies that the subsistence value of fish was undervalued. Figure 32 indicates that hunting was the most important source of income. Figure 32 indicates certain fluctuations in hunting income which are indicative of fur price changes, such as the decline during the depression, and the region's dependence on muskrats whose populations are prone to extreme fluctuations. Other income was an insignificant source of income for The Pas Indians. Income data in Figures 28 to 33 indicates that this regional economy remained dependent upon hunting and trapping, and that both major sources of income, hunting and wage income were influenced by the depression.

Figures 34 to 39 present the major items used in the "bush" sector of the Native economy of The Pas Indians. In Figure 34, the abrupt change in the number of steel traps most likely reflects the addition of Nelson House and Split Lake to the region. The overall trend in Figure 34, however, is towards an increasing number of steel traps; the stagnation of trapping income (Figure 32) suggests that more capital was required to maintain incomes. Figure 35 indicates that the per capita ownership of rifles and shotguns increased until 1906 after which it levelled off. Figure 36 indicates the per capita number of tents and this index was influenced by the inclusion of Nelson House and Split Lake. Nonetheless, the trend in per capita ownership of tents demonstrates that a bush way of life was maintained. The

per capita ownership of canoes by The Pas Indians is indicated by Figure 37 and the values and trends are evidence that most families owned a canoe. Figure 38 suggests that the use of nets increased in this period. The per capita value of general effects in Figure 39 is influenced by the addition of Nelson House and Split lake, but the general trend in the per capita value of general effects corresponds to the trend in per capita income for the period 1896-1931 (Figure 28). Between 1919 and 1931 the per capita value of the capital used in the bush sector stagnates. All of these indices presented in Figures 34 to 39 are composed of elements used for fishing, hunting and trapping and indicate that investment was directed towards this sector.

The per capita value of total property, private buildings and nonland property of The Pas Indians are presented in Figures 40 to 42. The overall trend is toward an increase in the per capita value of total property. The inclusion of Nelson House and Split lake in the region results in a drop in per capita value of private buildings, but after 1917, the trend towards an increase in the per capita value of buildings would indicate Reserve development. The value of nonland property increases in per capita terms from 58.78 dollars in 1911 to 91.42 dollars in 1931. The average annual increase in the value of per capita nonland property between 1911 and 1931 amounted to 1.62 dollars. This capital accumulation would be within the means of income generated in The Pas region.

The Lake Winnipeg Region

The Lake Winnipeg region is indicated by Map 1. The region originally included the Reserves adjacent to Lake Winnipeg, but with the adhesions to Treaty Five, Bands to the north and east of Lake Winnipeg were added. Split lake and Nelson House were transferred to The Pas region in 1917 and 1928 the Roseau River Reserve was added to the Lake Winnipeg region. The agricultural economy of this region is depicted by Figures 43 to 48. Trends in per capita agricultural indices, such as per capita acres cultivated in Figure 43, were influenced by the move of the agricultural Indians of St. Peter's to the Interlake and the addition of a considerable number of hunting and trapping Indians with the extension of Treaty Five. Figures 44 and 45, which present potato and grain production respectively, indicate that the levels of agricultural activities were not insignificant. These graphs are also influenced by the addition of the southern Reserve of Roseau River in 1928. Figure 46 indicates that cattle herds increased within a decade of the Treaty Five Adhesions but declined rapidly after 1924. The trend in per capita hay production corresponds to the size of herds (Figure 47). Similarly, the

general trend in the per capita value of cattle corresponds to the trend in the size of the herds (Figure 48). While administrative changes to the organization of Indian Agencies make it difficult to interpret trends in the published numerical data, Figures 43 to 48 suggest that there was a minor upswing in agricultural activities after 1915.

Changes in per capita income and the sources of income are presented in Figures 49 to 54. Per capita income tends to increase until a peak in 1921. A significant decline in per capita Income is shown by Figure 49; after 1921 the level of income declines so that during the depression, income is at about the same level as incomes were at the turn of the century. The steady decline in per capita income may have been caused by both a steadily increasing population and the economic effects of the depression. Due to declining purchasing power caused by wartime inflation, the turn of the century incomes are not comparable to incomes in the 1930s. Figure 50 shows the effect of administrative changes in the region, otherwise per capita agricultural income is constant. Overall wage income displays a trend similar to per capita income (Figure 51). Figure 52 suggests that the subsistence value of fish was undervalued. Per capita hunting income (Figure 53) is the most important source of income and fluctuations may be the result of the First World War, competition and the depression. Other income presented in Figure 54 was not a significant source of Income and tended to decline after 1919. The most important results of this income data are the overall significance of hunting and trapping and the decline of per capita income after 1921.

The means of production associated with a bush economy are presented in Figures 55 to 60. Figure 55 indicates the per capita ownership of steel traps in the take Winnipeg region and the increase in the number of steel traps in the early 1920s while hunting income was declining (Figure 53) denotes that more hunting effort was expended. After 1915, the general trend in the per capita ownership of rifles and shotguns, tents, canoes and nets (Figures 56 to 59) tends to stagnate but does not decline as rapidly as the decline in per capita income (Figure 49). The basic trend in the value of general effects (Figure 60) is towards a slight increase in the period 1896 to 1931.

The value of property owned by Lake Winnipeg region Indians, an indication of capital accumulation, is shown by Figures 61 to 63. The per capita value of all property increased in the period from 1896 to 1931. The increase in the value of private buildings after 1915 suggests Reserve development (Figure 62). The stagnation of the per capita value of nonland property after 1923 (Figure 23) is consistent with the declining incomes in that period. Between 1911 and 1931, the per capita value of nonland

property increased from 49.40 dollars to 80.85 dollars. This represents an average annual increase of per capita nonland property of 1.57 dollars.

Regional Comparisons of the Native Economy: 1896-1935

An examination of the data on the Native economy abstracted from the tabular statements and presented as line graphs of per capita indices shows that this data set exhibited reasonable, consistent and expected trends. This section will compare the three regions for substantive findings and as an additional means of scrutinizing the data from the tabular statements. Figure 64 and Tables 1 and 2 present data for regional comparisons. While data on Indian Agencies may have been based on individual methods of estimating, and consequently, actual differences could be negated or exaggerated, an explanation of this data suggests that consistencies existed among the agency returns which make regional comparisons possible.

The percentage source of income by region are presented in Figure 64. For The Pas region, a fluctuating hunting income was the dominant source of income. During the later Reserve transition era, wage income emerged as the second most important source of income. Until 1910 and the expansion of the Lake Winnipeg region, no single source of income dominated the economy of the Lake Winnipeg Bands. Therefore, the Bands around Lake Winnipeg during the final decades of the early Reserve economy period had a diversified economy. This is consistent with other observations on lake Winnipeg Bands (Tough, 1984). For the Indians of the enlarged lake Winnipeg region after 1910, hunting and trapping was the dominant source of income, but it was not as exclusive a source of income as it was for The Pas region. Agriculture as a proportional source of income dominated the Manitowapah economy after 1916 and this contrasts with the situation in Lake Winnipeg and The Pas regions. Thus by 1935, certain structural differences existed between the regions in terms of source of income: hunting in The Pas region with wages an important second source of income, hunting in the lake Winnipeg region with no significant second source of income and for the Manitowapah region, agriculture dominated, and all other sources of income contributing approximately the same proportion.

Regional comparisons of select economic indicators are presented in Table 1. The variable per capita acres cultivated includes the area used to harvest swamp hay and the difficulty in estimating this variable may explain why the Lake Winnipeg region appears to have more extensive agriculture than the Manitowapah region. However, the dominance of the Manitowapah region in agriculture is clear with respect to potato production and cattle

ownership by the end of the period. A comparison of the per capita ownership of steel traps indicates the importance of this method of trapping for The Pas Indians over the Lake Winnipeg and Manitowapah Indians. Given the importance of muskrats in the lower Saskatchewan River delta, an intensive use of steel traps by The Manitowapah and Lake Winnipeg Indians used trapping techniques which involved fewer steel traps. Table 1 indicates that per capita canoe ownership was lower in the Manitowapah region than The Pas and Lake Winnipeg regions. The regional comparison of the select economic indicators in Table 1 would conclude that the Manitowapah region was agriculturally oriented while The Pas and Lake Winnipeg regions were engaged in hunting and trapping.

A regional comparison of income and capital accumulation is displayed in Table 2. In 1896 the three regions have approximately the same level of per capita income. The greatest difference appears to be in the maximum per capita income and the date when maximum per capita income occurred. By 1935, per capita income for The Pas and Manitowapah Indians had reached similar levels, while the incomes of Lake Winnipeg Indians had peaked and then dropped to the 1896 level. Given the similarities in the sources of income for The Pas and Lake Winnipeg regions, it would be expected that they should have similar per capita incomes by 1935 (Table 2). Both The Pas and Lake Winnipeg regions, however, are similar because they experienced similar contractions in income. The magnitude of decline for these trapping based regions was similar, although the decline in The Pas incomes was more rapid after the peak in 1929, while the decline in per capita income was a protracted decline from 1921 in the Lake Winnipeg region.

Table 2 attempts to reconcile changes in income and nonland property. Thus, average annual per capita income (1911-1931), the growth in per capita nonland property, and the average annual growth in nonland property have been calculated for each of the regions. If Indian agents did not make reasonably valid estimates of income and property, it is probable that values would have emerged in which capital accumulation occurred at a level inconsistent with incomes and that similar economic regions would have vastly different ratios of income and capital accumulation. The average annual growth in nonland property as a percentage of average annual per capita income between 1911 and 1931 are not so high as to be an unreasonable rate of investment. The ratio of growth in nonland property (capital accumulation) and average income are similar for the hunting regions of The Pas and Lake Winnipeg. In contrast, the agricultural economy of Manitowapah appears to have had a higher ratio of capital accumulation to income (Table 2). Several reasons should explain this situation. With higher

levels of "fixed capital" (such as farm machinery, buildings, cattle) in an agricultural economy, a higher ratio of capital accumulation to Income would be expected in the Manitowapah than in the hunting and trapping economies of The Pas and Lake Winnipeg region. The fact that cattle herds could increase in value independently of income would differentiate these two economies. Table 1 indicates that by 1935, the Manitowapah Indians owned significantly more cattle than The Pas and Lake Winnipeg Indians. Additionally, some of the growth in nonland property may have been the result of support for agricultural activities from the Department of Indian Affairs. Such support would have the effect of increasing the ratio of capital accumulation to income. Finally, this analysis of income and capital accumulation indicates that logical consistencies are found in the tabular statement data, strongly suggesting that Indian agents forwarded reasonably valid accounts of the Native economy.

Summary

The tabular statement data presented in this research note provides a description of the Native economy which spans the Reserve transition period and the depression. Many of the descriptive variables indicate progress in the final decades of the Reserve transition period, with abrupt changes coinciding with the war years, after which many indices indicate a stagnation or marginalization of the Native economy. This is even more pronounced if the published data in current dollars had been converted to constant dollars. This note outlined a method of analysis which circumvented spatial and temporal irregularities in the data caused by administrative changes made by the Department of Indian Affairs. The data indicates that certain marked regional differences in economies had emerged by the beginning of the depression. This quantitative data is consistent with qualitative data which demonstrate that Native incomes were differentiated in the post-1870 period (Tough, 1984; 1987). A descriptive examination of trends in a line graph presentation of economic indices and a regional comparison of an analysis of income and capital accumulation indicates that valid interpretations can be made about Native economic activities from tabular statements published by the Department of Indian Affairs.

Notes

1. Unless indicated, all numerical data referred to in this study are derived from the tabular statements of the *Annual Reports of the Department of Indian Affairs, 1896-1935* (Published in Sessional Papers and as

Annual Reports). The use of population data to generate per capita indices is based on the Annuity Paylists 1896-1935, held by the Program Reference Centre, Indian and Northern Affairs Canada.

2. The early Reserve transition era might also be seen as the period from 1870 to 1885 (the very earliest years of the Reserve experience), by which time most Band members had settled on Reserves.
3. Elanor M. Blain relied on daily journals to re-interpret the northern Ojibwa and the fur trade and then argued: "Account books themselves are not neutral, apolitical documents; they are part of a whole belief system. Their figures represent the values assigned by the accountant's culture to goods, services and time. How can these figures pretend to assign values and motives to people who do not share that culture and belief system?" (Blain, 1991:103). This generalization is a convenient rationalization for ignoring quantitative data and a rather peculiar slight of hand has occurred. Somehow we are expected to believe that Blain's own interpretation of the Impressionistic observations of Company men is less ethnocentric than the original accounting records concerning the volume of trade. Moreover, the use of accounting data concerning the types of goods traded, the furs produced, or the profits earned, does not require reassigning values and beliefs on another group of people. (In this sense she has introduced a *non sequitur*.) Blaine has created this argument by combining the fallacy of difference (a tendency to conceptualize a group in terms of its special characteristics to the exclusion of its generic characteristics) and the antinomian fallacy (the facts that count least, count best) (Fischer, 1970:222-223; 94-97). In this case, Blain has approached the HBC records by special pleading, the diaries and journals are valid, the accounting records are ethnocentric. Such a method is consistent with keeping history and social science separate and provides no means for considering the historical processes at work.
4. This research notes is based on an appendix in my Ph.D. thesis, see Tough, 1987:422-475.
5. For example, the *Indian Act of 1886* stated that the Superintendent General of Indian Affairs shall "have control and management of the lands and property of Indians." The *Indian Act, Revised Statutes of Canada, 1886, Chapter 43, Section 4*, reproduced in *Indian Acts and Amendments 1868-1950*. Ottawa: Treaty and Historic Research Centre, Department of Indian and Northern Affairs, 1891 p. 60.
6. Canada, *Sessional Papers*, 1882, Annual Report for the Department of Indian Affairs, No. 6, p. 86 (hereafter CSP, Indian Affairs). A circular issued by L. Vankoughnet, Deputy Superintendent General of Indian Affairs in 1890 provides very little information about the collection of

- data for tabular statements. National Archives of Canada, public records of the Department of Indian Affairs, RG 10, vol. 3905, file 504,939 (10 April 1890).
7. A serious misuse of this data can be found in Bruce Stadfeld's "Action-Reaction: The Evolution of the Native Economy of The Pas and Norway House Agencies, 1870-1939," a paper presented at the National Student Conference on Northern Studies, Ottawa, November 18-19, 1986. The presentation of aggregate data in the form of bar graphs was essentially meaningless because of population changes in these agencies. The author drew conclusions about change over time without making the reader aware of major administrative changes to the geographical regions and populations defined by these agencies.
 8. CSP, 1911, Indian Affairs, No. 27, p. 105.
 9. CSP, 1916, Indian Affairs, No. 27, p. 50.

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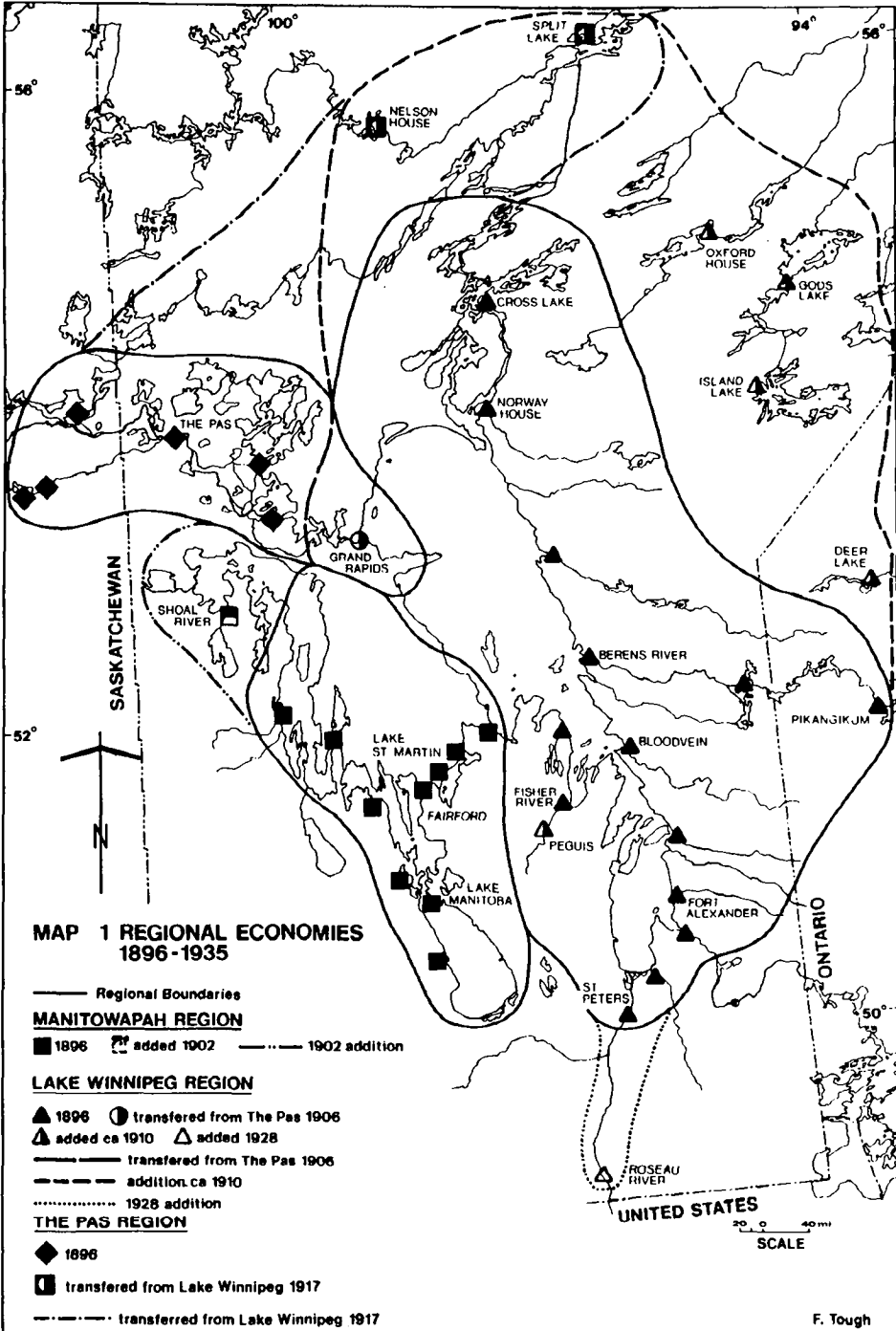
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- 1990 *The Canadian Fur Trade in the Industrial Age*. Toronto: University of Toronto Press.

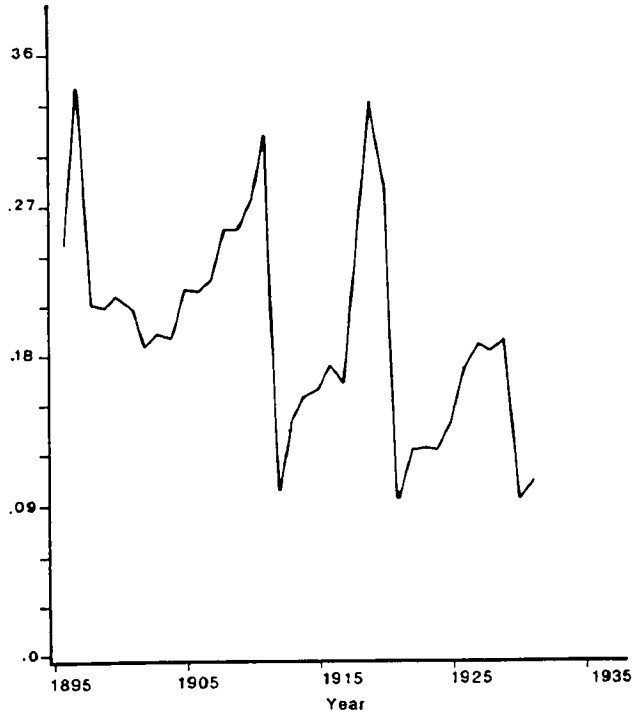
Tough, Frank

- 1987 Native People and the Regional Economy of Northern Manitoba: 1870-1930s. Unpublished Doctor of Philosophy Dissertation, York University, Toronto.
- 1984 Changes to the Native Economy of Northern Manitoba in The Post-Treaty Period: 1870-1900. *Native Studies Review* 1(1):40-66.



SOURCE : Canada, Annual Reports of Department of Indians, 1896-1935

FIGURE 1 MANITOWAPAH REGION:
PERCAPITA ACRES CULTIVATED



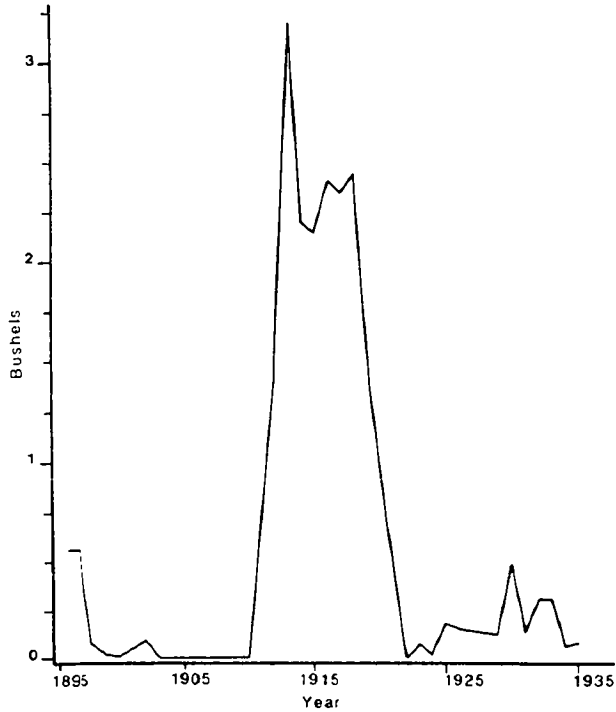
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 2 MANITOWAPAH REGION:
PERCAPITA POTATO PRODUCTION



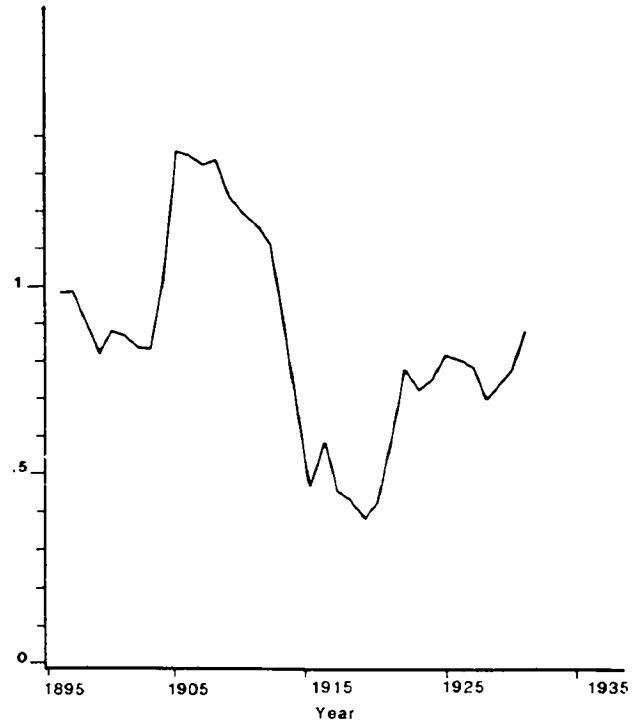
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 3 MANITOWAPAH REGION:
PERCAPITA GRAIN PRODUCTION



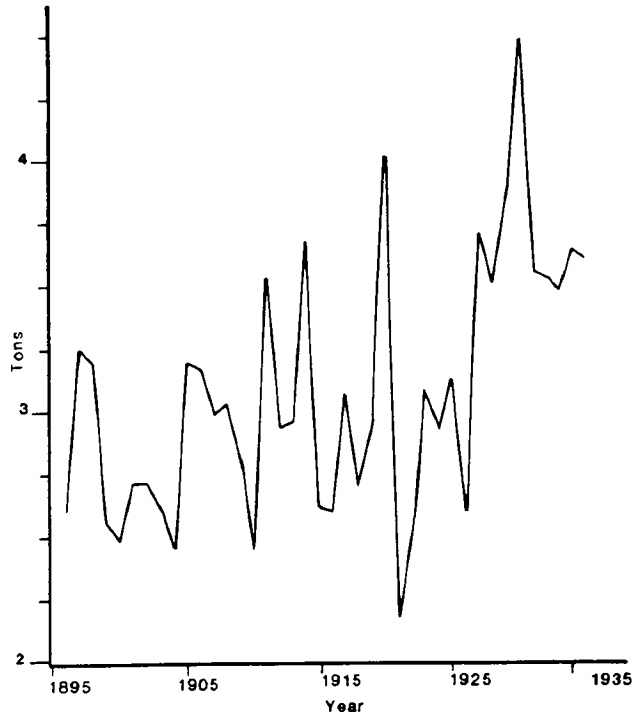
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 4 MANITOWAPAH REGION:
PERCAPITA CATTLE



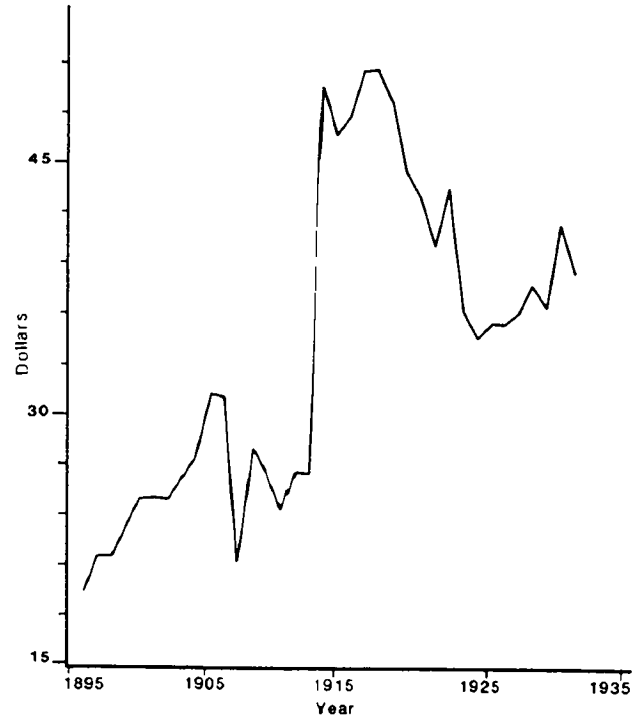
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 5 MANITOWAPAH REGION:
PERCAPITA HAY HARVESTED



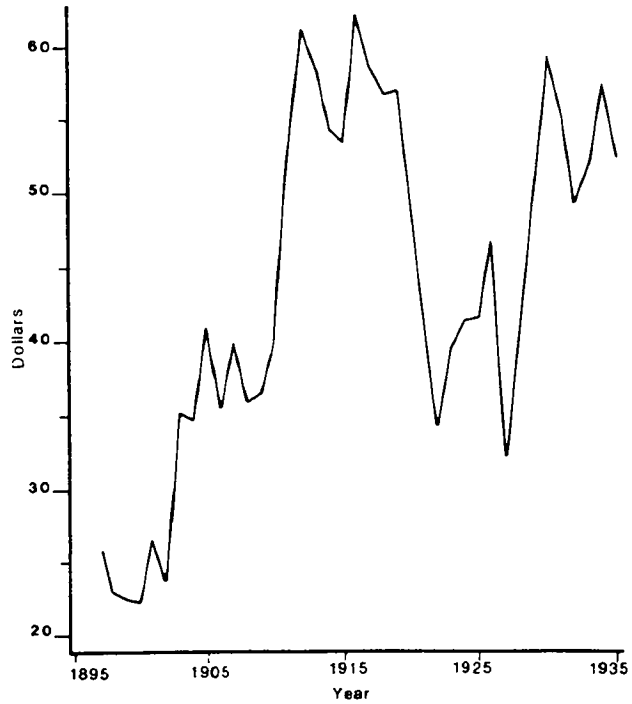
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 6 MANITOWAPAH REGION:
PERCAPITA VALUE OF LIVESTOCK



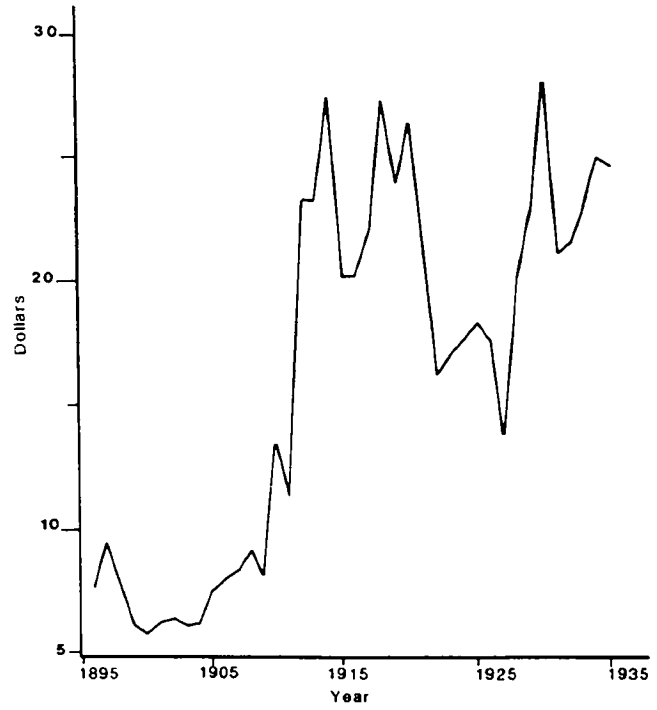
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936 and Annuity Paylists, 1896-1935.

FIGURE 7 MANITOWAPAH REGION:
PERCAPITA INCOME



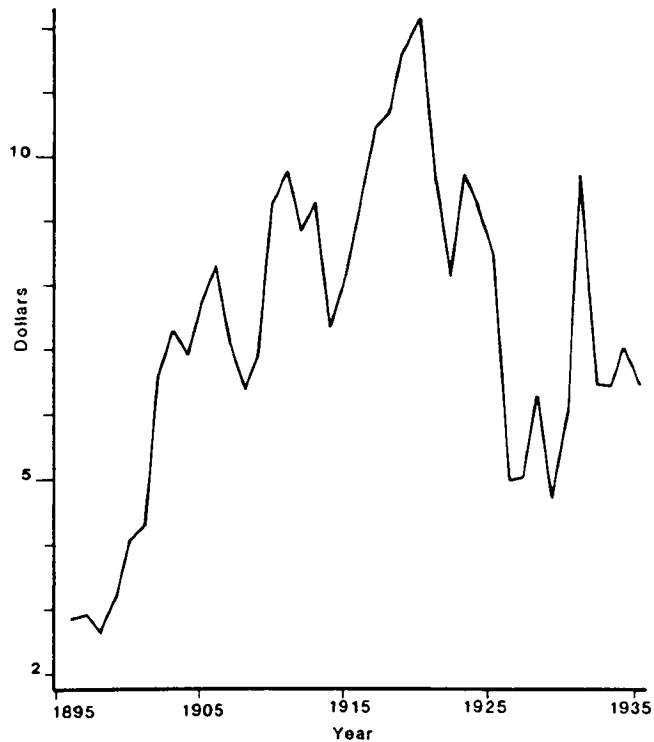
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 8 MANITOWAPAH REGION:
PERCAPITA AGRICULTURAL INCOME



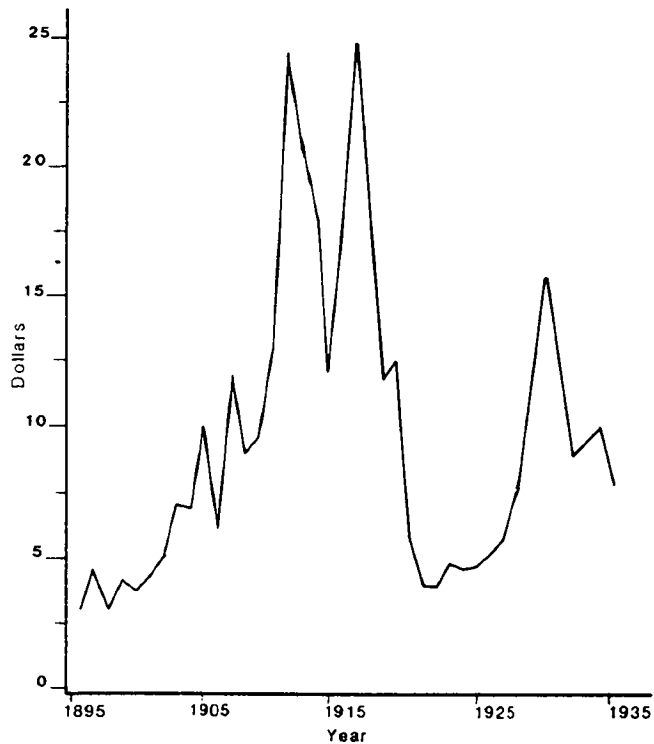
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 9 MANITOWAPAH REGION:
PERCAPITA WAGE INCOME



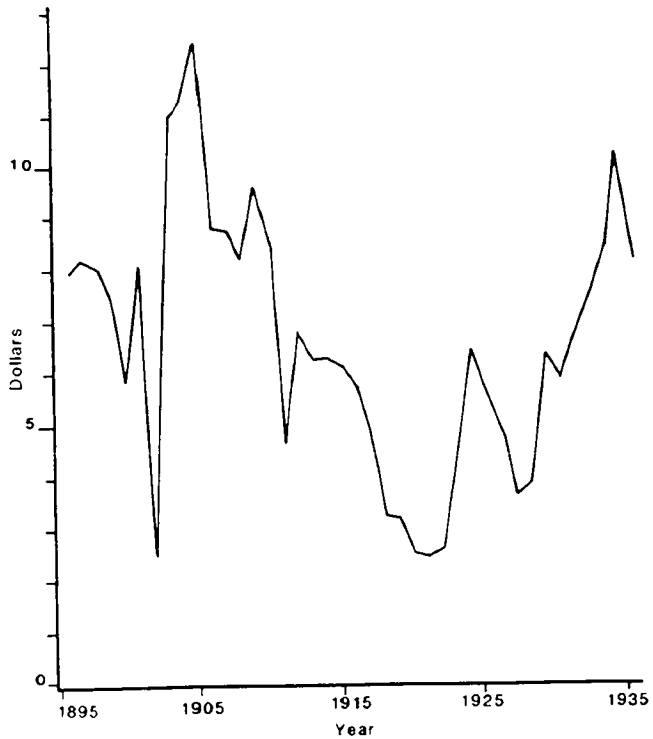
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 10 MANITOWAPAH REGION:
PERCAPITA FISHING INCOME



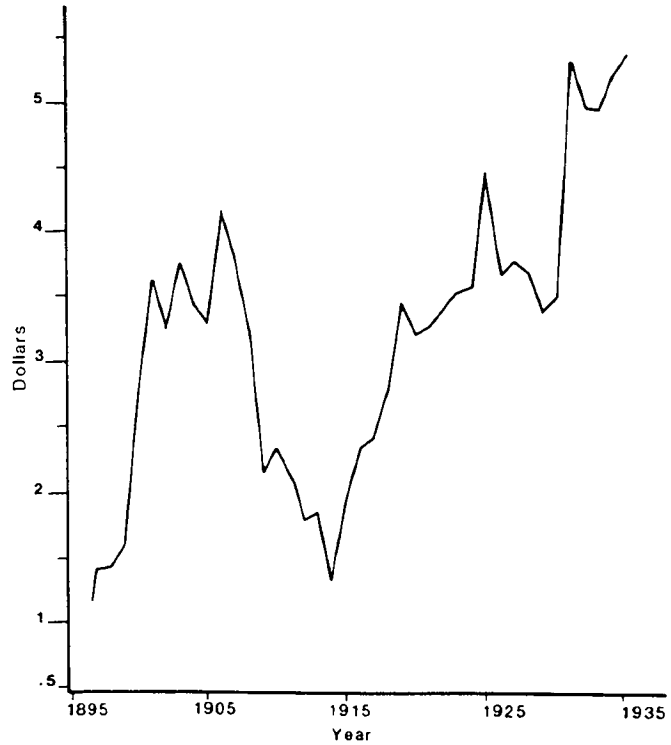
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 11 MANITOWAPAH REGION:
PERCAPITA HUNTING INCOME



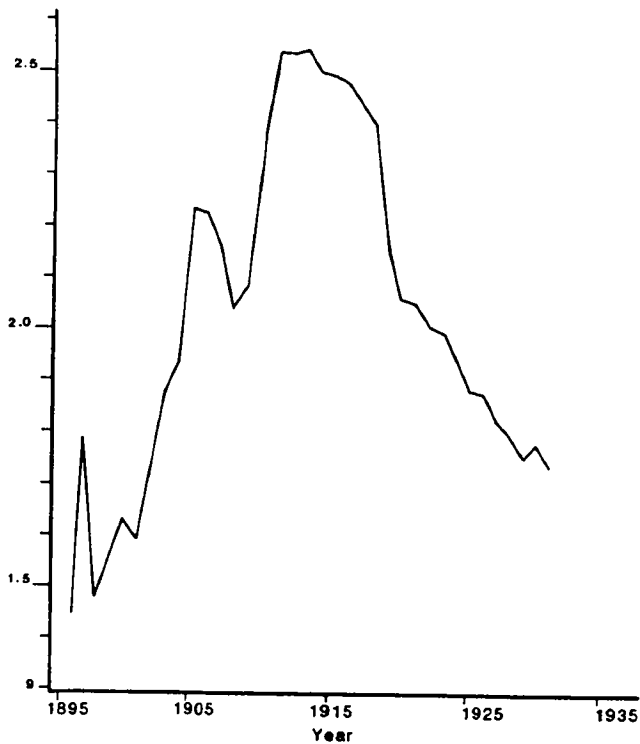
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 12 MANITOWAPAH REGION'
PERCAPITA OTHER INCOME



SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 13 MANITOWAPAH REGION :
PERCAPITA STEEL TRAPS



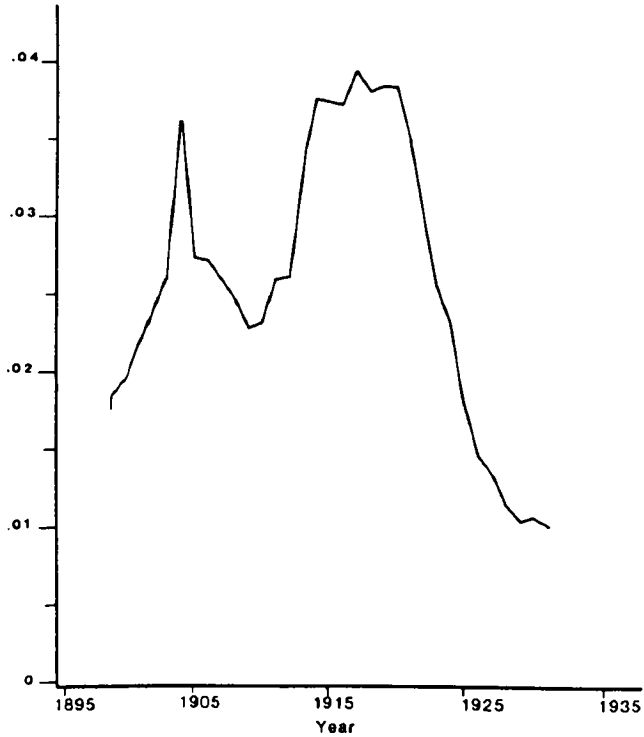
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 14 MANITOWAPAH REGION:
PERCAPITA RIFLES AND SHOTGUNS



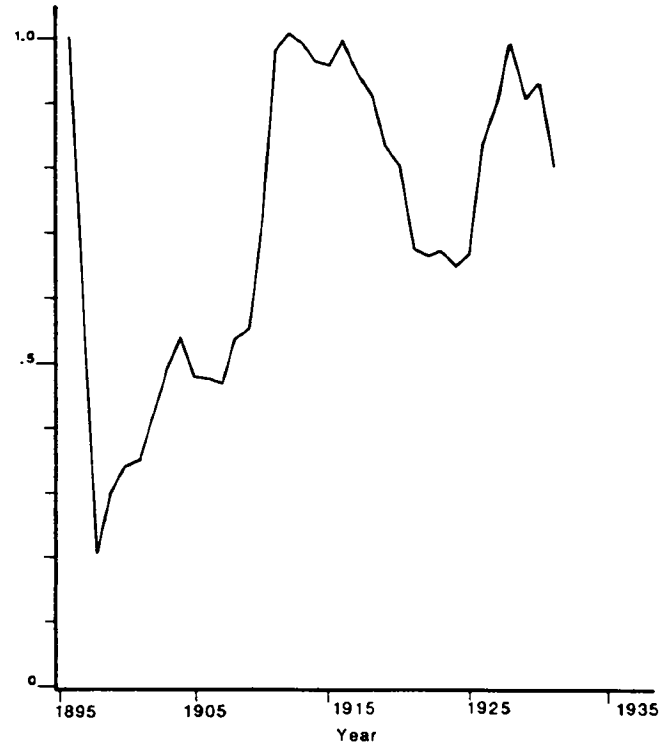
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 15 MANITOWAPAH REGION"
PERCAPITA MOTOR AND
SAIL BOATS



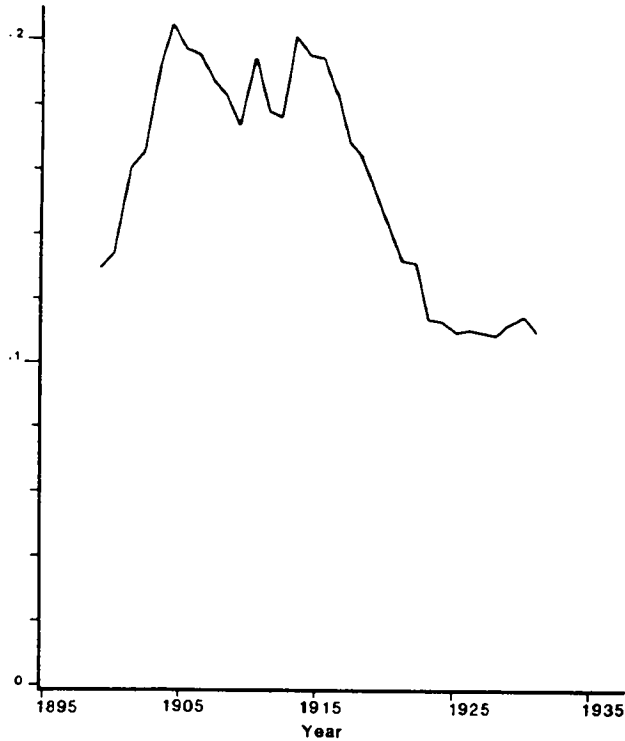
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 16 MANITOWAPAH REGION:
PERCAPITA NETS



SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 17 MANITOWAPAH REGION"
PERCAPITA TENTS



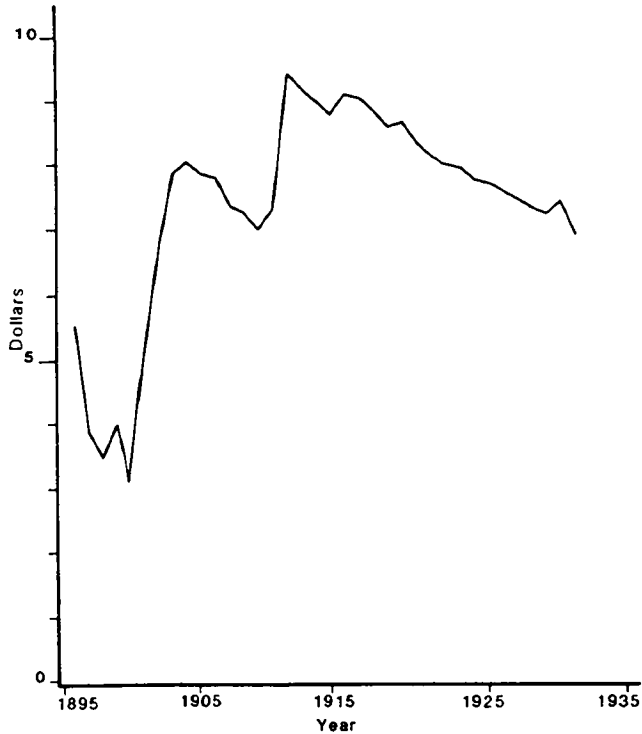
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 18 MANITOWAPAH REGION:
PERCAPITA CANOES



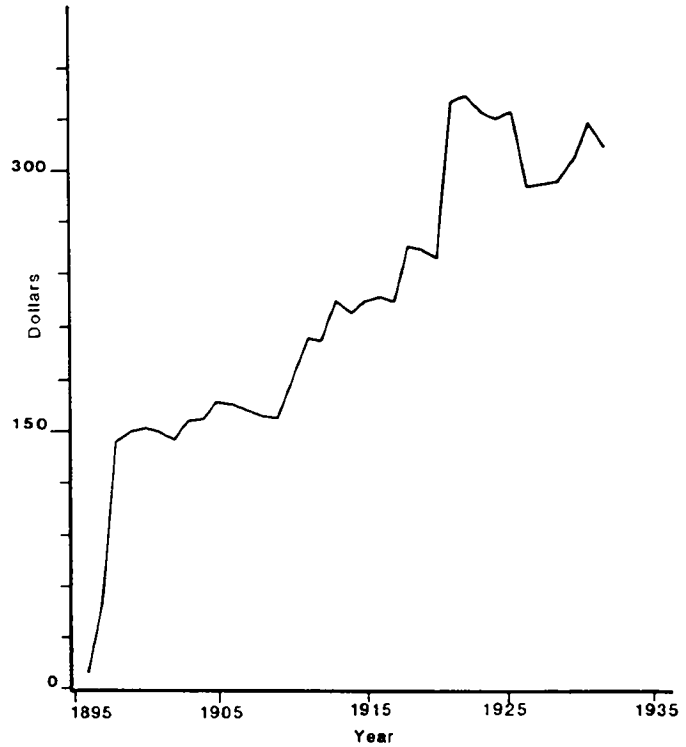
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 19 MANITOWAPAH REGION: !
PERCAPITA VALUE OF GENERAL
EFFECTS



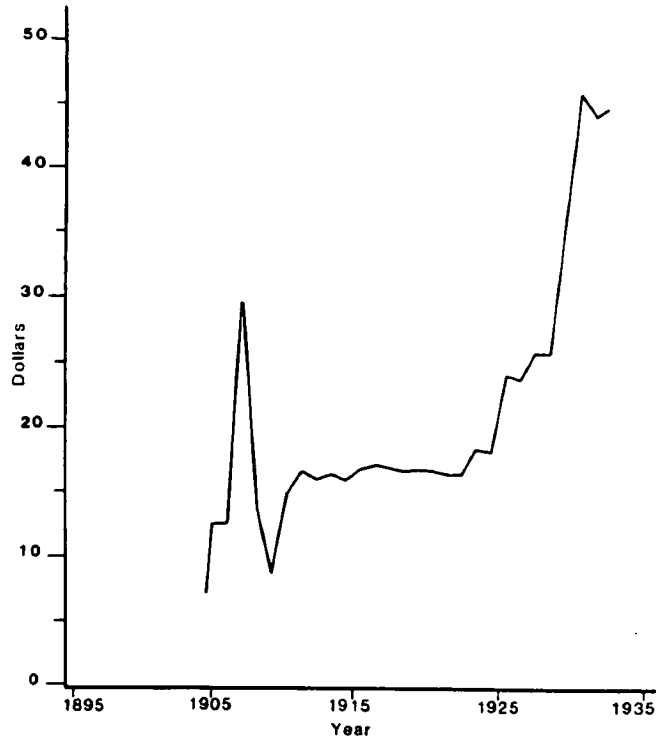
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 20 MANITOWAPAH REGION:
PERCAPITA VALUE OF TOTAL
PROPERTY



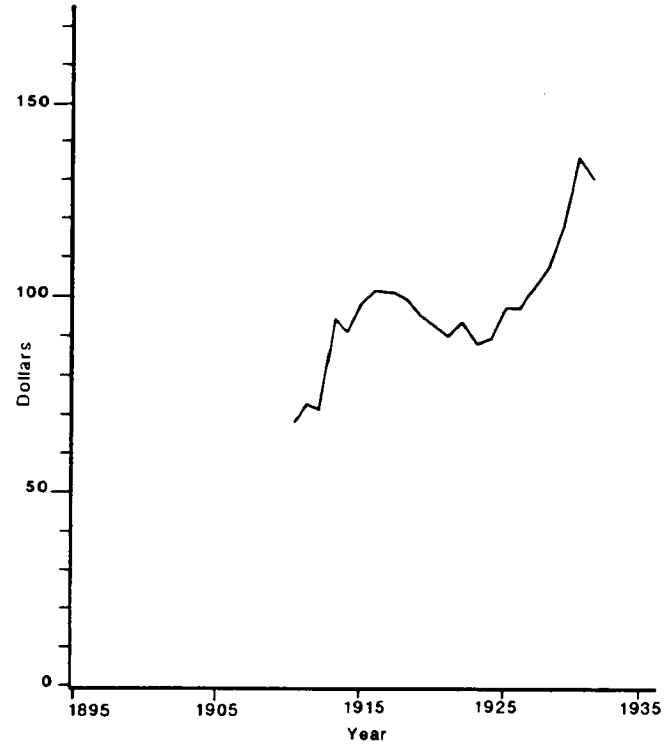
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 21 MANITOWAPAH REGION:
PERCAPITA VALUE OF
PRIVATE BUILDINGS



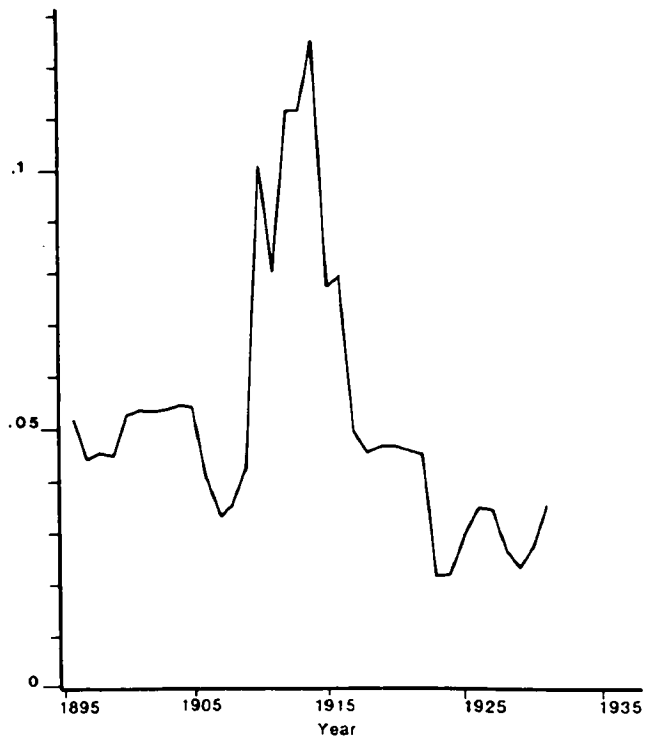
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 22 MANITOWAPAH REGION:
PERCAPITA VALUE OF
NONLAND PROPERTY



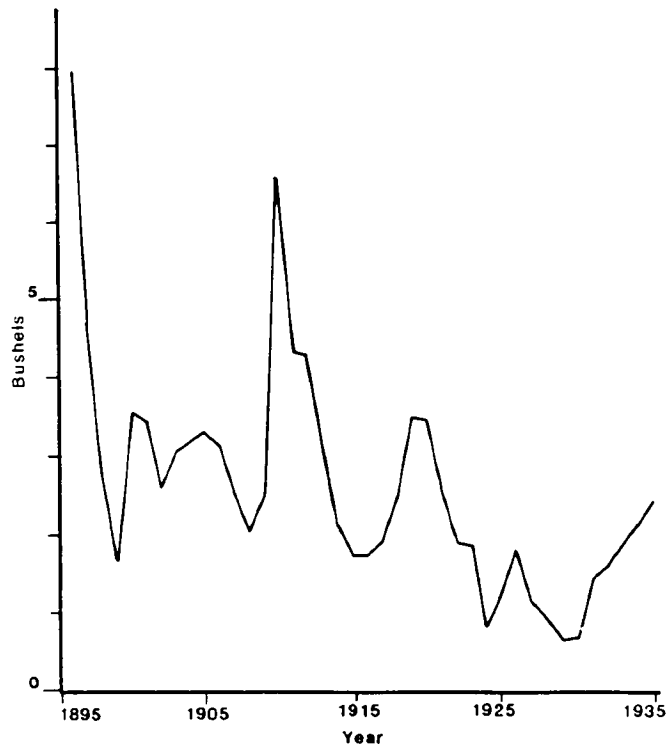
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 23 THE PAS REGION:
PERCAPITA ACRES CULTIVATED



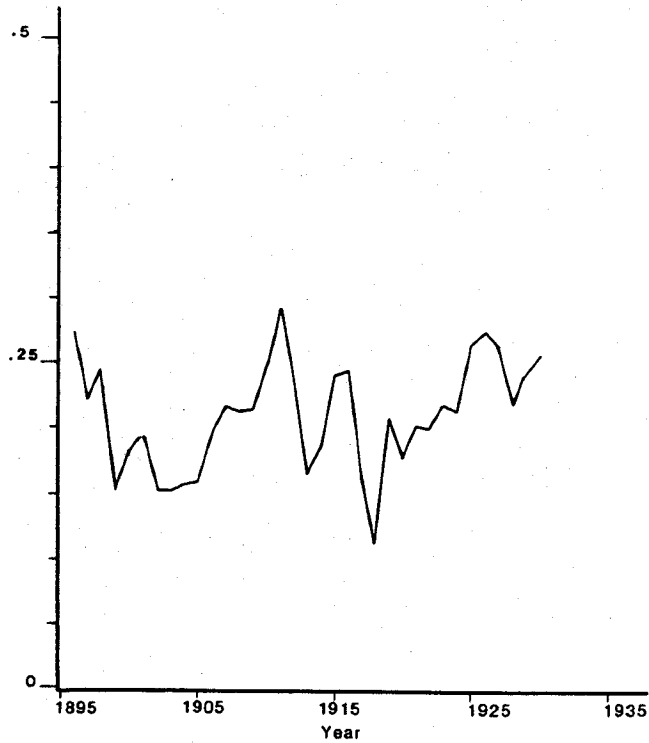
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 24 THE PAS REGION:
PERCAPITA POTATO PRODUCTION



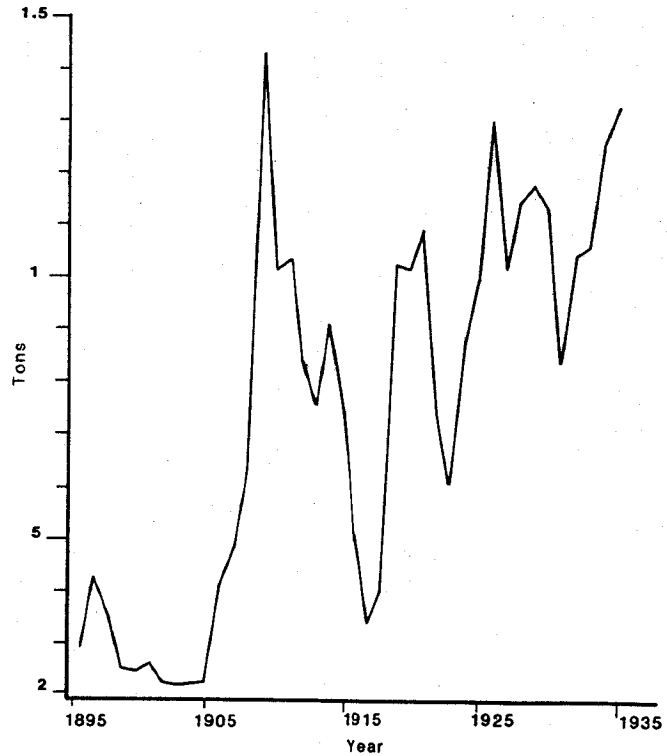
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 25 THE PAS REGION:
PERCAPITA CATTLE



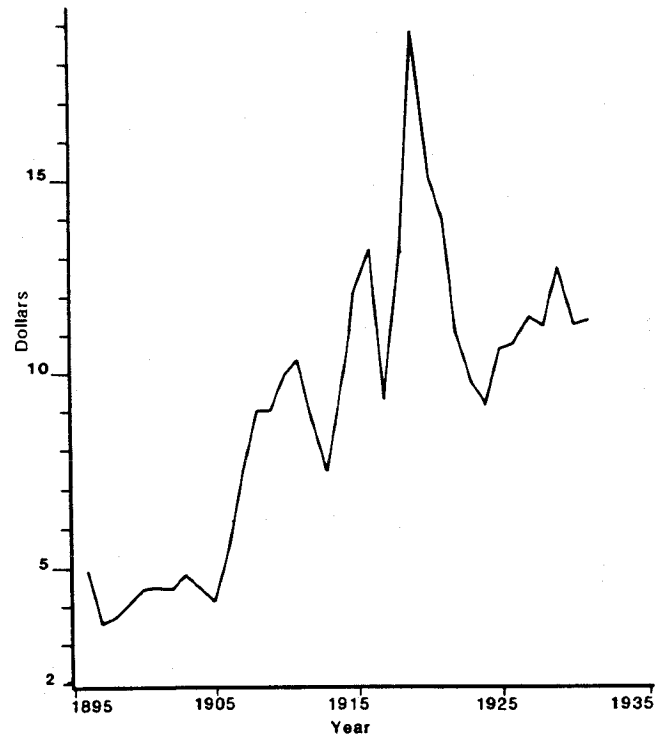
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 26 THE PAS REGION:
PERCAPITA HAY HARVESTED



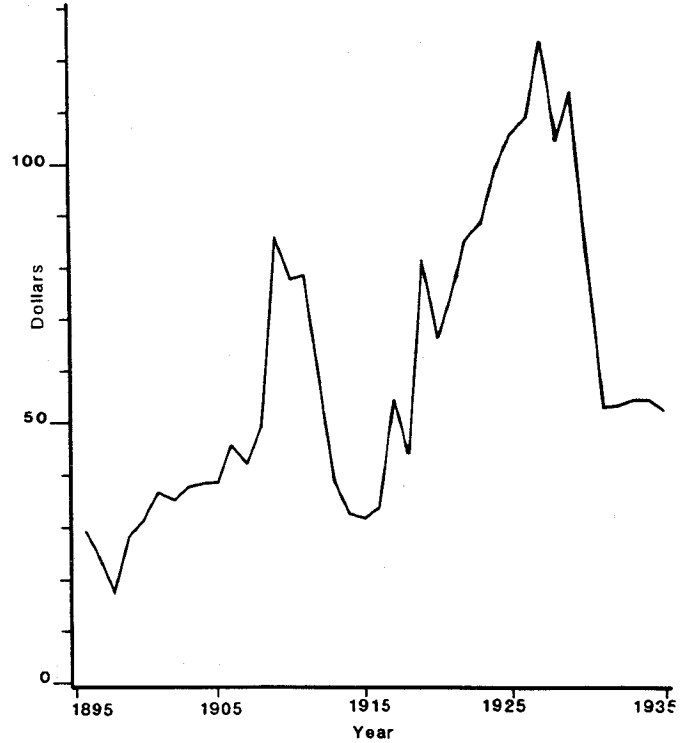
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 27 THE PAS REGION:
PERCAPITA VALUE OF
LIVESTOCK



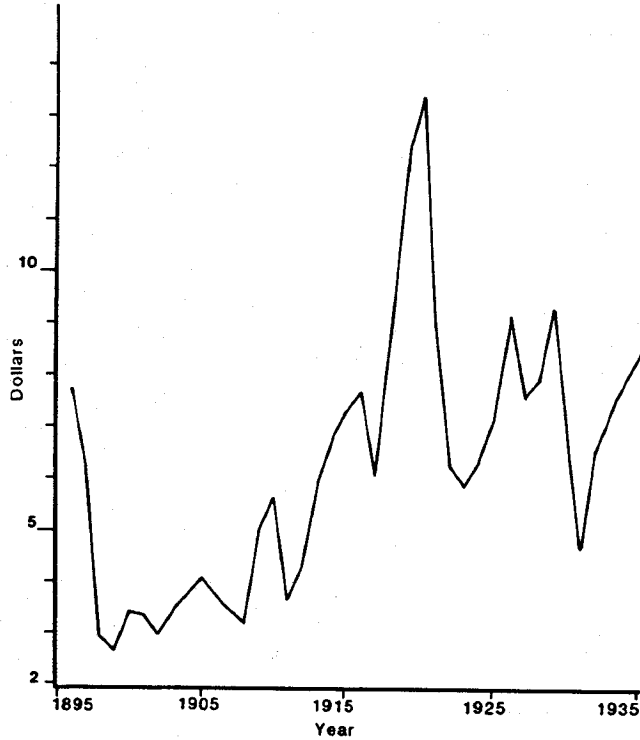
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 28 THE PAS REGION:
PERCAPITA INCOME



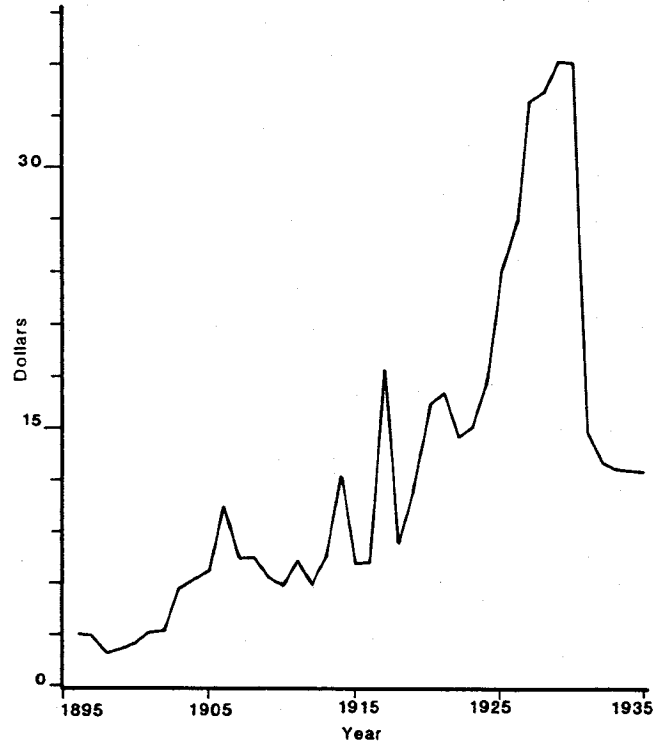
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 29 THE PAS REGION:
PERCAPITA AGRICULTURAL
INCOME



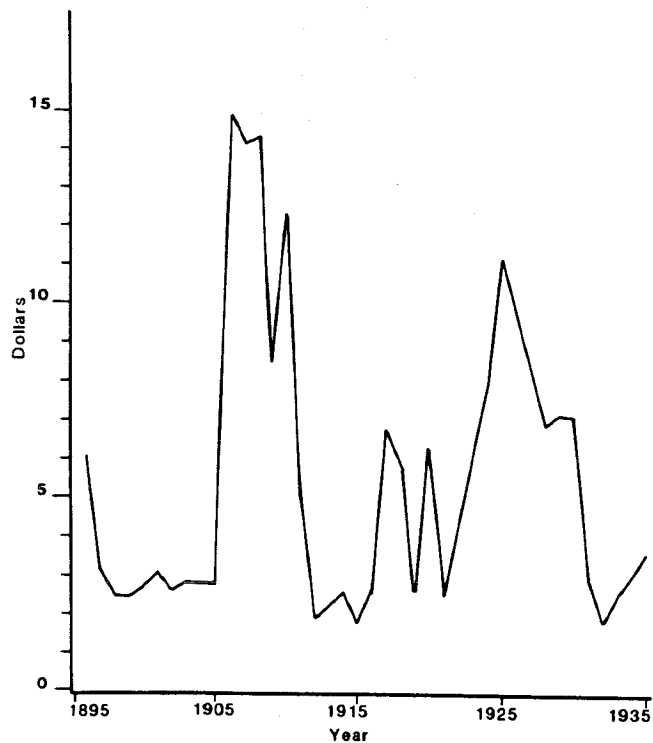
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 30 THE PAS REGION:
PERCAPITA WAGE INCOME



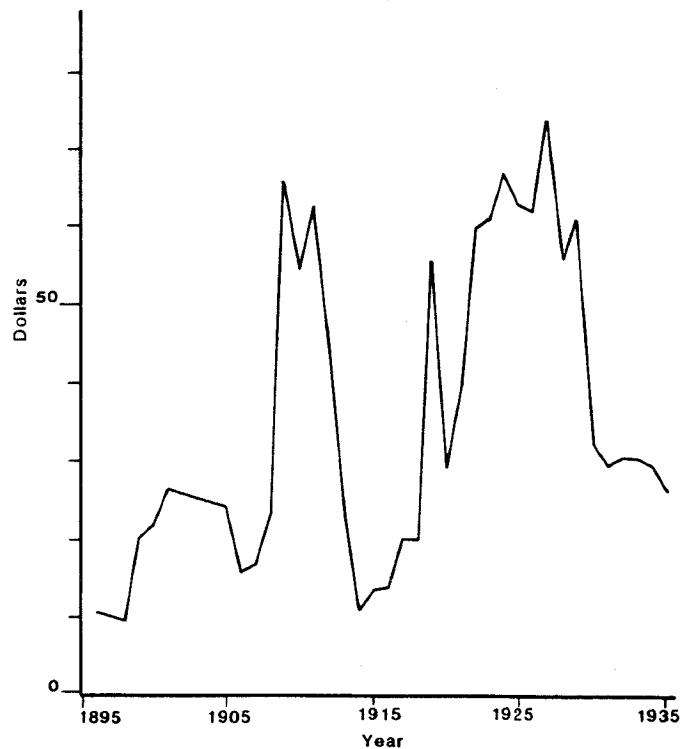
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 31 THE PAS REGION:
PERCAPITA FISHING INCOME



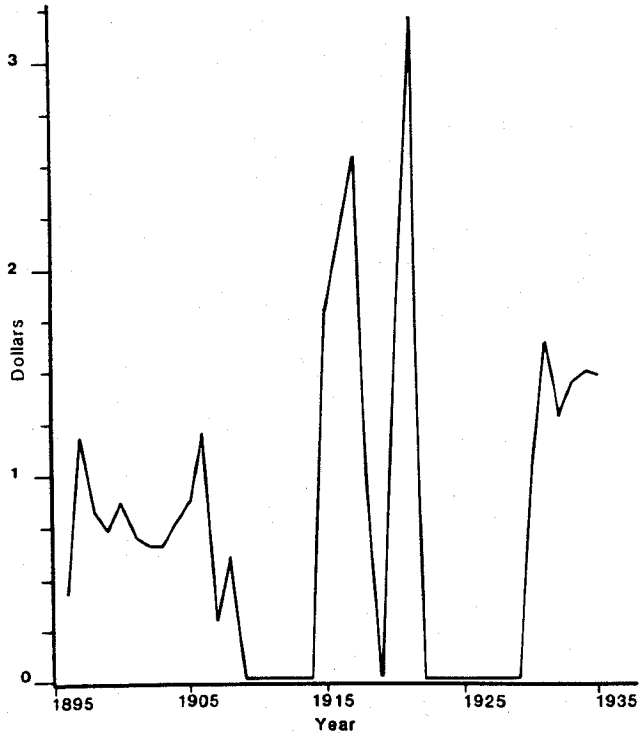
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 32 THE PAS REGION:
PERCAPITA HUNTING INCOME



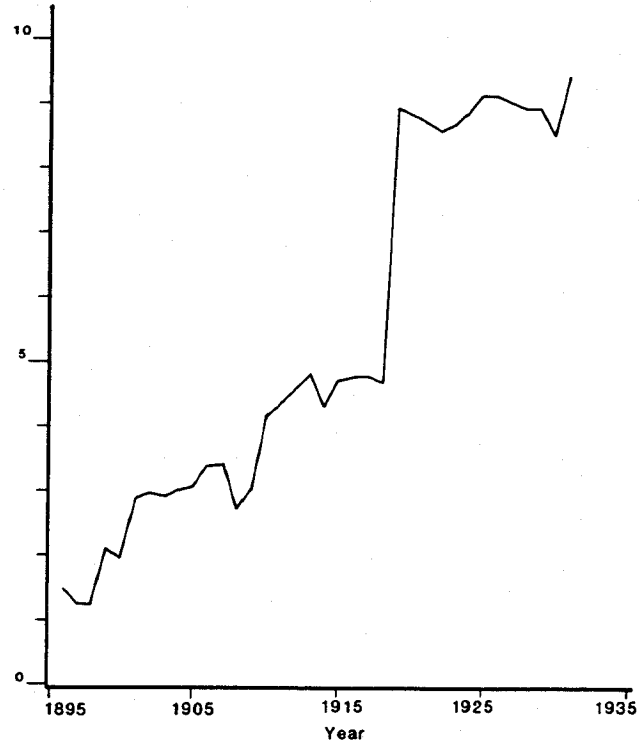
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 33 THE PAS REGION:
PERCAPITA OTHER INCOME



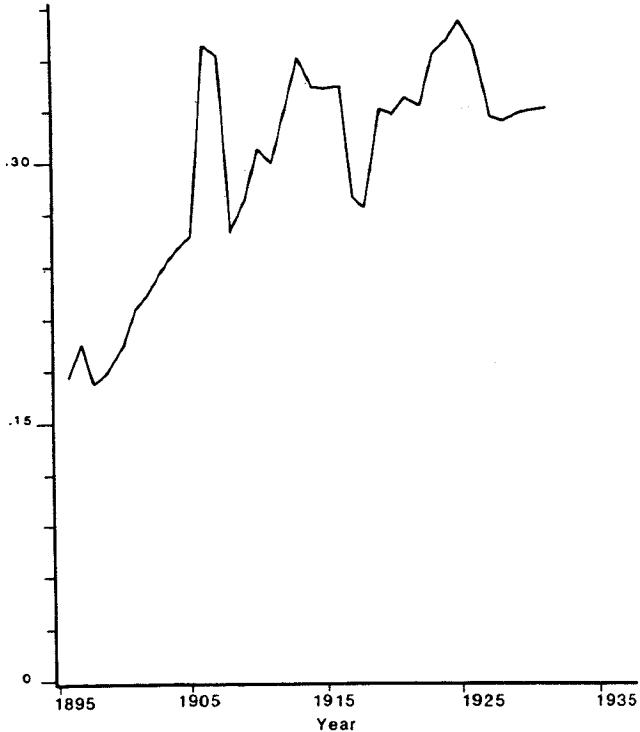
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 34 THE PAS REGION:
PERCAPITA STEEL TRAPS



SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 35 THE PAS REGION:
PERCAPITA RIFLES AND
SHOTGUNS



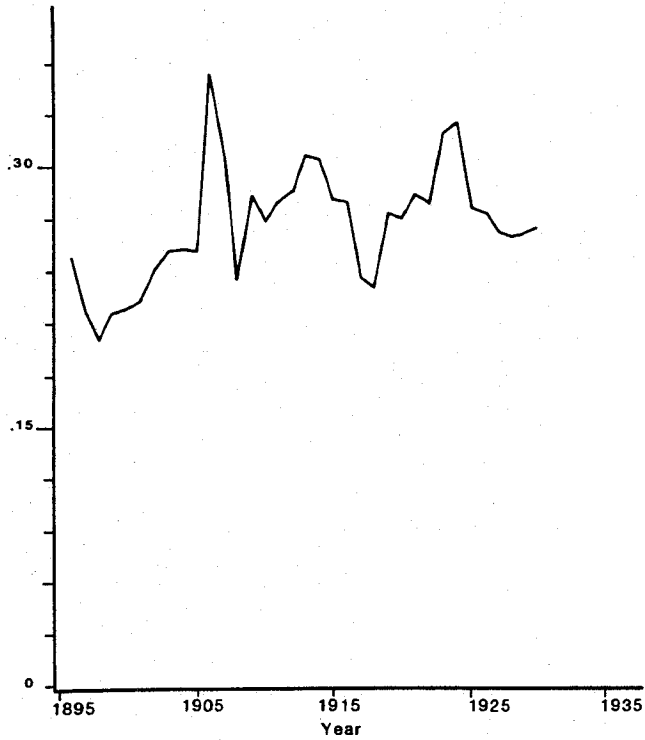
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 36 THE PAS REGION:
PERCAPITA TENTS



SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 37 THE PAS REGION:
PERCAPITA CANOES



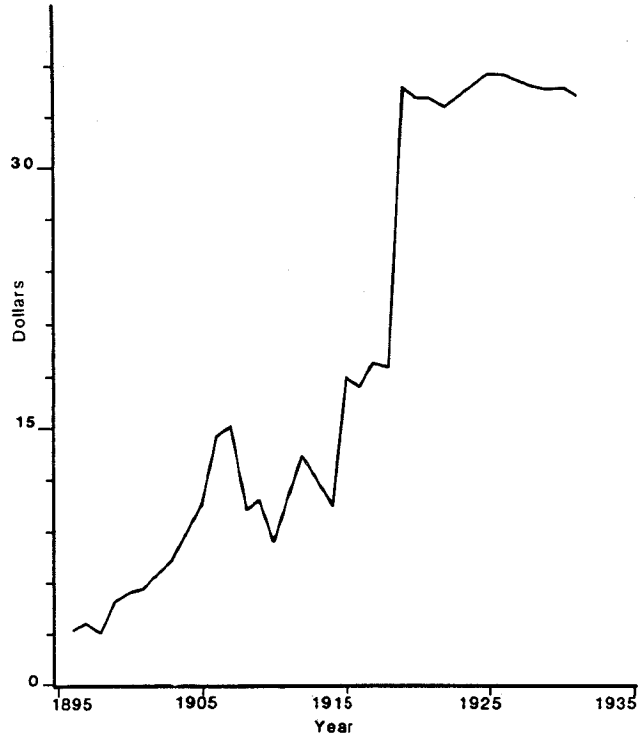
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 38 THE PAS REGION:
PERCAPITA NETS



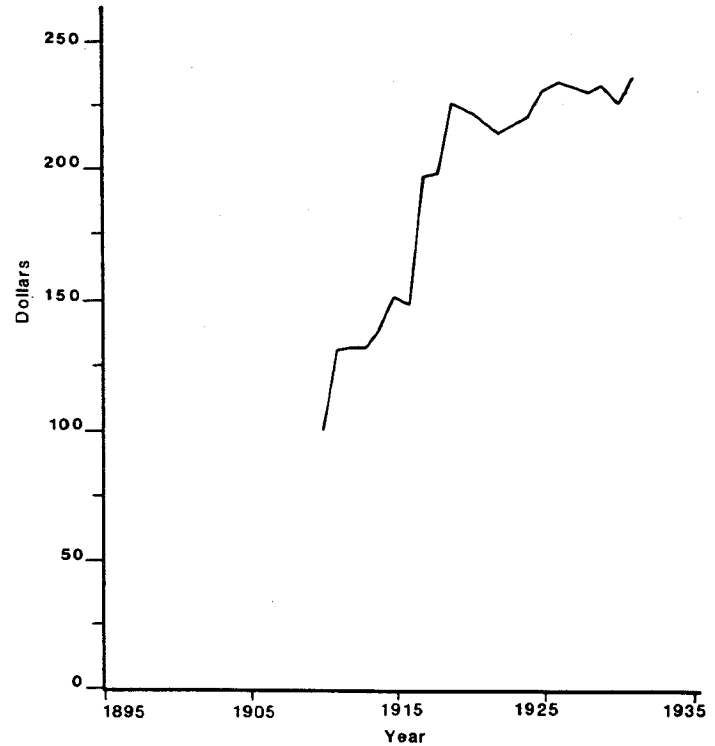
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 39 THE PAS REGION:
PERCAPITA VALUE OF
GENERAL EFFECTS



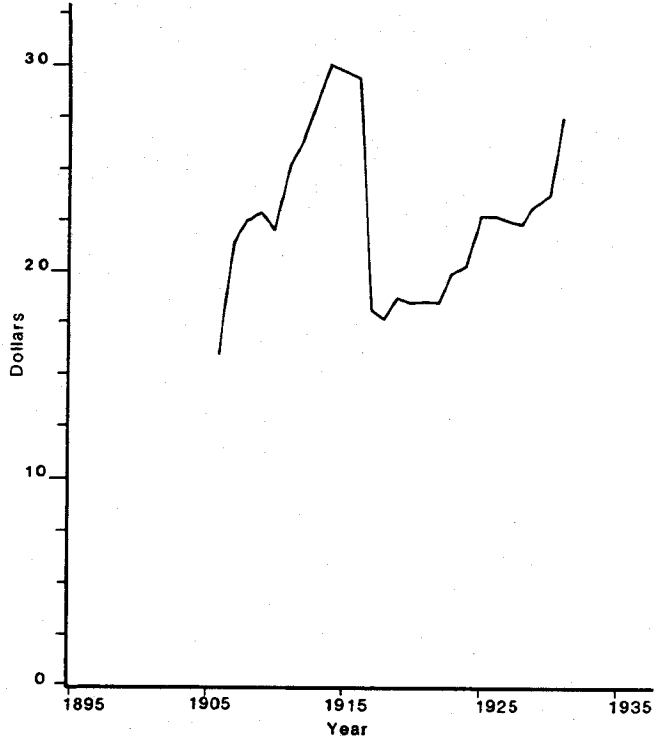
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 40 THE PAS REGION:
PERCAPITA VALUE OF TOTAL
PROPERTY



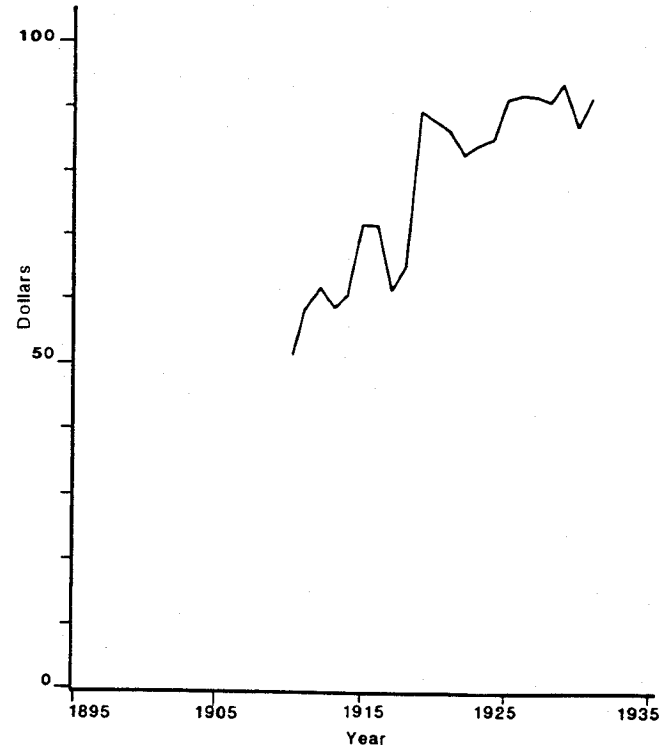
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 41 THE PAS REGION:
PERCAPITA VALUE OF
PRIVATE BUILDINGS



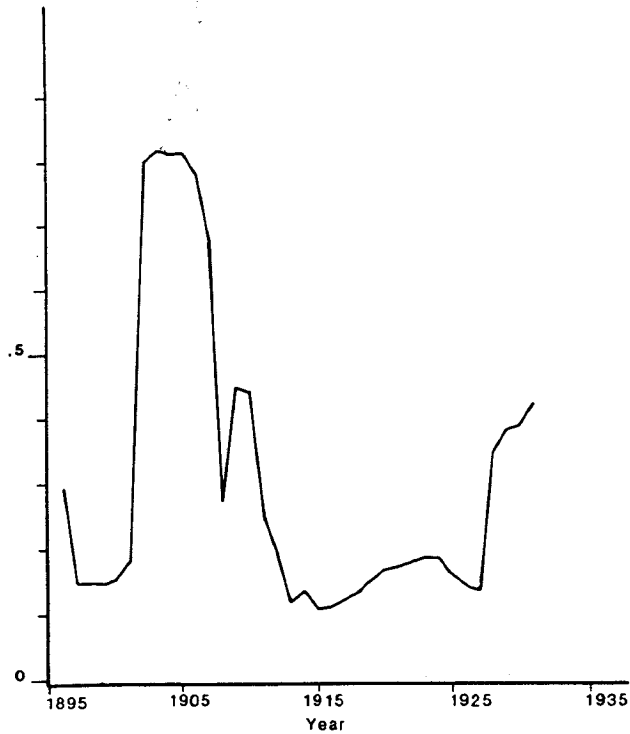
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 42 THE PAS REGION:
PERCAPITA VALUE OF
NONLAND PROPERTY



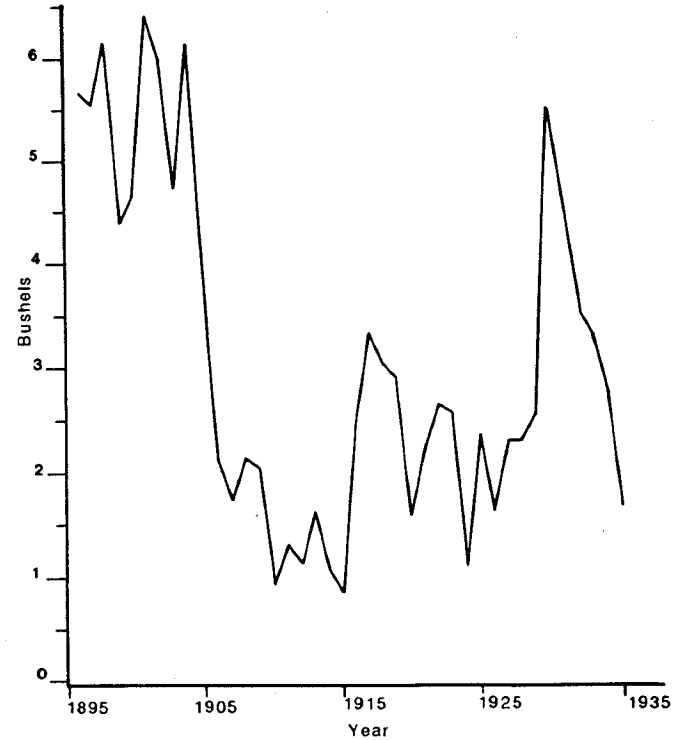
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 43 LAKE WINNIPEG REGION:
PERCAPITA ACRES CULTIVATED



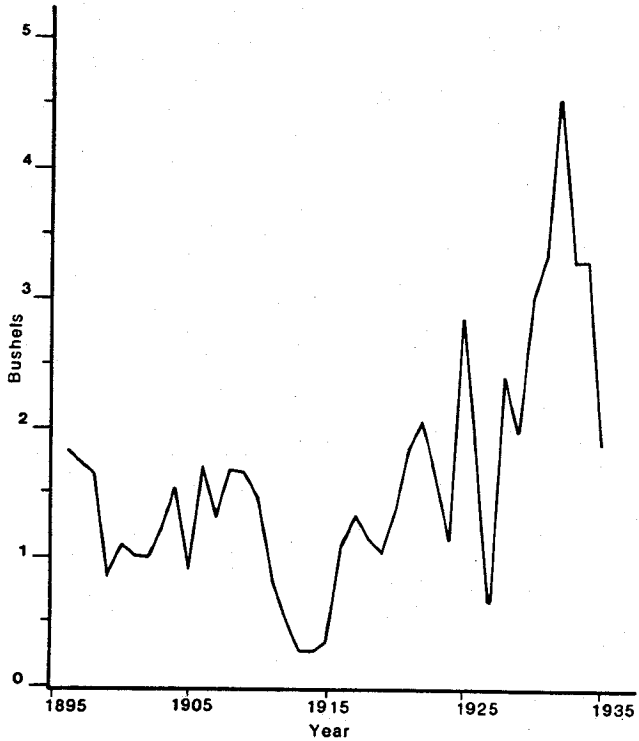
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 44 LAKE WINNIPEG REGION:
PERCAPITA POTATO PRODUCTION



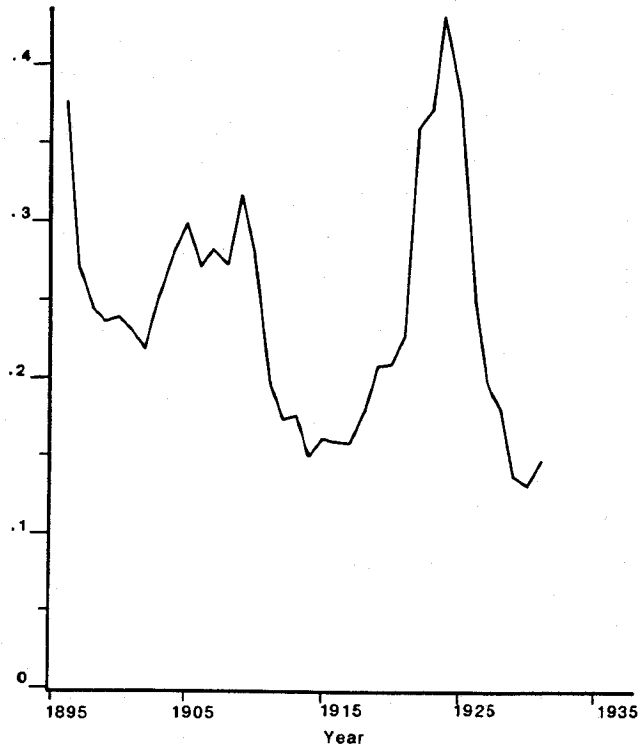
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 45 LAKE WINNIPEG REGION:
PERCAPITA GRAIN PRODUCTION



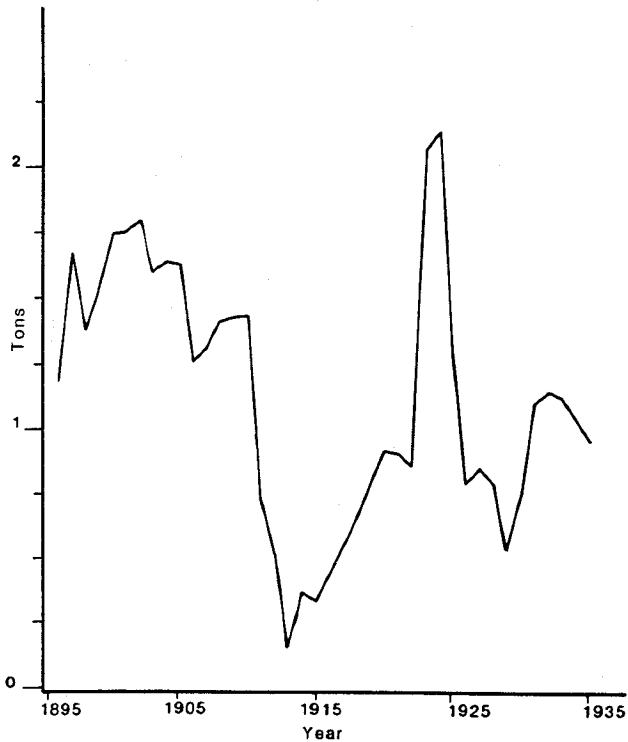
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 46 LAKE WINNIPEG REGION:
PERCAPITA CATTLE



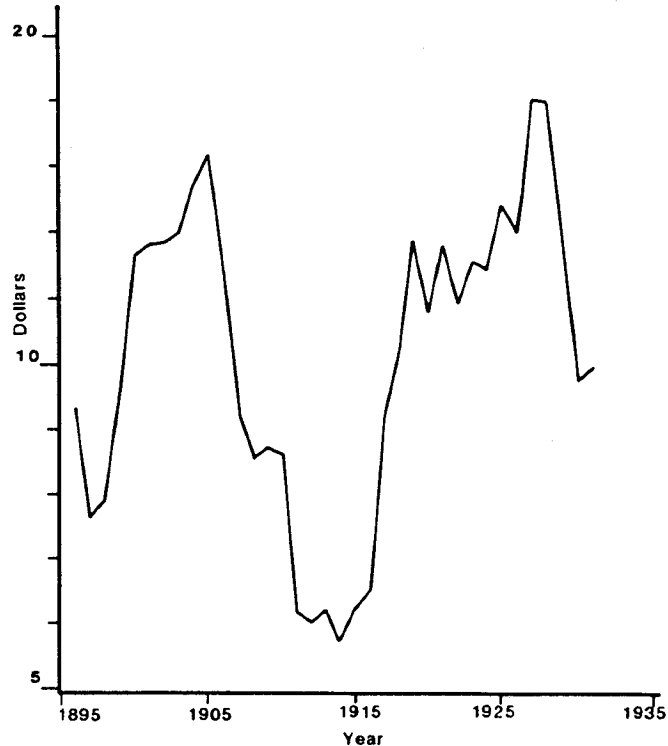
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 47 LAKE WINNIPEG REGION:
PERCAPITA HAY HARVESTED



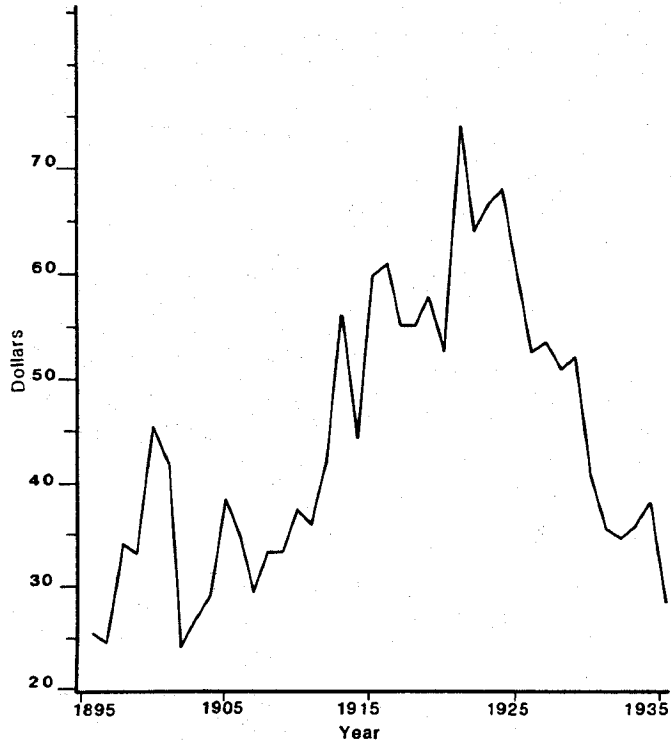
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 48 LAKE WINNIPEG REGION:
PERCAPITA VALUE OF LIVESTOCK



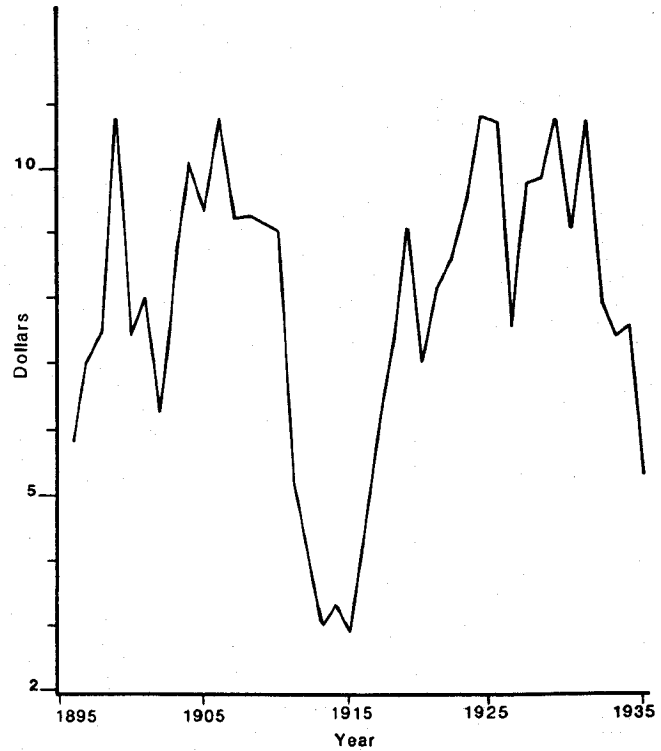
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 49 LAKE WINNIPEG REGION:
PERCAPITA INCOME



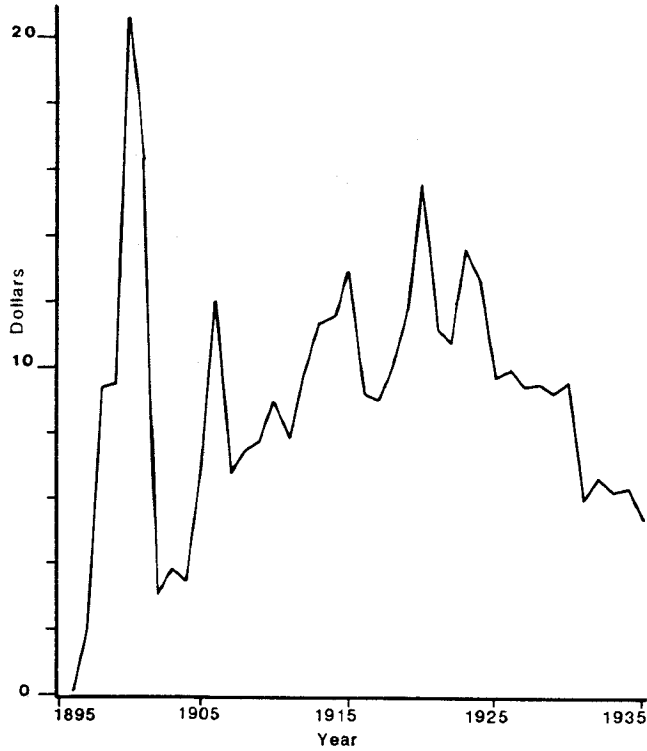
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 50 LAKE WINNIPEG REGION:
PERCAPITA AGRICULTURAL INCOME



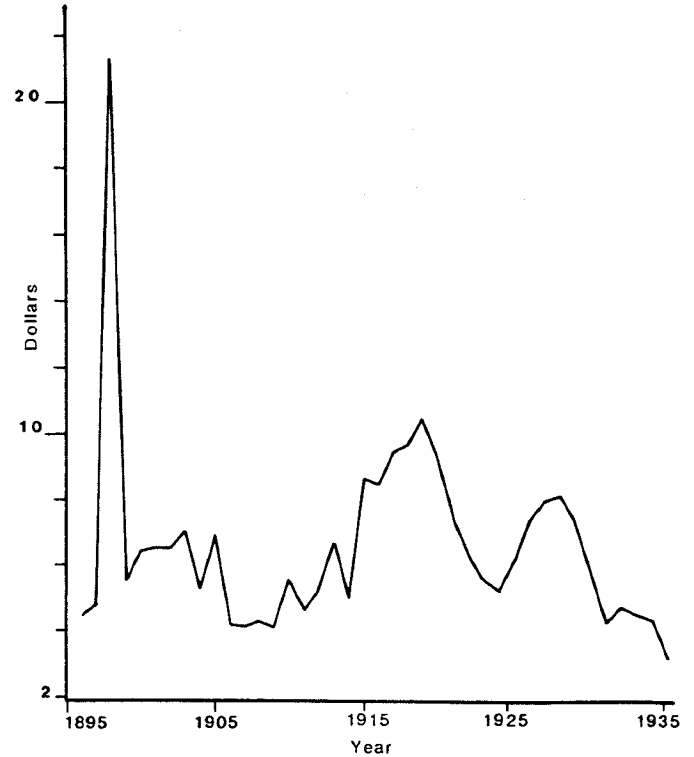
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 51 LAKE WINNIPEG REGION:
PERCAPITA WAGE INCOME



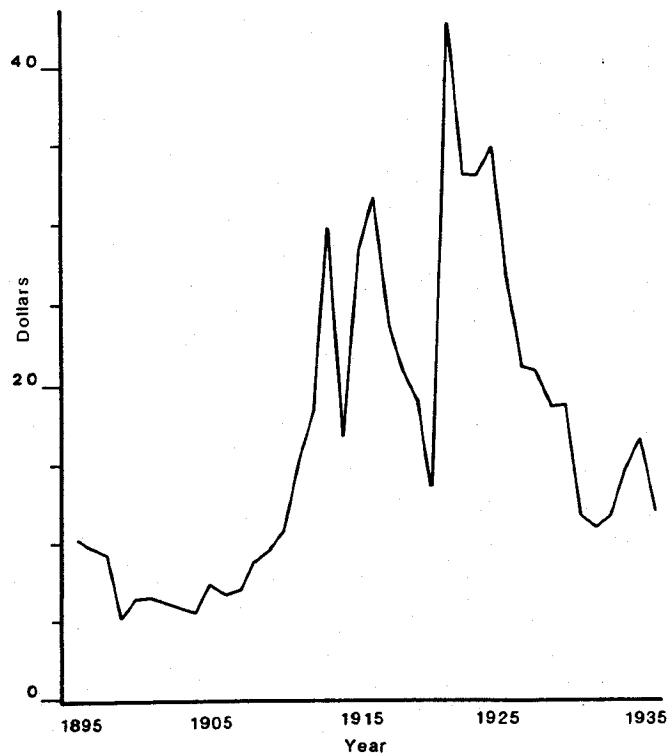
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 52 LAKE WINNIPEG REGION:
PERCAPITA FISHING INCOME



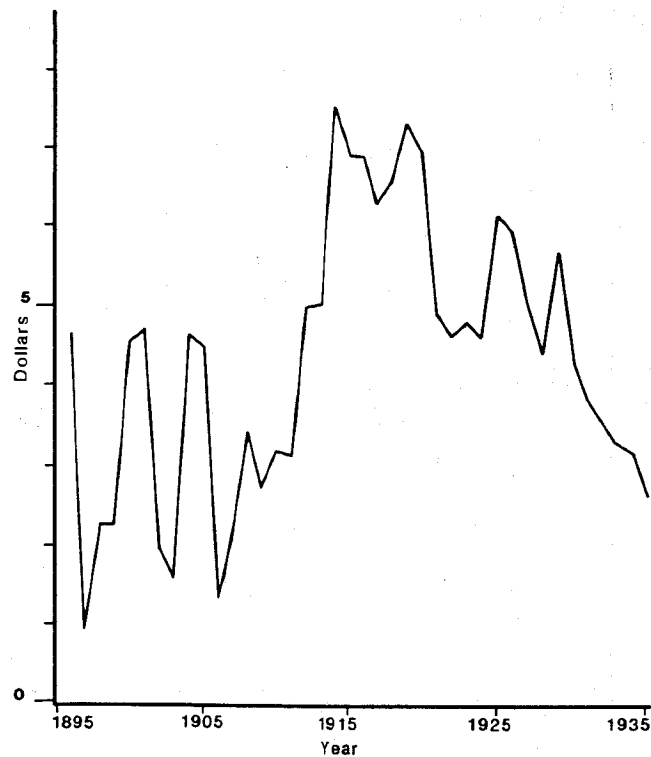
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 53 LAKE WINNIPEG REGION:
PERCAPITA HUNTING INCOME



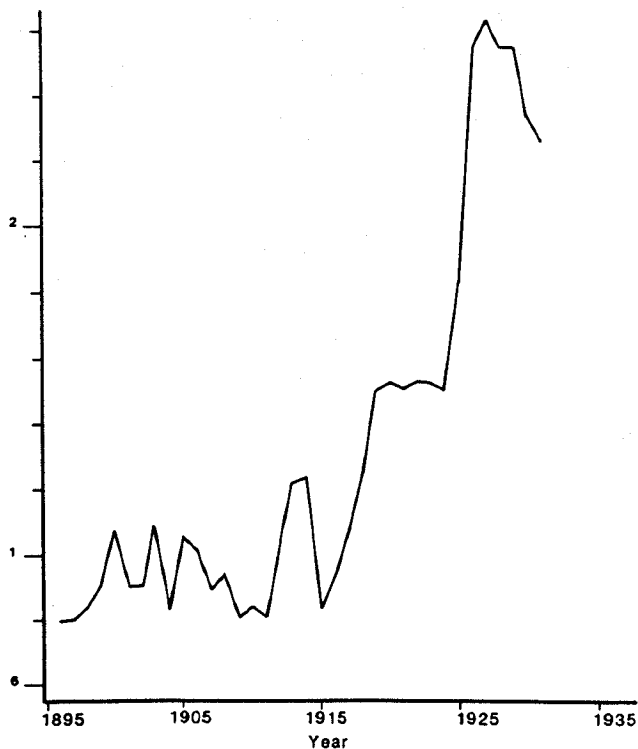
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 54 LAKE WINNIPEG REGION:
PERCAPITA OTHER INCOME



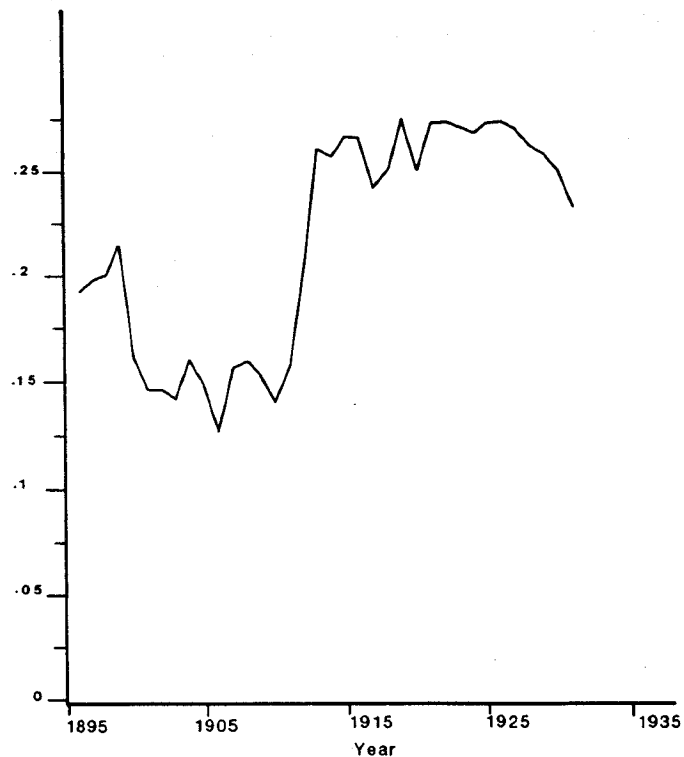
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 55 LAKE WINNIPEG REGION:
PERCAPITA STEEL TRAPS



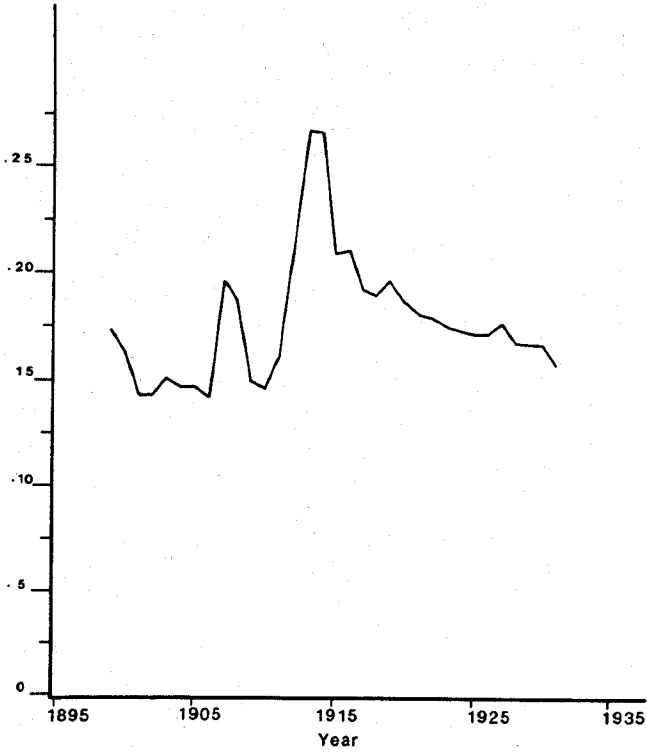
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 56 LAKE WINNIPEG REGION:
PERCAPITA RIFLES AND SHOTGUNS



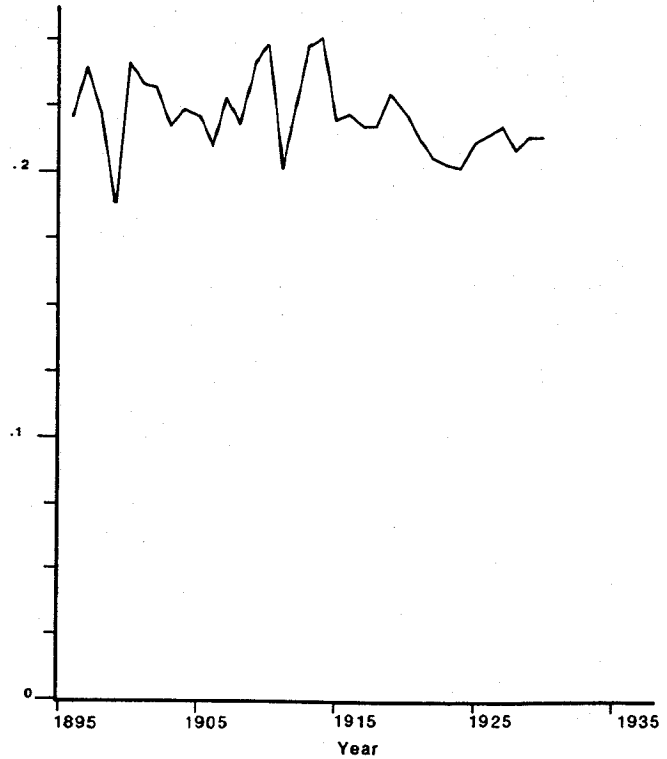
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 57 LAKE WINNIPEG REGION:
PERCAPITA TENTS



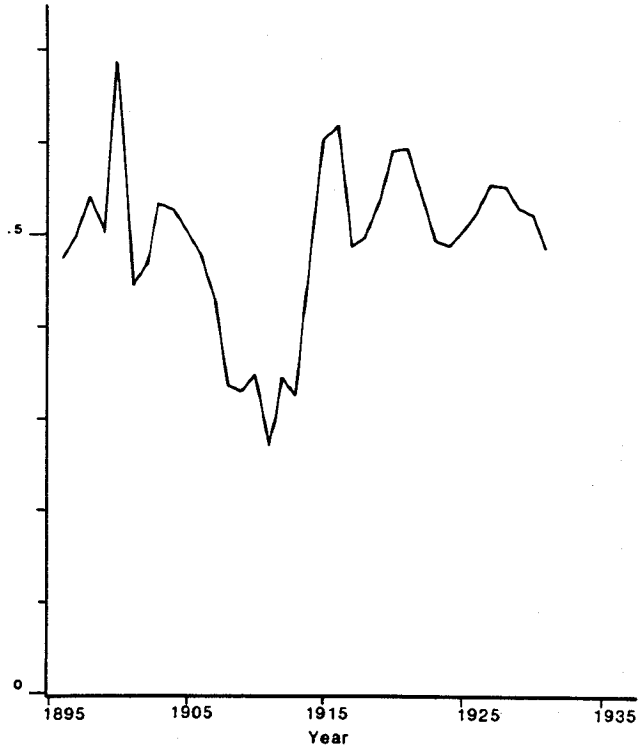
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 58 LAKE WINNIPEG REGION:
PERCAPITA CANOES



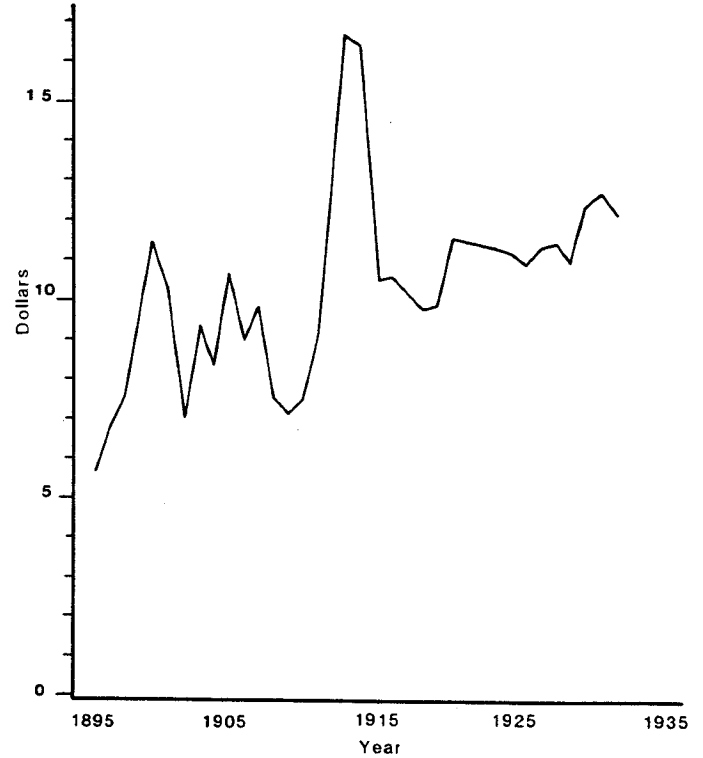
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 59 LAKE WINNIPEG REGION:
PERCAPITA NETS



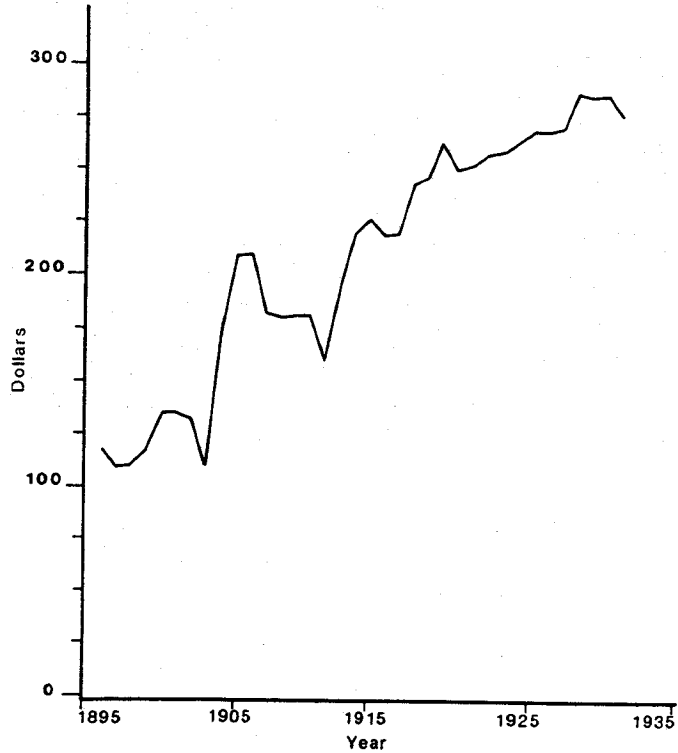
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 60 LAKE WINNIPEG REGION:
PERCAPITA VALUE OF GENERAL
EFFECTS



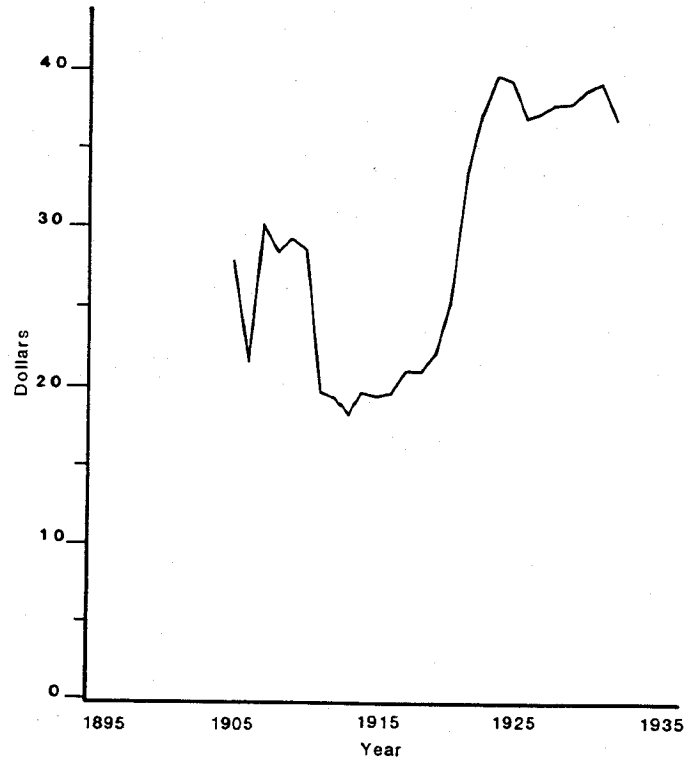
SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 61 LAKE WINNIPEG REGION:
PERCAPITA VALUE OF TOTAL
PROPERTY



SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.

FIGURE 62 LAKE WINNIPEG REGION:
PERCAPITA VALUE OF
PRIVATE BUILDINGS



SOURCE: Canada, Annual Reports for the Department of Indian Affairs, 1897-1936, and Annuity Paylists, 1896-1935.