

A PRELIMINARY ECONOMIC ANALYSIS OF MULTIPLE  
JOBHOLDING BY MANITOBA FARM OPERATORS

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Presented to  
The Faculty of Graduate Studies and Research  
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of the Requirements for the Degree  
Master of Science

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by  
Robert John Ward  
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**ROBERT JOHN WARD**

**A dissertation submitted to the Faculty of Graduate Studies of  
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**MASTER OF SCIENCE**

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## ABSTRACT

### A PRELIMINARY ECONOMIC ANALYSIS OF MULTIPLE JOBHOLDING BY MANITOBA FARM OPERATORS

by Robert John Ward

Advisor: Dr. W. J. Craddock

Primary agricultural production is an industry which has been characterized by many producers deriving low returns in exchange for their labour, managerial skills, and capital investment inputs.

In an over simplified sense the Federal Task Force on Agriculture presented essentially two means by which this problematic situation may be resolved; farmers could either expand their current level of operation to a point sufficient to meet necessary farm expenditures and maintain the farm family on an acceptable standard of living, or he could leave agricultural production entirely in favour of some other form of employment.

This study pursued an investigation into multiple jobholding by farm operators as a third alternative solution to the low farm income problem. Multiple jobholding by farm operators is simply an employment situation in which the individual is engaged in more than one job for which he receives payment.

Multiple jobholding was analyzed on a province-wide basis using a tabular method of analysis. Social and economic characteristics of full- and part-time farmers were considered, and the off-farm job was considered in terms of the most predominant or common features.

Multiple jobholding by farmers in Manitoba did not appear to be an isolated occurrence but rather tended to be a very definite feature of agriculture throughout the province. The reason for this occurrence appeared to be based upon the high percentage of farmers reporting low gross sales figures and the need to supplement the resulting low net farm income with income from some additional source so as to be able to meet total annual family and farm expenditures.

Dually-employed farmers demonstrated socio-economic traits which distinguished them from their full-time counterparts, in that they as a group tended to be younger and possess generally higher levels of formal education. Further, there was a direct relationship between the level of education and the frequency of dual-employment. Multiple jobholding farmers overall averaged smaller scale operations as indicated by lower general levels of gross sales, capital investment and usable acreages. The predominant farm enterprise associated with the dual-occupation farm was grain production with cow-calf beef production a close second. In terms of profitability multiple jobholding farmers felt their farms were less profitable over past years than full-time farmers, however in terms of future plans multiple jobholding farmers appeared to be more content with current conditions.

Multiple jobholding was considered as it relates to the off-farm job. This consideration covered such things as number of days worked off the farm, annual average salary received, average number of years worked, distance travelled, and type of skill development associated with the off-farm job.



This research presents an overall investigation of multiple jobholding by farmers and as such may provide a basis or at least a background to further more detailed research in the same field.

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## CHAPTER I

### INTRODUCTION

#### The Problem

High costs associated with farm expansion, low price differentials between farm input and output prices, and changing conditions in agriculture could force many Manitoba farmers to face the serious problem of economic survival on low net farm incomes. The net impact of this is that for some operators the continued operation of their farm may be in jeopardy.

Many studies have been published which explore such alternatives as out-migration, diversification, and expansion of the farm operation, however relatively little attention has been directed towards consideration of multiple jobholding as a possible solution. Supplementing lagging farm income through employment off the farm unit could be the means by which certain farmers would be able to remain actively engaged in farming. Therefore, research into multiple jobholding could be of value in the development of effective policies aimed at improving farmer's incomes.

#### Objectives of the Study

Multiple jobholding in agriculture can be the end result of three situations. The individual may be engaged in multiple jobholding,

first, to facilitate gradual entry into full-time farming; second, to supplement an existing low farm income; or, third, to gradually withdraw entirely from farming. The objective of this study is to provide a preliminary analysis of multiple jobholding among Manitoba farm operators primarily from the viewpoint that it is a means of supplementing low net farm income.

This research was initiated in the summer of 1972 with the following specific objectives:

(1) To initiate research into the occurrence of multiple jobholding among Manitoba farmers and to emphasize it as an alternative in the development of possible solutions to the problem of low farm income.

(2) To provide a preliminary socio-economic appraisal of the characteristics of both full-time and part-time farmers.

(3) To determine the predominant characteristics of individuals who are part-time farmers so as to develop a clear and representative image of what constitutes the average multiple jobholding farm operator.

(4) To determine the geographical extent to which multiple jobholding among farmers occurs within the province. The purpose of this is to determine whether or not off-farm employment is a frequent occurrence, and whether its occurrence is restricted to certain crop districts within the province.

(5) To consider whether specific types of farm operations have a higher incidence of association with dual-occupation operators.

#### Hypotheses

The following major hypotheses to be tested by the study focus



towards and improved understanding of multiple jobholding. They are:

(1) The incidence of multiple jobholding is:

- (a) an occurrence among the province's farmers, and
- (b) is found in all crop districts rather than only in those crop districts which have large urban centres within their boundaries.

(2) Multiple jobholding farmers, in contrast with full-time farm operators, exhibit the following socio-economic characteristics. They:

- (a) are younger in age,
- (b) possess higher formal education,
- (c) operate less labour intensive farms,
- (d) have lower gross farm sales,
- (e) farm fewer acres of land and of less value per acre,
- (f) operate farms of lower total capital value,
- (g) are less associated with farm debt,
- (h) have higher per acre operating costs,
- (i) own rather than rent their land,
- (j) hire more custom work performed,
- (k) are more likely to have their wife also working off the farm, and

(l) view their farm as making no progress.

(3) The frequency of multiple jobholding by farm operators is directly related to the following variables:

- (a) formal education
- (b) per acre operating cost

(c) custom work cost

(4) The degree of off-farm employment by the multiple jobholding farm operator is inversely related to the following variables:

(a) age of operator

(b) labour intensity of the farm operation

(c) gross farm sales

(d) acreage of the farm unit

(e) total per acre capital value of the farm

(f) land rentals

(g) level of indebtedness

(h) distance to off-farm employment

(5) Specifically in terms of the off-farm job:

(a) The frequency of days worked off the farm will be inversely related to age of the operator and directly related to his education.

(b) The level of off-farm income will be inversely related to gross farm sales, multiple jobholder's age, and directly related to the operator's education.

(6) Multiple jobholding farmers will seek employment in jobs which utilize skills developed in the daily operation of their farms.

(7) Multiple jobholding farmers still view the farm operation as their major income source and this trait becomes more noticable with increasing age.

#### Terminology and Definitions

The definition of farm operator used in this study is anyone

holding a Canadian Wheat Board permit book in 1971. A multiple job-holding farmer is one who earned any money in 1971 from off-farm or self-employment.

To qualify as a farm unit in this study it was necessary that the agricultural holding consist of 10 acres or more of improved land classified for agricultural use.

Work performed off the farm could involve work on other farm holdings, as long as there was some form of payment other than the exchange of labour inputs between the two parties concerned.

In this study the terms "multiple jobholding", "part-time farming", "part-time off-farm employment", and "dual-occupations" were used interchangeably in terms of the allocation of the farm operator's labour resources between more than one income-generating activity.

The definition of off-farm income is that income earned by the farm operator as wages and salaries from nonfarm work, wages and salaries from farm employment on other farms, and net income from nonfarm self-employment.

## Sample Selection and Data Collection

### The Sample

The study area considered in this research project was that within the boundaries of the province of Manitoba. Within this area, any individual who qualified as a farm operator and directed a farm unit as set forth by the definition and who held a Canadian Wheat Board permit book in 1971 was included in the population from which the sample was

selected.

The names and addresses of Manitoba farmers who made up the sample population were obtained from the Canadian Wheat Board. This list of current permit book holders was the most comprehensive available listing of farmers in Manitoba. People engaged in farming, but for some reason not included on this list, were not considered statistically significant to the study. This source was also selected because the names and addresses of Manitoba farmers was made available to this study at minimal cost and in a form which could easily be modified to function on computer facilities available at the University of Manitoba.

A two stage stratified proportional sample of 8,000 farmers was drawn. They were stratified by crop district and size of holding as measured in acres. Thus only by chance alone could a bias towards one particular size category of farm be introduced into the sample for the region.

#### Data Collection

The raw data for the analysis were collected through the use of a mailed questionnaire. The questionnaire was developed to provide current data by which some measurement could be made of the factors determining viable farm types and the prevalence of multiple jobholding among farmers in Manitoba. To achieve this end 73 questions were developed ranging from simple ones, such as age of farm operator, to more complex ones concerning land valuations. As the questionnaire was designed to serve as the data source for research dealing both with viable farm types and with multiple jobholding, only a portion of the questions asked on

the questionnaire were related to the objective of this research study.

### Organizational Structure

This thesis is organized into four subsequent chapters, namely a literature review chapter, a chapter in which the analytical framework is developed, an analysis chapter, and a summary chapter.

Chapter 2 reviews the findings of past studies dealing with the concepts of part-time farming and multiple jobholding by farmers. The difference in meaning between the two preceding employment conditions is explained as it relates to this study. The first portion of the chapter deals with American studies on the subject. The latter part presents a review of available Canadian publications. A summary of the general findings of all studies considered concludes the chapter.

The third chapter involves the development of the analytical framework for appraising multiple jobholding farmers. A detailed presentation of specific socio-economic variables is considered in terms of contrasting multiple jobholding with full-time farmers and their farming enterprises, and in appraising the multiple jobholder and his off-farm job.

Chapter 4 presents the tabular frequency distributions of the computer analysis. The chapter is divided into two sections, first the multiple jobholding farmer versus the single jobholding farmer and their farming operations, and second the multiple jobholder in relation to the characteristics of his off-farm job.

The last chapter draws together the conclusions and implications of the overall study. A contrast is made between single and dual-occupation farmers; and the significance, stability, and locational aspects of multiple jobholding are presented relative to the entire provincial agricultural situation.

## CHAPTER II

### REVIEW OF THE LITERATURE

It is the prime objective of this study to facilitate a better understanding of multiple jobholding through an examination of the social and economic characteristics of dual-occupation farmers. Therefore, a brief review of some of the work done, specifically in this area of agriculture, is in order.

Research studies conducted into the occurrence of off-farm employment by farm operators has, for the most part, taken the format of a descriptive survey appraisal of social and economic traits of these farmers. The usual procedure has been to select a small region, considered to be representative of the overall situation, and within this region to select a sample consisting of from 50 to several hundred farm units.

#### Some Early American Studies

Rozman. One of the earlier studies typical of the descriptive survey approach was that conducted by David Rozman [100] in 1930. Rozman in his study sets forth to determine the significance of part-time farming in Massachusetts.

In his study, Rozman restricts qualification as a part-time farmer in two of three study regions to those who have farm output in excess of \$100 annually. They must also allocate their labour between their farm enterprise and some other source of employment for two or more months a year, or they might make combined use of their farm land resource for

additional use other than farming [100:105]. He further makes a distinction between a part-time farmer and a part-time farming enterprise, arguing that one condition does not automatically coincide with the other. In cases where the farm operator was working off the farm part-time but the farm was run on a regular full-time basis by hired help or sons, the farm unit was classified as a full-time farming enterprise. However, if the operator himself and the members of his family were all working on the farm on a part-time basis, the enterprise was classed as part-time farming [100:105].

He developed his study by classifying part-time farmers in terms of absolute numbers and percentage points according to specific variables such as age of operator, education, farm size, type of off-farm employment, rate of pay, plus various other socio-economic considerations. On a very limited scale, Rozman drew a parallel between full-time and part-time farmers to evaluate the latter group's significance in the region's agricultural economy.

Rozman's study viewed individuals engaged in part-time farming as shifting from an urban to rural life style rather than the reverse situation. The general overall findings of the study tended to support the belief that part-time farming was far more prevalent than had previously been believed, with as many as 50 percent [100:146] of the state's farmers involved to some extent.

Adams and Wann. Adams and Wann [1] varied their approach slightly in that they also included in their sample frame those individuals who at



one time had operated part-time farms but had since abandoned the practice. This was hoped to provide an insight into some of the possible difficulties which might be encountered in establishing a part-time farm enterprise. They dealt with part-time farming by dividing their study into four basic sections. The first involved a study of the actual organization of the part-time farm involving such characteristics as type and size of operation, value of gross sales, and farm labour requirements. Next, attention was directed towards the actual acquisition of the farm unit, with consideration given to acquisition costs, length of time in acquiring, operation costs, and type of living conditions most preferred. The third section dealt with some social traits of the part-time farm operator according to such individual characteristics as motivations for entering part-time farming, age, education, and average size of family. The study was ended by providing a guideline to assess the progress of part-time farmers and making suggestions as to how success might best be achieved.

Salter and Darling. Salter and Darling [101], as in previous studies, used the descriptive survey method. However, their treatment of part-time farming varied to the extent that they considered the area's agricultural ability to support a part-time farming enterprise, the region's industrial development, and the availability of jobs in terms of quantity and skills required, plus the suitability of urban families for such a program. They followed this with a survey of the social amenities of the region in order to assess capacity to support new entrants to the community and the quality of rural facilities in relation to currently

existing urban facilities. Their study represented an assessment of the region to determine its capacity to support a part-time farming program rather than an assessment of current part-time farming in the region.

Kenneth Hood. Kenneth Hood's study [52], was done in 1935, using the same procedural basis as Rozman [100]. However, Hood made a much more exhaustive appraisal of the characteristics of part-time farmers and the potential economic returns possible from part-time farming. To this extent then, Hood's study presented itself as a more useful guide in the development of assessing characteristics of potentially successful part-time farmers.

To this point in time most of the studies have directed their attention to an evaluation of part-time farming for the purpose of providing a sound informational basis for the development of programs aimed at encouraging part-time farming. However, it would appear that prior to and during the 1930's, part-time farming was seen as a means of economic relief, not for the rural poor, but for the urban low-income family. Part-time farming was viewed as a relatively permanent situation involving an urban to rural migration for the purpose of supplementing low annual income of the urban family breadwinner. At first, concern was expressed as to the effect part-time farmers would have on full-time farm income in the affected regions. However, the studies showed this effect to be negligible, since part-time production offered little competition to the full-time operator.

### Some Studies of the 1950's

The study by Moore and Wayt [81] in 1957 brought with it two new aspects to the investigation of part-time farming: (1) a more precise definition of the dual-occupation condition; and (2) a view of part-time farming, not as a means of economic relief from low income, but as a step to achieving full-time farming status. Their definition of a part-time farmer was someone spending 100 days or more at off-farm employment during the preceding year, and not compensating for reduced labour input on his farm by hiring paid assistants [81:5]. Their general objective was to contrast full-time farmers, who were former part-time operators, with existing part-time farmers in an effort to indicate that part-time farming was an economically viable way of "breaking into" full-time farming. However, in their appraisal of part-time farming, their conclusions were very similar to those of Adams and Wann some 23 years earlier. They found that success as a part-time farmer was no prerequisite to full-time farming, and more importantly, that for many the most expedient and successful course was to continue a nonfarm job and defer plans to farm full-time more or less indefinitely [81:46]. In other words they suggest that part-time farming is a terminal situation in itself which would remain a relatively long-term stable condition.

A later research bulletin authored by Wayt, Moore and Hillman [119] in 1959 investigated part-time farming in Ohio using the interview and questionnaire method of data collection. They drew conclusions based on a tabular presentation of the social and economic characteristics of

the responding part-time farmers. However, in this study a variation was introduced in that a distinction was made between a part-time farm and a part-time farmer. "A farm too small to provide productive full-time employment (or a living at some acceptable standard) to an operator and his family can be considered a part-time farm" [119:4]....." this definition is geared to the capacity of an operating unit of land and the associated resources to produce some limited range of income" [119:4]. A part-time farmer on the other hand was defined as one who worked more than 100 days off the farm and was not compensated for by hired help.

While the classifications of part-time farming differed in this work from previous studies, such as that by Rozman and Hood, the analytical framework as regards social and economic characteristics, and correspondingly the results and conclusions, were very similar.

Lee. John Lee [65] in his publication in the 1965 Journal of Farm Economics, attempted to provide a theoretical foundation for explaining the rationality of allocating farm labour resources to nonfarm employment. In his presentation, Lee deviated from the usual descriptive survey approach in favour of a more theoretical economically oriented appraisal of multiple jobholding. By taking this approach he explored an area of the part-time farming concept which in the past had remained relatively ignored or assumed away.

Lee maintains "that the decision by a farm operator to allocate part of his labour resource to nonfarm employment may be both rational and consistent with the goal of maximizing family income and making

efficient use of farm and family resources" [65:83]. Through the use of graphic illustrations and specific assumptions, Lee proceeds to show that farm operators in specific situations can maximize their level of overall satisfaction by becoming a part-time farmer.

In general where the average hourly wage rate for nonfarm employment at some allocative point exceeds the average hourly wage rate for the farmer, Lee's model provides a basis for showing the rationality of allocating the farm operator's labour resources between the two. Lee further suggests that for a specific farm size and off-farm wage rate, a combination of farm and nonfarm employment could prove to be more remunerative than either option taken separately. Lee ends his work by concluding that an increased awareness, by farm operators and their families, of the opportunities associated with part-time farming could result in a reduction in the large lump-sum quantity of family labour employed on the family farm. This ultimately would reduce the technical underemployment of labour and improve the overall efficiency of resource use in agriculture.

#### Part-time Farming Versus Multiple Jobholding

The literature so far has mainly been concerned with the phenomenon of part-time farming. However, part-time farming suggests that the individual has a full-time nonfarm occupation (true in some cases) which is his primary source of income and that he then engages in some farming activities of a somewhat perfunctory nature as an income supplement or hobby. The term "multiple jobholding" causes no such prejudgement as to

which of an individual's economic activities is his major one; in fact, it does not require that any single activity be classified as more important than any other. All that multiple jobholding implies is that by some classification the individual is one who is engaged in more than a single occupation or economic activity which produces income [Hathaway and Waldo 51:7].

Hathaway and Waldo. The study by Hathaway and Waldo [51] in 1964 was one of the earlier works which dealt with farmers in terms of multiple jobholders. Their study considered the extent, nature, and earnings of multiple jobholding farmers between 1955 and 1959 on a nationwide basis. In general the findings of the study were that multiple jobholding did not represent a continuous situation for most farm operators. Only a small fraction of those with off-farm earnings in any one year had such earnings for five continuous years. This conclusion, while supported by work conducted by Saunders [103] does not completely coincide with that of Sargent [102] where the occurrence of multiple jobholding was viewed as a permanent situation since "seventy-five percent of the part-time farmers planned to continue in dual-employment indefinitely" [102:1].

#### Some Canadian Publications

The relative abundance of United States publications dealing with dual-occupation farm operators is contrasted by the lack of such publications relative to Canadian agriculture. Recognition of the occurrence

of off-farm employment of farm operators dates back in Census publications to 1936 [Dominion Bureau of Statistics 30:288]; however, there appear to be very few studies dealing specifically with multiple jobholding until very recently, and none deals with its occurrence as relates specifically to the province of Manitoba.

Literature of a Canadian nature appears in the late 1960's and early 1970's, and most of these studies put their emphasis upon the rural farmer who is supplementing his income by part-time off-farm work [Locas 69, Gruber 48, Patterson 92, Perkins 93, and 94], rather than the urban breadwinner who is supplementing his income by rural employment as was the case in the 1930's and 1940's [Adams 1, Hood 52, Salter 101, and Sargent 102]. Antoine Locus [69] considered multiple jobholding in Canada on a nationwide basis. He used multiple regression analysis to predict the frequency of multiple jobholding, using various socioeconomic characteristics of multiple jobholding farmers. His overall conclusion was that off-farm employment was an inevitable and stable adjustment to the increasing economic pressures of modern farming.

Stephen Gruber [48] in 1971 and later Perkins [94] in 1972 narrowed the scope of their studies to a specific area of Ontario. While their findings were not radically different from Locas' [69], they both recommended that governments, in their policy making decisions, take greater cognizance of the economic potential that multiple jobholding offers to Canadian farmers.

### Overall Observations

An investigation of the literature reveals a number of salient points:

(1) As economic conditions have changed over the past four decades, so also has the phenomenon of rural and urban work activity changed--from one where part-time rural farm employment supplemented low urban family income to one where part-time off-farm employment supplements low farm family incomes [52, 69].

(2) A large percentage of the studies deals only with the part-time farmer group.

(3) A study of the part-time farmer, as opposed to the more inclusive category of multiple jobholding farmer, excludes a significant number of people involved in two occupations of which one is farming.

(4) The largest percentage of studies deals with the former, part-time farmer group, resulting in a significant loss of data which could prove useful in analyzing future trends in farm/nonfarm employment.

(5) Some social and economic variables, such as size of family, the wife's willingness and capacity to work off the farm, or the amount of outstanding farm debt, contribute to the decision to enter a multiple jobholding status but have largely been ignored in the literature reviewed.

The greatest proportion of studies reviewed has been of American origin, with only the latter three dealing specifically with multiple jobholding as it occurs in Canadian agriculture. In view of this deficiency, this study attempts to investigate the phenomenon as it relates to Manitoba.



## CHAPTER III

### VARIABLES SELECTED FOR APPRAISAL OF MULTIPLE JOBHOLDING AMONG FARM OPERATORS

This chapter serves to identify and develop some of the socio-economic variables in terms of an overall framework for analysing multiple jobholding in Manitoba.

#### Introduction

The incidence of multiple jobholding (that is combining farm and nonfarm employment as a means of supplementing lagging farm income, of moving entirely out of agriculture, or of achieving a full-time farming enterprise) is becoming increasingly common among Manitoba farmers. The Manitoba Census' of Agriculture for the five census years of 1951 to 1971 indicate a fluctuating trend towards an overall percentage increase in the occurrence of multiple jobholding among farmers (see Table 3.1).

The decision by an individual to enter a multiple jobholding status is a function of many variable factors, both pecuniary and non-pecuniary in nature.

Table 3.1

Percentage of Multiple Jobholding Farmers of  
the Total Farmers in Manitoba<sup>a</sup>

Year	Total Number of Farmers	Total Number of Multiple Jobholders	Percentage Multiple Jobholders of Total Farmers
1951	52,383	9,454	18.1
1956	49,201	7,243	14.7
1961	43,306	10,516	24.3
1966	39,747	8,993	22.6
1971	34,981	10,802	30.9

<sup>a</sup>Compiled from data in the Census' of Canada for the five census years 1951 to 1971 inclusive [32, 33, 34, 35 and 109].

#### Pecuniary Considerations

Any decision to shift from a single to dual-occupation status should consider in present-value terms the expected future income flows from the two alternative sources of cash income (less any associated costs). In this way the individual is able to allocate his labour resource on grounds which are economically justifiable.

The farm operation must be viewed in terms of the expected income which it will be capable of generating. The farm must also be considered in terms of the income it could produce if expanded; however this must be

tempered with the probability of the operator's economic and managerial ability to achieve the necessary expansion. The real total income the farm operator derives from the farming enterprise can be greater than that achieved from an actual cash flow due to receipt of "income-in-kind". This can take the form of lower housing costs, food commodities produced and consumed on the farm, and various tax savings, all of which must be taken into account when arriving at a present-value figure for farm income. Implicit in the calculation of future income flows for the farm operation is an allowance for changing prices in both products produced and used on the farm, as well as some allowance for technical and structural changes in general in agriculture.

While evaluation of the flow in income from nonfarm employment in present-value terms is considerably easier than for farm employment (because the former in most instances is a reasonably predictable wage rate) any valuation obtained must be viewed in light of the relative dependability of most forms of non-seasonal type off-farm employment. This would necessarily involve the age of the individual, type of work he was performing, his educational level and associated skills, and the regularity of employment on a yearly basis.

Both income sources must be considered net of any costs incurred in achieving the revenue. The two farming possibilities would be evaluated, less the operating costs of the farm which would also include any costs involved in obtaining capital for expansion noted in the second farming alternative. Costs associated with the off-farm job would include

transportation costs to and from the job, union fees if applicable, and pension and unemployment insurance deductions. These latter two costs could be misleading since the employee will eventually regain his pension contributions and could potentially benefit from unemployment insurance contributions. However, because there may be an immediate need for cash income these costs represent real deductions from the available disposable income and can justifiably be included as costs when viewed in this light.

Evaluation of alternative income streams in present value terms involves a prior knowledge of the appropriate rate of discount to be used and the time period over which the income stream will be attainable. The final merits of one form of income producing employment over another can be drastically affected, depending upon the above values used in arriving at a present-value figure for income. Therefore selection of these values necessitates careful consideration so as to arrive at values which approximate as nearly as possible, expected actual conditions.

Implicit in the preceding is that the farm operator sets out in a cold and calculated manner with present-value tables in hand to compare the income possibilities of farm and nonfarm employment and the potential financial benefits obtainable through combining both activities. While this may occur in a few cases, the majority of farmers appraise multiple jobholding in more of a subjective manner as they gradually become involved with the practice over time.

#### Non-Pecuniary Considerations

Multiple jobholding can provide the individual with certain social

benefits such as reduced stress and uncertainty through improved economic stability or broadened employment opportunities. However, associated with the benefits are costs that might be incurred. These must be recognized and accepted prior to entering the dual-occupation status. These costs could include such things as the loss of former leisure time to income generating activities; the additional physical expenditures and subsequent increased job fatigue; or the inconvenience of travelling between two employment sites. Such aspects of multiple jobholding are difficult to equate in dollars, but must be considered by the individual considering dual-employment.

#### Socio-Economic Variables

##### The Farm and The Operator

Age of farm operator. The anticipated decline in multiple jobholding with advancement in operator's age was based both upon economic and non-economic considerations.

The rationale were:

(1) Younger farmers<sup>1</sup>, by virtue of their relatively recent entry into farming, would have a higher degree of indebtedness and would be inclined to accelerate the accumulation of farm equity through multiple jobholding

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<sup>1</sup>In this study the term "younger farmer" refers to an individual 34 years of age or less. A "middle-aged farmer" is one who is between 35 years and 54 years of age; and "older farmer" is one 55 of years of age and over.

(2) Younger farmers, with growing families living off one income from the farm and with possibly higher living expenses than some middle-aged or older farmers (whose children are more likely to be financially self-sufficient) would be more inclined to meet these additional expenses through multiple jobholding.

(3) Younger farmers would also be less established in their ways of living and would likely be more prepared to adapt to a situation of multiple jobholding than would older farmers.

(4) Younger farmers would have a greater number of potential off-farm work years ahead of them. This might induce younger farmers to be more inclined to enter a dual-occupation status. Furthermore, employers whose business makes it necessary to train the prospective employee (whether formally or through skill development), would be more inclined to hire younger farmers with greater possibilities for return on their training investment.

(5) Finally, younger farmers are perhaps better prepared educationally to seek and obtain off-farm employment. This is attributed mainly to the increased access in recent years to educational facilities for rural people and to increased levels of farm mechanization. This means that labour input of farm children is no longer as crucial as in the past, thus allowing them to remain in school for a greater number of years.

In a study by Brian Perkins [94] it was found that multiple jobholding was substantially higher for younger individuals than for their older counterparts with the most noticeable decline occurring past the

age of 44 [94:9]. Stephen Gruber [48] in his unpublished thesis research substantiates Perkins' conclusions. Statistics reported in Census Canada [109] supported, in general, the findings of the preceding studies.

However, the greatest frequency of multiple jobholders was observed to occur in the age range of 45 to 54 [109:57-11], a range somewhat higher than that found by Perkins [94] and by Gruber [48]. However, when the total number of farmers in dual-occupations for each age category are added cumulatively, those below the age of 44 are greater in total than above the level. Other studies which support the preceding findings are Duvick [37], Loomis [72], and Sargent [102].

Education of farm operator. The education of the farm operator would provide a general indication of the type of employment the individual would likely be able to obtain and retain which in turn would determine the monetary returns from part-time off-farm work. Within limitations, the higher the level of formal education achieved by a rural individual, the greater would be his opportunities in achieving part-time off-farm employment, and the better would be his chances in competing for urban employment against the nonfarm population in urban centres. Many farms employing new personnel usually require a basic level of formal education of prospective employees regardless of the job which is to be performed. More advanced levels of formal education would be indicative to the potential employer that the individual possessed the ability to learn and master new skills.

Research conducted by Martin and Southern [79] indicated that there was a close association between the age of the farm operator and

his level of formal education. They found, in general, that part-time farm operators possessed a higher level of education than full-time farmers in the same relative economic classification. Indications were that of farmers reporting no off-farm work, 85 percent completed less than grade nine in school, contrasted to 37 percent for those individuals reporting substantial work off the farm [Martin and Southern 79:10]. Perkins [94] found that "the probability of taking off-farm jobs was much higher for those farmers who had completed grade ten than for those with less formal education, and those who had special training for nonfarm employment were twice as likely to be multiple jobholders as were other farmers" [94:11]. Stephen Gruber [48] further collaborated the conclusion reached by Perkins, but work by Wayt, Moore and Hillman [119] concluded that part-time farming was not specifically associated with any one level of educational attainment. However, they did conclude that nonfarm earnings increased consistently with the amount of formal schooling, thus indicating a higher motivation for the more highly educated farmers to become multiple jobholders.

Predominant farm enterprise. The labour requirements of the possible farming enterprises vary considerably from one type of operation to another. The interaction of labour allocation between farm and nonfarm employment will result in a successful multiple jobholding situation only if the farm type coincides with the labour pattern required by the off-farm part-time job. A small grains producing farm would be well suited to off-farm employment during winter months, whereas a cow-calf beef operation



would be better suited to an off-farm job which required a certain number of hours each day. In general though, a farm operation which is not normally labour-intensive is more likely to be operated in conjunction with an off-farm part-time job.

Wayt, Moore, and Hillman [119] found in their research that part-time farmers, because of their relatively constrained labour supply tended to shift to livestock operations which required relatively small quantities of labour and tended to limit the number of farm enterprises in order to minimize the total labour requirements. They also found that some operators, where land conditions were suitable, produced grain crops. In general, however, part-time farmers tended to do as their counterparts operating full-time farms, that is, "to follow the type or types of farming found to be most profitable in an area and best adapted to the land" [Wayt 119:40].

Charles Sargent [102] came to the same general conclusions as Wayt et al., that is, that part-time farmers tended to be engaged in livestock operations such as a beef or beef and hog combination rather than a more labour-intensive dairy operation. Part-time farmers tended also to restrict their livestock enterprises to one kind of livestock. The cropping practices on part-time farms concentrated in production of meadow-type crops rather than more specialized crop production.

Perkins [94] found that dairy operators were less likely to be multiple jobholding farmers due to the heavy and inflexible daily labour demands of the enterprise. He found beef cattle and mixed livestock enterprises to be the most predominant types of farm operations engaged

in by multiple jobholding farmers. Statistics presented in the 1971 Census of Agriculture for Manitoba [109] indicated that the farm enterprises showing the highest incidence of dual-occupation by the operator were those farms involved in the production of small grain crops (excluding wheat) and livestock operations (excluding dairy).

Gross sales of the farm. The basis for a dual-occupation status among farm operations in many cases is founded upon the need for a supplementary source of income because of a low income returned by the farming operation. While low farm income can be attributed to several causal factors, one of the most important is the lack of the economic ability or desire of the operator to expand his current size of farm operation. Multiple jobholding could present an equally viable alternative to expansion of the farm, and as such would be more likely associated with smaller farm operations than with the larger farming enterprises. The multiple jobholding farmer must allocate his scarce labour resource between two labour-requiring activities. While for some operators this will involve only a more efficient use of labour time allocated to farming, for others there will be the need to divert some of the labour input in farming to nonfarm employment. The result of this could take the form of reduced levels of total farm production capacity, or at least prevention of any further expansion of total current output. The relative importance of the farm as a source of income could diminish as the particular farmer became more closely identified with and dependent upon his off-farm income source. This could then result in a general acreage reduction in the overall

farming effort for the particular farm unit. One way these conditions could be manifested is in the form of low gross sales figures for the farming enterprise.

Perkins [94] in his study found that the greatest percentage of multiple jobholding farmers was concentrated on farms producing the lowest level of value of farm product sales, and the lowest level of value of farm product sales, and the percentage of multiple jobholders declined in a steady fashion as the level of gross sales increased. Martin and Southern [79] found similar results to Perkins' work, in that part-time farmers generally had low values of gross sales with relatively few part-time farms responsible for a large proportion of the total sales. "Less than 10 percent of the part-time farms accounted for 50 percent of the aggregate value of farm sales on all part-time farms" [Martin and Southern 79:14]. Statistics Canada reported similar findings to those of the preceding studies, in that multiple jobholding farmers were concentrated in the lower gross sales categories with 42.8 percent below a \$2,500 gross sales figure, 33.7 percent below \$7,500, and leaving only 23.5 percent above \$7,500 total gross sales. Full-time single occupational farmers tended to be concentrated in the higher gross sales ranges, with only 20.6 percent below \$2,500 gross sales, 35.1 percent below \$7,500 and 44.3 percent above \$7,500 [Statistics Canada 109:52-1 to 52-8].

Acreage of farming operation. The occurrence of multiple jobholding among farmers was thought to be inversely related to the farm size as measured in total usable acres. The rationale for this is that multiple

jobholding is thought to be engaged in as a supplement to low farm incomes, which in turn is considered to be characteristic of farms too small to produce sufficient output so as to provide a reasonable farm income. The farmer must allocate his labour between two employment functions when employed part-time off the farm. In many cases this will form a limit on the physical size of the farm the operator is capable of managing without replacing his own farm labour with hired help. For this reason the acreage of part-time farm operations will be inclined to be less than for full-time farms. In general, caution must be exercised in interpreting findings expressed in terms of acreage since, depending upon the type of farming operation, physical size is not the most adequate measure of the relative significance of the farm in economic agricultural terms.

Martin and Southern [79] found in their study area that part-time farms varied considerably in size, thus limiting the significance of acreage in its relation with the occurrence of multiple jobholding. In general, however, they found that most part-time farms were small relative to the acreage of full-time farms in the area. The average farm size varied directly with the extent of off-farm work with the median size of 90 acres [Martin and Southern 79:12]. Statistics Canada [109] reported a higher frequency of multiple jobholding among farms with lower acreage ranges. Other studies supporting this general conclusion are by Duvick [37] and by Saunders [103].

Total capital value of farm. The total per acre capital value of the farm operation consists of the summation of the per acre value of the farm equipment, building, livestock, and land. In general, the total per acre capital value of farms operated by multiple jobholders were believed to be lower than for those operated by single-occupation farmers. The basis for this is related to the connection between multiple jobholding, on the one hand, small-scale operations (which economically cannot justify high capital investment) on the other hand, and low income farms which do not have sufficient capital for investment in the farm.

These views in part are supported by the research of Sargent [102] who found as a rule that the farm buildings, machinery and livestock on the part-time farms were of poorer quality than on full-time farms. However, housing and land values tended to counter this trend to lower capital value. Martin and Southern [79] also found that part-time farms were characterized by relatively low capital values, but that the capital value did increase in terms of the value of livestock and equipment held by part-time farmers, as the average number of days worked off the farm by the operator increased. In their study, land still constituted the major capital asset of the part-time farmer. Statistics Canada [109] indicated a higher incidence of multiple jobholders in the lower capital value categories than for full-time farm operators.

If farms are compared on a full-time versus part-time basis in terms of total per acre capital value, but are restricted to comparisons between farms of relatively equal economic size, then it is possible that

the preceding stated relationship between multiple jobholding and per acre capital value may not occur. The multiple jobholding operator may have a higher per acre capital investment in his farm than his full-time counterpart. This could be attributed to the possibility that the part-time farmer substitutes capital investment in equipment for labour he has diverted to his off-farm job. The off-farm job may also serve to provide the farmer with readily available operating capital with which to improve his current level of operation. This would be particularly true if multiple jobholding for the farmer was undertaken as a means of eventually entering full-time farming or of improving his current farm operation more rapidly. A study conducted by Saunders [103] provides supporting evidence to this viewpoint in that his work indicated a higher capital investment in part-time farms as compared to other small farms in the study areas.

Outstanding mortgages on the farm operation. The total outstanding mortgage value is made up of the mortgage held on the farm land, buildings, equipment and livestock. In most situations, mortgages held on farm land will also include buildings located on the land. The exception to this will occur for a relatively new building whose capital value represents a sizable proportion of the total capital value of the farm.

Multiple jobholding farm operators were believed to be more frequently associated with farms having lower levels of total liabilities. This was, in part, based upon the belief that dual-occupation farmers are associated with small scale operations and by virtue of this would have less

need for credit financing of farm costs. In any event, these individuals, because of their smallness, may find it difficult to obtain credit financing. The accumulation of a high level of indebtedness in many instances is the result of farm expansion. Multiple employment by farmers has been suggested as an alternative to expansion as a means of increasing farm income. It is, therefore, believed that elimination of this reason for increasing indebtedness would by itself contribute an overall reduction in the degree of indebtedness among dual-occupation farmers. Finally, employment off the farm would result in an increase in farm family income. It is logical that a portion of this income would be directed towards reduction of any outstanding debt with the net result that, on an overall basis, multiple jobholders could be associated with lower levels of indebtedness.

While the preceding argument favours the association of multiple jobholding with lower levels of indebtedness, there will unquestionably be situations in which the reverse is true. In the case of a farmer who has just recently entered farming and is using dual-employment to facilitate entry there may be a very high level of indebtedness. In total, however, it is believed that the overall trend will be for multiple jobholding farmers to be associated with lower levels of indebtedness.

The association of multiple jobholding farmers with lower levels of total liabilities was not substantiated in a study conducted by Loomis and Wirth [73]. In their study part-time farmers had a considerably higher total value of liabilities than full-time farmers, and that over time part-time farmers showed a greater percentage increase in liabilities

relative to full-time operators.

Farm operating cost. The costs incurred in maintaining the farm as a functioning unit are represented by the operating costs. Farms on which the operator is employed at some revenue-producing function in addition to his farm are likely to have higher per acre operating costs than other farms in general and farms on the same economic level. This could be attributed to several factors such as the need to have greater quantities of farm work performed on a custom basis or lower level of efficiency because of the economic size of the farm. Other factors could be the demand for labour off the farm during peak periods in the farming operation, and a general division of interest caused by two jobs placing less demand on the farm to provide all the family income.

Loomis and Wirth [73] found that full-time farmers had lower operating expenditures when compared to part-time farmers over the five-year study period. Martin and Southern [79] agreed with and further supported Loomis and Wirth in that they noted a steady increase in cash farm expenses as the frequency of days worked off the farm increased.

Tenure status. It is difficult to resolve the question as to whether it is better to own or rent cultivated acreage. It is believed that the division of labour between two jobs and the reduced dependence on farming for a livelihood could account for a lower incidence of land renting among multiple jobholders. Furthermore, the increased security individuals seem to associate with land ownership, plus the reluctance of others to rent their land to individuals not totally committed to the land



for a livelihood, adds credibility to the belief that multiple jobholding farmers will tend to own their own land. However, this does not imply that it is not rational for multiple jobholding farmers to rent their cultivated acreage. On a purely economic basis, renting land could allow for a more flexible and perhaps more efficient utilization of a major portion of the individual's available resources ("part-time farmers as a whole had 80 percent of their total investment in land" [Martin and Southern 79:13]).

Previous research studies support the belief that multiple jobholding farmers will favour ownership of their study that relatively few part-time farmers rented land. They attributed this to owners' reluctance to share-rent to tenants who had some other job, plus the ability of individuals with some form of relatively stable income to command sufficient credit to purchase their desired acreage. Moore and Wayt [81] also concluded that most part-time farmers had title to all or almost all the land they farmed. Statistics Canada [109] reported a higher proportion of part-time farmers owning more and renting less than was the case for full-time farmers tended to own most of their land used in farming.

Custom work performed on the farm. Generally, custom work is more likely to be associated with farming operations on which the operator has a dual-occupation status. The basis of such a relationship is that multiple jobholders will have smaller-scale farms and will not be economically justified in investing large sums of capital in equipment which will receive only minimal use. They will, therefore, be inclined to hire others to perform the necessary special tasks such as seeding and harvesting. It may also pay

the particular operator to allocate more of his labour to off-farm employment at a higher rate of return and hire the farm work done by others.

Wife working off the farm. It is believed that the incidence of multiple jobholding by the farmer's wife will be greater for those farmers who are multiple jobholders themselves. However, there are two possible viewpoints with reference to the incidence of multiple jobholding by the operator's wife. The costs of commuting to off-farm employment would be no greater if both husband and wife worked off the farm in the same general location. On the other hand, the wife's income from working off the farm could reduce the financial need for the husband to work off the farm. It is, therefore, possible that off-farm employment by farm wives be closely associated with situations in which the farm operator farmed full-time, and less closely associated with conditions where the operator was a multiple jobholder.

Stephen Gruber [48] found that the incidence of nonfarm employment by wives whose husbands were multiple jobholders was higher than for those full-time operators. Wayt and Dix [120] found a relatively small proportion of part-time farmers who also had wives working off the farm. Wayt, Moore and Hillman [119] concurred with the previous study in that only 14 percent of multiple jobholders' wives also reported nonfarm employment [119:33]. They did find, however, that wives in families on the larger part-time farms were as likely to have nonfarm employment as those on smaller farms.

Saunders [103] found that on farms where multiple jobholding occurred, the farm operator was the person most frequently involved in the off-farm employment. This was followed by combinations in which both the operator and his wife worked off the farm. Situations in which only the wife worked at off-farm employment occurred least frequently of all the three possible alternatives. It should be noted, however, that the spread between the most frequent and least frequent off-farm employment occurrence was only 6.7 percent [Saunders 103:14].

Martin and Southern [79] noted a high incidence of the wife working off the farm relative to the operator working off the farm when the number of days worked were relatively few (less than 100). However, as the days worked increased, the percentage of husband-wife multiple jobholding decreased rapidly.

Profitability progress of farm over time. The economic progress of the farm unit over time will influence the operator's decision as to whether to continue as a part-time farmer, to move to full-time farming, or to opt out of agriculture altogether. In terms of a full-time operator, his progress might suggest to him the need to supplement his income from the farm by off-farm employment. In this thesis it was hypothesized that multiple jobholding will be found more closely associated with those farms reporting no progress or those farms which had regressed in economic terms over five years.

Loomis and Wirth [73] found that full-time and part-time farmers were more or less equal in terms of net income and financial progress

over time. Part-time farmers tended to operate farms less efficiently than full-time operators and they only achieved economic equality through the supplementary effects of their nonfarm employment.

### The Off-Farm Job

Amount of off-farm work. On a farm of specific physical size with an operator who can allocate a fixed amount of time to work activities, the amount of off-farm work expressed in terms of days is thought to be directly related to the labour intensity of the farm operation. Given these limitations there are essentially two alternatives. One involves a farm operation requiring a relatively constant labour input allowing for year round off-farm employment. The other involves a farm operation requiring large quantities of labour only during specific peak periods, therefore facilitating seasonal off-farm employment.

Sargent [102] found that in the majority of cases, the off-farm job held by the part-time operator was a regular forty-hour week position in a nearby town or city. The majority (80 percent) [Sargent 103:14] of these part-time farmers worked year-round with the remainder working seasonally on a full-time basis. Loomis, McKee and Bonnen [72] found in their research that the common image of farmers supplementing their income during slack periods in farming through seasonal employment off the farm was not the case in their study area. Rather, nearly 75 percent of the farmers worked off the farm on a regular year-round basis. Wayt, Moore and Hillman [119] arrived at similar conclusions with the exception that they found a full-time job of an eight-hour day, five-day week schedule

was the typical situation for most operators regardless of the amount of farming they did in addition to this.

These studies indicate that multiple jobholding is a relatively long-term arrangement for many farmers. It is also indicated that most types of nonfarm employment which provide a degree of year-to-year permanence usually require relatively inflexible year-round participation by the individual. In view of these findings, this research postulates that part-time farmers will tend to work year-round (or nearly so) at off-farm employment.

Distance travelled to off-farm work. The travel to off-farm employment incurs both tangible and intangible costs to the farmer. There is the actual operating cost of gas and oil and depreciation costs to his car. There is also the cost in terms of time spent driving to the job which otherwise could be allocated to some other activity. Finally, there is the cost in terms of fatigue from travelling.

While there is a direct relationship between distance travelled and cost incurred, it is not necessarily proportional in terms of total cost per mile. The proximity of urban centres to the farm is one of the major determinants of the distance the farmer will travel. In general, however, there tends to be a limit to the distance travelled, with an inverse relationship between distance travelled and the number of farmers travelling. The basis for this is that the pecuniary and time costs begin to exceed the returns derived; travel time is of such length that it does not enable the individual to reach his off-farm job at the proper time; and

farmers tend to seek employment in their surrounding area where they are familiar with available job opportunities.

Moore and Wayt [81] in their study found that while some operators reporting dual-occupations did travel 60 miles and more, the vast majority commuted considerably fewer miles averaging 15 miles one-way to work. Loomis, McKee, and Bonnen [7]] reported that two thirds of the nonfarm jobs were within a 20 mile commuting range, the longest distance travelled being 62 miles one-way. Sargent [102] found that most farmers travelled 10 to 20 miles one-way to get to their nonfarm job with a few travelling in excess of 40 miles. The average distance travelled was found to be 17 miles one-way. Wayt, Moore, and Hillman [119] found most farmers travelled from 5 to 20 miles one-way to a regular place of employment, with an average distance of about 13 miles.

Years worked at off-farm employment. Multiple jobholding can be the means of achieving one of three possible objectives. It can be the means of gradual out-migration from agriculture altogether; it can be the means of accumulating capital for expansion of the farm business; or it can be the means of supplementing low farm income so as to allow stabilized continual operation of the farm unit and yet provide sufficient total annual income to enable the farm family to achieve an acceptable standard of living. In general, the number of years spent working (continuously) off the farm will be influenced considerably by the farmer's reason for dual-occupation status. If the true nature of multiple jobholding is represented by either the first or second situation, it would be expected

that farmers with these objectives in part-time farming would tend to work fewer years off the farm (arbitrarily selecting five years or less) than would be the case if the third situation was the basis for two occupations. The rationale for this conclusion is that in the first two situations, multiple jobholding was a means of achieving an objective which, once reached, no longer required a dual-occupation condition for its continued existence. In the third case, however, to enable the farm family to remain viable in a farming situation, it is necessary that the dual-occupation status exist on a continual for a long period of time. Multiple jobholding in Manitoba is believed to represent a relatively long-term occupational adjustment to a more economically stable life style. Therefore, it is postulated that a substantial portion of dual-occupation farmers will hold off-farm employment for long periods of time.

Studies conducted in the United States by Ralph A. Loomis [70], Charles Sargent [102], and W. M. Crosswhite [United States. Department of Agriculture 116:146-151] have suggested that part-time farming is not a transitory but a continuing status for the individual. This lends support to the third premise stated above as representative of the objective of multiple jobholding. Sargent [102] found that men averaged 12.2 years of employment at their current off-farm job, indicative of a fairly permanent way of life. Wayt, Moore and Hillman [119] reported in their work a range of from less than one to 41 years of off-farm work with an average value of eight years at the present job for all operators. A substantial proportion of multiple jobholders in their study reported working a greater period of time at a nonfarm job than they had lived on the present farm.

This indicates that for these individuals part-time farming represented a means of entering farming rather than an adjustment to low farm incomes. Hathaway and Waldo [51] cast some doubt on all of these findings when they stated in their research that for many persons multiple jobholding was a step in changing occupations and that after a few years of nonfarm employment many individuals were no longer engaged in farming. Further they found that relatively few farmers were multiple jobholders for as many as five consecutive years.

Type of off-farm employment. The particular type of work which an individual will select in addition to farming will be influenced considerably by the types of jobs generally available within close proximity to his farm. The types of jobs available will in turn be governed by the relative location of large urban centres, transportation facilities, availability of raw materials, natural raw materials, location of markets, and availability of labour and its relative cost.

Individuals engaged in multiple jobholding as a means of supplementing farm income are believed to be more inclined to seek a line of employment in which they could use skills already acquired through farming or in which a minimal amount of training is required. This could be due to the fact that the prime objective is to earn additional ready revenue rather than develop a long-term career, therefore, the farmer is not prepared to spend a lot of time in formal training. Also, unskilled and semi-skilled jobs are very adaptable to the irregular daily or seasonal availability of farmers.



Stephen Gruber [48] found that one of the major determinants of the type of job a part-time farmer was likely to be engaged in was the relative degree of industrialization of the region. Regions lacking concentrated industrial centres tended to have a higher incidence of multiple jobholders employed in the unskilled job forms. Sargent [102] found that 75 percent [102:15] of the farmers reporting off-farm employment worked for wages and that production workers in factories represented the largest concentration of employment with clerical and sales workers accounting for the lowest concentration. This indicates a concentration of employment in the unskilled to semi-skilled classifications.

Duvick [37] found that 75 percent of those operators reporting off-farm work performed jobs which were classified as semi-skilled, with only 12 percent reporting unskilled employment. He also found that the type of job reported reflected the degree of development within the region. Hathaway and Waldo [51] found that the most frequent source of waged employment was with some unit of the government accounting for 25 percent of the total employment. The second most frequent industry of employment was in wholesale and retail trade, followed by manufacturing, agriculture, forestry and fisheries.

The overriding factor evident in the preceding studies relative to type of off-farm employment is that it is influenced considerably by the relative degree of industrialization of the region in which the farm was located.

Pay received for off-farm work. The postulated supplementary

nature of multiple jobholding could account for a large proportion of farmers receiving low off-farm income, as compared to the average achieved by the remaining rural nonfarm segment of the population. The possible secondary status of the off-farm job could result in farmers allocating their labour resource to nonfarm employment only when labour requirements for the farm had been completely fulfilled. This could leave relatively little time for allocation to nonfarm employment which in turn would automatically result in low nonfarm income returns. Closely associated with the labour-time element as it affects remuneration for part-time off-farm work is the premise that constrained time input for off-farm employment will adversely influence the type of job which the potential multiple jobholding farmer will be able to obtain. The result could be the possibility of achieving employment only in jobs which pay the lowest wage rates.

Hathaway and Waldo [51] found that a substantial proportion of multiple jobholding farmers were concentrated in the lower annual off-farm income ranges, with 31 percent receiving less than \$200 annually and only 7 percent receiving in excess of \$3,000 [51:32]. Furthermore, they found that over time the relative distribution by annual income ranges did not vary significantly, thus indicating a rather stable distribution. Stephen Gruber [48] found a similar trend in that the largest proportion of dual-occupation farmers was concentrated in the lowest off-farm income range. However, this minimum range was substantially larger than that of Hathaway and Waldo [51] in that the minimum was \$2,000 or less [51:58]. Duvick [37] found, as Gruber [48] had, that 30 percent [48:38] of the part-time jobholding

farmers were in the lowest off-farm income range. However, unlike Gruber, Duvick found that the percentage of multiple jobholders within specific income ranges did not decline with increases in the income ranges. He found that off-farm income made a substantial contribution towards that total farm income position, with 63 percent of the farmers reporting off-farm income of \$4,000 or more [Duvick 37:70]. Sargent [102] found that, in general, there was an inverse relationship between amount of off-farm income and farm acreage; that is, a smaller farm meant more off-farm income. Again off-farm income represented a substantial contribution to total income with the lowest recorded average off-farm income of \$3,930 [Sargent 102:16].

Major source of income. Off-farm income has been shown in some studies to contribute substantially to total farm income. However, the salient point is that for many operators it is still believed to be only a secondary income source to enhance the primary source of farming. The off-farm income source for these individuals could represent a dependable, regular income source with which they could finance the daily operating cost of the farm and family during periods of irregular and sometimes unstable farm income.

For some individuals off-farm employment may provide the means of upgrading their total income to an acceptable level. However, the farm income is likely to remain the major component because of inability to expand off-farm employment income as a result of insufficient skill levels or some other disqualifying characteristic such as advancing age.

On the other hand, those who do not rate farming as their predominant income source, may farm or live on a farm because of the life style it affords. They may do so quite profitably but still remain dependent on some regular nonfarm source of income for their livelihood.

The basic premise of the thesis is that for many Manitoba farmers, multiple jobholding constitutes an income source by which they would be able to supplement a low farm income so as to derive sufficient total income to be able to meet family and farm expenditures.

#### Summary

This chapter has cast the foundations upon which the actual analysis of multiple jobholding by Manitoba farmers will be performed. Arguments have been presented both pro and con for expected results of the socio-economic analysis. They have been supported through specific findings of previous studies conducted predominantly in the United States. The succeeding section will set forth, with these guidelines, analysis of the data in order to repudiate or accept the hypothesized relationships in order to provide a more comprehensive picture of the multiple jobholding condition among Manitoba farmers.

## CHAPTER IV

### ANALYSIS AND INTERPRETATION OF THE DATA

#### Introduction

In the preceding chapter a framework was developed for the analysis of multiple jobholding by farm operators. The structural organization of the analytical framework involved a socio-economic appraisal of the farming operation of multiple versus single-occupation farmers, plus the dual-occupation farmer and his off-farm job. This chapter tries to determine more concisely those characteristics associated with development of a dual-occupation status, and to test the hypotheses stated in Chapter 1. The empirical results obtained from the mailed questionnaire are presented and interpreted in terms of the support they lend to acceptance of the hypothesized relationships between selected variables and the occurrence of multiple jobholding. Where the hypothesized relationships are not substantiated by the data, possible explanations are presented for this occurrence. The chapter ends in a summation of the general findings of the analysis.

Method of analysis. The data source for the study consisted of 1,561 questionnaires returned from 8,000 mailed to Manitoba farm operators in April, 1972. The study sample was developed using the Canadian Wheat Board listing of current permit book holders as the study population.

The province was divided into 14 crop districts and the sample size of each region was selected in the same proportion to the total sample as was the total number of farms for the region to the total for the province. The sample for the region was then made up of farms of various sizes proportionate to the frequency with which the size occurred within the region. Those farms of less than 10 acres were excluded from the sample. As the questionnaire (see Appendix A) was intended to serve a dual research function, only a portion of the questions contained on the form pertained to this study.

This study uses a tabular distribution research approach. This method of analysis is directed towards ascertaining the prevailing conditions associated with multiple jobholding, and is essentially a technique of quantitative description of the general characteristics of the dual-occupation farmer and his farming operation. Characteristically, this approach to analysis does not delve deeply into the statistical interrelationships and causal factors of multiple jobholding. Rather it stops with the disclosure of facts in tabular form and a suggestion of relatively prominent possible connections between these facts and apparent causes. In this analysis, three tabular formats are utilized to facilitate acceptance or rejection of the hypothesized relationships between selected variables and the occurrence of multiple jobholding.

The first tabular format considers only one variable in addition to the occupation status of the individual. The actual number and relative percentage frequency distribution is calculated for each range of values

of the variable for both occupation classifications. The resulting distinguishable differences and similarities in the distribution as presented in the table, between full-time and part-time farmers will indicate acceptance or rejection of the hypothesized associations between the two occupation classes.

Only one variable in addition to the occupation variable is considered in the second tabular format, although there can be a slight variation depending on the variable under consideration. The table involves a percentage distribution of multiple jobholding farmers for each value range of the variable to be analyzed. The percentage distribution is relative to all farm operators for those variables which can involve both occupation groups of farmers, and relative to all other multiple jobholding farmers classified in the other value ranges of the variable for those variables which can only involve dual-occupation farmers. Arrangement of data in this fashion serves two functions. It indicates those value ranges of the variable in which multiple jobholding farmers are concentrated and as the value ranges of the variable are increased a trend is indicated in the frequency of multiple jobholding. Observation of the data in this tabular form will enable determination of the frequency of multiple jobholding. It will also infer acceptance or rejection of the hypothesized relationship between the selected variables and the frequency of multiple jobholding. Furthermore, it will allow for determination of the predominant characteristics of a dual-occupation farmer.

The final tabular format used in this analysis involves two variables in addition to the occupation status, and is restricted to only

those variables associated with dual-occupation. Two percentage distributions are calculated in these tables for each possible combination of the variables. One is the percentage distribution for the overall total of the table, while the other is the percentage distribution for a particular row or column total. Data presented in this form allows for further stratification of the variables so as to determine more concisely the interrelationship that exists between the variables as they influence the frequency of off-farm employment. This method of presentation allows for the observation of distribution changes as one variable is held constant and the second variable is altered. Observation of data in this tabular form facilitates acceptance or rejection of the hypothesized relationship between the multiple jobholder and his off-farm job. Furthermore, it makes it possible to determine more concisely the predominant characteristics of the multiple jobholder and his off-farm job.

Multiple jobholding by farmers in Manitoba has been a relatively ignored aspect of provincial agriculture. The tabulation technique for appraisal lends itself well towards serving as the reconnaissance stage of research in entering a new area of study. This preliminary analytical approach provides a readily understood general appraisal of multiple jobholding, indicating predominant characteristics of the multiple jobholder and his off-farm job.

The tabulation technique used in this study is but one method available for use in the analysis of multiple jobholding. Other stages could involve the use of correlation analysis, tests for the comparison of two samples, or multiple regression analysis.



Simple correlation coefficients could be calculated between the frequency of multiple jobholding (as expressed by days of off-farm work) and selected other variables to determine the degree of closeness of the linear relationship between the two variables. A further refinement of this approach would then be the calculation of partial and multiple correlation coefficients. These refinements would allow for determination of the degree of interrelationship between two variables while one or more associated variables are held constant, and for consideration of the interrelationship between a selected dependent variable and other independent variables. Correlation analysis will indicate the degree of relationship between variables but does not measure the change in one variable with changes in the other, nor can it be used as a method of accurately predicting one variable given the value for the other.

A test of significance for a difference between sample means could be used as a second analytical technique in the analysis of multiple jobholding. Those variables common to both occupation groups and for which mean values could be calculated could be statistically tested to determine if the mean values were significantly different. With this information it would be possible to establish the similarities and differences between multiple jobholding and full-time farmers for certain variables.

Multiple regression analysis is a third analytical technique which could be used. This research method involves the establishment of one dependent variable (such as days worked off the farm) and several believed related independent variables. The results of the analysis would make it

possible to determine accurately changes in the dependent variable as the independent variables changed. It would also indicate which independent variables give the best linear prediction equation of the dependent variable, and would rank the independent variables in order of importance in contributing to the prediction of the dependent variable. Furthermore, a measure can be made to indicate the percentage variation in the dependent variable that is explained by the independent variables included in the analysis, thus indicating the completeness of the analysis by considering those variables which influence the values of the dependent variable.

#### Incidence of Multiple Jobholding by Province and Regions

Of the total 1,561 Manitoba farm operators who returned the survey questionnaire, 44.0 percent of 688 reported some degree of involvement in multiple jobholding. The percentage of multiple jobholding farmers varied significantly between crop districts. The highest frequencies of multiple jobholding occurred in crop districts 3, 5, and 13 reporting 52.3 percent, 56.5 percent, and 58.6 percent respectively. Table 4.1 shows the lowest frequencies of multiple jobholding occurred in crop districts 1, 2, and 7 reporting 34.2, 33.6, and 27.9 percent respectively.

The higher incidence of dual-occupation status farmers in districts 3 and 5 could partially be attributed to the influence of employment opportunities offered by such urban centers as Winnipeg, Portage la Prairie, and Selkirk. These centers collectively account for 42 percent of all farmers reporting off-farm employment within these two crop districts.

Crop districts 3 and 5 are also characterized by several well-defined and securely established industrialized sub-employment centers (such as Winkler, Altona, Morris, Morden, Carman, Steinback and Beausejour) which further contribute to providing part-time employment opportunities to farmers. The inclusion of crop district 3 in the class of districts with higher than average frequencies of multiple jobholding tends to indicate that dual-occupation status among farmers is not necessarily a phenomenon of only those crop districts with low agricultural productivity. High off-farm employment here could be the result of a more efficient allocation of the operator's labour resource through a more effectively managed farming operation. Coupled with this is the fact that farmers in crop district 3 predominantly produce grain and special crops, thus allowing for winter months which could be directed towards employment off the farm.

In Table 4.1 the highest percentage of multiple jobholding farmers was recorded in crop district 13. However, the district differed significantly from either crop district 3 or 5 in that the relatively small communities of Swan River and Minitonas are the only well-defined employment centers within the district's boundaries. The centralized location of the two towns, coupled with the restriction of farming to the strip of valley between the Duck and Porcupine provincial forest reserves, places these centers in a dominant position in terms of providing off-farm employment opportunities. Collectively they accounted for 31.7 percent of all farmers reporting off-farm employment within the district. Furthermore, there is considerable availability of employment within the two provincial

forest reserves as well as the existence of forestry work in non-park forested areas. Finally, the lower agricultural productivity (average gross sales \$7,797, versus provincial average \$13,209) of some of the fringe areas of the district may be a factor in creating a higher incidence of dually employed farmers, in that more individuals may be forced to seek work off the farm in order to earn a total income sufficient to live at an acceptable standard. Together these factors may account for a higher incidence of multiple jobholding farm operators in crop district 13.

The basic premise is that a system of well-defined, securely established, decentralized service-industrial employment centers are generally characteristic of districts with high frequencies of multiple jobholding. Districts which are not characterized by these conditions will generally demonstrate lower incidences of dual-employment among farm operators. Crop districts 1 and 2, and to a somewhat lesser degree 7, tend to substantiate the above. Crop districts 1 and 2 have no large urban center which could provide off-farm employment opportunities. Melita, Boissevain, and Killarney are the only centers large enough to be classed as sub-employment<sup>1</sup> centers; they each, in terms of multiple jobholding, account for 7.4 percent, 15.4 percent, and 14.0 percent respectively, of the farmers reporting off-farm employment.

Crop district 7, while somewhat different in that there exists

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<sup>1</sup>Urban centers with a population of 1,000 or more.

the potential influence of Brandon as well as sub-centers at Virden and Souris, does not demonstrate a high incidence of dual-employment. It reported the lowest incidence of multiple jobholding for all regions. It appears that Brandon has little western drawing influence in region 7, with perhaps most of the farmers working in Brandon coming from crop district 8, that is about 30.2 percent of all farmers reporting off-farm employment within the district. In addition the two sub-centers collectively contribute only 20.8 percent of the total number of farmers reporting off-farm employment. This lack of employment centers distributed throughout the region plus high gross farm incomes (average gross sales for the three districts of \$14,742 relative to the provincial average of \$13,209) could be the cause of lower incidence of multiple jobholding in these crop districts.

Regional disparity in terms of frequency of multiple jobholding by farmers is a function of interrelated factors. The preceding has attempted mainly to consider regional differences on the basis of their proximity to urban centers large enough to act as areas of employment opportunity. In general this has been the case since crop districts with large urban centers and well-defined sub-centers have tended to show higher frequencies of multiple jobholding than for those districts with few urban employment opportunities for farmers. The predominant type of farm enterprise, types of off-farm employment within the area, agricultural productivity, and the many other factors involved in determining the frequency of multiple jobholding regionally will be dealt with in a later section of this chapter.

Table 4.1

Distribution of Sample Farm Operators  
By Occupational Status for  
Manitoba Crop Districts

Manitoba Crop Districts	Multiple Jobholding Farmers	Full- Time Farmers	Total	Percent of Multiple Job- holding Farmers
1	27	52	79	34.2
2	43	85	128	38.6
3	146	133	279	52.3
4	22	37	59	37.3
5	105	81	186	56.5
6	12	13	25	48.0
7	24	62	86	27.9
8	53	85	138	38.4
9	38	49	87	43.7
10	60	97	157	38.2
11	50	75	125	40.0
12	37	40	77	48.1
13	41	29	70	58.6
14	30	35	65	46.2
Province	688	873	1,561	44.0

### Age Structure

Table 4.2 shows the distribution of farm operators by age classifications and occupational status. The data support the hypothesis that multiple jobholding farmers do indeed tend to be younger than their full-time counterparts, in that the 50.7 percent of the dual-occupation farmers are 44 years old or younger, relative to only 31.9 percent for full-time operators. The average age provincially for multiple jobholding

operators 43 years compared to 51 years for full-time farmers -- a significant difference of eight years. Table 4.3 further supports the postulated inverse relationship between age and the incidence of multiple jobholding, in that there is a steady decline in the occurrence of multiple jobholding with advancing age classification. Six out of ten farmers in the 34-years-or-less age category reported some form of paid off-farm employment. The most noticeable decline occurred once the age of 60 was reached. This could in part be attributed to the existence of the

Table 4.2

Distribution of Farm Operators by  
Age and Occupational Status

Age of Farmer (years)	Number of Multiple Jobholding Farmers	Percent of Multiple Jobholding Farmers	Number of Full-Time Farmers	Percent of Full-Time Farmers
less than 25	48	7.0	18	2.1
25-34	134	19.5	85	9.7
35-44	167	24.3	175	20.1
45-54	198	28.8	249	28.5
55-59	83	12.1	115	13.2
60-64	39	5.8	108	12.4
65-69	16	2.3	68	7.8
greater than 70	3	0.4	55	6.3

Table 4.3  
 Percentage of Multiple Jobholding  
 Farmers by Age Classifications

Age of Farmer (years)	Number of Multiple Jobholding Farmers	Number of Farmers	Percent of Multiple Jobholding Farmers
less than 25	48	66	72.7
25-34	134	219	61.2
35-44	167	342	48.8
45-54	198	447	44.3
55-59	83	198	41.9
60-64	39	147	26.5
65-69	16	84	19.0
greater than 70	3	58	5.2

retirement pension at age 65 for most nonfarm occupations, as well as to the reluctance of employers to hire individuals so close to retirement. Other factors involved could be: reduced need for supplementary income since family obligations no longer exist; greater likelihood of the farm being fully owned; and possibly reduced scale of farming, thus requiring less annual income to live and meet current debt payments.

#### Education

The abilities which an individual possesses will determine whether he will be able to obtain a job and the type of job he will obtain. The level of formal education which a particular person achieves does in no way fully define his employability, but it does provide a basic quantifiable



proxy for his level of ability and as such will be used in this study.

The data support the belief that multiple jobholding farmers tend to have a higher overall level of formal education as a group than their counterpart full-time farmers. Provincially the average education level of part-time farmers was approximately grade eleven, contrasted with grade nine for full-time operators. Table 4.4 shows that the dual-occupation farmer group also had a significantly greater percentage of high school graduates than did the full-time farmers. The multiple jobholding operators reported 25.3 percent with post-high school education and 52.9 percent with at least grade ten. Contrasted with this is the single-occupation farmer group which had only 15.5 percent beyond grade twelve and only 38.6 percent with grade ten or higher.

Table 4.4

Distribution of Farmers by Education  
and Occupational Status

Formal Education	Total Farmers	Percent of Farmers	Multiple Jobholding Farmers	Percent of Multiple Jobholding Farmers	Full- Time Farmers	Percent of Full- Time Farmers
Grades 1-3	37	2.4	12	1.8	25	2.9
Grades 4-6	145	9.4	44	6.4	101	11.7
Grades 7-9	672	43.3	266	38.9	406	46.8
Grades 10-12	390	25.2	189	27.6	201	23.2
Farm Management	115	7.4	58	8.5	57	6.6
Diploma Agric.	78	5.0	39	5.7	39	4.5
Other Diploma	62	4.0	38	5.6	24	2.8
University	52	3.4	38	5.6	14	1.6

The data in Table 4.5 confirm the hypothesis that there is a relationship between multiple jobholding and the level of formal education of the farmer. As the level of formal education increases so does the occurrence of multiple jobholding.

In the section dealing with age and multiple jobholding, it was shown that there was an inverse relationship between these two variables.

Table 4.5  
Percentage of Multiple Jobholding  
Farmers by Education

Formal Education	Number of Farmers	Percent of Multiple Jobholding Farmers
Grades 1-3	37	32.4
Grades 4-6	145	30.3
Grades 7-9	672	39.6
Grades 10-12	390	48.5
Farm Management	115	50.4
Diploma Agric.	78	50.0
Diploma Other	62	61.3
University	52	73.1

The association of dual-occupations with younger farmers was in part proposed since they were more highly educated and thus more capable of obtaining off-farm employment. As the data in Table 4.5 show, there is a direct relationship between education and the incidence of multiple jobholding. Now the question becomes one of whether the more highly

educated multiple jobholders are in fact younger.

Table 4.6 supports the contention that the more highly educated multiple jobholding farmers are younger on the average. This observation supports the reasoning set forth in Chapter 3, that younger farmers show a higher incidence of multiple jobholding because they are better educated and thus more adequately prepared than their full-time counterparts to obtain off-farm part-time employment.

Table 4.6

Distribution of Average Age by Education  
Classifications for Multiple  
Jobholding Farmers

Formal Education	Number of Multiple Jobholding Farmers	Average Age (years)
Grades 1-3	12	60
Grades 4-6	44	52
Grades 7-9	266	45
Grades 10-12	189	41
Farm Management	58	38
Diploma Agric.	39	38
Diploma Other	38	38
University	38	37

Gross Farm Sales

The data in Tables 4.7 and 4.8 show a greater percentage of multiple jobholding farmers with \$5,000 or less gross farm sales annually, than for the full-time operators. There were 36.7 percent of the multiple

jobholding farmers classified in this very low farm income class as compared to 21.7 percent for full-time farmers. Raising the upper limit of the low income classification to the level of \$10,000 total gross sales caused only a slight improvement in the proportional discrepancy between the two occupational status farmer groups. Under the revised low farm income parameters of \$10,000 total gross farm sales, 62.3 percent of the multiple jobholding farmers were below the upper limit, as contrasted with only 49.3 percent for full-time farm operators.

With some exceptions, the data lend credence to the postulated

Table 4.7

Distribution of Farm Operators by Gross  
Sales and Employment Status

Farm Gross Sales (\$)	Multiple Jobholding Farmers	Percent Multiple Jobholding Farmers	Full- Time Farmers	Percent Full- Time Farmers
50-249	16	2.4	6	0.7
250-1,249	54	8.3	26	3.2
1,250-2,499	53	8.2	36	4.5
2,500-3,749	58	8.9	46	5.7
3,750-4,999	57	8.8	61	7.6
5,000-7,499	81	12.5	120	14.9
7,500-9,999	85	13.1	103	12.8
10,000-14,999	106	16.3	145	18.0
15,000-24,999	86	13.3	139	17.2
25,000-34,999	22	3.4	53	6.6
35,000-44,999	11	1.7	28	3.5
45,000-54,999	7	1.1	14	1.7
55,000-64,999	5	0.8	6	0.7
65,000-74,999	2	0.3	3	0.4
75,000 and greater	6	0.9	22	2.7

Table 4.8

Percentage of Multiple Jobholding Farmers by  
Value of Farm Gross Sales

Farm Gross Sales (\$)	Multiple Jobholding Farmers	Full- Time Farmers	Total	Multiple Jobholding Farmers as Percent of Total
50-249	16	6	22	72.7
250-1,249	54	26	80	69.5
1,250-2,499	53	36	89	59.6
2,500-3,749	58	46	104	55.8
3,750-4,999	57	61	118	48.3
5,000-7,499	81	120	201	40.3
7,500-9,999	85	103	184	45.2
10,000-14,999	106	145	251	42.2
15,000-24,999	86	139	225	38.2
25,000-34,999	22	53	75	29.3
35,000-44,999	11	28	39	28.2
45,000-54,999	7	14	21	33.3
55,000-64,999	5	6	11	45.5
65,000-74,999	2	3	5	40.0
75,000 and greater	6	22	28	21.4

hypothesis that there is an inverse relationship between gross farm sales and the incidence of multiple jobholding by farmers. This is evidenced by the tendency for the value of farm sales increased. One explanation may be that the low farm income itself forced the farm operator to supplement it with additional income from off-farm sources. As farm income increases, in general, fewer farmers need an off-farm supplementary income source.

The multiple jobholding farm operators reported overall 27.5 percent less gross sales, averaging \$11,106 compared to \$15,312 for the full-time farmer. In addition, the dual-occupation group accounted for 57.6 percent of all farmers with gross sales of \$5,000 or less and 52.3 percent with gross sales of \$10,000 or less. In conclusion, it appears that there is a direct link between low gross sales values and higher frequencies of multiple jobholding among farm operators.

#### Annual Farm Operating Costs

It was expected that, in general, within similar economic classes of farms, multiple jobholding farm operators would incur higher operating costs than full-time operators. The data, as presented in Table 4.9 indicate that, on an overall basis, multiple jobholding farmers are not clearly associated with higher operating costs per acre than full-time farmers. Dual-occupation farmers, on the average, reported \$22.53 per acre operating costs for their farms as compared with \$24.26 per acre for full-time operators. This is a difference of 7.7 percent in favour of the single-occupation farmer. There is some indication in Table 4.10 that within the lower economic classes of farms (gross sales) the frequency of multiple jobholding farmers is higher for the higher operating cost ranges. However, when viewed in totality this does not hold true for all economic classes of farmers and as such does not deviate from findings presented in Tables 4.9 and 4.10.

Table 4.9 reveals that multiple jobholding farmers have generally lower per acre operating costs. Most of these farmers have costs per acre

Table 4.9

Distribution of Farmers by Farm Operating Costs  
Per Acre and Occupation Status

Per Acre Operating Costs (\$)	Multiple Jobholding Farmers	Percent of Multiple Jobholding Farmers	Cumulative Percentage of Multiple Jobholding Farmers	Full- Time Farmers	Percent of Full- Time Farmers	Cumulative Percentage of Full- Time Farmers	Percent Multiple Jobholding Farmers of All Farmers
Less than \$5.00	75	11.8	--	45	5.8	--	62.5
\$5.00 - \$14.99	353	55.8	67.6	519	67.0	72.8	40.5
\$15.00 - \$24.99	146	23.1	90.7	87	11.2	84.0	62.7
\$25.00 - \$34.99	45	7.1	97.8	69	8.9	92.9	39.5
\$35.00 - \$44.99	1	0.2	98.0	43	5.5	98.4	2.3
\$45.00 - \$54.99	0	0.0	98.0	0	0.0	98.4	0.0
\$55.00 - \$64.99	7	1.1	99.1	7	0.9	99.3	50.0
\$65.00 - and greater	6	0.9	100.0	5	0.7	100.0	54.5
Total	633			775			

below \$25.00 with 90.7 percent of these farmers with costs below \$25.00 as compared to 84 percent of the full-time farmers. The hypothesis that multiple jobholding farmers will have higher levels of per acre operating costs than full-time farmers must be rejected. In fact, Table 4.9 seems to indicate an inverse relationship between the level of operating costs and the incidence of multiple jobholding.

The hypothesis was made essentially on the basis that the multiple jobholding farmer would supplement labour allocated to off-farm employment with capital in operating his farming business. However, this may not be the case since the farmer may only be allocating labour, which formerly was under-employed, to nonfarm activities.

Tables 4.10 and 4.11 relate operating cost data to the economic size (gross sales) of the farm in appraising the relationship between farm size and costs of operation. The data in Table 4.11 indicate that, on a per dollar value of production basis, there is some evidence that multiple jobholding farmers are more concentrated in the higher cost ranges than full-time farmers. Multiple jobholding farm operators reported 61.1 percent with operating costs below \$0.90 per dollar value of production as compared with 71.7 percent for full-time farmers, a difference of 10.6 percent. There is some further support for this relationship to be found in Table 4.10 in that for the two lowest economic farm sizes there is a higher concentration of multiple jobholders in the upper operating cost ranges. However, this does not occur consistently for all economic classes of farms. There seems to be a degree of relationship between multiple jobholding and higher production costs per dollar value



Table 4.10

Percentage Distribution of Multiple Jobholding  
Farmers by Operating Costs, and Gross Sales

Operating Costs (\$)	Gross Sales				
	less than 5,000	5,000 to 10,000	10,000 to 15,000	15,000 to 25,000	greater than 25,000
50 - 2,499	61.8	45.8	66.7	40.0	50.0
2,500 - 7,499	54.3	39.1	47.8	32.1	28.6
7,500 -24,999	66.7	63.0	40.8	40.1	33.8
25,000 and greater	0.0	0.0	0.0	0.0	28.2

of production.

While it would appear (based on the evidence as presented in Table 4.9) that multiple jobholders are associated with lower per acre operating costs, Table 4.11 shows that they are also associated with higher per dollar value of production operating costs. Dual-occupation farmers would seem to be incurring lower per acre production costs than full-time farmers, but at the expense of a lower gross farm income resulting from either lower yields or inferior quality of production.

Evidence as presented does not suggest a direct relationship between operating cost and multiple jobholding. It indicates, to some extent, an inverse relationship with a high concentration of multiple jobholding farmers having low per acre operating costs. However, when considered in terms of the value of production (gross sales) the

Table 4.11

Distribution of Farmers by Farm Operating Cost Per  
Dollar Gross Sales and Occupational Status

Operation Cost Per \$1.00 Gross Sales (\$)	Full- Time Farmers	Percent of Full- Time Farmers	Cumulative Percentage of Full- Time Farmers	Multiple Jobholding Farmers	Percent of Multiple Jobholding Farmers	Cumulative Percentage of Multiple Jobholding Farmers	Percent Multiple Jobholding Farmers of All Farmers
less than 0.10	7	1.0	--	6	1.0	--	46.2
0.10 - 0.19	8	1.1	2.1	5	0.8	1.8	38.5
0.20 - 0.29	31	4.3	6.4	33	5.4	7.2	51.6
0.30 - 0.39	51	7.1	13.5	39	6.4	13.6	43.3
0.40 - 0.49	53	7.4	20.9	34	5.6	19.2	39.1
0.50 - 0.59	117	16.3	37.2	81	13.4	32.6	40.9
0.60 - 0.69	90	12.5	49.7	74	12.2	44.8	45.1
0.70 - 0.79	149	20.7	70.4	96	15.8	60.6	39.2
0.80 - 0.89	9	1.3	71.7	3	0.5	61.1	25.0
0.90 - 0.99	0	0.0	71.7	0	0.0	61.1	0.0
1.00 - 1.09	166	23.1	94.8	145	23.9	85.0	46.6
1.10 - 1.19	0	0.0	94.8	0	0.0	85.0	0.0
1.20 - 1.29	0	0.0	94.8	0	0.0	85.0	0.0
1.30 - 1.39	0	0.0	94.8	2	0.3	85.3	100.0
1.40 - 1.49	11	1.5	96.3	23	3.8	89.1	67.7
1.50 - 1.59	4	0.6	96.9	0	0.0	89.1	0.0
1.60 - 1.69	9	1.3	98.2	10	1.7	90.8	52.6
1.70 - 1.79	1	0.1	98.3	0	0.0	90.8	0.0
1.80 - 1.89	0	0.0	98.3	0	0.0	90.8	0.0
1.90 - 1.99	0	0.0	98.3	0	0.0	90.8	0.0
2.00 and greater	14	1.8	100.0	55	9.2	100.0	79.7

relationship appears to be direct in nature. While the hypothesis is rejected when operating cost is related to acres and accepted when related to gross sales, in the final analysis, the gross sales-operating cost association and subsequent conclusions are the more significant as it is this relationship to multiple jobholding that indicates the economic stability of the farm unit.

#### Custom Work Expenditures

Custom work was reported by 42.0 percent of the multiple jobholding farmers and by 33.6 percent of the full-time farmers. It would appear that multiple jobholding farmers have a higher incidence of custom work performed. However, Table 4.12 shows that both full-time and multiple jobholding farmers had almost identical percentage distributions within their particular occupation group for the various levels of expenditure for custom work performed. Both groups of farmers tended to be concentrated toward the lower end of the overall range of custom work expenditure. Multiple jobholding farmers reported 81.7 percent and full-time farmers 82.1 percent below the \$700 expenditure level. On the average, both occupation groupings reported very similar findings. Dual-occupation farmers averaged \$426 and full-time farmers averaged \$433 total expenditures for custom work performed on their farms.

The data contained in Table 4.13 indicate that both dual- and single-occupation farmers appear to have very similar utilization patterns of custom work. The percentage of farmers who are multiple jobholders in each of the categories of custom work values can range widely and appears

Table 4.12

Distribution of Farmers by Custom Work  
Expenditures and Occupational Status

Value of Work (\$)	Multiple Jobholding Farmers	Percent Multiple Jobholding Farmers	Cumulative Percentage	Full- Time Farmers	Percent Full- Time Farmers	Cumulative Percentage
less than 49	14	4.8	--	11	3.8	--
50- 99	26	9.0	13.8	26	8.9	12.6
100-199	62	21.5	35.3	56	19.1	31.7
200-299	37	12.8	48.1	48	16.4	48.1
300-399	38	13.2	61.2	40	13.7	61.8
400-499	27	9.3	70.6	21	7.2	69.5
500-599	26	9.0	79.6	22	7.5	77.0
600-699	6	2.1	81.7	15	5.1	82.1
700-799	9	3.1	84.8	7	2.4	84.5
800-899	6	2.1	86.9	9	3.1	87.6
900-999	1	0.4	87.2	5	1.7	89.3
1,000-1,099	10	3.5	90.7	8	2.7	92.0
1,100-1,199	2	3.5	90.7	2	0.7	92.7
1,200-1,299	8	2.8	94.1	4	1.4	94.1
1,300 and greater	17	5.9	100.0	19	6.5	100.0

Table 4.13

Percentage Distribution of Multiple Jobholding  
Farmers by Custom Work Expenditure

Value of Work (\$)	Multiple Jobholding Farmers	Full- Time Farmers	Total Farmers	Percent Multiple Jobholding Farmers of All Farmers
less than 49	14	11	25	56.0
50- 99	26	26	52	50.0
100-199	62	56	118	52.5
200-299	37	48	75	49.3
300-399	38	40	78	48.7
400-499	27	21	48	56.3
500-599	26	22	48	54.2
600-699	6	15	21	28.6
700-799	9	7	16	65.3
800-899	6	9	15	40.0
900-999	1	5	6	16.7
1,000-1,099	10	8	18	55.6
1,100-1,199	2	2	4	50.0
1,200-1,299	8	4	12	66.7
1,300 and greater	17	19	36	47.2
Total	289	293	582	49.7

to have no tendency to increase or decrease, thereby indicating no increasing or decreasing pattern of multiple jobholders as custom work increases. Overall, 49.7 percent of farmers reporting custom work performed on their farms were multiple jobholding farmers.

In conclusion, both occupation groups within the confines of those farmers reporting, appear to be fairly equally matched in expenditure ranges. However, when considered in total, the hypothesis is confirmed

in that custom work appeared to be more important for multiple jobholders.

### Capitalization

It was expected that multiple jobholding farmers would tend to have lower per acre levels of total capital investment in their farming operation as compared to single-occupation farmers. Multiple jobholding farmers, based upon data presented in Table 4.14, would appear to be slightly less concentrated within the lower capitalization ranges with 52.9 percent of the dual-occupation farmers showing less than \$99.00 capitalization per acre relative to 57.9 percent for full-time farmers. Contrasted with this is the percentage distribution of farmers in the capitalization categories of \$300 per acre and above. Full-time farmers have 8.8 percent of their number in this range as compared with 11.9 percent for multiple jobholding farmers. Full-time farmers overall averaged \$181.00 capitalization per acre compared with \$200.00 per acre for dual-occupation farmers.

The statistics presented in Table 4:15 demonstrate that multiple jobholding farmers do not exhibit a definite tendency towards lower values of total capitalization investment on a per acre basis when compared with full-time operators. Single-occupation farmers dominated the percentage of operators with per acre total capitalization of less than \$200 per acre in that they accounted for between 52.8 and 74.5 percent of all farmers responding. Conversely, this same category of farmers accounted for 25.0 to 49.5 percent of all farmers reporting \$200 or more capitalization per acre. The point at which the dual-occupation farmers become more predominant proportionally for the specific capitalization ranges occurs

Table 4.14

Distribution of Farmers by Value of  
Farm Assets and Occupation Status

Asset Value \$/acre	Multiple Jobholding Farmers	Percent Multiple Jobholding Farmers	Cumulative Percentage	Full- Time Farmers	Percent Full- Time Farmers	Cumulative Percentage
less than 49	185	26.9	--	207	23.7	--
50- 99	178	26.0	52.9	299	34.2	57.9
100-149	166	24.4	77.3	184	21.1	79.0
150-199	27	3.4	80.7	79	9.0	88.0
200-249	51	7.4	88.1	17	1.9	89.9
250-299	--	--	--	10	1.3	91.2
300-349	27	4.0	92.1	25	2.9	94.1
350-399	3	0.4	92.5	2	0.2	94.3
400 and greater	51	7.5	100.0	50	5.7	100.0

Table 4.15  
 Percentage of Multiple Jobholding  
 Farmers by Capitalization

Asset Value \$/acre	Multiple Jobholding Farmers	Full- Time Farmers	Total	Percent Multiple Jobholding Farmers of Total
less than 50	185	207	392	47.2
50-99	178	299	477	37.3
100-149	166	184	350	47.4
150-199	27	79	106	25.5
200-249	51	17	68	75.0
250-299	--	10	--	--
300-349	27	25	52	51.9
350-399	3	2	5	60.0
400 and greater	51	50	101	50.5

somewhere between \$200 and \$245 per acre. Past this range part-time farmers are the higher percentage of individuals within the various capitalization ranges.

From Table 4.15 it is apparent that there exists, with considerable variation, a limited direct relationship between value of capitalization per acre and the incidence of multiple jobholding by farm operators. Therefore, it would appear that the hypothesis postulated in Chapter 3, that multiple jobholding farmers are associated with lower total capitalization per acre values, is not true.

#### Farm Debt

Farm debt in this analysis is divided into three major components --



land, farm equipment, and livestock. It was expected that in each case multiple jobholding farmers would have less association with debt than full-time farmers, and that the frequency of multiple jobholding would be higher for lower levels of debt.

Land. The data presented in Table 4.16 indicate that while both farmer occupation groups have mortgaged land, the multiple jobholding category showed a consistently higher percentage of farmers with indebtedness for each mortgage range. In both occupational classes the \$40,000 to \$59,000 mortgage range accounted for the largest percentage of individuals. Overall, within the same occupation class, multiple jobholding farmers had a higher percentage of individuals with mortgages (reporting 59.5 percent) than was the case for full-time farmers (reporting 45.6 percent). The average land debt per acre reported for dual-occupation farmers reporting indebtedness was \$89 as compared to \$70 per acre for full-time farmers reporting mortgaged land.

Table 4.17 does not confirm the hypothesis that lower levels of land debt are associated with higher frequencies of multiple jobholding. With increases in the ranges of land debt, there does not occur a corresponding decrease in the frequency of multiple jobholding, other than only slight variations, which are mainly attributed to smallness of sample size. However, data in Table 4.17 do indicate that multiple jobholders generally are associated to a greater degree with land indebtedness. This is shown by the observation that 44.0 percent of the respondents were multiple jobholders, but that they represented 50.8 percent of the farmers with outstanding land debt.

Table 4.16

Distribution of Farm Operators by  
Land Mortgages and Occupation

Mortgage Value (\$)	Multiple Jobholding Farmers	Percent Multiple Jobholding Farmers with Land Debt	Cumulative Percentage	Full- Time Farmers	Percent Full- Time Farmers	Cumulative Percentage
100-1,999	19	2.8	--	14	1.6	--
2,000-4,999	23	3.4	6.1	20	2.3	3.9
5,000-9,999	48	7.0	13.1	43	5.0	8.9
10,000-14,999	59	8.6	21.7	64	7.4	16.2
15,000-19,999	60	8.8	30.5	62	7.1	23.4
20,000-39,999	54	7.9	38.3	52	6.0	29.3
40,000-59,999	116	16.9	55.3	106	12.2	41.5
60,000-79,999	18	2.6	57.9	22	2.5	44.1
80,000-99,999	7	1.0	58.9	4	0.5	44.5
100,000-149,999	4	0.6	59.5	6	0.7	45.2
150,000 and greater	0	0.0	59.5	3	0.4	45.6

Table 4.17  
 Percentage of Multiple Jobholding  
 Farmers by Land Mortgage Value

Mortgage Value (\$)	Multiple Jobholding Farmers	Full- Time Farmers	Total	Percent Multiple Jobholding Farmers of Total
100-1,999	19	14	33	57.6
2,000-4,999	23	20	43	53.5
5,000-9,999	48	43	91	52.7
10,000-14,999	59	64	123	48.0
15,000-19,999	60	62	122	49.2
20,000-39,999	54	52	106	50.9
40,000-59,999	116	106	222	52.3
60,000-79,999	18	22	40	45.0
80,000-99,999	7	4	11	63.6
100,000-149,999	4	6	10	40.0
150,000 and greater	0	3	3	0.0
Total	408	396	804	50.8 <sup>a</sup>
None	278	473	751	37.0 <sup>a</sup>

<sup>a</sup>These values do not sum to 100 due to non-responses to the questionnaire.

Equipment. The information provided in Tables 4.18 and 4.19 provide some indication that multiple jobholding farmers have a greater degree of equipment debt than full-time farmers. Table 4.18 shows that within the respective occupation classes dual-occupation farmers reported 45.4 percent with some degree of debt involvement relative to only 36.8 percent for full-time farm operators. Furthermore, in Table 4.19, dual-occupation farmers represented 49.2 percent of all farmers with equipment debt, yet only 44.0 percent of all farmers in the sample, thus indicating a greater incidence of equipment debt among dual-occupation farmers.

Table 4.18

Distribution of Farmers by Equipment  
Debt and Occupation Status

Debt (\$)	Multiple Jobholding Farmers	Percent Multiple Jobholding Farmers	Cumulative Percentage	Full- Time Farmers	Percent Full- Time Farmers	Cumulative Percentage
100-1,999	89	12.9	--	78	8.9	--
2,000-4,999	96	14.0	26.9	102	11.7	20.6
5,000-9,999	81	11.8	38.7	85	9.7	30.3
10,000-19,999	37	5.4	44.1	44	5.0	35.3
20,000-29,999	8	1.2	45.3	5	0.6	35.9
30,000-39,999	1	0.1	45.4	4	0.5	36.4
40,000-49,999	0	0.0	0.0	1	0.1	36.5
50,000-59,999	0	0.0	0.0	2	0.2	36.7
60,000-69,999	0	0.0	0.0	0	0.0	36.7
70,000-79,999	0	0.0	0.0	1	0.1	36.8
80,000-89,999	0	0.0	0.0	0	0.0	0.0
100,000 and greater	0	0.0	0.0	0	0.0	0.0

Table 4.19  
 Percentage of Multiple Jobholding  
 Farmers by Equipment Debt

Debt (\$)	Multiple Jobholding Farmers	Full- Time Farmers	Total	Percent Multiple Jobholding Farmers of Total
100-1,999	89	78	167	53.3
2,000-4,999	96	102	198	48.5
5,000-9,999	81	85	166	48.8
10,000-19,999	37	44	81	45.7
20,000-29,999	8	5	13	61.5
30,000-39,999	1	4	5	20.0
40,000-49,999	0	1	1	0.0
50,000-59,999	0	2	2	0.0
60,000-69,999	0	0	0	0.0
70,000-79,999	0	1	1	0.0
80,000-89,999	0	0	0	0.0
100,000 and greater	0	0	0	0.0
Total	312	322	634	49.2

Full-time farmers, however, did show some operators within the higher ranges of indebtedness in which there were no multiple jobholding farmers recorded. In this way it did indicate that full-time farmers were those farmers with the higher debt values but not the greater degree of indebtedness. The average value of indebtedness further tended to identify the full-time farmer with greater equipment debt than multiple jobholding farmers; the full-time farmer reported an average of \$6,918 as compared to \$5,841 for the multiple jobholding farmer, a difference of approximately

\$1000.

The hypothesis that lower levels of equipment debt are associated with higher frequencies of multiple jobholding is not substantiated by data in Table 4.19. Increases in equipment debt are not associated with a decreasing trend in the frequency of dual-occupation farm operators. Rather, there appears to be wide variation in the frequency as debt ranges are increased.

Livestock debt. Livestock, like equipment indebtedness, was expected to be associated more with full-time farmers than multiple jobholding farmers. Since livestock operations are generally labour intensive and multiple jobholding requires labour expenditure away from the farming operation, multiple jobholding farmers are less likely to be livestock operators (see Table 4.25) and therefore are not likely to have a high degree of livestock debt.

Data in Tables 4.20 and 4.21 do not substantiate the expected relationship as stated. Table 4.20 indicates that, within respective occupation classes, multiple jobholding farmers had a slightly larger percentage of individuals (16.3 percent) with livestock debt than full-time farmers (15.1 percent). While data in Table 4.21 show that dual-occupation farmers represented 45.7 percent of all farmers with livestock debt, only 44.0 percent of all farmers were multiple jobholders. Although the results tend to be inconclusive due to only slight variations in percentage distribution, there is some support for rejection of the hypothesis that there is a lesser incidence of livestock debt among

Table 4.20

Distribution of Farmers by Livestock  
Debt and Occupation Status

Livestock Debt (\$)	Multiple Jobholding Farmers	Percent Multiple Jobholding Farmers	Cumulative Percentage	Full- Time Farmers	Percent Full- Time Farmers	Cumulative Percentage
100-1,999	21	3.1	--	23	2.6	--
2,000-4,999	53	7.7	10.8	44	5.0	7.6
5,000-9,999	13	1.9	12.7	28	3.2	10.8
10,000-19,999	18	2.6	15.3	19	2.2	13.0
20,000-29,999	2	0.3	15.6	4	0.5	13.5
30,000-39,999	2	0.3	15.9	3	0.3	13.8
40,000-49,999	3	0.4	16.3	5	0.6	14.4
50,000-59,999	0	0.0	--	3	0.3	14.7
60,000-69,999	0	0.0	--	3	0.3	15.0
70,000-79,999	0	0.0	--	0	0.0	15.0
80,000-89,999	0	0.0	--	0	0.0	15.0
90,000-99,999	0	0.0	--	1	0.1	15.1
100,000 and greater	0	0.0	--	0	0.0	--

Table 4.21  
 Percentage of Multiple Jobholding Farmers  
 by Livestock Indebtedness

Livestock Debt (\$)	Multiple Jobholding Farmers	Full- Time Farmers	Total	Percent Multiple Jobholding Farmers of Total
100-1,999	21	23	44	47.7
2,000-4,999	53	44	97	54.6
5,000-9,999	13	28	41	31.7
10,000-19,999	18	19	37	48.6
20,000-29,999	2	4	6	33.3
30,000-39,999	2	3	5	40.0
40,000-49,999	3	5	8	37.5
50,000-59,999	0	3	3	---
60,000-69,999	0	3	3	---
70,000-79,999	0	0	0	---
80,000-89,999	0	1	1	---
90,000-99,999	0	0	0	---
100,000 and greater	0	0	0	---
Total	112	133	245	45.7

multiple jobholders.

Table 4.21 further indicates that multiple jobholding farmers tended to be polarized towards the lower debt range values with the most noticeable concentration occurring at the \$2,000-to-\$4,999 debt range. Here 54.6 percent of all farmers reporting this debt range were multiple jobholders yet only 44.0 percent of all farmers were dual-occupation operators. Full-time farmers averaged \$11,669 debt relative to only



\$7,402 for multiple jobholders, a difference of \$4,267. Virtually no dual-occupation farmers had livestock debt in excess of \$50,000 contrasted with 0.8 percent of full-time farmers reporting debt in excess of this value.

The results of the analysis, while not entirely conclusive, do indicate rejection of the hypothesis. In terms of outstanding land (and building), equipment, and livestock debt there is not a lower incidence of debt among multiple jobholders. However, in terms of dollar values of outstanding debt, multiple jobholding farmers reported lower values for equipment and livestock, but a higher value for land. The inverse relationship between dual-occupation frequency and lower levels of debt was not substantiated by the data. Livestock was the only form of debt which indicated higher frequencies of dual-occupation farmers for lower values of debt and even this did not represent a consistent trend for all debt ranges.

#### Predominant Farm Enterprise

The incidence of multiple jobholding among farmers was thought to be inversely related to the intensity of the labour requirements for the farming enterprise. In Table 4.22 crop production had the greatest concentration of both single- and dual-occupation groups. Multiple jobholders, however, with 59.7 percent recorded a higher concentration than full-time operators with 46.3 percent. Conversely, within occupation classes, full-time farmers showed a stronger association with livestock operations (except poultry) than multiple jobholding farmers. Of those multiple

Table 4.22

Distribution of Farm Operators by Predominant  
Type of Farm Enterprise and Occupation Status

Farm Enterprise	Multiple Jobholding Farmers	Percent Multiple Jobholding Farmers	Full- Time Farmers	Percent Full- Time Farmers
Grain	409	59.7	397	46.3
Special Crops	51	7.5	52	6.1
Registered Seed	9	1.3	8	0.9
Forage Crops	6	0.9	1	0.1
Marketing Gardening	2	0.3	2	0.2
Cow-Calf	83	12.1	160	18.7
Beef Feed Lot	22	3.2	53	6.2
Beef Stocker	15	2.2	27	3.2
Dairy (manufactured)	9	1.3	33	3.9
Dairy (fluid)	7	1.0	27	3.2
Hogs	55	8.0	79	9.2
Poultry	13	1.9	14	1.6
Mink Ranch	0	0.0	0	0.0
Other (sheep)	4	0.6	5	0.6

jobholding farmers who were engaged in a livestock operation the greatest tendency was for a cow-calf enterprise. A possible explanation is that the cow-calf enterprises represent the least labour intensive, and has the greatest degree of freedom from rigid hours of labour input, particularly during the summer months.

The grouping of farm enterprises in Table 4.23 establishes more clearly within the two occupation classifications the relative predominance of crop production for multiple jobholders in that 71.4 percent of all multiple jobholders were engaged in crop production relative to only

53.9 percent of all full-time farmers. Within the occupation classes, full-time farmers reporting 28.1 percent showed a greater association with livestock enterprises than dual-occupation farmers who reported only 18.0 percent.

Table 4.23

Grouped Distribution of Farm Operators by Predominant  
Farm Enterprises and Occupation Status

Farm Enterprise	Multiple Jobholding Farmers	Percent Multiple Jobholding Farmers	Full- Time Farmers	Percent Full- Time Farmers
Crop Production	477	71.4	460	53.9
Beef Production	120	18.0	240	28.1
Dairy Production	16	2.4	60	7.0
Hogs	55	8.0	79	9.3
Poultry	13	2.0	14	1.7

The information contained in Tables 4.24 and 4.25 further supports the premise that multiple jobholding farmers have a greater tendency to be engaged in crop production relative to the options of beef and dairy production. This becomes particularly evident when the data are classified by general types as in Table 4.25 in that 50.9 percent, 33.3 percent, and 21.1 percent of all farmers engaged in these respective operations were multiple jobholders while 44.0 percent of all farmers were multiple jobholders.

Hog and poultry operations both show surprisingly high concentrations of multiple jobholding farmers. Yet these are generally thought to be

labour-intensive operation, and as such would not be expected to appeal to operators seeking to allocate some of their labour resources to non-farm employment. One explanation could be that both poultry and hog operations are often located on urban fringe areas, and by this association would provide multiple jobholding operators with greater off-farm employment opportunities. This explanation is further supported by the fact that both operations require only small acreage and tend to locate close to market sources, thus making location in urban fringe areas a logical choice.

Poultry farming in particular is characterized by a large number of producers with flocks only large enough to provide marginal income, thus forcing the farmer to seek some form of supplementary income. Furthermore, poultry operations do not require heavy daily physical labour, particularly if the flock is small (500 or less). Therefore, the wife of the operator could perform some of the daily labour task thus freeing the farmer to engage in some form of off-farm work. Finally, there are sections of land (particularly east of Winnipeg) which have very marginal agricultural production potential in terms of crop or cattle production. This land, with its proximity to Winnipeg, is well suited to poultry operations. The provincial percentage of multiple jobholding farmers engaged in poultry production was 2.0 percent, yet for crop districts five and six (eastern Manitoba - see map page 174) the percentages were 7.8 percent and 9.1 percent respectively, considerably higher than the provincial percentage.

Table 4.24

Percentage of Multiple Jobholding Farmers  
by Predominant Farm Enterprise

Farm Enterprise	Multiple Jobholding Farmers	Full- Time Farmers	Total	Percent Multiple Jobholding Farmers of Total
Grain	409	397	806	50.7
Special Crops	51	52	103	49.5
Registered Seed	9	8	17	52.9
Forage Crops	6	1	7	85.7
Market Gardening	2	2	4	50.0
Cow-Calf	83	160	243	34.2
Beef Feed-Lot	22	53	75	29.3
Beef Stocker	15	27	42	35.7
Dairy (manufactured)	9	33	42	21.4
Dairy (fluid)	7	27	34	20.6
Hogs	55	79	134	41.0
Poultry	13	14	27	48.2
Mink Ranch	0	0	0	0.0
Other	4	5	9	44.4

The low frequency of multiple jobholding associated with beef production can be explained in part by the widespread nature of beef operations located predominantly in areas of low off-farm employment opportunities and the higher labour intensity of this type of operation.

Based upon the data presented particularly in Table 4.25 (and accepting the preceding rationale for variances in the observations) it would appear that there is an inverse relationship between the labour intensity of various farm enterprises and the incidence of multiple

Table 4.25

Grouped Percentage of Multiple Jobholding  
Farmers by Predominant Farm Enterprise

Farm Enterprise	Multiple Jobholding Farmers	Full- Time Farmers	Total	Percent Multiple Jobholding Farmers of Total
Crop Production	477	460	937	50.9
Beef	120	240	360	33.3
Poultry	13	14	27	48.2
Hogs	55	79	134	41.0
Dairy	16	60	76	21.1

jobholding by farmers engaged in these operations. That is, crop production does exhibit a higher incidence of multiple jobholding and in general operations which are less labour-intensive have a greater association with multiple jobholding thus substantiating the hypothesis. Based on the preceding explanation and the data in Table 4.22 (re: cow-calf operations), it would appear that there is some basis for inclusion of beef production in the category of farm enterprise types likely to be associated with multiple jobholding farmers. This latter point, however, is not completely proven by current data and its general application must be used cautiously.

Acreages Owned

Number of acres. Within occupation classes, the most noticeable

variance in improved acres owned between single- and dual-occupation farmers occurs between the ranges of 70-239 and 240-399 acres as shown in Table 4.26. The percentage of all multiple jobholding farmers reporting 239 improved acres or less exceeds the percentage of all full-time operators within the same acreage class by 12.1 percent, indicating a greater concentration of multiple jobholding below this acreage level relative to full-time farmers. Furthermore, two-thirds of all multiple jobholding farmers reported farms of approximately one-half section or less, relative to only approximately one-half of all the full-time operators reporting farms of a similar size. On the other hand, only 10.7 percent of all multiple jobholding farmers reported farms of 760 acres or more and none in excess of 2,240 acres, compared to 16.5 percent for full-time farmers with 760 acres or more and three with 2,240 acres or more.

On the basis of averages, full-time farmers averaged 110 more improved acres than multiple jobholding farmers, reporting on the average of 442 acres compared to 332 acres. In unimproved acres the full-time farmer group averaged 134 acres as compared with 91 for the multiple jobholding farmer group. The greater acreages of unimproved land owned by full-time farmers may partially be explained by the fact that this land would also include unimproved pasture since full-time farmers are more closely associated with livestock operations. A second possible explanation could be that because full-time farmers on the average appear to have larger acreages of land it is logical that to achieve this they would also tend to have large acreages of waste and unimproved land.

Table 4.26

Distribution of Farm Operators by Total  
Improved Acres and Occupational Status

Acres	Multiple Jobholding Farmers	Percent Multiple Jobholding Farmers	Cumulative Percentage	Full- Time Farmers	Percent Full- Time Farmers	Cumulative Percentage
10-69	70	10.2	--	30	3.4	--
70-239	189	27.5	37.7	193	22.1	25.6
240-399	186	27.0	64.7	245	28.1	53.6
400-559	139	20.2	84.9	183	21.0	74.6
560-759	67	9.7	94.6	116	13.3	87.9
760-1,119	30	4.4	99.0	78	8.9	96.8
1,120-1,599	5	0.7	99.7	19	2.2	99.0
1,600-2,239	2	0.3	100.0	6	0.7	99.7
2,240-2,879	0	--	--	2	0.2	98.9
2,880 and greater	0	--	--	1	0.1	100.0



Table 4.27

Percentage of Multiple Jobholding  
Farmers by Total Improved Acres

Acres	Multiple Jobholding Farmers	Full- Time Farmers	Total	Percent Multiple Jobholding Farmers of Total
10-69	70	30	100	70.0
70-239	189	193	382	49.5
240-399	186	245	431	43.2
400-559	139	183	322	43.2
560-759	67	116	183	36.6
760-1,119	30	78	108	37.8
1,120-1,599	5	19	24	20.8
1,600-2,239	2	6	8	25.0
2,240-2,879	0	2	2	0.0
2,880 and greater	0	1	1	0.0

The information contained in Table 4.27 indicates a very high concentration of multiple jobholding farmers in the 10-69 acreage ranges relative to the percentage of multiple jobholding farmers in the sample (44.0 percent). It may be possible that farms with 70 acres of improved land represent the very basic subsistence level crop-oriented farm and that many individuals associated with farms of less than 70 acres must find alternative sources of annual income. The information contained in Table 4.27 also shows that nearly 50 percent of all farmers reporting 70-239 acres of improved land reported some off-farm employment whereas 44.0 percent of all farmers were multiple jobholders. While there was a drop in the percentage as acreage rose to 599 acres or less, there was

still a sizeable percentage of these operators reporting income from off-farm sources. This tends to indicate that particularly for the small farm and, to a somewhat lesser degree for the medium size farm, off-farm employment is pursued by a significant percentage of all operators.

The data presented in Table 4.27 support the original hypothesis that there is an inverse relationship between the total improved acres owned by a farmer and the frequency of multiple jobholding. Furthermore, there is a higher frequency of smaller acreage farms associated with multiple jobholders.

Acreage owned, age and occupation status. It was thought that there might be some relationship between age of operator, acreage owned and occupation. Multiple jobholding farmers were thought to be more highly concentrated within the lower age ranges and lower acreage ranges.

The information contained in Table 4.28 shows that within the respective occupation classifications, multiple jobholding farmers have higher percentages in the lower acreage and age ranges than full-time farmers. Within the multiple jobholding occupation classification, the greatest percentage of individuals falls within the lower acreage size and the middle age category. In contrast full-time operators had the highest percentage within the middle age range and acreage size category. Table 4.29 indicates that within specific economic classes (operating cost), multiple jobholding farmers are more frequently associated with farms of small physical size.

Table 4.30 indicates that the multiple jobholding farmer group has a higher percentage of individuals who are younger and operate smaller

Table 4.28

Distribution of Farm Operators by Age, Owned  
Acres and Occupation Status

Age (years)	Multiple Jobholding Farmers			Full-Time Farmers		
	acres: less than 400	400 to 1,119	1,120 and greater	less than 400	400 to 1,119	1,120 and greater
less than 34	107 (16.4) <sup>a</sup>	52 (8.0)	1 (0.2)	61 (7.0) <sup>b</sup>	36 (4.1)	6 (0.7)
35-54	210 (32.1)	139 (21.3)	4 (0.6)	190 (21.7)	222 (25.4)	12 (1.4)
greater than 55	94 (14.4)	45 (6.9)	2 (0.3)	217 (24.8)	119 (13.7)	10 (1.2)

<sup>a</sup>The percent of multiple jobholders within the specific acreage and age classification of all multiple jobholding farmers.

<sup>b</sup>The percent of full-time farmers within the specific acreage and age classification of all full-time farmers.

farms in terms of acres of land than the full-time farmer group. The largest percentage of multiple jobholding farmers is associated with the lowest percentages are either associated with the youngest category and the middle acreage range or with the middle age class and the smallest acreage class. In general, the greatest percentages of multiple jobholding farmers is grouped around the lower acreage and age classifications. Conversely, the largest percentage of full-time farmers is associated with the largest operations and the highest age classification.

Table 4.29

Percentage of Multiple Jobholding Farmers of All  
Farmers by Operating Costs and Improved Acreage

Operating Cost (\$)	Improved Acres	less than 240	240 to 559	560 to 1,119	1,120 and greater
50-2,499		64.9	50.4	39.1	0.0
2,500-7,499		55.2	42.3	42.2	17.7
7,500-24,999		76.7	42.3	39.7	26.7
25,000 and greater		33.3	33.3	25.8	22.7

Table 4.30

Percentage of Multiple Jobholding Farmers of  
All Farmers by Age and Owned Acreage

Age (years)	Acres	less than 400	400 to 1,119	1,120 and greater
less than 35		63.7	59.1	14.3
35-54		52.5	38.5	25.0
55 and older		30.2	27.4	16.7

Land valuation. The value of improved land per acre owned by multiple jobholding farmers was expected to be of lower value by virtue of the association of multiple jobholding with low farm income and generally marginal farming operations.

Based upon Table 4.31, it would appear that there is no basis for the expectation that within occupation classes multiple jobholding farmers show a greater degree of association with low value farm land. Provincially, all full-time farmers showed 27.3 percent with land valued at \$69 per acre or less contrasted with only 22.0 percent of all multiple jobholding farmers with similar land values. In terms of higher land values 68.4 percent of all multiple jobholding farmers throughout the province reported land valued in excess of \$80 per acre compared with 59.2 percent for all full-time operators with similar land values. Overall, multiple jobholding farmers reported an average value per acre of \$89 while full-time operators averaged \$84 per acre.

Table 4.32 shows no direct relationship between the value of improved farm land and frequency of multiple jobholding. What it does show however, is that multiple jobholding farmers are by no means entirely associated with marginal value land. In both the \$30-to-\$59 and \$80-to-\$139 per acre ranges for land value, single-occupation farmers accounted for a higher percentage than multiple jobholding farmers. In the \$30-to-\$59 range they represented an average of 64.9 percent of all farmers in the range. In the \$80-to-\$139 range they averaged 52.3 percent of all farmers represented only 56.0 percent of all farmers in the sample. However, as the value of land increased (ie. the \$80-to-\$139 per acre ranges) the

Table 4.31

Distribution of Farm Operators by value per Acre  
of Improved Land and Occupation Status

Value per Acre (\$)	Multiple Jobholding Farmers	Percent Multiple Jobholding Farmers	Cumulative Percentage	Full- Time Farmers	Percent Full- Time Farmers	Cumulative Percentage
less than 10	0	0.0	--	0	0.0	--
10-19	4	0.6	--	5	0.6	--
20-29	10	1.6	2.2	11	1.4	2.0
30-39	12	1.9	4.1	23	2.9	5.0
40-49	22	3.5	7.6	46	5.9	10.9
50-59	42	6.7	14.3	67	8.6	19.4
60-69	49	7.8	22.0	62	7.9	27.3
70-79	61	9.7	31.6	103	13.2	40.5
80-99	160	25.3	57.0	180	23.0	63.5
100-119	152	24.1	81.0	167	21.3	84.8
120-139	58	9.2	90.2	62	7.9	92.7
140 and greater	62	9.8	100.0	57	7.3	100.0

Table 4.32

Percentage of Multiple Jobholding Farmers by  
Value per Acre of Improved Land

Value per Acre (\$)	Multiple Jobholding Farmers	Full- Time Farmers	Total	Percent Multiple Jobholding Farmers of Total
less than 10	0	0	0	--
10-19	4	5	9	44.4
20-29	10	11	21	47.6
30-39	12	23	35	34.3
40-49	22	46	68	32.4
50-59	42	67	109	38.5
60-69	49	62	111	44.1
70-79	61	103	164	37.2
80-99	160	180	340	47.1
100-119	152	167	319	47.7
120-139	58	62	120	48.3
140 and greater	62	57	119	52.1

relative percentage of single-occupation farmers declined to below the percentage they constituted of overall sample. In the \$140-and-over per acre range the dual-occupation farmer accounted for 52.1 percent of all farmers reporting, yet only constituted 44.0 percent of all farm operators, thus indicating that multiple jobholding and low land values do not necessarily function together.<sup>1</sup>

<sup>1</sup>The association of multiple jobholding farmers with higher valued land, relative to lower valued land, on a per acre basis does not imply that these farmers will be associated with higher total land values, since this figure is easily offset by larger quantities of land owned by full-time farmers.

In conclusion, multiple jobholding farmers are associated with smaller acreages. Furthermore, there appears to be a connection between age of the operator, farm size in acres and incidence of multiple jobholding. There is evidence (Table 4.30) that the smallest acreage farmer who is a dual-occupation operator also falls within the youngest age category. Finally, there is no basis for believing that, throughout the province, full-time operators are only those who are found to be associated with high value land.

#### Land Rentals

It was expected that multiple jobholding farmers would tend to be less frequently associated with land rental than would full-time operators. However, the results of the analysis as presented in Tables 4.33 and 4.34 do not substantiate this hypothesis.

Table 4.33 indicates that within their respective occupational classifications full-time farmers had a greater cumulative percentage of individuals renting 399 acres or less, whereas multiple jobholding farmers had a greater percentage renting in excess of 399 acres. However, the differences were very slight and as such must be interpreted with caution. In terms of the most frequent within class land rental range, both groups of farmers fall within the 70-to-239 acre range, with multiple jobholding farmers reporting 41.6 percent in this range as compared with 45.3 percent for full-time operators. Full-time farmers averaged 121 acres of rented land relative to 134 acres for multiple jobholding.

The information presented in Table 4.34 shows that there is no



Table 4.33

Distribution of Farm Operators by Land  
Rentals and Occupation Status

Acres Rented	Multiple Jobholding Farmers	Percent Multiple Jobholding Farmers	Cumulative Percentage	Full- Time Farmers	Percent Full- Time Farmers	Cumulative Percentage
1-9	0	--	--	0	--	--
10-69	24	8.4	--	16	5.1	--
70-239	119	41.6	50.0	141	45.3	50.5
240-399	63	22.0	72.0	76	24.4	74.9
400-559	42	14.7	86.7	32	10.3	85.2
560-759	21	7.3	94.1	22	7.1	92.3
760-1,119	9	3.2	97.2	12	3.9	96.1
1,120-1,599	5	1.8	99.0	9	2.9	99.0
1,600-2,239	2	0.7	99.7	1	0.3	99.4
2,240-2,879	0	0.0	99.7	2	0.7	100.0
2,880 and greater	1	0.3	100.0	0	0.0	100.0

Table 4.34  
 Percentage of Multiple Jobholding  
 Farmers by Land Rentals

Acres Rented	Multiple Jobholding Farmers	Full- Time Farmers	Total	Percent Multiple Jobholding Farmers of Total
1-9	0	0	0	0.0
10-69	24	16	40	60.0
70-239	119	141	260	45.8
240-399	63	76	139	45.2
400-559	42	32	74	56.8
560-759	21	22	43	48.8
760-1,119	9	12	21	42.9
1,120-1,599	5	9	14	35.7
1,600-2,239	2	1	3	66.7
2,240-2,879	0	2	2	0.0
2,880 and greater	1	0	1	100.0
Total	286	311	597	47.9

relationship between the acres of rented land and the frequency of multiple jobholding. Indications are that while for some ranges of rented land dually-employed farmers show less than 44 percent participation, there are several rental ranges which have multiple jobholding farmers accounting for more than half the individuals reporting land rentals. Overall, multiple jobholding farmers within their occupation class reported 58.4 percent of the farmers having no land rented whereas within the full-time farmer category 64.3 percent of the farmers reported no land rented.

In total, this indicates that within the confines of the respective occupation classifications, dually-employed farmers tended to have a greater overall incidence of farmers reporting rented land than was the situation with full-time farmers.

The analysis does not substantiate the hypothesis that there is less frequent land renting among multiple jobholders. Nor does it indicate an inverse relationship between the frequency of dual-employment and acres of farm land rented.

#### Profitability

It was expected that multiple jobholding farmers would show a greater degree of association with operations having little or no economic growth in preceding years. Table 4.35 indicates that the largest percentage of individuals within occupation classes for both occupation categories, were those individuals associated with less profitable farms relative to five years prior to the survey. While 55.6 percent of all multiple jobholding farmers reported less profitable farms, this only slightly exceeds the 53.3 percent of full-time farmers with similar farms. Conversely, in terms of more profitable farms, full-time farmers are again only slightly better off than their multiple jobholding counterparts. Full-time farmers reported 17.5 percent while part-time farmers reported 16.0 percent profitability.

There is a relatively large percentage of individuals in both occupation classes who have remained economically static over the preceding five year period. It is possible that these individuals under

Table 4.35

Distribution of Farm Operators by Profitability  
and Occupation Status

Profitability Rating Over Preceding Five Years	Multiple Jobholding Farmers	Percent	Full- Time Farmers	Percent
much more profitable	11	1.6	22	2.5
more profitable	97	14.4	130	15.0
about the same	173	25.6	245	28.3
don't know	19	2.8	7	0.8
less profitable	228	33.8	300	34.7
much less profitable	147	21.8	161	18.6

Table 4.36

Percentage of Multiple Jobholding Farmers  
by Profitability Rating

Profitability Rating	Multiple Jobholding Farmers	Full- Time Farmers	Total	Percent Multiple Jobholding Farmers of Total
much more profitable	11	22	33	33.3
more profitable	97	130	227	42.7
about the same	173	245	418	41.4
don't know	19	7	26	73.0
less profitable	228	300	528	43.2
much less profitable	147	161	308	47.7

increasing economic pressures, may in the future determine the association of an occupational group with low farm profitability. Overall, it appears from Table 4.35 that there are very few individuals in both occupational classes who are unaware of the economic progress of their farms. Furthermore, both classes of agricultural producers are very similarly distributed among the various profitability ranges within their respective occupation classifications.

The data in Table 4.36 do provide limited support to the hypothesized relationship between multiple jobholding and farm profitability. For all producers reporting profitable farms, multiple jobholding operators accounted for only 33.3 percent of the "much more profitable" class, and 42.7 percent of the "more profitable" class for an overall average of 41.5 percent. Contrasted with this are the dual-occupation producers who accounted for 43.2 percent of the "less profitable" class and 47.7 percent of the "much less profitable" class for an overall average of 44.9 percent. This tends to indicate a stronger association of multiple jobholding operators with the less profitable farms than with profitable operations.

In conclusion, the very subjective nature of the question warrants cautious interpretation of the results. While it would appear that there is some evidence to support the view that multiple jobholding operators are associated with less profitable farm enterprises, the evidence currently available is insufficient to justify outright acceptance of the hypothesized relationship.

### Wife Employed Off The Farm

The wives of multiple jobholding farmers were thought to be more inclined to seek off-farm employment than wives of full-time farmers.

Table 4.37 shows that 21.4 percent of the multiple jobholders had wives employed off the farm, in contrast to 10.7 percent of the full-time operators.

Table 4.38 makes it quite clear that while there is a larger percentage of all farmers (1,561) where only the farm operator worked off the farm, there are strong indications that when the farm operator works off the farm there is greater probability that the wife will also work off the farm. This is shown by the relatively large percentage, within these two categories only, of wives and husbands working off the farm relative to only the wife working off the farm. There are 58.1 percent more wives

Table 4.37

Distribution of Farm Operators by Wives Working  
Off the Farm and Occupation Status

Wife Working Off the Farm	Multiple Jobholding Farmer	Percent Multiple Jobholding Farmer	Full- Time Farmer	Percent Full- Time Farmer
yes	147	21.4	93	10.7
no	541	78.6	780	89.3

Table 4.38

Percentage of the Total Sample Frame with Either  
the Wife, the Wife and Husband, or the  
Husband Only Working Off the Farm

Person(s) Working Off the Farm	Actual Number	Percent
husband only	541	34.7
wife and husband	147	9.4
wife only	93	6.0

working off the farm with their husbands than there are just wives working off the farm.

In conclusion, it would appear that multiple jobholding farmers have a greater frequency of their wives working off the farm than do full-time operators. The incidence of the wife working off the farm when her husband also is employed off the farm is greater than if the husband was not working off the farm.

#### Multiple Jobholding and the Off-Farm Job

The off-farm employment source possesses certain traits. These, in addition to the previously considered social and economic variables associated more directly with the dually-employed operator and his farm, will influence the decision of the operator to become a multiple jobholder.

Number of Days Worked at the Off-Farm Job

It was hypothesized that due to conditions of employment, a significant percentage of multiple jobholding farmers would tend to work the full year or nearly so at their off-farm job. Table 4.39 indicates that 34 percent of multiple jobholding farmers worked off the farm at least 127 days. The balance of the multiple jobholding operators was evenly distributed between those working one month or less and those working between one and five months at off-farm employment. Overall, multiple jobholding farmers averaged 102 days of work off their farms, or assuming a six day work week approximately four to five months of work.

Table 4.39

Percentage Distribution of Multiple Jobholding  
Farmers by Days Worked Off the Farm

Days Worked	Multiple Jobholding Farmers	Percentage Multiple Jobholding Farmers
1-6	89	12.9
7-12	60	8.7
13-24	60	8.7
25-48	105	15.3
49-72	49	7.1
73-96	30	4.4
97-126	62	9.0
127-228	127	18.5
229-365	106	15.4



The preceding findings are not totally consistent with the hypothesis that the majority of multiple jobholding farmers will tend to work year round (or nearly so) at off-farm employment. However, they do show that there is a significant percentage, approximately 50 to 60 percent of farmers who do work at off-farm employment for an extended period of time, and that this is closely associated with farms engaged in crop production.

#### Days Worked and Age of Operator

The number of days worked off the farm was postulated to be inversely related to the age of the multiple jobholding farmer. The data presented in Table 4.40 substantiate this belief. The data indicate a downward trend in the average number of days of work.

Table 4.40

Distribution of Multiple Jobholding Farmers by  
Age and Average Number of Days Off-Farm Work

Age of Multiple Jobholder	Number of Multiple Jobholders	Percent of all Multiple Jobholders	Average Number of Days of Off- Farm Work
less than 35	182	26.5	112
35 - 54	365	53.0	101
55 and greater	141	20.6	79

In Table 4.41, within each age classification the highest percentage of dual-occupation farmers was associated with the lowest range of days worked off the farm, and the lowest percentage was associated with the mid-way range of days. This indicates that multiple jobholders tend to be either definitely committed or superficially committed to the occupation status. Furthermore, as the

Table 4.41  
Percentage Distribution of Multiple Jobholding  
Farmers by Age Classification and Days  
Worked off the Farm

Days	1-48	49-126	127-365
less than 35	11.6 <sup>a</sup> (44.0) <sup>b</sup>	4.8 (18.1)	10.0 (37.9)
35 - 54	24.1 (45.5)	11.5 (21.6)	17.2 (32.9)
55 and greater	9.9 (48.2)	4.2 (20.6)	6.4 (31.2)

<sup>a</sup>The number of respondents within the specific age and days range, expressed as a percentage of all multiple jobholding respondents.

<sup>b</sup>The number of respondents within the specific age and days range expressed as a percentage of all multiple jobholding respondents within the specific age range.

classifications increase there is a definite shift in the relative percent of the individuals in each of the day ranges towards the lowest range of days

worked off the farm. This further supports the proposed relationship between age and days of work off the farm. Overall, the greatest percentage (24.1 percent) of multiple jobholders are within the middle age class and work the fewest days off the farm.

#### Days Worked and Education of Operator

The formal education possessed by a multiple jobholding farmer was thought to have a direct influence on the number of days worked off the farm.

Data in Table 4.42 show that, as the level of formal education of the multiple jobholder improves, there is a corresponding increase in the average number of days worked off the farm. The trend, however, is not consistent for university level education. Days of work off the farm dramatically decreases as university levels of education were attained. While the data do support the expected relationship between education and days of work off the farm, it is restricted to levels of education below university. The fewer days of work off the farm associated with university educated multiple jobholders could be the result of a stronger commitment to farming as a sole income source or that these individuals, because of their more advance education, have fewer job opportunities for part-time employment.

Data in Table 4.43 indicate that for all education ranges except "farm management and other" the greatest percent (bracketed values) of multiple jobholders worked the fewest range of days off the farm. In the education range "farm management and other" the greatest percent of

Table 4.42

Multiple Jobholding Farmers by Education and  
Average Number of Days Off-Farm Work

Highest Level of Education Attained	Average Number of Days Off-Farm Work
Grade 0 - 6	66
Grade 7 - 12	92
Farm Management and Other	133
Diploma Agriculture	97
University	57

individuals worked the highest range of days off the farm. The explanation for this may be that the classification "other" included those multiple jobholders holding trade certificates (eg. electrician, carpenter, welder) which in many cases gave the individual a very marketable skill. The high relative concentration (64.9 percent of multiple jobholders) with university education, in the lowest range of days worked off the farm (1 - 45 days) further supports the findings in Table 4.42. Overall, the greatest percentage of multiple jobholders was within the grade 7 - 12 educational level and worked 1 - 48 days off the farm. However, the greatest average number of days worked off the farm was by multiple jobholders in the "farm management and other" educational level.

In summary, multiple jobholding farmers as a general rule did not work off the farm for the full year, but rather tended to work four to five months, particularly winter, when labour requirements of the farm were minimal. Multiple jobholding farmers tended to work fewer days

Table 4.43

Percentage Distribution of Multiple Jobholding  
Farmers Within Educational Classes by Formal  
Education and Days Worked Off the Farm

Highest Educational Level Attained	Days	1-48	49-126	127-365
Grades 0-6		3.4 <sup>a</sup> (41.8) <sup>b</sup>	2.6 (32.7)	2.1 (25.5)
Grades 7-12		31.3 (47.0)	12.6 (18.9)	22.7 (34.1)
Farm Management & Other		3.1 (27.6)	1.9 (14.5)	6.4 (57.9)
Diploma Agriculture		2.3 (41.0)	1.8 (30.8)	1.6 (28.2)
University		5.4 (64.9)	1.9 (22.8)	1.0 (12.3)

<sup>a</sup>Represents the number of respondents within the specific education and days range expressed as a percentage of all multiple jobholding respondents.

<sup>b</sup>Represents the number of respondents within the specific education and days range expressed as a percentage of all multiple jobholding respondents within the specific education range.

off the farm as they advanced in age and, within limitations, more days off the farm as formal education improved.

### Annual Off-Farm Income

The off-farm income a multiple jobholding farmer will be able to obtain is a function of many variable factors such as educational qualifications, time constraints, or transportation problems. Because of the interaction of these factors, it was hypothesized that dually-employed farmers would, in many cases, receive relatively low off-farm income.

Table 4.44 clearly shows that a substantial percentage of multiple jobholding farmers derived low annual income from their off-farm jobs, with 43.0 percent earning less than \$500, of which 24.0 percent earned less than \$100. With one exception, as the level of off-farm income increased, the percentage of multiple jobholding farmers within the specific income ranges consistently decreased. Overall, dually-employed farmers averaged \$1,598 annual income from the off-farm job at which they worked an average of 102 days for a daily average off-farm income of \$15.67.

Gross sales. The question of acceptable levels of income, and the significance of one source of income as it contributes to total income, is best viewed in relation to total income received from all sources. Consideration of off-farm income in isolation could result in a distorted image of its significance in relation to the total income of the individual. Table 4.45 clearly shows that higher off-farm income is associated with economically smaller-scale farming operations in that as the value of gross farm sales increases, there is a corresponding decrease

Table 4.44  
 Percentage of Multiple Jobholding  
 Farmers by Total Off-Farm Income

Earnings From Off- Farm Job (\$)	Number of Multiple Jobholding Farmers	Percentage Multiple Jobholding Farmers	Grouped Percentage of Multiple Jobholding Farmers
less than 100	165	24.0	
100-199	41	6.0	
200-299	46	6.7	43.0
300-399	28	4.1	
400-499	16	2.3	
500-599	29	4.2	
600-699	12	1.7	
700-799	20	2.9	11.9
800-899	8	1.2	
900-999	13	1.9	
1,000-1,499	43	6.3	
1,500-1,999	48	7.0	16.7
2,000-2,499	24	3.5	
2,500-2,999	19	2.8	
3,000-3,499	0	--	
3,500-3,999	27	3.9	11.9
4,000-4,499	24	3.5	
4,500-4,999	12	1.7	
5,000-5,499	16	2.3	
5,500-5,999	13	1.9	
6,000-6,499	10	1.6	8.6
6,500-6,999	9	1.3	
7,000-7,499	11	1.6	
7,500-7,999	9	1.3	
8,000-8,499	8	1.2	
8,500-8,999	9	1.3	4.9
9,000-9,499	4	0.6	
9,500-9,999	4	0.6	
10,000-10,999	6	0.9	2.9
11,000 and greater	14	2.0	
Total	688	100.0	100.0

Table 4.45

Multiple Jobholding Farmers by Gross Sales  
and Average Off-Farm Income

Gross Farm Sales (\$)	Average Off-Farm Income (\$)
less than 5,000	2,443
5,000 - 9,999	1,254
10,000 - 24,999	1,197
25,000 and greater	1,175

in the average income received from off-farm employment. This finding is further substantiated by data in Table 4.46. Within each off-farm income range, and as off-farm income increases, the largest percentage of individuals gradually become more closely associated with farms having lower gross sales values (see starred [\*] figures in Table 4.46). One possible explanation is that the low farm income generated from small scale farming operation has forced these individuals to become more dependent on off-farm income and to subsequently strive for higher off-farm income.

The significance of income derived from off-farm employment is relative to the percentage it represents of the total income and the



Table 4.46

Percentage Distribution of Multiple Jobholding Farmers  
by Total Off-Farm Income and Gross Farm Sales

Gross Sales (\$)	Earnings From Off-Farm Work (\$)				
	less than 2,500	2,500 to 4,999	5,000 to 7,499	7,500 to 9,999	10,000 and greater
less than 5,000	19.0 <sup>a</sup> (26.2) <sup>b</sup>	6.6 (57.3)*	6.0 (73.6)*	3.5 (74.2)*	1.4 (47.4)*
5,000-9,999	21.4 (29.6)	1.5 (13.3)	1.5 (18.9)	0.6 (12.9)	0.5 (15.8)
10,000-24,999	25.0 (34.5)*	3.0 (25.3)	0.3 (3.8)	0.6 (12.9)	0.8 (26.3)
25,000 and greater	7.0 (9.6)	0.5 (4.0)	0.3 (3.8)	0.0 (0.0)	0.3 (10.5)

<sup>a</sup>Represents multiple jobholding farmers with the specific off-farm income range and gross sales range express as a percentage of all multiple jobholding farmers responding.

<sup>b</sup>Represents multiple jobholding farmers with the specific gross sales range expressed as a percentage of all multiple jobholding farmers with the particular off-farm income range for each column.

degree of reliability of the income source<sup>2</sup>. There are 32.8 percent<sup>3</sup> of

<sup>2</sup>For this latter factor, see pages 131-134 of this thesis.

<sup>3</sup>This figure is a summation of those non-bracketed percentages in Table 4.45 which fall under off-farm income ranges equal to at least 50 percent of the farm income (gross sales range).

the multiple jobholding farmers who derive off-farm income greater than or equal to half of the value of their total annual gross sales. When considered in terms of net income from farming it is obvious that for these individuals, off-farm income is truly a very significant contribution to their total income. Approximately 35 percent more of the dual-occupation farmers earn off-farm income which, while not as significant as the preceding case, does contribute to an improvement in available farm cash income.

Age of Operator. It was expected that the younger farmers would tend to earn more off-farm income than those more advanced in age. Data in Table 4.47 support this belief in that average off-farm income declines with advancement in operator's age. The most noticable income drop occurred for multiple jobholders 55 years and older. The possible explanation may be that these individuals are more economically secure and have less need for off-farm income or that they have fewer employment opportunities available to them.

Table 4.48 indicates that as age classes are increased, there is a greater relative percentage concentration of multiple jobholders in the lowest off-farm income class. Within each age class, the greatest concentration of individuals occurs for the lowest off-farm income class; and overall, the largest percent of dual-occupation farmers fall within the 35-to-54 age range and the less than \$2,500 off-farm income range.

Table 4.47

Multiple Jobholders by Age and  
Average Off-Farm Income

Age of Operator	Average Off-Farm Income (\$)
less than 25	2,490
35 - 54	2,209
55 and greater	1,073

Table 4.48

Percentage Distribution of Multiple Jobholding Farmers  
by Age Classification and Total Off-Farm Income

Age	Earnings From Off-Farm Work				
	less than 2,500	2,500 to 4,999	5,000 to 7,499	7,500 to 9,999	10,000 and greater
less than 35	17.2 <sup>a</sup> (64.8) <sup>b</sup>	4.1 (15.4)	2.5 (9.4)	1.5 (5.5)	1.3 (5.0)
35 - 54	39.0 (73.4)	5.5 (10.4)	4.7 (8.8)	2.5 (4.7)	14.5 (2.7)
55 and greater	15.6 (75.9)	2.3 (11.4)	1.5 (7.1)	1.1 (5.0)	0.2 (0.7)

<sup>a</sup> Represents the percentage of respondents within the particular age and off-farm income range, relative to all multiple jobholding farmers responding to the survey.

<sup>b</sup> Represents the percentage of respondents with a particular age and off-farm income range, relative to the multiple jobholding farmers with the particular age range.

Education of operator. Previous analysis has established that multiple jobholding farmers tended to have higher formal education than full-time farmers. It was expected that within the dually-employed farmer group those with the higher levels of education would show an increasing association with the higher levels of off-farm income.

The data presented in Table 4.49 show a steady increase in the average off-farm income earned as formal education levels increased. The most significant observation is the dramatic increase in off-farm income as degree level university education is reached. In terms of income from off-farm employment, those farmers possessing a university education accounted for by far the greatest percentage, per educational category of individuals earning in excess of \$10,000 from off-farm employment. In the preceding analysis, individuals with university education worked the fewest average number of days off the farm (see Tables 4.42 and 4.42). Therefore, it can be concluded that those with university education who worked off the farm must have received significantly higher wage rates relative to individuals within the other educational categories.

The data (bracketed values) presented in Table 4.50 show that within classes, as the level of formal education increases, there is a decrease in the relative percentage of multiple jobholders in the lowest off-farm income class and a significant increase in the highest class. This adds further substantiation to findings presented in Table 4.49. Overall, the greatest percentage (48.5 percent) of multiple jobholding farmers within the range of grades 7-12 earned less than \$2,500.

Table 4.49  
Multiple Jobholders by Education  
and Off-Farm Income

Highest Education Attained	Average Off-Farm Incomes (\$)
Grades 0 - 6	1,163
Grades 7 - 12	2,093
Farm Management and Other	2,299
Diploma Agriculture	2,518
University	4,814

In general, multiple jobholding farmers derived relatively low total annual income from off-farm employment, averaging overall \$1,598 annually or \$15.67 per day. The small-scale farming operation (in terms of gross sales) tended to be more closely associated with those farms reporting higher off-farm earnings. This may be made necessary by the insufficient contribution made by farm sales to the individual's overall income. A significant percentage of these farmers derived a substantial percentage of their total income from nonfarm sources. Both younger and more highly formally educated multiple jobholding farmers were associated with the higher levels of income derived from off-farm employment.

Table 4.50

Percentage Distribution of Multiple Jobholding  
Farmers by Total Off-Farm Income and Education

Off-Farm Income (\$)	Highest Education Attained				
	Grades 0-6	Grades 7-12	Farm Man- agement & Other	Diploma Agric.	Univ- ersity
less than 2,500	6.9 <sup>a</sup> (83.9) <sup>b</sup>	48.5 (73.0)	10.2 (79.9)	3.5 (61.5)	2.5 (44.7)
2,500-4,999	0.7 (8.9)	8.0 (12.1)	1.6 (11.5)	1.2 (20.5)	0.4 (7.9)
5,000-7,499	0.6 (7.1)	5.1 (7.7)	1.3 (9.4)	0.6 (10.3)	1.0 (18.4)
7,500-9,999	0.0 (0.0)	3.4 (5.1)	0.4 (3.1)	0.3 (5.1)	0.7 (13.2)
10,000 and greater	0.0 (0.0)	1.5 (2.2)	0.4 (3.1)	0.2 (2.6)	0.9 (15.8)

<sup>a</sup>Represents the percentage of respondents within the particular education and off-farm income range relative to all multiple jobholding farmers responding to the survey.

<sup>b</sup>Bracketed values represent the percentage of respondents within the particular education and off-farm income range relative to all multiple jobholding farmers within the particular education range.

#### Years Worked at Current Off-Farm Employment

Dual-employment for many Manitoba multiple jobholding farmers was postulated to be a relatively stable employment situation. Therefore, it was expected that a substantial percentage of these farmers would have

Table 4.51

Percentage Distribution of Multiple Jobholding  
Farmers by Years Worked at Current Off-Farm Job

Years of Work Off the Farm	Number of Multiple Jobholding Farmers	Percentage Multiple Jobholding Farmers	Cumulative Percentage Multiple Jobholding Farmers
1	77	14.3	14.3
2	57	10.6	24.8
3	58	10.7	35.6
4	34	6.3	41.9
5	50	9.3	51.1
6	27	5.0	56.1
7	16	3.0	59.1
8	16	3.0	62.0
9	6	1.1	63.2
10	33	6.1	69.3
11	10	1.9	71.1
12	27	5.0	76.1
13	5	0.9	77.0
14	124	23.0	100.0

worked continuously at their current off-farm job for five or more years. The statistics presented in Table 4.51 show that 58.1 percent of all multiple jobholding farmers worked at least five years, and 36.9 percent worked ten years or more consecutively off the farm at their current place of employment. The greatest overall single percentage of farmers reported working 14 years or more off the farm. Overall, multiple jobholding farmers averaged seven years of previous off-farm work.

These results indicate that a significant percentage of multiple jobholding farmers viewed the dual-occupation status as a relatively stable and permanent economic arrangement. This supports the hypothesis that a substantial percentage of multiple jobholding farmers worked off their farms for extensive periods of time.

Age of operator. It was expected that those multiple jobholding farmers more advanced in age would, by virtue of this characteristic, show a tendency to be associated with a greater number of years of off-farm work. Table 4.52 supports the expected relationship between years of multiple jobholding and age of the farm operator.

Data in Table 4.53 show that there was 10.4 of all multiple jobholding farmers, who were 55 years or older, reporting in excess of nine years off-farm work, whereas only 5.6 percent who were younger than 34 years worked in excess of nine years off the farm. Within the specific age classification (bracketed value), as the age of the operator increased, there is a steady increase in the relative percentage of multiple jobholding farmers reporting ten or more years of off-farm employment and a steady decline in the percentage reporting less than five years off-farm employment with advancement in operator's categories.

Overall, the greatest percentage of multiple jobholding farmers was classified as working off the farm less than five years and in the age range of 35 to 54 years. However, caution must be exercised in drawing implications from this observation. The 21.3 percent associated with this particular two-way classification is only slightly larger than the 20.8



Table 4.52

Multiple Jobholders by Age and Average Number  
of Years of Off-Farm Work

Age of Operator	Average Number of Years Off-Farm Work
less than 35	5.3
35 - 54	7.4
55 and greater	8.2

percent for the two-way classification of "ten years and greater" on the age range of 35 to 54 years. The greatest actual percentage value must be somewhere between the two extremes of the above classification of age and years of off-farm employment.

In summary, a substantial percentage of multiple jobholding farmers have worked a considerable number of consecutive years at their current off-farm job, indicating that for these individuals multiple jobholding tends to be a permanent way of life. Furthermore, there appears to be a direct relationship between the age of the multiple jobholding farmer and the years worked off the farm.

Table 4.53

Percentage of Multiple Jobholding Farmers  
by Age and Years Worked Off the Farm

Age of Operator	Years of Consecutive Off-Farm Work		
	less than 5	5-9	10 and greater
less than 35	13.3 <sup>a</sup> (50.0) <sup>b</sup>	7.8 (29.2)	5.6 (20.8)
35 - 54	21.3 (39.9)	11.1 (20.8)	20.9 (39.2)
55 and older	7.2 (36.1)	2.4 (12.0)	10.4 (51.9)

<sup>a</sup>Represents the percentage of respondents within the particular age and years of off-farm work range, relative to all multiple jobholding farmers responding to the survey.

<sup>b</sup>Bracketed values represent the percentage of respondents within a particular age and years of off-farm work range, relative to all multiple jobholding farmers within the particular age range.

#### Distance to Off-Farm Work

The distance travelled to the source of off-farm employment was thought to be inversely related to the frequency of multiple jobholding farmers within the various distance ranges.

The statistics in Table 4.54 support the hypothesized relationship between mileage and frequency of multiple jobholding. There appears to be a steady downward trend in the number of dually-employed farmers travelling progressively further distances to their off-farm jobs. The

Table 4.54

Percentage Distribution of Multiple  
Jobholding Farmers by Distance to  
the Off-Farm Job

Distance in Miles	Number of Multiple Jobholding Farmers	Percentage
less than 5	158	29.9
5-9	103	19.5
10-19	103	19.5
20-29	51	9.6
30-39	30	5.7
40-49	20	3.8
50-59	10	1.9
60 and greater	54	10.2

10.2 percent travelling 60 miles or more is the exception to the preceding. It may, however, be explained by the fact that this distance travelled is possibly a summation for all distances in excess of 60 miles and if the distance categories were continued, this exception to the trend might disappear.

Of the multiple jobholding farmer, 68 to 81 percent travel 20 miles or less to their off-farm job. Based on current methods of transportation they averaged approximately 24 minutes. The largest percentage (29.9 percent) of the multiple jobholding farmers travelled less than five miles to their off-farm job. Overall, multiple jobholding farmers commuted an average distance of 18 miles per day one-way to their off-farm jobs.

### Type of Off-Farm Employment

It was hypothesized that multiple jobholding farmers would be more closely associated with semi-skilled jobs, using skills already acquired, and that regionally there would be substantial variation in predominant types of off-farm jobs.

Data in Table 4.55 substantiate the hypothesis in that 75.2 percent (excluding "other")<sup>4</sup> of all multiple jobholders were engaged in off-farm jobs that required either moderate or no skill development. In order of occurrence farm work, truck or bus driving, and construction work were the most frequent areas of employment off the farm. Jobs such as a trade, or clerical work, which required a definite period of training, recorded low participation by multiple jobholding farmers. In total, these two classes of jobs represented only 14.5 percent of all dual-occupation farmers.

There could be several reasons for the popularity of farm work, truck or bus driving, and construction work. Farm work off his own operation allows the individual considerable flexibility in the timing and quantity of off-farm work in which he will engage. Furthermore, in the case of custom work, it may simply allow for greater utilization of the individual's existing farm equipment. Bus driving has the advantage that it is regular employment, it may be close to the farm unit, and it is performed at definite time periods usually requiring a minimal amount of time away from

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<sup>4</sup>This represents the summation of the individual percentage values for the most frequent types of off-farm jobs. The classification "other" includes government jobs and an assortment of specific jobs which were not classified under the preceding headings.

Table 4.55

Percentage Distribution of Multiple Jobholding  
Farmers by Type of Off-Farm Employment

Job Description	Number of Multiple Jobholding Farmers	Percent- age	Percentage Excluding "other"
Fishing or trapping <sup>a</sup>	4	0.6	1.0
Farm Work	122	17.8	29.4
Truck or Bus Driver	101	14.8	24.3
Construction	89	13.0	21.5
Factory Work	39	5.7	9.4
Clerical Work	22	3.2	5.3
Self Employed (trade)	38	5.6	9.2
Other	269	39.3	--

<sup>a</sup>Farm work off the individual's own farm including custom work.

the farm. Finally, construction work is characterized by a relatively large number of unskilled jobs.

Information presented so far supports the belief that, from a provincial viewpoint, multiple jobholders show a definite association with employment in off-farm jobs that require limited skill development. However, in order to get a more representative understanding of the distribution of the various off-farm jobs it is necessary to consider regional variations in the predominant types of off-farm jobs.

Regional variations. Table 4.56 shows that, regionally, the predominance of the many types of multiple jobholding varied considerably

from one area of the province to another. A higher incidence of multiple jobholding associated with employment in construction, factory production lines, and self-employed trades is found in crop districts 4, 5, and 6. This, in part, could be explained by their close proximity to the Winnipeg employment market, and by the lower agricultural potential relative to some of the other crop districts. While crop district 3 shares the locational advantages of districts 4, 5, and 6 relative to distance from Winnipeg, multiple jobholders in this district did not demonstrate employment characteristics similar to those found in the other district 3 were employed in farm work off their own holding. The explanation for this could be the greater agricultural potential of district 3 (relative to 4, 5, and 6) which could reduce the need for farmers to seek employment outside of farming. Furthermore, the type of agriculture practiced in district 3 could result in a strong seasonal demand for hired farm labour.

Multiple jobholders in crop district 2 and to somewhat lesser degrees 7, 8, 9, and 10, like district 3, had the greatest percentages of multiple jobholders working at farm work off their individual holdings. The lack of well-defined larger employment centers, particularly in crop district 2, could be the reason why this form of multiple jobholding is so common. Lower agricultural potential, lack of larger employment centers and associated employment opportunities, plus the fact that driving a school bus is a common form of off-farm employment for many farmers, are possible reasons for this high percentage. Crop district 14, and to a lesser degree 13, reports a high percentage of individuals engaged in truck

Table 4.56

Percentage of Multiple Jobholding Farmers by  
Type of Off-Farm Employment and Region

Crop District	Fishing and Trapping	Farm Work	Truck or Bus Driver	Structural Con- struction <sup>a</sup>	Production Line Factory Work	Clerical Work	Self Employed (trade)	Total
1	0.0	28.6	35.7	28.6	0.0	7.1	0.0	100
2	0.0	46.4	21.4	21.4	0.0	7.1	3.6	100
3	0.0	40.2	20.6	19.6	8.3	5.2	6.2	100
4	0.0	28.6	7.1	21.4	14.3	0.0	28.6	100
5	0.0	17.7	29.0	12.9	30.7	6.5	3.2	100
6	0.0	18.2	9.1	45.5	9.1	0.0	18.2	100
7	0.0	33.3	26.7	26.7	6.7	0.0	6.7	100
8	0.0	33.3	22.2	19.4	8.3	2.8	13.9	100
9	0.0	28.0	28.0	24.0	8.0	8.0	4.0	100
10	10.3	31.0	20.7	13.8	0.0	10.3	13.8	100
11	0.0	21.0	21.1	10.5	0.0	10.5	36.8	100
12	4.2	20.8	20.8	37.5	4.2	8.3	4.2	100
13	0.0	24.0	32.0	32.0	4.0	0.0	8.0	100
14	0.0	6.3	50.0	25.0	6.3	0.0	12.5	100

<sup>a</sup>including highways, buildings, and associated trades

Table 4.57

Distribution of Multiple Jobholding Farmers by  
Type of Multiple Employment and Regions

Crop District	Job Description						
	Fishing and Trapping	Farm Work	Truck or Bus Driver	Structural Con- struction	Production Line Factory Work	Clerical Work	Self Employed (trade)
1	0	4	5	4	0	1	0
2	0	13	6	6	0	2	1
3	0	39	20	19	8	5	6
4	0	4	1	3	2	0	4
5	0	11	18	8	19	4	2
6	0	2	1	5	1	0	2
7	0	5	4	4	1	0	1
8	0	12	8	7	3	1	5
9	0	7	7	6	2	2	1
10	3	9	6	4	0	3	4
11	0	4	4	2	0	2	7
12	1	5	5	9	1	2	1
13	0	6	8	8	1	0	2
14	0	1	8	4	1	0	2



or bus driving as a form of multiple jobholding.

In this consideration of regional variation in off-farm job types, it is necessary to realize that some of the percentages developed in Table 4.56 were based upon a small number of respondents for a particular crop district (see Table 4.57), therefore the significance attached to particular results must be weighted by this fact. However, the examples presented do indicate that within Manitoba there is considerable variation in off-farm job types.

#### Major Source of Income

The data in Table 4.58 confirm the expectation that the majority of multiple jobholding farmers would still rate the farm enterprise as their major source of income. Of all multiple jobholding farmers, 62.8 percent rated the farm as their major income source. Furthermore, it is these individuals who rated farm as their major income source, that perhaps most typify the farmers for whom multiple jobholding represents a relatively permanent, stable adjustment to a situation of low farm income.

However, the significance of the 62.8 percent who selected the farm response must be tempered with the realization that within this group of dually-employed farmers are those individuals who only trifle with off-farm employment and who derive only minimal economic benefit from such income. The 37.2 percent of the multiple jobholding farmers who selected off-farm as their major income source are likely a mixture of individuals for whom multiple employment is an adjustment out of agriculture,

Table 4.58

Percentage Distribution of Multiple Jobholding  
Farmers by Major Source of Income

Major Source of Income	Number of Multiple Job- holding Farmers	Percentage
Farm	432	62.8
Off-Farm	256	37.2

or an adjustment into agriculture, or those who are very marginal farmers in the sense that farming does not constitute their main occupational interest. In general, while a majority of farmers derives their main income from farming (and supplements this with off-farm work), there is a sizable percentage of individuals who obtain the dominant share of their income from off-farm sources.

Age of operator. The data in Table 4.59 indicate, within limitations (and with some variations), the percentage of multiple jobholding farmers reporting off-farm as their major source of income decreases with increasing age of the individual. Furthermore, on an overall basis, dually-employed farmers indicating off-farm as their major source of income tended to be slightly younger than those selecting farm. As a group, those selecting off-farm as their major source of income averaged 42 years of age contrasted with an average of 43 years of age

Table 4.59

Percentage Distribution of Multiple Jobholding  
Farmers by Age Classification  
and Major Source of Income

Age	Income Source			Percentage of Total Selecting Off-Farm
	Farm	Off-Farm	Total	
less than 25	27	21	48	43.8
25-34	83	51	134	38.1
35-44	105	62	167	37.1
45-54	136	63	198	31.3
55-59	49	34	83	41.0
60-64	19	20	39	51.3
65-69	11	5	16	31.3
70 and older	2	1	3	33.3
Total	432	257	689	37.3

for those selecting farm. The basis for this situation may be that employment off the farm is the means by which younger individuals can enter farming and that as they grow older they become more securely established in farming and thus do not need to depend so heavily on off-farm income to meet their needs.

In addition, there tends to be greater opportunity for employment off the farm for younger individuals than for those more advanced in age. In conclusion, the findings as presented in Table 4.59 are consistent, to a degree, with the view that younger multiple jobholding farmers show a

stronger association with off-farm employment as their major source of income, and that this association tends to decrease with increasing age of the individual.

In summation, the majority (Table 4.58) of multiple jobholding farmers view the farm enterprise as providing their major source of income. In general, there is some indication (see Table 4.59) that there exists an inverse relationship between the age of the dually-employed farm operator and the percentage of these individuals selecting off-farm employment as their major source of income.

#### Summary

The preceding analysis clearly indicates that multiple jobholding is not an uncommon occurrence among Manitoba farm operators. Farmers engaged in this occupational practice had specific characteristics which distinguished them from their full-time counterparts. Multiple jobholding farmers tended to be younger in age, possess higher levels of formal education and, in general, to be more satisfied with current conditions. Their farming enterprise essentially was smaller in terms of improved acres and value of gross sales. However, in terms of capital invested per acre, they exceeded their full-time counterparts by an average of \$19.00 per acre. Multiple jobholding farmers also tended to have lower per acre operating costs than full-time farmers, an observation contrary to initial belief. Dually-employed farmers showed a relatively strong association with grain type of farming operations as contrasted to livestock operations.

The basis of this association is likely due to the considerable seasonal variation in labour demand associated with grain-oriented operations.

The analysis of multiple jobholding by farmers also facilitated an investigation of the off-farm job itself in order to identify those conditions which most typified the occupational status. The typical off-farm job involved employment for an average of 102 days. However, the most frequent period of employment was from 127 to 228 days. The average return for this period of employment was \$1,598 annually. The majority of jobs were located with 20 miles driving distance from the farm, within an overall provincial average distance of 18 miles. The majority of individuals worked in excess of five consecutive years at their current off-farm job, with some working in excess of 14 consecutive years. The most common form of multiple employment was hired farm work off the individual's own holding, followed by truck or bus driving. In conclusion, however, the majority of multiple jobholding farmers still viewed the farm as their major source of income.

Empirical data has been analyzed in this section to facilitate acceptance or rejection of the hypothesized characteristics of the multiple jobholding farmer relative to the full-time operator, and of the off-farm job itself. The succeeding chapter will relate the finding of this section in general to the overall problem of low farm income, and specifically will present the unique results developed for each of the characteristics of the multiple jobholder and his off-farm job. The chapter will then be directed towards the development of general conclusions regarding multiple jobholding by farmers. The chapter will end with recommendations for areas of further study.

## CHAPTER V

### CONCLUSIONS AND IMPLICATIONS

The foregoing detailed evaluation of multiple jobholding considered the nature and importance of the variables which were viewed as playing a role in the development of a dual-occupation status. The analytical findings will now be developed into a presentation of the socio-economic characteristics of the multiple jobholder relative to the full-time farmer, of the multiple jobholder himself, and of the off-farm job. The chapter is concluded with a brief consideration of the policy implications of multiple jobholding and areas for future research.

#### Analytical Conclusions

##### Dual- versus Single-Occupation Farmers

Multiple jobholding by farmers in Manitoba is by no means an insignificant occurrence, in that 44 percent of farmers are dual-occupation farm operators, averaging approximately \$1,598 annually from their off-farm employment. Farmers who are engaged in work both on and off their farms, as an occupational group, possess social and economic traits which in many instances distinguish them from their full-time single-occupation counterparts.

Multiple jobholding farmers were on the average younger and possessed higher levels of formal education than full-time farmers. They averaged 43 years of age and grade eleven education, whereas full-time farmers averaged 51 years and grade eight formal education. The positive association of higher formal education with multiple jobholding is consistent with the view that higher demonstrated capabilities will lead to greater employment opportunities and generally increased motivation to seek employment off the family farm. However, while the foregoing is true, the degree of direct causal relationship between these two variables is questionable. Multiple jobholding farmers tend to be younger, and in turn younger farmers are, because of relatively recent improvements in rural educational facilities and increased emphasis on obtaining a formal education, more inclined to achieve a higher education than older full-time farm operators. The association between multiple jobholding and younger farmers, younger farmers and higher formal education and, subsequently, multiple jobholding and higher formal education is the more probable linkage between these two variables, rather than any direct causal relationship. This is further substantiated by the fact that multiple jobholding farmers show a strong association with jobs off the farm which incorporate lower skill levels or skills which are a natural consequence of daily functioning on the farm. This is not to negate the influence of formal education on multiple jobholding but rather to inject the conclusion that its relationship is not entirely causal in nature.

Dually-employed farmers showed a very definite association with small-scale farming operations in both economic size as measured by gross

sales and physical size as measured by acreage. Multiple jobholding farmers averaged \$11,106 gross sales and 332 acres contrasted with \$15,312 gross sales and 442 acres for full-time farmers. Generally, multiple jobholders operated farms which had declining profitability based upon a preceding five-year period. These findings support the premise that multiple jobholding as an alternative form of economic adjustment is characterized by individuals with diminishing profitability and insufficient physical and economic size to sustain a viable operation. To these individuals this adjustment option offers the means of retaining a farming occupation within their constraints and yet earning sufficient income to meet necessary expenditures.

Multiple jobholding farmers overall averaged lower general per acre operating costs than full-time farmers but higher costs in relation to per dollar of gross farm sales. Thus, when taken together, it supports, to a degree the hypothesis that due to economics of scale and inefficiencies of operation, dually-employed farmers would be associated with higher farm costs of operation. In terms of specialized cost such as hired custom work, both multiple jobholding and full-time farmers averaged very similar total expenditures. However, in terms of utilization of the production alternative, multiple jobholding farmers showed a slightly greater utilization rate. The basis of this is two-fold, in that due to limited physical size of farms associated with multiple jobholding farmers, high capital investment in equipment is not warranted. Also because multiple jobholding is associated with low farm income, in many cases it is not financially feasible to invest large sums of capital in specialized equipment having



low utilization.

Average capital investment of \$200 per acre by multiple jobholding farmers relative to \$181 per acre by single-occupation operators tends to contradict expected relationships between capital invested in the farm and the occupational status of the farmers. This observation, however, may be rationalized when it is considered that many multiple jobholding farmers operate small farms located within close proximity to urban centres. These centres tend to inflate the value of the agricultural land close by. The fact that the purchase of the very basics in farm machinery can involve considerable investment, plus the physical constraints on how well equipment can be matched with small farms, both can have considerable upward influence on the per acre capital investment value when spread over relatively few acres. Finally, by virtue of the off-farm employment, multiple jobholding farmers may have money necessary for investment in farming equipment. The lower average total capitalization value (\$76,716 versus \$121,609) shown by dually-employed farmers demonstrates that, while on a per acre basis multiple jobholding operators reported higher average capital investment, on an overall basis these farmers are indeed associated with lower total value farms.

The results of the preceding analysis did not substantiate the expectation that fewer multiple jobholders would have outstanding debt. Indications were that, in general, dual-occupation farmers had higher occurrences of debt. This could be attributed, in part, to poor managerial abilities, non-viable farm operations, or recent entry into agricultural production. In terms of dollars of debt, however, multiple jobholders did

not have a higher total value debt. This is particularly evident in the case of livestock debt, where the average spread between the two occupation groups in favour of full-time operators was \$4,267. This can be explained, in part, by the association of multiple jobholding with smaller-scale operations where high degrees of indebtedness are neither warranted nor economically justifiable to the same degree as for larger full-time operations.

While dual-occupation farmers do rent slightly greater average acreages, they as a group do not show as strong an association with the practice of renting farm land as is the case with their full-time counterparts. The explanation for this could be the limited time available for additional farm work due to the allocation of some time to off-farm work. This would deter the multiple jobholding farmer from renting additional farm land. The rental of farm land represents an expansion of the farm, and since multiple jobholding was viewed as an alternative to expansion, the conclusions are consistent with this basic underlying premise.

The labour intensity of the farm operation was shown in the analysis to be inversely related to the incidence of multiple jobholding. In farm operations in which the operator's labour resource is not fully utilized, there is a greater probability that this individual will be associated with employment on a part-time basis off his farm. This was evidenced by the higher concentration of multiple jobholding farmers in operations which are not year-round labour intensive such as crop production enterprises. Conversely, full-time farmers did not demonstrate the same degree of concentration with these enterprise types.

In terms of the future of the family farm, while both occupational categories of farmers expressed static economic futures for their farming operations, multiple jobholding farmers as a group did not express as strong a desire to leave farming entirely as did the full-time farmer group. This further supports the belief that multiple jobholding represents an acceptable adjustment alternative in a situation of low farm incomes. Dually-employed farmers appeared to be more content with current economic and social conditions in terms of their personal lives than did the full-time farmers. As such they are likely to retain this occupational status for some time to come.

In appraising the family farm relative to multiple jobholding, consideration was also directed towards the occupational status of the farmer's wife. In isolation the occupational status of the farm operator influenced, to a degree, the decision of the wife to work off the farm, in that multiple jobholding farmers had the highest percentage of wives working off the farm. In totality, however, only a relatively small percentage of all farm wives worked off the farm regardless of the occupational status of their husbands. While the income received from the wife's off-farm employment is significant to these specific individuals, in total it is not a dominant feature of multiple jobholding.

Based upon the conclusions reached in the preceding pages, it is clear that multiple jobholding farmers as a socio-economic group possess characteristics which in many instances distinguish them from full-time operators. In general, multiple jobholding farmers were younger, better educated, operated smaller, less profitable farms, and were generally more

satisfied with their current situation than were their full-time counterparts.

#### The Average Multiple Jobholding Farmer

The analysis conducted in Chapter 4 indicates that within the multiple jobholding occupational classification, there were social and economic characteristics which provided an image of the typical dually-employed farmer.

The typical multiple jobholding farmer was 42 years of age, possessed junior high school education, and tended to be the only family member employed off the farm. Grain production was the predominant type of farm operation, usually involving less than one-half section of land (although usually good land as reflected by the average value of \$80 to \$99 per acre). If rented land was involved, the quantity was usually less than half a section with an average of  $1\frac{3}{4}$  acres. These farms most frequently had a capitalization value of less than \$49 per acre, producing between \$10,000 to \$15,000 gross sales at a cost of \$15 to \$24.99 per acre general expenditures and an additional \$100 to \$199 custom expenditures. The dual-occupation farmer on the average viewed his operation as becoming increasingly less profitable with little room for development. However, he appeared to be content for the present with his dual-employment life style.

In terms of the off-farm job the typical multiple jobholding farmer was employed 127 to 228 days, earning an average annual income of \$1,598. Indications were that age and formal education of the individual influenced the period of work off the farm and subsequently income, in that younger and more highly educated individuals tended to work off the farm

for longer periods of time. Further indications were that as gross sales declined the annual off-farm income increased. The significance of the off-farm income was emphasized by the fact that approximately one-third of all multiple jobholding farmers earned half or more of the value of their gross farm sales from off-farm work. The view that multiple jobholding represented a relatively stable adjustment to low farm income was substantiated, to a degree, by the fact that in excess of 50 percent of dually-employed farmers worked five years or more off the farm at their current jobs and with some individuals working fourteen years or more.

The typical multiple jobholding farmer travelled less than five miles to off-farm employment while in excess of two-thirds travelled less than 20 miles. This indicates that farmers seek employment within close proximity to their farming operations. Most dually-employed farmers tended to be engaged in jobs which utilized skills already developed in conjunction with their farming operations on an unskilled and semi-skilled classification level. Deviations from this pattern occurred when the region considered was near a large urban center. In these instances a stronger association was observed with jobs requiring skill development.

Multiple jobholding by farmers was presented as a form of stable, relatively long-term adjustment to low farm income situations, rather than primarily a means of out-migration from agriculture. The fact that most of these farmers have worked in excess of five years at their current off-farm job (a significant percentage also in excess of 13 years) and yet depend upon agricultural production for their major income source lends

considerable credibility to this view. The extent to which the farm constituted the predominant income source varied by region and was attributed to the proximity to large urban centers coupled with regional agricultural productivity in general.

#### Locational Aspects of Multiple Jobholding by Farmers

Multiple jobholding among Manitoba farmers does not appear to be restricted solely to those farmers with operations near large urban centers and sub-employment centers such as Winnipeg, Brandon, Selkirk, and Altona. It appears to be spread throughout the entire province (although not necessarily on an equal basis) and is engaged in by almost half of all provincial farm operators. Unquestionably Winnipeg and other sub-employment centers do influence the frequency of multiple jobholding in the area immediately surrounding these centers and subsequently result in regional variations in the occurrence of dual-employment. However, there is still a significant relative percentage of individuals employed off the farm on a part-time basis in regions not characterized by such employment opportunities. In general there appears to be a relatively abundant supply of off-farm employment opportunities throughout the entire province, although there are certain regions with higher frequencies particularly around well-defined urban employment centers.

The majority of dually-employed farmers travelled less than 20 miles one-way to their off-farm employment site and of this majority a significant percentage travelled less than five miles one-way. Indications were that, while well-defined urban employment centers did have the ability

to attract farm workers to these locations, this was confined to the area immediately surrounding the center and did not extend deeply into the surrounding rural area (ie. 40 to 50 miles) with perhaps the exception of Winnipeg. The lack of desire to travel extended distances from the family farm, as implied in the preceding data, accounts for the widespread distribution of multiple jobholding throughout the entire province.

The locational characteristics of the employment vary from region to region depending on the particular state of industrialization and development. Those regions which include such urban centers as Winnipeg and Selkirk tend to be characterized by jobs of a more developed skill nature such as factory work or specific trades, whereas areas with little or no industry are associated predominantly with jobs requiring little additional skill development such as truck or bus driving, farm work off their own farm, or general labour work.

In general then, while there are definitely regional variations in the frequency of multiple jobholding and the type of off-farm work, the occurrence of the phenomenon is not restricted only to fringe areas of urban employment centers but rather is widespread throughout the province.

#### Multiple Jobholding - Its Stability and Predictability

The fact that the majority of multiple jobholding farmers have worked in excess of five years consecutively at the same job indicates that for these individuals this occupational status, in all probability, is a permanent situation. The conclusion is further substantiated by the fact

that more multiple jobholding farmers than full-time farmers expressed the views that this occupational status was an acceptable way of life and they did not express a desire to leave farming entirely. Once the initial adjustment has been made to the new occupational status, continuation of the situation usually involves very limited effort on the part of the individual. As such, this constitutes an additional basis for the view that the occupational situation is a permanent or stable condition.

### Acceptance or Rejection of the Hypotheses

#### Hypothesis One

Indications were that, to some degree, 44 percent of all farmers were engaged in more than one occupation on a concurrent basis. This surely shows that the multiple jobholding status is not a random, infrequent situation, but rather a very common occurrence among Manitoba farm operators.

While the proximity of urban centers and their frequency within a particular area will be a factor influencing the frequency of multiple jobholding within the region, the preceding analysis showed that within all areas of Manitoba where agricultural production occurred, there was also an occurrence of multiple jobholding among some of the area's farmers. This confirms the hypothesis as expressed in Chapter 1.

#### Hypothesis Two

The preceding analysis has shown that there are definite distinguishable social and economic characteristics which, in many cases,



differentiate multiple jobholding farmers from full-time farmers. It facilitates the classification of these occupation status individuals into the two groupings. It is, therefore, concluded that this second hypothesis has been confirmed by the preceding analysis.

#### Hypthesis Three

Indications were that the frequency of multiple jobholding by farm operators was directly related, in a limited way, to the level of formal education attained, and inversely related, to a degree, with per acre operating cost. It showed no relation to the level of custom work expenditures. Therefore, the hypothesis is rejected for two variables and given limited acceptance for the third.

#### Hypothesis Four

The frequency of multiple jobholding was accepted as inversely related within limitations, to age of the farm operator, labour intensity of the farm unit, gross sales level of the farm, total acreage of the farm, the frequency of land rentals, and the distance to the off-farm source of employment. The inverse relationship was rejected for total per acre capital value of the farm and the level of indebtedness of the farm. Hypothesis four was, therefore, accepted for six variables and rejected on two variables.

#### Hypothesis Five

Multiple jobholders did not appear to work off their farms year-round, but rather for four to five months of the year. However, the number of days worked off the farm decreased with advancing age and

increased to the pre-university level with achievement of higher levels of formal education. Higher off-farm income was associated with lower levels of gross sales and, within limits, higher levels of formal education. Finally, the fact that the majority of the multiple jobholders worked in excess of four years off the farm at their current job, tends to support the fifth hypothesis. The only qualifying factors to acceptance of the hypothesis are that the majority of dual-occupation farmers do not work the full year off the farm, and that once university level of education is achieved, the number of days worked off the farm substantially declines.

#### Hypothesis Six

The preference of multiple jobholders for employment in farm work off their holding, truck or bus driving and construction results in acceptance of the hypothesis.

#### Hypothesis Seven

Information presented indicates that the majority of multiple jobholding farmers still viewed their farm as their major income source. However, this trend did not definitely become more noticeable with advancement in operator's age, but tended to vary with advancement in age ranges. Overall, however, between the youngest and oldest age class there was an increase in the percentage of multiple jobholders indicating "farm" as their major income source. With some qualifications, therefore, the hypothesis is accepted.

### Policy Implications

The rural "stay-option" policy in Manitoba is representative of the major efforts of the government to resolve some of the problematic conditions within the rural economy. The rural "stay-option", as it relates specifically to agriculture, is an attempt to encourage current low-income farmers to remain in farming (through the provision of financial and managerial assistance), and at the same time provide them with the option to leave agriculture if they so desire.

Success in improving agricultural income, because of its position in the economic infrastructure of rural Manitoba, will improve the prospects of the entire rural economy. Multiple jobholding by Manitoba farmers could be viewed as a form of the "stay-option", in that it will have the effect, in many cases, of making it financially possible for some individuals to remain in farming.

Efforts designed to promote multiple jobholding could take the form of increased industrialization in rural areas. Establishment of industry in regional locations would tend to improve the overall standard of living associated with the region. It could serve the needs of farmers who are trying to supplement their income. It could assist farmers in acquiring capital necessary to eventually engage in farming on a full-time basis. Or it could provide rural employment opportunities for those definitely determined to leave farming altogether.

### Possibilities for Future Research

The study of multiple jobholding by Manitoba farmers has been a

relatively unexplored aspect of provincial agriculture. This study has dealt with the subject on a provincial basis with the objects of:

- (1) establishing a general insight into the dual-employment situation,
- and (2) setting the groundwork for future, more detailed research.

There are several directions which future investigation of multiple jobholding might take. Multiple jobholding by farm operators could be studied on a regional basis to determine variations in occurrence between regions, and differences in the specific characteristics of the people and jobs involved. This in turn could facilitate a more rational allocation of industry in areas most in need of this form of general income assistance. Further studies could involve indepth evaluation of single regions to determine their specific characteristics relative to multiple jobholding, with comparisons between two regions to determine what causes the variations in dual-employment frequencies. Multiple jobholding by farmers could be considered from the industry point of view in order to determine how well these types of individuals fit into their specific manpower requirements, plus the advantages and disadvantages associated with a particular rural plant site. Dual-employment by farmers could be considered on a nation-wide basis in order to determine whether the characteristics of multiple jobholding as found in this current study are typical of those found in studies conducted in other provinces.

Manitoba agriculture is characterized by a dynamic, irregular temperament, and as such does not lend itself well to analysis under a static research framework. A time-series approach would, therefore,

be a very useful variation in the analysis of multiple jobholding, adding valuable information towards a more complete understanding of the dual-employment situation. Changes in the economy would influence the frequency of dual-employment and through time analysis these changes could be observed and the reasons examined.

### Conclusion

Agriculture in Canada, and in particular Manitoba, is rapidly approaching a staging point in its historical development. The relevant question of the not too distant future may quite well be, "where have all the farmers gone?". Economics of modern farming today are making it increasingly difficult for the family farm to function competitively in the producing market, and at the same time attract new and youthful participation in the industry. Evidence of this situation is found in the development of programs (small farm development, farm diversification), and policies (stay-option) aimed at expansion of the industry at the family farm level. Multiple jobholding may well be a source of untapped potential as one possible means of ameliorating the low income problem of the family farm.

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## APPENDICES

## APPENDIX A

## DATA SOURCE FOR ANALYSIS OF MULTIPLE JOBHOLDING BY MANITOBA FARMERS

CROP DISTRICT.....

Fill in the appropriate answer unless instructed otherwise. If you cannot or do not want to fill in all questions, a partially completed questionnaire would still be of value to this research project.

SECTION A

What is the age of the farm operator (s)? \_\_\_\_\_ years.

What formal education do you have? (Please check the highest level reached.)

Grade 1-3 \_\_\_\_\_

Grade 4-6 \_\_\_\_\_

Grade 7-9 \_\_\_\_\_

Grade 10-12 \_\_\_\_\_

University \_\_\_\_\_

Diploma Course (specify) \_\_\_\_\_

Farm Management Course (state year) \_\_\_\_\_

Other (specify) \_\_\_\_\_

Did you live on a farm prior to operating your own? Yes \_\_\_\_\_ No \_\_\_\_\_

What is your marital Status? Single \_\_\_\_\_ Married \_\_\_\_\_ Other \_\_\_\_\_

How many children are in your family? (Circle one.)

Boys 0, 1, 2, 3, 4, 5 or more

Girls 0, 1, 2, 3, 4, 5 or more

SECTION B

Compared to five years ago, do you think your farm is:

Much more profitable \_\_\_\_\_

More profitable \_\_\_\_\_

About the same \_\_\_\_\_

Much less profitable \_\_\_\_\_

Less profitable \_\_\_\_\_

Don't know \_\_\_\_\_

How would you classify your farm under the headings listed below?

- Competitive with a bright future \_\_\_\_\_
- Farm provides an acceptable livelihood, but has little margin for growth. \_\_\_\_\_
- Farming is a way of life and I will not change no matter what happens. \_\_\_\_\_
- Farming is only a part-time job with me. \_\_\_\_\_
- If I could get out of farming, I would. \_\_\_\_\_

) Would you like to see a change in the method of marketing the following crops? (Check each of the following.)

Flax:            Yes \_\_\_\_\_ No \_\_\_\_\_  
 Rye:            Yes \_\_\_\_\_ No \_\_\_\_\_  
 Rapeseed:      Yess \_\_\_\_\_ No \_\_\_\_\_

Would you like to see the Canadian Wheat Board take over complete control of marketing the above crops?      Yes \_\_\_\_\_ No \_\_\_\_\_

Would you like to see the Canadian Wheat Board market the above crops using the Winnipeg Grain Exchange in the same way as is now done for oats and barley?      Yes \_\_\_\_\_ No \_\_\_\_\_

What do you feel are the major problems which face the family farm today?

	<u>Very</u> <u>Important</u>	<u>Important</u>	<u>Not</u> <u>Important</u>
-High cost of farm inputs	_____	_____	_____
-Low prices for farm products	_____	_____	_____
-Small inefficient farms	_____	_____	_____
-Unorganized farms can't fight big business	_____	_____	_____
-Undecided _____			
-Other (specify) _____			
_____			
_____			
_____			
_____			
_____			

What do you see as a solution (if any) to these problems?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

) How do you react to the statement, "The Federal Government is doing a good job of helping solve Prairie agricultural problems." Do you:

Strongly agree \_\_\_\_\_  
 Agree \_\_\_\_\_  
 Disagree \_\_\_\_\_

Strongly disagree \_\_\_\_\_  
 Undecided \_\_\_\_\_  
 Don't know \_\_\_\_\_

How do you react to this statement? "The Manitoba Government is doing a good job of helping to solve agricultural problems in Manitoba." Do you:

Strongly agree \_\_\_\_\_  
 Agree \_\_\_\_\_  
 Disagree \_\_\_\_\_

Strongly disagree \_\_\_\_\_  
 Undecided \_\_\_\_\_  
 Don't know \_\_\_\_\_

Do you think the Federal Governments should follow a plan of purchasing farm land which presently is associated with a non-profitable operation?

Yes \_\_\_\_\_

No \_\_\_\_\_

### SECTION C

How much do you feel your farm labour is worth? (Answer one.)

\$ \_\_\_\_\_ per month

\$ \_\_\_\_\_ per year

What was the number of months you worked at farming on your farm in 1971?

1-4 months \_\_\_\_\_ 5-8 months \_\_\_\_\_ 9-12 months \_\_\_\_\_ None \_\_\_\_\_

What was the number of days you worked off the farm in 1971? (Include custom work.)

None \_\_\_\_\_  
 Under 7 days \_\_\_\_\_  
 7-12 days \_\_\_\_\_  
 13-24 days \_\_\_\_\_  
 25-48 days \_\_\_\_\_

49-72 days \_\_\_\_\_  
 73-96 days \_\_\_\_\_  
 97-126 days \_\_\_\_\_  
 127-228 days \_\_\_\_\_  
 229-335 days \_\_\_\_\_

What was the rate of pay you received for off-farm work done in 1971?

(Answer only one.)

\$ \_\_\_\_\_ per day  
 \$ \_\_\_\_\_ per week

\$ \_\_\_\_\_ per month  
 \$ \_\_\_\_\_ per year

) What was the most recent type of "off-farm work" you have done?

Farm work off your own farm_____	Factory production work_____
(include custom work)	Clerical work_____
Fishing or trapping_____	Self-employed handy man_____
Construction work_____	(plumbing, electrical, etc.)
Truck or bus driver_____	Other (specify)_____

What is the name of the town or city in which you work off the farm?

\_\_\_\_\_

What is the distance in miles to your "in-town" job from your farm?

Less than 5 miles_____	30-39 miles_____
5-9 miles_____	40-49 miles_____
10-19 miles_____	50-59 miles_____
20-29 miles_____	60 miles & over_____

How many years have you worked at your "off-farm" job? \_\_\_\_\_ years.

What is the most important source of your annual income in 1971?

Farm_____	Off-Farm_____
-----------	---------------

Does your wife work off the farm? Yes\_\_\_\_\_ No\_\_\_\_\_

If your wife works off the farm, does she work:

Full days_____	Half days_____
----------------	----------------

If your wife works off the farm, how many days per year does she work?

None_____	49-72 days_____
Under 7 days_____	73-96 days_____
7-12 days_____	97-126 days_____
13-24 days_____	127-228 days_____
25-48 days_____	229-335 days_____

What is the rate of pay your wife receives for the off-farm work? (Answer only one.)

\$\_\_\_\_\_ per day    \$\_\_\_\_\_ per month    \$\_\_\_\_\_ year

How many years has your wife worked at the off-farm job? \_\_\_\_\_ years.

) What type of work does your wife do off the farm? (Last type done.)

Specify \_\_\_\_\_

### SECTION D

What type of farm enterprise makes up the greatest portion of your farm income? If your income comes from more than one farm enterprise, list them in order of importance with the most important enterprise listed first. (For example: if most of your income is from a cow-calf enterprise, but you grow your own forage crop and sell some grain, check "1" beside cow-calf, "2" beside forage crops, and "3" beside grain.)

Grain \_\_\_\_\_  
 Special crops \_\_\_\_\_  
 Registered seed \_\_\_\_\_  
 Forage crops \_\_\_\_\_  
 Market gardening \_\_\_\_\_  
 Cow-calf enterprise \_\_\_\_\_  
 Beef feed lot \_\_\_\_\_

Beef stocker enterprise \_\_\_\_\_  
 Dairy (Manufactured) \_\_\_\_\_  
 Dairy (fluid) \_\_\_\_\_  
 Hogs \_\_\_\_\_  
 Poultry \_\_\_\_\_  
 Mink ranch \_\_\_\_\_  
 Other (specify) \_\_\_\_\_

What was the value of gross production on your farm in 1971?

\$50-249 _____	\$5,000-7,499 _____	\$35,000-44,999 _____
\$250-1,249 _____	\$7,500-9,999 _____	\$45,000-54,999 _____
\$1,250-2,499 _____	\$10,000-14,999 _____	\$55,000-64,999 _____
\$2,500-3,749 _____	\$15,000-24,999 _____	\$65,000-74,999 _____
\$3,750-4,999 _____	\$25,000-34,999 _____	\$75,000 & over _____

What was the value of gross sales on your farm in 1971?

\$50-249 _____	\$5,000-7,499 _____	\$35,000-44,999 _____
\$250-1,249 _____	\$7,500-9,999 _____	\$45,000-54,999 _____
\$1,250-2,499 _____	\$10,000-14,999 _____	\$55,000-64,999 _____
\$2,500-3,749 _____	\$15,000-24,999 _____	\$65,000-74,999 _____
\$3,750-4,999 _____	\$25,000-34,999 _____	\$75,000 & over _____

What total annual income did you receive from bank interest and investments off the farm in 1971? \$ \_\_\_\_\_

What total annual income did you receive from renting out portions of your land in 1971? \$ \_\_\_\_\_

What was the estimated value of family labour used in farm production in 1971? \$ \_\_\_\_\_

What (if any) off-farm income of sons was contributed to the family farm annual income in 1971? \$ \_\_\_\_\_

What was the average value of land per acre in your area in 1971?

Pasture and/or Hay Land:

Less than \$9 _____	\$40-49 _____	\$80-99 _____
\$10-19 _____	\$50-59 _____	\$100-119 _____
\$20-29 _____	\$60-69 _____	\$120-139 _____
\$30-39 _____	\$70-79 _____	\$140 & over _____

Other Unimproved Land: \$ \_\_\_\_\_ per acre.

Improved Land:

Less than \$9 _____	\$40-49 _____	\$80-99 _____
\$10-19 _____	\$50-59 _____	\$100-119 _____
\$20-29 _____	\$60-69 _____	\$120-139 _____
\$30-39 _____	\$70-79 _____	\$140 & over _____

What is the present market value of your buildings?

\$100-1,999 _____	\$20,000-29,999 _____	\$60,000-69,999 _____
\$2,000-4,999 _____	\$30,000-39,999 _____	\$70,000-79,999 _____
\$5,000-9,999 _____	\$40,000-49,999 _____	\$80,000-99,999 _____
\$10,000-19,999 _____	\$50,000-59,999 _____	\$100,000 & over _____

What is the present market value of your total farm equipment?

\$100-1,999 _____	\$20,000-29,999 _____	\$60,000-69,999 _____
\$2,000-4,999 _____	\$30,000-39,999 _____	\$70,000-79,999 _____
\$5,000-9,999 _____	\$40,000-49,999 _____	\$80,000-99,999 _____
\$10,000-19,999 _____	\$50,000-59,999 _____	\$100,000 & over _____

What is the estimated present value of the livestock and/or poultry on your farm? \$ \_\_\_\_\_

How many total acres of land do you own? \_\_\_\_\_ acres.

How many improved acres do you own? \_\_\_\_\_ acres.

- 3) How many acres of land do you rent from other farmers in your area?  
\_\_\_\_\_ acres.
- 4) How many acres of land do you rent out to other farmers in your area?  
\_\_\_\_\_ acres.
- 5) If you rented or rented out land in 1971, on what basis was the payment of this land made? Cash \_\_\_\_\_ Share Crop \_\_\_\_\_
- 6) If the rental was on a share crop basis, what was the rate?  
(for example, one-third of crop plus taxes.)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 7) If you paid cash or received cash for the rented land, what was the price per acre in 1971? (If necessary, use an average value.)
- (a) Price paid or received per acre for pasture land. \$ \_\_\_\_\_
- (b) Price paid or received per acre for crop land. \$ \_\_\_\_\_

- 8) How many acres of your total farm (including rentals were used for the crops listed below in 1971?

Wheat _____	acres	Native Pasture _____	acres
Barley _____	acres	Tame Hay Pasture _____	acres
Oats _____	acres	Market Gardening _____	acres
Flax _____	acres	Summer Fallow _____	acres
Rapeseed _____	acres	Other (specify crop) _____	
Rye _____	acres	_____	acres
Buckwheat _____	acres	_____	acres
Forage _____	acres	_____	acres

- 9) How many animals of each type listed below did you have on your farm on December 31, 1971?

Bulls _____	Boars _____	Hens _____
Beef cows _____	Slaughter hogs _____	Other (specify _____
Stocker cattle _____	Weanlings _____	_____
Feeder cattle _____	Brood sows _____	_____
Dairy cows _____	Sheep _____	_____



) How many animals of each type listed below did you sell in 1971?

Bulls _____	Boars _____	Other (specify) _____
Beef cows _____	Slaughter hogs _____	_____
Stocker cattle _____	Weanlings _____	_____
Finished feeder cattle _____	Brood sows _____	_____
Dairy cows _____	Sheep _____	_____
	Hens _____	_____

### SECTION E

) What is the mortgage on your farm land (if any)?

None _____	\$10,000-14,999 _____	\$60,000-79,999 _____
\$100-1,999 _____	\$15,000-19,999 _____	\$80,000-99,999 _____
\$2,000-4,999 _____	\$20,000-39,999 _____	\$100,000-149,999 _____
\$5,000-9,999 _____	\$40,000-59,999 _____	\$150,000 & over _____

) What rate of interest do you pay on your land mortgage?

(if different rates, use an average.)

4.0-5% _____	8.0-8.9% _____	11.0-11.9% _____
6.0-6.9% _____	9.0-9.9% _____	12.0-12.9% _____
7.0-7.9% _____	10.0-10.9% _____	13.0% & over _____

) What is the mortgage on your buildings if separate from land?

\$100-1,999 _____	\$20,000-29,999 _____	\$60,000-69,999 _____
\$2,000-4,999 _____	\$30,000-39,999 _____	\$70,000-79,999 _____
\$5,000-9,999 _____	\$40,000-49,999 _____	\$80,000-99,999 _____
\$10,000-19,999 _____	\$50,000-59,999 _____	\$100,000 & over _____

) What rate of interest do you pay on your building mortgage? (Use an average.)

4.0-5.9% _____	8.0-8.9% _____	11.0-11.9% _____
6.0-6.9% _____	9.0-9.9% _____	12.0-12.9% _____
7.0-7.9% _____	10.0-10.9% _____	13.0% & over _____

) What is the value of outstanding mortgages on your equipment?

\$100-1,999 _____	\$20,000-29,999 _____	\$60,000-69,999 _____
\$2,000-4,999 _____	\$30,000-39,999 _____	\$70,000-79,999 _____
\$5,000-9,999 _____	\$40,000-49,999 _____	\$80,000-99,999 _____
\$10,000-19,999 _____	\$50,000-59,999 _____	\$100,000 & over _____

What rate of interest do you pay on your equipment loans?

(If different rates, use an average.)

4.0-5.9% _____	8.0-8.9% _____	11.0-11.9% _____
6.0-6.9% _____	9.0-9.9% _____	12.0-12.9% _____
7.0-7.9% _____	10.0-10.9% _____	13.0% & over _____

If you have a loan on your livestock and/or poultry, what is the value of this loan? \$ \_\_\_\_\_

What is the rate of interest on the above loan? \$ \_\_\_\_\_

What is the total amount of principal paid back on all loans in 1971?

\$ \_\_\_\_\_

What is the main source of your loans?

MACC \_\_\_\_\_ FCC \_\_\_\_\_ Bank \_\_\_\_\_ Credit Unions \_\_\_\_\_ Other \_\_\_\_\_

#### SECTION F

What were the total operating costs of your farm in 1971 (include all expenses except depreciation and interest)?

\$50-249 _____	\$5,000-7,499 _____	\$35,000-44,999 _____
\$250-1,249 _____	\$7,500-9,999 _____	\$45,000-54,999 _____
\$1,250-2,499 _____	\$10,000-14,999 _____	\$55,000-64,999 _____
\$2,500-3,749 _____	\$15,000-24,999 _____	\$65,000-74,999 _____
\$3,750-4,999 _____	\$25,000-34,999 _____	\$75,000 & over _____

If you had custom work done on your farm in 1971, what was the total cost?

\$ \_\_\_\_\_

What was the approximate value of feed purchased in 1971?

\$ \_\_\_\_\_

What is the number of year round hired help on your farm, other than yourself and your family? (Circle one.)

0, 1, 2, 3, 4, 5 or more

) What was the total amount paid to your year round hired help in 1971?

(Include food and lodging as pay.)

\$ \_\_\_\_\_

) What was the total number of days worked by casual help (those who worked less than 10 months) on your farm in 1971? \_\_\_\_\_ days.

) What was the total amount paid to hired help, who worked less than 10 months in 1971 on your farm?

\$ \_\_\_\_\_

How many sons worked the farm with you in 1971? (Circle one.)

0, 1, 2, 3, 4, 5 or more

What is the rate and/or method of payment made to your sons working the farm with you in 1971? (For example, share crop, cash payment, specify.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

What were your total land taxes in 1971?

\$ \_\_\_\_\_

Do you and your neighbour share equipment and/or labour?

Yes \_\_\_\_\_ No \_\_\_\_\_

Total value of shared equipment:

\$ \_\_\_\_\_

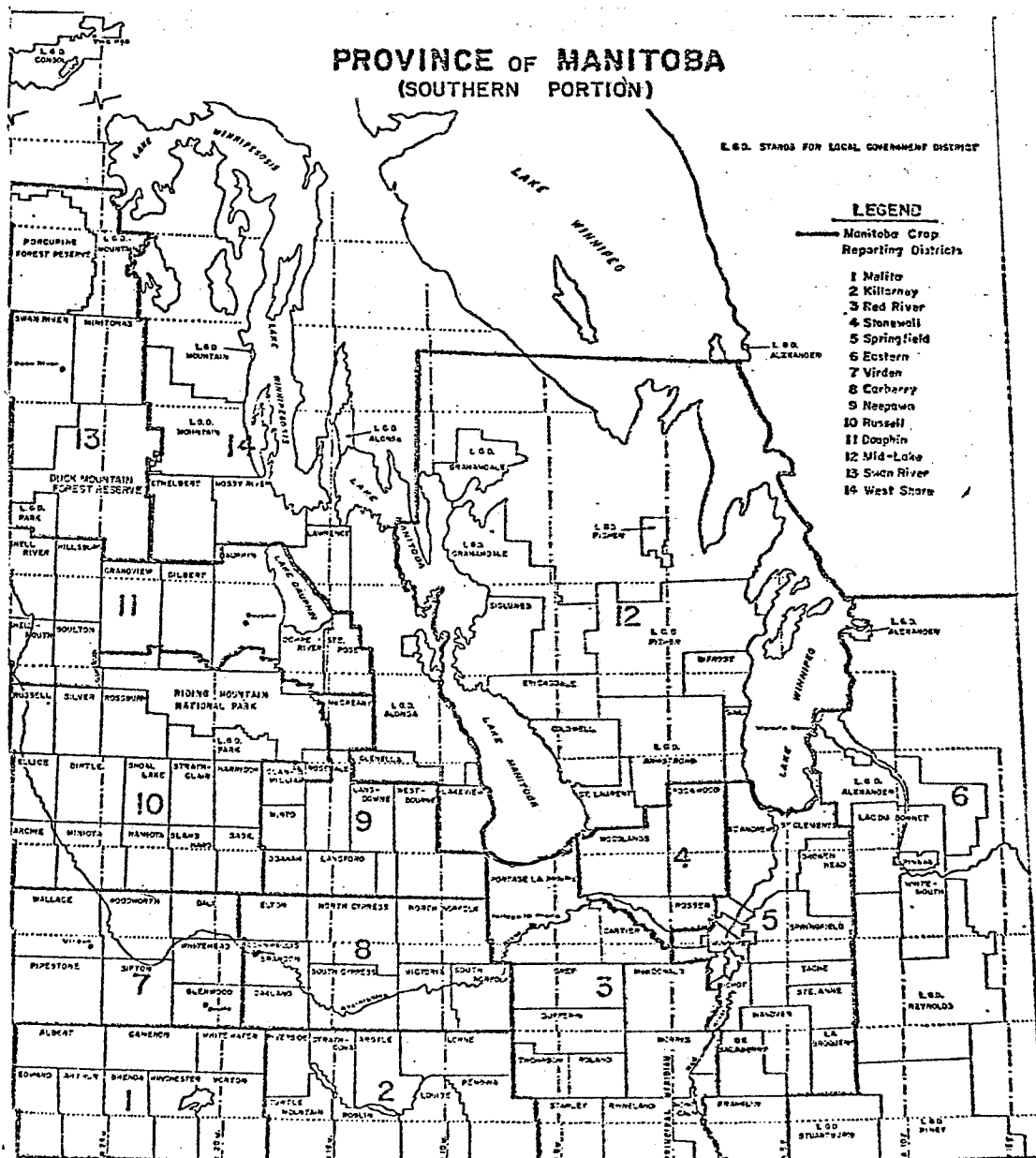
What is the predominant soil type on your farm?

Sand _____	Silt _____
Loamy sand _____	Clay loam _____
Loamy very fine sand _____	Silty clay _____
Sandy loam _____	Sandy clay loam _____
Very fine sandy loam _____	Silty clay loam _____
Loam _____	Sandy clay _____
Silt Loam _____	Clay _____

Thank you for your co-operation in filling out this questionnaire. If you have any comments you might want to make about this questionnaire, farm problems, or anything else, please use the space below.

\_\_\_\_\_  
\_\_\_\_\_

## APPENDIX B

MAP SHOWING PROVINCE OF MANITOBA  
CROP DISTRICTS

## APPENDIX C

Table C.1

Regional Summary of Sample and  
Response to the Questionnaire

Manitoba Crop District	Number of Farmers in the Region	Sample of Farmers in the Region	Response
1	1775	428	79
2	2433	586	128
3	4786	1154	279
4	1168	282	59
5	5005	1206	186
6	1074	259	25
7	1749	422	86
8	2043	492	138
9	1895	457	87
10	2874	693	157
11	2666	642	125
12	2511	605	77
13	1426	344	70
14	1792	432	65

## APPENDIX D

## Representativeness of the Sample

The data in the survey sample used in this study was gathered during the summer of 1972; the Census of Agriculture data was taken as of June 1, 1971. To check the representativeness of the survey sample in relation to the population of farmers in Manitoba, comparisons were made with data in the 1971 census, as this represented the most closely associated data source with the study year.

Table D.1 compares the frequency of occurrence of multiple jobholding among Manitoba farm operators for the census years 1966 and 1971 and for the study year. The data indicate a substantial percentage increase in the frequency of multiple jobholding between the 1971 census and the study year. However, the increase in frequency is consistent with the trend exhibited between the 1966 and 1971 censuses. The sizable increase in multiple jobholding for the sample year may be explained, in part, by the difference in definition of a farm and part-time farmers as used in this study relative to that used in the censuses. Furthermore, the percentage change in the frequency of multiple jobholding between census years is the average that occurred over a five year period, whereas the change between the sample and latest census year is only the actual change occurring in a one year period. The 1976 census data will facilitate a more equitable comparison of relative changes in multiple jobholding.

Table D.1

Frequency of Multiple Jobholding Among Manitoba  
Farm Operators for 1966, 1971, 1972

Data Source	Number of Farmers	Number of Multiple Jobholders	Percent Multiple Jobholders of all Farmers
1966 Census of Agriculture <sup>a</sup>	39,747	8,993	22.6
1971 Census of Agriculture <sup>b</sup>	34,981	10,802	30.9
1972 Survey Sample	1,561	688	44.0

<sup>a</sup>Dominion Bureau of Statistics. Census of Canada, 1966: Agriculture, Manitoba. Catalogue No. 96-608. Ottawa: Queen's Printer, 1968.

<sup>b</sup>Statistics Canada. Census of Canada, 1971: Agriculture Manitoba. Catalogue No. 96-708. Ottawa: Information Canada, 1973.

In Table D.2, the age distribution of sample farmers is compared with that for all farm operators in Manitoba as reported in the 1971 Census of Agriculture. With very minor variations, the percentage distribution of both sample and census farmers was almost identical for all age ranges. This indicates that by age distribution, the sample was closely representative of the study population. This is particularly significant in that age was thought to be a major influencing factor in the frequency of multiple jobholding.

Table D.2

Percentage Distribution of Farm Operators by  
Age For 1971 Census and 1972 Survey

Age of Operator in Years	1971 Census Farmers	Percent 1971 Census Farmers	1972 Survey Farmers	Percent 1972 Survey Farmers
less than 25	1,037	3.0	66	4.2
25 - 34	4,533	13.0	219	14.0
35 - 44	7,577	21.7	342	21.9
45 - 54	10,196	29.1	447	28.6
55 - 59	4,718	13.5	198	12.7
60 - 64	3,468	9.9	147	9.4
65 - 69	1,983	5.7	84	5.4
greater than 70	1,469	4.2	58	3.7
Total	34,981		1,561	

Comparisons of the distribution of farmers by improved acres owned are presented in Table D.3. The distribution of farmers in the study sample differ from that for the 1971 Census of Agriculture. In the sample, there is a greater concentration of farmers in the smaller improved acres ranges (560 acres and less) than occurs in the census population and a smaller concentration in the higher improved acreage range. This indicates that in terms of the distribution by improved acres, the sample is not entirely representative of the study population, since multiple jobholding tends to be more significant and associated to a greater degree with farmers having smaller acreages. A higher concentration of the sample in farms with smaller acreages may result in a better understanding of all aspects of multiple jobholding by farmers.



Table D.3

Percentage Distribution of Farm Operators by Improved  
Acres for 1971 Census and 1972 Survey

Acres	1971 Census Farmers	Percent 1971 Census Farmers	1972 Survey Farmers	Percent 1972 Survey Farmers
10 - 69	2,885	8.2	100	6.4
70 - 239	3,122	8.9	382	24.5
240 - 399	3,509	10.0	431	27.6
400 - 559	2,876	8.2	322	20.6
560 - 759	8,362	23.9	183	11.7
760 - 1,119	5,484	15.7	108	6.9
1,120 - 1,599	3,631	10.4	24	1.5
1,600 - 2,239	2,260	6.5	8	0.5
2,240 - 2,799	650	1.9	2	0.1
greater than 2,800	336	1.0	1	0.1

Table D.4 compares the distribution of sample and 1971 census farms according to four general types of enterprises that were designated as the major farm enterprise. The data indicate that the sample has a higher concentration of grain farms and lower concentration of cattle-hog operations than occurs in the census population. The difference in definition of "major farm enterprise" used by the census (51.0 percent of total farm sales) and that used by this study (the greatest single contributor to total farm gross sales) may, in part, account for the variance in distribution between the sample and the population. Secondly, the use of the Canadian Wheat Board listing of permit book holders as a listing of population names may have contributed to the greater concentration

Table D.4

Percentage Distribution of Farm Operators by Major Type  
of Farm Enterprise for 1971 Census and 1972 Survey

Farm Type	1971 Census Farmers	Percent 1971 Census Farmers	1972 Survey Farmers	Percent 1972 Survey Farmers
Grain	10,363	46.4	937	61.1
Cattle - Hogs	9,829	44.0	494	32.2
Poultry	519	2.3	27	1.8
Dairy	1,614	7.2	76	5.0

in grain type farm enterprises in the sample. Finally, the census distribution of farms by type of enterprise is restricted to farm with gross sales of \$2,500 or more, whereas the sample includes all farms with no gross sales restrictions.

In Table D.5 a comparison is made between the distribution of 1971 Census and the survey sample of farmers by the value of gross farm sales. It appears that the survey sample has a noticeably higher percentage of farmers in the higher sales ranges and lower percentages in the lowest two sales ranges than the census population. Overall, however, the sample and population distributional differences are not extreme and could partially be attributed to gradual increase in overall prices received for farm production.

Table D.6 compares the percentage distribution of the number of worked off the farm as reported in the 1971 census, with data from the sample

Table D.5

Percentage Distribution of Farm Operators by Gross  
Farm Sales for 1971 Census and 1972 Survey

Gross Farm Sales (\$)	1971 Census Farmers	Percent 1971 Census Farmers	1972 Survey Farmers	Percent 1972 Survey Farmers
50 - 249	2,055	5.9	22	1.5
250 - 2,499	7,553	21.6	169	11.6
2,500 - 3,749	3,603	10.3	104	7.2
3,750 - 4,999	3,285	9.4	118	8.1
5,000 - 7,499	5,233	15.0	201	13.8
7,500 - 9,999	3,751	10.7	184	12.7
10,000 - 14,999	4,263	12.2	251	17.3
15,000 - 24,999	3,138	9.0	225	15.5
25,000 - 34,999	926	2.6	75	5.2
35,000 and greater	1,137	3.3	104	7.2

survey. The sample distribution has a greater concentration of multiple jobholders in the lower ranges and a lower concentration in the higher range of days worked off the farm than occurs in the 1971 census. The difference in definition of a farm between the study sample and the 1971 census may be responsible for the distributional differences in days worked off the farm. Multiple jobholders operating farms of less than 10 acres in size, in many cases, will be those individuals working the greatest number of days off the farm, as their small farm size severely limits the annual farm income which can be achieved.

The relevance of the findings of this study relative to all Manitoba farmers is dependent upon how representative the study sample is of the study

Table D.6

Percentage Distribution of Multiple Jobholding Farmers by  
Days Worked Off the Farm 1971 Census and 1972 Survey

Days	1971 Census Farmers	Percent 1971 Census Farmers	1972 Survey Farmers	Percent 1972 Survey Farmers
1 - 6	476	4.4	89	12.9
7 - 12	417	3.9	60	8.7
13 - 24	644	6.0	60	8.7
25 - 48	989	9.2	105	15.3
49 - 72	896	8.3	49	7.1
73 - 96	788	7.3	30	4.4
97 - 126	1,033	9.6	62	9.0
127 - 228	2,810	26.0	127	18.5
229 - 365	2,749	25.4	106	15.4

population. The 1971 Census of Agriculture is currently the most recent and complete data source of the study population for comparison with the study sample. Even this data is a year out-of-date with the study sample and may not be entirely accurate in representing the study population. Differences in distribution between the sample and the 1971 census population may, in part, be attributed to basic definitional and time period differences between the population and the sample used in this study. The 1976 Census of Agriculture, in conjunction with the 1971 census will call for a more complete comparison of the representativeness of the study sample.