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Potatoes - Marketing

Marketing Report No. 1



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MARKETING POTATOES IN LEEDS

by

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THE UNIVERSITY OF LEEDS
DEPARTMENT OF AGRICULTURAL ECONOMICS

November 1968

Five Shillings

MARKETING POTATOES IN LEEDS

a case study of the distribution of a basic
foodstuff in a Northern industrial conurbation.

by

MORAG C.SIMPSON

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FOREWORD

This report is an acknowledgment of the important part which distribution plays in farming prosperity for it studies the processes through which one commodity, potatoes, passes from the time it leaves the farm until it reaches the housewife's shopping bag. It is a case study in that it deals with the situation in only one distributing centre, Leeds, but there is no reason to think that the general conclusions it reaches would have been different if any of the other industrial towns had been studied.

The field work on which the report is based was carried out by Mrs Simpson assisted by Mr.G.R.King of the Department of Agricultural Economics. Miss Dielby analysed the data.

The author and the University wish to express appreciation of the ready help given by the many wholesalers, retailers and consumers (both domestic and institutional) without whose cooperation the survey could not have been carried out. Invaluable assistance was also given by Mr.Alan Kenworthy whose knowledge of the distributive trades was freely placed at the disposal of the investigators.

W.HARWOOD LONG

Introduction

Leeds the sixth largest city in the United Kingdom (population 504,600 in 1961), occupies the North Eastern corner of a major conurbation covering the woollen towns of the Eastern Pennines and merging to the South into the steel and coal towns of Southern Yorkshire. To the North and East of Leeds, agriculture is still the predominant form of land use and the nearby Vale of York is one of the most productive arable areas in the country. Leeds itself "the city of a thousand trades" has some claim to be the commercial capital of the whole region.

Hence the city and its region cover both a major urban market for foodstuffs and an important agricultural production area. Potatoes are a case in point. The bulk of the ware potatoes consumed in Leeds come from the Vale of York. This proximity of producers to consumers of a fairly homogenous commodity - the potato - has inspired the present study. The humble potato may not seem a very striking subject but a survey of a particular commodity cannot be made in complete isolation from the rest of the food distributive trades. It must of necessity include an account of the broad sociological and structural aspects at a point of time when the whole distributive system is in a period of rapid change. Besides considering a specific commodity, the present study also provides information about the current dynamic situation in food marketing.

One of the reasons for the changes taking place is the process of urban renewal, a process which is very apparent in Leeds. Left with an appalling legacy of substandard housing and industrial dereliction, the city council has a reputation for slum clearance surpassing that of any comparable authority in the country. The uprooting of people from their established ways of life in the pre-1914 working class districts, has had both far reaching economic and sociological effects. These have even permeated into the field of potato marketing and their influence on shopping habits and the structure of the distributive trade are discussed in the following pages.

Leeds then is the scene of a society in transition, predominantly a working class society. Official figures show that 73 per cent of the dwellings in the city can be classified as working class. The middle class tend to move out of the city boundary to the more salubrious areas to the North and East. Consequently this study is concerned primarily with marketing in a working class environment.

The survey itself covers potato marketing from the country merchant through the urban wholesaler and retailer to the consumer, whether domestic or institutional. Drawing a sample in a study of such a broad scope presents certain difficulties. The project was initially visualised in terms of an overall total of 200 interviews - the maximum thought possible with the resources available.

The division between the different categories to be interviewed was made on a rough basis of 100 consumers, 50 retailers and 50 wholesalers. With this as a rough guide the total numbers in each category were obtained (when possible) and the appropriate sampling fraction adoption. Details of the number of interviews made and the sampling fractions employed are given in Table 1. Where names were taken from lists, the method of selection employed was of a systematic random nature. (1) Interviews followed during which questionnaires were completed. Response rates were unexpectedly high.

Table 1 Potato Marketing Survey. Numbers Interviewed and
Sampling Fractions Employed

Category	Sampling Fraction Used	Number of Questionnaires Completed.
<u>Consumers</u>	Approx.	
Domestic households	1:3333	53
Catering establishments	not known	15
Fish friers	1:10	11
<u>Retailers</u>		
Independent greengrocers	1:3	52
Supermarkets	1:3	14
<u>Wholesalers</u>		
Urban wholesalers	1:1	26.
Country merchant/packers	1:2	- (2)

The sampling fractions used are relatively high with the noteworthy exception of domestic consumers where only 1 in every 3,333 households was approached. In view of the great numbers involved it is obviously impossible with limited resources, to use a high sampling fraction. It is also in the opinion of the writer unnecessary.

The results from the present 1:3333 sample of domestic consumers have been set against comparable information where available, information often based on very high sampling ratios. These comparisons show that the present sample is not biased as regards household composition, housing conditions and social status. The income elasticity of demand coefficient for potatoes is approximately equal to the National average.

- (1) For example with domestic consumers, households were selected from the current electoral register taking every third address in every fifth street in every third electoral polling district. Details of the selection methods used for each category are given at the beginning of the relevant chapter.
- (2) No final questionnaires completed for country wholesalers,

Chapter 1Domestic Consumers

This chapter is concerned with the shopping and consumption patterns of a predominantly working class community which while essentially conservative in its habits, is subject to the external pressures of an urban society in a period of rapid change.

The Sample

A discussion of the sampling method used for selecting domestic consumers for interviewing has already been given in the Introduction. In all 53 questionnaires were finally completed. These relate almost entirely to the matrimonial home where the household is usually formed at the arrival of the first child and often breaks up only at the death of the surviving spouse. (1) The maximum size of household encountered was 6 people while 54 per cent consisted of one or two people only. Table 11 gives details of household composition.

Table 11. Households Interviewed in Leeds 1967.

(a) Average Composition (2)

	No. of Persons
Adult males	0.9
Adult females	1.2
Male children	0.5
Female children	0.3
Total	2.9

(b) Range in Household Sizes

	Size of Households (No. of Persons)						Total
	1	2	3	4	5	6	
No. of Households	6	23	7	8	5	4	53
Percentage	11	44	13	15	9	8	100

- (1) A household is defined as a group of people living in one dwelling, and who are catered for by one person.
- (2) Compared with an average of 2.95 persons for Leeds as a whole and 2.96 for the Ministry of Labour's Family Expenditure Survey for Yorkshire and Humberside. (All figures 1966).

One of the consequences of the postponement of the establishment of a household unit until children are born is the relatively high average age of the "housewife". In the present survey only 13 per cent were under 30 years of age as opposed to 28 per cent over 60. In so far as older people are conservative in their buying habits and consumption patterns, the age of housewives is a factor worthy of consideration. The present results show no great enthusiasm on the part of the shopper to try new products such as canned potatoes and instant potato powder.

Over two-thirds of the people interviewed lived in predominantly working class types of housing. Twentyfour per cent were corporation tenants and another 42 per cent lived in the drab terraces which are one of the main visible legacies of the Industrial Revolution to the Leeds scene. By comparison only one dwelling of the luxury detached house type "came up" in the present sample. Table III shows the distribution of dwellings both for the present survey and the whole of Leeds. The two distributions are fairly similar.

Table III

Type of Housing, Leeds City.

	Percentage of Total Dwellings	
	Present Sample 1967	Leeds City 1966 (1)
<u>Corporation Dwellings</u>		
Pre 1939	9	12
Post 1945	15	19
Total	24	31
<u>Private Dwellings</u>		
Back to Backs	25	25
Pre 1914 Through Terraces	17	17
Inter-war	19	17
Post-1945	9	10
Others (2)	6	-
Total	100	100

Another guide to social class is the A to D grading system based on the income of the head of the household. A well known example of this method is the social class gradings used in the National Food Survey. Table IV gives details of the householder's social class assessed by this means together with National figures for comparative purposes. The Leeds distribution is rather more egalitarian than for the country as a whole. There are fewer affluent middleclass families and the absence of unemployed householders in the survey restricts the D category solely to old age pensioners.

-
- (1) Unpublished figures kindly provided by the Town Planning Department of the Leeds City Council.
 (2) Pre-Industrial Revolution Cottages and a public house.

Table 1V Social Class of Householders
Class as assessed by the National Food Survey System(1)

	Percentage Distribution	
	Present Sample 1967	National Average 1960/64 (2)
Class A	9.4	11.3
B	35.9	36.3
C	39.6	32.8
D	15.1	19.6
	100.0	100.0

Average net income per household in the survey was £22.10s. a week.(3) This was contributed by more than one person. On average a household had 1.08 full-time earners and 0.26 part-time.

Examination of individual records reveals the familiar pattern of family income. In the first stage when the children are young and the wife stays at home, there is usually only one earner and consequently income per head tends to be low. This is succeeded by a more affluent period when the children are at school and the mother is able to obtain part-time and occasionally full-time employment. The period of maximum per capita income follows when the children leave school and start earning. Income tends to fall when the family splits up and finally the comparative poverty of old age and retirement is reached.

(1) Social Class Groups 1967

Gross weekly income of the head of the household

- A £32 and over
- B £19 and under £32
- C £11 and under £19
- D Under £11

Acknowledgment is made to the Ministry of Agriculture, Fisheries and Food for the provision of these gradings prior to the publication of the relevant annual report.

(2) The continuance of inflation has meant the revision of gradings. Consequently year-to-year distributions are rather irregular. Hence for comparison the annual average of the five-year period 1960-64 has been taken. 1964 is the latest year for which published figures are available.

(3) Compare with an average gross family income of £24.2s.6d. for the Yorkshire and Humberside Region.

This and the National figures quoted in Table 1V have been taken from Ministry of labour (1967) "Family Expenditure Survey 1966" H.M.S.O. London.

Income and the Consumption of Potatoes

Income, however, has no effect on potato consumption levels. Average income per head was calculated for each household and then the income elasticity of demand coefficient computed by the complex fraction formula. (1) This gave an income elasticity coefficient of demand of only + 0.031. A one per cent rise in income is associated with only a 0.031 per cent increase in the quantity of potatoes purchased. The exceedingly inelastic coefficient reflects the national position as shown in the results of the National Food Survey. (2) Price elasticities of demand cannot be calculated for the Leeds sample but inelastic income coefficients are invariably associated with inelastic price ones. (3)

In other words the quantity of potatoes purchased is relatively independent of both prices and incomes. Potatoes tend to be a minor item in total food consumption; consequently cost considerations are of little importance in determining the amounts eaten. Given existing consumption habits, the increasing affluence of the consumers will not lead to any marked increase in potato sales.

$$(1) \quad \frac{q_1 - q_2}{I_1 - I_2} \quad \times \quad \frac{I_1 + I_2}{q_1 + q_2}$$

q_1 is the quantity purchased with income I_1

q_2 is the quantity purchased with income I_2

- (2) The income elasticity coefficient of demand for potatoes was +0.05 in 1962. (The latest published figure)

See table 10

Ministry of Agriculture, Fisheries and Food (1965)

Domestic Food Consumption and Expenditure. 1963.

H.M.S.O. London.

- (3) Compare with the price elasticity coefficient of -0.09 for potatoes in 1962. Table 10. Op Cit.

Inelastic demand coefficients also imply that any marked fall in living standards will not lead to an increase in potato consumption. Potatoes do not appear to be "an inferior foodstuff" which people with low incomes are forced to substitute for something better. One of the questions asked in the present survey was whether the housewife would buy more potatoes if faced with a fall in income. The invariable answer was no. People usually replied that they would switch to bread from more expensive foods, but not potatoes.

The inelastic nature of demand as far as price is concerned is also reflected by the housewives' indifference to the actual price paid in the retail shop. Most did not know the exact price they paid and ninetyone per cent declared that if prices did rise they would not reduce their purchases. A further factor which illustrates the price inelasticity aspect, is the attitude of consumers to new and old potatoes. The survey was carried out at the end of June 1967 when both commodities were on sale, old ware being from 3d - 6d a lb. cheaper. Despite this, however, people buying new potatoes did not purchase noticeably smaller quantities than those buying main crop. Nor were the purchasers of new potatoes confined to the higher income groups. On the contrary, old age pensioners appear to have opted strongly for the more tasty vegetable.

Factors Affecting the Demand for Potatoes

As far as fresh potatoes are concerned, the evidence of the present survey suggests that the age of the consumer is a major factor. Young male workers and adolescents tend to be heavy potato eaters while old people and young children are the lightest consumers. Households, of course, vary in their composition, but examination of individual records show that households consisting entirely of old age pensioners returned lower rates of consumption than the rest.

Fourteen per cent of the old age pensioner households did not buy potatoes at all, mainly because their usually solitary member was on a diet. Of those buying potatoes, purchases per head averaged around 2 - 2½ lbs. weekly, whether old or new crops.(1) Potatoes generally were eaten once a day only, at the hot midday meal, although "leftovers" might be fried up for tea.

-
- (1) Compare with the average of 42 oz per week (including chips and crisps) returned for old age pensioners in the National Food Survey in 1964.

The highest consumption group consisted of households with adolescent boys or young working sons. Here potato purchases averaged from 5 to $5\frac{1}{2}$ lbs a week per head. In these households no midday meal was generally served during the week. The bulk of the potatoes were usually eaten as chips at a high tea.

A very small sub group with a high rate of potato consumption are households where the children returned from school for a hot midday meal at home. Consumption per head went as high as 6 lbs per week. Usually most children had school dinners. This high rate, however, suggests that domestic potato consumption must rise considerably during school holidays; a point which is supported by the evidence collected during the survey of potato retailers(1).

Families without adolescent males returned average weekly purchase rates of $2\frac{1}{2}$ - $3\frac{1}{2}$ lbs a head. A fairly typical pattern was for the father and children to take their midday meal outside the home and the mother if at home, to have a snack only at lunch time. The family then had a high tea, generally featuring chipped potatoes.

The sub group showing the widest range in the quantities purchased was that comprising married (non old age pensioners) couples with no children at home. In this group people indulged in their personal idiosyncrasies. If they liked potatoes, they ate a lot; if they did not they had a bare minimum. The highest consumption rate per head returned in the survey, is in this group. An Irish couple who worked as caretakers, consumed $6\frac{1}{2}$ lbs weekly per head. At the other extreme, rates of under 1 lb per head, were returned by some households, especially where the wife was slimming.

Whether the wife was working or not made little difference to the rates of potato consumption provided no children of school age returned home for a midday meal. The bulk of the potatoes were obviously consumed at high tea time. Another factor which did not influence potato consumption rates very much, was the occupation of the father. The bulk of the sample consisted of working class people. Whether or not they were employed in sedentary occupations or light or heavy manual work, was not reflected in potato consumption patterns. Heavy manual workers appear to eat more, but bread rather than potatoes seems to be a more popular "filler food". One miner interviewed ate a whole white loaf a day!!

-
- (1) Retailers reported that potato sales reached a peak during school holidays.

Social class is another factor which generally influences dietary patterns. In the present survey, however, the number of A class households returned is small and consumption patterns do not show any marked differences to those described already. The family tends to eat out at midday and the North Country high tea still features in their way of life.

The survey was carried out in the summer and as it was felt that demand might vary seasonally, people were asked if they bought more potatoes in the winter. One third replied that they increased their consumption in cold weather. The rest did not. Another factor which affects seasonal levels of purchases as opposed to consumption, is the home production of potatoes. Only 13 per cent of the households interviewed, grew potatoes either in their gardens or allotments. Those growing potatoes provided an average 11 weeks supply for their families. At the time of the survey no one was eating home grown potatoes.

In an attempt to assess long term changes in demand, housewives were asked to compare their present consumption rates with those for the previous year. Sixty four per cent reported no change, 28 per cent a fall in consumption and 8 per cent only a rise. The reasons given for change are of interest. Rises were due entirely to the growing appetites of children, the falls to old age, dieting under doctors' orders and for the middle aged and younger women, slimming.

Details of total quantities purchased are given below in Table V. These relate to the whole sample and show the considerable variation found in the per capita consumption figures between households. The main reasons for these variations have already been discussed. Table V is included merely to summarise the results of the present survey.

Table V.

Weekly Purchases of Fresh Potatoes, June 1967.
Leeds Survey

a) Per Head per Household

Average 53 Households

	lbs
New Potatoes	1.4
Old Potatoes	1.5
Total	2.9 (1)

b) Range per Head per HouseholdWeekly Consumption

	None	Under 2 lbs	2 lbs and under 3	3 lbs and under 4	4 lbs and under 5	5 lbs and under 6	6 lbs and over	Total
No. of Households	2	11	17	8	7	4	4	53
Percentage of Total Households	4	21	32	15	13	7½	7½	100

Purchases of Potato Products

Much is heard about the swing towards convenience foods but the housewives in the present sample showed little interest in manufactured potato products, other than potato crisps. (2) The labour saving possibilities of frozen, canned or instant potatoes had little appeal to the housewives, whether they were working outside the home or not. Price appears to be the main factor restricting purchases of frozen potatoes while flavour was given as the main reason for not buying the canned and instant types. Only 6 per cent of the sample reported purchases of potato products (other than crisps) during the week of the survey.

- (1) Compare with an annual average weekly purchase figure of 3.01 lbs of fresh potatoes returned in the National Food Survey in 1964.

Ministry of Agriculture, Fisheries and Food (1965)

Op Cit. Appendix B. Table 2

- (2) Potato crisps were omitted from the survey as it was felt this might lead to embarrassing questions about people's drinking habits. A major proportion of the country's crisps is said to be eaten in public houses!

Estimated Total Consumption of Potatoes

The discussion so far has been concerned with purchases and the home production of potatoes. The quantities concerned are not synonymous with total consumption because account also has to be made of the potatoes consumed outside the home. Of the total number of people in the households interviewed, 31 per cent regularly had a hot midday meal away from home, generally in a works canteen or a school. (1) In addition purchased cooked fish and chips featured regularly in the family diet.

These additional forms of potato consumption are estimated to be equivalent to 1.3 lbs of raw potatoes per head per week. (2) Consequently total consumption is estimated to be 4.2 lbs per head - see Table VI.

Table VI Estimated Total Weekly Potato Consumption
per Head per Household. Leeds Sample 1967

	lbs. of Raw Potatoes
Old Crop Potatoes	
Eaten at home	1.5
Consumed outside the home	1.3
New Crop Potatoes	1.4
Total	4.2

(1) Of the 151 people covered in the survey:-

49	per cent	were at home midday
20	" "	ate sandwiches at work
17	" "	had a hot midday meal at work
14	" "	had school dinners
<u>100</u>		

(2) Based on the assumption that the average portion of cooked potatoes served is equivalent to half a lb of raw potatoes (see page 18) and that the average portion of chips sold by a fish and chip shop is equivalent to 0.6 lbs of raw potatoes (see page 25).

Housewives Buying Habits

Details were asked about shopping patterns as regards potato purchases - where and from whom did consumers buy their supplies and the time interval between purchases? Table VII summarises this information. As far as the sample as a whole is concerned, the most usual buying practice was to purchase supplies weekly from a local shop, usually an independent greengrocer. The supermarkets and multiples had made little impact on these particular consumers.

Table VII

Housewives' Buying Habits
(percentage of total housewives interviewed)

(a) Locality of Purchase

	Percentage
At the door	11
Local shop	63
Retail market	18
Town centre shop	4
Other	4
Total	100

(b) Retail Outlet Patronised (1)

	Percentage
Independent greengrocer shop	54
Retail market stall	18
Independent grocer shop	9
Supermarket	6
Multiple grocer shop	2
Other	11 (2)
Total	100

(c) Time Interval Between Purchases

	Percentage
Less than one week	42
Weekly	52
More than one week	6
	100

(1) Definition of outlets taken from the Board of Trade.

A multiple is a business with 5 branches or more,

a supermarket is a multiple product food shop with at least 3 checkout points and a sales area of 2,000 sq.ft. or more.

(2) Mainly mobile shops and producers.

Further analysis of the results on an income and type of housing basis, reveals some interesting sub patterns. People in the old working class districts bought heavily from the retail market; an allegiance which they did not altogether lose when they were moved out to the new housing areas. On the other hand, middle-class consumers avoided the market. Around the outskirts of the town, producers appear to have been active in hawking their potatoes from door to door, in spite of the Potato Marketing Board.

Another interesting feature is the time interval between purchases. This appears to be much shorter in the older working-class districts than in the rest of the town. Old houses often have no proper larders and with a shop literally at the end of every street, the housewife tends to regard it "as an extension of her larder". (1)

Housewives Preferences in Buying Potatoes

(a) Attitudes to Prepacks

Prepacking is a topical subject and potatoes are an obvious article for such treatment. Yet in the sample, 77 per cent of the households interviewed would not buy prepacks if good quality loose potatoes were available at a comparable price. The main reason lies in dissatisfaction with prepacks. Past experience seems to have convinced these buyers that quality and wastage rates were greater with the packs. Complaints included stale produce put in packs, sweating inside the bags leading to rot, greening and sprouting.

Of the 23 per cent who preferred prepacks to loose, the main reasons advanced was the cleanness of the packed commodity. This cut down messy work at the kitchen sink and convinced some consumers that they were saving money as they were not buying dirt. The only other advantage commonly cited, was the ease of carrying the pack back from the shop.

Hence the present evidence suggests that the prepack has "a poor public image" for keeping quality. This could be remedied by such measures as better grading - so excluding diseased potatoes in the first place - ventilation holes in the pack to prevent sweating and by educating the retailer and the consumer to avoid long shelf lives both in the shop and the kitchen. What is also desirable is a container which is transparent enough for the customer to see inside, yet excludes as much light as possible so reducing the incidence of greening and sprouting.

(1) A phrase used by a shop keeper during the survey

b) Attitudes to Quality

Housewives interviewed were asked their views on the type of potatoes they wanted. Sixty per cent replied that they preferred redskinned varieties; most mentioning King Edward by name. Many complained that the trade was dominated by white skinned types and that while they were willing to pay more for King Edwards, these were often not available. Few consumers noticed or cared about what district their potatoes came from. The Lincolnshire limestones and Warps, beloved of the wholesale trade, meant nothing to them. No one interviewed based their choice on such criteria.

People complained bitterly about the cooking qualities of potatoes. Many of the older housewives looked back nostalgically to the potatoes of their youth; "Spuds had a taste then". Often the decline in quality was attributed to the growing importance of white skinned varieties and the use of chemical fertilisers. Particular objections were voiced about the latter's effect on producing "demicky potatoes"; a local expression which refers to internal faults which cannot be suspected from outside. (1)

-
- (1) "Demick" is used by farmers to describe potato blight. The housewives interviewed used the word to describe any type of internal fault in a potato, which cannot be detected from the outside; the implication being that they have been cheated!

Chapter 2.The Catering Trade as Consumers of Potatoes

In the survey of domestic consumers, 31 per cent of the people living in the households interviewed ate a hot midday meal away from home; (14 per cent at school and the remaining 17 per cent mainly at their place of work). The present chapter is concerned with discussing potato consumption patterns and the buying practices of catering establishments - institutional, industrial and commercial. A short survey was undertaken in September 1967. Four institutional establishments were interviewed including a Hospital Board and the Leeds School Meals Service, and eight industrial canteens including some belonging to firms which are household names. Finally three commercial establishments were selected to illustrate the extreme variation in this type of trade, one was a four star hotel, another a popular restaurant and the third a flourishing transport cafe.

The sizes of these catering establishments varied tremendously. One proudly claimed to be the largest catering unit in Western Europe with 50,000 meals served daily, 2,300 employees and a potato consumption of 56 tons weekly. Excluding, however, the two concerns which served over 1,000 meals daily, the remaining 13 averaged approximately 300 meals daily at which potato were served. Ranges are given in Table VIII.

Table VIII

Size of Catering Establishment in Terms of the
Number of Meals Served Daily in which Potatoes
are normally used.

15 establishments. Leeds 1967.

Number of meals served daily						
Under 100	100- 249	250- 499	500- 749	750- 999	1000+	Total
3	3	4	3	-	2	15

With the exception of the School Meals Service, caterers served potatoes at more than one meal daily. This did not differ between residential and non-residential establishments since industrial canteens catered for shift workers and commercial concerns served evening meals. The midday meal, however, still remained the main outlet for potatoes representing 85 per cent of the meals at which potato were normally served.(1)

The Form of Potatoes Used

(a) Institutional Caterers.

These establishments belong to the government or local authority and operate under strict budgetary control. As far as potatoes are concerned, no peeled, canned or powdered types were purchased by such institutions in the survey. All potato supplies were bought as ware. The reasons given for the total avoidance of convenience foods were expense and the methods of budgeting in use. As far as the raw material costs are concerned, such establishments were obliged to buy potatoes in their cheapest form. Hence convenience potatoes were excluded, also new potatoes until the old crop was exhausted and had vanished from the market. (2) Budgeting methods also were claimed to preclude the use of convenience potatoes. Labour costs come under a separate heading and any saving here cannot be transferred to the raw material account to cover the increased cost of the convenience foods. If a woman's wage could be saved by using potato powder instead of ware, the present system does not allow for the extra cost in raw material to be borne by the saving in labour. (3)

- (1) Excluding the School Meals Service, the breakdown of the figure is:-

	<u>Percentage</u>
Midday meals	85
Evening meals & snacks	11
Breakfast	<u>4</u>
	100

- (2) The general practice is to make a fixed allowance for potatoes in monetary and/or calorific terms. For example one cornicorn laid down an input of 128 calories a day per person in potatoes, another 3/9d a week per person for fruit, vegetables and potatoes.
- (3) Institutional caterers in Leeds are not ultra conservative. One hospital visited was in the throes of a major feeding experiment. All food was being pre-cooked, kept in deep freeze and then reconstituted in rapid ovens when required for use. The system was said to reduce labour costs by rationalising food preparation and reducing overtime. With potatoes all the requirements for say a month are prepared on the same day during normal working hours. This experiment was being carried out in co-operation with the Department of Food and Leather Science, University of Leeds.

b) Industrial Caterers

These covered works canteens, often with salaried staff dining rooms attached. Such establishments did not adhere to such rigorous budgeting as the public units. Prices of meals were low but most canteens were subsidised as part of their companies' welfare schemes. This applied whether the canteen was run directly by the firm or managed by outside caterers. (1) Seven out of the 8 units covered in the survey depended mainly on ware potatoes using convenience potatoes only in times of staff emergencies and high prices. (2) Powder for example was used extensively for creamed potatoes and shepherd's pies during the seasonal price peak in June/July. Industrial catering establishments usually started on new potatoes in late June; three to four weeks earlier than the institutional concerns.

One catering manager, however, pursued a very different policy. He bought no ware potatoes at all and relied solely on prepared raw chips for frying and instant powder for creaming. He claimed that the switch to convenience products incurred extra costs. The additional raw material price more than offsets the savings in labour. His motive in using convenience potatoes was to avoid staff problems. Kitchen staff, he alleged, were both generally incompetent at their job and unreliable as regards time keeping.

c) Commercial Catering Establishments

This is the least cost conscious category of potato consumer. Even the transport cafe relied mainly on prepared raw chips while the other two concerns regarded potatoes as such a minor item in their costs that they did not have to consider the matter at all. Both used King Edwards for ware and switched over to new potatoes in May/June. Convenience potatoes were also used but of different types from the industrial canteens. The high class caterers purchased considerable supplies of frozen pre-cooked chips and croquettes ready for frying. Canned potatoes were kept for emergencies.

- (1) Canteens generally complained about staff difficulties. Leeds is a city offering varied employment opportunities to women and kitchen work is not very attractive. Trouble with staff caused firms to consider employing outside caterers. These are said to use their labour more efficiently and are able to offer more conducive forms of employment hence the calibre of their staff is said to be higher.
- (2) One catering manager quoted the following annual pattern of potato utilization.
 - 80 per cent of the time, ware potatoes used
 - 15 per cent of the time, instant powder used
 - 5 per cent of the time, prepeeled potatoes used

As far as the type of potato demanded, the impression gained is of "public cheese paring and private affluence". The institutional caterer is more rigidly bound to the cheapest commodity than the old age pensioner living on supplementary benefit. The industrial caterers' resources allow them more margin but as far as this survey is concerned, frozen and other pre cooked convenience forms are utilised by the luxury trade only.

Quantities of Potatoes Used

Price therefore appears to play an important role in deciding what forms of potatoes are used. It also, of course, affects the quantities purchased. Both institutional and industrial caterers tended to buy less when prices were high and consequently used less potatoes by adjusting the size of the individual portion served. (1) Increases in wastage rates at the end of the crop season also led to a decrease in quantities used; this particularly hit the institutional concerns who were unable to buy more in order to offset higher wastage rates.

Most institutional and industrial caterers interviewed were very conscious of the size of the individual portion of cooked potatoes served. The standard practice is to think in terms of the numbers of "bombers" of cooked potatoes, a customer is allowed. A bomber is a spring loaded scoop (very similar to the type used for filling ice cream cornets) and when full holds 2 ozs of creamed cooked potatoes. Broadly speaking in the present survey, hospitals, old people's homes and canteens for female sedentary workers, gave one bomber (2 ozs) per serving. Industrial canteens and the School Meals Service gave two bombers (4 ozs) while a few establishments catering for heavy manual workers served three (6 ozs). These servings were subject to adjustment at peak price and wastage periods.

A rule of thumb conversion rate used by most caterers in the survey, is to assume that ware potatoes lose half their original weight in the cleaning, peeling and cooking process. Hence one bomber of cooked potatoes is equivalent to $\frac{1}{2}$ lb of ware. (2) The ratio naturally differs with variation in the wastage rate, but the figure quoted is said to be fairly representative of conditions during most of the year.

-
- (1) Industrial caterers preferred to alter the size of servings rather than the price of meals. The latter is a sensitive point and a rise in canteen prices has been known to cause a strike.
 - (2) This ratio is actually used in budgeting for the purchases of ware potatoes by one of the institutions in the survey.

Table 1Xa gives the distribution of the size of the individual servings of potatoes per meal, in terms of the equivalent of ware. This merely summarises the observations made earlier on the size of servings. Table 1Xb gives ranges of the total quantities of ware potatoes purchased weekly; the two extremes being $1\frac{1}{4}$ cwt and 56 tons !

Table 1X Size of Individual Potato Portions served per meal and quantities of ware potatoes purchased weekly, Leeds, September 1967.

- a) Size of Individual Potato Portions Served per Meal in terms of equivalent quantities of ware potatoes.

Percentage of total sample serving portions			
Under 6 ozs	6-9 oz	10 oz & over	Total
36	46	18	100

- b) Quantities of Ware Potatoes Purchased Weekly by Catering Establishments.

Percentage of total sample purchasing					
Under 5 cwt	5 and under 10 cwt	10 and under 15 cwt	15 cwt & under 1 ton	1 ton & over	Total
18	18	26	10	28	100

The Type of Potato Preferred - Quality Aspects

The institutional and industrial caterers appeared to be far more knowledgeable than domestic consumers about the cooking qualities of the different potato varieties and the effect on flavour of the type of soil in which the tubers are grown. All however, were reduced to using the rather flavourless Majestic variety. Their attitude is summed up in a remark made to the writer "Majestics can stand up to the treatment potatoes get in the catering trade, King Edwards cannot and in any case they are too dear". Mass caterers require a potato which can be both steamed and chipped and can survive the usual method of roasting used (steamed first and then cooked in fat) without disintegrating. One canteen manager made the disparaging remark that the last thing that both kitchen staff and their customers are worried about is flavour!

Caterers held quite strong views over the size of tubers. Large potatoes are best for chipping and medium sized for boiling. Unfortunately most sacks contained a mixture of both shapes and sizes, hence additional sorting had to be done in the kitchen. Another disadvantage in uneven sized samples of ware, is that extra waste is incurred in mechanical peeling. By the time the larger tubers are peeled adequately, the smaller ones get over peeled with a considerable loss of cookable weight.

Methods of Purchasing Potatoes

a) Institutional Catering Establishments

These all bought on contracts which were usually submitted to public tender. Of the four institutions covered in the present survey, three were supplied by the same Leeds wholesaler, the other dealt with a country merchant. Contracts were all of the same type; an agreement to supply potatoes at the current weekly wholesale price (quoted in the Ministry of Agriculture's market reports) less, usually, a stated discount. The latter was given in multiples of $2\frac{1}{2}$ per cent, the highest rate obtained in the sample being 10 per cent. The rate of discount did not appear to be directly related to the size of the order.

General points made by catering and supplies officers interviewed, illustrate some of the problems involved in contract buying. Goods, while ordered from a central office, are delivered to a number of kitchens and are often not inspected properly by the recipients. The need for complaints to go through the central office also inhibits the reporting of short weight and excessive waste. Kitchen staff too have a rapid turnover and the regulations as regards the reception of foodstuffs are not always strictly enforced. Hence there is a considerable leeway to be exploited either by unscrupulous firms or by dishonest employees.

Institutional supplies officers are usually under pressure from management committees and the trade to accept the lowest tenders.(1) But often these are economically unviable and either the supplier has to fob off very low quality produce or abandon the contract altogether at great inconvenience to the institution served. What is wanted is a reliable experienced supplier of each commodity and left to their own devices, catering officers would be very conservative in their choice.

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- (1) It is said that there are few secrets in the food trade and merchants commonly know what their rivals have tendered. Hence if the lowest tender is refused, the rejected firm often causes pressure to be brought on public representatives. In the wholesale markets at Leeds, the writer was frequently informed that "the rubbish" was unloaded on the institutional trade. This allegation however, was emphatically denied by catering officers.

b) Industrial Catering Establishments

Canteens run by outside contractors did their ordering from the head office of the firm. In the other canteens, ordering was generally one of the jobs of the canteen manager. With one exception, however, all obtained their supplies from the same Leeds wholesaler who also supplied two out of three commercial catering establishments in the survey.

Prices paid for Potatoes

All catering establishments were visited in the same week (the second week in September 1967) and details were collected of the prices paid for the different types of potatoes at that time.

a) Ware Potatoes

Institutional caterers paid rather less than those in the other categories. Their costs averaged 20s.10d. per cwt. Both industrial and commercial establishments returned the same average cost - 24s. a cwt. Whether this difference is indicative of a difference in quality is controversial.(1) Institutional caterers maintained it was not. Price ranges are given in Table X.

Table X Prices paid for Ware Potatoes by Catering
Establishments. Sept. 1967.

Percentage distribution of establishments paying prices per cwt							
Under 20s.	20s.to 20s.11d.	21s.to 21s.11d.	22s.to 22s.11d.	23s.to 23s.11d.	24s.to 24s.11d.	25s. & over	Total
9	9	9	28	9	-	36	100
<u>Average price paid per cwt.</u>							

Institutional Caterers	20s.10d.
Industrial Caterers	} 24s.
Commercial Caterers	

(1) Size of the institutional order did not appear to influence price. The largest institutional consumer paid the highest price in the group.

One interesting point in the industrial and commercial classes is the surprising variation in prices paid despite the fact that buyers were mainly dealing with the same firm at the same time with an article which appears to be fairly homogeneous. Prices ranged from 20s. to 29s. a cwt. Size of order again does not influence price nor the type of establishment concerned. The four star hotel paid less for King Edwards than a particular industrial canteen did for Majestics.

The writer was present when the wholesaler's representative called at one canteen. The manager was obviously very price conscious and knew the current level of wholesale prices - a copy of a trade journal was on hand. Hard bargaining followed and the price finally agreed was reduced to 20s. per cwt. (1) The whole incident suggested that the representative obviously worked to a minimum price and was left free to obtain more if he could.

This price variation suggests that buyers tend to operate in a vacuum, oblivious of what others are paying. Their cost consciousness is confined to adjusting sizes of servings not to challenging the prices asked for raw materials. Perhaps catering managers regard themselves primarily as food technicians beset by the problems of human relationships between themselves, their staff and their customers. Hence they tend to have neither the time nor the inclination "to shop around" and exploit market opportunities. Those interviewed in the survey seldom visited the wholesale markets and instead relied on visiting representatives or the telephone. One is left with the strong suspicion that they paid rather more than was necessary for their raw materials, whether potatoes or any other foodstuff.

b) Prepared Potatoes

Caterers purchasing pre peeled potatoes either whole or chipped, obtained their supplies from the merchant mentioned in the previous section. The method of sale was simple, buyers bought ware potatoes and paid an additional fee for preparation and in return received 80 lbs of peeled potatoes for each cwt of ware purchased. The ware price and preparation charges varied from one establishment to another. Obviously these are subject to bargaining.

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- (1) The same manager told the writer of successful examples of bargaining with the suppliers of other commodities.

A wide range was also reported in the prices paid for powdered potatoes. The cheapest price was 9d a lb. the most expensive 3/5d while a fairly typical sum was 2/9d. Whether this range indicates wide variation in quality or in the bulk purchased or whether it indicates different degrees of "Keeness in buying", is impossible to say.

Trends in Demand Elasticity

No precise measurement is available of the elasticity of demand for potatoes in the catering trade. The present very small survey suggests that perhaps the demand for potatoes in catering is rather more elastic than that for home consumption, as far as the mass catering market is concerned. Institutional and industrial caterers appear to regulate quantities purchased by price movements within the preset parameters of acceptable variations in the size of a serving of potatoes on a customer's plate. These parameters are limiting but allow considerable scope - increase the size of an individual serving from one "bomber" to two and the amount of potatoes purchased is doubled.

Chapter 3.Fish and Chip Shops as Consumers of Potatoes

Fish and chips are traditional to the English way of life, and Leeds appears to be no exception. If the evidence of the consumers' survey is representative of conditions, the "average resident" buys fish and chips approximately once a week. He has plenty of choice as regards where to buy them. The classified telephone directory lists 130 fish and chip shops in the city. These include not only retail outlets selling fish and chips to carry away, but well appointed restaurants devoted entirely to serving this dish.(1)

The present chapter is concerned with a survey based on an one in ten sample of the shops listed in the directory and interviewing was carried out in mid-July 1967.

The Sample

In all, eleven questionnaires were completed. (2) Businesses covered ranged from small back street shops in the older working class districts to a well known fish restaurant which also incorporated a retail shop. Ten out of 11 were owner managed, the other was one of a chain. Most concerns were fairly long established, on average being 12 years under the present management. They tended to be in the older areas of the town rather than in the newer suburbs, dealing predominantly with a working class clientele.

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- (1) The West Riding is famous for its rather palatial fish and chip restaurants. Some run to fitted carpets and chandeliers.
 - (2) Thirteen establishments were approached. Two were excluded from the survey - one was in the process of reorganisation, and the other had become a Pakistani food shop. The sample was based on the telephone directory, since the latter was the best source of numbers and addresses. See remarks in the Introduction.

In the present context as good a measure as any of the size of business, is the quantities of potatoes purchased weekly. Details are given in Table XI. Friers with the lower requirements were operating in the older parts of the city where shops generally are plentiful and small fish and chip businesses are found in close proximity to one another. Higher requirements are associated with the newer suburban areas where the density of shops appears to be considerably less than in the districts developed before 1914. (1)

Table XI Fish and Chip Shops, Weekly Potato Purchases
11 shops in Leeds. July 1967.

Percentage of Total Sample Buying					
Under 5 cwt	5 cwt & under 10 cwt	10 cwt and under 15 cwt	15 cwt & under 1 ton	1 ton and over	Total
37	9	27	18	9	100
Average per shop					15.7 cwt
Equivalent number of servings of chips sold (2)					2826

The average weekly figure for the number of portions sold is estimated to be 2826; at 6d a serving (the average price charged) this represents a gross return of £70.13s.0d. on the raw material cost of 15.7 cwt of potatoes.

- (1) See also the discussion of the distribution of green grocery shops in Chapter 4.
- (2) Based on the assumption that 180 servings of cooked chips can be obtained from 1 cwt of ware potatoes.

The Importance of the Sale of Chips in the Fish and Chip Trade

Most of the friers interviewed quoted the adage of the trade - that chips consisted of one-third of the turnover of a fish and chip business. They maintained that their shops returned a similar sales ratio. Questioned about the relative profitability of the two commodities, the invariable answer given was that this fluctuated seasonally. "In the winter, the chips often carry the fish and in the summer the fish, the chips". Wholesale prices of fish and potatoes fluctuate seasonally but these fluctuations tend to be complementary one to another. Potatoes are dearest in the early summer months when fish prices reach their yearly low. The reverse position tends to apply in the winter.

Retailers interviewed tried to keep prices of their fish and chips steady throughout the year. They did not rely entirely on the complementary nature of the gross margins on the two commodities, to cope with fluctuations in raw material prices. They safeguarded themselves further by adjusting the sizes of portions sold. Chips are usually sold in special paper bags, the standard type if filled to the top takes approximately 4 ozs. When potato prices are high, fewer chips are put into the bag. It is claimed that customers do not notice these "marginal adjustments", while if retail prices are increased by "even one penny, considerable goodwill is lost." (1)

Variations in the Demand for Fish and Chips

Information collected in the survey suggests two regular patterns of variation in the demand for fish and chips - one seasonal, the other daily. From the seasonal aspect, the summer months are better for sales than the winter. This is ascribed to finer weather which encourages people to go out more often. A wet day, for example, is said to stop a person "popping out for fish and chips, instead they open a tin of something." As regards daily sales patterns, Friday is the day associated with peak sales, followed by Tuesday and Saturday. Monday, on the other hand, returns the weekly low.

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- (1) The variation acceptable in the size of serving appears to be rather less than that experienced by the caterer and his "bombers".

Wastage in the Preparation of Chipped Potatoes

All the businesses interviewed employed mechanical devices for washing, peeling and cutting chips. Wastage rates increase when potatoes are uneven in size, a point which is developed further in the next section. Wastage also depends on the more obvious factors such as the proportions of diseased and damaged potatoes and the amount of soil present. This latter factor is associated with new potatoes especially and friers are rather bitter about it in view of the prices of the new crop. (1) Another point which decreases the quantities of saleable chips prepared from a given quantity of ware potatoes, is a higher than average moisture percentage in the sample. The point is discussed in detail in the next section.

Given these fluctuations, "a rule of thumb" conversion ratio used in the trade, is to assume that one cwt of ware potatoes will yield around 90 lbs of raw prepared chips which then lose approximately half their weight in cooking. The final saleable product from one cwt, on this basis, is 45 lbs of cooked chips - enough for 180 servings of 4 ozs. each.

Wastage rates play a major part in determining when to switch over from old crop potatoes to new ones. Of all the categories of consumers interviewed, friers appear to be most "economically minded" as regards balancing the merits of old and new potatoes on a cost/wastage basis. Presumably this can be ascribed to the importance of potatoes in their businesses and to the fact that the proprietor himself usually helped in the preparation of the potatoes.

Hence, no firm date can be given for the switch over. The decision to use new potatoes appears to be determined by cost/wastage factors which vary from season to season.

Potato Quality Requirements of the Fish and Chip Trade

The first requirement of the friers interviewed was an even sized sample of potatoes to facilitate and reduce wastage in the mechanical preparation of raw chips. The friers complained that most samples of potatoes are far from even in size and extra cost has to be incurred by preliminary sorting prior to the preparation of chips. As regards the actual size of tubers, medium ones are preferred as they fit best into mechanical devices.

- (1) This is ascribed to lifting new potatoes in the rain, to catch the market. Once the English earlies are ready, prices tend to fall daily, hence farmers tend to lift their crops directly they are ready, regardless of the weather.

In the actual cooking process, the desired quality is a low moisture content. Higher than average water contents are associated with excessive weight loss by shrinkage in cooking and by greater fat requirements for frying. "Wet" potatoes incur an additional hazard, in the danger of over browning before the chip is thoroughly cooked.

No great preference was expressed for white skinned potatoes, nor did the majority of friers place Majestic as their favourite variety. What was stressed is the importance of the district of origin and friers were the only category of consumers to mention this. Lincolnshire limestone varieties are the preferred types because they are associated with lower than average moisture percentages.

General dissatisfaction was expressed at the poor quality of potatoes available. Often deliveries had to be returned because of high wastage rates. The Potato Marketing Board was criticised for failing to secure evenness in samples and for "protecting the producer." In times of scarcity, lowering of grading standards led to a situation where "producers take full advantage of this to include as many split and cracked ware as possible as well as over-sized potatoes which are hollow inside." It was also alleged that in glut conditions, poor quality potatoes bought by the Board in its capacity as the buyer of last resort, flooded the market. It was felt that matters might be improved if complaints could be sent to the growers concerned. Consequently the Leeds and District Fish Friers Association is campaigning for the labelling of sacks with producers' names.

The general attitude towards home produced potatoes was summed up by one frier, "English potatoes show so much variation in quality that each batch may require slightly different cooking to get to perfection. This is impossible to do in the hurried conditions of the trade." This particular frier had worked in Canada and Belgium and was very favourably impressed by the suitability for chipping of local potatoes there. Moisture contents are lower and quality standards in general higher than in this country. (1) His sentiments were echoed by two other friers co-operating in the survey, who were looking forward to the day when Britain joined the Common Market and continental potatoes would be available.

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- (1) Apparently specially selected potatoes of an uniform quality for chipping are available in Canada. The frier interviewed, lamented the fact that these could not be imported.

Methods of Purchasing Potatoes

Friers purchased ware and new potatoes only. No prepared raw or frozen chips were bought. Supplies were usually obtained on credit by telephone and delivered to the door; wholesale markets were seldom attended. No one supplier dominated the market, friers obtained potatoes from a variety of wholesalers including firms from other West Riding towns. One shop bought direct from a grower but paid the highest price per cwt reported in the survey.

Unlike the caterers, fish and chip retailers were very price conscious in buying. In this, they were undoubtedly helped by trade journals at both national and local levels. The monthly publication of the Leeds and District Fish Friers Association, "The Chipper", gives considerable coverage of prices and qualities.

All eleven businesses were surveyed within a fortnight - the second and third week in July 1967. This was a period of rapidly falling prices, a factor which might be expected to lead to wide variations in prices reported. Yet in the sample, shops buying within a few days of one another paid very similar prices. (1) For example those interviewed in the first few days of the survey paid between 48s. and 50s. per cwt for the new season's crop.

As has been mentioned in the section on the importance of chips in the fish and chips trade, price fluctuations in potatoes are one of the problems of the trade. Friers in the survey were asked to state the highest, lowest and normal prices paid in the last year. The averages given are:-

Lowest price per cwt	19s.
Highest price	50s.
Normal price	23s.

Highest prices are associated with the switch to the new season's crop, lowest with the harvest of the main crop and the normal price with the post harvest period until say the end of February.

The response of the trade to price fluctuations is to alter the size of a serving rather than to increase retail prices. This tendency may well indicate that the demand for potatoes for the fish and chip trade may be elastic within rather narrow limits - the range in the size of a serving selling at the same retail price which both customer and retailer will tolerate. Even so an increase of one ounce in the size of a serving would make a considerable impact on the overall demand for potatoes at a national level.

- (1) One cannot help feeling that some of the caterers described in Chapter 2 might have been rather oblivious of any rapid change in price and perhaps paid rather more for their potatoes than necessary.

Chapter 4.POTATO RETAILERS - INDEPENDENT GREENGROCERS

In Chapter I it is shown that domestic consumers regard specialist greengrocers as the most important source of their potato supplies. These (shops and retail market stalls) accounted for 72 per cent of the total retail outlets patronised.(1) The present chapter discusses the results of a survey of greengrocers based on a 1 in 3 sample of the names listed under this category in the classified telephone directory for the Leeds area. (2) In addition the greengrocery manager of the Leeds Industrial Co-operative Society kindly provided information of a general nature.

The Sample

In all 52 retail establishments completed questionnaires. They were all owner-managed businesses, usually the sole shop of their owners. Most were run by family labour only and were usually long established; the average time the proprietor had had his present shop being $13\frac{1}{2}$ years. Only 12 per cent specialised entirely in fruit and vegetables. Most kept other lines as well, especially wet fish and poultry. Fruit and vegetables however, constituted the most important side of their businesses, comprising on average 76 per cent of total turnover by value.

Details of the location of these shops are given in Table XII. These show that 70 per cent cater predominantly for a working class clientele. Shops, too, tended to be more concentrated in the older areas of the city. Forty per cent of the present sample are in the pre-1914 districts and only 16 per cent in municipal housing estate areas which, in 1967, contained 31 per cent of the total population of Leeds. This suggests a rather uneven distribution of shops in relation to population, a theory which is supported by observation.

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- (1) See Table VII, page 12
 - (2) Uncertainty exists about the exact number of fruit and vegetable shops in Leeds. The 1961 Census of Distribution gives 482 greengrocers. The Public Health Department of the Leeds City Council does not separate out greengrocers from wet fish retailers and gives a total of 328 in 1967 for the two. The classified telephone directory however, only lists 171 greengrocers. Part of the discrepancy can be explained by confusion over definition; part by the rapid clearance of the older districts of the city with the consequential disappearance of many small shops.

Table XII Location of Retail Greengrocery Shops
Leeds 1967

a) Type of Shop

52 shops

Percentage of Total Shops in			
Retail Market	Suburban Shopping Parade	Isolated Shops	Total
14	55	31	100

b) Area

	Percentage of Total Shops
Pre 1914 Predominantly Working Class	40
Between Wars " " "	8
Post 1945 " " "	8
Retail Market " " "	14
Total Predominantly Working Class	70
Middle Class	21
Mixed	9
Total	100

The tendency for shops to be concentrated in the older areas also goes some way to explain the fall in the number of retail outlets. Of the 57 names drawn for the survey, 5 represented shops which had already been demolished and of the 52 interviewed, 10 were scheduled for clearance. All their owners claimed that they would give up the retail trade when their shops came down, rather than start again elsewhere.

The Importance of Potatoes in the Trade of these Greengrocery Shops

The importance of potatoes in the retail fruit and vegetable trade appears to be partly determined by the class of customer served. In the present sample on average 25 per cent of the total turnover by value in fruit and vegetables was provided by potatoes in shops in working class areas, as opposed to 19 per cent in middle class localities. This does not mean necessarily that the proletariat ate more potatoes but merely that they did not buy so great a variety of fruits and vegetables as people in the middleclass areas. This point was stressed very strongly by retailers having shops in both areas.

Another point mentioned by retailers especially those catering for the middle class districts, was that potatoes tended "to carry" the more exotic lines of imported vegetables and fruits. Some supported their arguments by producing financial accounts. One leading personality in the trade summed up the position thus: "The trade in such staple vegetables as potatoes, greens, swedes and carrots - most of which are home grown - finances the trade in imported luxuries. Hence the home grower carries the foreign one and the working class trade, the middle class." (1)

The gist of the argument is that the margins on some imported commodities are often low and can be negative where wastage rates are high. The lowness of these margins is ascribed to increased competition for supplies from the Common Market countries and price resistance by local consumers which prevents the retailer marking up his goods in compensation. The shop keeper does not want to drop these unprofitable commodities in case his customers go elsewhere. Hence it is claimed that the public forces the retailer to carry a wide range of stock and so, to live, he is forced to recoup his losses on expensive imported produce through high margins on home grown staple vegetables especially potatoes, the demand for which is inelastic. (2)

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- (1) Compare also the comment on vegetable marketing by Rees Davies:- "The secret.... is to so organise marketing in this country that the margins allowed in the trade can no longer absorb any of the costs involved in importing produce."
p.1283 "The Grower", 24th June, 1967.
 - (2) Figures given include margins of over 100 per cent on potatoes, brussell sprouts, cabbage, swedes and carrots. The highest margin reported was of 500 per cent on English maincrop carrots which finally retailed at 4d a lb. The shop keeper concerned remarked that if he had charged 2d instead, he would not have sold any more.

Types, Values and Quantities of Potatoes Sold

Loose potatoes dominated the potato trade accounting for on average 88 per cent of the total quantities of fresh potatoes sold. Some retailers also stocked processed convenience potatoes - canned and frozen - but these represented only a very minor sideline. Table XlIII gives details of average weekly retail sales of potatoes.

The average weekly sale figure of £57 per shop represents of course, a wide range of individual figures. The range is given in Table XIV. The highest sales were returned by stalls in the retail market while the lowest were reported by shops in clearance areas. (1) Outside the market it would seem that the density of shops in the district rather than the class of clientele determines the total amount sold. Where class appears to effect the issue is in influencing the proportion of potato sales in the total turnover of fruit and vegetables.

Table XlIII Average Weekly Retail Sales of
Potatoes per Shop, May 1967.

52 shops in Leeds

	Retail Value £s	Quantities cwts	Price per lb. pence
<u>Loose Potatoes</u>			
Old Crop	31	11.4	5 $\frac{3}{4}$
New	19	4.5	9
<u>Prepacked Potatoes</u>			
Old Crop	7	2.1	7
<u>All Potatoes</u>	57	18.0	6 $\frac{3}{4}$

(1) Average values of weekly retail potato sales per shop are:-

Clearance Areas	£20
Retail Market	£113
Inter-war Municipal Estates	£56
Post 1945 Municipal Estates	£64
Other Working Class	£42
Middle Class	£43

The retail market offers the prospects of an interesting case study. The size of turnover of a fruit and vegetable stall suggests that such a business must be exceedingly profitable as overheads are low. A recent survey of retail butchers in Leeds (1968) shows that the largest sales are reported by retailers in the municipal market.

Table XIV

Range of Weekly Retail Sales of Potatoes
per Shop, May 1967.

52 shops in Leeds

Percentage of total number of shops with weekly sales					
Under £25	£25 and under £50	£50 and under £75	£75 and under £100	£100 and over	Total
23	33	18	14	12	100
Average sales per shop					£57

Retailers were asked if the volume of sales varied seasonally. The invariable reply was yes. Periods of highest demand are school holidays and very cold weather. Presumably both these result in an increase in the number of hot meat meals eaten in the house with a corresponding rise in potato consumption.

Retailers' Attitudes to Pre-packs and Convenience Potatoes

Attitudes towards prepacks seem to be divided according to whether a shop sells them or not. Retailers stocking prepacks usually praised them and maintained that their use should grow. Shops not selling prepacks are generally rather biased against them. The writer was regaled with stories of poor keeping qualities, high wastage rates, greening and other defects.

An interesting point shown in the results is that prepacked potatoes are more likely to be found in middle class areas than in the other parts of the city, especially the pre-1914 working class districts. Forty per cent of the total potato trade in the middle class shops surveyed was in prepacked potatoes - generally 5 lb. bags of washed tubers. On the other hand the great majority of shops not selling prepacks at all (22 per cent of the sample) were in the pre-1914 districts or the retail market. Does the lack of interest suggest that a certain element of conservatism exists in the older areas?

Sales of frozen and canned potatoes were relatively unimportant. Just over half the sample stocked canned potatoes at periods of peak demand - the trade is said to be very seasonal being concentrated in late spring and early summer. Seventy per cent kept frozen chips but their high price was said to inhibit any expansion in sales. Most retailers selling these convenience foods, reported that the demand for them was confined to only a small sector of their customers, especially students and young married couples. (1)

(1) One retailer claimed that he sold all his frozen and canned potatoes after 5.p.m.

One rather flourishing sideline reported by two of the shopkeepers interviewed, was the sale of peeled potatoes. These are peeled mechanically on the premises and stored in buckets of water. Most of the trade is in "new potatoes", selling at 9d - 1 shilling a lb. In fact these are small sized old crop tubers.

Quality and Wastage Rates

Nearly every retailer interviewed complained about the quality of loose potatoes. One main grumble is "farmers take advantage of the 6 lbs tolerance for wastage allowed in every cwt." As a result no sack ever contains its "honest weight of potatoes". Other complaints included poor farm grading which allows through cracked, split and other damaged potatoes. Most retailers put a high priority on better grading and quality control.

Wastage rates on old crop potatoes averaged 10 per cent in the shops at the time of the survey. Dirt was said to be the largest contributory factor with diseased and damaged potatoes as the other principal causes. Wastage at this time of year (May) is high as the old crop is nearly finished but retailers also reported high wastage rates at the beginning of the British season. Pembroke potatoes especially were given a bad name for dirt.

The situation with prepacks however, appears to be rather different. The shopkeeper sells these unopened and the customers do not generally return to complain of quality. Hence wastage rates in the present sample were negligible.

Source of Supplies

The main source of the retailers' potato supplies were wholesale merchants in the Pontefract Road Municipal Market. Other suppliers included country merchants in the production areas, Leeds wholesalers outside the market and wholesalers in nearby industrial towns. Four per cent of the shops by-passed the middleman as far as maincrop potatoes were concerned and bought direct from growers. Details of sources of supply are given in Table XV.

Table XV

*

Greengrocers. Sources of Potato Supplies

52 shops. Leeds...

	Percentage of Total Shops dealing with
Leeds Wholesale Vegetable Market	85
Other Leeds Wholesalers	6
Wholesalers in nearby towns	2
Wholesalers in country districts	31
Producers	4

* Some bought from more than one

Wholesale prices paid by individual retailers were not collected in the present survey. Financial information on retail prices, total sales and margins was given higher priority in the questionnaire and it is felt that to have tried to obtain additional data on wholesale prices paid would have overburdened the co-operators. Wholesale price data are collected regularly in the Leeds Wholesale Market, and these are used instead in this study for the calculation of profit margins. (1)

Retail Prices

Threequarters of the shops in the survey were interviewed in the same week, the whole sample in a fortnight. Retail prices reported suggest that the investigation (May 15th - 28th) coincided with a seasonal adjustment in prices. Retailers tend to keep prices as constant as possible but when margins diminish drastically, move prices up in steps of a penny per lb. Half pennies are frowned on, nor do shopkeepers chose to avoid fractions of a penny by quoting prices by multiples of pound's weight. (2) Prices had been constant at 4d a lb. for the previous seven months. Rising wholesale prices associated with the end of the main crop season, however, were rendering a retail price of 4d a lb.

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- (1) It was assumed that shopkeepers would be very price conscious, hence the opportunities for any great element of price discrimination by suppliers, would not be significant. Nearly all the retailers interviewed, attended the wholesale market daily, hence they should have been familiar with prices unlike the catering managers discussed in Chapter II.
 - (2) Only two retailers, market stall holders, adopted this practice.

uneconomical and retailers either advanced their prices to 5d or 6d. Those charging 5d claimed that this level would soon be increased to 6d. A marginal increase of one penny per pound in the retail price is equivalent to a rise of 9s.4d. per cwt, rather a drastic change compared with the much finer price movements in wholesale prices; usually in terms of 6d a cwt. Shopkeepers, however, claimed that customers did not like fractions of a penny. "They can't reckon up the cost of a few pounds if you bring in half pennies."

Details of retail prices charged in the survey are given in Table XVI. The lowest price, 4d a lb, was reported in the retail market in the week May 15-21st. At this price and the wastage rates reported, the margin on these potatoes must have been negligible - the stallholders were using potatoes as "loss leaders". (1) Retailers charging 5d a lb. were reported both in the market and scattered throughout the city. The retail market is definitely cheaper but there is no indication of lower prices being associated with shops in working class as opposed to middle class areas. By the 22nd May, a rise in wholesale prices of 2s. a cwt caused most retailers to charge 6d a lb. while even in the market, 5d became the minimum price.

Retail prices of prepacked potatoes are not discussed in detail here. Insufficient data is available about the various types and packs, on which to base any worthwhile comments. Prepacked potatoes, as has been mentioned previously, were relatively unimportant in the survey, accounting for only 12 per cent of the quantity sold. The average price of all types of prepacks sold is 7d per lb compared to an overall average of 5³/₄d per lb for loose potatoes. Hence as far as these greengrocers are concerned, the customer pays a premium for cleaning and packing.

Table XVI

Retail Prices of Loose Old Crop Potatoes
52 greengrocery shops, Leeds. May 15/28th 1967.

Percentage of total number of shops charging			
4d per lb.	5d per lb.	6d per lb.	Total
4	20	76	100

- (1) The stalls selling potatoes at 4d per lb were those where potatoes contributed less than 10 per cent of the total turnover of fruit and vegetables.

Reference has been made already to the practice of keeping retail prices as constant as possible and then when forced to alter them to advance prices in terms of a penny per lb. Retailers interviewed all claimed to be following a policy of "averaging out" over the season. This they tried to secure by operating between retail prices of 4d and 6d per lb. using the high margins secured when wholesale prices are low to offset the losses they claimed to make when wholesale prices reached their seasonal peaks.

Averaging out is justified on such grounds as "the public don't like chopping and changing". Retailers occasionally go below 4d, 3d is often charged during the immediate post harvest period - but "its one thing cutting prices, another putting them up". At the end of the main crop, prices seldom rise over 6d on the grounds that public resistance would be too great.

When asked how they decided on prices, the invariable reply was "by the feel of the market". The great majority attended the wholesale market daily and most met informally in one of the two cafe's situated in the middle of the market. Here they discovered what others were doing. Little reliance is placed on more formal market intelligence such as press or radio reports.

Margins on Potatoes (1)

Retailers were asked their overall margin on potatoes over the year. This averaged 20 per cent on loose potatoes with most replies lying between 15 to 25 per cent. All said the margin varies seasonally but overall they aimed to secure an annual margin in this range.

Some indication of the variation in margins at a specific time is suggested by the present results. Estimates of margins were calculated by taking actual retail prices and wastage rates for each shop and then assuming current average wholesale prices prevailing in the Leeds Wholesale Market. The range of estimated margins is given in Table XVII.

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- (1) Gross proceeds from the sale of a sack of potatoes as a percentage increase of the wholesale cost.
Gross proceeds allows for wastage.

Table XVllEstimated Margins on Loose Potatoes

52 shops Leeds May, 1968.

Percentage of total shops obtaining margins of					Total
Under 5%	5% and under 15%	15% and under 30%	30% and under 45%	Over 45%	
6	8	42	38	6	100
Average margin obtained					28%

The variation is mainly explained by the range in retail prices. People selling at 4d per lb. obtained only a very negligible margin. Wastage rates also effect the issue to a lesser extent. Obviously the timing of the "stepping up" of retail prices is important. If this is done too soon, the goodwill of customers may be lost, if postponed too long, then potatoes may be sold at a loss. By insisting on "one penny steps", the trade loses a lot of flexibility.

Attitudes to the Future of the Greengrocery Trade

Retailers attitudes to the future tend to be biased by the present state of their businesses. Those interviewed who obviously had low turnovers were generally more pessimistic than others who were doing well. Shopkeepers in clearance areas were the most dejected category encountered. All said they would retire from the trade when demolition was started. (1) They are mostly elderly people or else couples where the husband already had another job and the wife looked after the shop. Presumably the more active retailers had avoided being caught by clearance schemes.

- (1) A general complaint was that they could not afford the £1,000 or so required to fit out a shop in a new estate. Rents also were a bugbear. Several of the retailers interviewed were paying only £1 a week for their present shop, but rents in a new district were said to be over £15 a week. The size of extra turnover required to cover this rather frightened them.

Most of the others interviewed were satisfied as regards the financial side of their businesses. What appeared to worry them was their lack of leisure and the degree to which a couple working a shop without paid assistance, were tied down to their business. Many made the point that their sons were not prepared to work the long hours they did. One went as far as stating "that in 20 years time, only foreigners will be prepared to be small shopkeepers."

The supermarket is often regarded as the death knell of the small independent shop. Rather surprisingly most retailers interviewed did not regard supermarkets as threats to their survival. Greengrocery is said to be best organised on an owner-managed basis. With perishable produce, the personal touch is all important and this the supermarkets do not achieve with their mass production methods. In fact two shopkeepers claimed to have increased their trade considerably after supermarkets had opened in the same shopping parades. "People go to the supermarket for groceries but to me for fruit and vegetables." One point appears to be fairly obvious, a large supermarket with its car parking facilities brings in people who live away from the neighbourhood. Some of these additional customers must also patronise specialist shops in the immediate vicinity of the supermarket.

Chapter 5.Potato Retailers - Supermarkets

Much is heard these days about the impact of supermarkets on retail trade but as far as potatoes are concerned, the present survey suggests that the part played by supermarkets in their distribution is not very great in Leeds. Only 6 per cent of the domestic consumers interviewed purchased supplies from supermarkets while independent greengrocers generally felt confident that the supermarket did not present a major threat to their existence.

The retailing methods for potatoes adopted by supermarkets, however, differ significantly from those prevailing in the independent greengrocery trade. Hence it is thought that a discussion of these divergences may be of interest and throw some light on the possible future trends in potato marketing.

The Sample

One branch of all major supermarket firms operating in Leeds was visited. These included both national and regional chains and the food market halls of large departmental stores in the city centre. In all 14 questionnaires were completed.

Suburban supermarkets tend to be situated in major shopping parades. Unlike independent greengrocers, they are not generally found in the older working class areas. Obviously considerable thought is given to choice of site.

It is very difficult to assess the class of customers of a particular store. Most of the suburban supermarkets surveyed were in middleclass districts but managers claimed that their customers came from a wider area than the immediate locality of the shop.

Importance of Potatoes in the Greengrocery Trade of a Supermarket

On average retail potato sales contributed 15 per cent of the total turnover of fruit and vegetables in the supermarkets surveyed - the variation between stores being small. This figure is rather lower than that returned by the independent greengrocers suggesting that supermarkets carry a wider range of stock and possibly customers may tend to buy fruit and vegetables there and potatoes from the local shop. (1)

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- (1) 25 per cent for working class area shops and
19 per cent for middle class outlets.

One point of interest made by several managers interviewed is that rate of profit per foot of display counter is larger for greengrocery than for most grocery lines. This results from the much greater rate of turnover. A pack of potatoes will be sold in a day or two while a tin of steak can be on a shelf for several months.

Types and Quantities of Potatoes Sold

Prepacked potatoes predominate but rather surprisingly 22 per cent of total potato sales still consisted of loose tubers. Managers of shops selling loose potatoes claimed that shoppers still preferred to pick over and weigh up produce themselves. This form of self service however is associated with higher wastage rates and also with losses from undercharging. Customers find it difficult to weigh out exact pounds and the cashiers tend to give them the benefit of overweight!

Both wet washed and dry brushed potatoes are sold in prepacks: the latter tend to be marketed in larger packs than the former. Container sized reported in the survey are 3 lb, 5 lb, 7 lb and 14 lb. The most popular pack was the 5 lb washed with the 14 lb dry brushed as runner up.

At the time of the survey (March) nearly all potatoes sold were main crop. Most stores did not stock earlies then. The rate of turnover is said to be so slow because of high prices that potatoes go green in the packs.

Total quantities of potatoes sold averaged 38 cwt per week per store, rather more than double the turnover reported by the average independent greengrocery shop. Table XVlll gives details of quantities sold, the highest total for a store being $7\frac{1}{4}$ tons.

Table XVlll:

Weekly Quantities of Potatoes Sold by Supermarkets (1)

14 Stores, Leeds. March 1967.

(a) Average per store

	cwt
Prepacked	29.6
Loose	8.4
Total	38.0

(b) Range

Percentage of total number of stores with weekly sales of				Total
Under 1 ton	1 and under 2 tons	2 and under 3 tons	3 tons and over	
41	25	17	17	100

(1) The average retail price was approximately $3\frac{3}{4}$ d a lb.

Seasonal variations in demand were reported; these confirmed the observations made by the independent greengrocers - that the demand for potatoes increases in cold weather and during the school holidays. Supermarkets however reported a greater rate of variation in sales according to the day of the week. All had peak sales at the weekend when "father brings the car and the family stocks up for the week", a marked contrast to regarding "the corner shop as the extension of the family larder".

Quality and Wastage Rates

Managers interviewed were very satisfied with the quality of prepacked potatoes and reported that wastage rates were negligible. "If you turn the potatoes over quickly and have a good supplier, you can't go wrong. The customer buys the pack unopened and comes back for more."

Loose potatoes on the other hand are associated with wastage. On average the wastage rate reported was 7 per cent. Manager after manager interviewed made the point that they could not sell a cwt. of potatoes retail from one cwt. sack of loose potatoes but if they bought a cwt. in the form of eight, 14-lb. prepacks, they lost no saleable weight.

Sources of Supply

One of the main differences between supermarkets and independent greengrocers is in the method of acquiring supplies. Over 75 per cent of the supermarkets reported that the responsibility for organising supplies was undertaken centrally either on a regional or national basis. All the store manager has to do is to notify his requirements to the company's buying office.

Centralised buying cuts out the local wholesale market and even local producers. Some Leeds stores never stock Yorkshire grown potatoes! Supplies are obtained from particular packers for all a company's shops in say the North of England. The chances are that the packers serving a particular chain, are not based in Yorkshire.

The usual procedure with centralised buying is for the company to deal with a large country potato merchant who packs according to specifications and, if necessary, in appropriately branded bags. Packers working for supermarket chains include public and private companies, farmers' cooperatives and selling groups. It is not the general practice for a chain to own its own packing stations.

One is left with the impression that centralised buying results in a considerable overlapping of transport as far as the overall distribution of a commodity is concerned. Potatoes from Yorkshire are distributed to the Lancashire branches of a particular chain while Lancashire potatoes are sent to the Yorkshire branches of a rival company. This overlapping is not confined to potatoes as current work at Leeds on meat retailing shows. (1)

Only in three stores in the survey was the responsibility of organising potato supplies given to the local manager. These establishments are all food halls of departmental stores in the city centre, not branches of a chain of supermarkets. Supplies were all obtained from the Leeds wholesale market, greengrocery managers usually attending the market regularly in person.

Retail Prices (March 1967)

As far as loose potatoes are concerned, all stores in the survey charged 4d per lb, the prevailing retail price in Leeds at the time. With independents and supermarkets tending to charge identical prices any price cutting is left to the stalls in the retail municipal market. The position as regards prepacked potatoes, was far less uniform and the whole price policy adopted shows marked differences to that used by the independents. By selling several pounds in a pack, more flexibility is possible in adjusting retail prices to changes in wholesale prices. The price per lb. of potatoes in a prepack does not move in steps of a penny - only the price of the whole pack. Hence supermarkets do not try to "average out" potato margins over the season as do most of the independents interviewed but instead allow retail prices to adjust themselves to current movements in wholesale price. (2)

Details of prices charged by supermarkets in the survey are given in Table XIX. These show that as the size of the container increases, the equivalent price paid per lb. for potatoes goes down. The savings shown are rather striking - potatoes were 2d a lb. cheaper when bought in 14 lb packs than they were in 3 lb packs. Given a similar sized pack, a customer did not have to pay more for washed than for dry brushed potatoes.

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- (1) One chain brings all its home killed meat from a slaughter house in Shropshire. Another with a slaughter house in Yorkshire sends meat to all its branches in Northern England and Southern Scotland.
 - (2) A similar difference in pricing policies between supermarkets and independents, has been observed in the current Leeds investigation into meat retailing. Any movement away from "averaging out" assists the smooth functioning of the price mechanism in regulating demand and supply.

Table XIX

Potato Retail Prices Charged by Supermarkets
14 stores Leeds, March 1967

a) Average Prices Charged

	Price per Pack	Equivalent Price per lb.
Loose potatoes	-	4d
<u>Prepacks</u>		
3 lbs washed	1/5d	5.7d
5 lbs washed	1/11d	4.6d
7 lbs dry brushed	2/8d	4.6d
14 lbs dry brushed	4/4d	3.7d

b) Some Ranges

	Equivalent Price per lb.
Loose potatoes	all 4d
<u>Prepacks</u>	
5 lbs washed	3.8d - 5.2d
14 lbs dry brushed	3.0d - 4.1d

The range in prices charged for the same type of pack is very striking. By going to the right store, shoppers could save up to 1d per lb. on potatoes. These retail price variations do not appear to result from marked fluctuations in the wholesale prices paid for potatoes but from the use of different "mark up" rates. Some stores chose to take a lower margin than others.

These observations are based on a very interesting case study which by coincidence came up in both the retailers' and wholesalers' surveys. One particular supermarket in Leeds has a reputation for selling cheap potatoes. In fact people in the trade allege that potatoes are used in this store as "loss leaders" to draw in the public. Investigation shows, however, that this is untrue. The management is content merely with a 12½ per cent margin and adjusts retail prices according to current wholesale price movements. This policy seems to have succeeded as far as the potato sales of this store are concerned. In March 1967 sales stood at 7¼ tons a week.

The potatoes concerned are packed on the same premises as consignments going to wholesale markets for distribution to independent greengrocers. The quality is the same, the potatoes come from the same deliveries from producers and grading standards are identical. The packer provides transport, whether to the supermarket or the wholesale market. The only difference is that he receives a fractionally lower price from the former than the latter.

As far as the supermarket is concerned, the saving is made not at the cost of the producer or packer, but by the elimination of the local city wholesaler and his margins. The independent greengrocer however, usually deals through local wholesalers hence tends to pay more for his prepacks. Consequently the supermarket is in a position to undersell the independent greengrocers and the public benefits accordingly if prices fall. The question then is how much of this saving in distribution costs is passed on to the customer?

Chapter 6.Potato Wholesalers - Urban and Country Merchants

The potato wholesale trade is in a period of change. The position of the local urban wholesaler as an essential link between production areas and town retailers, is being challenged. Country merchants, especially prepackers, are dealing directly with retail outlets, a process which is intensified by the growth of the supermarkets with their centralised buying facilities. New marketing channels and institutions are emerging and while the future pattern of the trade is not yet clear, it is evident that many of the smaller urban wholesalers are worried. The general feeling is that they are not in the "growth" side of the potato trade.

In the present survey both urban and country wholesalers operating in the Leeds market were interviewed and the present chapter is based on the results of these enquiries. Urban and country wholesaling is discussed separately.

(a) Urban Wholesalers

All registered potato wholesalers in the Leeds area were interviewed and in all 26 questionnaires were completed - a response rate of over 90 per cent. Of these 26, 18 had stands in the new Leeds Fruit and Vegetable Wholesale Market. The other 8 operated outside the market, mainly as they considered that the disadvantages of having a stand were greater than the advantages. These 8 included the three largest potato wholesalers in the area. (1) Their turnover supports their contention that size of business is not restricted through their lack of a market stand. Average weekly potato sales in February 1967 were 46 tons for firms in the market and 107 tons for those outside.

The great majority of potato wholesalers dealt also in other homegrown and imported vegetables. Only one wholesaler specialised in potatoes. Most carried fruit as well as vegetables. Nearly all the produce sold was fresh; few wholesalers dealt in tinned, bottled, frozen or other processed products.

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- (1) Disadvantages cited centred around lack of facilities for storage, loading and unloading suitable for their scale of business.

Urban wholesalers were, and still are, predominantly family businesses, but there is a growing tendency for larger groups to emerge. In Leeds in 1967, 85 per cent of the wholesalers were family businesses; the remaining 15 per cent comprised Leeds branches of national or regional based companies, a category which is said to be increasing. Large scale operators in the food distributing and processing trades are acquiring successful family wholesale businesses, often retaining both the original name and management. The main objective is said to be the rationalisation of wholesale outlets together with greater facilities for switching produce from one wholesale market to another in order to gain the maximum benefit from price variations between markets. By acquiring flourishing local family concerns, these "groups" are buying good will and skilled management.

Importance of Potatoes in the Urban Fruit & Vegetable Wholesale Trade

Potatoes are the main single item, "the bread and butter of the fruit and vegetable trade" as far as Leeds is concerned. On average, 47 per cent of the total value of turnover consisted of potato sales. Potatoes in fact carry small unprofitable lines such as exotic fruits and vegetables, lines which a wholesaler has to stock in order to provide his customers with a full range of goods. Hence the current anxiety about falling margins in the potato trade, especially at a time when costs such as transport, and labour are rising. These falling margins are attributed to the activities of country packers and wholesalers in by-passing the urban wholesale markets and dealing directly with retailers. The great majority of urban wholesalers interviewed, expressed concern at these recent developments and claimed that some firms had already been driven out of business. (1)

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- (1) As far as it can be ascertained, two small potato wholesale concerns have closed down in the last year. Several others are reputed to be for sale.

Types and Quantities of Potatoes Sold

All wholesalers sold both maincrop and early homegrown potatoes. Only 58 per cent, however, dealt in imported earlies. This is rather a specialised trade and appears to require considerable resources with agents in the ports of entry and often agents in the exporting country. Hence imported earlies are associated with the larger wholesaling concerns, especially the "groups". The importance of Leeds as a distributive centre for earlies appears to be far greater than that for maincrop potatoes in that Leeds serves a wide area of Yorkshire with the former while the latter are distributed mainly within the city itself. (1)

Loose potatoes predominate in the trade. In February 1967 only 13 per cent of maincrop potatoes sold were prepacks. One quarter of the wholesalers did not stock prepacks at all. All claimed that the demand for prepacks was very limited. The main class of customer, the independent greengrocer preferred loose while there is no demand for prepacks from the fish frying or catering trades.

Three wholesalers were connected with packing, working in premises in Leeds. (2) Two had given up as "we can't prepack honestly and compete." The one remaining advanced a less controversial reason for the failure of prepacking in Leeds. He ascribed this to the difference between town and country wage rates for female labour, one of the main cost components of the trade. Country packers he claimed paid as little as 2s.6d. an hour while town rates were at least double this figure.

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- (1) Turnover in imported potatoes is considerable. In Leeds, wholesalers in this trade, averaged sales of 69 tons a week in the height of the season.
 - (2) Some of the group wholesalers marketed their own brand of prepacks but these had been packed in the production areas.

Wholesalers were also asked questions on potato quality. The general opinion expressed is that retailers are not interested in such subtle factors as variety or on what soil the crop is grown. As far as retailers are concerned all white potatoes are Majestics and all redskins, King Edwards. What the retailer is interested in is the appearance of a sample. Hence they avoid poorly dressed potatoes containing an excessive number of externally blemished and damaged tubers. A point commonly made was that Yorkshire potatoes tended to offend on the appearances count far more often than Lincolnshire samples. The Yorkshire sands are said to produce rather scabby tubers while local dressing standards are alleged to be low. (1) One wholesaler went as far as to remark, "Yorkshire farmers don't know how to handle potatoes but Lincolnshire men have it bred in them".

The survey was made in February 1967, a time of high seasonal demand for potatoes. Average weekly sales per wholesaler were 67.7 tons, details are given in Table XX. It will be seen that the range in size of turnover is considerable. The large proportion of the firms selling less than 50 tons is an indication of the importance of the small family businesses in this trade.

Table XX Weekly Quantities of Potatoes Sold by Urban Wholesalers
26 firms, Leeds, Feb. 1967. Maincrop Potatoes only.

a) Averages per Wholesaler

	tons. ware
Prepacked	8.8
Loose	58.9
Total	67.7

b) Ranges

Percentage of total number of firms with weekly sales of				Total
Under 50 tons	50 & under 100 tons	100 & under 150 tons	150 tons & over	
58	15	19	8	100

- (1) The tendency to scab is confirmed by country packers who ascribe it to the excessive liming of land for the sugar beet break in the cash roots rotation.

Prices and Margins

Details of prices and margins for individual firms were not collected during the survey. Instead reliance was placed on official figures collected in Leeds Wholesale Markets and in the Yorkshire production areas. This data is given in Table XXI, for the first week in February 1967, the time of the survey.

Table XXI Ware Potato Prices in the 1st week of
February 1967

	Average Price per ton	Equivalent price per lb.
	£s	d
<u>Yorkshire grown Majestics</u>		
Retail price Leeds	-	4.0
Wholesale price Leeds	24	2.6
Producers' price York	18	1.9
<u>King Edwards</u>		
Retail price Leeds	-	5.0
Wholesale price Leeds	28	3.0
Producers' price York	22	2.2

Source: Potato Marketing Board Statistics

Table XXI suggests that the difference between the price which producers received for a ton of potatoes, and that which retailers paid, was £6. Examination of official statistics indicates that margins do not vary seasonally as fluctuations in producers' prices are immediately reflected in wholesale prices. (1) The wholesaler is not engaged in "averaging out" as are his retail customers.

The whole of the margin of £6 does not go automatically to the urban wholesaler. It is common practice to have a middleman in a production area. Nor is this £6 margin purely profit. The wholesaler has to cover his expenses incurred in handling potatoes. The size of the margin, however, suggests that there is scope for economies in distribution, a potential which the country packers and their supermarket clients are realising. The urban wholesaler with potatoes contributing a major share of his turnover (on average 47 per cent in the Leeds survey), is obviously worried by any pressures on his margins.

(1) A positive correlation of +0.938 was found between weekly average wholesale prices in Leeds market and producer prices paid in the Ripon, Selby and York districts for the two years 1966 and 1967.

Sources of Supply - Ware Potatoes only

Wholesalers obtained ware potatoes from a variety of sources, direct from producers, through country wholesalers and agents in production areas, and from other urban wholesalers. One firm even grew potatoes on its own farms. Three others had done so in the past but had since sold off their farming interests in order to concentrate on wholesaling. There is a tendency for the very small and the very large firms to rely more on intermediaries in production areas. The small presumably lack resources for direct buying, the large find it convenient. As only one firm packed its own potatoes, the great bulk of prepacks came from country packers. Details of sources of supply are given in Table XXII.

Table XXIILeeds Wholesalers - Sources of Ware Potatoes

- a) Percentage of the total number of firms dealing with different sources. (1)

	Percentage of total firms
Direct from producers	88
Wholesalers and agents in production areas	85
Other urban wholesalers	4

- b) Most Important Single Sources Stated

	Percentage of Total Firms
Direct from producers	65
Wholesalers and agents in production areas	35
Total	100

Wholesalers were also asked to specify the geographical location of their sources. Supplies come from Yorkshire, Lincolnshire, Scotland and the Midlands. Yorkshire is the principal supplying area, on average 65 per cent of maincrop ware potatoes sold by Leeds wholesalers came from farms in the three Ridings. Most firms purchased over 80 per cent of their supplies from Yorkshire but a few avoided the local product and concentrated on Lincolnshire potatoes instead on grounds of quality.

- (1) Most producers bought from more than one source

Wholesalers' Customers - Ware Potatoes only

Customers of the Leeds wholesalers included retailers, fish fryers, catering establishments (both direct sales and on contract) and secondary urban wholesalers; generally the latter came from towns on the periphery of Leeds. The principal category of customers served is the independent greengrocer operating inside the Leeds city boundary. On average 66 per cent of the ware potatoes handled were sold to these retail outlets. Some firms specialised in contract work and one particular wholesaler's activities are concentrated on supplying the catering trade. Few wholesalers had any dealings with supermarkets.

Services performed by Urban Wholesalers

The prime function of these Leeds wholesalers is to organise the bulk movement of potatoes from the production areas and distribute them in "the small drops" required by numerous small urban outlets. (1) In organising the flow of potatoes, urban wholesalers are not generally concerned with regrading or prepacking. The great majority of potatoes are bagged on the farm by the producer and remain unopened while in the wholesaler's possession. The wholesaler is primarily a transporting agency not a grading one ! The Leeds firms provided transport for 70 per cent of the potatoes they purchased and 96 per cent of the potatoes they sold. Carriage is either in the firm's own lorries (on average a firm owned 4 lorries) or in contractors' vehicles.

Wholesalers also provide storage facilities. Usually these are not required on any scale as the general practice is to move stocks as quickly as possible from producers to the urban customer in order to cut down on wastage rates. The wholesaler does not want to keep a paper sack of potatoes long enough for diseased tubers to rot the bags! In frosty weather, however, potato clamps on the farm cannot be readily opened hence the wholesaler has to ensure that sufficient supplies are in the distribution system to enable it to run smoothly. The provision of storage space then is a major consideration. Firms on average had storage capacity for 80 tons, more than enough for one week's requirements.

(1) "Drops" is the expression used in the wholesale food distributive trade for deliveries of goods to customers.

When buying direct from producers, wholesalers usually provide free paper sacks - a service they did not perform for supplies obtained from other wholesalers and agents. Another function the wholesaler performs is to finance the distribution of potatoes. Farmers receive payment for their crop within 7 days of purchase but retailers generally buy on credit. Some small wholesalers claimed that the expansion of their businesses was prevented because they had not access to sufficient capital.

Services such as the provision of prepeeled potatoes were limited to those firms specialising in supplying the catering trade. The great majority of wholesalers had neither the inclination nor the equipment for such activities.

Wastage Rates and Other Risks of the Urban Wholesalers

Wholesalers generally handled sacks of potatoes as quickly as possible and passed them on unopened to their customers. Wastage while in the wholesaler's hands is said to be very low except in frosty weather when bad potatoes will rot the bags. The main trouble with poor quality potatoes is when customers protest and even return consignments. Wholesalers claim that they have little redress against producers. They usually have already paid for the potatoes concerned and to return them to the producer means incurring extra transport costs. To report a producer to the Potato Marketing Board is also said "to be more trouble than it is worth." Hence the cost of appeasing the customer is borne by the wholesaler.

One of the chief complaints made by wholesalers is that the Potato Marketing Board is dominated by farmers and does not strictly enforce grading standards at the farm. Often wholesalers illustrated their arguments by producing damaged, misshaped and small tubers which had been unloaded on them by farmers. Yorkshire farmers are said to be worse offenders than Lincolnshire producers! When asked what improvements wholesalers would like to see, the invariable answer was the enforcement of grading standards.

Another source of wastage is losses by theft both from stalls in the wholesale market and during transit. Apparently thieves regard potatoes as a less conspicuous commodity than say a box of imported peaches! Over half the wholesalers interviewed reported losses during the last few months.

Other risks cited include over-buying potatoes and the problem of bad debts. Over-buying is associated with the risk of wholesale prices falling before a particular consignment can be sold - another reason why wholesalers prefer to move stocks as quickly as possible. Bad debts are ascribed to the very competitive nature of the trade. A wholesaler who refuses credit takes the risk that the particular customer will take his business elsewhere. The payment of salesmen on commission does not improve matters and often sellers will take on very shaky customers. In the past wholesalers agreed to blacklist debtors in order to control credit but the arrangements had broken down in Leeds. In fact few wholesalers even ask for bank references when taking on a new and unknown customer.

b) - Country Merchants and Packers

The number of substantial potato merchant/packers operating in the main Yorkshire production areas is less than a dozen. Informal discussions took place with certain firms in this category. In order to preserve anonymity, little quantitative information is quoted here and the whole account given is in very general terms.

Country potato merchant/packers include both private family businesses and farmers' cooperatives; the former predominate. All had gone in for prepacking potatoes within the last decade, most during the last 5 years. The majority of the concerns specialised in potatoes, a minority dealt in other types of agricultural produce as well.

The controversial issue and, in fact, the distinguishing feature between these enterprises, is whether or not they are linked with a supermarket retail outlet. The majority were not and claimed that this was a result of personal choice. They are afraid to be tied to a stronger trading partner. "If you want to hand your business down to your son, steer clear of supermarkets and groups." A link with a supermarket

is said to involve the packer in a major investment in cleaning, grading and packing equipment in order to get sufficient throughput to satisfy the customer's demand. The great fear is that if relations with the supermarket prove unsatisfactory then the packer is left with the problem of finding alternative outlets for his increased output. If he cannot, then he faces the problem of heavy overheads from his under utilised equipment.

Some packers, although they had decided not to supply supermarkets, rather wondered if they had concentrated too much on the disadvantages in making their decision. It is fairly common knowledge that firms who are associated with supermarkets and other retail chains, have enjoyed a very rapid rate of expansion, a point which has not escaped their rivals' notice. "My trade has remained stationary for the last two years while X's has trebled." Firms supplying the town wholesale markets thought in terms of under 100 tons of prepacks a week, while those associated with retail chains reported throughputs of over 300 tons weekly.

Packers interviewed who were linked with supermarkets, appeared to be very satisfied with the arrangements. Relations are said to be cordial with company buyers and prices paid are sympathetically reviewed when potatoes are scarce. The usual practice is very price according to current market conditions and not to work on a contract basis with fixed prices for a whole season. Packers tend to be linked with more than one company, a fairly typical arrangement is to supply one supermarket chain and the local branches of a multiple retail concern.

Both washed and dry brushed potatoes are packed. The costs of the two processes are said to be very similar, but washing involves a higher rejection rate when packing. Blemishes show through transparent bags. All packers complained of the scabby appearance of Yorkshire potatoes, hence dry brushing and packing in brown paper bags is preferred. Larger packs too are more profitable. Packing in 3 lb. or 5 lb. containers involves giving considerably more overweight than using 14 lb. packs.

Potatoes are obtained mainly from local farmers. The usual practice is to buy on sample and to return any delivery which is not up to expectations. This does not often happen as there is a strong bond between the local producers and their neighbours, the country packer. After delivery potatoes pass through the plant. The type of equipment and its cost is determined mainly by the size of throughput it is designed to handle. The more expensive the plant, the greater the need to ensure sufficient output in order to keep overhead costs at a reasonable level, hence the need to keep the plant working smoothly without stoppages while awaiting delivery from the fields. Most of the larger packers have elaborate potato stores to ensure the plant can be kept operating during frosty weather.

The problem of overheads on the more elaborate plants is intensified by the seasonal nature of the trade (October to May), a factor which also effects staff recruitment. Hence several of the large packers are experimenting with ways of extending the season. One method which is being explored is packing imported early potatoes for supermarkets. If this innovation succeeds, then the urban wholesalers will have to face a fresh incursion into their trade.

Another important factor is the profitable disposal of the potatoes rejected during the grading process. (1) Most small packers usually sold these for pig feed at prices averaging £2 - £3 a ton. Large plants with far greater quantities of rejected tubers have found more profitable outlets. Processers (dryers and canners) will pay prices in the region of £6 a ton for misshapen, cracked, split and mechanically damaged potatoes, if available in sufficient quantities. Higher prices can be obtained for the same grades from merchants with contacts with catering and fish frying trades. The most profitable method of disposal encountered is to prepare rejects for the use of caterers by prepeeling and cutting. Prices obtained were around £40 a ton.

(1) Average rejection rates reported were from 10-15 per cent during grading.

All packers stated that prepacking is a more profitable occupation than merely wholesaling loose potatoes; most do both. Packs not sold to supermarkets and chains are usually marketed through the agency of town wholesalers. Country merchants are not particularly eager to supply small retailers directly. The uneconomic size of the "drop" together with wide dispersal of shops makes delivery costly especially if hired labour is used. Small merchants using family labour are said to be deterred from entering this branch of the trade by the drudgery involved.

Looking to the future, the general opinion expressed was that the potato trade would pass from the dominance of the small greengrocer and his supplier the town wholesaler, to that of the supermarket and the country packer. "Economies of scale make this inevitable". The change should, it was argued, benefit both consumers and producers. What actually will happen, remains to be seen. The present situation is certainly dynamic.

Summary and Conclusions

This study covers the marketing of potatoes from country merchants to the consumer in Leeds. It is based on personal interviews with over 180 consumers, retailers and wholesalers.

The Consumers

a) Domestic Consumers Their demand for potatoes is highly inelastic (income elasticity coefficient is +0.031) hence they are not particularly price conscious. Factors affecting demand include age, whether children of school age eat their midday meals at home and the personal idiosyncrasies of consumers. Surprisingly the occupations of the workers of a household do not affect consumption levels. Heavy manual workers in Leeds tend to fill up on bread rather than potatoes.

Average weekly consumption of potatoes in the home was 2.9 lbs. per head. If potatoes purchased in packets of fish and chips and those consumed in hot meals eaten outside the home, are included, then this total figure rises to 4.2 lbs.

Domestic consumers show very little interest in canned, frozen or powdered potatoes. They also tend to be biased against prepacks. Most purchased their potato supplies from local greengrocery shops.

b) Caterers The demand for potatoes by the mass catering trade appears to be considerably more elastic than that of the domestic consumers. Caterers usually adjust the sizes of potato servings in line with major movements in potato prices. Most mass caterers do not use "convenience" potatoes, mainly because they are too expensive.

c) Fish Friers The demand for potatoes by fish friers also appears to be rather more elastic than that of the domestic consumer. Sales of chips contribute about one third the total annual turnover of a fish and chip shop. Hence friers are very price conscious. They tend to keep the price of a serving as constant as possible and vary instead the size of a serving.

The Retailers

a) Independent Greengrocery Shops

Potato sales provide "the bread and butter" of these retailers (25 per cent of total turnover of fruit and vegetables in working class areas), consequently margins on potatoes are an important factor and are said to carry less profitable lines especially the more exotic types of imported vegetables and fruits. Greengrocers tend to keep retail prices as constant as possible and aim to "average out" at an overall annual margin of around 20 per cent.

These retailers relied predominantly on loose potatoes which they purchased mainly from local town wholesalers. The survey confirms the impression that the number of shops is falling as a result of slum clearance. Shops are much denser on the ground in the older than in the newer districts of Leeds.

b) Supermarkets

Although supermarkets have not made any appreciable impact on the potato market yet, their numbers are growing at a rapid rate so it would seem that they will acquire an increasing share in the greengrocery trade. Supermarkets concentrate on prepacked potatoes which they obtain from country packers so by-passing the local town wholesaler. Supermarket chains usually operate a centralised buying agency and a few packers will supply all the stores of a particular company.

Potatoes represent only a minor part of their business so supermarkets are content to take a considerably lower margin on potatoes than do the independent greengrocers. Prices too tend to move directly with changes in the wholesale level. These stores are not interested in "averaging out". Consequently prices for cleaned, prepacked potatoes can be considerably lower than those prevailing for loose dirty ones in the ordinary greengrocery shop.

Wholesalersa) Urban Wholesalers

The main activity of the urban wholesaler is to organise the supply of potatoes to independent greengrocery shops. He is even more dependent than the independent greengrocer on the margin on potatoes for the financial success of his business. (On average 47 per cent of total annual turnover comes from potato sales). Like the greengrocer also, he depends on high margins on potatoes to carry less profitable lines. Urban wholesalers concentrate on the supply of loose potatoes and do not prepack potatoes themselves. The cost of female labour in towns is said to preclude the siting of a packing plant in Leeds.

b) Country Merchants/Packers

Those packers who have become suppliers to supermarket chains have enjoyed a very rapid rate of growth. One problem which besets the trade is the profitable disposal of rejected potatoes (on average 10 - 15 per cent of the potatoes passing through a plant). If the development of potato processing industries can provide profitable outlets then the cost of prepacking can be cut further.

The Future

The main question is the extent to which the supermarkets can encroach on the existing trade of the independent greengrocery shops. If supermarkets take over a major proportion of the retail potato trade then the whole structure of distribution will change. The independent shop and its supplier the local urban wholesaler will receive a considerable set-back while the producer may face fewer and fewer outlets for his potatoes. The relative bargaining position of the various links in the marketing chain may well change.

One factor which inhibits the growth of supermarket potato sales is the inelastic demand for potatoes. Consumers are unlikely to switch their purchases of potatoes to supermarkets, solely because they are a penny or so a lb. cheaper than in the local shop. They are more likely to be drawn to the supermarket for the purchase of other commodities and then buy potatoes at the same time. If shopping habits change and families take to buying the bulk of their weekly food supplies during a single visit to the supermarket, then the outlook for the small specialised shop is bleak indeed.

A factor which can accelerate the rate of change is urban renewal. The consumer who is being physically removed away from the "little corner shop" and rehoused elsewhere may well find a supermarket in the local shopping parade.

The growth in supermarkets is associated with an increase in centralised buying for the retail trade. Producers will be sheltered by the Potato Marketing Board and the guaranteed prices system from the full impact resulting from the decline in their bargaining strength. Some, however, may decide to safeguard themselves by forming cooperatives or another form of producers' selling group and enter the packing trade themselves. Others may prefer a link with a commercial packer. The expansion of prepacking raises the problem of the rejected potato. The development of drying, freezing and canning is seen as the immediate remedy. If however, the Leeds experiences are anything to go by, consumers do not appear to be very enthusiastic about new products. Massive advertising may make them more favourably inclined towards processed potatoes but in its turn any success in this direction might well cut into the market for graded ware.

